

HCLSoftware

HCL iAutomate

Configuration Guide

Version 6.4.2



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Document Revision History

This guide is updated with each release of the product or when necessary.

This table provides the revision history of this Configuration Guide.

Table 1 - Conventions

Version Date	Description
October, 2019	HCL_iAutomate_v4.0_Configuration_Guide
May, 2020	HCL_iAutomate_v5.0_Configuration_Guide
September, 2020	HCL_iAutomate_v6.0_Configuration_Guide
November, 2020	HCL_iAutomate_v6.0.1_Configuration_Guide
January, 2021	HCL_iAutomate_v6.0.2_Configuration_Guide
April, 2021	HCL_iAutomate_v6.0.3_Configuration_Guide
October, 2021	HCL_iAutomate_v6.1_Configuration_Guide
March, 2022	HCL_iAutomate_v6.1.1_Configuration_Guide
October, 2022	HCL_iAutomate_v6.2_Configuration_Guide
January, 2023	HCL_iAutomate_v6.2.1_Configuration_Guide
March, 2023	HCL_iAutomate_v6.3_Configuration_Guide
October, 2023	HCL_iAutomate_v6.3_Configuration_Guide
December, 2023	HCL_iAutomate_v6.3.2_Configuration_Guide
June, 2024	HCL_iAutomate_v6.4_Configuration_Guide
August, 2024	HCL_iAutomate_v6.4.1_Configuration_Guide
November, 2024	HCL_iAutomate_v6.4.2_Configuration_Guide

1 Preface

This section provides information about the HCL iAutomate Configuration Guide and includes the following topics.

- [Intended Audience](#)
- [About This Guide](#)
- [Related Documents](#)
- [Conventions](#)

1.1 Intended Audience

This information is intended for administrators responsible for configuring iAutomate.

1.2 About this Guide

This guide provides instructions to install and configure iAutomate. This includes the configuration procedures for the product.

1.3 Related Documents

The following documents can be referenced in addition to this guide for further information on the iAutomate platform.

- iAutomate Installation Guide
- iAutomate Introduction Guide
- iAutomate Troubleshooting Guide

1.4 Conventions

The following typographic conventions are used in this document:

Table 2 - Conventions

Convention	Element
Boldface	Indicates graphical user interface elements associated with an action, or terms defined in text or the glossary
<u>Underlined Blue face</u>	Indicates cross-reference and links
<i>Italic</i>	Indicates document titles, occasional emphasis, or glossary terms
Courier New (Font)	Indicates commands within a paragraph, URLs, code in examples, and paths including onscreen text and text input from users
Numbered lists	Indicates steps in a procedure to be followed in a sequence
Bulleted lists	Indicates a list of items that is not necessarily meant to be followed in a sequence

2 iAutomate Overview

iAutomate is an Intelligent Runbook Automation product which is equipped with Artificial Intelligence, Machine Learning and Natural Language Processing capabilities for simplifying and automating the IT Operations issues resolution lifecycle including incidents, service request tasks, change request tasks and events. It leverages its NLP capabilities for analyzing and understanding the context of a specific issue, recommends the most relevant solution and even triggers the execution, thereby enabling Zero Touch Automated Remediation. It also provides AI-driven Knowledge Recommendation by suggesting relevant knowledge articles from various repositories, both internal and external, as and when required by human agents.

When no runbook is available for automated remediation, it searches & downloads relevant executable codes and scripts for subject matter expert to validate, customize, approve, and publish for future use.

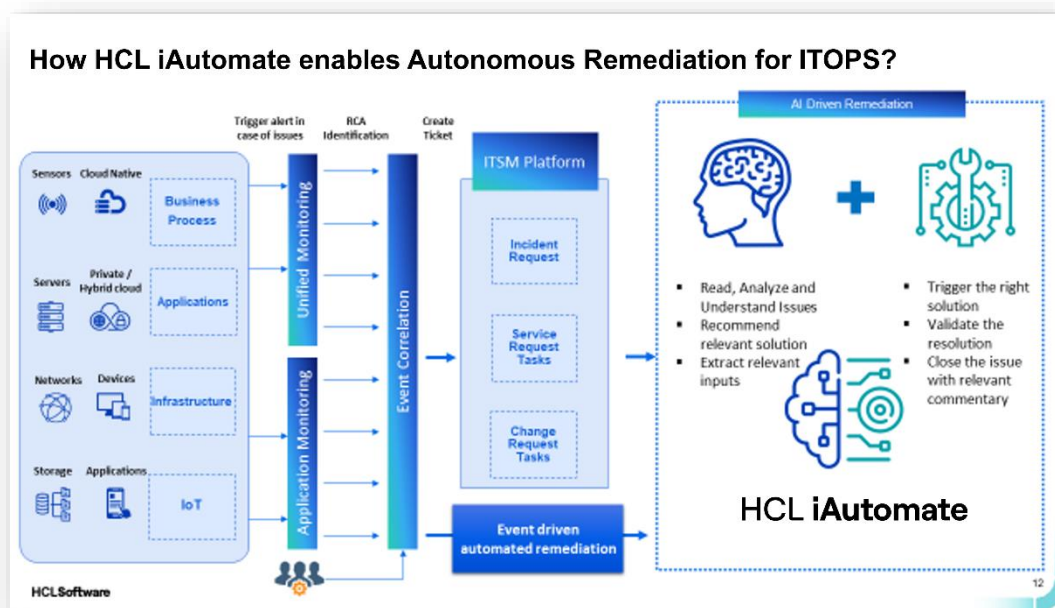


Figure 1 - iAutomate Workflow

Intelligent automation powered by HCL iAutomate can make a tremendous impact in an enterprise, adjusting to the New Normal:

- **Reduce Costs**
 - Achieve up to 30% reduction in service desk related costs.
 - Quick and High ROI
- **Mitigate Risks**
 - Avoid operational risks and ensure compliance by avoiding critical outages.
 - Reduce escalations and improve SLA compliance by up to 20%.
 - Achieve up to 85% reduction in MTTR.
- **Drive Efficiency**
 - Automate redundant tasks and let employees focus on more creative activities.

- Reduce manual effort by 30% to 60%.
 - Improve customer satisfaction by up to 50% by providing faster incident and service request resolutions.
- **Rapid Time to Value**
- Quick implementation in 6 to 8 weeks*
 - Leverage 3000+ reusable and configurable runbooks out of the box
 - Achieve zero-touch automation state in 4 to 5 months*

*Conditions Apply

3 Configure iAutomate

This section describes the common tasks to be performed for the configuration of iAutomate after installation of the product and its components on all servers.

Refer to the **iAutomate Installation Guide** to know about the iAutomate installation procedure.

By default, only users with the super administrator and administrator roles can configure iAutomate and associated components. A user's role determines the tasks it can perform. Each role is associated with permissions or rules that define what features the role can access.

The following table outlines the predefined system roles.

Table 3 - Roles and Responsibilities

Role	Description
Super Administrator	- All privileges for the administrative features in iAutomate - Add, remove, and set access rights and privileges of other administrator roles - Full operational and management control over all accounts
Organization Admin	- All privileges for the administrative features in iAutomate at an organizational level - Add, remove, and set access rights and privileges of other users, roles, and domains in their organization
Operations Users	- Access and view all resources in an iAutomate account but cannot make any changes. - Operational control over tickets, ticket logs, and the dashboard.
Operations Admin	- Access tickets and runbooks for analysis, can view all analysis.
SME Users	- Access ticket and runbook for analysis
Knowledge Users	- Operational and management control over Knowledge Analysis and Search Module

An iAutomate administrator can define product users and assign one or more responsibilities to each user based on their roles.

To use iAutomate, login to iAutomate with the credentials of **Super Administrator**.

Your user role determines whether you can use this option.

3.1 Login to iAutomate

If you are logging into iAutomate for the first time, to perform iAutomate configuration, the user must have super administrator's login credentials.

To login to the system, perform the following steps:

1. Launch a web browser and provide HCL iAutomate Web Portal URL. The iAutomate Login Page appears.
2. On the **iAutomate Login** Page, type the **Login ID**.

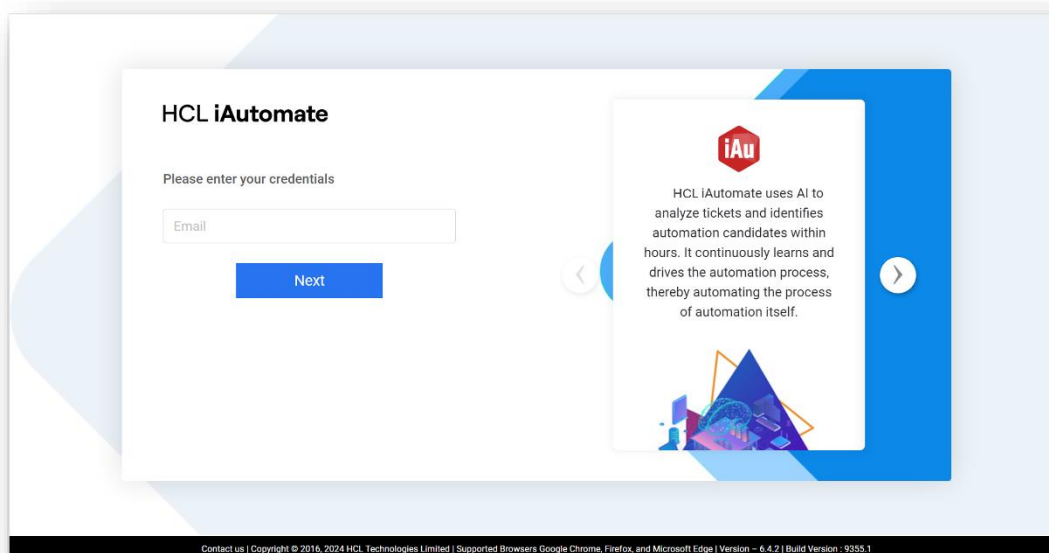


Figure 2 - iAutomate Login Page

3. Click **Next**.
4. Next step is to enter the valid **License Key**.
5. If you are logging into iAutomate console for the first time, you will have to provide a valid License Key.

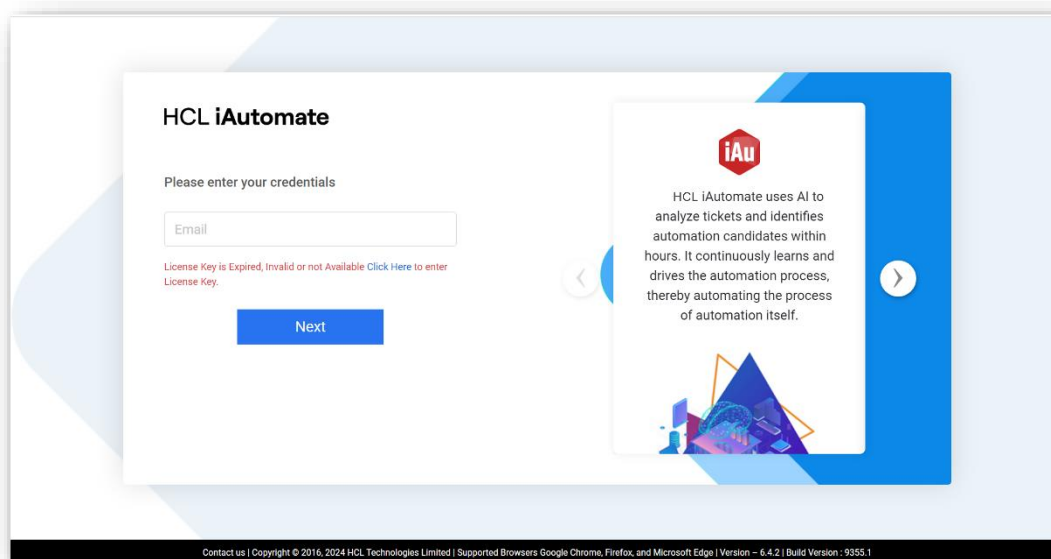


Figure 3 – Enter a Valid License Key on First Login

6. If your License Key has expired, you will get a notification to enter a new License Key, as mentioned in the image below.

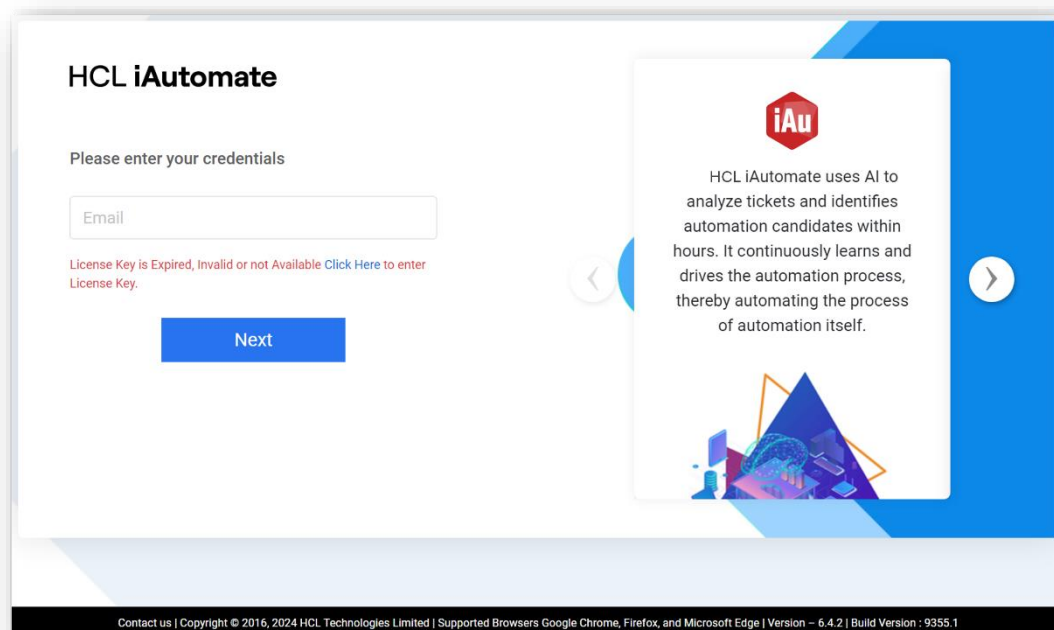


Figure 4 – Enter a Valid License Key on Expiry

7. Click on **Click Here** to enter the new License Key. You will be redirected to a new screen.

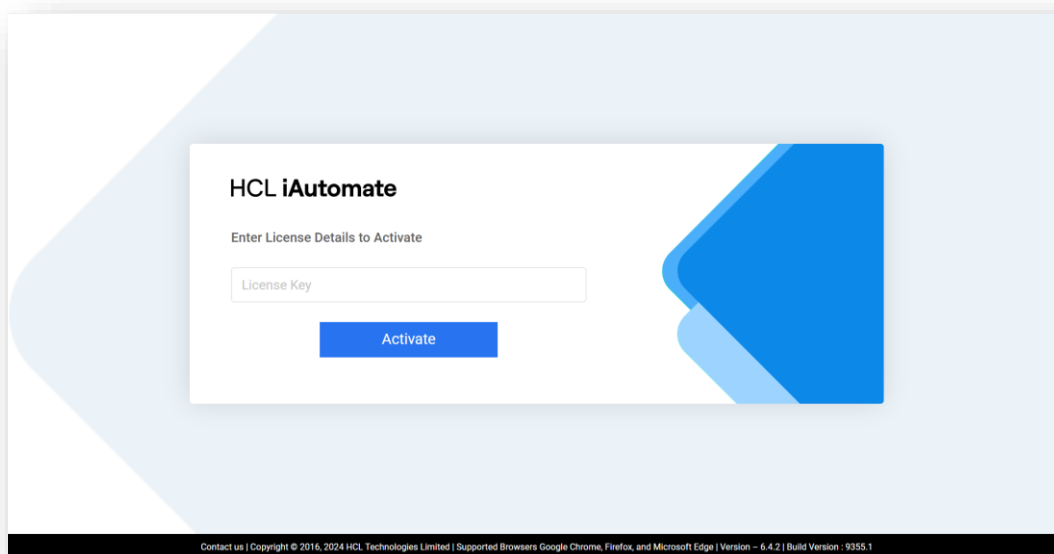


Figure 5 – Enter a Valid License Key

8. Enter the **License Key** and click **Activate**.

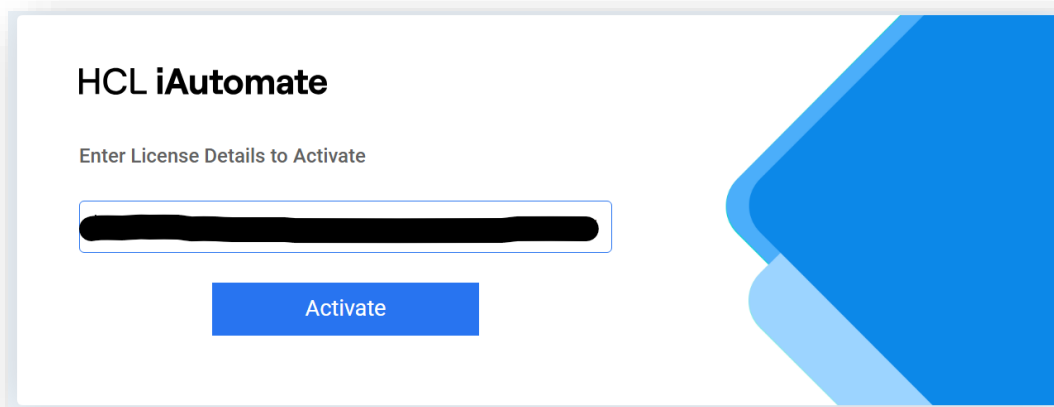


Figure 6 – Enter a Valid License Key

9. Click on **Click Here** to redirect to the Login page.

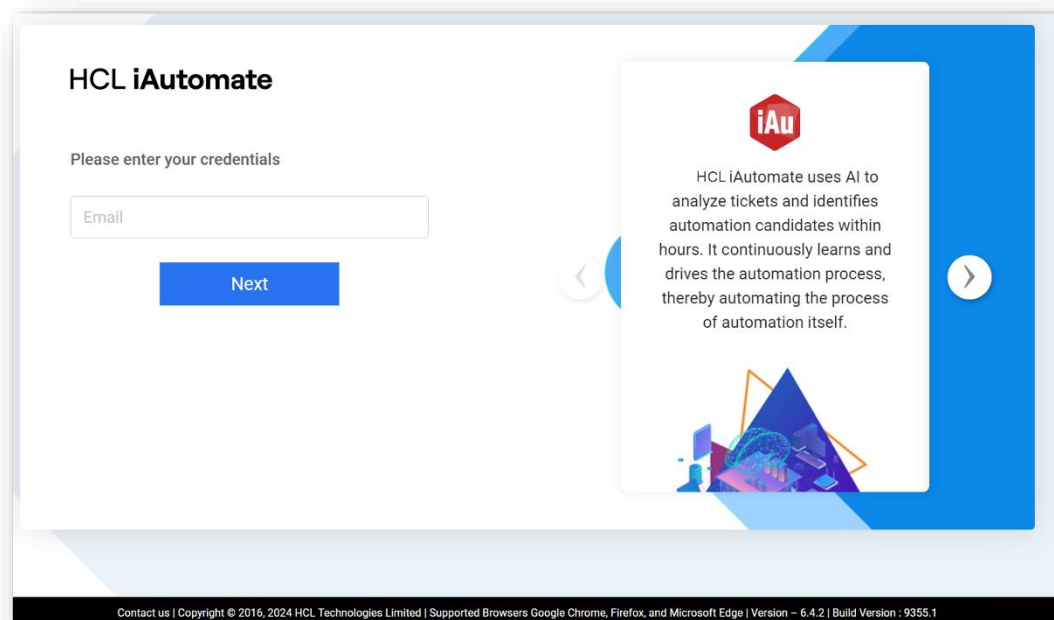


Figure 7 – Login Screen

10. Enter the **Login ID** and click **Next**.
11. Type password in the **Password** field.

If you do not have login credentials, contact your product team administrator.
Change your password frequently, at least once a month, for security purposes.

12. Click **Login**.
13. The **iAutomate Admin Console** home page appears.

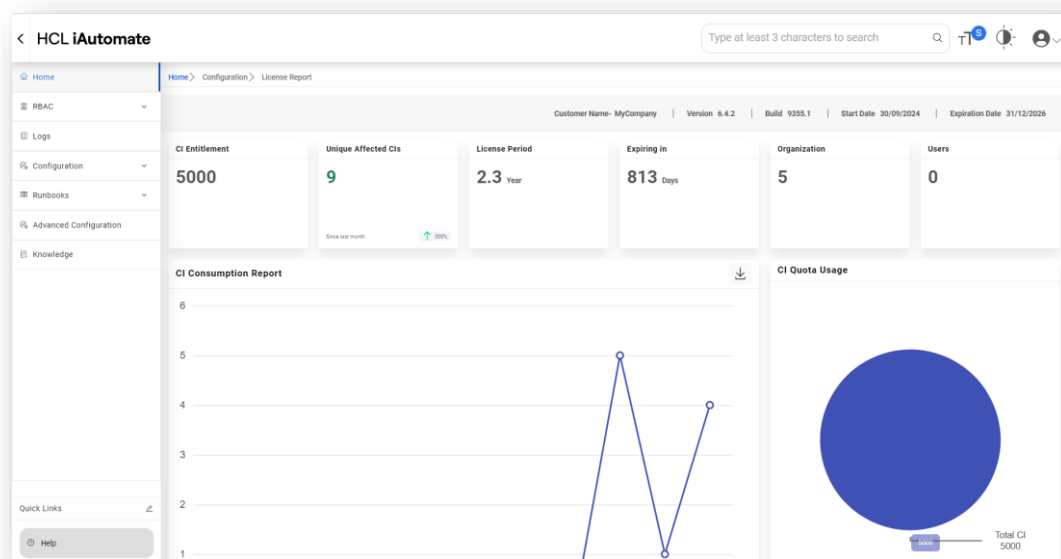


Figure 8 - iAutomate Home Page

The **iAutomate Admin Console** allows the user to view and access iAutomate services, create and manage additional users, manage the organization and environment, and other configuration related activities.

3.2 iAutomate Configuration

This section describes the steps to configure iAutomate through Admin Console.

The iAutomate Super Administrator is the first login that happens in any organization and helps in the organization specific configuration.

The iAutomate Admin Console offers the capability to define multiple roles and grant access to each based on the organizational policies.

iAutomate super admin console contain the following menus:

- Home
- RBAC
 - User Management
 - Role Management
 - Group Management
- Logs
 - Component Logs
 - Ticket Evaluation Report
 - User Activity Logs
- Configuration
 - Manage Organization
 - Build Models
 - Manage Jobs

- License Report
- Manage SMTP
- Manage Proxy
- Runbooks
 - Inventory Runbooks
- Advance Configuration
 - Parameter
 - Manage Parameter Master
 - Configure Parameter Type
 - Hyperparameter Configuration
 - iRecommend Rule Configuration
 - Configure Key Vault
 - Connectivity
 - Component Key Value Configuration
 - Google Custom Search API/AEX API details
 - Connection Details
 - Entity
 - Manage Named Entity
 - Entity Creation
 - Entity Mapping
 - Workbench
 - Unique Analysis
 - Recommend Analysis
 - Toil Configuration
 - Load Balancer Configuration
- Knowledge
 - Manage Collections
 - Knowledge Analysis
 - Knowledge Search
- Quick Links
- Help

iAutomate Organization Admin Console contains the following menus:

- Home
- RBAC
 - User Management
 - Group Management
- Logs

- Component Logs
- Ticket Evaluation report
- User Activity Logs
- Ticket Logs
- Ansible Inside Logs
- Configuration
 - Manage Data Sources
 - Build Models
 - Manage Jobs
 - License Report
 - Manage Configuration
 - Manage SMTP
 - Manage Proxy
- Runbooks
 - Manage Runbook Tool
 - Map Runbook Tool
 - Manage Runbooks
 - Map Runbooks
 - Manage Execution Scope
 - Manage Rules
 - Schedule Runbooks
 - Create Runbook
 - Inventory Runbooks
 - Ticket Flow
- Tickets
- Dashboard
- Advanced Configuration
 - Parameter
 - Manage Parameter Master
 - Configure Parameter Type
 - Manage Parameter Configuration
 - Manage Column
 - Hyperparameter Configuration
 - IRecommend Rule Configuration
 - Configure Key Vault
 - Connectivity
 - Component Key value Configuration
 - Google Custom Search API/AEX API Details

- Connection Details
- Entity
 - Manage Named Entity
 - Entity Creation
 - Entity Mapping
- Manage Custom Script
- Toil Configuration
- Load Balancer Configuration
- Analysis
 - Ticket Analysis
 - Recommendation Analysis
 - Script Analysis
- Knowledge
 - Manage Collections
 - Knowledge Analysis
 - Knowledge Assistant
 - Knowledge Search
- Netbot Troubleshooting
 - DAG
 - Manage DAG
 - Execute DAG
 - Execution History
 - Inventory
 - Master Inventory
 - Filter
 - Patching Inventory
 - Group
 - Ad Hoc Execution
 - Inventory Logs
- Quick Links
- Help

From this console, the administrator can view and access all admin menus.

3.2.1 Home

On the home screen, there is an option to search for menus for easy accessibility of the same. For that, on the home screen, there is a search bar given in which type at least 3 letters to search for a menu.

Also, for easy accessibility of user, the initial steps are mentioned on the home page that need to be performed to begin with iAutomate.

- **Day one steps for Super Admin:** Below are the day one steps that need to be completed to begin with iAutomate (For Super Admin):
 - **Manage Organization:** Create, edit, and manage details related to your organization.
 - **RBAC:** Define user roles and configure group policy for users within your organization.
 - **Manage SMTP:** Manage SMTP configurations for your organization.
- **Day one steps for Organization Admin:** Below are the day one steps that need to be completed to begin with iAutomate (For Organization Admin):
 - **Data Source Management:** To retrieve ticket data from your ITSM tool, you need to configure it in this section.
 - **Manage Runbook Tool:** Configure the tool you will use to execute your runbook.
 - **Manage Runbooks:** Runbooks can be viewed, created, and managed by the users.
 - **Map Runbooks:** Map runbooks you will use to execute.
 - **Build Models:** Create a model that recommends runbooks.
 - **User Management:** To control who has access to the system, access privileges can be configured and managed.

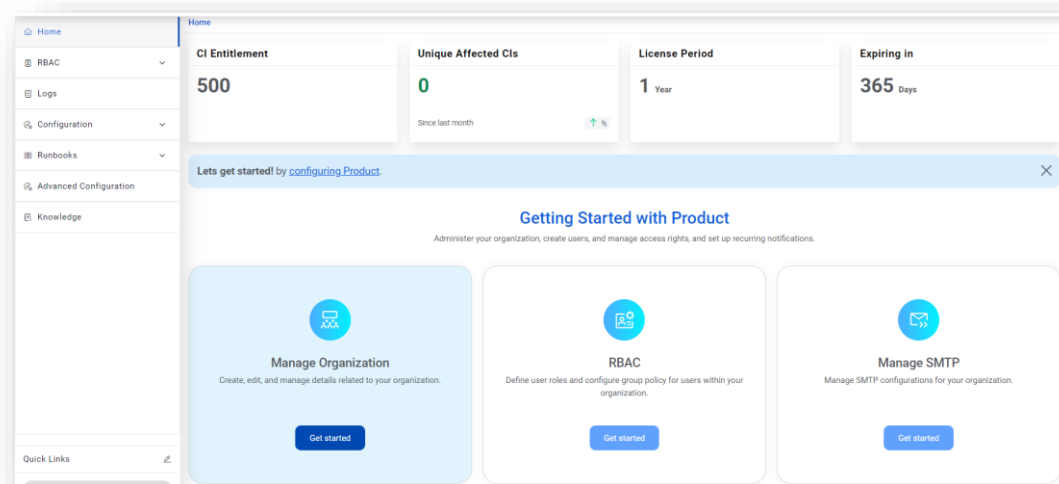


Figure 9 – Home Screen Before Completion of Day One Steps

Once the user completes all day one steps, he is redirected to **License Report** page next time he navigates to home page.

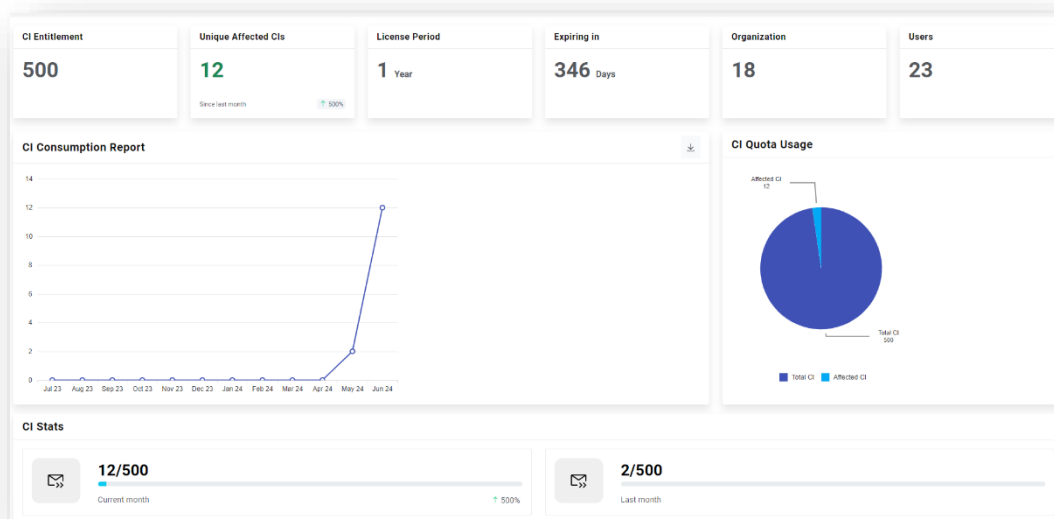


Figure 10 – Home Screen After completion of Day One Steps

3.2.2 Runbooks

A runbook is a script that automatically resolves a ticket with no human involvement. A runbook coordinates multiple infrastructure elements such as applications, network components, or servers. The runbook tool is a platform used to specify these runbooks. Typically, a runbook contains procedures to start, stop, supervise, and debug the system.

To configure runbooks and the runbook tool, click **Runbooks** on the main menu bar.

A drop-down menu appears with the following options:

- Manage Runbook Tool
- Manage Runbooks
- Map Runbooks
- Manage Execution Scope
- Manage Rules
- Schedule Runbooks
- Create Runbook
- Inventory Runbooks
- Ticket Flow

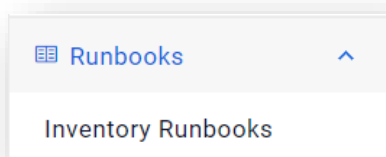


Figure 11 – Runbooks Section view for Super Administrator

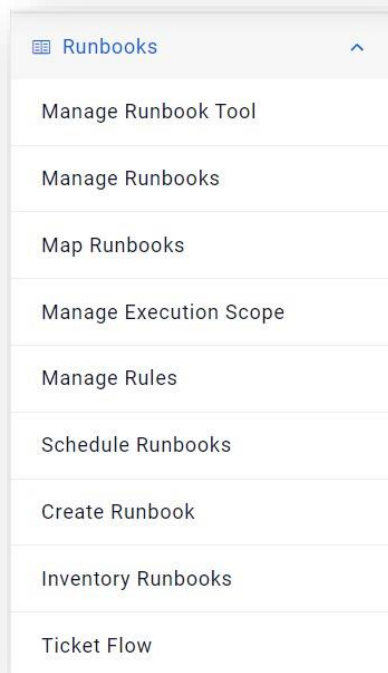


Figure 12 - Runbooks Section view for Organization Administrator

3.2.2.1 Manage Runbook Tool

The user must configure the runbook tool to define the runbooks in it.

Before proceeding with **Manage Runbook Tool**, the user is required to create the Organization. Please refer to [Manage Organization](#) section and follow the mentioned steps. Proceed forward after a new organization has been created.

To manage the runbook tool, perform the following steps:

1. On the main menu bar, click **Runbooks**, and then click **Manage Runbook Tool**. The **Manage Runbook Tool** page appears.

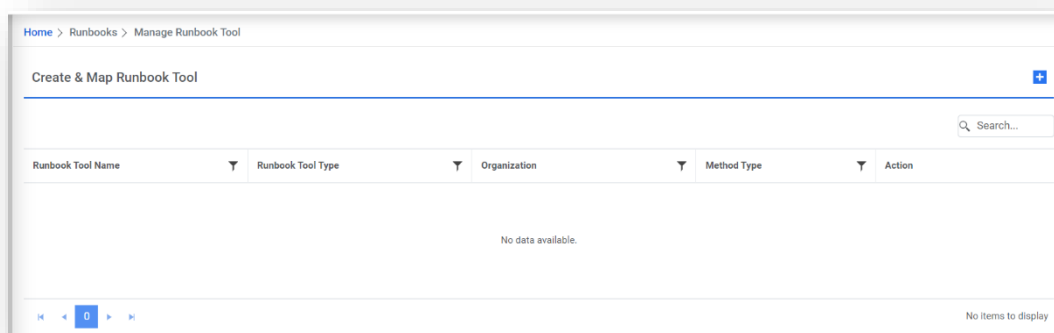


Figure 13 - Manage Runbook Tool

It lists the available runbook tools in a tabular view and lets the user add a new runbook tool using Plus button. User can also edit or delete the existing runbook tools.

3.2.2.1.1 Add Runbook Tool

User can add a runbook tool in an environment by performing the following steps:

1. On the **Manage Runbook Tool** screen, click +.

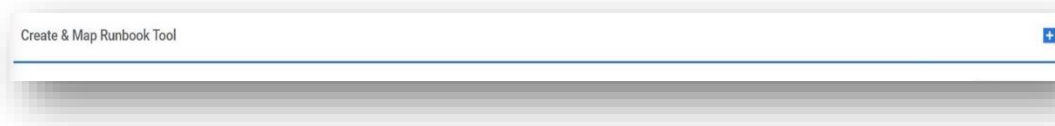


Figure 14 - Manage Runbook Tool

2. Fill in the following details to create a runbook tool. You must provide values for all the mandatory parameters.
 - a. **Organization:** Select the organization name for which the runbook tool is to be created.
 - b. **Data Source:** Select the data source for which the runbook tool will be mapped.
 - c. **Runbook Tool Name:** Type the runbook tool name.
 - d. **Runbook Tool Type:** Select the type of runbook tool from the drop-down.
 - e. **Template Type:** Select the template type for ANSIBLE TOWER/AWX tool.
 - f. **Integration Method:** Select the integration method to integrate the runbook tool with iAutomate.

A screenshot of the 'Create & Map Runbook Tool' form. It contains several dropdown menus and text input fields. The fields are: Organization (dropdown with 'MyCompany' selected), Data Source (dropdown with '-Select-' selected), Runbook Tool Name (text input with placeholder 'Enter Runbook Tool Name.'), Runbook Tool Type (dropdown with '-Select-' selected), Template Type (dropdown with '-Select-' selected), and Integration Method (dropdown with '-Select-' selected). At the bottom, there are 'Cancel' and 'Submit' buttons.

Figure 15 - Add Details

Selecting the integration method populates the data based on the selected runbook tool type and displays the following fields:

A screenshot of the 'Integration Method' section of the form. It shows a dropdown menu for 'Integration Method' with 'REST API' selected. Below it, there are several input fields: 'API URL' (with placeholder 'https://<url>:<port>'), 'User ID' (with placeholder 'Enter User ID'), 'Master Runbook Path' (with placeholder 'Enter Master Runbook Path'), 'Proxy Required' (checkbox), 'Return Message Key' (with placeholder 'Return Message Key'), 'Toil Value(For Auto Execution)' (with placeholder '6'), 'Authentication Type' (dropdown with '-Select-' selected), 'Integration Method Type' (dropdown with '-Select-' selected), 'Password' (with 'Add Password' button), 'Master Runbook Name' (with placeholder 'Enter Master Runbook Name'), 'Return Code Key' (with placeholder 'Return Code Key'), 'Toil Value(For Manual Execution)' (with placeholder '20'), and 'Connection Retry Count' (with placeholder '3'). At the bottom, there are 'Cancel' and 'Submit' buttons.

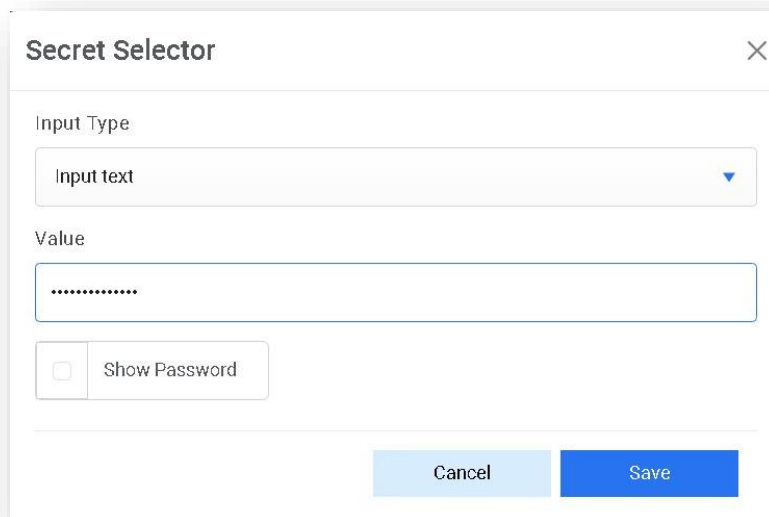
Figure 16 - Manage Runbook Tool (Cont.)

3.2.2.1.1.1 Configure Runbook Tool

This section describes how to configure the runbook tool using the SOAP API in case of CA ITPAM integration method or REST API in case of vRO, Microfocus Operations Orchestrator, BigFix, BMCAO, ANSBILE TOWER/AWX, SNOW, StackStorm, ANSIBLE Inside, Jenkins, ADO, BigFix SA, and Microsoft System Orchestrator integration method.

To configure the runbook tool using the selected integration method,

1. Select the **Authentication Type** to authenticate the **Runbook Tool**.
2. Type the **API URL** as shown- `http<s>://sourceinstanceName.com` in the API URL field where *sourceinstanceName* is the URL of the corresponding RBA Tool.
3. Select the integration method type from the **Integration Method Type** field.
4. Type the username and password in the **User ID** and Password field to get access to API web services.
5. For password, click on Add Password button. If the password is available in plaintext, then select Input type as Input Text and enter the password in Value field. Else if it is available in Azure Key Vault then select Input Type as Azure Key Vault and then select any of the configured details from the value field. Else if it is available in any Key Vault such as CyberArk or Secret Manager then select Input Type as CyberArk or Secret Manager respectively and then select any of the configured details from the value field.



The image shows a 'Secret Selector' dialog box. It has a title bar with a close button (X). Inside, there is a section for 'Input Type' with a dropdown menu currently showing 'Input text'. Below this is a 'Value' field containing a masked password (represented by dots). To the left of the 'Value' field is a checkbox labeled 'Show Password', which is currently unchecked. At the bottom right of the dialog are two buttons: 'Cancel' and 'Save'.

Figure 17 - Password in Plain Text

Secret Selector

×

Input Type

CyberArk

Value

Test

Key	Value
Description	Test
AppID	Test
Safe	Test
Folder	Test
Object	Test

Cancel

Save

Figure 18 - Password from Key Vault (CyberArk)

Secret Selector

×

Input Type

Internal Secret Manager

Value

Test

Key	Value
Key	Test
Password	

Note: Password is in encrypted form.

Cancel

Save

Figure 19 - Password from Key Vault (Secret manager)

Secret Selector

Input Type
Azure Key Vault

Value
MyTestKey

Key	Value
Description	MyTestKey
Secret Name	MyTestKey

Cancel Save

Figure 20 - Password from Azure Key Vault

API URL, User ID, and Password are dependent on the selected integration method

6. Specify the path to get the consolidated scripts for the execution of runbooks in the **Master Runbook Path** field. This will be provided by respective **Runbook Tool** teams if they have a master runbook.

This is not a mandatory field. Users can change and run these scripts later.

7. Select **Proxy Required** if the environment needs access to content from servers outside a firewall. On selecting a proxy, the system uses the proxy connection, as specified in the [Manage Proxy](#) section.
8. Type the return code key in the **Return Code Key** field to identify the success or failure of runbook execution.
9. Type the return message key in the **Return Message Key** field to display the success or failure of runbook execution.
10. Enter the **Toil Value (For Manual Execution)** which is the maximum manual execution time of runbook (in minutes). By default, it takes the value of the configured Toil value (For Manual Execution) on the iAutomate Configuration page.
11. Enter the **Toil Value (For Auto Execution)** which is the maximum auto execution time of runbook (in minutes). By default, it takes the value of the configured Toil value (For Auto Execution) on the iAutomate Configuration page.
12. Enter the **Connection Retry Count** which is the number of retry counts in case the connection with RBA tool is failed when the ticket is triggered by iAutomate.

All fields marked with an asterisk (*) are mandatory.

13. Click **Submit** to add the runbook tool.

Figure 21 - Configure Runbook Tool

A confirmation dialog box appears.

Figure 22 - Runbook Tool Created

The new runbook tool is created and listed in a tabular view.

If a connection to the iAutomate configuration database cannot be established, an error message appears explaining what must be done to resolve the issue.

3.2.2.1.1.2 Edit Runbook Tool

User can open an existing runbook tool, review the available information, and edit the runbook tool details by performing the following steps:

1. On the **Manage Runbook Tool** screen, click  corresponding to the runbook tool that you want to edit.

Runbook Tool Name	Runbook Tool Type	Organization	Method Type	Action
MYTool	BigFix	MyCompany	POST	 

Figure 23 - Edit Runbook Tool

2. This displays the complete details of the runbook tool including the runbook tool name and type, integration method and type, API URL and its log on credentials, master runbook path, return code key, and the return message key.

Figure 24 - Edit Runbook Tool (Cont.)

3. Edit the selected Runbook tool details and click **Update** to commit the changes. Click **Cancel** to discard changes.
4. A confirmation dialog box appears.

Figure 25 - Runbook Tool Edited

All fields marked with an asterisk (*) are mandatory.

3.2.2.1.1.3 Delete Runbook Tool

If a user no longer wants a specific runbook tool, he/she can delete it from the environment by performing the following steps:

1. On the **Manage Runbook Tool** screen, click on  corresponding to the Runbook tool that you want to delete.

Runbook Tool Name	Runbook Tool Type	Organization	Method Type	Action
MYTool	BigFix	MyCompany	POST	 

Figure 26 - Delete Runbook Tool

2. Click **OK** to confirm.

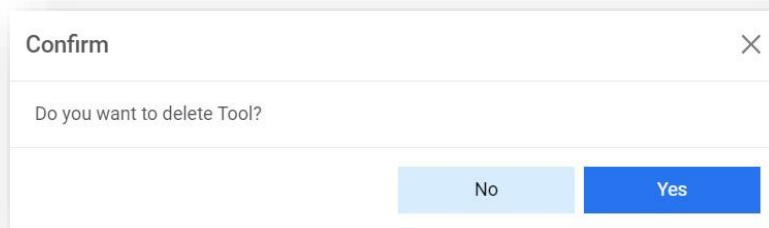


Figure 27 - Delete Runbook Tool (Cont.)

You cannot delete a Runbook tool which is mapped to an active organization and data source.

3.2.2.2 Manage Runbooks

iAutomate admin can create the metadata for runbooks and configure them. Every runbook is unique and specific to the system and enables the user to effectively manage and troubleshoot a system. Each runbook must be configured using the runbook tool.

To create the metadata for runbooks, perform the following steps:

1. On the main menu bar, click **Runbooks**, and then **Manage Runbooks**. The **Manage Runbooks** page appears.

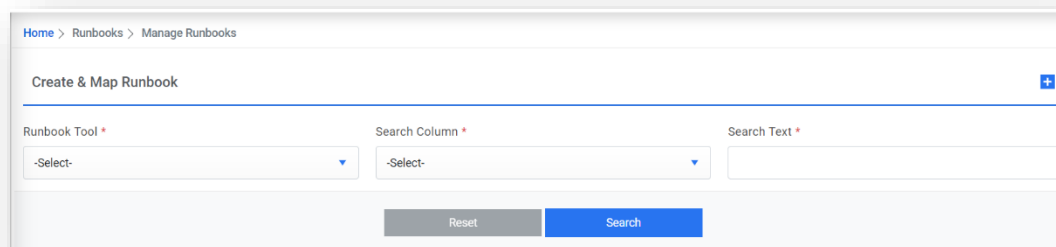


Figure 28 - Manage Runbooks

It lists the existing runbooks in a tabular view and enables user to add runbooks using **Add Runbook** or **Import Runbook**. User can also edit or delete the existing runbooks.

3.2.2.2.1 Add Runbook

User can add a single runbook into the runbook tool using **Add Runbook** button or import multiple runbooks together using **Bulk Upload** option.

3.2.2.2.1.1 Add a Single Runbook

To add metadata for one runbook, perform the following steps:

1. On the **Manage Runbook** screen to add Runbook, click on **plus sign**, **Runbook Details** page appears.

Figure 29 - Add Single Runbook

2. Select a runbook tool by clicking the drop-down button corresponding to the **Runbook Tool** field.
3. Type a name for the new runbook in the **Runbook Name** field. This will be referred by the system at the backend.
4. Type a runbook friendly name in the **Runbook Friendly Name** field to recognize the runbook in your repository. This name will be visible to the end user while getting recommendations and execution.
5. Upload Runbook SOP for the runbook in .pdf format.
6. In the **Runbook Path** field, specify the path where the runbook is located within the runbook tool .
7. Type the runbook description in the **Runbook Recommend Description** field to be used during the recommendation process.
8. Type a user-friendly description in the **User-Friendly Runbook Description** field to be shown to the user when selecting the runbook.
9. Type the **Frequency Interval**, which is fixed by the user to fetch the status post runbook execution. This frequency varies with the type of runbook in terms of SS (seconds), MM (minutes), or HH (hours).
10. Type the runbook update frequency in the **Update Frequency** field.

Frequency Interval and Update Frequency are interrelated.

11. Selecting **Runbook Tool** type as '**BigFix**' enables three more fields:
 - a. **Response File Path**: Type the location of the file from where response is to be read.
 - b. **Wait Frequency Interval**: Type the Frequency Interval, which is fixed by the user to wait before going to fetch the response post runbook execution. This frequency varies with the type of runbook in terms of SS (seconds), MM (minutes), or HH (hours).
 - c. **Wait Frequency**: The time interval to wait before going to fetch the response.
12. Selecting Runbook Tool as '**Ansible Tower/AWX**' enables an additional field:
 - a. **Organization**: The name of the organization with which the tool belongs at Ansible's end.
13. Selecting Runbook Tool as '**ANSIBLE Inside**' enables four more fields:

- a. **SDK Python Script Location:** Location of the core python script of Ansible-Inside that manages the execution of Ansible roles.
 - b. **Master Playbook Location:** Location that will host the master yaml within the Ansible-Inside setup.
 - c. **Ansible Playbook Directory:** Location that will host all the ansible roles to be executed within the Ansible - Inside setup.
 - d. **Vault Key:** The secret key to access the ANSIBLE Inside APIs for added security.
14. Type the runbook tool category in the **Category** field.
 15. Type the sub-category of the runbook tool in the **Sub-Category** field.
 16. Specify the details of the runbook tool category in the **Category Granular Details** field.

Figure 30 - Add Single Runbook (Cont.)

Figure 31 - Add Single Runbook for BigFix Tool Type (Cont.)

17. Type the runbook category in the **Runbook Category** field.
18. Specify the action to be taken by the runbook in the **Runbook Actions** field.
19. Specify the **Maximum Attempt Count** for the runbook to retry in case of failure.
20. Enter the **Toil Value (For Auto Execution)** which is the maximum manual execution time of runbook (in minutes).
By default, it takes the value of the configured Toil Value (For Auto Execution) for the selected runbook tool.

21. Enter the **Toil Value (For Manual Execution)** which is the maximum auto execution time of runbook (in minutes).
By default, it takes the value of the configured Toil Value (For Manual Execution) for the selected runbook tool.
22. Enter the **Wait Frequency for Status Update** (in minutes) for the case when RBA is unable to update execution status back to iAutomate after successful interaction (in case push notification is enabled).
23. Type a tag for the runbook corresponding to the **Runbook Tags** field and click **Add**. Added tags appear in a box, below the Add button. Tags allow users to assign keywords to help identify a runbook while ticket parsing. User can specify multiple tags for a runbook.
24. If required, select **Enable Auto Execution** to enable auto execution of the runbook.
25. Provide the **Auto Execution Threshold value** above which the runbook will be auto executed in auto-execution is enabled for the runbook.
26. Once the above values are added successfully, provide the following parameters for runbook execution while ticket parsing.
 - a. **Runbook Parameter Id**: Its disabled and is not user editable. Users can only see it while editing any runbook. (Need for API purpose)
 - b. **Parameter Name**: Specifies the parameter name to be used in a runbook for ticket parsing.
 - c. **Parameter Label**- Specifies a unique user-friendly name for the parameter to be added.
 - d. **Is Mandatory**- Select True or False depending on whether the parameter details added are mandatory or not.
 - e. **Parameter Description**- Describes the parameter.
 - f. **Default Parameter Value**- Specifies the default value for the parameter.
 - g. **Field Type**- Specifies the data type to be used in the parameter field. It may be of the following types:
 - Text: The parameter will be saved in plaintext in database.
 - SecureParameter: The parameter will be saved in encrypted form in Database.

The SecureParameter has specific significance in case of BigFix tool where this kind of parameter is passed in a different manner to bigfix.

The parameters which are marked as SecureParameter will be hidden and disabled on Tickets page when runbook is being selected for execution.

- h. **Parameter Type**- Lists all the parameter types configured in Configure Parameter Type. On selecting the parameter type, iAutomate fetches the related data for ticket parsing.
- i. **IsCIBasedParameter**- Check this checkbox if the parameter is a CI based parameter. It is mandatory to have at least one parameter as CI Based.
- j. **IsReadOnlyParameter**- Check this checkbox if the parameter is read only and user should not be able to change its value wherever parameter is parsed.
- k. **Action**- Enables user to add, edit or delete the existing parameter by clicking respective action buttons.
 - l. Click **Save** to add the parameter.
 - m. Click on 'Add a new row' button to add new parameter.
27. Click **Save** to configure the newly added runbook to the selected runbook tool.

RunbookParamet...	Name	Label	Is Mandatory	Description	Default Value	Field Type	Type	IsCIBasedParam...	IsReadOnlyParam...	Action
18614	ad_new_user	ad_new_user	True	ad_new_user	Test2	Text	LocalUserName	☐	☐	Edit Delete

Figure 32 - Add Single Runbook (Cont.)

The new runbook is added and listed in a tabular view.

All fields marked with an asterisk (*) are mandatory.

3.2.2.2.1.2 Upload Spreadsheet to Configure Multiple Runbooks

If the user already has a Microsoft Excel spreadsheet with existing runbooks that were written or stored earlier, importing them to the runbook library is easy. Download the .xls file from Download Template button from the **Manage Runbook** page, update the runbook details, and import it to your system. If this runbook, is not required, it can be deleted.

To upload multiple runbooks, perform the following steps:

1. To download a template, using radio button choose Bulk Upload and click on Download Template button. The template asks for the details as described in Bulk Upload section.

Figure 33 - Add Multiple Runbooks

This functionality allows users to create multiple Runbook together by uploading the required details simultaneously through a single excel document.

2. Fill the details in the downloaded template. See [Add a Single Runbook](#) section for more information.

StatusUpdateFrequencyInterval	StatusUpdateFrequency	Category	SubCategory	CategoryGranularDetails	RunbookCategory	RunbookAction	Tags	EnableAutoExecution	ReturnsDiagnostic	Version

Figure 34 - Add Multiple Runbooks (Cont.)

3. Select a Runbook Tool, then click Choose File.

Figure 35 - Add Multiple Runbooks (Cont.)

All fields marked with an asterisk (*) are mandatory.

4. The **Upload Excel File** page appears.

Figure 36 - Add Multiple Runbooks (Cont.)

5. Click **Choose file** to upload the updated .xls file.

The new runbooks are added and listed in a tabular view.

To enable/disable the auto execution of multiple runbooks at once, select all the runbooks for this and click on Enable Auto Execution/Disable Auto Execution button respectively. Below alert appears.

Figure 37 - Add Multiple Runbooks (Cont.)

3.2.2.2.2 Edit Runbook

User can open an existing runbook, review the available information, and change the runbook details by performing the following steps:

1. On the **Manage Runbook** page, select **Runbook Tool** to specify the runbook tool. By default, all the runbooks mapped to the selected runbook tool appear in a grid.
2. iAutomate provides user with search capabilities to access runbook information. The user can limit his runbook search to a specific runbook type by specifying the search filters.
3. Select the required parameter in **Search Column**.

4. Type the search keywords in the **Search Text** field.
5. Click **Search**.

Users can also change the search filter by selecting the **Search Column** again.

The screenshot shows the 'Create & Map Runbook' interface. At the top, there are three search filters: 'Runbook Tool' (set to 'My_Tool'), 'Search Column' (set to '-Select-'), and 'Search Text' (empty). Below these are 'Reset' and 'Search' buttons. To the right of the table are 'Enable Auto Execution' and 'Disable Auto Execution' buttons. The table has columns for 'Auto Execution', 'Runbook Name', 'Runbook Description', and 'Actions'. It contains one row with 'N' for Auto Execution, 'My Runbook' for Name, and 'My Runbook Description' for Description. The 'Actions' column has icons for edit, delete, and share. At the bottom, there are pagination controls showing '1' of 1 items.

Figure 38 - Edit Runbooks

6. Click  next to the runbook you want to edit that will redirect you to the **Add Single Runbook** screen. It auto-fills the details.

The screenshot shows the 'Add Single Runbook' form. It has two tabs: 'Individual' (selected) and 'Bulk Upload'. The form fields are: 'Runbook Tool' (set to 'MyTool'), 'Runbook Name' (set to '4210'), 'Runbook Friendly Name' (set to 'My Runbook'), and 'Runbook SOP' (set to 'Choose File' with 'No file chosen' below it). The 'Runbook Name' and 'Runbook Friendly Name' fields are marked with an asterisk (*) indicating they are mandatory.

Figure 39 - Edit Runbooks (Cont.)

7. Change the selected runbook details.
8. Click **Update** to save the changes or click **Cancel** to discard all changes. A runbook updated confirmation dialog box appears.

The screenshot shows an 'Alert' dialog box with a close button (X) in the top right corner. The message inside says 'Runbook updated successfully.' At the bottom right, there is a blue button labeled 'Next Recommended Page'.

Figure 40 - Runbook Updated

Runbooks configured in this section will be shown while mapping a runbook to a customer. All fields marked with an asterisk (*) are mandatory.

3.2.2.2.3 Delete Runbook

If a user no longer wants a runbook in a runbook tool, the same can be deleted from the environment.

To delete a runbook from the runbook tool, perform the following steps:

1. On the **Manage Runbook** page, click  corresponding to the runbook that the user wants to delete.

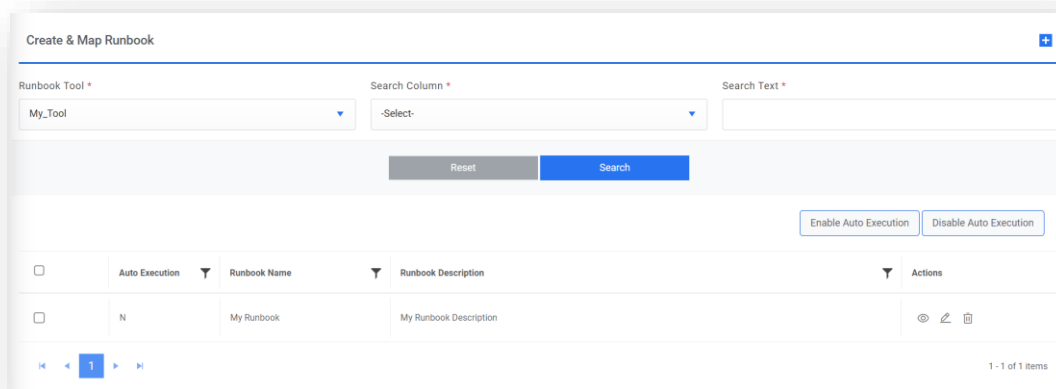


Figure 41 - Delete Runbook

2. Click **OK** to delete the selected runbook tool.

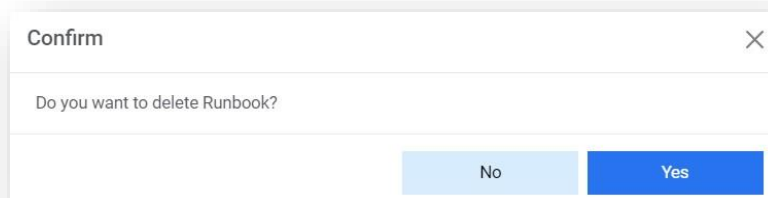


Figure 42 - Confirm Deletion

3. A confirmation dialog box appears.

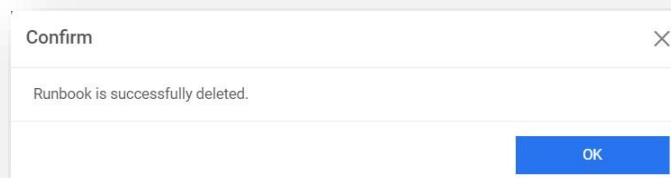


Figure 43 - Successful Deletion

3.2.2.3 Map Runbooks

A runbook is a script that automatically resolves a ticket with no human involvement. A runbook coordinates multiple infrastructure elements such as applications, network components, or servers. The runbook tool is a platform used to specify these runbooks. Typically, a runbook contains procedures to start, stop, supervise, and debug the system. Each runbook must be configured to an organization.

To map a runbook, perform the following steps:

1. On the main menu bar, click **Runbooks**, and then click **Map Runbooks**.
2. Select an organization from the drop-down list available in the **Organization** field.
3. Select a module from the list of modules configured to a selected organization in the **Module** field. This populates the runbooks in the following tabs.

- **Organization Runbooks**- It lists all the runbooks mapped to the selected organization.
- **All Runbooks**- It lists all the runbooks available for mapping.

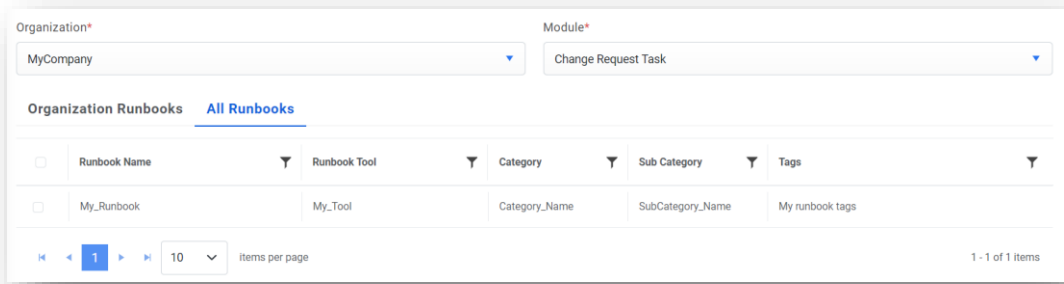


Figure 44- Map Runbooks

The **Map Runbooks** page allows user to map a new runbook and delete an existing, mapped runbook from an organization.

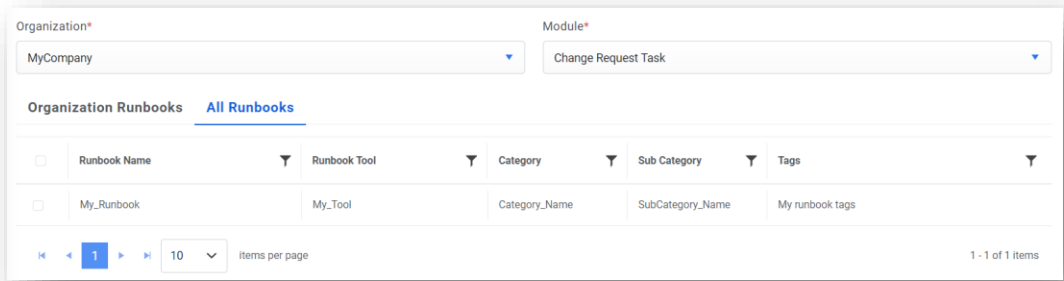


Figure 45- Map Runbooks (Cont.)

- **To map a runbook:**
 - Go to the **All Runbooks** tab.
 - Select the **Runbook** to be mapped.

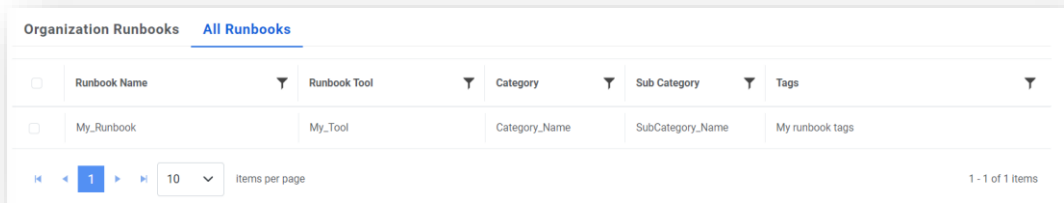


Figure 46- Map Runbooks (Cont.)

- A confirmation dialog box appears.

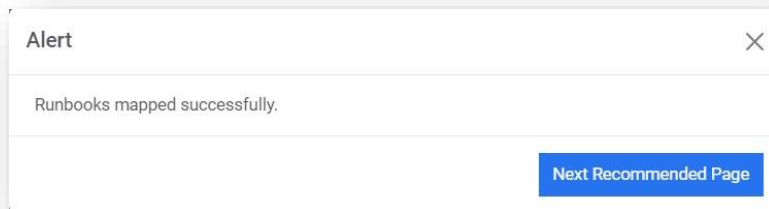


Figure 47- Map Runbooks (Cont.)

- To remove a runbook from an organization,
 - a. Go to the **Organization Runbooks** tab.
 - b. To delete an existing mapped runbook, clear the check box of that runbook.

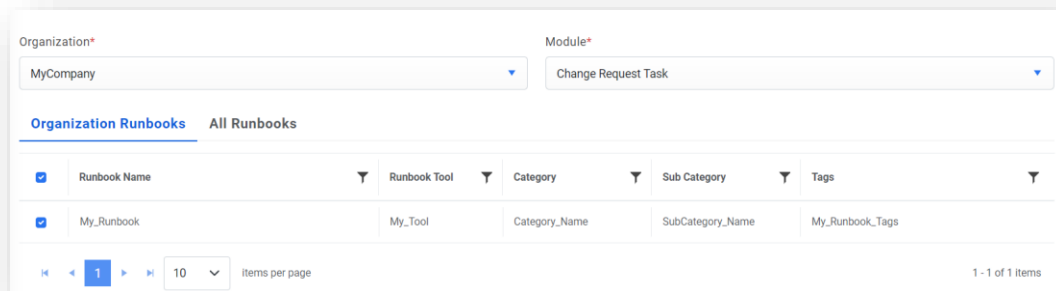


Figure 48- Map Runbooks (Cont.)

- c. Click **Yes** to confirm that you want to un-map the selected runbook.

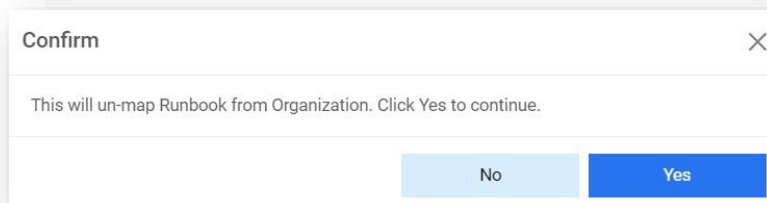


Figure 49- Map Runbooks (Cont.)

A confirmation dialog box appears.

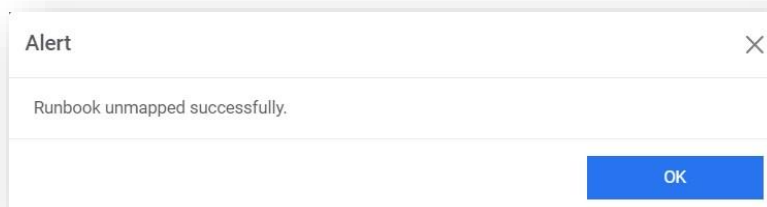


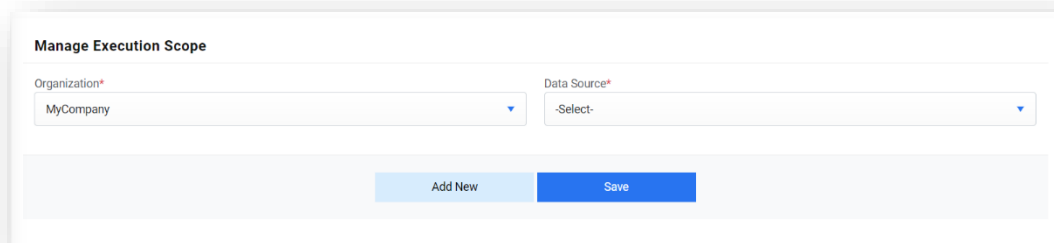
Figure 50- Map Runbooks (Cont.)

3.2.2.4 Manage Execution Scope

Execution scope specifies the rules set up to execute a ticket on a runbook tool. User can also define the execution scope for a data source in an organization.

To manage the execution scope, perform the following steps:

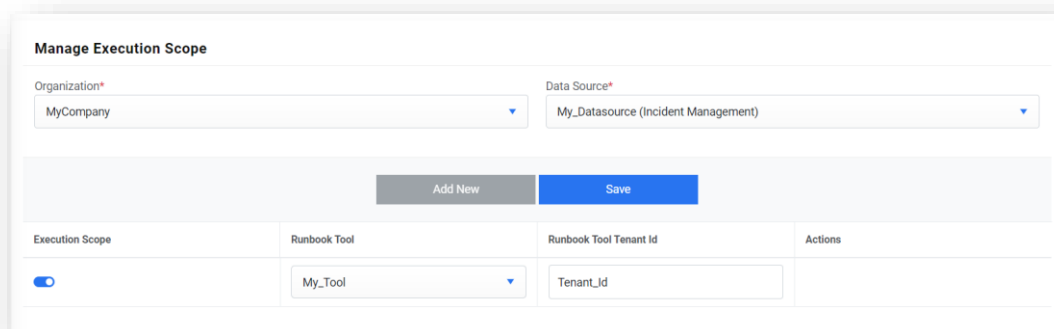
1. On the main menu bar, click Runbooks, and then click Manage Execution Scope.
2. The Manage Execution Scope page appears.



The screenshot shows the 'Manage Execution Scope' page. It features two dropdown menus: 'Organization*' with 'MyCompany' selected, and 'Data Source*' with '-Select-' selected. Below these are two buttons: 'Add New' (light blue) and 'Save' (dark blue).

Figure 51- Manage Execution Scope

3. Select an organization from the drop-down list available in the **Organization** field.
4. Select the data source from the drop-down list available in the **Data Source** field.
5. Select the runbook tool to map with the organization and data source.



The screenshot shows the 'Manage Execution Scope' page with the 'Data Source*' dropdown now set to 'My_Datasource (Incident Management)'. Below the 'Add New' and 'Save' buttons is a table with the following structure:

Execution Scope	Runbook Tool	Runbook Tool Tenant Id	Actions
☒	My_Tool	Tenant_Id	

Figure 52- Manage Execution Scope (Cont.)

3.2.2.4.1 Add New Execution Scope

User can add a new execution scope for a data source in an organization by performing the following steps.

1. On the **Manage Execution Scope** page, toggle the button under Execution Scope column and click **Add New**.

Figure 53- Add Scope of Execution

Before the user configures the execution scope, ensure the execution scope is set to Filter. In case of selecting **All Data**, all the runbook tools remain assigned to a single organization and the **Add New** button remains disabled. To assign a new runbook tool, set the **Execution Scope** from **All Data** to **Filter**, which enables the **Add New** button.

2. It lists the existing execution scope for the selected organization.
3. To define a new scope for execution, click **Add New** and add a new row below the existing execution scope.
4. Select a Runbook Tool in a new row and then type the Runbook Tool Tenant ID, assigned to a runbook tool for identification.

Figure 54- Add Scope of Execution (Cont.)

5. Click **Save**. A confirmation dialog box appears.

Figure 55- Add Scope of Execution (Cont.)

The new execution scope is defined and listed in a tabular view.

To delete an execution scope, click corresponding to the execution scope that you want to delete.

3.2.2.5 Manage Rules

User can configure rules for the tickets released from iAutomate. There are few default rules for release, but these rules can be customized based on the requirements.

To manage the release rule, perform the following steps:

1. On the main menu bar, click **Runbooks**, and then click **Manage Rules**. The **Manage Rules** page appears:

The screenshot shows the 'Manage Rules' page. At the top, there's a title bar with 'Manage Rules' and a close button. Below it, there are three dropdown menus: 'Organization*' (selected: MyCompany), 'Data Source*' (selected: -Select-), and 'Configuration*' (selected: -Select-). At the bottom, there are two buttons: 'Add New' and 'Save Rule'.

Figure 56- Manage Rules

2. Select an organization from the list of organizations available in the **Organization Name** field.
3. Select a data source to fetch the data from the list of data sources available in the **Data Source Name** field.
4. Select **Configuration** from the list of configurations available.

All the existing rules are listed in a tabular view with the associated parameters that allows user to manage the parameters for the existing rules.

No Rule in the condition column indicates the **Else** or **Default** condition. If **No Rule** is added against the selected Customer-Module combination, then iAutomate will release the ticket without condition in case of Rule-based Release in the Manage Configuration tab.

3.2.2.5.1 Add Release Rule

User can define multiple release rules for an organization by performing the following steps.

1. On the **Manage Rules** page, select the organization for which user wants to configure the release rules from the drop-down in the **Organization** field.

The screenshot shows the 'Manage Rules' page with the form filled out: 'Organization*' is 'MyCompany', 'Data Source*' is 'My_Datasource (Incident Management)', and 'Configuration*' is 'Release'. Below the form are 'Add New' and 'Save Rule' buttons. At the bottom, there is a table with columns: Rule Name, Parameters, and Actions. The table contains one row with 'No Rule-' in the Rule Name column, 'Service Desk,@@GetReleaseWorkNoteForIncident' in the Parameters column, and a gear icon in the Actions column.

Figure 57- Add Release Rule

The organizations listed in the drop-down are created using [Manage Organizations](#).

2. Select the data source, from where the organization fetches the data in iAutomate, from the drop-down in the **Data Source** field.
3. Select **Configuration** from drop-down. It lists all the configured rules in a tabular view.

4. Click **Add New**.
5. It will prompt the user to type the **Rule Name**, which acts as an identifier for the added rule in the dialog box.
6. Click **Save**.

Figure 58- Add Release Rule (Cont.)

This adds the new rule, and it appears in the list of rules. After the rule is added, the user must set up the configuration parameters for the newly added rule.

Rule Name	Parameters	Actions
--No Rule--	Service Desk.@@GetReleaseWorkNoteForIncident	
MyRule	assignment_group.work_notes	

Figure 59- Add Release Rule (Cont.)

To manage parameters:

- a. On the **Release Rule** grid, click next to the rule for which user wants to set the parameters.

Rule Name	Parameters	Actions
--No Rule--	Service Desk.@@GetReleaseWorkNoteForIncident	
MyRule	assignment_group.work_notes	

Figure 60- Add Release Rule (Cont.)

- b. This prompts user to add the release rule parameter values.

Parameters	Value Type	Value
#AssignmentGroup#	Text	testing
#worknotes#	Text	testing

Figure 61- Add Release Rule (Cont.)

- c. Select **Value Type** and enter the appropriate details in **Value** Field.
- d. Click **OK** and the added parameter appears against the rule in the **Rule** grid.
- e. You can edit the parameter name by clicking  corresponding to the **Rule Name** in the rule list grid. It prompts you to edit the Rule Name.

Rule Name	Parameters	Actions
--No Rule--	Service Desk,@@GetReleaseWorkNoteForIncident	
MyRule	assignment_group,work_notes	   

Figure 62- Add Release Rule (Cont.)

- f. Click **Save** to update the changes.

Rule Name

Rule Name

NewReleaseRule

Cancel

Save

Figure 63- Add Release Rule (Cont.)

- g. You can also filter the rule by clicking  corresponding to the **Rule Name** in the rule list grid. It auto-fills the following attributes:

Filters

Column	Operator	Value	Clause	Sub Clause
Summary		Enter Value		
TicketNumber				
Summary				
Description				
StatusCode				
AssignedGroup				
AffectedCIUniqueid				

Figure 64- Add Release Rule (Cont.)

Filters

Column	Operator	Value	Clause	Sub Clause
Summary	equal...	Enter Value		

Figure 65- Add Release Rule (Cont.)

Filters

Column	Operator	Value	Clause	Sub Clause
AssignedGroup	equal...	Enter Value	AND OR	

Figure 66- Add Release Rule (Cont.)

Filters

Column	Operator	Value	Clause	Sub Clause
AssignedGroup	equal...	Enter Value		SUB AND SUB OR

Figure 67- Add Release Rule (Cont.)

- h. Optionally, you can fill the **Column**, **Operator**, **Value**, **Clause**, and **Sub-clause** attributes and then click  , if you want to delete the added attributes.
- i. Click **Save** to update the filter attributes.
- j. To delete a rule from an organization, click  corresponding to the rule that you want to delete from the grid.

Manage Rules

Organization* MyCompany

Data Source* My_Datasource (Incident Management)

Configuration* Release

Add New Save Rule

Rule Name	Parameters	Actions
-No Rule-	Service Desk.@@GetReleaseWorkNoteForIncident	
My_Rule	AssignmentGroup,worknotes	  

Figure 68- Add Release Rule (Cont.)

- k. Click **OK** to confirm deletion of the selected release rule.

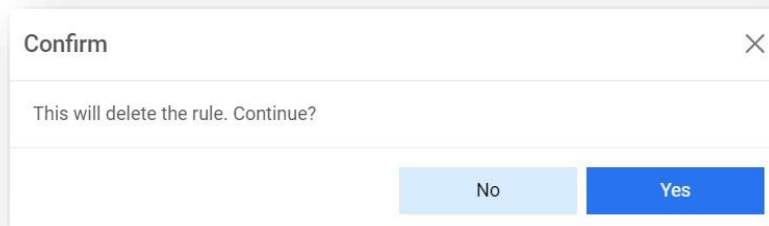


Figure 69- Add Release Rule (Cont.)

3.2.2.6 Schedule Runbooks

iAutomate allows user to schedule runbooks to run at a specified time. A runbook can be scheduled to run once or on a recurring basis. User can also schedule them for weekly, monthly, specific days of the week or days of the month, or a particular day of the month.

To create a new runbook schedule, perform the following steps:

1. On the main menu bar, click **Runbooks** and then **Schedule Runbooks**. The **Schedule Runbook** page appears. To schedule a runbook, click on  icon.

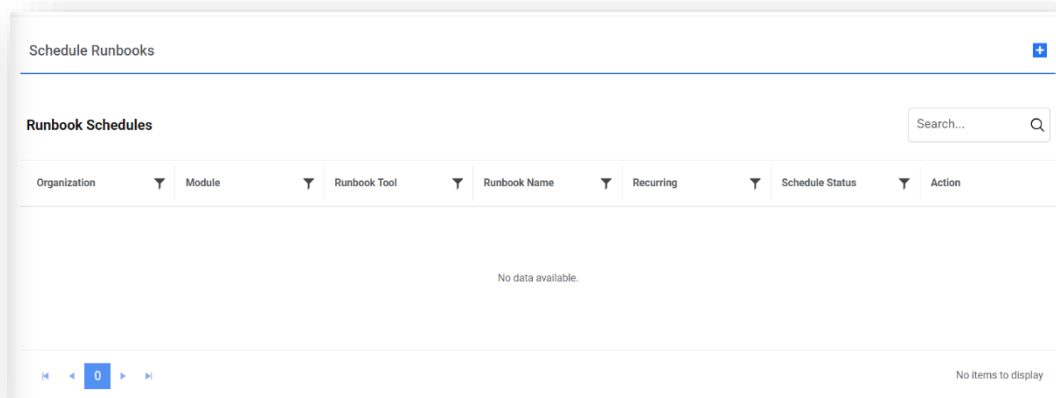


Figure 70 - Schedule Runbook

2. Select an **Organization**, **Module** and then select the **Runbook Tool** and click on **Apply**. It lists all the runbooks configured with the selected Runbook tool in a tabular view.

Schedule Runbooks

Organization *
MyCompany

Module Type *
Change Request Task

Runbook Tool *
My_Tool

Cancel Apply

Runbooks Search...

Runbook Name	Runbook Description	Runbook category	Action
My_Runbook	My runbook description	Category_Name	

1 - 1 of 1 items

Figure 71 - Runbook Search Results

- Click and fill in the details to schedule a Runbook.

Schedule Runbook

Schedule Details *Date Format - (MM/DD/YYYY hh:mm:ss) in UTC

Schedule Type *
-Select-

Runbook Parameters

job_id*
1

service_name*
service_name

target_host*
localhost

TicketNumber*
INC001

Other configured schedules

Runbook Schedules Search...

Organization	Module	Runbook Tool	Runbook Name	Is Recurring	Next Run Date	Time Out Period	Schedule Status
--------------	--------	--------------	--------------	--------------	---------------	-----------------	-----------------

Close Save

Figure 72 - Runbook Details

- Select **One time** or **Recurring** from the **Schedule Type** drop-down menu to specify the scheduling frequency.

Schedule Details

Schedule Type *

-Select-

-Select-

One time

Recurring

Figure 73 - Select Schedule Frequency

- If the user selects **One time**, specify the **Start date and time**.

Schedule Runbook

Schedule Details

Schedule Type *

One time

Date & Time*

06/15/2024 05:13:17 PM

June 2024

05

13

17

PM

Runbook Parameters

job_id*

1

target_host*

localhost

Other configured schedules

Runbook Schedules

Search...

Organization

Module

Runbook Tool

Runbook Name

Is Recurring

Next Run Date

Time Out Period

Schedule Status

Close

Save

Figure 74 - Scheduled Runbook (One Time)

- If the user selects **Recurring**, specify the **Time Out Period** and the **Schedule Frequency** for how often user wants the runbook to repeat by **hour**, **day**, **week**, or by **month**.

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Schedule Runbook

Schedule Details *Date Format - (MM/DD/YYYY hh:mm:ss) in UTC

Schedule Type * Recurring Time Out Period* 10Min Schedule Frequency* Monthly

Month Days* Day 1 Day 2 Day 3 Hours* 1 hour 2 hour Minutes* 0 Minute

Next RunDate 07/01/2024 01:00:00

Runbook Parameters

job_id* 1 service_name* service_name

target_host* localhost TicketNumber* INC001

Other configured schedules

Runbook Schedules Search...

Close Save

Figure 75 - Scheduled Runbook (Recurring)

- Click **Save**. A confirmation dialog box appears.

Alert

Runbook Scheduled Successfully.

OK

Figure 76 - Schedule Success Confirmation

- This creates a new schedule and lists it in the **Runbook Schedule** page.

Schedule Runbooks

Runbook Schedules Search...

Organization	Module	Runbook Tool	Runbook Name	Recurring	Schedule Status	Action
MyCompany	Change Request Task	My_Tool	My_Runbook	Y	Active	✎ ✖

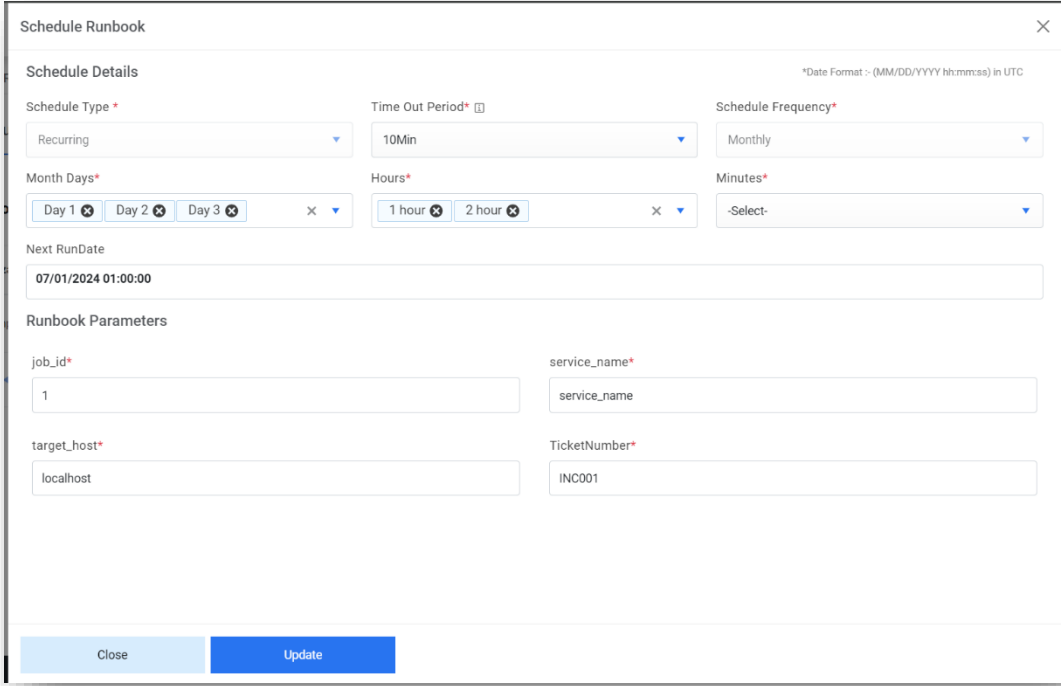
1 - 1 of 1 Items

Figure 77 - Schedule Runbook (Cont.)

- The **Runbook Schedule** page enables users to edit or delete existing schedules.

One-time schedule type Runbook cannot be edited. In case user needs to modify it, it will have to be added as a new entry through **Schedule Runbook**

10. Click  next to the schedule you want to edit. This opens the auto-filled Schedule Runbook page.
11. Click **Update** after editing the required details.



Schedule Runbook

*Date Format :- (MM/DD/YYYY hh:mm:ss) in UTC

Schedule Details

Schedule Type *
Recurring

Time Out Period*
10Min

Schedule Frequency*
Monthly

Month Days*
Day 1 Day 2 Day 3

Hours*
1 hour 2 hour

Minutes*
-Select-

Next RunDate
07/01/2024 01:00:00

Runbook Parameters

job_id*
1

service_name*
service_name

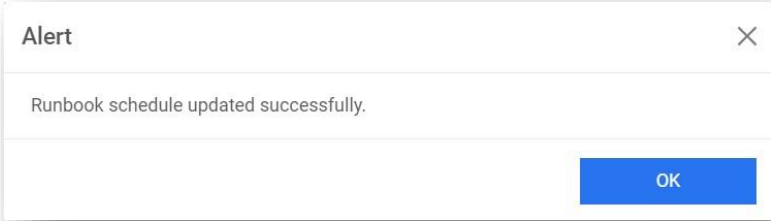
target_host*
localhost

TicketNumber*
INC001

Close Update

Figure 78 - Edit Details

12. A confirmation dialog box appears.



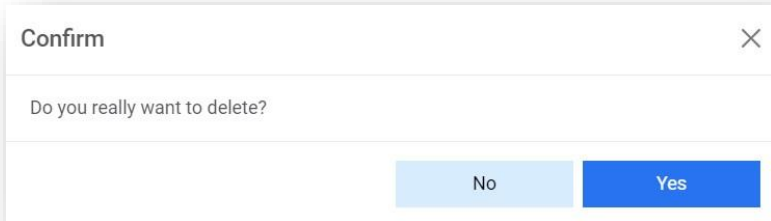
Alert

Runbook schedule updated successfully.

OK

Figure 79 - Edit Success Confirmation

13. To delete an existing schedule, click  corresponding to the schedule.
14. Click **Yes** to confirm.



Confirm

Do you really want to delete?

No Yes

Figure 80 - Delete Success Confirmation

3.2.2.7 Create Runbook

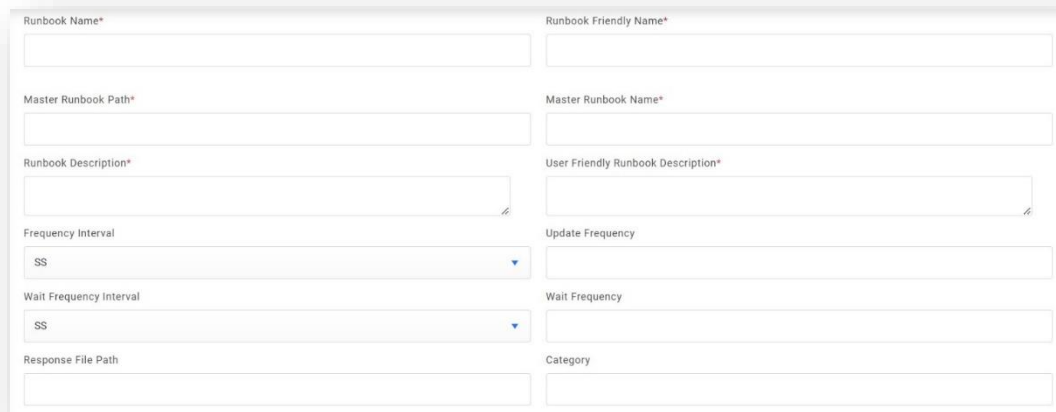
This section describes the steps required to create a Runbook, including the metadata and scripts.

To create a Runbook, perform the following steps:

1. On the main menu bar, click **Runbooks** and then **Create Runbook**. The **Create Runbook** page appears.

Figure 81 - Create Runbook

2. Select a runbook tool to specify the runbook by clicking the drop-down arrow next to the **Runbook Tool** field.
3. User can upload multiple scripts simultaneously using the **Upload** option or type the script for each runbook in the **Script Text** field.
4. Type a runbook name for the new runbook in the **Runbook Name** field.
5. Type a runbook friendly name in the **Runbook Friendly Name** field to easily recognize the runbook in your repository.
6. Selecting **Runbook Tool** as 'BigFix' enables three more fields:
 - a. **Response File Path**: Type the file location where the response is to be read.
 - b. **Wait Frequency Interval**: Frequency Interval, which is fixed by the user to wait before going to fetch the response post runbook execution. This frequency varies with the type of runbook in terms of SS (seconds), MM (minutes), or HH (hours).
 - c. **Wait Frequency**: The time interval to wait before going to fetch the response.
7. Specify the path where the master runbook is located within the runbook tool in the **Master Runbook Path** field.
8. Specify the name of the master runbook in the **Master Runbook Name** field.
9. Type the runbook description in the **Runbook Description** field.
10. Type the user-friendly runbook description in the **User Runbook Friendly Description** field.
11. Type the **Frequency Interval**, which is fixed by a user to fetch the status post runbook execution. This frequency varies with the type of runbook in terms of **SS (seconds)**, **MM (minutes)**, or **HH (hours)**.
12. Specify the frequency for runbook updates in the **Update Frequency** field.



Runbook Name*

Runbook Friendly Name*

Master Runbook Path*

Master Runbook Name*

Runbook Description*

User Friendly Runbook Description*

Frequency Interval

Update Frequency

Wait Frequency Interval

Wait Frequency

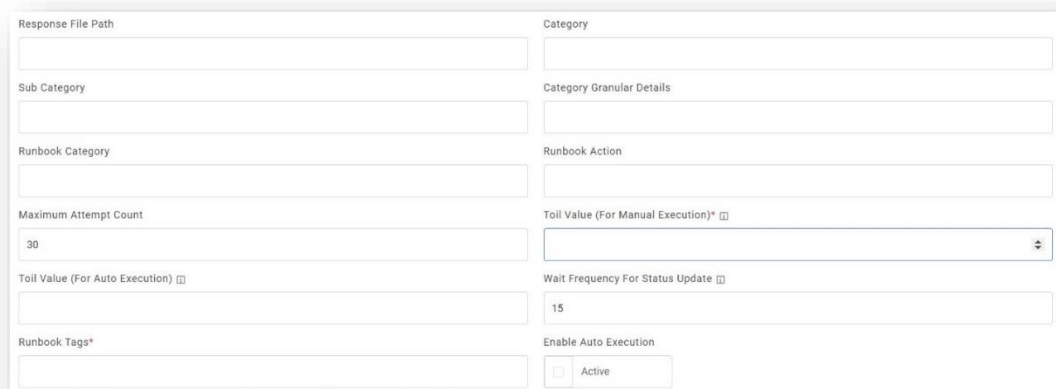
Response File Path

Category

Figure 82 - Create Runbook (Cont.)

Frequency Interval and Update Frequency are inter-related.

13. Type the runbook tool category in the **Category** field.
14. Type the sub-category of the runbook tool in the **Sub-Category** field.
15. Specify the details of a runbook tool category in the **Category Granular Details** field.
16. Type the runbook category in **Runbook Category** field.
17. Specify the action to be taken by the runbook in the **Runbook Actions** field.
18. Specify the **Maximum Attempt Count** for the runbook to retry in case of failure.
19. Enter the **Toil Value (For Manual Execution)** which is the maximum manual execution time of runbook (in minutes). By default, it takes the value of the configured Toil Value (For Manual Execution) for the selected Runbook tool.
20. Enter the **Toil Value (For Auto Execution)** which is the maximum auto execution time of runbook (in minutes). By default, it takes the value of the configured Toil Value (For Auto Execution) for the selected Runbook tool.
21. Enter the **Wait Frequency for Status Update** (in minutes) for the case when RBA is unable to update execution status back to iAutomate after successful interaction (in case Push Notification is enabled).
22. Type a tag for a runbook next to the **Runbook Tags** field and click **Add**. Added tags appear in a box below the **Add button**.



Response File Path

Category

Sub Category

Category Granular Details

Runbook Category

Runbook Action

Maximum Attempt Count

Toil Value (For Manual Execution)* []

Toil Value (For Auto Execution) []

Wait Frequency For Status Update []

Runbook Tags*

Enable Auto Execution

☐ Active

Figure 83 - Create Runbook (Cont.)

23. If required, select **Enable Auto Execution** to enable auto execution of the runbook.

24. Enter the **Auto Execution Threshold** so that the runbook above this threshold will be auto executed if auto execution is enabled.
25. Once the above values are added successfully, provide the following parameters for runbook execution while ticket parsing.
 - a. **Parameter Name**- Specifies a name of the parameter to be used in runbook for ticket parsing.
 - b. **Parameter Label**- Specifies a unique user-friendly name for the parameter.
 - c. **Is Mandatory**- Select True or False depending on if the parameter details added are mandatory or not.
 - d. **Parameter Description**- Describes the parameter.
 - e. **Default Parameter Value**- Specifies the default value for the parameter.
 - f. **Field Type**- Specifies the data type used in the parameter field. It may be of the following types:
 - **Text**: The parameter will be saved in plaintext in database.
 - **SecureParameter**: The parameter will be saved in encrypted form in Database.

The SecureParameter has specific significance in case of BigFix tool where this kind of parameter is passed in a different manner to bigfix.

The parameters which are marked as SecureParameter will be hidden and disabled on Tickets page when runbook is being selected for execution.

- g. **Parameter Type**- It lists all the parameter types configured in [Configure Parameter Type](#). On selecting the parameter type, iAutomate fetches the related data for ticket parsing.
 - h. **IsScript Parameter**- Check the checkbox if the parameter is the part of Script uploaded.
 - i. **IsCiBased Parameter**- Check the checkbox if the parameter is a CI based parameter. It is mandatory to have at least one parameter as CI based parameter.
 - j. **IsReadOnly Parameter**- Check the checkbox if parameter is readonly and user cannot update the same whenever it is parsed.
 - k. **Action**- Enables user to add, edit or delete the existing parameter by clicking respective buttons.
26. Click **Save** to configure the newly added runbook to the selected runbook tool.

Parameter Name	Parameter Label	Is Mandatory	Parameter Description	Default parameter Value	Field Type	Parameter Type	Is Script Parameter	Is CiBased Parameter	Is ReadOnly Parameter	Action
		True			Text	-Sele...	☐	☐	☐	+

Figure 84 - Create Runbook (Cont.)

It adds a new Runbook and lists it in a tabular view.

3.2.2.8 Inventory Runbooks

This section describes the steps required to view inventory runbook metadata. Only a user with super admin rights can update any inventory runbooks, others can only access this in read-only mode.

To access and view the inventory runbook data, perform the following steps:

1. On the main menu bar, click **Runbooks** and then **Inventory Runbooks**. The **Inventory Runbooks** page appears.

Q* Advance Search			
Search...			
Runbook Name	Runbook Description	Tool Type	Action
MSSQL_Latest_Backup_Check	Playbooks shows the last backup taken for all the databases residing on a given MSSQL server. It will check and display the last backup performed for all MS SQL databases.	BigFix	 
MSSQL_Monitor_SQL_Service_Send_Mail_If...	Playbook will monitor the services of MSSQL and send mail any of them are found not running. Monitoring of the services of the msasq server will be achieved and when found not running, email will be sent to notify the relevant team.	BigFix	 
MSSQL_START_STOP_Service_Agent	Playbook to either start or stop the MSSQL Server and MSSQL Server Agent service on the server hosting the concerned MSSQL Server instance. It will enable or disable the MS SQL Services on the host server.	BigFix	 
MSSQL_Update_Statistics	Playbook will execute query to update the stats for a given table and schema of a database. Playbook to execute query to update the stats for a given table and schema of a database.	BigFix	 
MSSQL_Validate_Backup_File	Playbook validates the presence of backup file for a given location on sql server. It will check the backup file for given location on SQL.	BigFix	 
MSSQL_Modify_Compatibility_Level	Playbook updates the compatibility level of a given database to a specified compatibility number. It will modify the compatibility number for the given MS SQL database.	BigFix	 

Figure 85 – Inventory Runbooks

- Click on 'Advance Search' button to filter the Inventory Runbook based on Runbook Tool Type, Category or Subcategory.

Q* Advance Search

Runbook Tool Type*

-Select-

Category

Sub Category

Reset

Search

Figure 86 - Inventory Runbooks (Cont.)

- Click on  under the **Action** tab to view or edit the Runbook details.

Inventory Runbook

Name *

20073

Runbook Friendly Name *

MSSQL_Latest_Backup_Check

Runbook Recommend Description *

Playbooks shows the last backup taken for all the databases residing on a given MSSQL server. It will check and display the last backup performed for all MS SQL databases.

User Friendly Runbook Description *

Playbooks shows the last backup taken for all the databases residing on a given MSSQL server. It will check and display the last backup performed for all MS SQL databases.

Frequency Interval

SS

Update Frequency

5

Category

Database

Sub Category

MS SQL

Category Granular Details

MSSQL DataBase

Runbook Category

Database Management

Cancel

Update

Figure 87 – Inventory Runbook (Cont.)

Parameter Name	Parameter Label	Is Mandatory	Parameter Description	Default Parameter Va...	Field Type	Parameter Type
Computer_Name	Computer_Name	True	Computer_Name	localhost	Text	TargetName
TenantId	TenantId	True	TenantId	MyTenant	Text	TenantId
DB_User	DB_User	True	DB_User	MyUser	Text	LocalUserName
DB_Pwd	DB_Pwd	True	DB_Pwd	My_Pwd	Text	LocalUserName
DB_Name	DB_Name	True	DB_Name	My_DB	Text	LocalUserName

1

1 - 5 of 5 items

Cancel

Update

Figure 88 - Inventory Runbook Parameters (Cont.)

- Click on  under the Action tab to fill a feedback questionnaire for the Runbook to improve the recommendation process. The following screen appears:

Runbook Feedback Questionnaire

Feedback Question Type	Answer	Weight	Action
What is the Operating System?			
What is the primary action?			
Mention the secondary actions.			
What is the parent entity?			
Mention any other entities.			

Figure 89 - Inventory Runbooks Parameters (Cont.)

5. Update the value of any field and click on update button. A confirmation box appears:

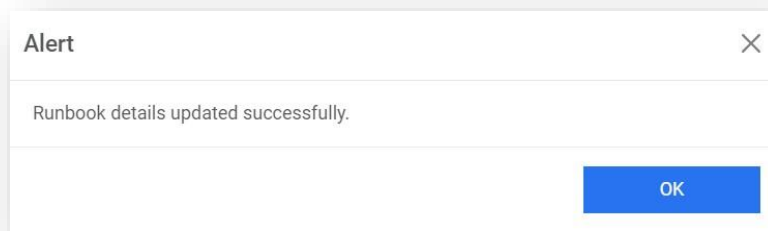


Figure - 90 Confirmation Box

6. Type the search text in the **Search here** box to search for the Runbook.

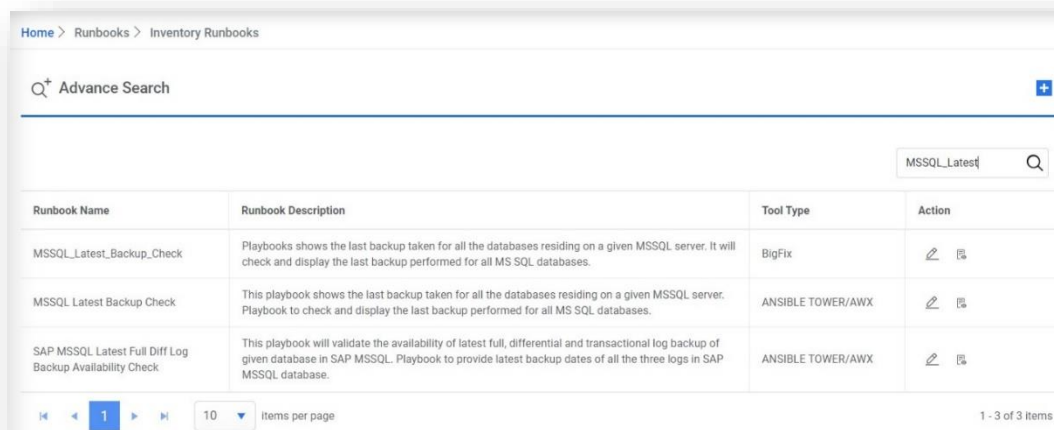


Figure 91 – Inventory Runbooks (Cont.)

3.2.2.9 Ticket Flow

This module helps in testing, ensuring that the relevant Runbook are being recommended using the current model and correct information is being parsed and extracted from the tickets as input parameters for the Runbook.

To test the ticket flow, perform the following steps:

1. On the main menu bar, click **Runbooks** and then **Ticket Flow**. The **Ticket Flow** screen appears.

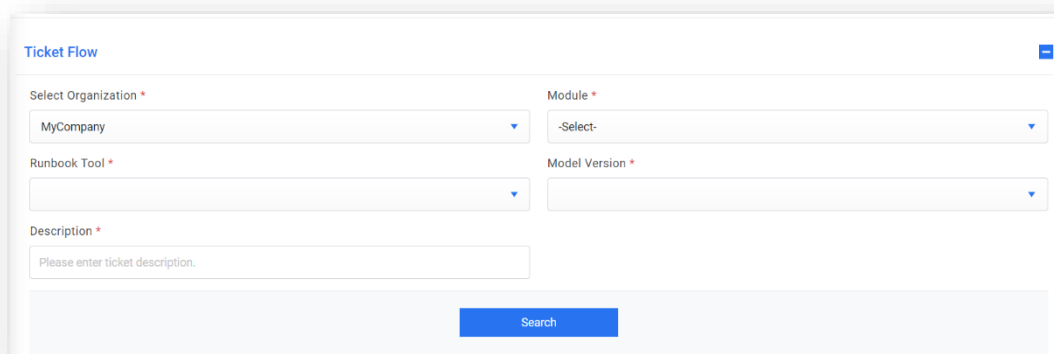


Figure 92 – Ticket Flow

2. Select Organization, Module, Runbook Tool, and Model Version.

3. Enter the description of the event / ticket for which you would like to test the runbook recommendations and the extracted input parameter values. Click **Search** to view the results.

The screenshot shows the 'Ticket Flow' interface. At the top, there are four dropdown menus: 'Select Organization *' (MyCompany), 'Module *' (Incident Management), 'Runbook Tool *' (My_Tool), and 'Model Version *' (V1). Below these is a text input field for 'Description *' containing 'My description'. A blue 'Search' button is centered below the input field. The results section is divided into two parts. On the left, under 'Runbook(s)', there is a search bar and a single result: 'My_runbook [Confidence Score: 100%]'. On the right, under 'Runbook Parameters', there is a table with two columns: 'Parameter Name' and 'Value'.

Parameter Name	Value
service_name	service_name
job_id	4702
TicketNumber	INC1
target_host	localhost

Figure 93 - Ticket Flow (cont.)

3.2.3 Getting Started with iAutomate

User can define multiple organizations to leverage iAutomate features and functionalities for various kinds of automation opportunities.

To manage an organization, on the side menu bar lists following options:

- [RBAC](#)
- [Logs](#)
- [Configuration](#)
- [Runbooks](#)
- [Dashboard](#)
- [Advance Configuration](#)
- [Analysis](#)
- [Knowledge](#)
- [Netbot Troubleshooting](#)

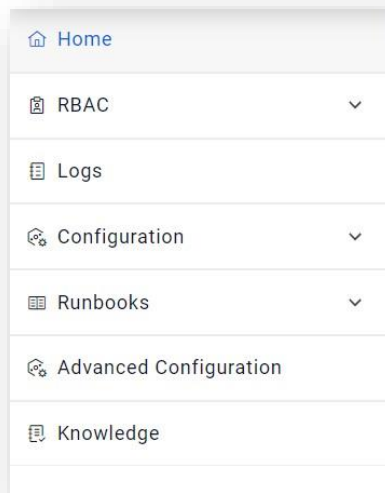


Figure 94 - Actions Menu (Super Admin view)

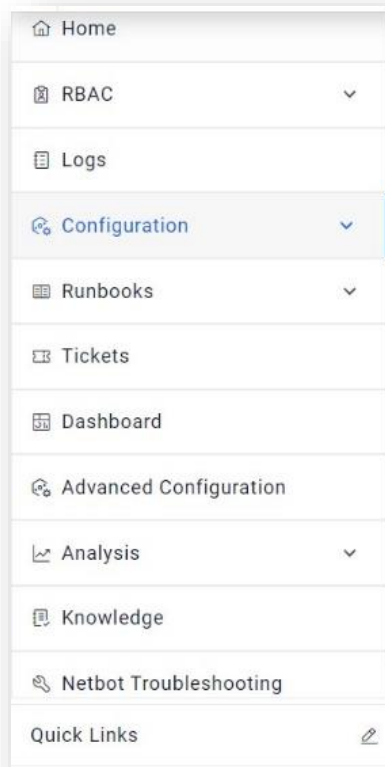


Figure 95 - Actions Menu (Organization Admin view).

Ensure you are logged on to iAutomate as super administrator or organization admin to create and manage the organization parameters. Menus accessible to **Super Administrator** and **Organization Admin** will be different.

3.2.3.1 RBAC

RBAC enables access management to access the iAutomate environment. Using RBAC, user can segregate roles and responsibilities within the system and grant access to the users, organizations, and applications they need to perform their jobs.

To manage role-based access, perform the following steps:

1. On the main menu bar, click **RBAC**.
2. The drop-down appears with the menu below.
 - User Management
 - [Role Management](#)
 - [Group Management](#)

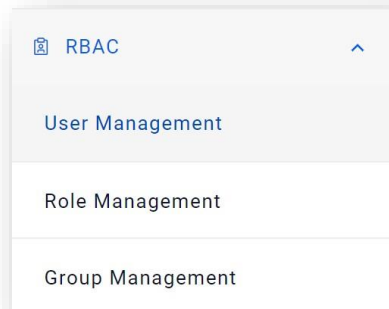


Figure 96- RBAC (Role Based Access Control for Super Admin)

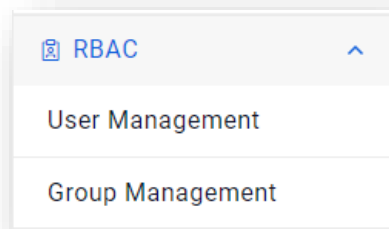


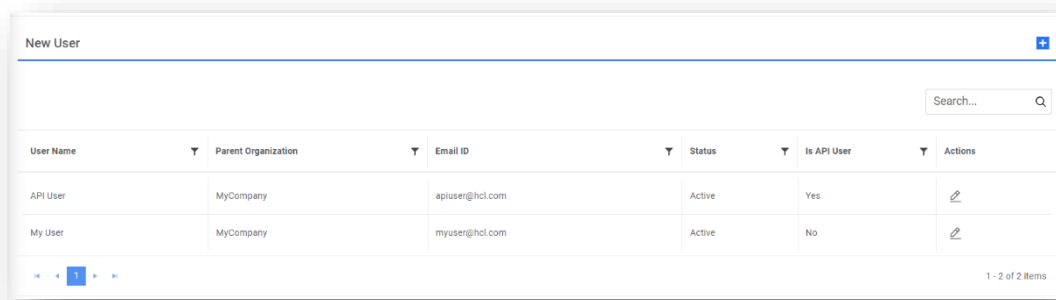
Figure 97- RBAC (Role Based Access Control for Organization Admin)

3.2.3.1.1 User Management

A Super Administrator or Organization Admin can add other users in an organization.

For user management, perform the following steps:

1. On the main menu bar, click **on RBAC menu**.
2. Click User Management. The User Management page appears.



User Name	Parent Organization	Email ID	Status	Is API User	Actions
API User	MyCompany	apiuser@hcl.com	Active	Yes	
My User	MyCompany	myuser@hcl.com	Active	No	

1 - 2 of 2 items

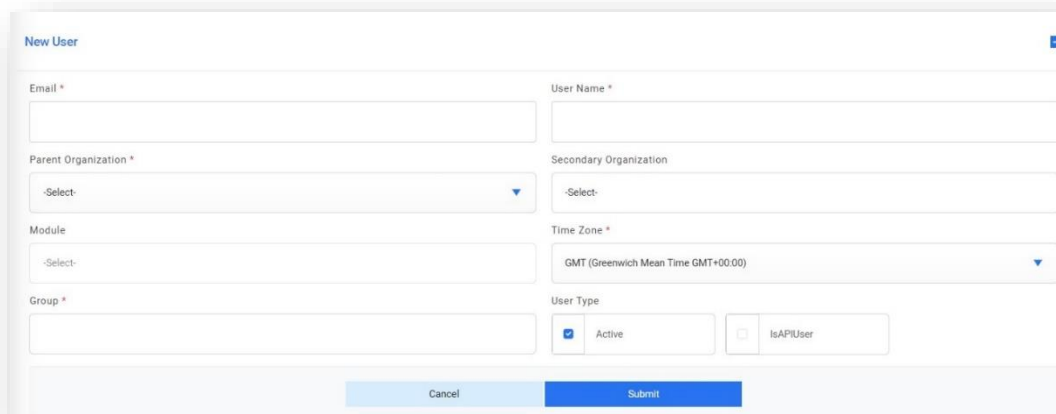
Figure 98- User Management

- It lists the available users in a tabular view and allows user to create a new user, edit the existing user, and unblock any locked user.

3.2.3.1.1.1 Add New User

A Super Administrator or Organization Admin can add a new user in an organization by performing the following steps:

- On the User Management screen, click plus sign. The Add User page appears.



New User

Email *

User Name *

Parent Organization *

Secondary Organization

Module

Time Zone *

Group *

User Type: ☒ Active ☐ IsAPIUser

Figure 99- Add New User

- You must provide the details for the following fields on the **Add New User** page.
 - Specify the email address to send or receive notifications in the **Email** field.
 - Specify the username.
 - Select the organization to which the user belongs in the **Parent Organization**.

Further fields get auto populated based on the authentication type of selected organization.

In the case of selecting the organization with **Form Based Authentication**, the user password will be auto generated in the **Password** field.

This password field remains invisible in the case of organization with **SAML** and **LDAP** based authentication.

New User

Email * myuser@hcl.com

User Name * My User

Parent Organization * MyCompany

Secondary Organization -Select-

Module (MyCompany)My_Datasource (Incident Management) X

Password * Generate Password

Time Zone * GMT (Greenwich Mean Time GMT+00:00)

Group * Organization Admin X

User Type

☒ Active ☐ IsAPIUser

Cancel Submit

Figure 100 - Select Organization

3. Select other organizations to which user needs to be mapped in **Secondary Organization**.
4. Select **Time Zone** to which the user belongs.
5. Select **Active** check box to activate the user immediately after creation.
6. Select **IsAPIUser** check box to enable the user to access certain services of iAutomate only through APIs and not the Web User Interface.

Parent Organization * Dryice85

Secondary Organization -Select-

Module -Select-

Password * Zz9%yMi\$ Generate Password

Time Zone * GMT (Greenwich Mean Time GMT+00:00)

Group *

User Type

☒ Active ☐ IsAPIUser

Cancel Submit

Figure 101- Add New User (Cont.)

7. Click **Submit**.

New User

Email *

User Name *

Parent Organization * -Select-

Secondary Organization -Select-

Module -Select-

Time Zone * GMT (Greenwich Mean Time GMT+00:00)

Group *

User Type

☒ Active ☐ IsAPIUser

Cancel Submit

Figure 102- Add New User (Cont.)

8. A confirmation dialog box appears.

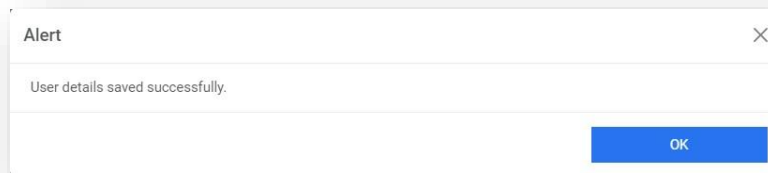


Figure 103- Add New User (Cont.)

The new user is added and appears in a list of users.

3.2.3.1.1.2 Edit User

User can view an existing user, review the available information, and edit the user details.

To edit the existing user, perform the following steps:

1. On the **User Management** page, click  next to the user, the user wants to edit.

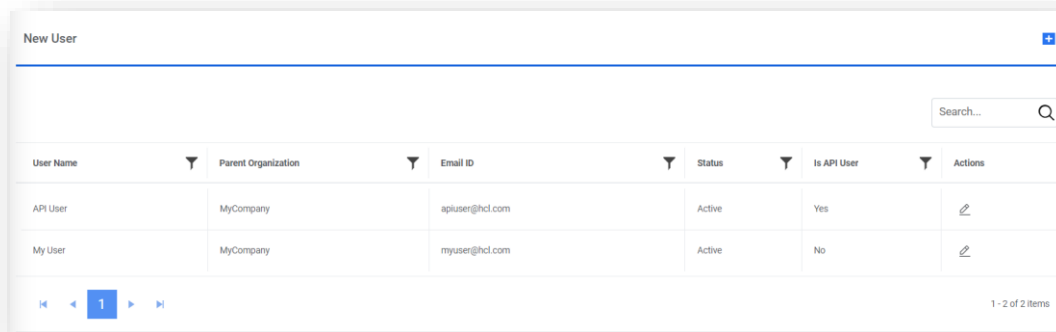


Figure 104- Edit User

2. Edit the details as required and click **Update** to save changes.

A screenshot of the 'Edit User' form. It contains several input fields: Email (myuser@hcl.com), User Name (My User), Parent Organization (MyCompany), Secondary Organization (-Select-), Module ((MyCompany) My_Datasource (Incident Management)), Password (empty), Time Zone (GMT (Greenwich Mean Time GMT+00:00)), Group (Organization Admin), and User Type (Active checked, IsAPIUser unchecked). There are 'Cancel' and 'Update' buttons at the bottom.

Figure 105- Edit User (Cont.)

A confirmation dialog box appears.

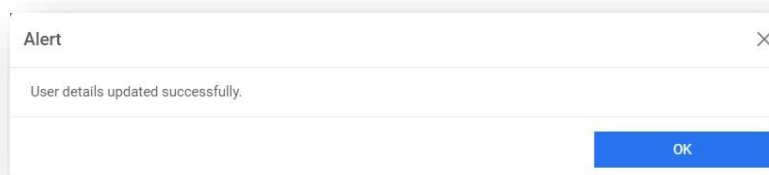


Figure 106- Edit User (Cont.)

3.2.3.1.2 Role Management

In iAutomate, the following table lists the built-in roles supported by a user account.

Table 4 - Role Types

Role	Description
Super Administrator	- All privileges for the administrative features in iAutomate - Add, remove, and set access rights and privileges of other administrator roles - Full operational and management control over all accounts
Organization Admin	- All privileges for the administrative features in iAutomate at an organizational level - Add, remove, and set access rights and privileges of other users, roles, and domains in their organization
Operations Users	- Access and view all resources in an iAutomate account but cannot make any changes. - Operational control over tickets, ticket logs, and the dashboard.
Operations Admin	- Access tickets and runbooks for analysis, can view all analysis
SME Users	- Access ticket and runbook for analysis
Knowledge Users	- Operational and management control over Knowledge Analysis and Search Module
SAAS_Analysis User Role	-Access the SAAS portal of iAutomate
SAAS_SME User Role	- Access the SAAS portal of iAutomate along with Feedback menu
Netbot Admin	- Access to the inventory of netbot to create, approve and execute
Netbot Approver	- Access to the inventory of netbot to approve the change
Netbot User	- Access to the inventory of netbot to create and upload the devices of netbot inventory

A Super Administrator can manage roles in the iAutomate environment by performing the following steps.

1. On the main menu bar, click **RBAC**.
2. Click Role Management. The **Role Management** page appears.

Name	System Role	Actions
Organization Admin	Y	
Operations Users	Y	
SME Users	Y	
Knowledge Users	Y	
Operations Admin	Y	
SAAS_Analysis User Role	Y	
SAAS_SME User Role	Y	
Netbot Admin	Y	
Netbot Approver	Y	
Netbot User	Y	

Figure 107 - Role Management

- It lists the available users in a tabular view and enables user to create a new role and edit or delete the existing role.
- The **Status** column displays the active or inactive status of the roles as **Y** or **N**. The **System Role** column denotes the default role that cannot be deleted from the environment as **Y** and editable roles that can be deleted as **N**.

3.2.3.1.2.1 Add New Role

As a super admin, user can add a new role into the iAutomate environment by using the following steps.

- On the Role Management page, click New Role.

Manage Role

Role Name *

Figure 108 - Add New Role

- Enter the **Role Name** and assign menus that need to be visible to that role and then click **Save**. The newly added role will be visible in the grid.

Name	System Role	Actions
Organization Admin	Y	
Operations Users	Y	
SME Users	Y	
Knowledge Users	Y	
Operations Admin	Y	
SAAS_Analysis User Role	Y	
SAAS_SME User Role	Y	
MyRole	N	

1 - 8 of 8 items

Figure 109 - Add New Role (cont.)

This adds the new role and lists it the bottom of the **Role Name** column.

3.2.3.1.2.2 Edit Role

User can open and review the available information in existing roles and change the details by using the following steps.

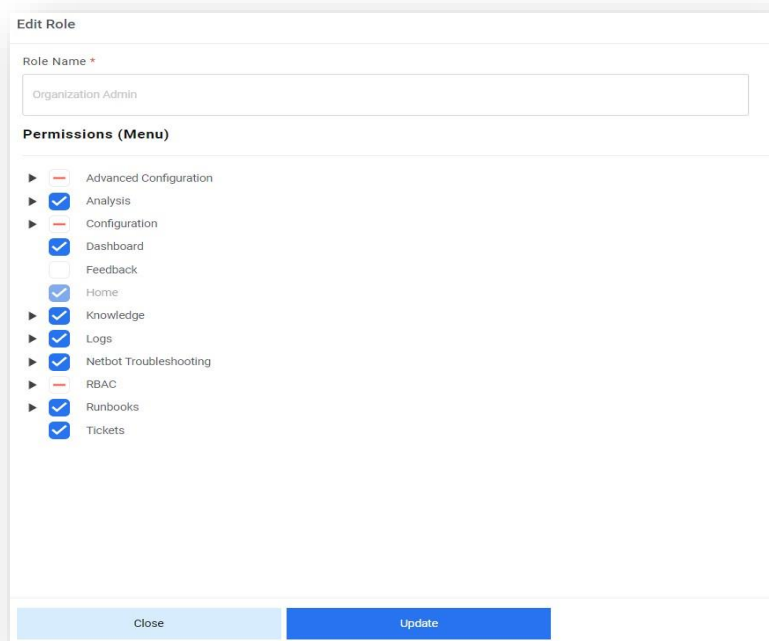
1. On the **Role Management** screen, click next to the role user wants to edit.

Name	System Role	Actions
Organization Admin	Y	
Operations Users	Y	
SME Users	Y	
Knowledge Users	Y	
Operations Admin	Y	
SAAS_Analysis User Role	Y	
SAAS_SME User Role	Y	
MyRole	N	

1 - 8 of 8 items

Figure 110 - Edit Role

2. Edit the **Role Name** as required and click **Update**.



Edit Role

Role Name *

Organization Admin

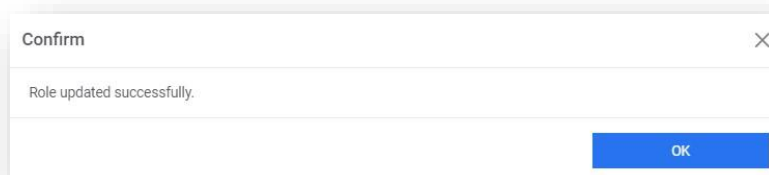
Permissions (Menu)

- ▶ ☐ Advanced Configuration
- ▶ ☒ Analysis
- ▶ ☐ Configuration
- ▶ ☒ Dashboard
- ▶ ☐ Feedback
- ▶ ☒ Home
- ▶ ☒ Knowledge
- ▶ ☒ Logs
- ▶ ☒ Netbot Troubleshooting
- ▶ ☐ RBAC
- ▶ ☒ Runbooks
- ▶ ☒ Tickets

Close Update

Figure 111 - Edit Role (cont.)

3. A dialog box appears with the confirmation of the updates.



Confirm ✕

Role updated successfully.

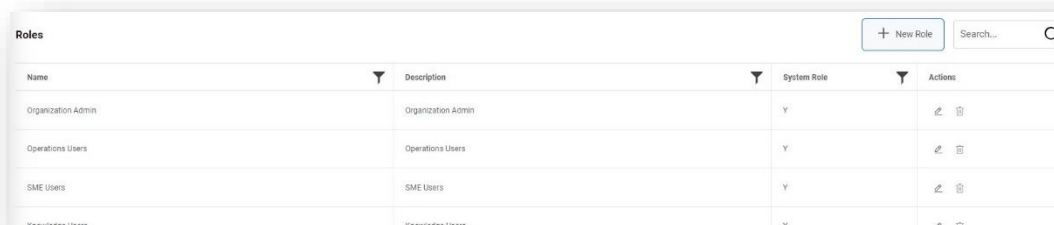
OK

Figure 112 - Edit Role (cont.)

3.2.3.1.2.3 Delete Role

If user no longer requires a role, it can be deleted from iAutomate environment. To delete a role, perform the following steps:

1. On the **Role Management** screen, click  next to the role user wants to delete.



Name	Description	System Role	Actions
Organization Admin	Organization Admin	Y	 
Operations Users	Operations Users	Y	 
SME Users	SME Users	Y	 
Knowledge Users	Knowledge Users	Y	 

Figure 113 - Delete Role

2. Click **OK** to confirm deletion.

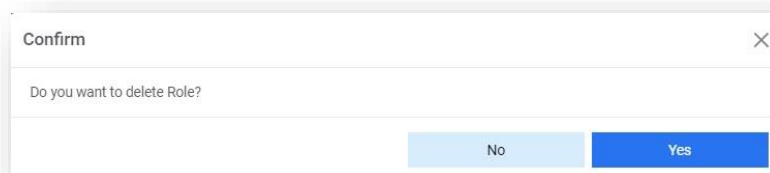


Figure 114 - Delete Role (Cont.)

3. A confirmation dialog box appears.

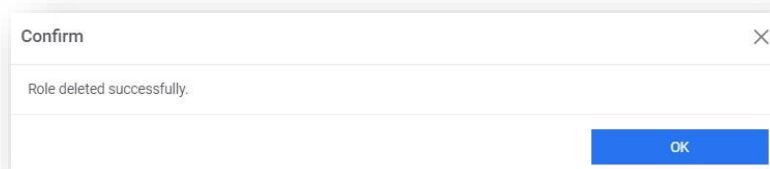


Figure 115 - Delete Role (Cont.)

3.2.3.1.3 Group Management

RBAC defines a management role group that simplifies the assignment of roles to a group of users. All members of a role group are assigned the same set of roles.

For group management, perform the following steps:

1. On the main menu bar, click **RBAC**.
2. Click Group Management. The Group Management page appears.

Name	Description	System Group	Actions
Knowledge Users	Knowledge Users	Y	
Netbot Admin	Netbot Admin	Y	
Netbot Approver	Netbot Approver	Y	
Netbot User	Netbot User	Y	
Operations Admin	Operations Admin	Y	
Operations Users	Operations Users	Y	
Organization Admin	Organization Admin	Y	
SAAS_Analysis Group	Analysis Group	Y	
SAAS_SME	SAAS_SME	Y	
SME Users	SME Users	Y	

Figure 116 - Group Management

It lists the available groups in a tabular view. User can create a new group and edit or delete the existing group.

- The Is System Group column represents the default group that cannot be deleted from the environment as Y and custom groups that can be deleted from the environment as N.
- The Actions column represents the action that can be performed for the custom groups. Only edit action can be performed for the default groups.

3.2.3.1.3.1 Add New Group

A Super Administrator or Organization Administrator can add a new group into iAutomate environment by using the following steps:

1. On the **Group Management** screen, click **Add New**.

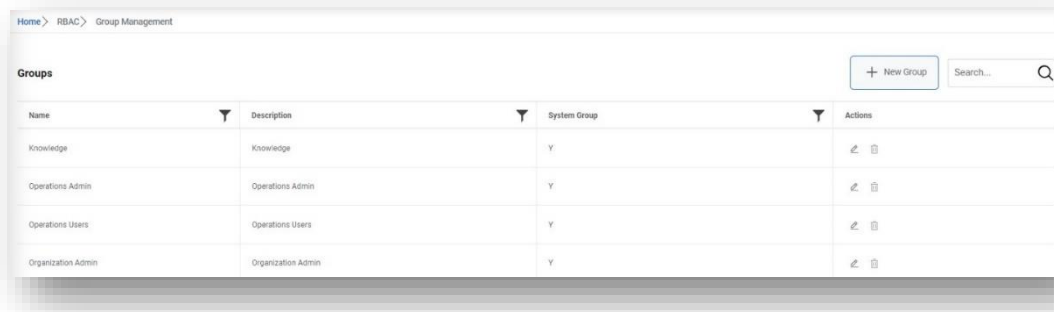


Figure 117 - Add New Group

2. Enter the **Group Name**, **map roles** to the group and click **Submit**. The newly created group will appear in the grid.

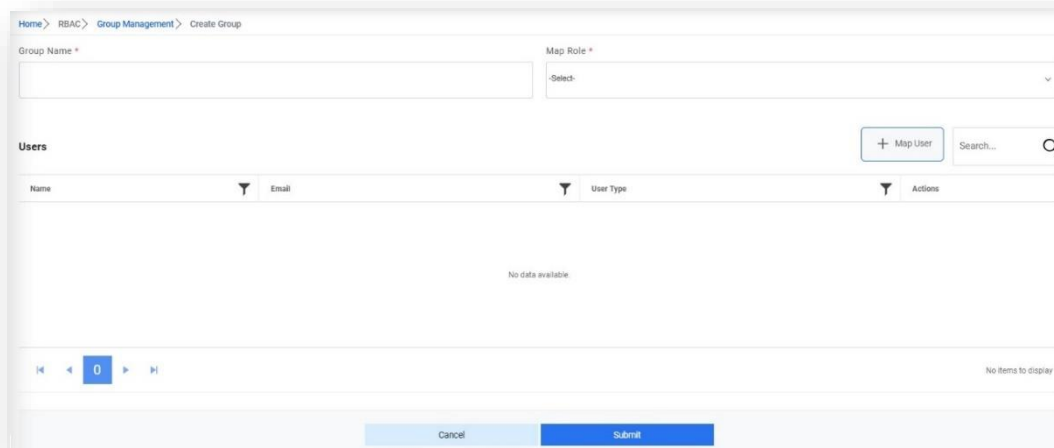


Figure 118 - Add New Group (cont.)

After the group is created, users can map roles and users to the group.

3.2.3.1.3.2 Map Role to Group

A Super Administrator or Organization Administrator can map a role to a new group by using the following steps:

1. On the **Group Management** screen, click on icon next to the group user wants to map to a role. Then select additional roles that need to be mapped to the group from the **Map Role** dropdown.

Figure 119 - Add New Group (Cont.)

2. Click **Save**. A confirmation dialog box appears.

Figure 120 - Map roles to Group (Cont.)

3.2.3.1.3.3 Map User to Group

A Super Administrator can map users to a new group by performing the following steps.

1. On the **Group Management** screen, click  next to the group to which user wants to map to a user. Then click on Map Users button. It lists all the users available to be mapped to the group.

	Name	Email	User Type
☐	My User	myuser@hcl.com	FORM

Figure 121 - Map a User

2. Check the user that needs to be mapped and click on **Map Users** button. It lists the user in the grid then click on Update.

Group Name *

Map Role * Organization Admin ×

Users + Map User

Name	Email	User Type	Actions
My User	myuser@hcl.com	FORM	✕

1 - 1 of 1 items

Cancel Update

Figure 122 - Map a User (Cont.)

3. A confirmation dialog box appears.

Alert ×

Group updated successfully.

Next Recommended Page

Figure 123 - Map a User (Cont.)

3.2.3.1.3.4 Edit Group

Users can open an existing group, review the available information, and change the group details by using the following steps.

1. On the **Group Management** screen, click  next to the group user wants to edit.

Home > RBAC > Group Management

Groups + New Group

Name	Description	System Group	Actions
Knowledge	Knowledge	Y	✎ ✕

Figure 124 - Edit Group

2. User changes Map Role and map Users to the group. After editing, click **Update**.

Group Name *
MyGroup

Map Role *
Organization Admin

Users

Name	Email	User Type	Actions
My User	myuser@hcl.com	FORM	

1 - 1 of 1 items

Cancel Update

Figure 125 - Edit Group (Cont.)

A dialog box appears with the confirmation message.

Alert

Group updated successfully.

Next Recommended Page

Figure 126 - Edit Group (Cont.)

3.2.3.1.3.5 Delete Group

If user no longer needs a group, it can be deleted from iAutomate environment by performing the following steps.

1. On the **Group Management** screen, click next to the group user wants to delete.

Confirm

Do you want to delete Group?

No Yes

Figure 127 - Delete Group

User cannot delete a group which is a System Group.

2. Click Yes to confirm.

Confirm

Do you want to delete Group?

No Yes

Figure 128 - Delete Group (Cont.)

3. A confirmation dialog box appears.

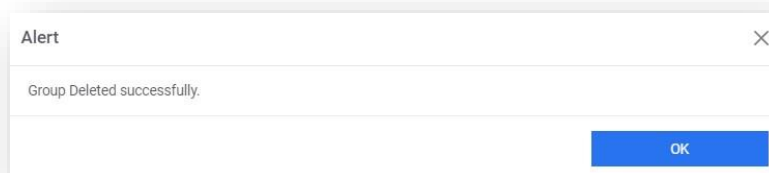


Figure 129- Delete Group (Cont.)

3.2.3.2 Configuration

User can configure the iAutomate to perform automation on the tickets received from ITSM. To do so, user can create an organization, configure the data source to fetch tickets, build the corresponding recommend models, enable, and disable the jobs for each processing and define various SMTP and proxy configurations.

3.2.3.2.1 Manage Organizations

As a Super Administrator, user can use the **Manage Organizations** page to set up an organization and begin the iAutomate configuration.

To create an organization, perform the following steps:

1. On the main menu bar, click **Configuration** and then **Manage Organizations**. Then click on **plus sign**.

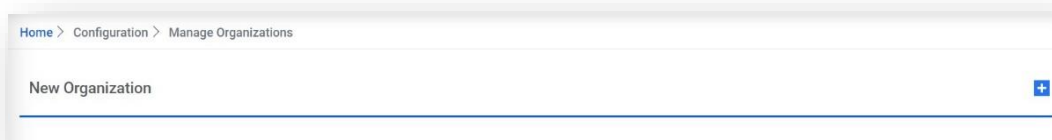


Figure 130 - Manage Organization

2. The **New Organization** page appears.

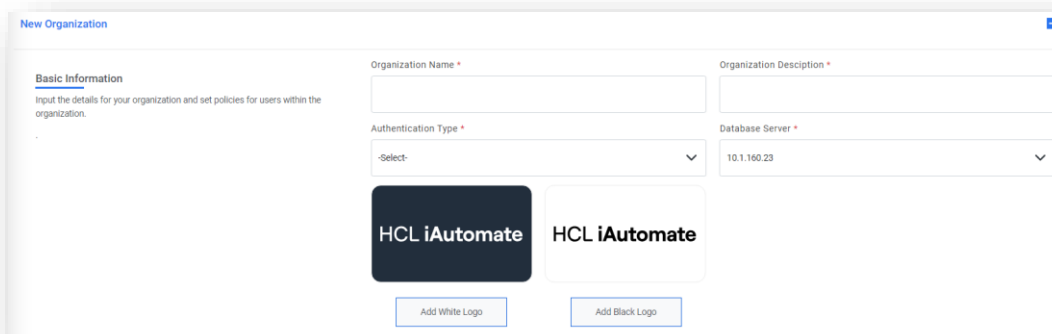


Figure 131 - New Organization

3. Type the name of the customer to be created in the **Organization** field.
4. Type the customer description in the **Organization Description** field.

The supported file type for uploading an image as a logo is .jpg, .jpeg, and .png and the recommended file size is not over 10 KB.

5. Select the **ITSM Tool Type** from the **Module Name** field.

ITSM Tools and Modules Information *
Select IT Service Management (ITSM) tools and all modules which you want to be handled via product.

Incident Management: -Select-

Service Request Task: -Select-

Change Request Task: -Select-

CMDB CI: -Select-

SR Request Item: -Select-

Service Request: -Select-

Change Request: -Select-

Event Management: -Select-

Sub-Task Management: -Select-

Figure 132 - Select ITSM Tool Type

6. Select the required **Runbook Tool** from the list of tools.

Runbook Tools *
Choose the Runbook Automation tools that execute runbooks via product.

☐ ITPAM
☐ SCORCH
☐ Micro Focus OO
☐ ANSIBLE TOWER/AWX
☐ BigFix
☐ ANSIBLE Inside
☐ BigFix_SA
☐ vRO
☐ BMCAO
☐ ANSIBLE CLI
☐ SNOW
☐ StackStorm
☐ Jenkins
☐ ADO

Figure 133 - Select Runbook Tool

You can select single or multiple automation tools against the selected module.

7. To manage database files, select the **Database Server** from the lists available in the **Database Server** field.
8. Select the **Authentication Type** from the following options:
 - **FORM:** Users are authenticated without Active Directory (AD) support.
 - **LDAP:** Users are authenticated using their AD credentials.
 - **SAML:** Users are authenticated using the SSO (Single Sign On) credentials that allows security credentials to be shared by multiple computers across a network.

Authentication Type *

-Select-

LDAP

FORM

SAML

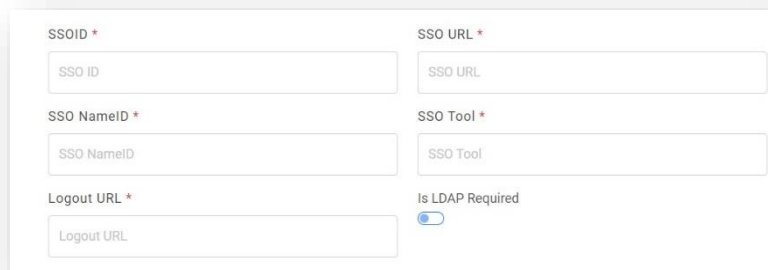
Figure 134 - Authentication Type Selection

The selected authentication type will reflect while managing the user as explained in [Add New User](#).

9. Enter a numeric value in the **Password Expiration Days** field. This numeric value defines the password expiration days for the user of the corresponding user.

Password Expiration days will be visible only in case of FORM authentication type.

10. Selection of SAML authentication prompts the additional fields to be filled.
 - a. Type the ID in the **SSO ID** field.
 - b. Type the URL in the **SSO URL** to access the iAutomate website.
 - c. Type the name ID in the **SSO Name ID** field.
 - d. Enter the tool in the **SSO Tool** field.
 - e. Enter the **Logout URL**.



The screenshot shows a configuration form for SAML authentication. It contains the following fields and controls:

- SSOID ***: A text input field with a placeholder "SSO ID".
- SSO URL ***: A text input field with a placeholder "SSO URL".
- SSO NameID ***: A text input field with a placeholder "SSO NameID".
- SSO Tool ***: A text input field with a placeholder "SSO Tool".
- Logout URL ***: A text input field with a placeholder "Logout URL".
- Is LDAP Required**: A toggle switch currently set to "On" (blue).

Figure 135 - Select Authentication Type (SAML)

11. Enable **Is LDAP Required** field if the user needs to fetch the data from LDAP. Selection of LDAP authentication prompts the additional fields to be filled.
 - a. Enable **Is SSL Required** field if configuration Run over **LDAPS**
 - b. Type the **LDAP URL**.
 - c. Type the **LDAP UserID**.
 - d. Enter the **LDAP Password**.
 - e. For LDAP password, click on Add Password button next to it. If the password is available in plaintext, then select Input type as Input Text and enter the password in Value field. Else if it is available in Azure Key Vault then select Input Type as Azure Key Vault and then select any of the configured details from the value field. Else if it is available in any Key Vault such as CyberArk or Secret Manager then select Input Type as CyberArk or Secret manager respectively and then select any of the configured details from the value field.

Secret Selector

×

Input Type

Input text

▼

Value

.....

☐
Show Password

Cancel

Save

Figure 136 - Password in Plaintext

Secret Selector

×

Input Type

CyberArk

▼

Value

test

▼

Key	Value
Description	test
AppID	test
Safe	test
Folder	test
Object	test

Cancel

Save

Figure 137 - Password from Key Vault (CyberArk)

Secret Selector [Close]

Input Type
Internal Secret Manager

Value
df

Key	Value
Key	ff vv

Password [Redacted]

Note: Password is in encrypted form.

Cancel Save

Figure 138 - Password from Secret Manager

Secret Selector [Close]

Input Type
Azure Key Vault

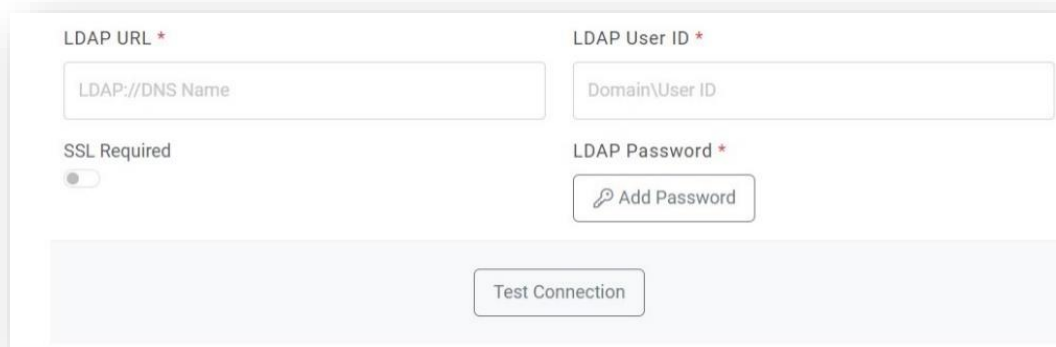
Value
MyTestKey

Key	Value
Description	MyTestKey
Secret Name	MyTestKey

Cancel Save

Figure 139 - Password from Azure Key Vault

- f. Click on **Test Connection** to check accessibility of **LDAP** from service. If an alert is generated saying 'Use only WhiteListed URL' then refer to 'HCL iAutomate KRS Guide' to whitelist any URL.



LDAP URL *

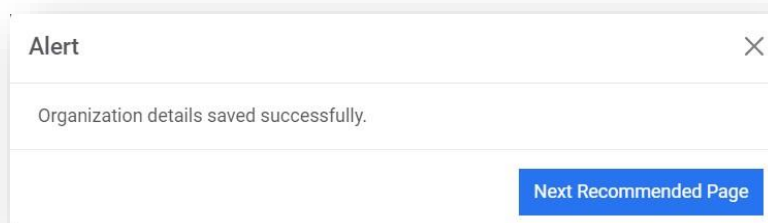
LDAP User ID *

SSL Required ☐

LDAP Password *

Figure 140 - Select Authentication Type (LDAP)

12. Click **Save**.
13. A confirmation dialog box appears. Click **OK**.

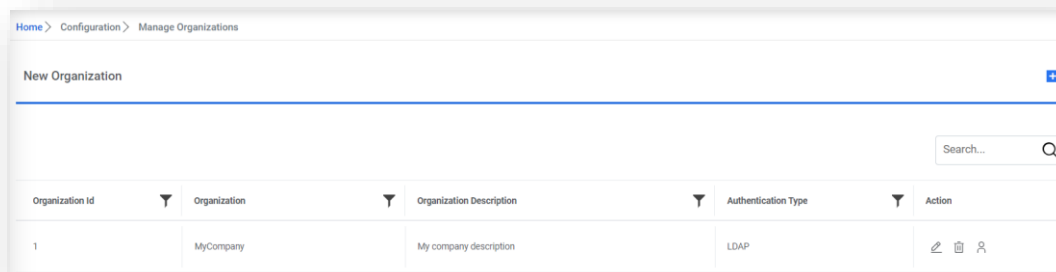


Alert [X]

Organization details saved successfully.

Figure 141 - Organization Creation Confirmation

14. The new organization is added and listed in a tabular view.



Home > Configuration > Manage Organizations

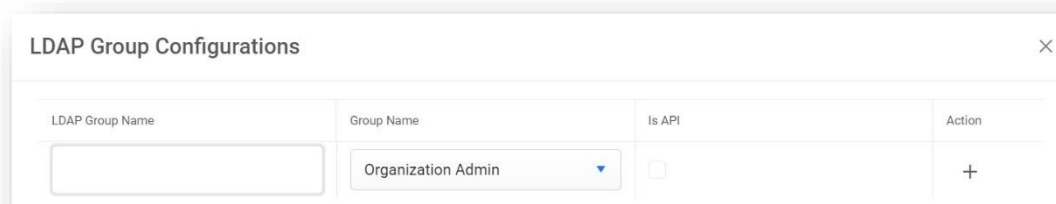
New Organization [Add]

Search...

Organization Id	Organization	Organization Description	Authentication Type	Action
1	MyCompany	My company description	LDAP	[Edit] [Delete] [User]

Figure 142 - Organization Creation Confirmation

15. In case of LDAP, click  to enter the **LDAP Group Information**.



LDAP Group Configurations [X]

LDAP Group Name	Group Name	Is API	Action
	Organization Admin	☐	Add

Figure 143 – Enter LDAP Information

- Enter **LDAP Group Name** and select the **Group Name** from the dropdown.
- Check **Is API** if this group user needs to be treated as an API user.
- Click **+** to add group.

LDAP Group Name	Group Name	Is API	Action
My Group	Organization Admin	☐	
	Organization Admin	☐	+

Figure 144 – Enter LDAP Group Name

User can add multiple groups, and a group can be deleted by clicking icon.

- After having added the group details, click **Submit**.

All fields marked with an asterisk (*) are mandatory.

3.2.3.2.1.1 View Organization

User can view the organizations available in the iAutomate environment by performing the following steps.

- On the main menu bar, click **Manage Organizations**.
- The **Manage Organizations** page appears.

Organization Id	Organization	Organization Description	Authentication Type	Action
1	MyCompany	My company description	FORM	

Figure 145 - View Organization

- This screen lists all the available organizations in a tabular view with the organization name and organization description. It also allows user to create an organization by clicking **Add New**, which redirects you to [Manage Organizations](#) screen to create an organization and edit or delete existing organizations.

3.2.3.2.1.2 Edit Organization

User can open an existing organization, review the available information, and edit the organization's details.

To edit the existing organization, perform the following steps:

- On the **Manage Organizations** page, click corresponding to the organization that you want to edit.

New Organization				
				Search... 
Organization Id	Organization	Organization Description	Authentication Type	Action
1	MyCompany	My company description	FORM	 

Figure 146- Edit Organization

2. This redirects you to the **Edit Organization** page with all the details auto filled.
3. Edit the required details and click **Update**.

Edit Organization

Basic Information

Input the details for your organization and set policies for users within the organization.

Organization Name *

Organization Description *

Authentication Type *

FORM

Database Server *

localhost

Password Expiration Days *




Add White Logo
Add Black Logo

ITSM Tools and Modules Information *

Select IT Service Management (ITSM) tools and all modules which you want to be handled via product.

Incident Management

ServiceNow

Change Request Task

ServiceNow

SR Request Item

-Select-

Change Request

-Select-

Sub-Task Management

-Select-

Service Request Task

ServiceNow

CMDB CI

ServiceNow

Service Request

-Select-

Event Management

-Select-

Figure 147 - Edit Organization

Runbook Tools *

Choose the Runbook Automation tools that execute runbooks via product.

☒ ITPAM
☐ SCORCH
☐ Micro Focus OO
☒ ANSIBLE TOWER/AWX
☒ BigFix
☐ ANSIBLE Inside
☐ BigFix_SA

☐ vRO
☐ BMCAO
☐ ANSIBLE CLI
☐ SNOW
☐ StackStorm
☐ Jenkins
☐ ADO

Figure 148 - Edit Organization (Cont.)

4. To view the updated organization, click **List**. This will redirect you to [Manage Organizations](#).

3.2.3.2.1.3 Delete Organization

If a user no longer requires a certain organization, it can be deleted from the environment.

To delete an organization, perform the following steps:

1. On the **Organization List** page, click  next to the organization user wants to delete.

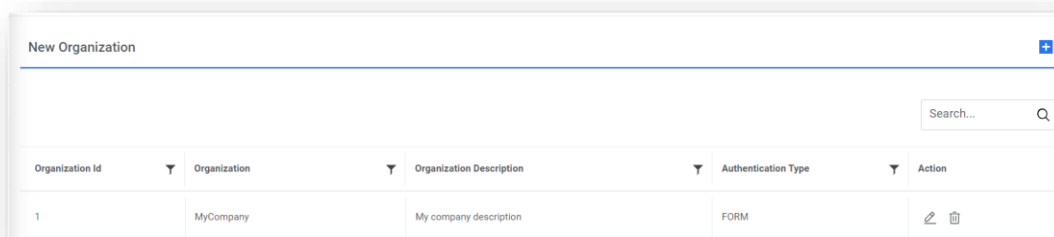


Figure 149 - Delete Organization

- Click **OK** to confirm.

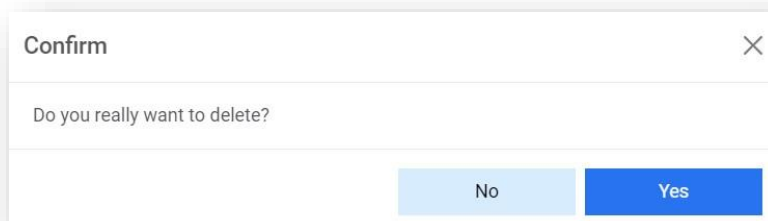


Figure 150 - Confirm Deletion

3.2.3.2.2 Manage Data Sources

This section describes how to specify the data source and how the data is processed for automation and analysis in an organization.

To create a data source, perform the following steps:

- Log in with Organization Admin user.
- On the main menu bar, click **Configuration** → **Manage Data Sources**.
- On the **Manage Data Sources** screen, click .

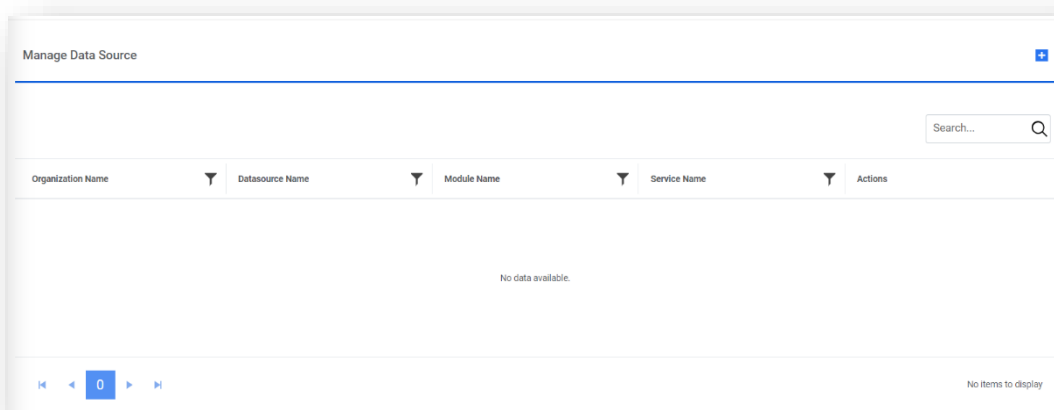


Figure 151 - Data Sources

- The **Manage Data Source** page appears with the following tabs:
 - Organization
 - Data Source

- Fetch Data Configuration
- Release Rules Configuration

The screenshot shows a web form titled "Organization Details". It contains several input fields: "Organization" with a dropdown menu showing "MyCompany"; "Module" with a dropdown menu showing "-Select-"; "Service" with a dropdown menu; "Integration Type" with a dropdown menu; "Data Source Name" with a text input field containing "Enter Datasource Name"; "Time Zone" with a dropdown menu; and a "Unix Time Stamp" checkbox which is checked and labeled "Disabled". At the bottom of the form are two buttons: "Cancel" and "Next".

Figure 152 – Organization Details

Release Rules Configuration is only applicable for the following **Module** types- **Incident Management, Change Request Task and Service Request Task**. This tab will not be activated for other module types.

3.2.3.2.2.1 Organization

User can set up an organization, for which the data source will be created, by performing the following steps:

1. On the **Organization** tab, select the organization for which user wants to create the data source from the **Organization Name** field.

The organizations listed in the drop-down list are created through [Manage Organizations](#).

2. Select a module, where the organization brings the data from the data source in iAutomate, from the **Module** field.
3. Upon selection of the **Module**, the following two additional input parameters will be populated. Select the appropriate option.
 - a. **Closure**: Check this option if you want product to manage the ticket closure updates instead of the RBA tool. In this scenario, an additional tab “**Close Rules Configuration**” will be activated for providing further details, steps for which are mentioned later.
 - b. **InProgress**: Check this option if you want product to manage the tickets in progress status updates instead of the RBA tool. In this scenario, an additional tab “**InProgress Rules Configuration**” will be activated for providing further details, steps for which are mentioned later.

Figure 153 - Select Organization Details

4. Select a service, with which iAutomate is integrated and pulls data for automation, from the **Service** field.

Multiple source types are available.

5. Select the integration method to integrate between iAutomate and the selected service type from the **Integration Type** field.
6. Provide the data source name.
7. Select the time zone in which ITSM tool API return data.
8. Unix Time Stamp: By default, its disabled but if ITSM provides response in different time format such as UNIX then this needs to be unchecked.
9. Click **Next** to update the data source details.

Figure 154 - Select Organization Details (cont.)

All fields marked with an asterisk (*) are mandatory.

3.2.3.2.2.2 Fetch Data Configuration

User can configure a method for fetching data from the data source by using the following steps:

1. On the **Fetch Data Configuration** page, type the URL of the selected service type in the **URL** field to fetch data.

2. This URL contains the placeholders that display the parameters based on the applied clause such as the number of records to be fetched, query type, date on which the data is fetched, and the order by and so on. It is dependent on the URL or API provided by the tool.

The screenshot shows the 'Fetch Data Configuration' window with the 'Fetch Data' tab selected. Under 'Connection Details', there is a 'URL' field with a placeholder 'Enter URL', an 'Authentication Type' dropdown menu currently showing '-Select-', a 'Request Method' dropdown menu showing 'GET', and a 'Proxy Required' checkbox which is unchecked. A 'Test Connection' button is located in the top right corner.

Figure 155 - Fetch Data Configuration

The user can apply multiple clauses into the URL to display only the required parameter into the placeholder. Once you hit the URL, only the placeholders with a hashtag will be displayed with the associated parameters in the **URL Path Parameters** column. Whenever a user wants to change the data to be filtered, always change the logic in the URL to get the specific parameters.

3. Select the **Authentication Type**. iAutomate supports the following types of authentications:

- WindowsAuth
- OAuth2
- BasicAuth

This screenshot shows the 'Authentication Type' dropdown menu open. The options listed are '-Select-', 'BasicAuth', 'OAuth2', and 'WindowsAuth'. 'BasicAuth' is currently selected and highlighted in blue.

Figure 156 - Authentication Types

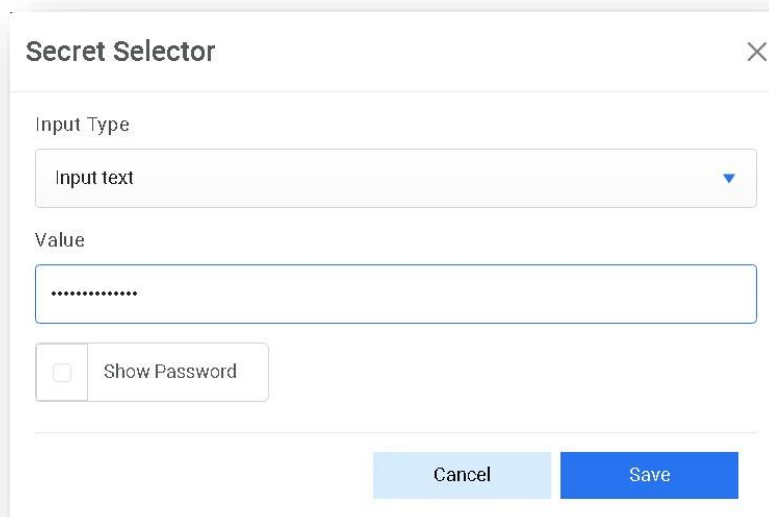
4. Selection of **Windows / Basic Authentication** requires only Username and Password.

The screenshot shows the 'Fetch Data Configuration' window with 'BasicAuth' selected in the 'Authentication Type' dropdown menu. The 'URL' field still has the placeholder 'Enter URL', and the 'Request Method' is 'GET'. The 'Proxy Required' checkbox remains unchecked.

Figure 157 - Authentication Type (Windows / Basic)

5. Selection of **OAuth2** authentication type, user needs to provide the below details:

- Type the Authentication URL.
 - Type the Username and Password.
6. For password, click on Add Password button next to it. If the password is available in plaintext, then select Input type as Input Text and enter the password in Value field. Else if it is available in Azure Key Vault then select Input Type as Azure Key Vault and then select any of the configured details from the value field. Else if it is available in any Key Vault such as CyberArk or Secret Manager then select Input Type as CyberArk or Secret Manager and then select any of the configured details from the value field.



Secret Selector [X]

Input Type

Input text

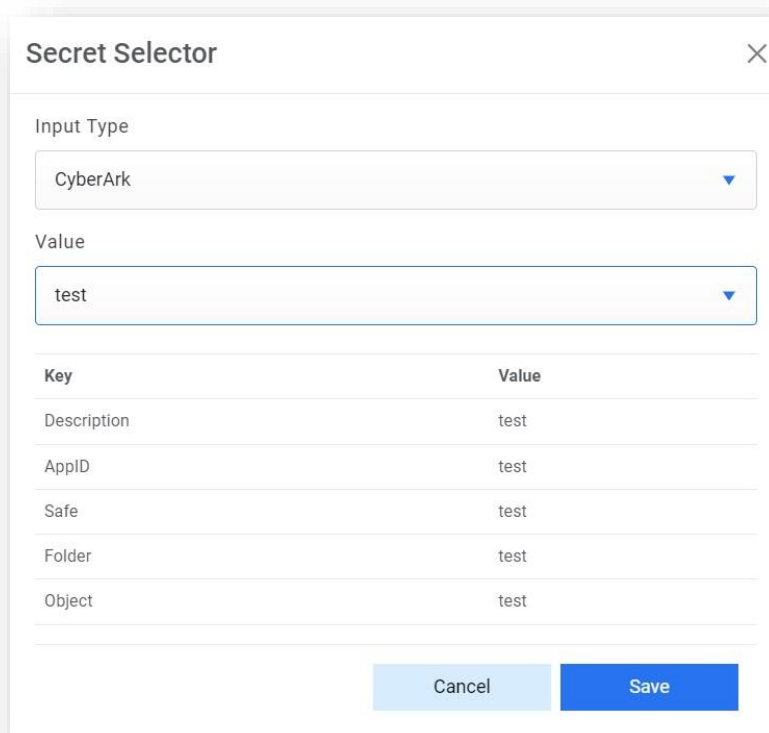
Value

.....

☐ Show Password

Cancel Save

Figure 158 - Password in Plaintext



Secret Selector [X]

Input Type

CyberArk

Value

test

Key	Value
Description	test
AppID	test
Safe	test
Folder	test
Object	test

Cancel Save

Figure 159 - Password from Key Vault (CyberArk)

Secret Selector

Input Type

Internal Secret Manager

Value

df

Key	Value
Key	ff vv
Password	

Note: Password is in encrypted form.

Cancel

Save

Figure 160 - Password from Secret Manager

Secret Selector

Input Type

Azure Key Vault

Value

MyTestKey

Key	Value
Description	MyTestKey
Secret Name	MyTestKey

Cancel

Save

Figure 161 - Password from Azure Key Vault

URL *

Enter URL

User ID *

Enter User Id.

Authentication URL *

Enter Authentication URL

Authentication Type *

OAuth2

Password *

Add Password

Request Method *

GET

Figure 162 - Authentication Type (OAuth2)

7. Select Request Method as **GET, PUT, POST** or **PATCH**.
8. Select **Proxy Required** if the environment needs access to content from data sources outside the firewall.
9. Click on **Test Connection** to check accessibility of URL from service. Testing the connection is not mandatory, you can still create Data source.
10. To test connection, the URL of ITSM should be whitelisted else it will throw alert stating 'Use only WhiteListed URL'. To whitelist the URL kindly, refer '**HCL iAutomate KRS Guide**'.
11. If the user has additional parameters, click Add Authentication Parameters under the Request Authentication Parameters tab.

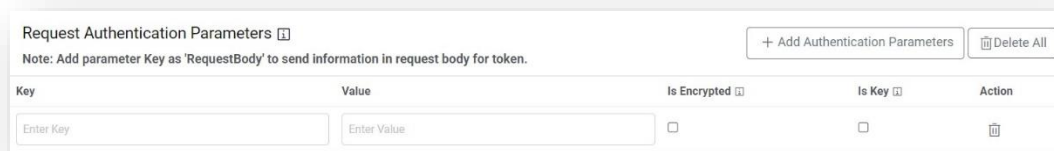


Figure 163 - Add Authentication Parameters

12. Type the 'Request Header Parameter'.

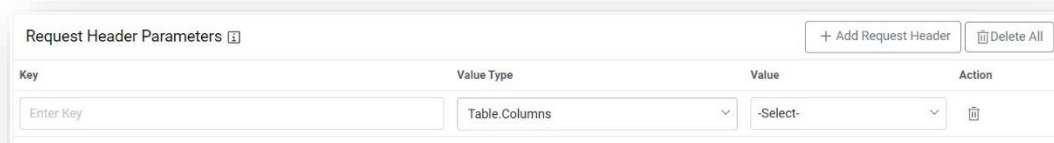


Figure 164 - Request Header Parameter

13. Type the **Request Body** in JSON format.
14. Type the **Response Body** in JSON format.
15. Click **Extract Keys**. It adds the parameter and lists in the Mandatory page.
16. Click **Add Response Parameter** if you want to add a new parameter in the **Mandatory** page.

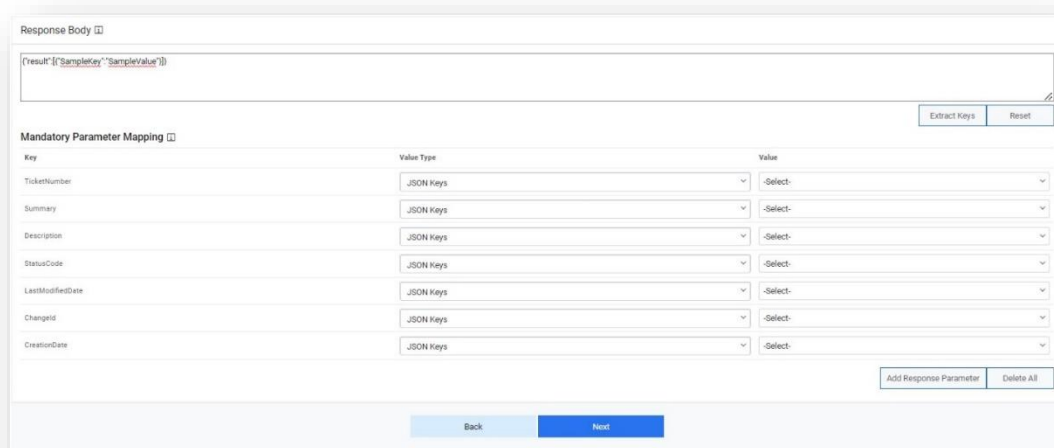


Figure 165 – Add response Parameter

3.2.3.2.3 Release Rules Configuration

User can configure a method for releasing the ticket from iAutomate queue by performing the following steps.

Release Rules Configuration is only applicable for Incident Management, Service Request Task and Change Request Task

1. On the **Release Rules Configuration** page, type the URL of the selected service type in the **URL** field to release data.
2. This URL contains the placeholders that display the parameters based on the applied clause. It is dependent on the URL or API provided by the tool.

The screenshot shows a 'Connection Details' form. It includes a 'Test Connection' button in the top right. The form has several input fields: 'URL *' with a placeholder 'Enter URL', 'User ID *' with a placeholder 'Enter User Id.', 'Request Method *' with a dropdown menu showing 'GET', 'Authentication Type *' with a dropdown menu showing 'BasicAuth', 'Password*' with an 'Add Password' button, and 'Proxy Required' with an 'Enable' checkbox.

Figure 166 – Release Rule Configuration

User can apply multiple clauses into the URL to display only the required parameter into the placeholder. Once you hit the URL, only the placeholders with a hashtag will be displayed with the associated parameters in the URL Path Parameters column. Whenever user wants to change the data to be filtered, always change the logic in the URL to get the specific parameters.

3. Select the **Authentication Type**. iAutomate supports the following types of authentications:
 - WindowsAuth
 - OAuth2
 - BasicAuth

This screenshot is similar to the previous one, but the 'Authentication Type *' dropdown menu is open. It shows a list of options: '-Select-', 'BasicAuth' (which is highlighted in blue), 'OAuth2', and 'WindowsAuth'.

Figure 167 - Authentication Types

- a. Selection of **Windows / Basic** authentication requires only **Username** and **Password**.

The 'Connection Details' dialog box is shown. It has a 'Test Connection' button in the top right. The 'URL *' field contains 'Enter URL'. The 'Authentication Type *' dropdown is set to 'BasicAuth'. The 'User ID *' field contains 'Enter User Id.'. The 'Password*' field has an 'Add Password' button. The 'Request Method *' dropdown is set to 'GET'. The 'Proxy Required' checkbox is unchecked, with an 'Enable' button next to it.

Figure 168- Authentication Type (Windows / Basic)

- b. Selection of **OAuth2** authentication type, user needs to provide the below details.
- Type the Authentication URL.
 - Type the Username and Password.
- c. For password, click on Add Password button next to it. If the password is available in plaintext, then select Input type as Input Text and enter the password in **Value** field. Else if it is available in Azure Key Vault then select Input Type as Azure Key Vault and then select any of the configured details from the value field. Else if it is available in any Key Vault such as CyberArk or Secret Manager then select Input Type as CyberArk or Secret Manager respectively and then select any of the configured details from the value field.

The 'Secret Selector' dialog box is shown. It has a close button (X) in the top right. The 'Input Type' dropdown is set to 'Input text'. The 'Value' field contains a masked password '.....'. Below the 'Value' field is a 'Show Password' checkbox, which is currently unchecked. At the bottom are 'Cancel' and 'Save' buttons.

Figure 169 - Password in Plaintext

Secret Selector

×

Input Type

CyberArk

Value

test

Key	Value
Description	test
AppID	test
Safe	test
Folder	test
Object	test

Cancel

Save

Figure 170 - Password from Key Vault (CyberArk)

Secret Selector

×

Input Type

Internal Secret Manager

Value

df

Key	Value
Key	ff vv
Password	

Note: Password is in encrypted form.

Cancel

Save

Figure 171 - Password from Secret Manager

Secret Selector

Input Type
Azure Key Vault

Value
MyTestKey

Key	Value
Description	MyTestKey
Secret Name	MyTestKey

Cancel Save

Figure 172 - Password from Azure Key Vault

URL *

User ID *

Authentication URL *

Authentication Type *

Password *

Request Method *

Figure 173 - Authentication Type (OAuth2)

4. Select **Request Method** as GET, PUT, POST or PATCH.
5. Select **Proxy Required** if the environment needs access to content from data sources outside the firewall.
6. Click on **Test Connection** to check accessibility of URL from service. Testing the connection is not mandatory, you can still create Data source.
7. To test connection, the URL of ITSM should be whitelisted else it will throw alert stating 'Use only WhiteListed URL'. To whitelist the URL kindly refer '**HCL iAutomate KRS Guide**'.
8. If the user has additional parameters, click Add Authentication Parameters under the Request Authentication Parameters tab.

Request Authentication Parameters

Note: Add parameter Key as 'RequestBody' to send information in request body for token.

Key	Value	Is Encrypted	Is Key	Action
Enter Key	Enter Value	☐	☐	Delete

Figure 174 - Authentication Type (Windows / Basic)

9. Type the Request Header Parameter.

Figure 175 - Request Header Parameter

10. Type the **Request Body** in JSON format.

Figure 176 - Request Body

The values for the parameters will be set in the **Mange Rules** section.

11. Type the **Response Body** in JSON format.

Figure 177 - Response Body

12. Click Submit to create the Data Source.

All fields marked with an asterisk (*) are mandatory.

3.2.3.2.2.4 Close Rules Configuration

User can configure the method for Closing the ticket from iAutomate queue by performing the following steps.

Close Rules Configuration is only applicable for Incident Management, Service Request Task and Change Request Task

1. On the **Close Rules Configuration** page, click on **Same as Release** if similar configurations as mentioned in “**Release Rules Configuration**” are required, else proceed ahead.
2. Type the URL of the selected service type in the **URL** field to release data.
3. This URL contains the placeholders that display the parameters based on the applied clause. It is dependent on the URL or API provided by the tool.

Figure 178 – Close Rules Configuration

User can apply multiple clauses into the URL to display only the required parameter into the placeholder. Once you hit the URL, only the placeholders with a hashtag will be displayed with the associated parameters in the URL Path Parameters column. Whenever user wants to change the data to be filtered, always change the logic in the URL to get the specific parameters.

4. Select the **Authentication Type**. iAutomate supports the following types of authentications:

- WindowsAuth
- OAuth2
- BasicAuth

Figure 179 - Authentication Types

a. Selection of **Windows / Basic** authentication requires only **Username** and **Password**.

Figure 180- Authentication Type (Windows / Basic)

- b. Selection of **OAuth2** authentication type, user needs to provide the below details.
 - Type the Authentication URL.
 - Type the Username and Password.
- c. For password, click on Add Password button next to it. If the password is available in plaintext, then select Input type as Input Text and enter the password in **Value** field. Else if it is available in any Key Vault such as CyberArk or Secret Manager then select Input Type as CyberArk or Secret Manager respectively and then select any of the configured details from the **Value** field.

Secret Selector [X]

Input Type

Input text

Value

.....

☐ Show Password

Cancel Save

Figure 181 - Password in Plaintext

Secret Selector [X]

Input Type

CyberArk

Value

Test

Key	Value
Description	Test
ApplID	Test
Safe	Test
Folder	Test
Object	Test

Cancel Save

Figure 182 - Password from Key Vault (CyberArk)

Secret Selector

×

Input Type

Internal Secret Manager

Value

df

Key	Value
Key	ff vv
Password	

Note: Password is in encrypted form.

Cancel

Save

Figure 183 - Password from Secret Manager

Secret Selector

×

Input Type

Azure Key Vault

Value

MyTestKey

Key	Value
Description	MyTestKey
Secret Name	MyTestKey

Cancel

Save

Figure 184 - Password from Azure Key Vault

URL * Enter URL	Authentication Type * OAuth2
User ID * Enter User Id.	Password * Add Password
Authentication URL * Enter Authentication URL	Request Method * GET

Figure 185 - Authentication Type (OAuth 2.0)

5. Select **Request Method** as GET, PUT, POST or PATCH.
6. Select **Proxy Required** if the environment needs access to content from data sources outside the firewall.
7. Click on **Test Connection** to check accessibility of URL from service. Testing the connection is not mandatory, you can still create **Data source**.
8. To test connection, the URL of ITSM should be whitelisted else it will throw alert stating 'Use only WhiteListed URL'. To whitelist the URL kindly refer '**HCL iAutomate KRS Guide**'.
9. If user has additional parameters, click Add Authentication Parameters under the tab Request Authentication Parameters.

Request Authentication Parameters ⓘ

Note: Add parameter Key as 'RequestBody' to send information in request body for token.

Key	Value	Is Encrypted ⓘ	Is Key ⓘ	Action
Enter Key	Enter Value	☐	☐	

+ Add Authentication Parameters Delete All

Figure 186 - Authentication Type (Windows / Basic)

10. Type the Request Header Parameter.

Request Header Parameters ⓘ

Key	Value Type	Value	Action
Enter Key	Table.Columns	-Select-	

+ Add Request Header Delete All

Figure 187 - Request Header Parameter

11. Type the **Request Body** in JSON format.

Request Body ⓘ

```
{
  "incident_state": "6",
  "work_notes": "#worknotes#"
}
```

Key
#worknotes#

Figure 188 - Request Body

The values for the parameters will be set in the **Mange Rules** section.

12. Type the **Response Body** in JSON format.

Key	Value Type	Value
#success#	Text	ok

Figure 189 - Response Body

13. Click **Next** to move to next section.

Figure 190 – Request Header Parameter

3.2.3.2.2.5 InProgress Rules Configuration

User can configure a method for releasing the ticket from iAutomate queue performing the following steps.

InProgress Rules Configuration is only applicable for Incident Management, Service Request Task and Change Request Task

1. On the **InProgress Rules Configuration** page, click on **Same as Release** if similar configurations as mentioned in “Release Rules Configuration” are required, else proceed ahead.
2. Type the URL of the selected service type in the **URL** field to release data.
3. This URL contains the placeholders that display the parameters based on the applied clause. It is dependent on the URL or API provided by the tool.

Figure 191 – InProgress Rules Configuration

User can apply multiple clauses into the URL to display only the required parameter into the placeholder. Once you hit the URL, only the placeholders with a hashtag will be displayed with the associated parameters in the URL Path Parameters column. Whenever user wants to change the data to be filtered, always change the logic in the URL to get the specific parameters.

4. Select the **Authentication Type**. iAutomate supports the following types of authentications:

- WindowsAuth
- OAuth2
- BasicAuth

Figure 192 - Authentication Types

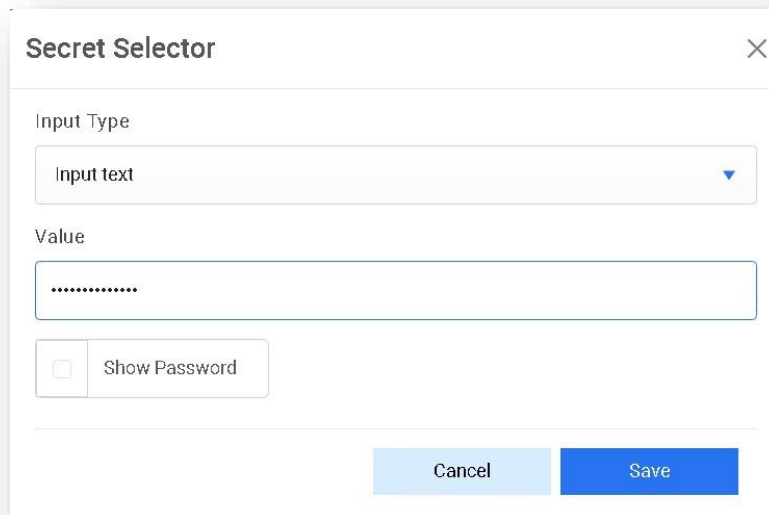
a. Selection of **Windows / Basic** authentication requires only **Username** and **Password**.

Figure 193- Authentication Type (Windows / Basic)

b. Selection of **OAuth2** authentication type, user needs to provide the below details.

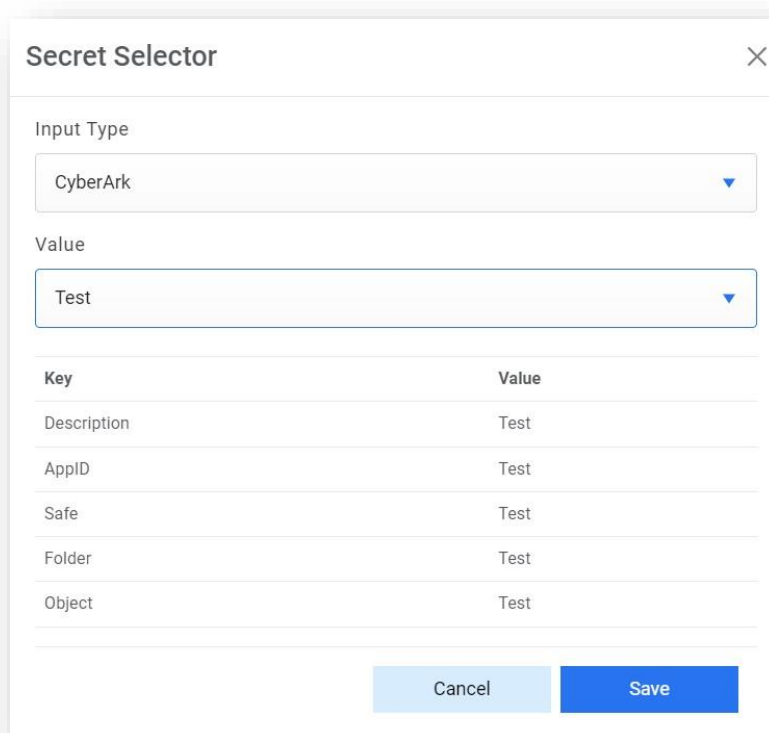
- Type the Authentication URL.
- Type the Username and Password.

- c. For password, click on Add Password button next to it. If the password is available in plaintext, then select Input type as Input Text and enter the password in Value field. Else if it is available in Azure Key Vault then select Input Type as Azure Key Vault and then select any of the configured details from the value field. Else if it is available in any Key Vault such as CyberArk then select Input Type as CyberArk and then select any of the configured details from the value field.



The screenshot shows the 'Secret Selector' dialog box. The 'Input Type' dropdown is set to 'Input text'. The 'Value' field contains a series of dots representing a masked password. Below the field is a checkbox labeled 'Show Password' which is currently unchecked. At the bottom right are 'Cancel' and 'Save' buttons.

Figure 194 - Password in Plaintext



The screenshot shows the 'Secret Selector' dialog box. The 'Input Type' dropdown is set to 'CyberArk'. The 'Value' dropdown is set to 'Test'. Below these is a table with two columns: 'Key' and 'Value'. The table contains five rows of data, all with 'Test' in the 'Value' column. At the bottom right are 'Cancel' and 'Save' buttons.

Key	Value
Description	Test
AppID	Test
Safe	Test
Folder	Test
Object	Test

Figure 195 - Password from Key Vault (CyberArk)

Secret Selector

×

Input Type

Internal Secret Manager

Value

df

Key	Value
Key	ff vv
Password	

Note: Password is in encrypted form.

Cancel

Save

Figure 196 - Password from Secret Manager

Secret Selector

×

Input Type

Azure Key Vault

Value

MyTestKey

Key	Value
Description	MyTestKey
Secret Name	MyTestKey

Cancel

Save

Figure 197 - Password from Azure Key Vault

URL * Enter URL	Authentication Type * OAuth2
User ID * Enter User Id	Password * Add Password
Authentication URL * Enter Authentication URL	Request Method * -Select-

Figure 198 - Authentication Type (OAuth2)

5. Select **Request Method** as GET, PUT, POST or PATCH.
6. Select **Proxy Required** if the environment needs access to content from data sources outside the firewall.
7. Click on **Test Connection** to check accessibility of URL from service. Testing the connection is not mandatory, you can still create **Data source**.
8. To test connection, the URL of ITSM should be whitelisted else it will throw alert stating 'Use only WhiteListed URL'. To whitelist the URL kindly refer '**HCL iAutomate KRS Guide**'.
9. If user has additional parameters, click Add Authentication Parameters under the tab Request Authentication Parameters.

Request Authentication Parameters ⓘ

Note: Add parameter Key as 'RequestBody' to send information in request body for token.

+ Add Authentication Parameters Delete All

Key	Value	Is Encrypted ⓘ	Is Key ⓘ	Action
Enter Key	Enter Value	☐	☐	

Figure 199 - Authentication Type (Windows / Basic)

10. Type the Request Header Parameter.

Request Header Parameters ⓘ

+ Add Request Header Delete All

Key	Value Type	Value	Action
Enter Key	Table.Columns	-Select-	

Figure 200 - Request Header Parameter

11. Type the **Request Body** in JSON format.

Request Body ⓘ

```
{
  "incident_state": "2",
}
```

Figure 201 - Request Body

The values for the parameters will be set in the **Mange Rules** section.

12. Type the **Response Body** in JSON format.

Response Body ⓘ

```
{ "result": "#success#" }
```

Key	Value Type	Value
#success#	Text	ok

Figure 202 - Response Body

13. Click **Submit** to create the **Data Source**.

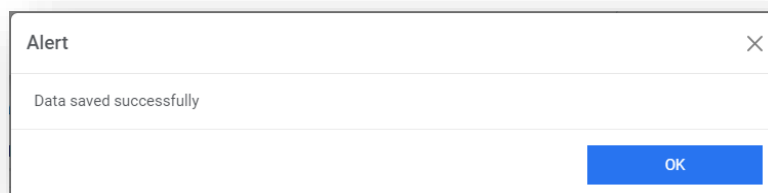


Figure 203 – Success Message

3.2.3.2.6 View Data Sources

User can view and manage the data sources configured within an organization.

To view and manage data sources, perform the following steps:

1. On the main menu bar, click Configuration → **Manage Data Sources**.
2. The **Manage Data Sources** page appears.

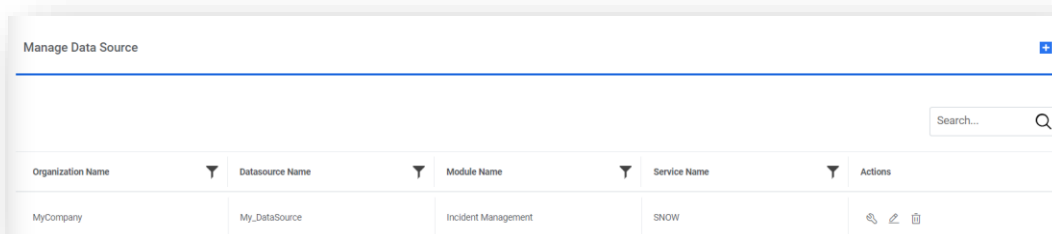


Figure 204 - View Data Source

This lists the available data sources in a tabular view with their associated organization, module, and service type. Users can create a new data source by clicking [Manage Data Sources](#). Users can also edit or delete the data source and manage the entry criteria for the data source.

3.2.3.2.7 Edit Data Source

User can open a data source, review the available information, and change the data source details.

To edit the existing data source, perform the following steps:

1. On the **Manage Data Sources** page, click on  next to the data source user wants to edit.

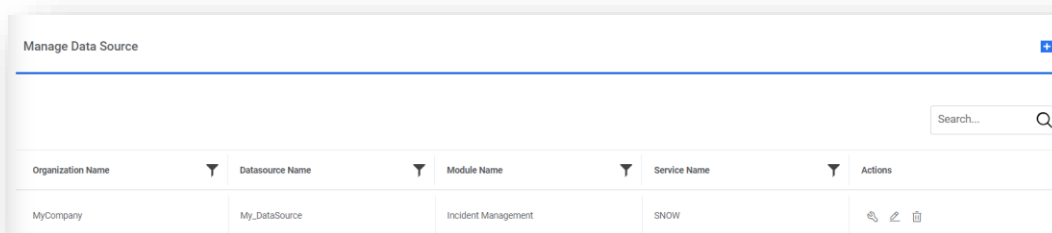


Figure 205 - Edit Data Source

2. This redirects you to the [Manage Data Sources](#). Edit the details as required.

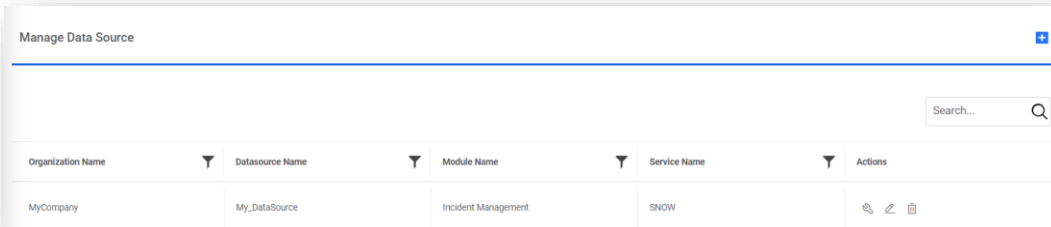
3. Click **Update** to commit the changes or click **Cancel** to discard all changes.

3.2.3.2.2.8 Manage Entry Criteria

Entry criteria are a set of conditions or requirements that must be fulfilled to fetch the data from the data source.

To manage entry criteria, perform the following steps:

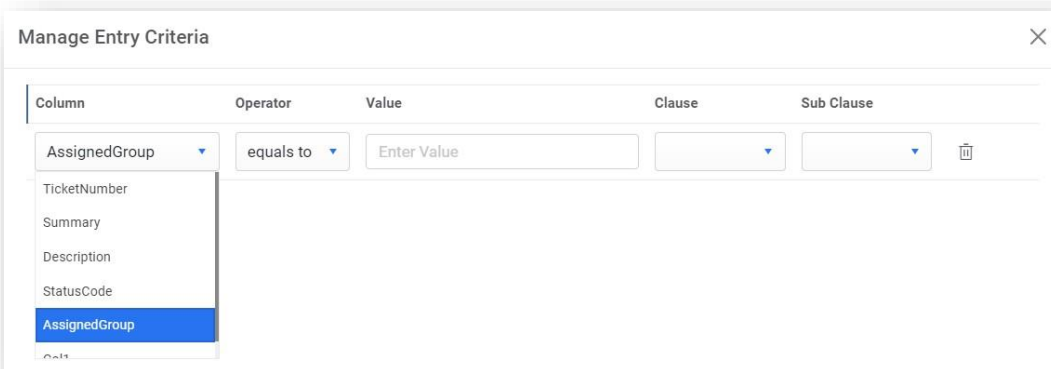
1. On the **Manage Data Sources** tab, click  next to the data source user wants to manage.



Organization Name	Datasource Name	Module Name	Service Name	Actions
MyCompany	My_DataSource	Incident Management	SNOW	  

Figure 206 - Manage Entry Criteria

2. The **Manage Entry Criteria** page appears. You will be prompted to apply the following conditions:
 - Column
 - Operator
 - Value
 - Clause
 - Sub-Clause
3. Click **Save** to go to the next screen.



Column	Operator	Value	Clause	Sub Clause
AssignedGroup	equals to	Enter Value		

Figure 207- Manage Entry Criteria (Cont.)

The 'Manage Entry Criteria' dialog box is shown with a dropdown menu open for the 'Column' field. The menu lists several options: AssignedGroup, TicketNumber, Summary, Description, StatusCode, and AssignedGroup (highlighted in blue). The other fields in the dialog are: Operator (equals to), Value (Enter Value), Clause (empty), and Sub Clause (empty). A trash icon is visible on the right side of the dialog.

Figure 208- Manage Entry Criteria (Cont.)

The 'Manage Entry Criteria' dialog box is shown with the 'Clause' dropdown menu open. The menu lists two options: AND and OR. The other fields in the dialog are: Column (AssignedGroup), Operator (equals to), Value (Enter Value), and Sub Clause (empty). A trash icon is visible on the right side of the dialog.

Figure 209- Manage Entry Criteria (Cont.)

The 'Manage Entry Criteria' dialog box is shown with the 'Sub Clause' dropdown menu open. The menu lists two options: AND and OR. The other fields in the dialog are: Column (AssignedGroup), Operator (equals to), Value (Enter Value), and Clause (empty). A trash icon is visible on the right side of the dialog.

Figure 210- Manage Entry Criteria (Cont.)

3.2.3.2.2.9 Delete Data Source

If a data source in an organization is no longer required, the user can delete it by performing the following steps:

1. On the **Manage Data Sources** tab, click  to delete the Data Source.

The 'Manage Data Source' table is shown with a search bar at the top right. The table has five columns: Organization Name, Datasource Name, Module Name, Service Name, and Actions. The first row of data shows: MyCompany, My_DataSource, Incident Management, SNOW, and a row of action icons (edit, delete, etc.).

Figure 211- Delete Data Source

2. Click **OK** to confirm.

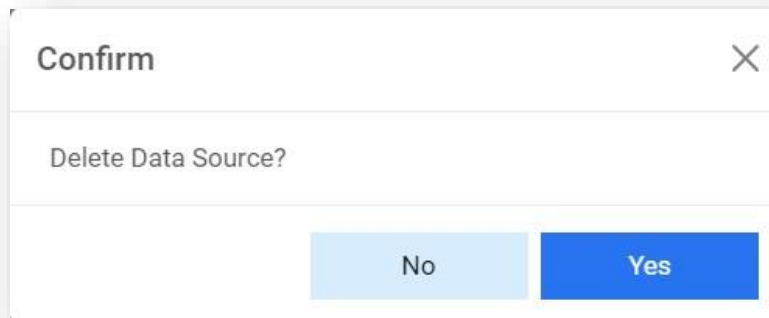


Figure 212- Delete Confirmation

3. A confirmation dialog box appears.

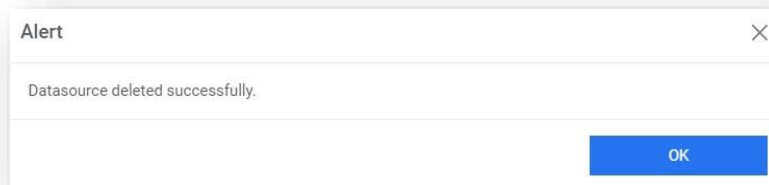


Figure 213- Delete Success

3.2.3.2.3 Build Models

This section describes the procedure to build various types of Machine Learning models in iAutomate.

To build a model, perform the following steps:

1. On the main menu bar, click Configuration.
2. Click Build Models.
3. The **Build Models** page appears and lists the available build models with their status, the associated organization, module, and the runbook tool in a tabular view.

Organization	Module	Runbook Tool	Runbook Tool Type	Status	Last Build	Model Type	Remarks	Latest Version	Published Version	Action
Inventory	NA	NA	NA	Successful	05/29/2024 06:29:32 AM	Entity Model	Model Creation Successful	V1	V1	
Inventory	NA	NA	ITPAM	Successful	05/31/2024 12:09:16 PM	Recommend Model	Model Creation Successful	V1	V1	
Inventory	NA	NA	ANSIBLE TOWER/AWX	Successful	05/29/2024 08:55:38 AM	Recommend Model	Model Creation Successful	V1	V1	
Inventory	NA	NA	Bigfix	Successful	05/29/2024 07:39:41 AM	Recommend Model	Model Creation Successful	V1	V1	
Inventory	NA	NA	ITPAM	Queued		Feedback Model		V0	V0	
Inventory	NA	NA	ANSIBLE TOWER/AWX	Queued		Feedback Model		V0	V0	
Inventory	NA	NA	Bigfix	Queued		Feedback Model		V0	V0	
Dryice188	Incident Management	Tower_tool	ANSIBLE TOWER/AWX	Successful	06/04/2024 02:11:39 PM	Recommend Model	Model Creation Successful	V12	V1	
Dryice188	Incident Management	Tower_tool	ANSIBLE TOWER/AWX	Queued		Recommendation Ranking Model		V0	V0	
Dryice188	NA	NA	NA	Successful	05/29/2024 08:49:36 AM	Entity Model	Model Creation Successful	V1	V1	

Figure 214- Build Models

4. Using this page, a user can build four types of models:
 - **Entity Model** – This model is used to identify the entities from the runbook description and ticket summary.

- **Recommendation Model** – This model is used to recommend the list of relevant runbooks based on the ticket summary.
- **Recommendation Ranking Model** – This model is used to re-rank the list of recommended runbooks based on the resolution status of past executions.
- **Knowledge Ranking Model** – This model is used to re-rank the list of relevant documents based on the user feedback.
- **Feedback Model** - This model is used to predict the top runbook amongst the Top-N runbooks (provided by iRecommend model) based on the feedback provided by the SAAS SME users on the feedback screen in SAAS console.

A **Recommendation Model** cannot be created without creating the Entity Model. Also, a **Recommendation Ranking Model** cannot be created without the **Recommendation Model**.

A **Feedback Model** cannot be created without creating the **Recommendation Model**.

3.2.3.2.3.1 Build Model

User can build any type of model for an organization by performing the following steps. Here, we have used Entity model as reference:

1. On the **Build Models** page, click  next to the organization to build the model.

Organization	Module	Runbook Tool	Runbook Tool Type	Status	Last Build	Model Type	Remarks	Latest Version	Published Version	Action
Inventory	NA	NA	NA	Initiate	06/05/2024 08:38:53 AM	Entity Model		V1	V1	 

Figure 215- Build Models

2. A message confirming the initiation of model build appears.

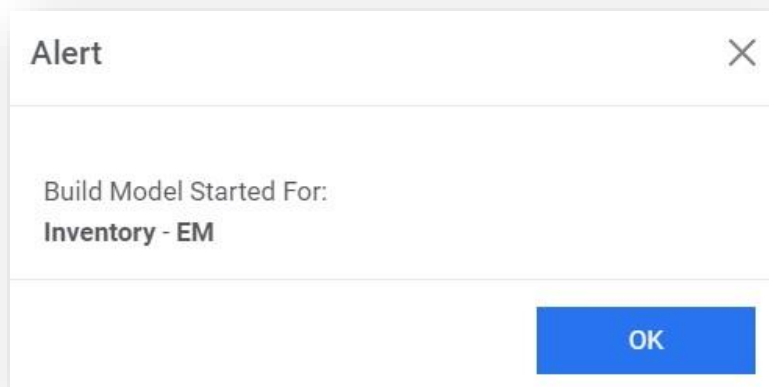


Figure 216- Build Models (Cont.)

3. The status of the build changes from **Queued** to **Initiate**.

Organization	Module	Runbook Tool	Runbook Tool Type	Status	Last Build	Model Type	Remarks	Latest Version	Published Version	Action
Inventory	NA	NA	NA	Initiate	06/05/2024 09:38:53 AM	Entity Model		V1	V1	

Figure 217- Build Models (Cont.)

- Once the build is successfully created, the status changes from **Initiate** to **Successful** and the **Remarks** column is updated.

Inventory	NA	NA	NA	Successful	05/27/2024 05:37:46 PM	Entity Model	Model Creation Successful			
-----------	----	----	----	------------	------------------------	--------------	---------------------------	--	--	--

Figure 218- Build Models (Cont.)

- For Entity, Recommendation and Recommendation Ranking models, the model created will be saved in the location defined in [Load Balancer Configuration](#) or it will save the model at the location where the iRecommend services are installed.
- For Knowledge Rating, the model will be saved in the MongoDB database

3.2.3.2.3.2 Reset Model

The user can reset the status of the existing build model in an organization to its initial state.

- On the **Build Models** tab, click  corresponding to the organization for which you want to reset the model to its initial state.

Inventory	NA	NA	NA	Successful	05/27/2024 05:37:46 PM	Entity Model	Model Creation Successful			
-----------	----	----	----	------------	------------------------	--------------	---------------------------	--	--	--

Figure 219- Reset Models

- On resetting the model, the status changes to **Queued** and a confirmation dialog box appears.

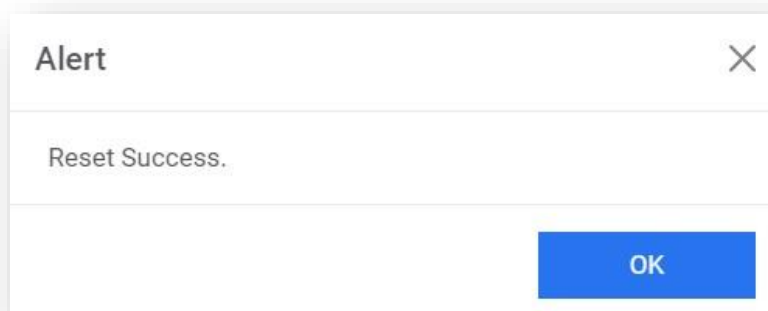


Figure 220- Reset Models (Cont.)

3.2.3.2.3.3 Evaluate Recommendation Model

Through this module, user can evaluate a recommendation model, view its performance report, publish different versions of the model, and view the list of runbooks on which the specific model was created.

To evaluate the recommendation model, perform the following steps:

1. On the **Build Models** tab, click  corresponding to the recommendation model associated with a tool for the organization for which you want to evaluate the model.

	MyCompany	Incident Management	MyTool	ANSIBLE Inside	Successful	06/13/2024 07:51:27 AM	Recommend Model	Model Creation Successful.
---	-----------	---------------------	--------	----------------	------------	------------------------	-----------------	----------------------------

Figure 221- Evaluate Recommend Model

2. This opens a model version grid where user can view the different versions of the models listed. Under the **Action** tab, multiple options are available to the user.

MyCompany

Incident Management

MyTool

ANSIBLE Inside

Successful

06/13/2024 07:51:27 AM

Recommend Model

Model Creation Successful.

V1

V1

Refresh

Model Version	Associated Entity Model Version	Last Evaluated	Status	Remarks	Action
V1	V1	NA	NA	NA	

1

1 - 1 of 1 Items

Figure 222- Evaluate Recommend Model (cont.)

3. Click  to trigger the model evaluation process.

Model Ve...	Associated Entity Model V...	Last Evalu...	Status	Remarks	Action
V1	V1	6/5/2024 10:30:29 AM	In Progress	Model Evaluation In Progress	   

Figure 223- Evaluate Recommend Model (cont.)

4. Upon completion of the model evaluation process, a success message appears as below.

Model Ve...	Associated Entity Model V...	Last Evalu...	Status	Remarks	Action
V1	V1	6/5/2024 10:30:48 AM	Success...	Model Evaluation Done Successfully	   

Figure 224- Evaluate Recommend Model (cont.)

5. After successful evaluation, click  to view the dashboard.

Model Ve...	Associated Entity Model V...	Last Evalu...	Status	Remarks	Action
V1	V1	6/5/2024 10:30:48 AM	Success...	Model Evaluation Done Successfully	   

Figure 225- Evaluate Recommend Model (cont.)

6. On view dashboard popup, three types of charts are available:

a. Precision-Recall Graph:

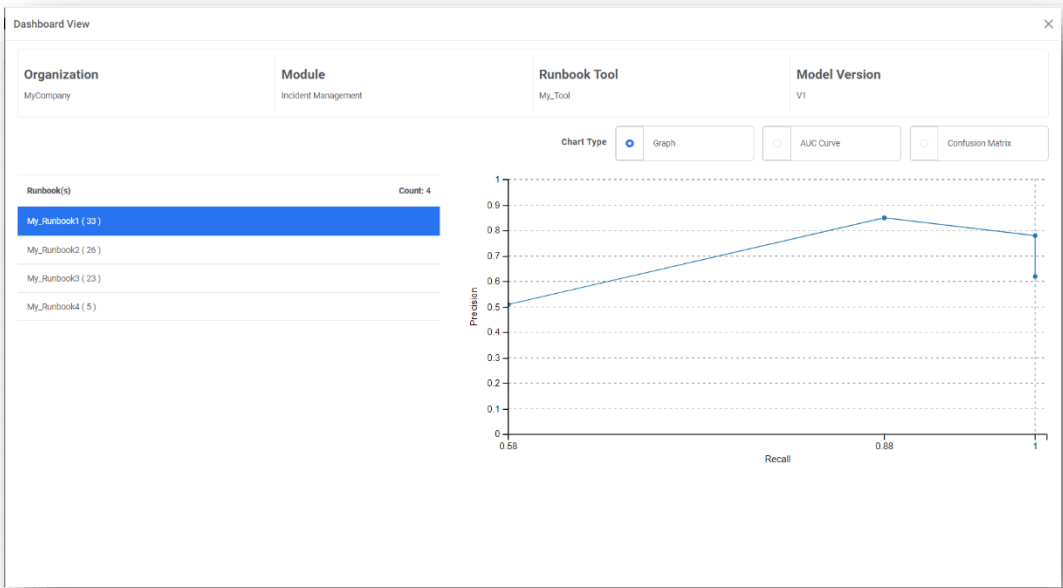


Figure 226 - Evaluate Recommend Model (Cont.)

b. AUC Curve:

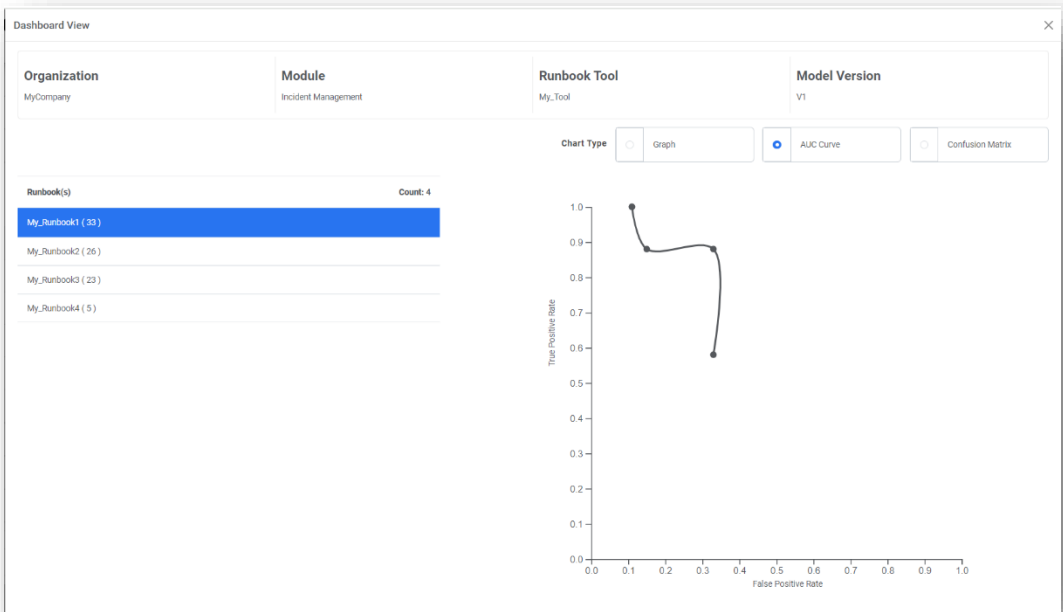


Figure 227 - Evaluate Recommend Model (cont.)

c. Confusion Matrix:

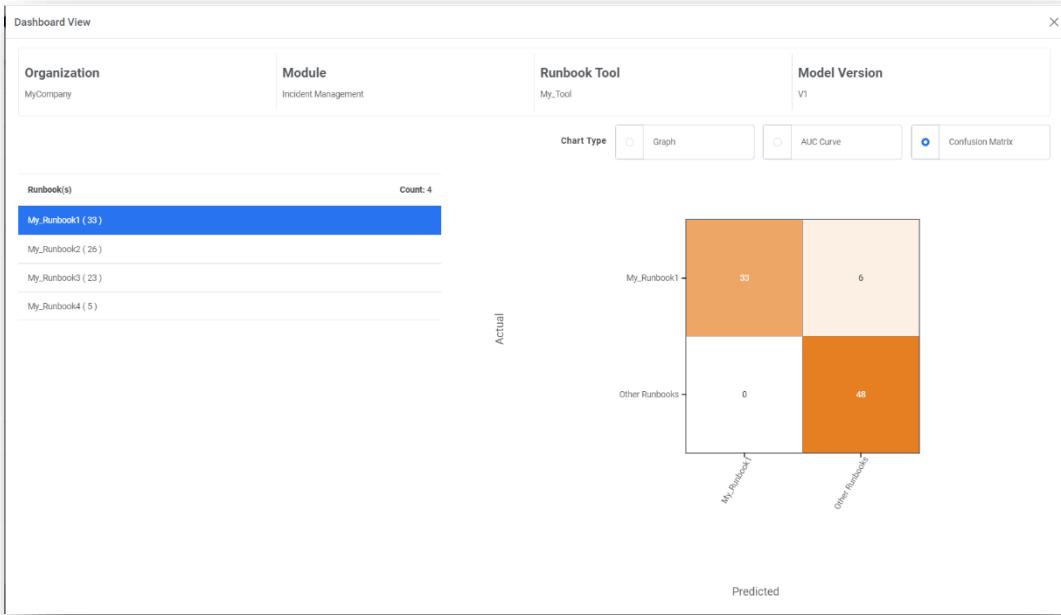


Figure 228- Evaluate Recommend Model (cont.)

7. Click  to publish the model version of choice.

Model Ve...	Associated Entity Model V...	Last Evalu...	Status	Remarks	Action
V1	V1	6/5/2024 10:30:48 AM	Success...	Model Evaluation Done Successfully	   

Figure 229- Evaluate Recommend Model (cont.)

A success message appears after the model is published successfully.

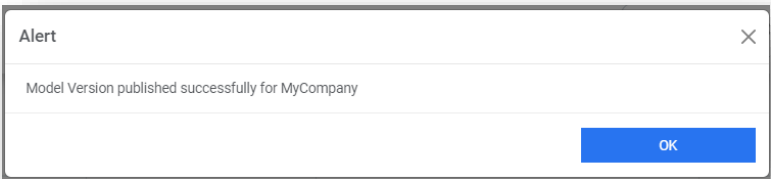


Figure 230- Evaluate Recommend Model (cont.)

8. User can also view the set of runbooks on which the model was built. Click  to view the list of runbooks.

Model Ve...	Associated Entity Model V...	Last Evalu...	Status	Remarks	Action
V1	V1	6/5/2024 10:30:48 AM	Success...	Model Evaluation Done Successfully	   

Figure 231- Evaluate Recommend Model (cont.)

Runbook Unique Name	Runbook Friendly Name
My_Runbook	My Runbook Name
My_Runbook2	My Runbook Name 2

Figure 232- Evaluate Recommend Model (cont.)

3.2.3.2.4 Manage Jobs

This section describes how to manage a job in the customer environment.

To manage jobs, perform the following steps:

1. On the main menu bar, click **Configuration**.
2. Click Manage Jobs.
3. The **Manage Jobs** page appears.

Enabled	Name	Organization	Status	Service Name	Module Name	Component Name	Action
Yes	Crawler	NA	Successful	NA	NA	Crawler	
Yes	Indexer	NA	Successful	NA	NA	Indexer	
Yes	AutomatedPurgeData	NA	Successful	NA	NA	Generic Service	

Figure 233- Manage Jobs

4. It lists the job name, organization, and status, assigned service type, module name, and component name in a tabular view. Users can view the job log, modify the properties of jobs and can change the status of the job.
5. There are two tabs on this screen-
 - a. **Jobs** tab that lists the job name and status, assigned service type, module name, and component name of all the jobs except successfully completed analysis jobs in a tabular view. Users can view the job log, change the status of the job or edit the job properties.
 - b. **Archived Analysis Jobs** that list the job name and status, assigned service type, module name, and component name of all the analysis jobs that are completed successfully in a tabular view. Users can only view the job log.

Table 5 – Job Details

JobPrefixName	JobSuffixName	JobDescription	ComponentName
CollectChangeRequest	OrganizationName	Collects Service Requests	Data Collector
CollectChgTasks	OrganizationName	Collects All and Actionable Change TASK Data	Data Collector
CollectCMDDBData	OrganizationName	Collects CMDDB data	Data Collector

CollectIncidents	OrganizationName	Collects All and Actionable Incident Data	Data Collector
CollectRequestData	OrganizationName	Collects Service Requests	Data Collector
CollectRequestItem	OrganizationName	Collects Request Item Data	Data Collector
CollectSRTasks	OrganizationName	Collects All and Actionable Service Request Data	Data Collector
FetchClusterId	OrganizationName	This job fetches the cluster details used by iUnique Service	Fetch Unique Cluster
CreateHistoryAndPopulateFact	OrganizationName	This job moves the eligible tickets to history table and populates fact, using the same for reporting	Generic Service
ProcessAuto	OrganizationName	This job picks and process based on the auto criteria	Generic Service
PurgeData	OrganizationName	This job purges the tables configured in Organization DB	Generic Service
iAutomatePurgeData		This job purges the tables configured in the Configuration DB (delete records from log table)	Generic Service
ScheduleRunbook	OrganizationName	This job creates scheduled Ticket in iAutomate for the Scheduler	Generic Service
RunParsing	OrganizationName	This job fetches and parse the tickets	Parsing
ExecuteRunbook	OrganizationName	This job is used for processing the tickets based on run book selected	RBA Service
FetchUniqueRecommendation	OrganizationName in case of Environment Analysis else Analysis Name Provided by user while creating CSV analysis or workbench Analysis	This job picks recommendation for the unique clusters created (Analysis)	Recommendation
RunRecommendation	OrganizationName	This job picks and binds recommendations to the qualifying tickets	Recommendation
ReleaseTickets	OrganizationName	This Job picks the applicable tickets and Release in the underlying tool	Release Service
ProcessUnique	OrganizationName in case of Environment Analysis else Analysis Name Provided by user while creating CSV analysis or workbench Analysis	This job picks data from all and creates unique clusters	Unique Clustering
FetchScriptForUnique	OrganizationName in case of Environment Analysis else Analysis Name Provided by user while creating CSV analysis	This Job fetches scripts for unique tickets identified	Unique Script
Crawler		This Job crawls the Document for Advanced Knowledge Service	Crawler

Indexer		This Job processes the Document for Advanced Knowledge Service	Indexer
ActiveDirectory	OrganizationName	This Job fetches user from Active directory	ADSync
EmailProcessing		This Job processes the email related tasks	Email Service
ASPState Delete Expired Sessions		This job is responsible to delete active session	Generic Service
iAutomateHangJobReporting		This job is responsible to notify user if any job stuck from a pre-defined time	Generic Service
HangJobReporting	OrganizationName	This job is responsible to notify user if any job stuck from a pre-defined time	Generic Service

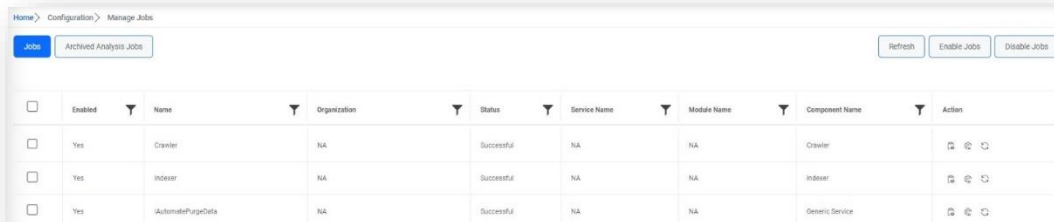
To see the latest job log entries, click **Refresh** on the **Manage Jobs** page.

3.2.3.2.4.1 View Job Log

The job log displays information about job execution. In the **Job Log Details** view, every row provides details of the job execution. The number of log entries kept depends on the configuration of the scheduled procedure responsible for clearing old log entries. It creates separate log files for each job.

To view the job log details, perform the following steps:

1. On the **Manage Jobs** screen, click  in the **Action** column next to the job user wants to review in the job log.



Home > Configuration > Manage Jobs									
<input checked="" type="button" value="Jobs"/>		Archived Analysis Jobs							
Refresh Enable Jobs Disable Jobs									
☐	Enabled	Name	Organization	Status	Service Name	Module Name	Component Name	Action	
☐	Yes	Oranier	NA	Successful	NA	NA	Oranier		
☐	Yes	Indexer	NA	Successful	NA	NA	Indexer		
☐	Yes	iAutomatePurgeData	NA	Successful	NA	NA	Generic Service		

Figure 234- View Job Log

2. The **Job Log Details** page appears.

Job Log Details

Request Id	Date Time	Listener Node	Current Stat...	Step Remarks	Message
NA	06/14/2024 06:43:05.793	NA	Success	Crawling process has been... more	Moving Job to InProgress
NA	06/14/2024 06:43:02.150	NA	Success	Moving Job to Initiated	Moving Job to Initiated
NA	06/14/2024 06:40:54.793	NA	Success	Crawling ended	Crawling
NA	06/14/2024 06:40:54.747	NA	Success	Crawling process has been... more	Moving Job to InProgress
NA	06/14/2024 06:40:52.997	NA	Success	Moving Job to Initiated	Moving Job to Initiated
NA	06/14/2024 06:38:43.280	NA	Success	Crawling ended	Crawling
NA	06/14/2024 06:38:41.733	NA	Success	Moving Job to Initiated	Moving Job to Initiated
NA	06/14/2024 06:36:39.173	NA	Success	Crawling ended	Crawling
NA	06/14/2024 06:36:39.157	NA	Success	Crawling process has been... more	Moving Job to InProgress
NA	06/14/2024 06:36:37.203	NA	Success	Moving Job to Initiated	Moving Job to Initiated

1
2
3
4
5
6
7
8
9
10
...

11 - 20 of 1957 items

*Date Format :- (MM/DD/YYYY hh:mm:ss) in UTC

Close

Figure 235- View Job Logs

The log contains information about the specific job execution, which includes the following:

- The request Id for the job and user can filter the data based on the request Id
- The date and time when the job was run.
- The listener node that has picked the job for processing.
- The status of each job is displayed with the help of system generated messages relevant to the job execution in the Message column.
- Step Remarks which show the step wise processing of the job.
- Messages that apply to each step in the Step Remarks column.

To enable a job, select the check box of the corresponding job and then click Enable Jobs. To disable a job, click Disable Jobs. After a job is enabled, the job status changes to Initiate.

3.2.3.2.4.2 Manage Job Parameters

Job parameters control which records are to be included or how they are executed when a job runs. A job can have multiple parameters with different data types or no parameters at all.

To manage job parameters, perform the following steps:

1. On the **Manage Jobs** page, click  in the **Action** column next to the job you want to manage.

☐	Enabled	Name	Organization	Status	Service Name	Module Name	Component Name	Action
☐	Yes	Crawler	N/A	Successful	N/A	N/A	Crawler	
☐	Yes	Indexer	N/A	Successful	N/A	N/A	Indexer	
☐	Yes	AutomatePurgeData	N/A	Successful	N/A	N/A	Generic Service	

Figure 236- Manage Job Parameters

2. The **Job Actions** page appears. It includes the following tabs:

- General
- Schedule
- Parameter

General
Schedule
Parameter

General

Job Id *

Name *

Description *

Enabled * ☒

Next Run *

Close

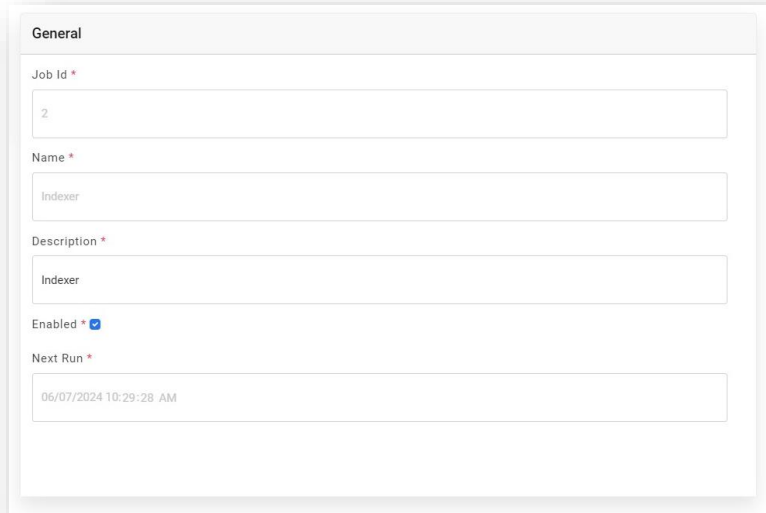
Update

*Date Format :- (MM/DD/YYYY hh:mm:ss) in UTC

Figure 237- Manage Job Parameters (Cont.)

3. Click **General** to configure the general details of a parameter by filling in the following attributes.

- a. Type the unique parameter name within the job in the **Name** field and then type the parameter description in the **Description** field.
- b. If the user wants to enable the added parameter for execution, select **Enabled**.

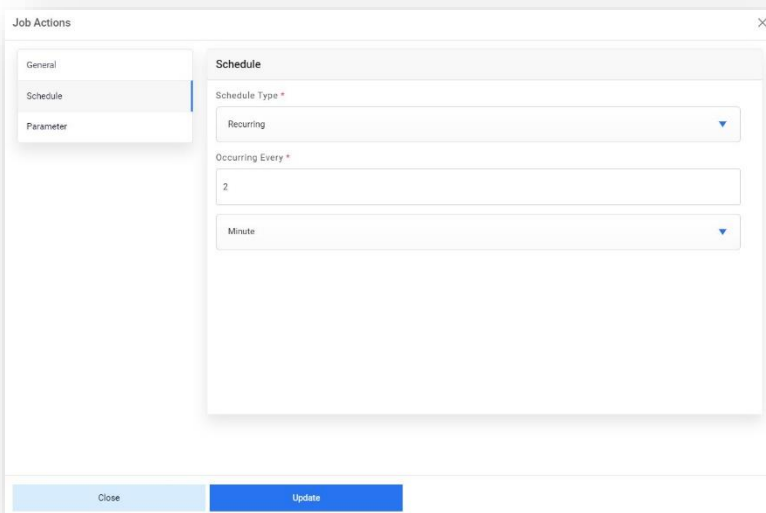


The screenshot shows a 'General' tab with the following fields:

- Job Id ***: 2
- Name ***: Indexer
- Description ***: Indexer
- Enabled ***: ☒
- Next Run ***: 06/07/2024 10:29:28 AM

Figure 238- Manage Job Parameters (Cont.)

4. Click **Schedule** to provide parameter details to schedule a job. The user can schedule jobs to automatically run at a particular date or time and/or on a recurring basis.
 - **Schedule Type:** This allows the user (Organization Admin) to schedule job updates. The drop-down menu lists the following options:
 - Select **One Time**, if you want to schedule the job update only once, then select the Date and Time to schedule and then click **Save** to update the schedule.



The screenshot shows a 'Job Actions' dialog with the 'Schedule' tab selected. The 'Schedule' section contains the following fields:

- Schedule Type ***: Recurring
- Occurring Every ***: 2
- Minute**: Minute

At the bottom, there are 'Close' and 'Update' buttons.

Figure 239- Manage Job Parameters (Cont.)

- Select **Recurring**, to schedule a recurring job update, then type the numerical value for the schedule next to the **Occurrence Every** field, and then click the drop-down list to select the duration in seconds, minutes, hours, monthly, or daily.

Job Actions

General
Schedule
Parameter

Schedule

Schedule Type *

Recurring

Occurring Every *

2

Minute

Close Update

Figure 240- Manage Job Parameters (Cont.)

- For the jobs, that are running daily, there is one more field that can be set under Schedule tab and i.e., User can define the time of the day at which the job should run.

Job Actions

General
Schedule
Parameter

Schedule

Schedule Type *

Recurring

Occurring Every *

2

Minute

Close Update

Figure 241- Manage Job Parameters (Cont.)

5. Click **Parameter** to enable the added parameter. Switch the value button to **Enable** the parameter value.

Parameter Name	Parameter Description	Value
LoggerState	This is to determine whether detailed logging is enabled or not.	☐
RetentionPeriodOfDays	This stores the Retention Period of Days for Log	3
IsTruncate	This is to determine whether the log tables truncate or Archive	☐
DBConnectionRetryCount	This will return the database connection retry count	3
DBConnectionRetryInterval	This will return the database connection retry interval in seconds	5

Figure 242- Manage Job Parameters (Cont.)

6. Click **Save**.

User can click Save after updating **General**, **Schedule**, or **Parameter** tabs and save the updates.

7. A confirmation dialog box appears.

Figure 243- Manage Job Parameters (Cont.)

There are few parameters that have significance in ticket execution.

For DataCollector job, there's a parameter 'ReassignCount' which is a number to determine the number of times reassigned ticket will come to queue.

For RunRecommendation job, there's a parameter 'IsOrderByPriority' which on enablement sorts the tickets based on their priority on Tickets screen.

For RunParsing job, there's a parameter 'IsReleasedBasedOnNullValue' which on enablement releases the ticket if any of the runbook parameter value is null.

3.2.3.2.4.3 Reset Jobs

This section describes how to reset a job definition before an execution or resubmission.

To reset a job, perform the following steps:

1. On the **Manage Jobs** page, click  in the **Action** column next to the job user wants to reset.

Enabled	Name	Organization	Status	Service Name	Module Name	Component Name	Action
Yes	Crawler	NA	Successful	NA	NA	Crawler	[Icons]
Yes	Indexer	NA	Successful	NA	NA	Indexer	[Icons]
Yes	AutomatePurgeData	NA	Successful	NA	NA	Generic Service	[Icons]

Figure 244- Reset Jobs

- Click **Yes** to confirm.



Figure 245- Reset Jobs (Cont.)

The administrator cannot reset successful jobs and jobs with schedule type selected as **One Type**.

3.2.3.2.5 License Report

This screen shows the information regarding Licensing of the product and CI usage and entitlement.

If the logged in user is super admin, then this page shows the collective data of all organizations present in the environment. For all other kinds of users, only their organization data will be visible.

- On the main menu bar, Click **Configuration** and then click **License Report**.

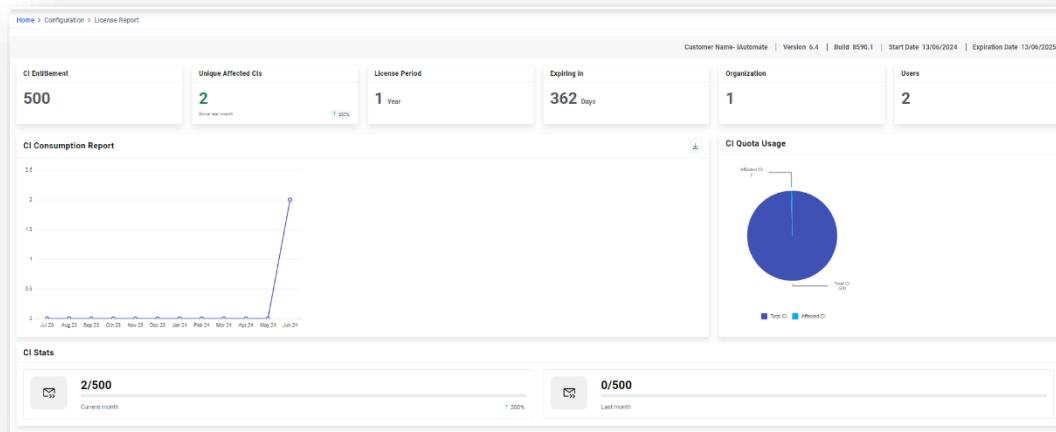


Figure 246 - License report

- The page when opened, shows the below data:

- a. CI Entitlement: It displays the total CI count present in the system.
- b. Unique Affected CIs: It displays the no. Of Unique affected CIs in the system since last month.
- c. License Period: Shows the period for which the current license is valid.
- d. Expiring In: Shows the no. of days which is left for the license to be expired.
- e. Organization: Shows the no. of organization present in the system (For Super Admin) and shows the no. of organizations mapped to the logged in user (For Org Admin)
- f. Users: Shows the no. of users present in the system (For Super Admin) and shows the no. Of users under the organizations mapped to the logged in user (For Org Admin)
- g. CI Consumption Report: It displays the graphical representation of the CIs consumed over the last one year. Users can download the CSV report for this graphical data.
- h. CI quota usage: It displays the % of CIs that have been utilized by the system among the total no. Of CIs present.
- i. CI Stats: Shows the no. Of CIs consumed in the current month out of the total CIs and the no. Of CIs consumed last month out of the total CIs.

3.2.3.2.6 Manage Configuration

If user wants to configure the entire setup and customize the default configuration, the user will need to perform the following additional configuration tasks:

To manage advanced configuration, perform the following steps:

1. On the main menu bar, click **Configuration**, and then click **Manage Configuration**. The **Manage Configuration** page appears.

The screenshot shows the 'Manage Configuration' page with the following sections:

- Manual Execution Configuration:** Includes a dropdown for 'Organization' (set to 'MyCompany') and a dropdown for 'Module' (set to 'Incident Management'). Below is a text input for 'UI Display Runtime Threshold Value' set to '90'.
- Auto Execution Configuration:** Includes a checkbox for 'Enable Auto Execution' (checked), a text input for 'Threshold Value' set to '90', and radio buttons for 'Override With SME Recommendation' (unchecked), 'Manual Mode' (checked), and 'Rule Based Release' (unchecked).
- Initiation Failed RBA Configuration:** Includes a text input for 'Retry After (in Minutes)' set to '15', a text input for 'Retry Count' set to '3', and a checkbox for 'Release using Rule' (checked).
- Data Source Configuration:** Includes a text input for 'Release Retry Count' set to '2' and a text input for 'Close Retry Count' set to '2'.

A 'Submit' button is located at the bottom right of the form.

Figure 247 - Manage Configuration

2. Select the organization for which user created a data source from the **Organization** field.

The organizations listed in the drop-down are created through [Manage Organizations](#).

3. Select the module where the organization fetches the data from the data source in iAutomate in the **Module** field.

The screenshot shows a configuration interface with two dropdown menus. The first dropdown is labeled 'Organization*' and has 'MyCompany' selected. The second dropdown is labeled 'Module*' and has 'Incident Management' selected.

Figure 248 - Manage Configuration (Cont.)

iAutomate receives the recommended runbook as output based on the confidence score. It suggests which runbook needs to be executed against a ticket. However, the execution of the runbook can be done in two modes:

- **Manual Execution**- The user selects the most appropriate runbook from the list of runbooks suggested by the iAutomate.
- **Auto Execution**- iAutomate executes the runbook from the solution without any human intervention.

Manual Execution Configuration

To configure manual execution for tickets, perform the following steps:

- Type the threshold value next to the **UI Display Runbook Threshold Value** field.
- It filters the list of relevant runbooks based on the threshold value. If the runbook's confidence score is greater than the threshold value, it is made available to the user for manual execution based on their knowledge.

Confidence score is a value which is dynamically updated for a runbook based on the ticket description and the outcomes of the past ticket resolutions.

The screenshot shows a configuration interface titled 'Manual Execution Configuration'. It contains a single text input field labeled 'UI Display Runbook Threshold Value*' with the value '60' entered.

Figure 249 - Manage Configuration (Cont.)

Auto Execution Configuration:

To configure auto execution of tickets, perform the following steps:

- To auto execute runbook based on the recommended solution, select **Enable Auto Execution**.
- To execute with the SME recommendations irrespective of the confidence score, select **Override with SME recommendation**. The application will ignore all the above selections and will execute runbooks recommended by the SME.
- Type the **Threshold Value** manually for runbook auto execution.
- Select **On Failure Release** if a ticket does not get a solution and does not execute. The ticket may show the **Failure Status** for the following reasons:
 - A ticket does not get a recommendation.
 - A ticket gets a recommendation but is not parsed.
 - A ticket gets a recommendation and is also parsed, but runbook execution fails. In such a case, iAutomate enables user to proceed with the following actions:

- e. Select **Manual Mode** if user wants to release failed ticket from auto execution mode to manual intervention mode for execution.
- f. Select **Rule-Based Release** if user wants to release the failed tickets from auto execution mode to the respective group for execution and moves ticket out of iAutomate. These rules are specified in [Manage Rules](#).

If a user opts for manual mode, then the failed ticket moves for manual intervention and cannot be released based on release rules.

Figure 250 - Manage Configuration (Cont.)

Initiation Failed RBA Configuration

User can define the solution for a sleeping or paused runbook. If the API is unreachable and the runbook has reached the maximum number of unsuccessful execution attempts, it goes to the sleep/pause mode.

If a runbook does not execute in both the conditions, then provide the details to perform the below-mentioned activities:

- **Retry After (In Minutes)** - Specifies the wait time to retry the runbook execution after execution failure.
- **Retry Count** - Specifies the count to retry runbook execution according to the scheduled frequency.
- **Release using Rule** - If the attempts for manual release of the runbook have failed multiple times (as defined in the Retry Count parameter) , then select Release using Rule to auto-execute the runbook after the retry count over.

Figure 251 - Manage Configuration (Cont.)

Manual Release

In case of a failed ticket, user can immediately move a ticket out of the iAutomate queue from the manual and auto execution mode.

- Select **Release Using Rule** to manually release a ticket from iAutomate. These rules are specified in [Manage Rules](#) section.

Figure 252 - Manage Configuration (Cont.)

- In **Data Source Configuration** field, enter the **Release Retry Count**. This indicates the maximum number of retry attempts for releasing the ticket.
4. Click **Submit** to save the configuration. A confirmation dialog box appears.

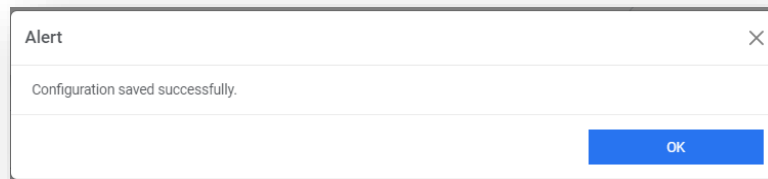


Figure 253 - Manage Configuration (Cont.)

The details updated in this section will be displayed in the main UI either in manual mode or auto mode of runbook execution.

3.2.3.2.7 Manage SMTP

If the organization chooses to use mail-based notifications, SMTP specific configurations will be required.

To configure the SMTP details, perform the following steps:

1. On the main menu bar, click **Configuration** and then click **Manage SMTP**.
2. The **Manage SMTP** page appears.

 A screenshot of the 'Manage SMTP' configuration page. The page has a title 'SMTP Information' and a subtitle 'Manage SMTP configurations for your organization.' The form is divided into two columns. The left column contains fields for 'SMTP Server *', 'User Name *', 'Mailto Cc *', 'From Email *', and 'SMTP Type *' (a dropdown menu). The right column contains fields for 'SMTP Port *', 'Password *' (with an 'Add Password' button), 'Mailto Bcc', and 'Timeout *' (with a value of '10909889' and a note 'Timeout is in milliseconds.'). There is also an 'SSL' checkbox. At the bottom center is a blue 'Submit' button.

Figure 254 - Manage SMTP

3. In the **SMTP Server** field, type the SMTP Server.
4. In the **SMTP Port** field, type the SMTP port.
5. In the **SMTP UserName** and **SMTP Password** fields, type the username and password to access the SMTP server.
6. For password, click on Add Password button. If the password is available in plaintext, then select Input type as Input Text and enter the password in Value field. Else if it is available in Azure Key Vault then select Input Type as Azure Key Vault and then select any of the configured details from the value field. Else if it is available in any Key Vault such as CyberArk or Internal Secret manager then select Input Type as CyberArk or Internal Secret manager respectively and then select any of the configured details from the value field.

Secret Selector [X]

Input Type
Input text ▼

Value

☐ Show Password

Cancel Save

Figure 255 - Password in plaintext

Secret Selector [X]

Input Type
CyberArk ▼

Value

Key	Value
Description	Test
AppID	Test
Safe	Test
Folder	Test
Object	Test

Cancel Save

Figure 256 - Password from Key Vault (CyberArk)

Secret Selector [X]

Input Type
Internal Secret Manager

Value
df

Key	Value
Key	ff vv

Password [REDACTED]

Note: Password is in encrypted form.

Cancel Save

Figure 257 - Password from Secret Manager

Secret Selector [X]

Input Type
Azure Key Vault

Value
MyTestKey

Key	Value
Description	MyTestKey
Secret Name	MyTestKey

Cancel Save

Figure 258 - Password from Azure Key Vault

7. In the **Mailto Cc** field, type the email of user, as applicable.
8. In the **Mailto Bcc** field, type the email of user, as applicable.
9. Select **SMTP Type** from the dropdown.
10. In the From Email field, type the user's email id for the mail notification.
11. The test connection feature allows users to verify their SMTP configuration by sending a dummy email. Based on the result, the button's color changes to indicate success or failure.

SMTP Information
Manage SMTP configurations for your organization.

SMTP Server *	myServer	SMTP Port *	myPort
User Name *	myUser	Password *	Add Password Test Connection
Mailto Cc *	myCCEmail	Mailto Bcc	
Comma separated emails are allowed		Comma separated emails are allowed	
From Email *	myFromEmail	Timeout *	10909889
		Timeout is in milliseconds.	
SMTP Type *	SMTP	☐ SSL	

Figure 259 - Test connection

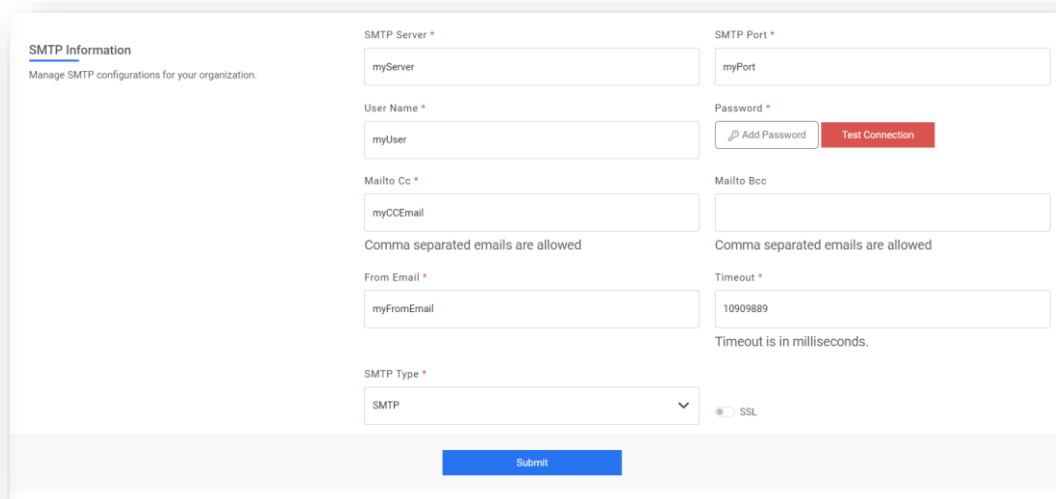
- If the email is sent successfully, the "Test Connection" button's color changes to green, this visually indicates to the user that the SMTP configuration is correct.

SMTP Information
Manage SMTP configurations for your organization.

SMTP Server *	myServer	SMTP Port *	myPort
User Name *	myUser	Password *	Add Password Test Connection
Mailto Cc *	myCCEmail	Mailto Bcc	
Comma separated emails are allowed		Comma separated emails are allowed	
From Email *	myFromEmail	Timeout *	10909889
		Timeout is in milliseconds.	
SMTP Type *	SMTP	☐ SSL	

Figure 260 - Configuration is Correct

- If there is an error during the email sending process (e.g., incorrect SMTP server, port, email, password, or network issues), the button's color changes to red, Additionally, an error message is displayed to provide more details about the failure.

A screenshot of an SMTP configuration form. The form is titled "SMTP Information" with a subtitle "Manage SMTP configurations for your organization." It contains several input fields: "SMTP Server" (myServer), "SMTP Port" (myPort), "User Name" (myUser), "Password" (with an "Add Password" icon and a "Test Connection" button), "Mailto Cc" (myCCEmail), "Mailto Bcc" (empty), "From Email" (myFromEmail), and "Timeout" (10909889). There are also checkboxes for "Comma separated emails are allowed" and "SSL". A "Submit" button is at the bottom.

SMTP Information
Manage SMTP configurations for your organization.

SMTP Server *
myServer

SMTP Port *
myPort

User Name *
myUser

Password *
Add Password Test Connection

Mailto Cc *
myCCEmail

Mailto Bcc
Comma separated emails are allowed

From Email *
myFromEmail

Timeout *
10909889
Timeout is in milliseconds.

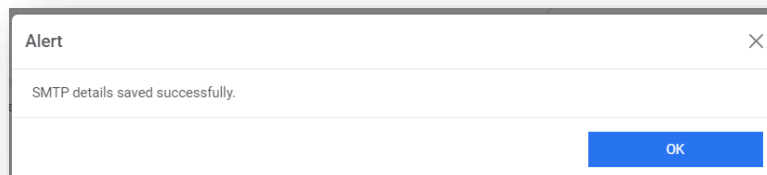
SMTP Type *
SMTP

SSL

Submit

Figure 261 - Configuration is not Correct

14. Click Submit. The confirmation box below appears.

A screenshot of an alert box titled "Alert" with a close button (X). The message inside says "SMTP details saved successfully." and there is an "OK" button at the bottom right.

Alert

SMTP details saved successfully.

OK

Figure 262 - Success Message

3.2.3.2.8 Manage Proxy

If the organization makes use of security measures such as a firewall or a proxy server, then there may be ports and protocols that need to be opened for configuring iAutomate. Provide the proxy server information for your site, along with a user account that has access to the local area network through which the server is connecting.

To manage a proxy server, perform the following steps:

1. On the main menu bar, click **Configuration** and then click **Manage Proxy**. The **Manage Proxy detail** page appears. Click on Add New button to add proxy.

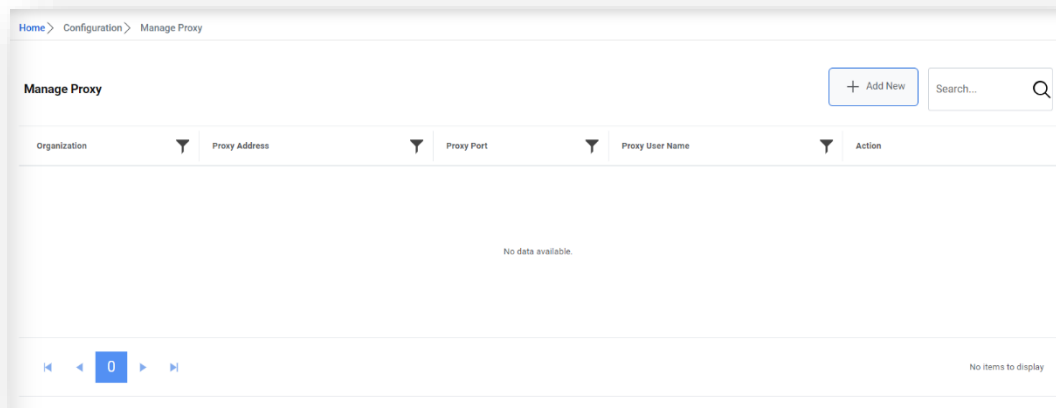


Figure 263 - Manage Proxy

2. Select the organization from the **Organization** dropdown.
3. In the **Proxy Address** field, type the proxy URL.
4. In the **Proxy Port** field, type the proxy port.
5. In the **Proxy UserName** and **Proxy Password** fields, type the username and password to access the proxy server.

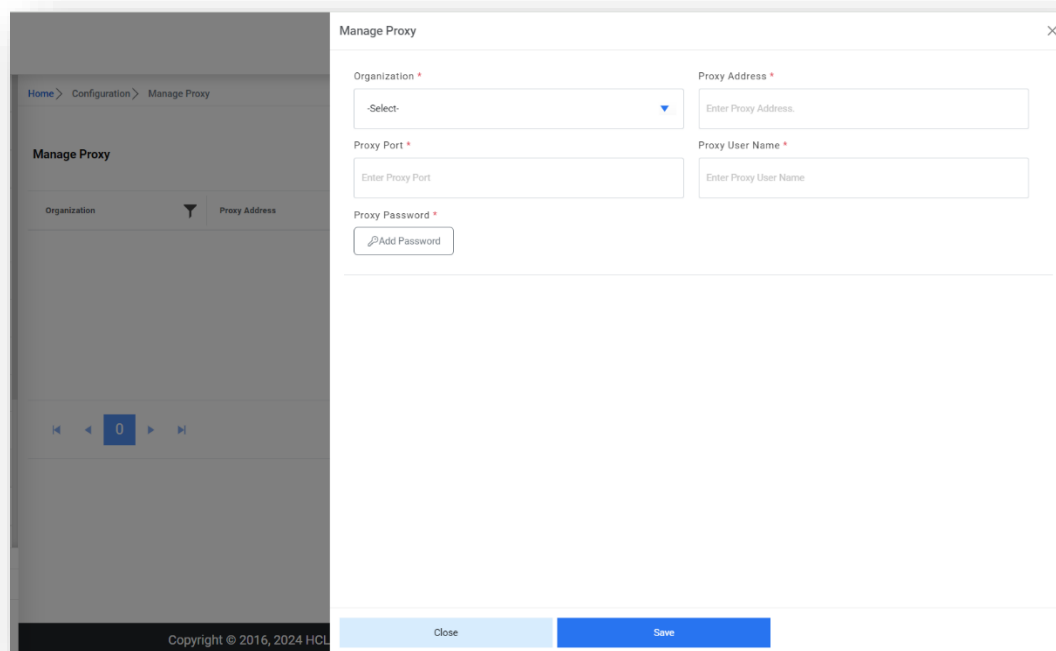


Figure 264 - Manage Proxy

6. For password, click on Add Password button. If the password is available in plaintext, then select Input type as Input Text and enter the password in Value field. Else if it is available in Azure Key Vault then select Input Type as Azure Key Vault and then select any of the configured details from the value field. Else if it is available in any Key Vault such as CyberArk or Internal Secret Manager then select Input Type as CyberArk or Internal Secret Manager respectively and then select any of the configured details from the value field.

The 'Secret Selector' dialog box has a title bar with a close button. It contains two main sections: 'Input Type' and 'Value'. The 'Input Type' section has a dropdown menu currently set to 'Input text'. The 'Value' section has a text input field containing a series of asterisks. Below the input field is a checkbox labeled 'Show Password', which is currently unchecked. At the bottom right, there are two buttons: 'Cancel' and 'Save'.

Secret Selector

Input Type

Input text

Value

☐ Show Password

Cancel Save

Figure 265 - Password in plaintext

The 'Secret Selector' dialog box has a title bar with a close button. It contains two main sections: 'Input Type' and 'Value'. The 'Input Type' section has a dropdown menu currently set to 'CyberArk'. The 'Value' section has a dropdown menu currently set to 'Test'. Below the 'Value' dropdown is a table with two columns: 'Key' and 'Value'. The table contains six rows of data. At the bottom right, there are two buttons: 'Cancel' and 'Save'.

Secret Selector

Input Type

CyberArk

Value

Test

Key	Value
Description	Test
AppID	Test
Safe	Test
Folder	Test
Object	Test

Cancel Save

Figure 266 - Password from Key Vault (CyberArk)

Secret Selector [Close]

Input Type
Internal Secret Manager

Value
df

Key	Value
Key	ff vv

Password [Redacted]

Note: Password is in encrypted form.

Cancel Save

Figure 267 - Password from Secret Manager

Secret Selector [Close]

Input Type
Azure Key Vault

Value
MyTestKey

Key	Value
Description	MyTestKey
Secret Name	MyTestKey

Cancel Save

Figure 268 - Password from Azure Key Vault

- Click Save.

A confirmation box appears.

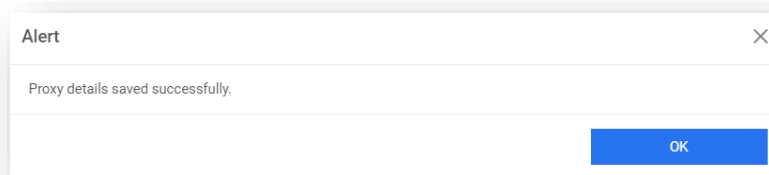


Figure 269 - Success Message

- To edit any proxy, click on  corresponding to the proxy Details.
- To delete any proxy, click on  corresponding to the proxy Details.

All fields marked with an asterisk (*) are mandatory.

3.2.3.3 Analysis

Ticket analysis is the process of identifying tickets that can be automated and create additional runbook for non-automated tickets. When a user reports an incident, it creates a corresponding ticket in the system and serves as a token in the Incident Management Process. Similar process is followed for any service request tasks and change request tasks as well.

Depending on the incident, tickets must be routed to the appropriate expert group who will handle the resolution. The goal is to resolve the ticket as quickly as possible to minimize business disruptions and user dissatisfaction.

To analyze a ticket, perform the following steps:

1. On the main menu bar, click **Analysis**.
2. The following menu appears:
 - [Ticket Analysis](#)
 - [Recommendation Analysis](#)
 - [Script Analysis](#)

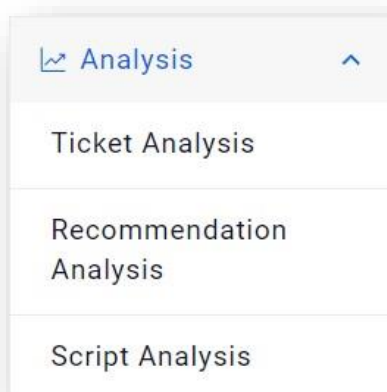


Figure 270- Analysis

Ensure user is logged on as administrator to create and manage analysis and associated parameters.

3.2.3.3.1 Ticket Analysis

User can configure settings to analyze tickets and categorize them for auto execution or execution with manual intervention.

To manage ticket analysis, perform the following steps:

1. On the main menu bar, click **Analysis**.
2. Click Ticket Analysis. The Ticket Analysis page appears.

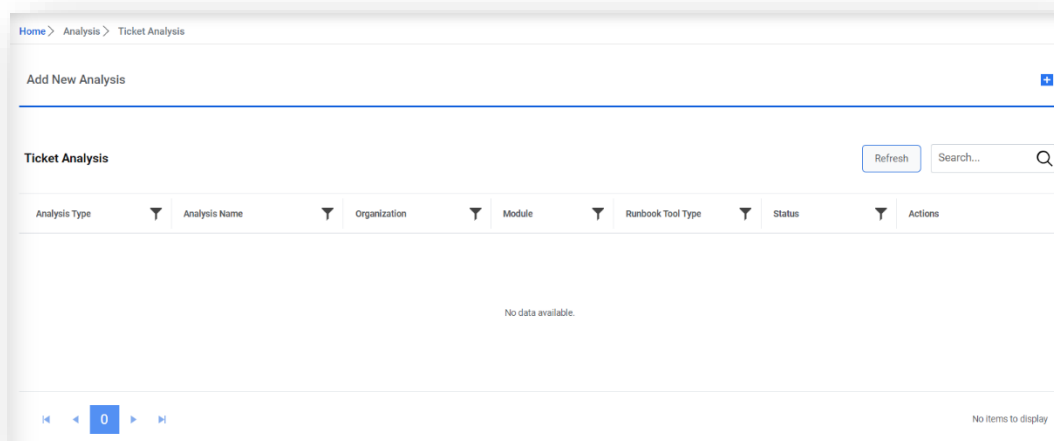


Figure 271 - Ticket Analysis

This lists the available analysis types in a tabular view and allows users to configure new analysis by using the  icon, and view, build and approve, merge, or delete the existing analysis.

Ticket analysis can be performed in two ways:

- **To CSV Ticket Analysis-** In this case, user can use existing organization data for ticket analysis. You can analyze that data and create a runbook of frequently occurring tickets. It imports the same runbook into the database for further use.
- **For Environment Specific Ticket Analysis:** In this case, the ticket analysis is performed continuously on the ticket data. Use can configure the frequency to daily, monthly, yearly, etc. under Manage Job section. It can be configured on a daily, monthly, or yearly basis.

3.2.3.3.1.1 Add New Ticket Analysis by Uploading CSV File

User can add a new analysis for an organization by performing the following steps:

1. On the Ticket Analysis screen, click .
2. The option to upload a CSV is displayed. It lets the user define the general attributes for a new analysis. Users must set attributes marked with an asterisk (*) to appropriate values for your environment before you can start analysis.

Home > Analysis > Ticket Analysis

Add New Analysis

Organization *
MyCompany

Analysis Name *
MyAnalysis

Runbook Tool Type *
ANSIBLETOWER

Select File *
Choose File No file chosen [Download Template](#)

[Cancel](#) [Start Analysis](#)

Figure 272- Add New Analysis

3. Select the organization from the list of available organizations next to the **Organization** field.
4. Select the **Runbook Tool Type** on which analysis needs to be run.
5. In the **Analysis Name** field, type the unique name for the analysis to be created.
6. Click **Download Template** to download the CSV template for uploading analysis details.
7. Fill the details in the downloaded template and click **Choose Files** to upload the updated CSV template.
8. To start ticket analysis, click **Start Analysis**.

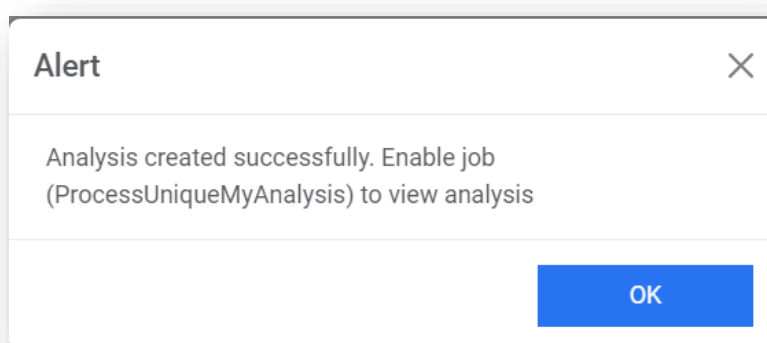


Figure 273- Add New Analysis (Cont.)

On clicking Start Analysis, three new jobs are created. These are Unique Clustering, Unique Script, and Recommendation. The newly added analyses are listed in the [Manage Jobs](#) page.

9. To enable the job to view analysis, go to the [Manage Jobs](#) page.
10. Select the newly added job for analysis with the status as **Queued** and then click **Enable Jobs**. The confirmation dialog box appears.

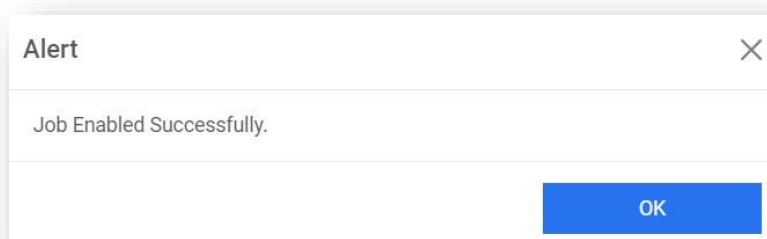


Figure 274- Add New Analysis (Cont.)

This adds the analysis and lists it in a grid with the status as **Queued**.

Ticket Analysis

Refresh

Search...

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions
CSV	ProcessUniqueMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Queued	

1

1 - 1 of 1 items

Figure 275- Add New Analysis (Cont.)

Once the unique service starts processing the analysis, the status changes from **Queued** to **Pending Verification**.

Ticket Analysis

Refresh

Search...

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions
CSV	ProcessUniqueMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Pending Verification	

1

1 - 1 of 1 items

Figure 276- Add New Analysis (Cont.)

An administrator user can delete any analysis from the list of ticket analysis by clicking next to the analysis type.

User can only delete the CSV specific ticket analysis.

3.2.3.3.1.2 View Ticket Analysis

Users can view the information about an analysis that has already been defined.

To view ticket analysis, perform the following steps:

1. On the **Ticket Analysis** page, click for the analysis you want to view.

Ticket Analysis

Refresh

Search...

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions
CSV	ProcessUniqueMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Pending Verification	

1

1 - 1 of 1 items

Figure 277- View Ticket Analysis

2. The **Ticket Details** page appears where user can view the total number of tickets, the number of unique tickets, and the number of unprocessed tickets.

Ticket Details [Close Icon]

# of Ticket [i]	# of Unique Variations [i]	# of Failed Tickets [i]
50	36	0

[Close] [Show Details]

Figure 278- View Ticket Analysis (Cont.)

- Click **Show Details** and it prompts a window that shows the **Similarity Score** and the **Canonical Summary** for the selected ticket.

Analysis Name: ProcessUniqueTesting1 [Back] [Export Summary]

Similarity Score*

<=90

Canonical Summary [Filter Icon]

- ⊕ Crawl History Script 10.0.1.121 (Count : 2)
- ⊕ ElasticOps : Create / delete home directories 10.0.1.121 (Count : 2)
- ⊕ Create Active Directory Group 10.0.1.121 (Count : 2)
- ⊕ CPU performance alert to be generated 10.0.1.33 (Count : 1)
- ⊕ CPU Reservation 10.0.1.121 (Count : 1)
- ⊕ User wants to Reserve CPU 10.0.1.121 (Count : 1)
- ⊕ Create AD group 10.0.1.121 (Count : 1)

Page 1 of 1 1 - 7 of 7 items

Figure 279- View Ticket Analysis (Cont.)

Use **Export Summary** to export the canonical summary of the ticket to your folder or click **Back** to go back to the previous screen.

3.2.3.3.1.3 Build and Approve Ticket Analysis

To ensure the correct categorization of tickets into the right buckets, Build Ticket Analysis needs to be done. It helps in validating the ticket categorization.

To build/approve analysis, perform the following steps:

- On the **Ticket Analysis** page, click [Icon] next to the analysis you want to build/approve.

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions
CSV	ProcessUniqueMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Pending Verification	

Figure 280- Build/Approve Ticket Analysis

- On the **View Ticket** page, analysis appear in a tabular view under the **Canonical Summary** column, based on the selection of similarity score.
- Expand the selected **Canonical Summary** to see the tickets under the selected summary.

Ticket Number	Summary	Confidence Score(%)
2279	10.x.x.x : NAS system utilization	73
2274	NAS system utilization 10.x.x.x	73

Figure 281- Build/ Approve Single Analysis (Cont.)

- To remove a ticket from the canonical summary, select a ticket or multiple tickets and then click **Remove** based on the discriminator.
- This prompts user to select the **Existing discriminator**, then type at least two comma separated **discriminators** to verify the uniqueness of the selected tickets, and then click **Save**.

Figure 282- Build/ Approve Single Analysis (Cont.)

- This adds the new discriminator and lists it under the **Discriminator** column.

Discriminator	Canonical Summary	Summary
set.configure	Create table dynamics 10.x.x.x	set table dynamics 10.x.x.x
set.configure	Create table dynamics 10.x.x.x	10.x.x.x configure table dynamics

Figure 283- Build/ Approve Single Analysis (Cont.)

- To manage the added discriminator for analysis, select **Manage Discriminator**.

8. The **Manage discriminator** page appears and enables user to delete the discriminator by clicking  .

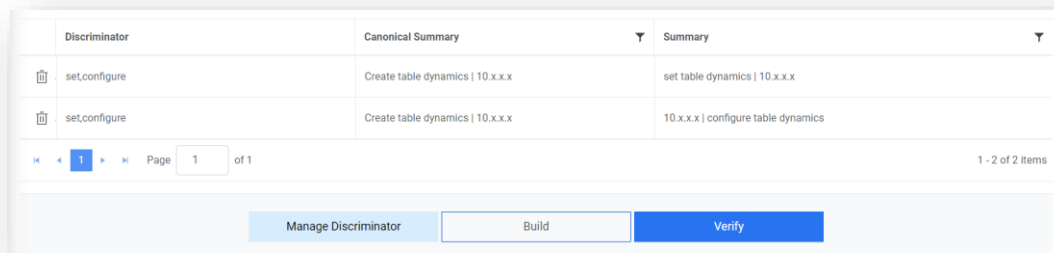


Figure 284 - Build/ Approve Single Analysis (Cont.)

Users can also specify the discriminator for required tickets simultaneously by uploading the CSV file.

9. To upload a discriminator, perform the following steps:
- Click **Export Summary** to download the CSV file, which contains the canonical summary name, actual summary, ticket no., confidence score, ticket ID, bucket ID, and the discriminator.

Table 6 - CSV File Template to Upload Discriminator

Canonical Summary	Actual Summary	Number	Confidence Score	Ticket ID	Bucket ID	Discriminator
CPU Utilization Issue	CPU Utilization Issue	INC01	1	1	1	Test1, Test 2

- Update the required details and then click **Import and Build Analysis** button.
- Click **Choose file** to upload the CSV file and then click **OK**.

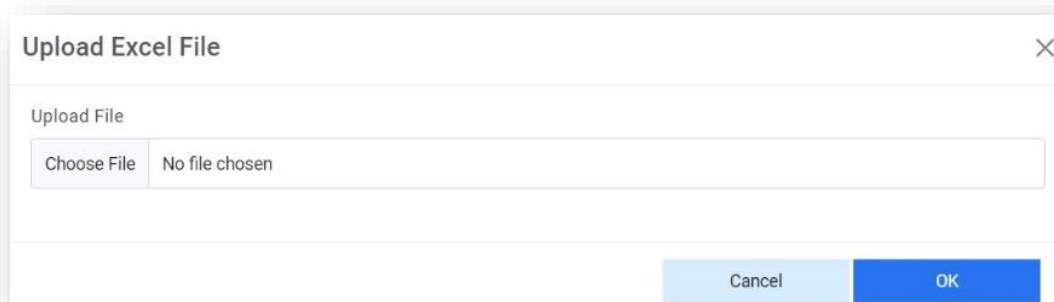
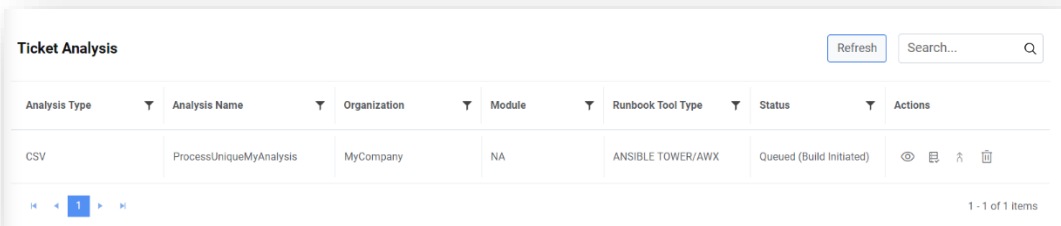


Figure 285- Build/ Approve Single Analysis (Cont.)

d. A **Build Initiated** appears in the status for the selected canonical summary.

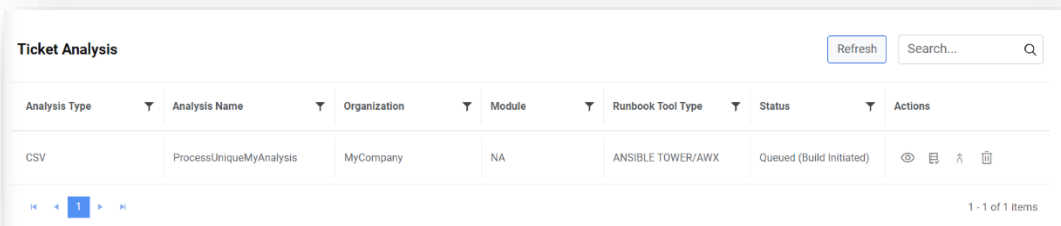


The screenshot shows a web interface titled "Ticket Analysis" with a "Refresh" button and a search bar. Below is a table with columns: Analysis Type, Analysis Name, Organization, Module, Runbook Tool Type, Status, and Actions. The table contains one row with the following data: CSV, ProcessUniqueMyAnalysis, MyCompany, NA, ANSIBLE TOWER/AWX, and Queued (Build Initiated). The Actions column contains icons for view, edit, add, and delete. At the bottom, there is a pagination bar showing "1 - 1 of 1 Items".

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions
CSV	ProcessUniqueMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Queued (Build Initiated)	

Figure 286- Build/ Approve Single Analysis (Cont.)

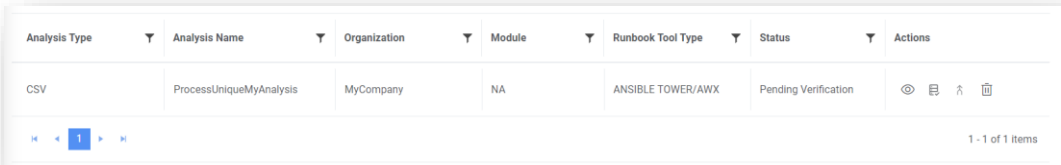
10. After the discriminators are configured, click **Build** to restart the ticket analysis of the selected tickets cluster based on the newly added discriminator. This displays the **Ticket Analysis** screen where the ticket analysis status changes to **Queued (Build Initiated)**.



This screenshot is identical to the previous one, showing the "Ticket Analysis" table with the status "Queued (Build Initiated)".

Figure 287- Build/ Approve Single Analysis (Cont.)

11. After the analysis is complete, the status automatically changes to **Pending Verification**.



The screenshot shows the "Ticket Analysis" table with the status updated to "Pending Verification".

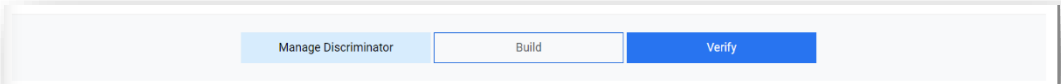
Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions
CSV	ProcessUniqueMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Pending Verification	

Figure 288- Build/ Approve Single Analysis (Cont.)

12. To verify the pending verification, click  again next to the analysis you want to verify, and it will redirect you to theVerify page.

Whenever a discriminator is added to an analysis, it is mandatory to rebuild the analysis.

13. Click **Verify** to approve the analysis.



The screenshot shows a horizontal bar with three buttons: "Manage Discriminator" (light blue), "Build" (white with blue border), and "Verify" (blue).

Manage Discriminator	Build	Verify
----------------------	-------	--------

Figure 289- Build/ Approve Single Analysis (Cont.)

The analysis status changes to **Verified and Pending Merge**.

Ticket Analysis						
Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions
CSV	ProcessUniqueMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Verified and Pending Merge	

Figure 290- Build/ Approve Single Analysis (Cont.)

User cannot add a discriminator to tickets for analysis after verification of the ticket analysis.

The **View Ticket** screen displays and enables users to export canonical summary data using the **Export to CSV** option from the bucket.

Analysis Name: ProcessUniqueMyAnalysis
Back Export Summary

Similarity Score*

<=90

Figure 291- Build/Approve Ticket Analysis (Cont.)

User cannot add a discriminator to tickets for analysis after verification of the ticket analysis.

3.2.3.3.1.4 Merge Analysis

Whenever user adds or removes ticket from the ticket cluster, new unique variations must be merged with the existing unique variations.

To merge an analysis, perform the following steps:

1. On the **Ticket Analysis** page, click next to the analysis you want to merge.

Ticket Analysis						
Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions
CSV	ProcessUniqueMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Verified and Pending Merge	

Figure 292- Merge Analysis

Only tickets with Pending Merge status can be merged using this option.

2. The **Merge Analysis** page lists all the configured variations in a tabular view.

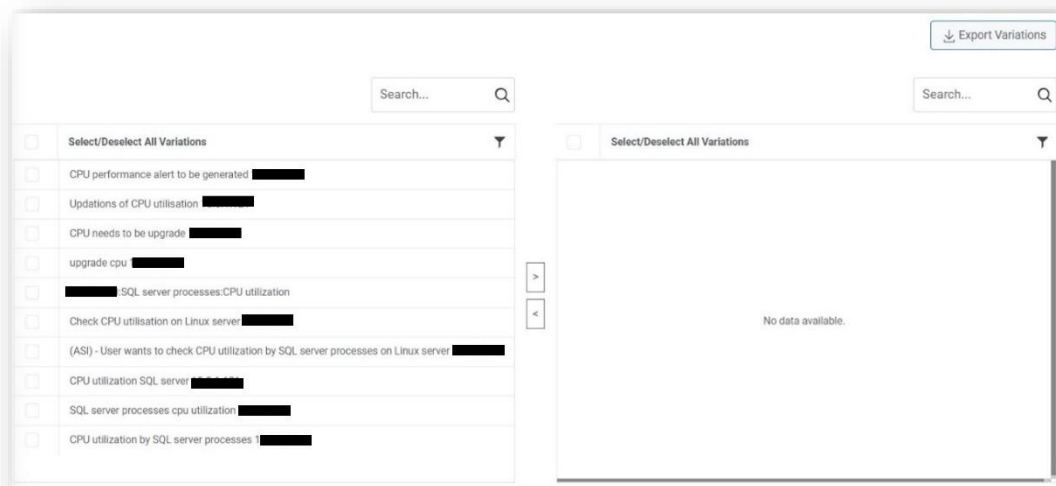


Figure 293- Merge Analysis (Cont.)

3. Select the variations from the left grid. Click **>** to move the selected variations to the right grid and vice versa to remove selected variations.

User can select a single variation or multiple variations to merge.

4. To merge the selected variations, click **Merge**, and then click **Save**.

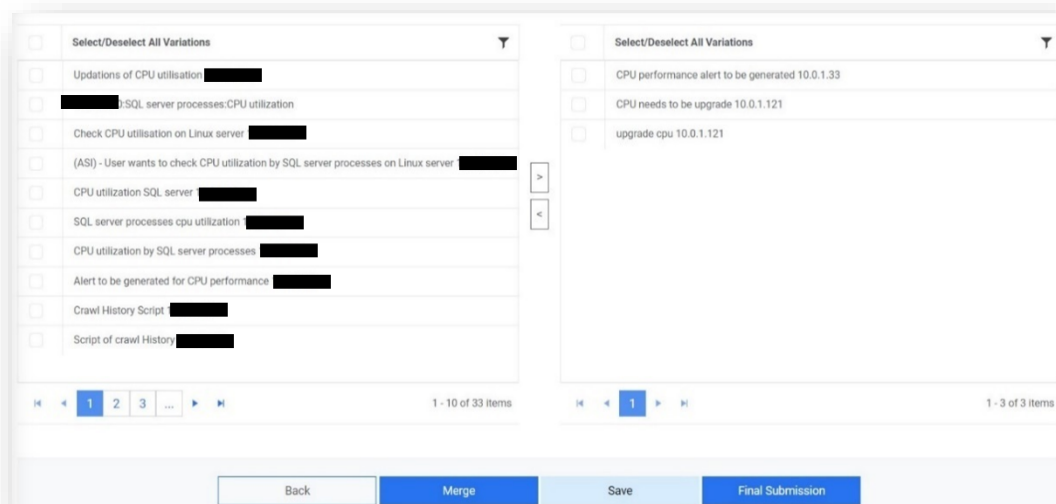


Figure 294- Merge Analysis (Cont.)

5. To proceed with the analysis, click **Final Submission** to submit the merged variations.

Click **Export Variations** to export the selected variations.

iAutomate provides you with search capabilities to access required variations from the list of variations based on certain keywords or set of characters. Type a value in the **Search** box and then select **Search** to get the preferred results.

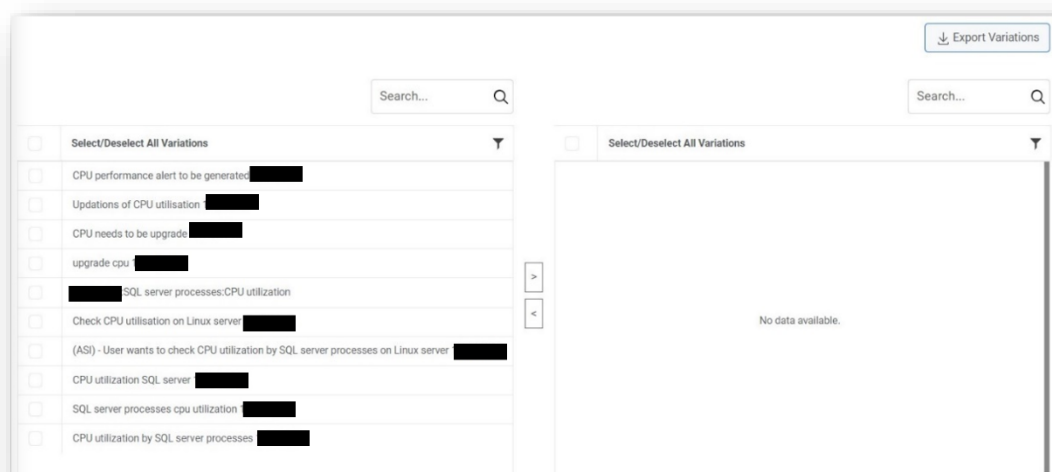


Figure 295- Merge Analysis (Cont.)

Click **Clear Search** to cancel the search.

3.2.3.3.1.5 Auto Switch Mode for Analysis

Users can automatically validate newly identified unique tickets.

1. On the **Ticket Analysis** screen, enable the toggle button  next to the analysis to enable the **Auto Switch** mode.

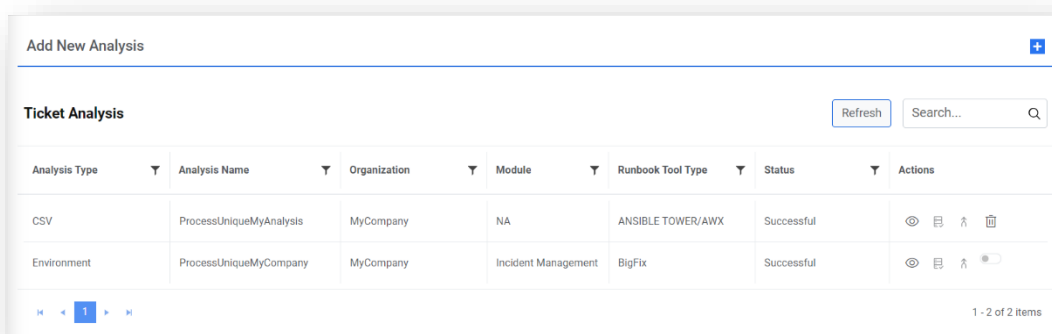


Figure 296- Auto Switch Mode for Analysis

2. The auto-mode for the analysis gets enabled.

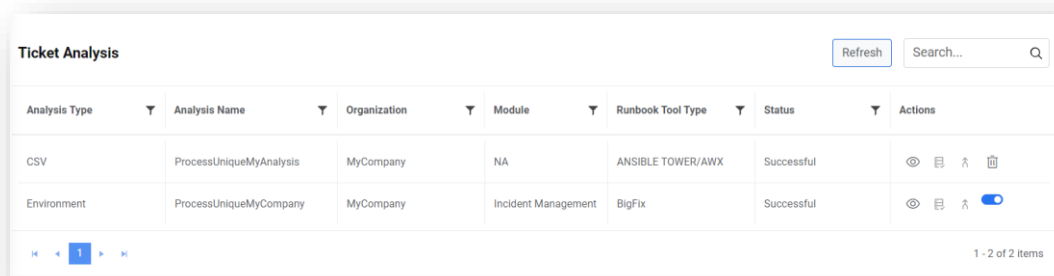


Figure 297- Auto Switch Mode for Analysis

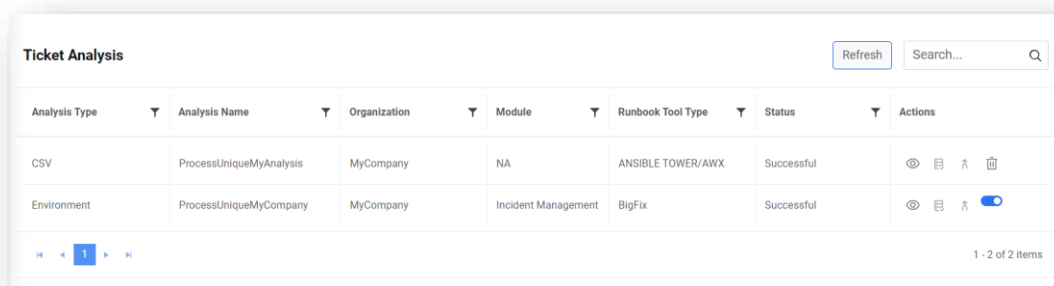
The auto switch mode works only for environment analysis.

3.2.3.3.1.6 Delete Analysis

An analysis can be deleted if it is no more required.

To delete an analysis, perform the following steps:

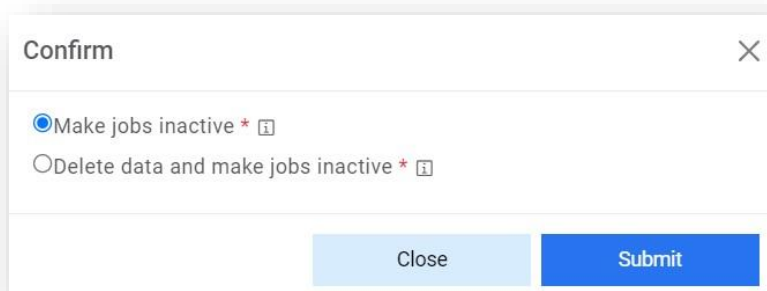
1. Click  to delete the analysis.



Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions
CSV	ProcessUniqueMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Successful	  
Environment	ProcessUniqueMyCompany	MyCompany	Incident Management	BigFix	Successful	   

Figure 298- Delete Analysis

2. Select the appropriate option visible in the confirmation dialog box if you would like to make the jobs inactive or delete the data along with it.



Confirm

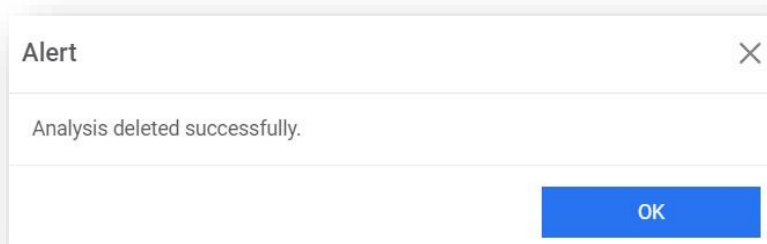
☒ Make jobs inactive * 

☐ Delete data and make jobs inactive * 

Close Submit

Figure 299- Delete Analysis (cont.)

3. A confirmation message appears.



Alert

Analysis deleted successfully.

OK

Figure 300- Delete Analysis (cont.)

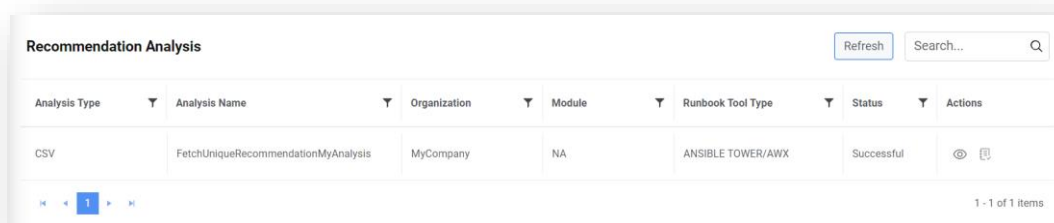
3.2.3.3.2 Recommendation Analysis

Recommendation analysis identifies relevant runbooks for unique ticket categories, followed by SME feedback for approval.

To manage the recommendation analysis, perform the following steps:

1. On the main menu bar, click **Analysis**.

2. Click Recommendation Analysis. The Recommendation Analysis page appears.



Recommendation Analysis							Refresh	Search...	
Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions			
CSV	FetchUniqueRecommendationMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Successful	 			

1 - 1 of 1 items

Figure 301- Recommendation Analysis

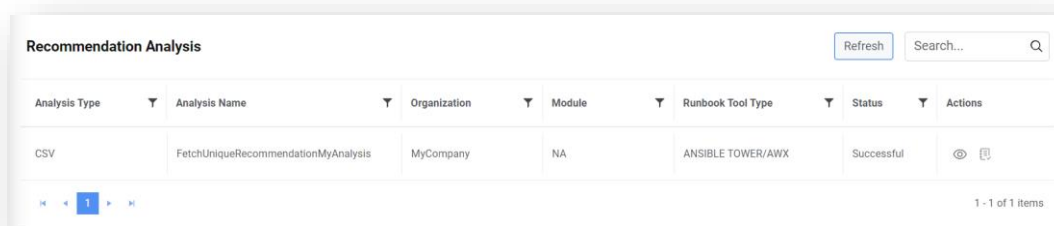
This displays the available analysis types in a tabular view and enables user to view or approve them.

3.2.3.3.2.1 Approve Analysis

User can approve the recommendation analysis, which includes the runbook details and a description of the associated ticket category that has been already defined.

To approve the recommendation analysis, perform the following steps:

1. On the **Recommendation Analysis** page, click  next to the analysis type user wants to approve.

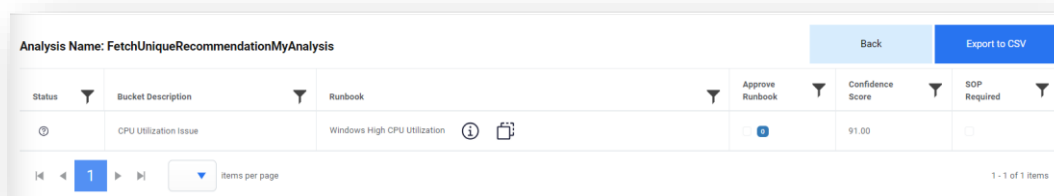


Recommendation Analysis							Refresh	Search...	
Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions			
CSV	FetchUniqueRecommendationMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Successful	 			

1 - 1 of 1 items

Figure 302- Approve Analysis

2. The **Recommendation Analysis** page displays the variation's status in the **Status** column, bucket description in **Bucket Description** column, associated runbooks in the **Runbook** column, runbooks available for approval in **Approve Runbook** column, confidence score of the runbook in the **Confidence Score** column, and the SOP required for the selected variation in the **SOP Required** column.



Analysis Name: FetchUniqueRecommendationMyAnalysis						Back	Export to CSV
Status	Bucket Description	Runbook	Approve Runbook	Confidence Score	SOP Required		
	CPU Utilization Issue	Windows High CPU Utilization  	 	91.00			

1 - 1 of 1 items

Figure 303- Approve Analysis (Cont.)

3. Click  to view the runbook details.

Runbook	Approve Runbook	Confidence Score	SOP Required
Windows High CPU Utilization  	☒ 0	91.00	
The playbook will check CPU Utilization on Windows server and identify top CPU consuming processes. Playbook to fetch CPU usage information for diagnostic and health check purpose to manage Windows high CPU utilization request.			

Figure 304- Approve Analysis (Cont.)

- Click  to view the complete list of runbooks available under the bucket description along with their confidence score.
- The **Runbook** page lists the recommended runbooks available for approval.

Runbooks			View All
Runbook	Confidence Score	Is Approved	
Windows_High_CPU_Utilization 	-	☒ 0	
  1  			 items per page
			1 - 1 of 1 items
			Close

Figure 305- Approve Analysis (Cont.)

- To approve a runbook, select the checkbox next to the runbook in the **Approve Runbook** column.
- A confirmation dialog box appears.

Alert

Ticket has been updated successfully.

OK

Figure 306- Approve Analysis (Cont.)

User can view the list of all runbooks from the repository by clicking **View All** and, if required, you can approve a runbook from the repository.

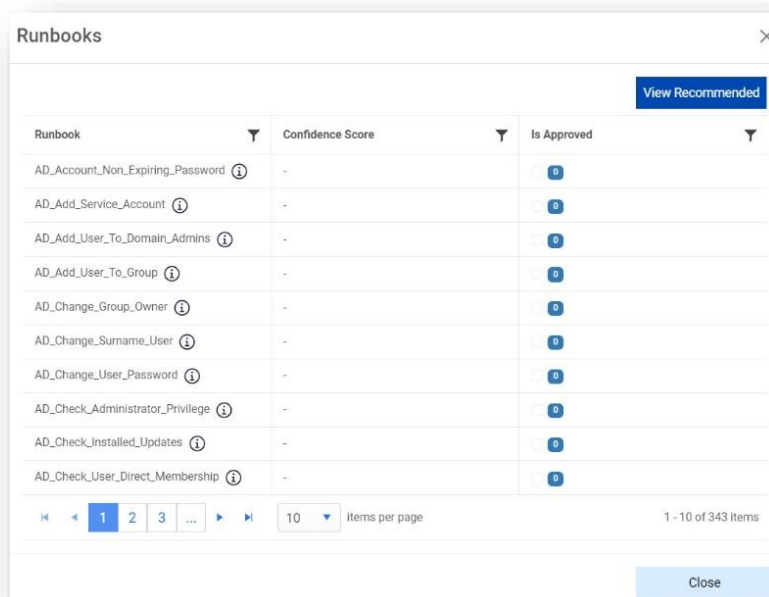


Figure 307 - Approve Analysis (Cont.)

8. To go back to the runbooks recommended for a bucket, click **View Recommended**.
9. Click **Export** to export all the recommended runbooks to Excel spreadsheet.

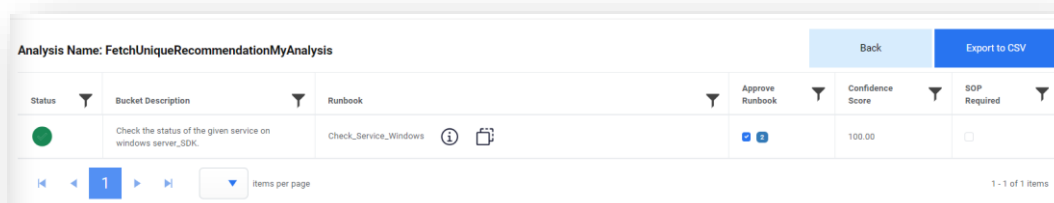


Figure 308 - Approve Analysis (Cont.)

10. If the SOP is required for a bucket, then select the **SOP Required** check box.

3.2.3.3.2.2 View Analysis

User can view the information for an already defined analysis, including the runbook details and the associated bucket's description.

To view analysis, perform the following steps:

1. On the **Recommendation Analysis** page, click ⓘ corresponding to the analysis type you want to view.

Recommendation Analysis							Refresh	Search...	
Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions			
CSV	FetchUniqueRecommendationMyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Successful				1 - 1 of 1 items

Figure 309 - View Analysis

- The **Recommendation Details** page appears, displaying the number of unique variations and the number of variations with runbooks above the threshold.

Ticket Details			
# of Unique Variations	# of Variations with Runbooks above Threshold	# of Failed Variations	
1	1	0	
		Close	Show Details

Figure 310 - View Analysis (Cont.)

- Click **Show Details** to view all the details of the recommendation analysis.

Every action button remains disabled for View Analysis, since this is a read-only view.

3.2.3.3.3 Script Analysis

In case of unavailable runbooks for a certain set of ticket categories, iAutomate helps the users by automatically downloading relevant scripts from internal and external data sources. Users can view, validate, and customize those scripts for future use.

To configure a script analysis, perform the following steps:

- On the main menu bar, click **Analysis**.
- Click Script Analysis. The Script Analysis page appears.

Script Analysis							Refresh	Search...	
Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions			
CSV	FetchScriptForUniquelyAnalysis	MyCompany	NA	ANSIBLE TOWER/AWX	Successful				1 - 1 of 1 items

Figure 311- Script Analysis

This lists the available analysis types in a tabular view and enables user to view and build or approve analysis.

3.2.3.3.1 View Analysis

User can view information for an already defined analysis type.

To view the script analysis, perform the following steps:

1. On the **Script Analysis** screen, click  corresponding to the analysis you want to view.

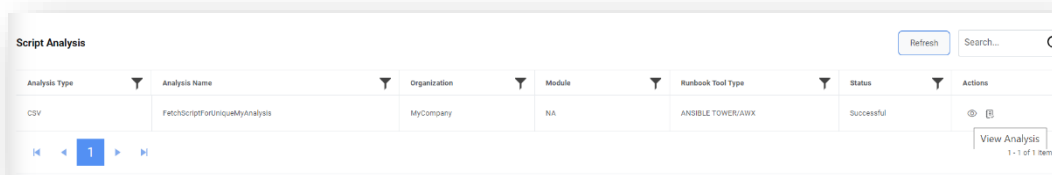


Figure 312- View Analysis

2. The Ticket Variation Details page appears that includes the count of ticket variations in the categories - **No Runbook Available**, **Script Downloaded**, and **Script Approved**.

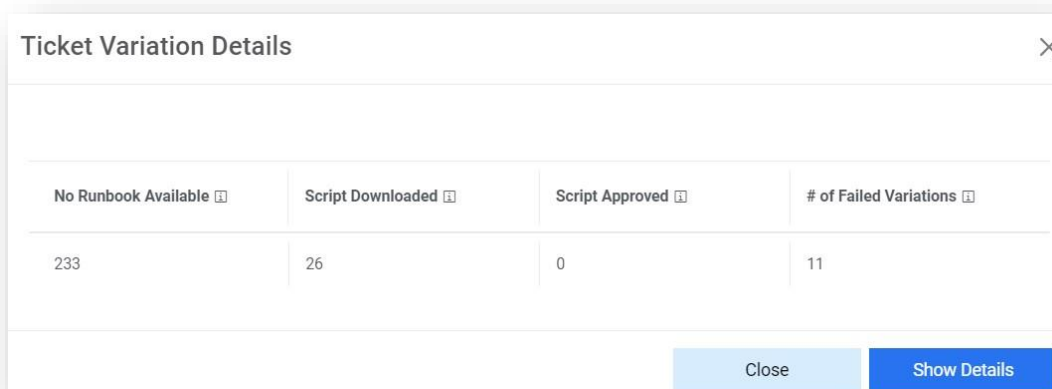


Figure 313- View Analysis (Cont.)

3. Click **Show Details** to view the details including the count of ticket variations for which No Runbook Available, Script Downloaded but not Approved, Script Available, Script Downloaded and Approved, and Script in Progress.



Figure 314- View Analysis (Cont.)

4. To scale down the search for variations, type the keywords in a search box next to the **Variation** field and click **Search**.

3.2.3.3.2 Build/Approve Analysis

User can build or approve script analysis by performing the following steps.

1. On the **Script Analysis** page, click  next to the analysis type you want to approve.

- The **Manage Scripts** page appears and lists the available variations in a tabular view.

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Actions
CSV	FetchScriptForUniqueDryice188	MyCompany	NA	ANDRELE TOWERIAWK	Successful	Approve Script

Figure 315- Build/Approve Analysis

- iAutomate provides easy search capabilities to access required scripts from the list of scripts based on certain keywords. Type a value in the **Search** box and then click **Search**.

Analysis Name: FetchScriptForUniqueDryice188

Back

No Runbook available		Script downloaded but not approved		No script available		Script Approved		Script In Progress	
Variations	Tickets	Variations	Tickets	Variations	Tickets	Variations	Tickets	Variations	Tickets
233	968	26	129	205	834	0	0	0	0

Variation

Clear

Search

Variation	# Of Tickets	Last Ticket Created On	Auto/Manual	Action	Assign/Release	Assignment
test	60	05/29/2024 5:56:11 PM	Auto		Assign	Not Yet Assigned
Server is not reachable over the network	15	05/29/2024 5:56:11 PM	Auto		Assign	Not Yet Assigned

Figure 316- Build/Approve Analysis (Cont.)

Choose **Clear** to cancel the search.

- To allow the variation to be used for script analysis, click **Assign** and the variation will be assigned to the logged in user.

Server is not reachable over the network	15	05/29/2024 5:56:11 PM	Auto		Assign	Not Yet Assigned
--	----	-----------------------	------	--	--------	------------------

Figure 317- Build/Approve Analysis (Cont.)

- After the variation is assigned, the variation status changes to **Release** and the **Assignment** column displays the name of the assignee.

test	60	05/29/2024 5:56:11 PM	Auto		Release	Assigned to
------	----	-----------------------	------	--	---------	-------------

Figure 318- Build/Approve Analysis (Cont.)

If user clicks **Release**, then the variation status will again change to Assign and will become available for assignment to another user.

- In the **Action** column, click next to the variation to approve the associated scripts of the variation.

No Runbook available		Script downloaded but not approved		No script available		Script Approved		Script In Progress	
Variations	Tickets	Variations	Tickets	Variations	Tickets	Variations	Tickets	Variations	Tickets
233	968	26	129	205	834	0	0	0	0
Variation									
Clear Search									
Variation	# Of Tickets	Last Ticket Created On	Auto/Manual	Action	Assign/Release	Assignment			
test	60	05/29/2024 5:56:11 PM	Auto		Release	Assigned to Preeti Gupta			
Server is not reachable over the network	15	05/29/2024 5:56:11 PM	Auto	Click to Approve Script	Assign	Not Yet Assigned			

Figure 319- Build/Approve Analysis (Cont.)

- A list of scripts for the selected variation appears in a tabular view that enables you to download the scripts in scripts text by clicking **Retrieve** appearing next to the scripts.

Variation: test					Back
Select	Auto Downloaded Script Name	Script URL	Auto Downloaded Script	Last Uploaded By User	
☒	iScript//2461___20240530.txt	https://www.pdq.com/powershell/test-computersecurechannel/	Retrieve	Not Available	

Figure 320- Build/Approve Analysis (Cont.)

User can add multiple scripts simultaneously using the **Export to Excel** function or add a single script by clicking **Create a New Script** from the grid below.

Users can download the available scripts and use them to create more scripts. To download a script, select the radio button of the script and click **Download**.

Script Details

Is Script run through Master Runbook

☐

Upload

☒ Manually
 ☐ Upload

Script Text

Please note: The textbox data would only be considered if no file has been uploaded

File Extension

.ps1

Script Name

2461___20240530

Runbook Recommend Description

The Test-ComputerSecureChannel cmdlet verifies that the channel between the local c

URL (Downloaded from)

https://www.pdq.com/powershell/test-computersecurechannel/

Figure 321- Build/Approve Analysis (Cont.)

Upload an Excel to Configure Multiple Scripts

User can create multiple scripts simultaneously using the **Export to Excel** function.

To create multiple scripts, perform the following steps:

- On the Manage Script page, select Create a New Script at the bottom of the grid.

Home > Analysis > Script Analysis > Manage Scripts

Variation: test Back

Select	Auto Downloaded Script Name	Script URL	Auto Downloaded Script	Last Uploaded By User
☒	iScript/2461___20240530.txt	https://www.pdq.com/powershell/test-computersecurechannel/	Retrieve	Not Available
☐	iScript/3339___20240530.txt	https://www.pdq.com/powershell/test-netconnection/	Retrieve	Not Available
☐	iScript/8582___20240530.txt	https://www.pdq.com/powershell/test-path/	Retrieve	Not Available
☐	iScript/4095___20240530.txt	https://www.pdq.com/blog/how-to-validate-powershell-to-check-for-existing-files/	Retrieve	Not Available
☐	iScript/2964___20240530.txt	https://www.pdq.com/powershell/test-connection/	Retrieve	Not Available
☐	Create a new script in case the auto downloaded script(s) are not relevant			

Figure 322- Build/Approve Analysis (Cont.)

2. This auto fills the **Upload** field.

Script Details

Is Script run through Master Runbook ☐ Upload ☒ Manually ☐ Upload

Script Text

Please note: The textbox data would only be considered if no file has been uploaded

File Extension Script Name

Runbook Recommend Description URL (Downloaded from)

Figure 323- Build/Approve Analysis (Cont.)

3. Click **Choose File** to upload multiple scripts at the same time. This adds the new scripts and appears in a list.

Create Single Script

User can create a single script for analysis by using the following steps:

1. On the **Manage Script** page, select Create a New Script at the bottom of the grid.

Script Text

Please note: The textbox data would only be considered if no file has been uploaded

File Extension: .ps1

Script Name: 2461__20240530

Runbook Recommend Description: The Test-ComputerSecureChannel cmdlet verifies that the channel between the local c

URL (Downloaded from): https://www.pdq.com/powershell/test-computersecurechannel/

More Information

Response File Path:

Category *

Sub Category*

Add Bucket Description To Recommendation ☐

Figure 324 Build/Approve Analysis (Cont.)

2. It auto-fills the following fields below the **Upload** option.
3. To create a single script, fill in the details below.
 - a. Type the **Script Name**, the **Script Description**, and then type the **URL** from where user downloaded the script.

File Extension: .ps1

Script Name: 2461__20240530

Runbook Recommend Description: The Test-ComputerSecureChannel cmdlet verifies that the channel between the local c

URL (Downloaded from): https://www.pdq.com/powershell/test-computersecurechannel/

Figure 325- Build/Approve Analysis (Cont.)

- b. Type the **Category** of script, then the **Sub-Category** of the script.
 - c. Select the checkbox, if you want to **Add Bucket Description To Recommendation**.
 - d. Type the **Recommendation Description**, then the **Runbook Tags**.

More Information

Response File Path:

Category *

Sub Category*

Add Bucket Description To Recommendation ☐

User Friendly Runbook Description*

Runbook Tags*

Figure 326- Build/Approve Analysis (Cont.)

- e. After user has added the values, provide the following parameters to create a script:
 - **Parameter Name**- Specifies a name for the parameter to be used in the script for analysis.
 - **Field Type**:
 - **Text**: specifies that field type is text

- **Secureparameter:** specifies that the parameter is secured and will be saved in encrypted form in database.
 - **Is Mandatory-** Select True or False if the parameter details added are mandatory or not.
 - **Parameter Description-** Describes the parameter.
 - **Parameter Label-** Specifies a unique user-friendly name for the parameter to be added.
 - **Default Parameter Value-** Specifies the default value for the parameter.
 - **Parameter type-** Specifies the method for script parsing.
 - **IsScript Parameter-** To specify that parameter is script parameter.
 - **Is CIBased Parameter-** To specify that parameter is CI Based
 - **Is ReadOnly parameter-** To specify that the parameter is read only parameter.
 - **Action-** Enables user to edit or delete the existing parameter by clicking Edit or Delete.
 - **Add-** Adds a new row to add another parameter.
- f. Click **Save Changes** to add the new script.

Parameter Name	Field Type	Is Mandatory	Parameter Description	Parameter Label	Default parameter Value	Parameter Type	Is Script Parameter	Is CIBased Parameter	Is ReadOnly Parameter	Action
	Text	True				-Se...	☐	☐	☐	+

Figure 327- Build/Approve Analysis (Cont.)

Users cannot edit a script after the analysis is approved.

[MANAGE PROXY 1](#) While saving, user can add this created script as a runbook to the runbook tools present in the system by giving a user-friendly name. Then click on Submit. The created script will now be visible under the selected runbook tool.

Runbook Configuration

Search...

☐	Runbook Tool Name	Runbook Tool Type Name
☐	My_Tool	ANSIBLE TOWER/AWX
☐	No Tool	NA

1 - 2 of 2 items

Note: "No Tool" entry will be saved as Inventory Runbook.

User Friendly Name*

My_Script_Runbook

Close Submit

Figure 328- Build/Approve Analysis (Cont.)

3.2.3.4 Advance Configuration

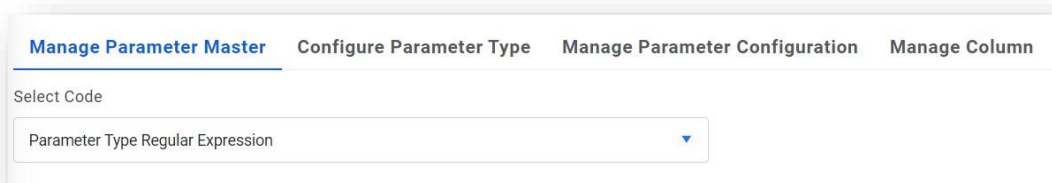
3.2.3.4.1 Manage Parameter Master

This section describes how to configure a regular expression for use in the parameter type. A regular expression is a special text string to describe a search pattern during ticket parsing.

To manage parameter master, perform the following steps:

The user must be logged in as administrator to access the Manage Parameter Master, Add Hyperparameters and Hyperparameter Configuration.

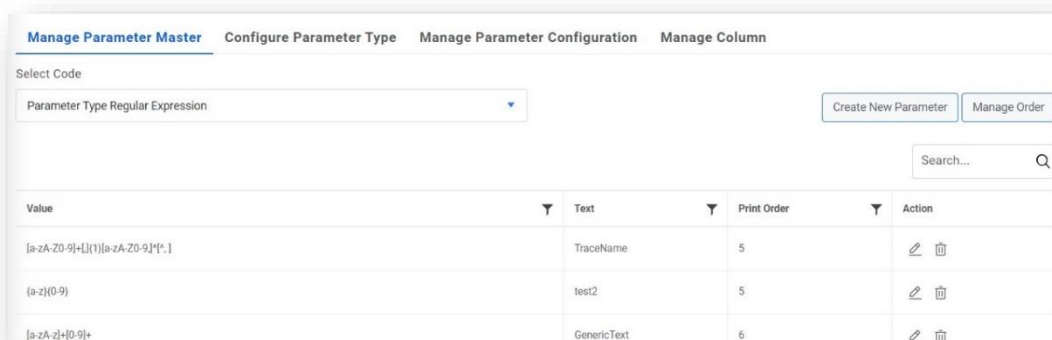
1. On the menu bar, click Advance Configuration → Parameter and then click Manage Parameter Master.
2. The Manage Parameter Master page appears.



The screenshot shows the 'Manage Parameter Master' page with four tabs: 'Manage Parameter Master' (active), 'Configure Parameter Type', 'Manage Parameter Configuration', and 'Manage Column'. Below the tabs is a 'Select Code' section with a dropdown menu currently displaying 'Parameter Type Regular Expression'.

Figure 329- Manage Parameter Master

3. Select a code by clicking the drop-down next to the **Select Code** field.
4. If there are any available parameter values under the selected code, they are listed in a tabular view that allows the user to add a new parameter, edit or delete existing parameters, and manage the order of existing parameters.



The screenshot shows the 'Manage Parameter Master' page with the 'Select Code' dropdown menu set to 'Parameter Type Regular Expression'. To the right of the dropdown are buttons for 'Create New Parameter' and 'Manage Order'. Below these is a search bar labeled 'Search...'. A table displays the following data:

Value	Text	Print Order	Action
[a-zA-Z0-9]+([1])([a-zA-Z0-9])?*	TraceName	5	
(a-z){0-9}	test2	5	
[a-zA-z]{0-9}+	GenericText	6	

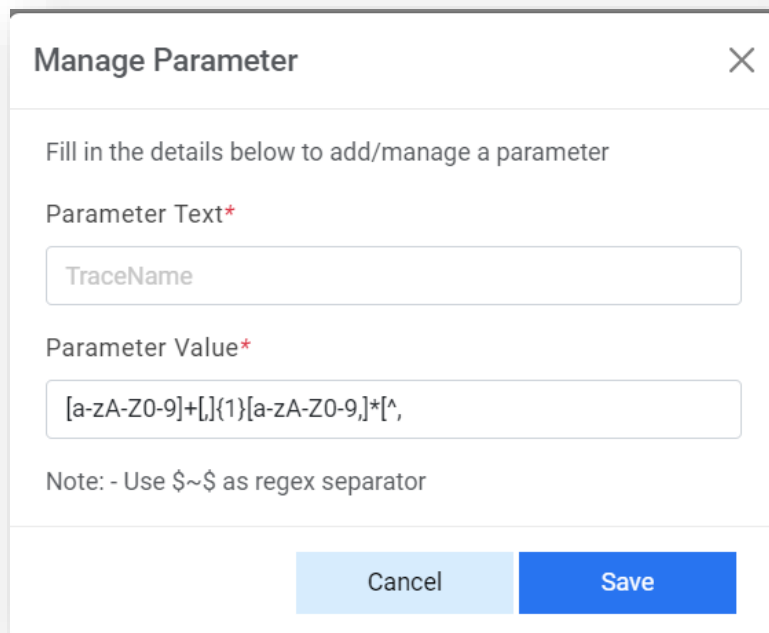
Figure 330- Manage Parameter Master (Cont.)

The user can change the list of values shown as a result of selected code by selecting a number under the Show tab. The user can refine the search by typing the Parameter Value keywords in the Search field.

3.2.3.4.1.1 Add Parameter

User can add a new parameter type by performing the following steps:

1. On the menu bar, click Advance Configuration → Parameter → Manage Parameter Master.
 2. On the **Manage Parameter Master** page, select a code by clicking the drop-down next to the **Select Code** field.
- This enables the **Create New Parameter** button.



Manage Parameter [Close]

Fill in the details below to add/manage a parameter

Parameter Text*

TraceName

Parameter Value*

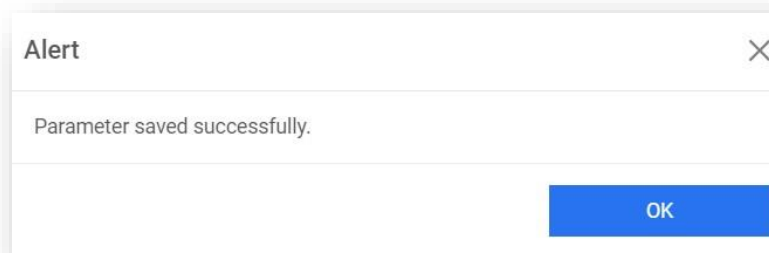
[a-zA-Z0-9]+[,]{1}[a-zA-Z0-9]*[^,

Note: - Use \$~\$ as regex separator

[Cancel] [Save]

Figure 334- Edit Parameter Value (cont.)

3. Edit the required details of the parameter.
4. Click **Save** to save changes or click **Close** to discard all changes.
5. A confirmation dialog box appears.



Alert [Close]

Parameter saved successfully.

[OK]

Figure 335- Edit Parameter Value (cont.)

3.2.3.4.1.3 Delete Parameter Value

iAutomate allows user to view parameter values and delete them, if not required.

To delete the parameter value, perform the following steps:

1. On the **Manage Parameter Master** page, click  next to the parameter value user wants to delete.

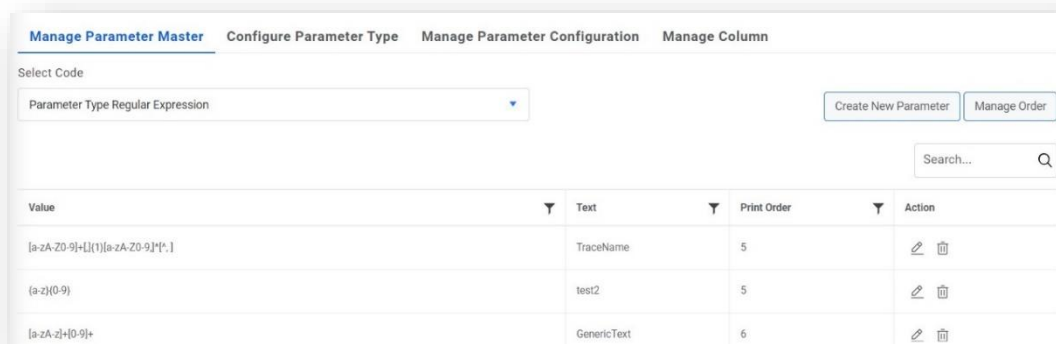


Figure 336- Delete Parameter Value

2. Click **OK** to confirm.



Figure 337- Delete Parameter Value (Cont.)

3. A confirmation dialog box appears.

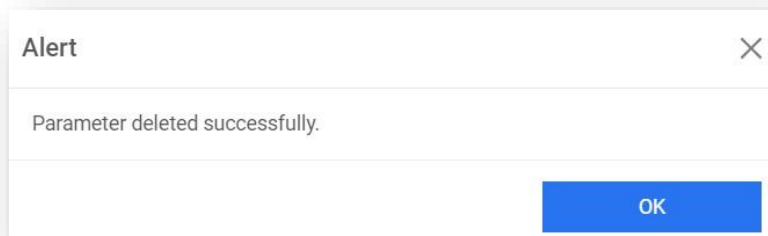


Figure 338- Delete Parameter Value (Cont.)

3.2.3.4.2 Configure Parameter Type

To enhance the iAutomate workflow, users can include customer specific parameter types for parsing tickets.

To configure a customer specific parameter type, perform the following steps:

1. On the main menu bar, click Advance Configuration→Parameter.
2. Click Configure Parameter Type. The Configure Parameter Type page appears.

Manage Parameter Master <u>Configure Parameter Type</u> Manage Parameter Configuration Manage Column				
New Parameter Type +				
Search... Q				
Parameter Type Id	Parameter Type	Parse Order	User Friendly Name	Action
17	WebAppPool	regex(proximity)	Description	✎ ✕
18	SnapshotName	regex	Description	✎ ✕

Figure 339- Configure Parameter Type

This lists the **Parameter Type ID**, **Parameter Type**, **Parse Order**, and **User-Friendly Name** in a tabular view which enables user to add a new parameter type and edit or delete existing parameter types.

3.2.3.4.2.1 Add Parameter Type

User can add a customer specific parameter type in iAutomate by performing the following steps:

1. On the Configure Parameter Type page, click +.

Manage Parameter Master <u>Configure Parameter Type</u> Manage Parameter Configuration Manage Column				
New Parameter Type +				
Search... Q				
Parameter Type Id	Parameter Type	Parse Order	User Friendly Name	Action
17	WebAppPool	regex(proximity)	Description	✎ ✕
18	SnapshotName	regex	Description	✎ ✕

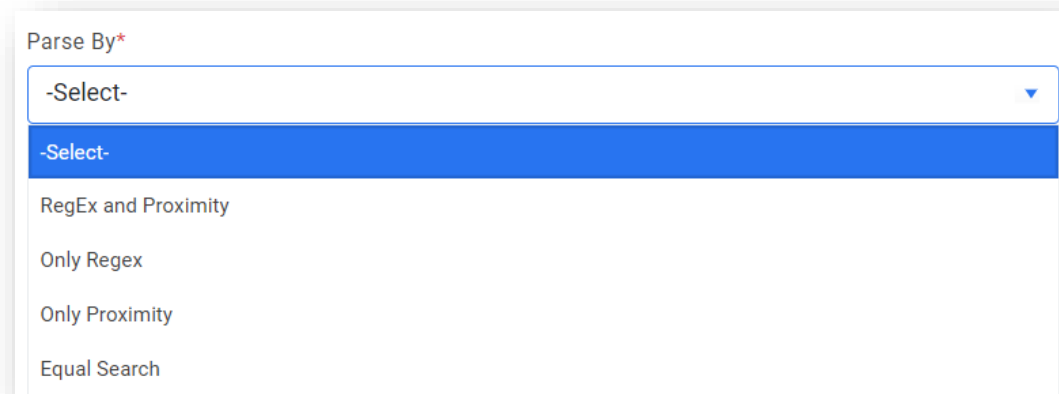
Figure 340- Add Parameter Type

2. The **Configure Parameter Type** page prompts users to manually fill the following fields:

Manage Parameter Master <u>Configure Parameter Type</u> Manage Parameter Configuration Manage Column				
New Parameter Type +				
Parameter Type * Parse By* Regular Expression* Proximity Words* Default Field Name* Parse Order* Cancel Submit				
-Select- -Select- -Select- -Select- -Select- -Select-				
-Select- -Select- -Select- -Select- -Select- -Select-				

Figure 341- Add Parameter Type (Cont.)

- a. Type the parameter type identifier in the **Parameter Type** field.
- b. Select the ticket parsing method from the **Parse by** drop-down list.
 - **Regex and Proximity:** In this method, both Regex and Proximity features are used for parsing.
 - **Only Regex:** In this method, tickets are parsed using the default values added in Regex.
 - **Only Proximity:** In this method, tickets are parsed using the proximity words that were added in the Proximity field.
 - **Equal search:** In this method, you can manually type single or multiple words which will be used for performing a direct match for ticket parsing.



The image shows a web form with a label "Parse By*" above a dropdown menu. The dropdown menu is open, displaying a list of options. The first option is "-Select-" and is highlighted with a blue background. Below it are four other options: "RegEx and Proximity", "Only Regex", "Only Proximity", and "Equal Search".

Parse By*
-Select-
RegEx and Proximity
Only Regex
Only Proximity
Equal Search

Figure 342- Add Parameter Type (Cont.)

- c. Select **Regular Expression** for the parameter type added.



Regular Expression*

-Select-

-Select-

test2

GenericText

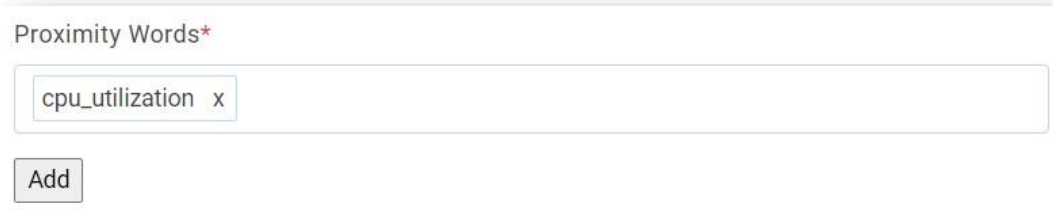
GenericIPAddress

GenericNumber

GenericTelephoneNumber

Figure 343- Add Parameter Type (Cont.)

- d. Type the **Proximity Word** that should be in proximity to the parameter type and will be used for parsing. To add a proximity word for the selected parameter type, click **Add**. The added proximity word appears in the field below the **Proximity Words**. To delete the proximity word, click on the cross over the word.



Proximity Words*

cpu_utilization x

Add

Figure 344- Add Parameter Type (Cont.)

- e. Select the **Parse Order** to prioritize the parsing methods in case multiple parsing methods are available.



Default Field Name*

-Select-

Parse Order*

^

v

Figure 345- Add Parameter Type (Cont.)

- f. Type the default field name in the **Default Field Name** field to fetch the data for parsing.
3. Click **Submit** to configure a new parameter type or click **Back** to cancel the parameter configuration. The new parameter type is added and listed in a tabular view.

All fields marked with an asterisk (*) are mandatory or click Back if user wants to cancel the parameter configuration.

3.2.3.4.3 Manage Parameter Configuration

This section describes how to perform the customer specific advanced parameter configuration for data parsing.

To manage parameter configuration, perform the following steps:

1. On the main menu bar, click Advance Configuration →Parameter, and then click Manage Parameter Configuration. The Manage Parameter Configuration page appears.

Manage Parameter Configuration

Select Organization * MyCompany

Data Source * -Select-

Parameter Type * -Select-

Change Order	Field	Parse By	Parse Order Grid Details	Index Level	Action
--------------	-------	----------	--------------------------	-------------	--------

Save

Figure 346 - Manage Parameter Configuration

2. Select the organization from the **Organization** field.
3. Select the **Data Source** from where the data will be fetched for parsing.
4. Select the **Parameter Type**, to be used for data parsing. This populates the existing configuration for the selected organization in a grid.

+ Add New Configuration

Change Order	Field	Parse By	Parse Order Grid Details	Index Level	Action
1	Description	RegEx and Proximity	regex proximity	1	

Save

Figure 347 - Manage Parameter Configuration (Cont.)

This allows users to add a new configuration using **Add New Configuration** and edit or delete the existing configuration.

3.2.3.4.3.1 Add New Parameter Configuration

Users can add a new parameter configuration in an organization by using the following steps.

1. On the Manage Parameter Configuration page, select Organization.
2. Select the **Data Source** from where the data will be fetched.
3. Select the **Parameter Type** to be used for data parsing. This enables the **Add New Configuration** button.
4. Click Add New Configuration button.

Change Order	Field	Parse By	Parse Order Grid Details	Index Level	Action
↑ ↓	Description	RegEx and Proximity	regex proximity	1	🗑️

Save

Figure 348 - Add New Parameter Configuration

This adds a new row below the existing parameter configurations.

Change Order	Field	Parse By	Parse Order Grid Details	Index Level	Action
↑ ↓	Description	RegEx and Proximity	regex proximity	1	🗑️
↑ ↓				1	🗑️

Save

Figure 349 - Add New Parameter Configuration (Cont.)

5. Select a **Field** to define the ticket fields. For e.g. *description*, *short description*, etc.
6. Select a **Parse By** method. This includes the following parse by methods:
 - **Equal Search**- Specify a value or keyword resembling the words mentioned in the ticket for parsing.
 - **Only Regex**- Regex is a special text string for describing a search pattern while ticket parsing and all parameter types have predefined regex. In this method, the parsing is done from ticket fields only.
 - **Only Proximity**- It is a parsing method to extract values based on the proximity of words.
 - **Regex and Proximity**- It is a parsing method to extract values based on a combination of the proximity of words and regex.
7. The **Parse Order Grid Details** field specifies the parse order in case of selecting Regex and Proximity.
8. If a word is found multiple times using the regex, a sequence of the word must be picked during parsing by Index Level.
9. Click **Save** to update the configured parameters.

User can rearrange the order of parameter configuration using Change Order in the left column of the parameter grid.

10. A confirmation dialog box appears.

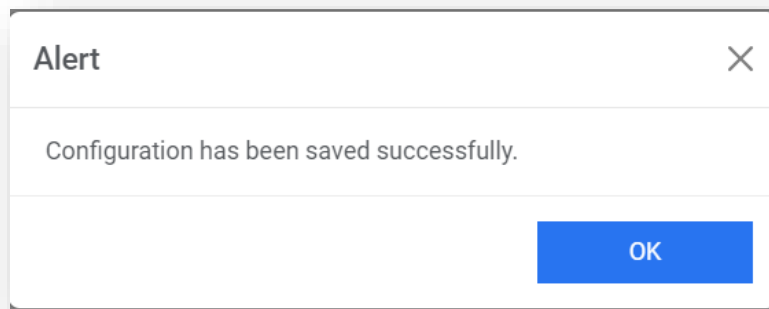


Figure 350 - Add New Parameter Configuration (Cont.)

3.2.3.4.3.2 Edit or Delete Parameter Configuration

User can open an existing parameter, review the available information, change the parameter configuration, and delete the existing configuration by performing the following steps:

1. On the **Manage Parameter Configuration** page, select **Organization** → **Data Source** → **Parameter Type**. A list of the parameters under the selected parameter type appears in a tabular view.

 A screenshot of the 'Manage Parameter Configuration' page. At the top right is a button '+ Add New Configuration'. Below it is a table with the following columns: 'Change Order' (with up/down arrows), 'Field' (with a dropdown), 'Parse By' (with a dropdown), 'Parse Order Grid Details' (with two input fields labeled 'regex' and 'proximity' and up/down arrows), 'Index Level' (with an input field), and 'Action' (with a trash icon). The table contains two rows: one for 'Description' and one for 'Summary', both with 'RegEx and Proximity' in the 'Parse By' column and '1' in the 'Index Level' column. At the bottom center is a blue 'Save' button.

Figure 351 - Edit Parameter Configuration

2. Edit the required details and click **Save**. A confirmation dialog box appears.

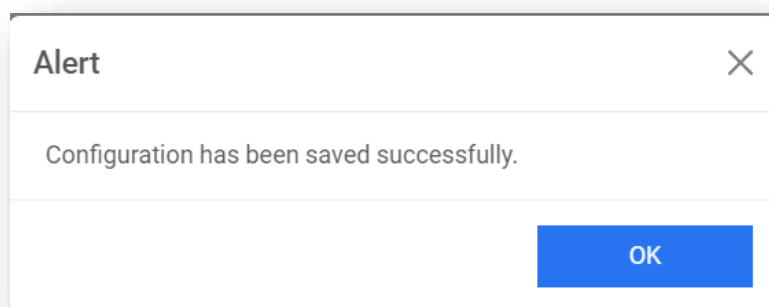


Figure 352 - Edit Parameter Configuration (Cont.)

3. You can delete a parameter by clicking  for the parameter and clicking Yes to confirm.

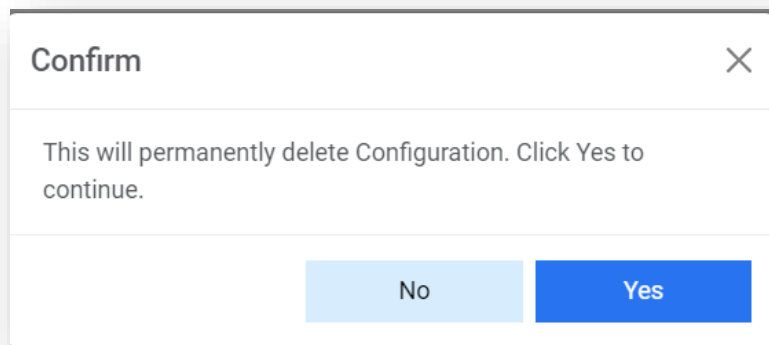


Figure 353 - Edit Parameter Configuration (Cont.)

3.2.3.4.4 Manage Column

This step describes how to perform the organization specific configurations of ticket data columns, used for ticket parsing and recommendation.

To manage the ticket data column, perform the following steps:

1. On the main menu bar, click **Advance Configuration**→**Parameter**, and then click **Manage Column**. The **Manage Column** page appears.

Figure 354 - Manage Column

2. Select **Organization**, and then select **Module**.

Organization*
MyCompany

Module*
Incident Management

Table	Column	Use For Parsing	Use For Recommendation	Action
-Select-		☐	☐ Base ☐ Secondary	<button>Save</button>

1 - 1 of 1 items

Search...

Name	Use for Parsing	Base(Recommendation)	Secondary(Recommendation)	Action
Summary	Y	Y	N	
Description	Y	N	N	
RunbookTool(TenantID)	Y	N	N	
ModuleType	Y	N	N	

1 - 4 of 4 items

Figure 355 - Manage Column (Cont.)

This lists the existing parameters used for parsing and recommendation in a tabular view for the selected organization. Users can also add a new configuration or delete the existing configuration.

3.2.3.4.4.1 Add Configuration

User can add a new configuration in an organization by performing the following steps:

1. On the **Manage Column** page, select the data table from the **Table** list, and then select a **Column** from the selected table.

Organization*
MyCompany

Module*
-Select-

Table	Column	Use For Parsing	Use For Recommendation	Action
		☐	☐ Base ☐ Secondary	<button>Save</button>

1 - 1 of 1 items

Figure 356 - Add Configuration

2. Select **Use For Parsing** for enabling the current column to be used for ticket parsing.
3. Select **Use For Recommendation** for enabling the current column to be used for runbook recommendation.
 - **Base** holds priority over **Secondary** while performing the recommendation.
 - While recommendation processing, the columns for which Base is enabled will be considered first, followed by ones marked as Secondary.
4. Click **Save** to save settings. A confirmation dialog box appears.

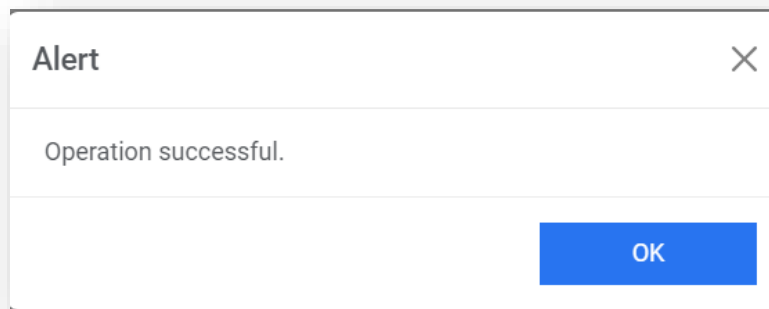


Figure 357 - Add Configuration (Cont.)

This adds the new configuration and lists it in a tabular view.

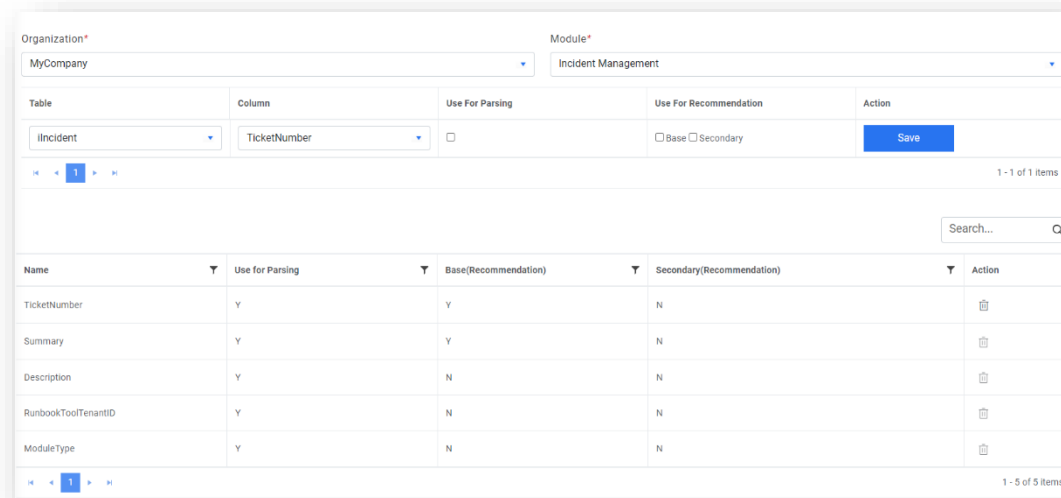


Figure 358 - Add Configuration (Cont.)

3.2.3.4.2 Delete Configuration

If the user no longer needs a certain configuration in an organization, it can be deleted from the environment.

To delete a configuration, perform the following steps:

1. On the **Manage Column** page, click  icon to delete the configuration.

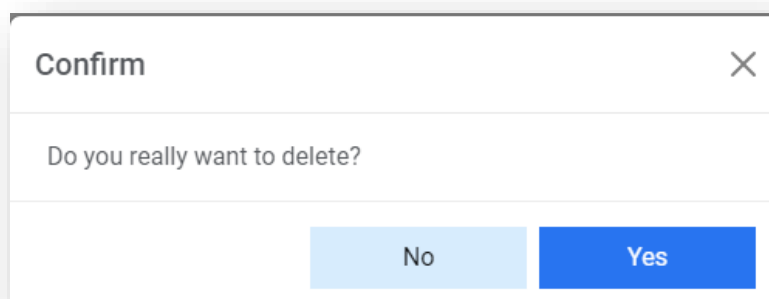


Figure 359 - Delete Configuration

2. Click **Yes** to confirm. A confirmation dialog box appears.

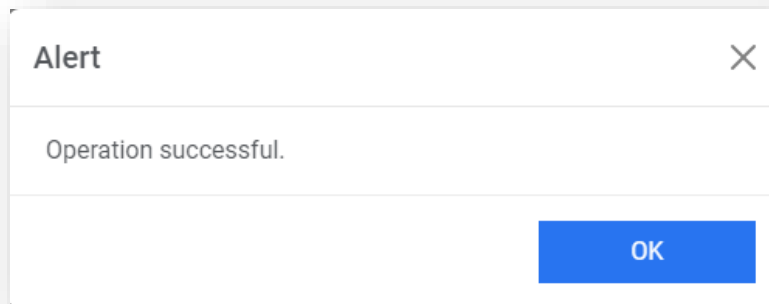


Figure 360 - Delete Configuration (Cont.)

3.2.3.4.5 Hyperparameter Configuration

Hyperparameters are set of parameters the values of which are identified by analyzing an organization's data. Here, organization data refers to ticket information which needs to be automated. The **Hyperparameter configuration** screen has been designed for the same purpose. These parameters values are used as prior information for training of models Runbook Recommendation (iRecommend) and Ticket Clustering (iUnique).

This section describes how to configure the hyperparameters used in the workbench by performing the following steps:

1. On the main menu bar, click **Advance Configuration → Hyperparameter Configuration**. The **Hyperparameter Configuration** page appears.

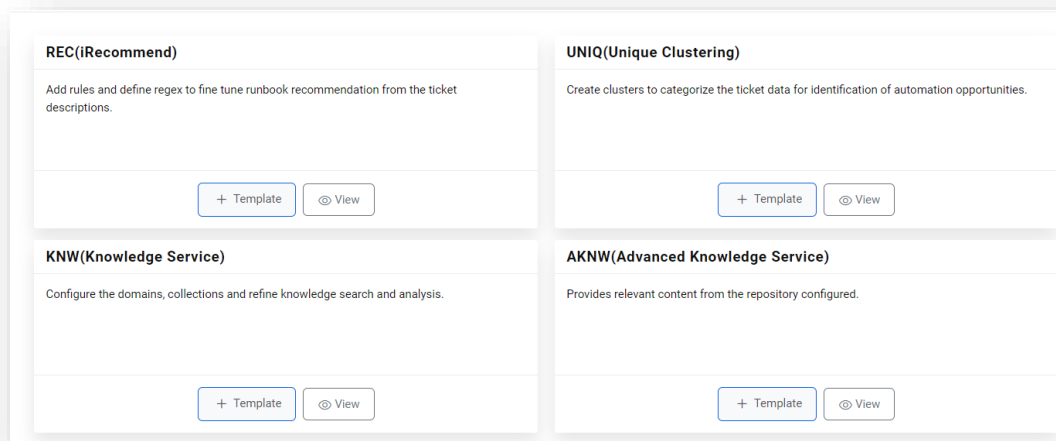


Figure 361 - Hyperparameter Configuration

2. To view the templates, click on  for any of the components.

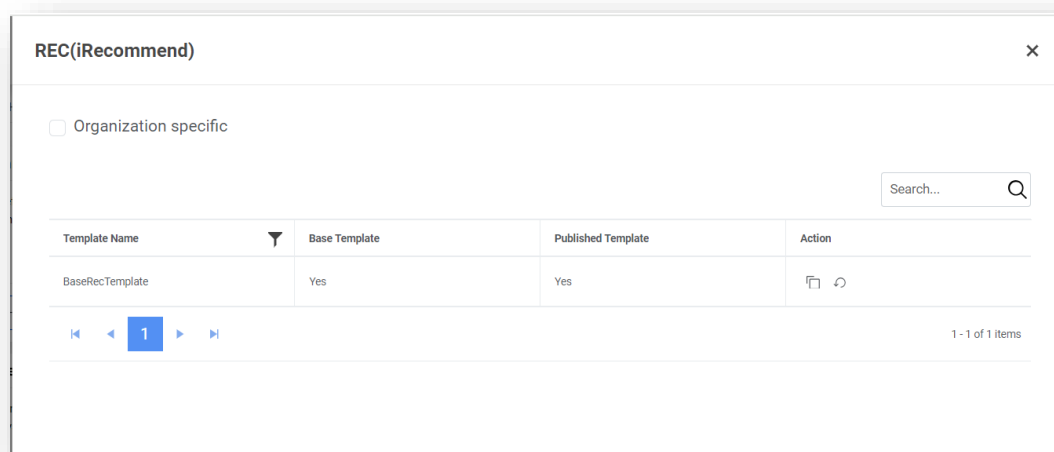


Figure 362 - Hyperparameter Configuration (Cont.)

- To view organization wise templates, check the organization specific checkbox and select the **Organization** and its **Module**. It will list the hyperparameters for that selected organization.

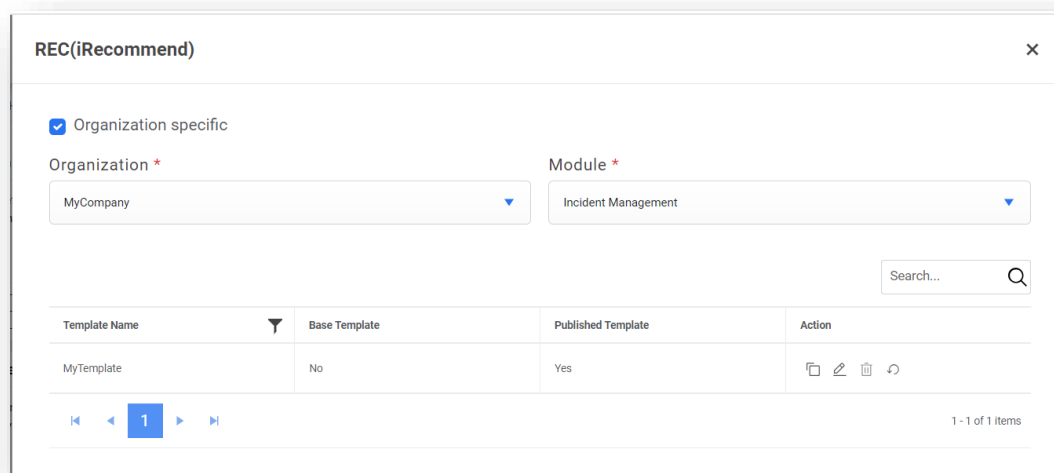


Figure 363 - Hyperparameter Configuration (Cont.)

3.2.3.4.5.1 Add New Template

User can add a new template in a component by performing the following steps:

- Select View button on any of the component.

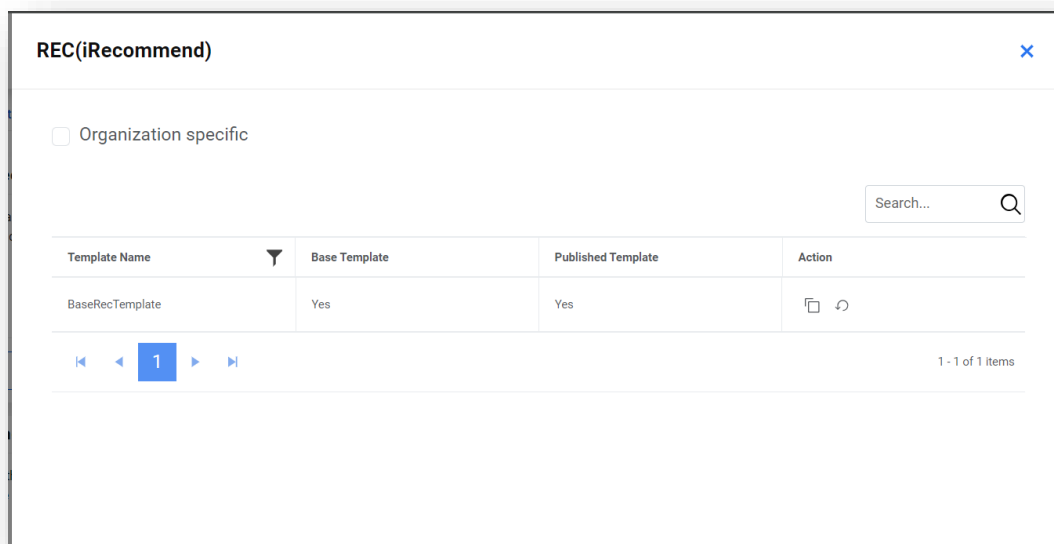


Figure 364 - Add New Template

This lists the default base template and existing templates for the selected component if there are any. These templates provide a starting point for users to create a template by replicating or cloning them. It also enables a user to edit or delete the existing templates.

The component selection defines the further configuration.

To create a template for a recommendation, perform the following steps:

- Click  next to the template selected for cloning. The **Clone Configuration** popup appears.

Clone Configuration

Template Name *

Provide Template name here...

POS tag weights(rba.pos.tagweights)

NOUN:0.50, VERB:0.20, ADJECTIVE:0.20, ADVERB:0.10

☒ BM25 Algorithm(hp.usebm25)

K1(hp.bm25.k1)

1.5

b(hp.bm25.b)

0.2

POS Tagging(hp.usePOSweights)

TRUE

☒ N-Gram Similarity(hp.useNGramSimilarity)

N-Gram Similarity Weight(hp.NGramSimilarityWeight)

0.4

Cancel Save

Figure 365 - Add New Template (Cont.)

- b. To create a template, type the template name in the corresponding **Template Name** field and then define values for each of the following parameters:
- c. For recommendation:
 - **rba.pos.tagweights**: It specifies the weightage of tags for given word as part of speech in ticket.

Table 7- Default Tag Values

Tag	Default Value
Noun	0.50
Verb	0.20
Adjective	0.20
Adverb	0.10

The values defined in the table represent the default values and the user can change them based on the requirement. The system provides weights to these parts of speech tags based on values defined during recommendation analysis.

The total sum of these values must be equal to 1.

- **Usebm25**: It is used to rank runbooks according to their relevance to a ticket summary. Use a toggle button with options such as True or False to enable this parameter. Enabling this parameter prompts you to specify the values following parameters:
 - **K1**: The user can provide any value of less than 2.0. The **Default value** is **1.5**.
 - **B**: The user can provide any value of less than 1.0. The **Default value** is **0.2**.

POS tag weights(rba.pos.tagweights)

NOUN:0.50, VERB:0.20, ADJECTIVE:0.20, ADVERB:0.10

☒ BM25 Algorithm(hp.usebm25)

K1(hp.bm25.k1)

1.5

b(hp.bm25.b)

0.2

Figure 366 - Add New Template (Cont.)

- **usePOSWeights**: Uses true or false values to enable or disable rba.pos.tagweights parameter.
- **NgramSimilarity**: It uses phonemes, phrases, letters, words, or base pairs according to the application from a speech and calculates whether to consider for a recommendation. Administrators can activate or deactivate the functionality with the help of a toggle button in terms of True or False. Selecting True prompts, the following parameters:
 - **SimilarityWeight**: Specifies the value for the combined weightage of **bm25** and **textrank** score. The value should be less than 1.
 - **TextRank.n**: Specifies the number of top words to be considered for recommendation. The number should be equal to or greater than 1.

POS Tagging(hp.usePOSweights)

TRUE

☒ N-Gram Similarity(hp.useNGramSimilarity)

N-Gram Similarity Weight(hp.NGramSimilarityWeight)

0.4

Phrase length(hp.textrank.n)

2

Figure 367 - Add New Template (Cont.)

- **EntityModel:** Specifies whether to use the entity model or as True or False conditions for runbook recommendation.
- **KMeasure:** Specifies the weightage given to the entity model and recommendation model for runbook recommendation.
 - 0 indicates that the entity model will be used for runbook recommendation.
 - 1 indicates that the recommendation model will be used for runbook recommendation.
 - Between 0 and 1 indicates that the recommendation model and entity model will be used for runbook recommendation. If the recommendation model weightage is 't', then the entity model weightage will be '1-t'.

Entity Model(rba.includeEntityModel)

true

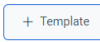
Recommendation to Entity Score Weightage(rba.similarity.Kmeasure)

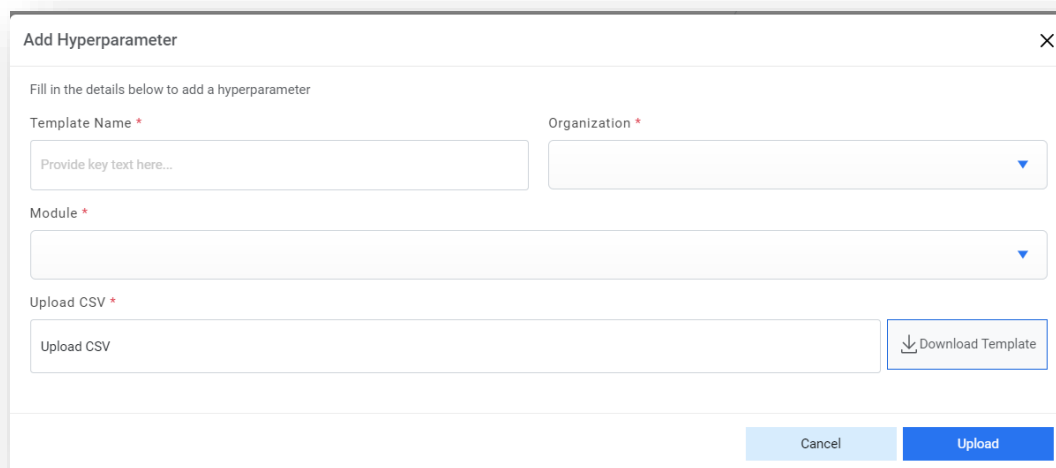
0.8

Cancel Save

Figure 368 - Add New Template (Cont.)

d. Click **Save**.

Users can also upload a template for any organization. For that, click on  button for any component. The Add Hyperparameter popup appears.



Add Hyperparameter [X]

Fill in the details below to add a hyperparameter

Template Name * Organization *

Module *

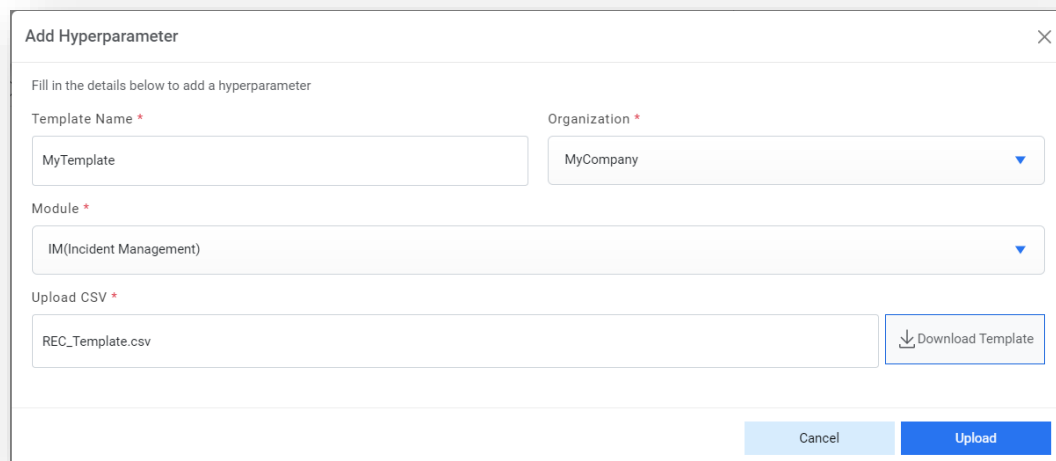
Upload CSV *

[Download Template](#)

Cancel Upload

Figure 369 – Add New Template (Cont.)

- a. Provide the template name, select the organization and Module for which the template needs to be uploaded. Download template for reference and modify the same accordingly. Upload the template.



Add Hyperparameter [X]

Fill in the details below to add a hyperparameter

Template Name * Organization *

Module *

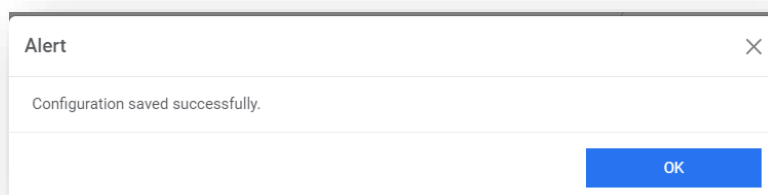
Upload CSV *

[Download Template](#)

Cancel Upload

Figure 370 – Add New Template (Cont.)

- b. Click on Upload. Below confirmation box appears.



Alert [X]

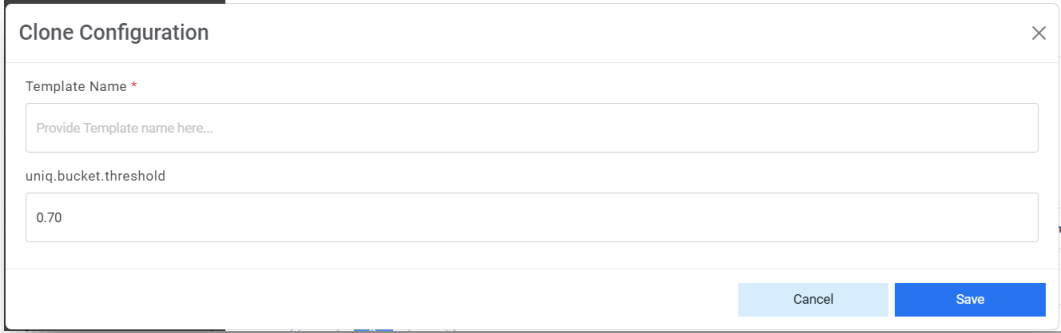
Configuration saved successfully.

OK

Figure 371 – Add New Template (Cont.)

To create a template for unique cluster, perform the following steps:

- a. Click  next to the template selected for cloning. The **Clone Configuration** popup appears.



The **Clone Configuration** popup contains the following fields:

- Template Name ***: A text input field with placeholder text "Provide Template name here...".
- uniq.bucket.threshold**: A text input field with the value "0.70".
- Buttons**: "Cancel" and "Save" buttons at the bottom right.

Figure 372 - Add New Template (Cont.)

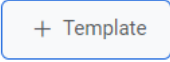
- b. To create a template, type the template name in the corresponding **Template Name** field.
- c. Type the value in **Uniq.bucket.threshold** field carefully to set up the threshold value of the bucket for ticket clustering.

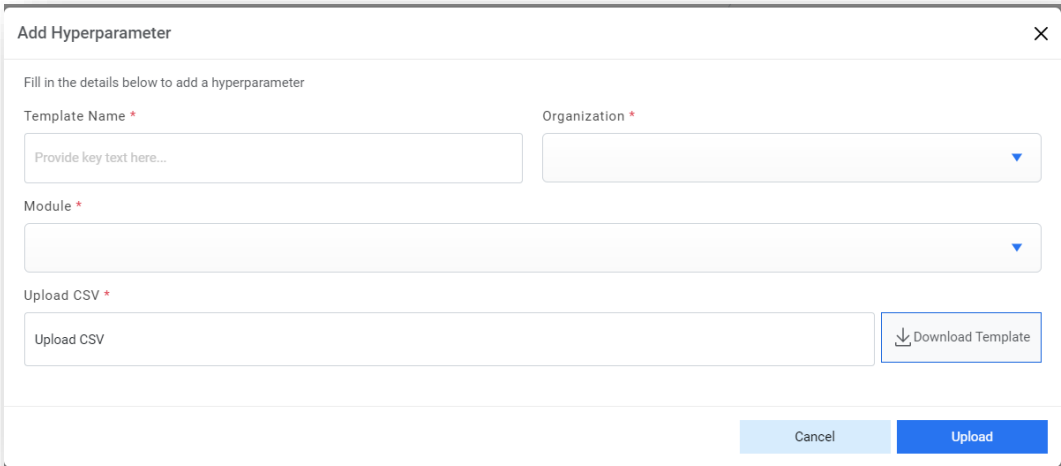
If a user increases the threshold value, the number of buckets will increase, and user will find more buckets with a similar description. If user decreases the threshold value, the different descriptions may be assigned to a single bucket.

- d. Click **Save**.

The new template is added and listed at the bottom of the template list.

The templates created will be used in the WorkBench.

Users can also upload a template for any organization. For that, click on  button for any component. The Add Hyperparameter popup appears.

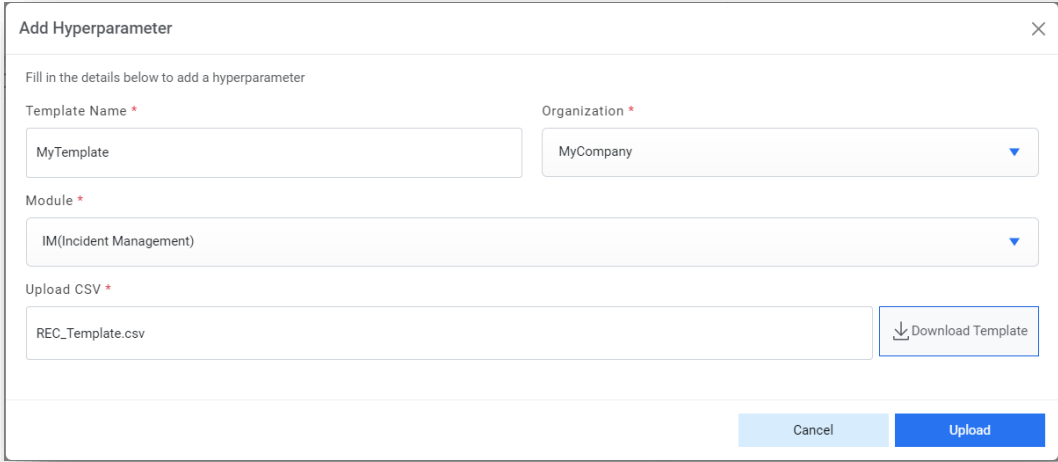


The **Add Hyperparameter** popup contains the following fields:

- Template Name ***: A text input field with placeholder text "Provide key text here...".
- Organization ***: A dropdown menu.
- Module ***: A dropdown menu.
- Upload CSV ***: A text input field with placeholder text "Upload CSV".
- Buttons**: "Cancel" and "Upload" buttons at the bottom right.
- Download Template**: A button with a download icon and text "Download Template".

Figure 373 – Add New Template (Cont.)

- a. Provide the template name, select the organization and Module for which the template needs to be uploaded. Download template for reference and modify the same accordingly. Upload the template.

A dialog box titled "Add Hyperparameter" with a close button (X) in the top right corner. Below the title bar, it says "Fill in the details below to add a hyperparameter". There are three input fields: "Template Name *" with the value "MyTemplate", "Organization *" with a dropdown menu showing "MyCompany", and "Module *" with a dropdown menu showing "IM(Incident Management)". Below these is an "Upload CSV *" field with the value "REC_Template.csv" and a "Download Template" button with a download icon. At the bottom right are "Cancel" and "Upload" buttons.

Add Hyperparameter

Fill in the details below to add a hyperparameter

Template Name * MyTemplate

Organization * MyCompany

Module * IM(Incident Management)

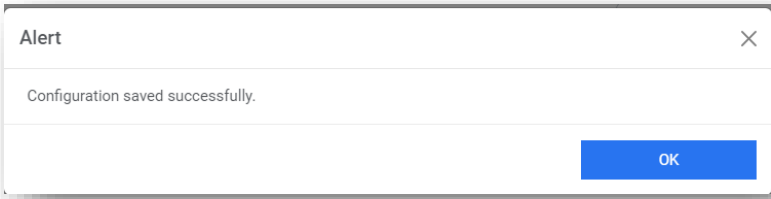
Upload CSV * REC_Template.csv

Download Template

Cancel Upload

Figure 374 – Add New Template (Cont.)

- b. Click on Upload. Below confirmation box appears.

An alert dialog box titled "Alert" with a close button (X) in the top right corner. The message inside says "Configuration saved successfully.". At the bottom right is an "OK" button.

Alert

Configuration saved successfully.

OK

Figure 375 – Add New Template (Cont.)

3.2.3.4.5.2 Edit Template

User can review the existing parameter and change its details by performing the following steps:

1. On the Hyperparameter Configuration page, click on the View button of any **Component Name**.
2. To edit a template for recommendation, perform the following steps:

- a. Click  corresponding to the template that you want to edit.

REC(iRecommend)

☐ Organization specific

Search...

Template Name	Base Template	Published Template	Action
BaseRecTemplate	Yes	Yes	 
MyRecTemplate	No	No	   

1

1 - 2 of 2 items

Figure 376 - Edit Template

REC(iRecommend)

☒ Organization specific

Organization *

MyCompany

Module *

Incident Management

Search...

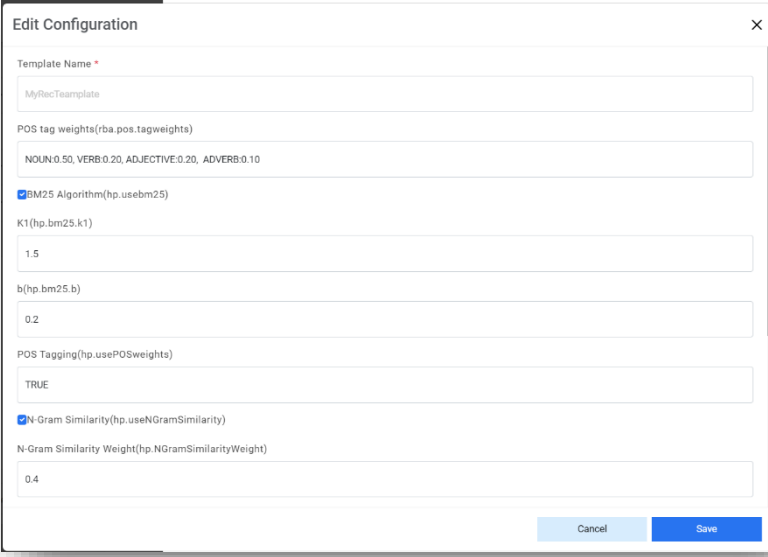
Template Name	Base Template	Published Template	Action
MyRecTemplate	No	Yes	   

1

1 - 1 of 1 items

Figure 377 - Edit Template (Organization Specific)

The **Edit Configuration** popup appears.

A dialog box titled "Edit Configuration" with a close button (X) in the top right corner. It contains several input fields and checkboxes. The fields are: "Template Name" with the value "MyRecTemplate"; "POS tag weights(rba.pos.tagweights)" with the value "NOUN:0.50, VERB:0.20, ADJECTIVE:0.20, ADVERB:0.10"; "K1(hp.bm25.k1)" with the value "1.5"; "b(hp.bm25.b)" with the value "0.2"; "POS Tagging(hp.usePOSweights)" with the value "TRUE"; and "N-Gram Similarity Weight(hp.NGramSimilarityWeight)" with the value "0.4". There are two checkboxes: "BM25 Algorithm(hp.usebm25)" which is checked, and "N-Gram Similarity(hp.useNGramSimilarity)" which is also checked. At the bottom right, there are "Cancel" and "Save" buttons.

Template Name *

MyRecTemplate

POS tag weights(rba.pos.tagweights)

NOUN:0.50, VERB:0.20, ADJECTIVE:0.20, ADVERB:0.10

☒ BM25 Algorithm(hp.usebm25)

K1(hp.bm25.k1)

1.5

b(hp.bm25.b)

0.2

POS Tagging(hp.usePOSweights)

TRUE

☒ N-Gram Similarity(hp.useNGramSimilarity)

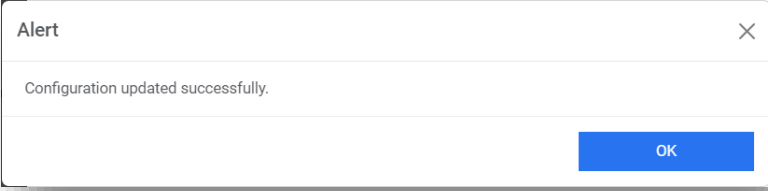
N-Gram Similarity Weight(hp.NGramSimilarityWeight)

0.4

Cancel Save

Figure 378 - Edit Template (Cont.)

- b. Edit the required details and click **Save**. A confirmation dialog box appears.

A small alert dialog box titled "Alert" with a close button (X) in the top right corner. It contains the text "Configuration updated successfully." and an "OK" button at the bottom right.

Alert

Configuration updated successfully.

OK

Figure 379 - Edit Template (Cont.)

To edit a template for unique cluster, perform the following steps:

- a. Click  next to the template you want to edit.

Edit Configuration

Template Name *

MyUniqTemplate

uniq.bucket.threshold

0.70

Cancel

Save

Figure 380 - Edit Template (Cont.)

- b. Edit the required details and click **Save**. A confirmation dialog box appears.

Alert

Configuration updated successfully.

OK

Figure 381 - Edit Template (Cont.)

3.2.3.4.5.3 Delete Template

If the user no longer needs a certain template, it can be deleted from the component by performing the following steps:

1. To delete a template, click  next to the template you want to delete.

UNIQ(Unique Clustering)

☐ Organization specific

Search... 

Template Name	Base Template	Published Template	Action
BaseUniqTemplate	Yes	Yes	 
MyUniqTemplate	No	No	   

1

1 - 2 of 2 items

Figure 382 - Delete Template

2. Click **Yes** to confirm deletion of the selected template.

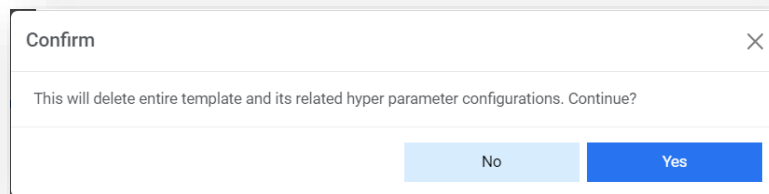


Figure 383 - Delete Template (Cont.)

A confirmation dialog box appears.

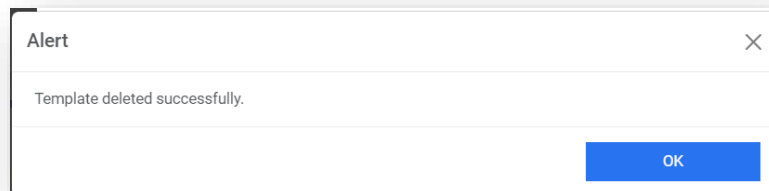


Figure 384 - Delete Template (Cont.)

3.2.3.4.5.4 Publish Template

If the user wants to publish any template so that the published template gets used wherever needed, it can be done by performing the following steps:

To publish a template,

1. Click  next to the template you want to Publish.

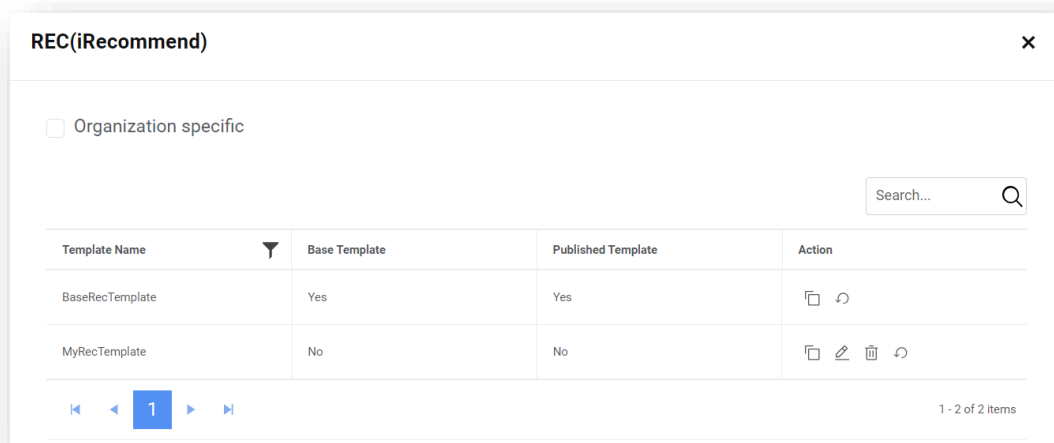


Figure 385 - Publish Template

REC(iRecommend)

☒ Organization specific

Organization * MyCompany

Module * Incident Management

Search...

Template Name	Base Template	Published Template	Action
MyRecTemplate	No	Yes	

1 - 1 of 1 items

Figure 386 - Publish Template (Organization Specific)

- Click **Yes** to confirm Publish of the selected template.

Confirm

Do you really want to publish this template?

No Yes

Figure 387 - Publish Template (Cont.)

- A success message box appears:

Alert

Template published successfully.

OK

Figure 388 - Publish Template (Cont.)

3.2.3.4.6 iRecommend Rule Configuration

This section describes how users can add rules to fine tune Runbook recommendations depending on the client's environment. Also, how the user can define regex so that Runbook recommendations get more precise from the ticket description itself.

The screenshot shows the 'Rule Configuration' page with the 'Regex-based Configuration' tab selected. The 'Organization*' dropdown is set to 'MyCompany' and the 'Module*' dropdown is set to '-Select-'. Below these are two empty text input fields for 'String To Be Found' and 'String To Be Appended'. A 'Search' button is highlighted in blue. Below the inputs is a table with columns: Organization, Module Name, String To Be Found, String To Be Appended, and Action. The table is currently empty, displaying 'No data available.' at the bottom. A pagination bar at the bottom shows '0' items and 'No items to display'.

Figure 389 - iRecommend Rule Configuration

Rule Configuration:

To define the rules, perform the following steps:

1. On the main menu bar, click Advance Configuration → iRecommend Rule Configuration. The iRecommend Rule Configuration page appears.

This screenshot is identical to Figure 389, showing the 'Rule Configuration' page with the 'Regex-based Configuration' tab selected. The 'Organization*' dropdown is set to 'MyCompany' and the 'Module*' dropdown is set to '-Select-'. Below these are two empty text input fields for 'String To Be Found' and 'String To Be Appended'. A 'Search' button is highlighted in blue. Below the inputs is a table with columns: Organization, Module Name, String To Be Found, String To Be Appended, and Action. The table is currently empty, displaying 'No data available.' at the bottom. A pagination bar at the bottom shows '0' items and 'No items to display'.

Figure 390 - iRecommend Rule Configuration

2. Select **Organization**, and then select **Module**.
3. Enter the string that needs to be searched for in the ticket description, against **String to be Found** field.
4. Enter the string that needs to be appended in the ticket description, against **String to be Appended** field.
5. Click **Save**.

Rule Configuration **Regex-based Configuration**

Organization* Module*

String To Be Found String To Be Appended

Search...

Organization	Module Name	String To Be Found	String To Be Appended	Action
MyCompany	Incident Management	my string	other string	

1 - 1 of 1 items

Figure 391 - iRecommend Rule Configuration (cont.)

Regex-based Configuration:

To define the regex, perform the following steps:

1. On the main menu bar, click Advance Configuration → iRecommend Rule Configuration. The iRecommend Rule Configuration page appears. Click on Regex-based Configuration tab.

Rule Configuration **Regex-based Configuration**

Organization specific ☐ Active

Search...

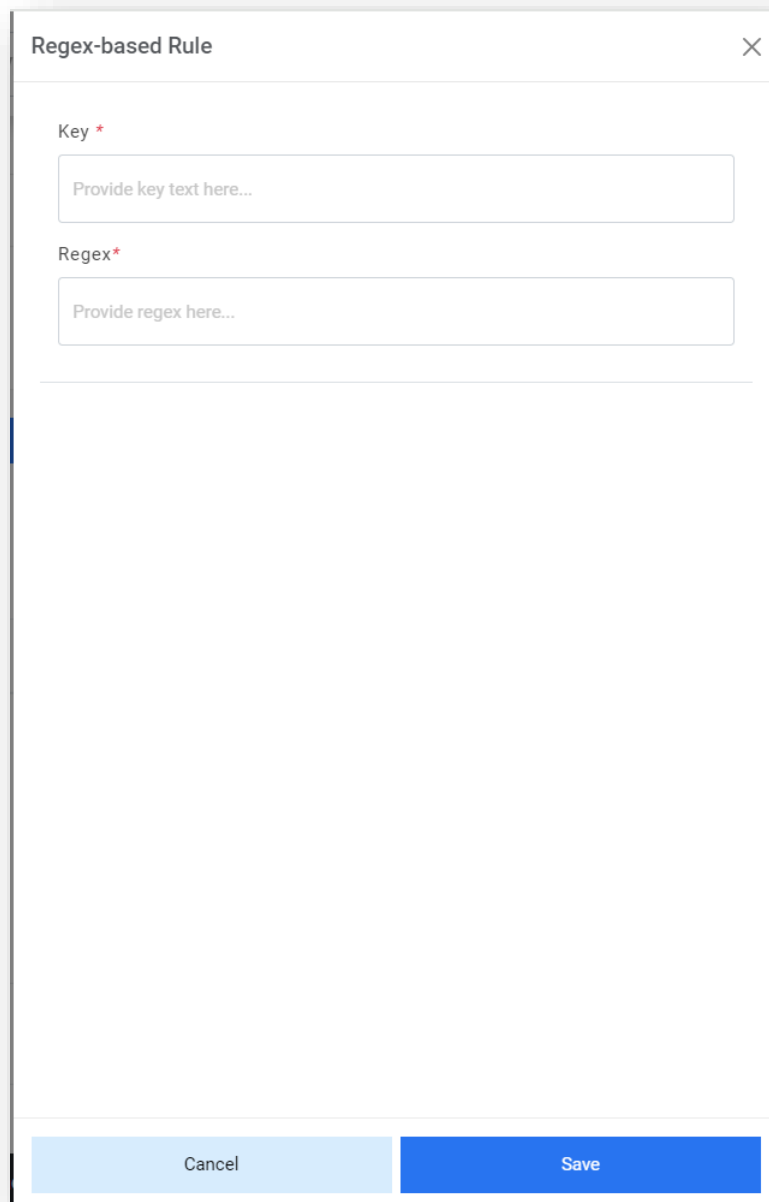
Key	Value	Actions
No data available.		

0

No items to display

Figure 392 - iRecommend Rule Configuration (cont.)

2. Click on **Organization specific** check box if you want to apply the regex-based configuration at Organization level else leave it unchecked if it needs to be applied at admin level (For Analysis purpose).
3. Click on **Add Rule** to add new regex rule. Below pop up will appear:

A dialog box titled "Regex-based Rule" with a close button (X) in the top right corner. It contains two input fields: "Key *" and "Regex*", both with red asterisks indicating they are required. The "Key *" field has a placeholder text "Provide key text here...". The "Regex*" field has a placeholder text "Provide regex here...". Below these fields is a large empty text area. At the bottom, there are two buttons: "Cancel" (light blue) and "Save" (blue).

Regex-based Rule

Key *

Provide key text here...

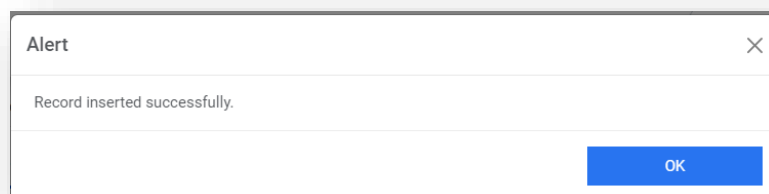
Regex*

Provide regex here...

Cancel Save

Figure 393 - iRecommend Rule Configuration (cont.)

4. Enter the key and its regex and click on save. Below alert will be generated.

An alert dialog box titled "Alert" with a close button (X) in the top right corner. It contains a single line of text: "Record inserted successfully." At the bottom right, there is a blue button labeled "OK".

Alert

Record inserted successfully.

OK

Figure 394 - iRecommend Rule Configuration (cont.)

5. The record inserted will appear in the grid.

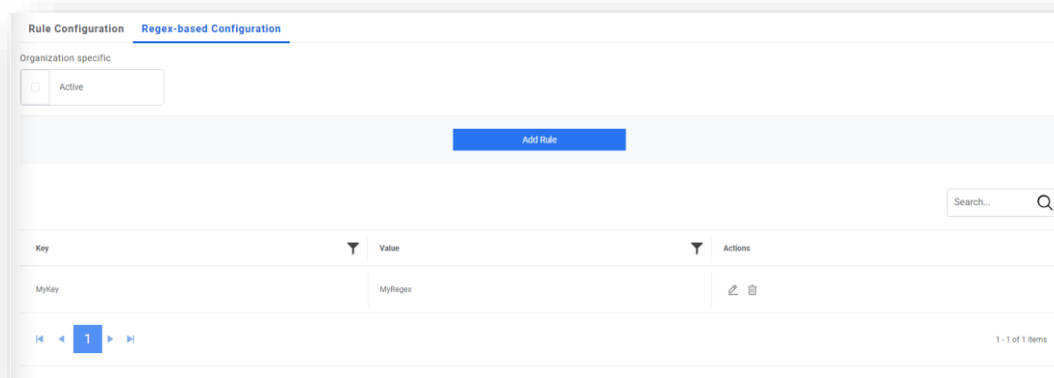
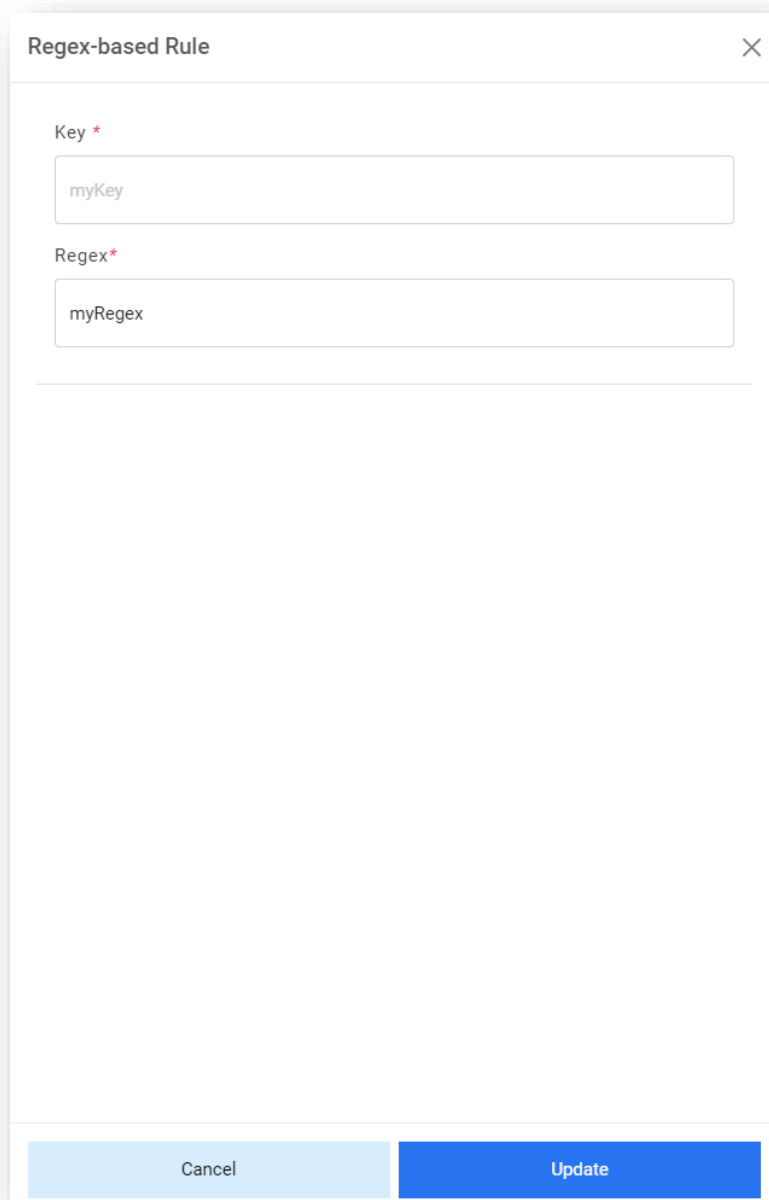


Figure 395 - iRecommend Rule Configuration (cont.)

6. To edit any rule, click on icon  corresponding to that rule. The **Regex-based Rule** popup appears. Enter the updated regex and click on **Update**.

A dialog box titled "Regex-based Rule" with a close button (X) in the top right corner. It contains two input fields: "Key *" with the value "myKey" and "Regex*" with the value "myRegex". At the bottom, there are two buttons: "Cancel" and "Update".

Regex-based Rule

Key *

myKey

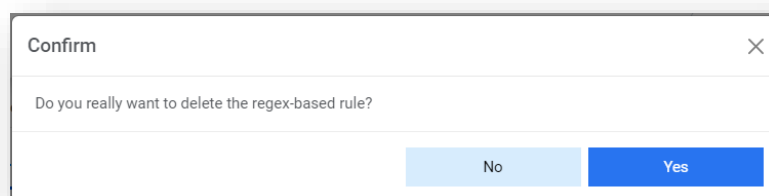
Regex*

myRegex

Cancel Update

Figure 396 - iRecommend Rule Configuration (cont.)

7. To delete any rule, click on icon  corresponding to that rule. The following confirmation message appears:

A dialog box titled "Confirm" with a close button (X) in the top right corner. It contains the text "Do you really want to delete the regex-based rule?". At the bottom, there are two buttons: "No" and "Yes".

Confirm

Do you really want to delete the regex-based rule?

No Yes

Figure 397 - iRecommend Rule Configuration (cont.)

8. Click **Yes**. The following success message appears:

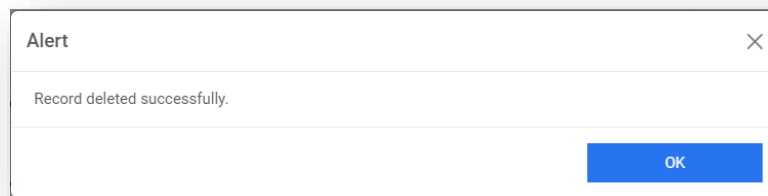


Figure 398 - iRecommend Rule Configuration (cont.)

3.2.3.4.7 Configure Key Vault

This section describes how to configure the passwords stored in Key Vault eg: CyberArk so that it can be used on screens to fetch password directly from Key Vault.

To configure key vault, perform the following steps:

1. On the main menu bar, Click on **Advance Configuration**. Click on **Configure Key Vault**. The following screen appears:

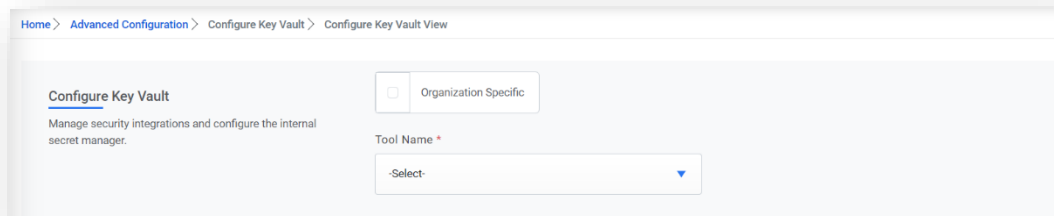


Figure 399 - Configure Key Vault for Super Admin

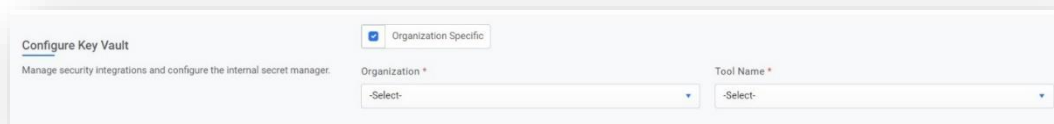


Figure 400 - Configure Key Vault for Super Admin for Organization Specific

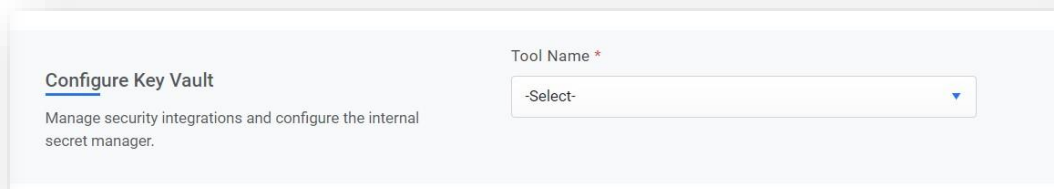


Figure 401 - Configure Key Vault for Organization Admin

2. The configurations saved without **Organization Specific** checkbox being checked will be used at admin level. And the configurations saved corresponding to any Organization will be used for that organization only.
3. Select **Organization** from dropdown.
4. Select **Tool Name** from dropdown. (For Admin level configurations, skip step 2 and directly select Tool Name).

Configure Key Vault
Manage security integrations and configure the internal secret manager.

Organization *
MyCompany

Tool Name *
CyberArk

Key Vaults

+ New Key Vault Search...

Configuration Name	Action
No data available.	

0 No items to display

Figure 402 - Configure Key Vault

5. For tool name **CyberArk**, below popup is opened on click on 'New Key Vault' button:
 - a. Enter the **Configuration Name** and its **Description**.
 - b. Enter the **AppID**, **Safe**, **Folder** and **Object** for the password stored in Key Vault.

Add/Edit Key Vault Configuration

Tool Name *
CyberArk

Configuration Name *

Description *

AppID *

Safe *

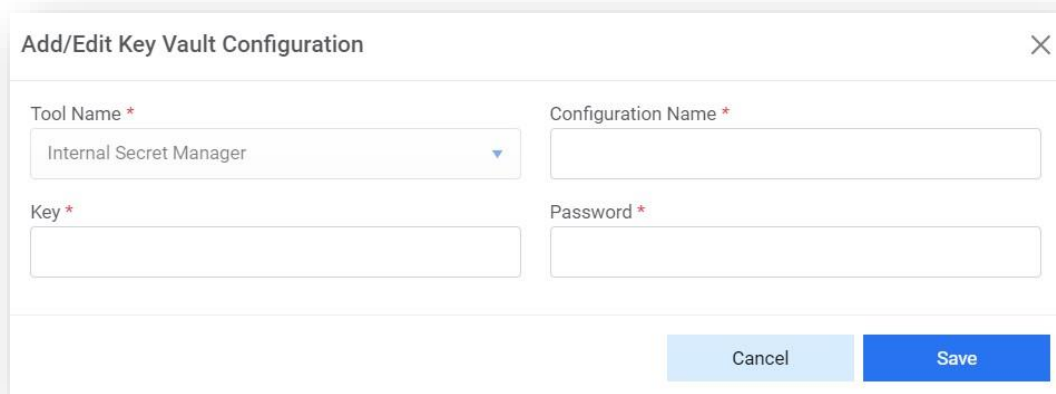
Folder *

Object *

Cancel Save

Figure 403 - Key vault Configuration (Cont.)

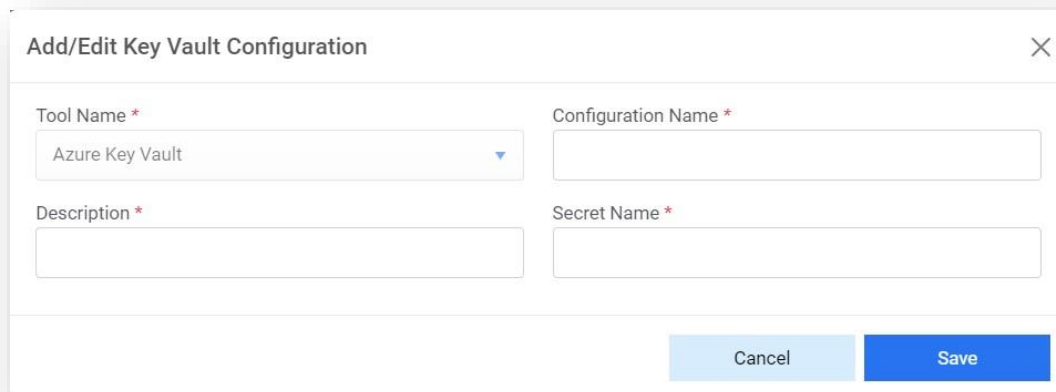
6. For tool name as **Internal Secret Manager**, the below popup opens when clicked on 'New Key Vault' button.



The dialog box is titled "Add/Edit Key Vault Configuration" and has a close button (X) in the top right corner. It contains four input fields arranged in a 2x2 grid. The top-left field is a dropdown menu labeled "Tool Name *" with "Internal Secret Manager" selected. The top-right field is a text box labeled "Configuration Name *". The bottom-left field is a text box labeled "Key *". The bottom-right field is a text box labeled "Password *". At the bottom right, there are two buttons: "Cancel" and "Save".

Figure 404 – Add/Edit Vault Configuration

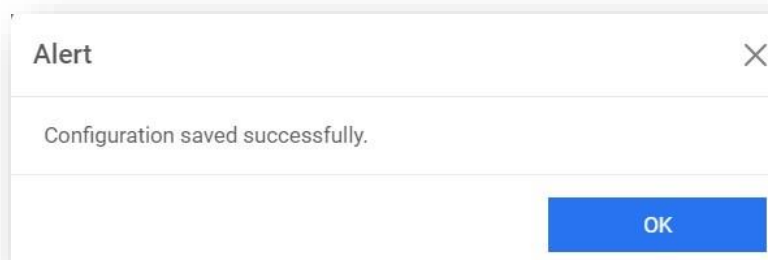
- a. Enter the Configuration name.
 - b. Enter the key value such as MyPassword in case of password for any configuration.
 - c. Enter the password value in Password field.
7. For tool name as **Azure Key Vault**, the below popup opens when clicked on 'New Key Vault' button.



The dialog box is titled "Add/Edit Key Vault Configuration" and has a close button (X) in the top right corner. It contains four input fields arranged in a 2x2 grid. The top-left field is a dropdown menu labeled "Tool Name *" with "Azure Key Vault" selected. The top-right field is a text box labeled "Configuration Name *". The bottom-left field is a text box labeled "Description *". The bottom-right field is a text box labeled "Secret Name *". At the bottom right, there are two buttons: "Cancel" and "Save".

Figure 405 - Add/Edit Vault Configuration (Azure Key Vault)

- a. Enter the configuration name.
 - b. Enter the description of the configuration.
 - c. Enter the Secret Name for which secret value needs to be fetched from Azure key vault.
8. Click on **Save**. The following confirmation message appears.



The alert dialog box is titled "Alert" and has a close button (X) in the top right corner. It contains a single line of text: "Configuration saved successfully." At the bottom right, there is a blue button labeled "OK".

Figure 406 - Key vault Configuration (Cont.)

9. The saved configuration starts appearing in the grid:

Configure Key Vault
Manage security integrations and configure the internal secret manager.

☒ Organization Specific

Organization *
MyCompany

Tool Name *
CyberArk

Key Vaults + New Key Vault Search...

Configuration Name	Action
MyConfiguration	

1 - 1 of 1 items

Figure 407 - Key vault Configuration (Cont.)

10. To edit any configuration, click on the icon corresponding to the configuration to be edited. The Edit wizard appears. Edit the details and click on **Save**.

Add/Edit Key Vault Configuration

Tool Name *
CyberArk

Configuration Name *
MyConfiguration

Description *
MyDescription

AppID *
MyAppID

Safe *
MySafe

Folder *
MyFolder

Object *
MyObject

Cancel Save

Figure 408 - Key vault Configuration (Cont.) (Cyberark)

Add/Edit Key Vault Configuration

Tool Name *
Internal Secret Manager

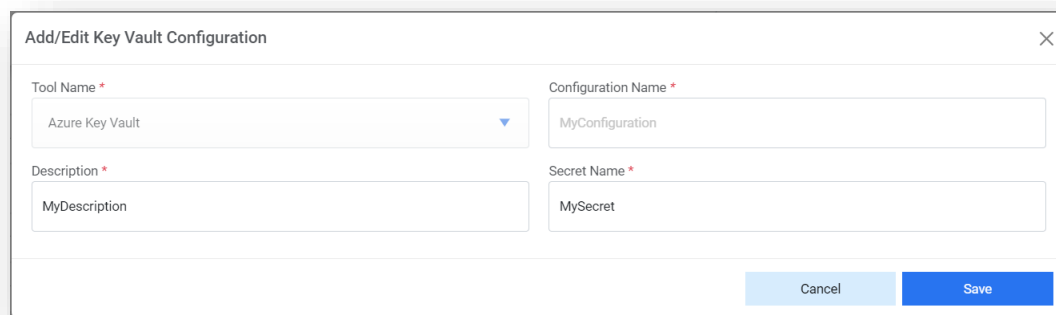
Configuration Name *
MyConfiguration

Key *
MyKey

Password *
MyPassword

Cancel Save

Figure 409 - Key vault Configuration (Cont.) (Secret Manager)

A dialog box titled "Add/Edit Key Vault Configuration" with a close button (X) in the top right corner. It contains four input fields: "Tool Name" with a dropdown menu showing "Azure Key Vault", "Configuration Name" with the text "MyConfiguration", "Description" with the text "MyDescription", and "Secret Name" with the text "MySecret". At the bottom right, there are two buttons: "Cancel" and "Save".

Add/Edit Key Vault Configuration

Tool Name *
Azure Key Vault

Configuration Name *
MyConfiguration

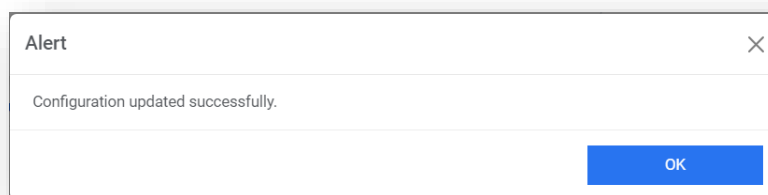
Description *
MyDescription

Secret Name *
MySecret

Cancel Save

Figure 410 - Key vault Configuration (Cont.) (Azure Key Vault)

11. The following confirmation message appears:

An alert dialog box titled "Alert" with a close button (X) in the top right corner. It contains the text "Configuration updated successfully." and an "OK" button at the bottom right.

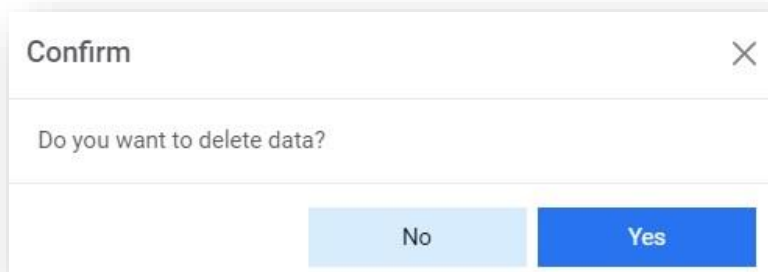
Alert

Configuration updated successfully.

OK

Figure 411 - Key vault Configuration (Cont.)

12. To delete any configuration, click on icon  corresponding to the configuration to be deleted. The following confirmation message appears:

A confirm dialog box titled "Confirm" with a close button (X) in the top right corner. It contains the text "Do you want to delete data?" and two buttons: "No" and "Yes" at the bottom right.

Confirm

Do you want to delete data?

No Yes

Figure 412 - Key vault Configuration (Cont.)

13. Click **Yes**. The following success message appears:

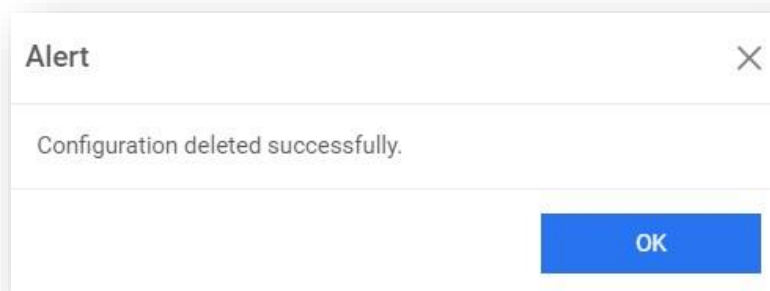


Figure 413 - Key vault Configuration (Cont.)

3.2.3.4.8 Component Key Value Configuration

Users can use iAutomate components to manage application features. Each configuration component contains one or more component keys, each of which identifies a configurable property of the component. This section describes how to manage these key values for the components.

To configure the component key values, perform the following steps:

1. On the main menu bar, click Advance Configuration->Connectivity and then click Component Key Value Configuration. The Component Key Value Configuration page appears.

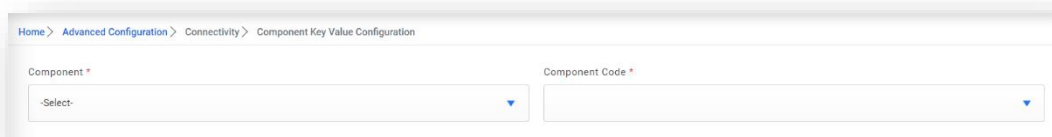


Figure 414- Component Key Value Configuration

2. Select Component and the component code for which the user wants to see the configuration.
3. The configurations saved without **Organization Specific** checkbox being checked will be used at admin level. And the configurations saved corresponding to any Organization will be used for that organization only.

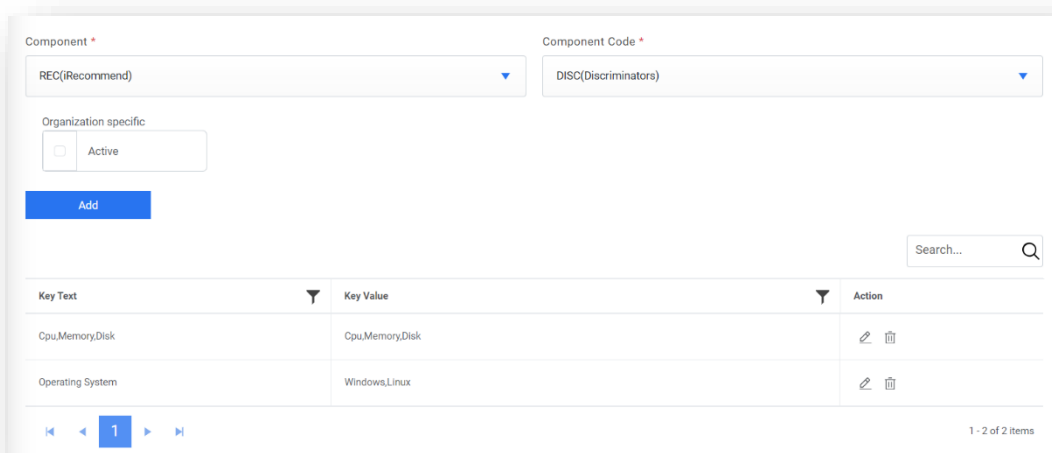


Figure 415 - Component Key Value Configuration (For Super Admin)

Component *
REC(Recommend)

Component Code *
DISC(Discriminators)

Organization specific
☒ Active

Organization *
MyCompany

Module *
IM(Incident Management)

Add

Search...

Key Text	Key Value	Action
Operating System	Windows,Linux	
Cpu,Memory,Disk	Cpu,Memory,Disk	

1 - 2 of 2 items

Figure 416 - Component Key Value Configuration (For Organization Admin)

- To add any configuration, click on Add button and below popup opens.

Add Component Configuration

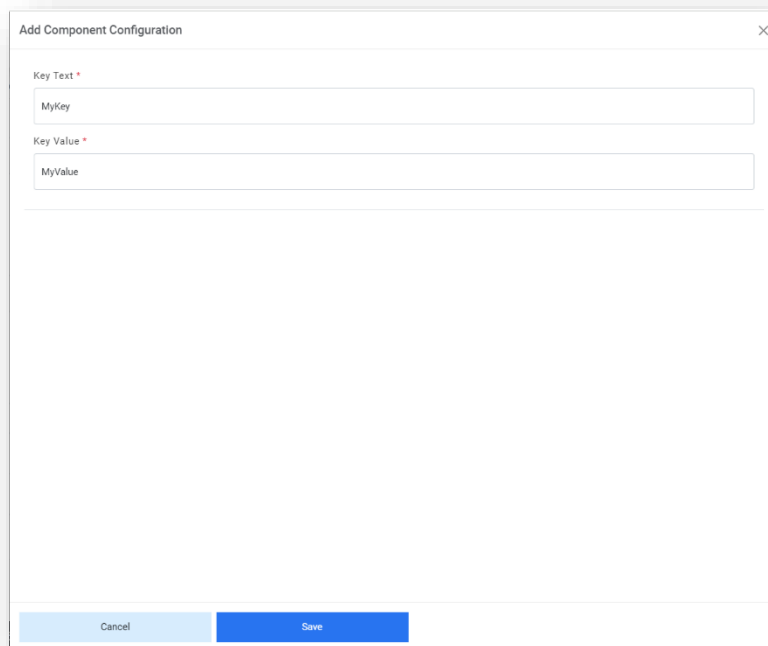
Key Text *
Provide key text here...

Key Value *
Provide key value here...

Cancel Save

Figure 417- Component Key Value Configuration (Cont.)

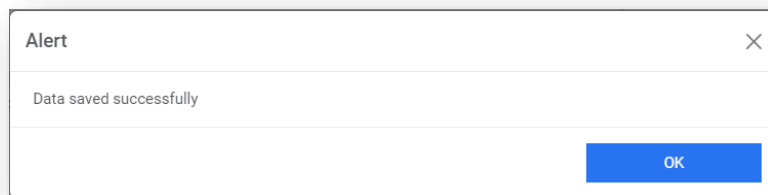
- Provide the Key Text and Key Value.



The dialog box is titled "Add Component Configuration" and has a close button (X) in the top right corner. It contains two text input fields. The first field is labeled "Key Text *" and contains the text "MyKey". The second field is labeled "Key Value *" and contains the text "MyValue". At the bottom of the dialog, there are two buttons: "Cancel" and "Save".

Figure 418- Component Key Value Configuration (Cont.)

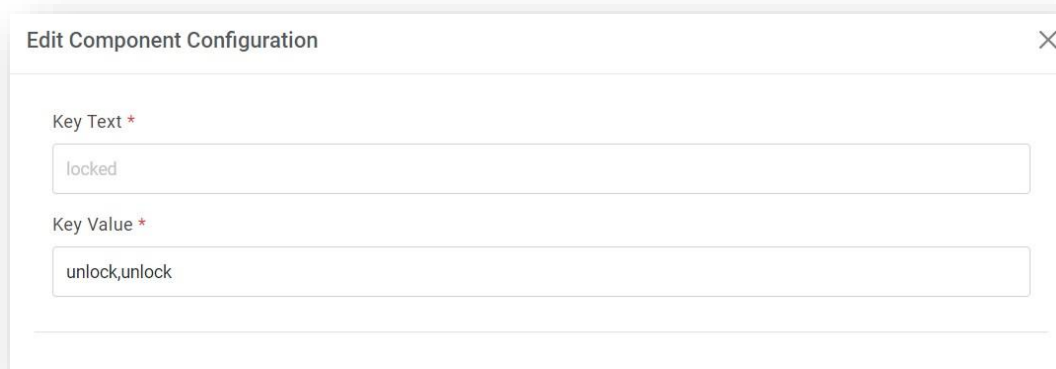
6. Click on Save and below confirmation box opens.



The dialog box is titled "Alert" and has a close button (X) in the top right corner. It contains a message "Data saved successfully". At the bottom right of the dialog, there is a blue button labeled "OK".

Figure 419- Component Key Value Configuration (Cont.)

7. To edit existing values, click  next to the value user wants to edit. It displays a popup with auto-filled details.



The dialog box is titled "Edit Component Configuration" and has a close button (X) in the top right corner. It contains two text input fields. The first field is labeled "Key Text *" and contains the text "locked". The second field is labeled "Key Value *" and contains the text "unlock,unlock".

Figure 420- Component Key Value Configuration (Cont.)

8. Edit the required details and click **Update**.

Incorrect changes to key values can severely degrade system performance.

9. Click **Cancel** to cancel any modifications.

10. To delete any configurations created by user, click on  icon and below alert appears.

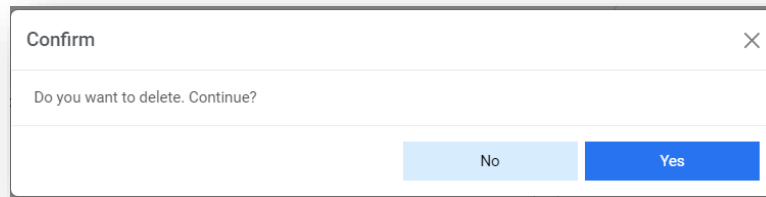


Figure 421- Component Key Value Configuration (Cont.)

11. Click on Yes to delete the configuration. Below confirmation box opens.

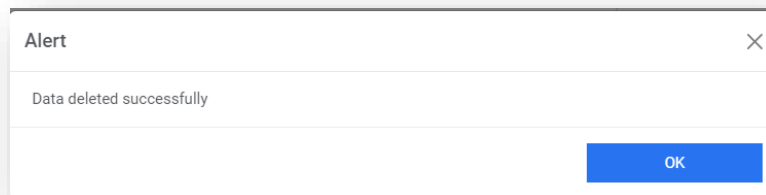


Figure 422- Component Key Value Configuration (Cont.)

3.2.3.4.9 Google Custom Search API/AEX API Details

Users can configure the API details such as the Google custom search API key, API URL, and so on. Users can use these details to fetch scripts using the Google search API or from AEX.

To manage the Google custom search API or AEX API, perform the following steps:

1. On the main menu bar, click Advance Configuration->Connectivity, and then click Google Custom Search API/AEX API Details.
2. The **Google Custom Search API/AEX API Details** page appears.

AEX API Details tab is visible to organization admin only.

Google Custom Search API

Organization specific

☐ Active

API Key *

Search Engine ID *

API URL *

Search...

APIKey	SearchEngineID	APIURL	Action
No data available.			

No items to display

Note: API Key and Search Engine ID are in encrypted form.

Figure 423- Google Custom Search API/AEX API Details (For Super Admin)

Home > Advanced Configuration > Connectivity > Google Custom Search API/AEX API Details

Google Custom Search API AEX API

Organization *

API Key *

Search Engine ID *

API URL *

Note: API Key and Search Engine ID are in encrypted form.

Figure 424- Google Custom Search API/AEX API Details (For Organization Admin)

- To configure Google Custom Search API use below steps:

- a. It lists the existing API keys in a tabular view and enables user to edit or delete the keys.
- b. The configurations saved without organization specific checkbox being checked will be applicable at admin level requirements and those saved for any organization will be used for that organization level requirements.
- c. From the drop-down menu, select the **Organization** for which APIs are to be used else the saved APIs will only correspond to Super Admin and will not be applicable for any organization.
- d. Type the google custom search API key, to identify the user to the website, in the **API Key** field.
- e. Type the search engine ID to search for information on the internet in the **Search Engine ID** field.
- f. Type the API URL in the **API URL** field.
- g. Click **Save**.
- h. A confirmation dialog box appears.

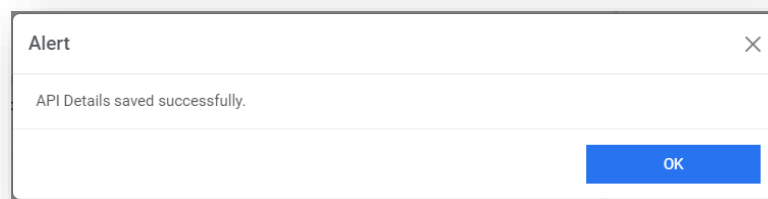


Figure 425- Google Custom Search API/AEX API Details (Cont.)

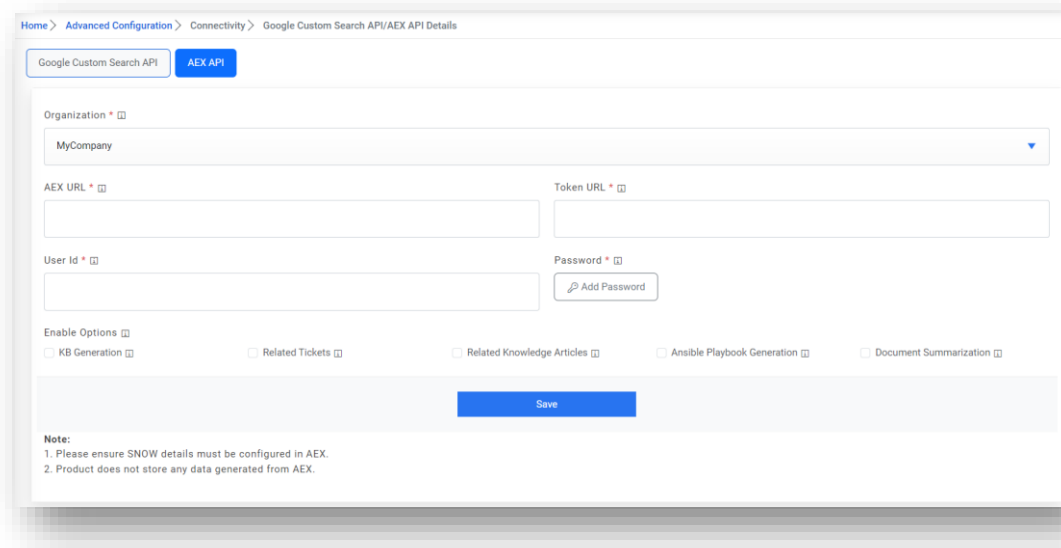
This adds the new API URL and lists it in a tabular view. The API key and Search Engine ID is saved and displayed in encrypted form.

The screenshot shows a form for adding API details. At the top, there are four input fields: 'Organization' (a dropdown menu with 'MyCompany' selected), 'API Key', 'Search Engine ID', and 'API URL'. Below these fields is a blue 'Add' button. Underneath the button is a table with the following columns: 'APIKey', 'SearchEngineID', 'APIURL', and 'Action'. The table contains one row of data. Below the table is a pagination bar showing '1' of 1 items. At the bottom, there is a note: 'Note: API Key and Search Engine ID are in encrypted form.'

APIKey	SearchEngineID	APIURL	Action
prWZDVJkKFN4o+MGHf6mW3wKEOdWia/KqJNe5WJdnSSureEOCZRX+id08R+MSSqmpRTB/mwBjPI/q33BjxpgZg==	hf+b9dSGTJzPKjJ4+MEMm+NEju7aY4I7gJL+MQ9cV2R1a75kIZdW760Z1V	https://localhost	

Figure 426- Google Custom Search API/AEX API Details (Cont.)

4. To configure AEX API details, click on AEX API tab. Below page appears:



Home > Advanced Configuration > Connectivity > Google Custom Search API/AEX API Details

Google Custom Search API AEX API

Organization *

AEX URL *

Token URL *

User Id *

Password * [Add Password](#)

Enable Options

☐ KB Generation ☐ Related Tickets ☐ Related Knowledge Articles ☐ Ansible Playbook Generation ☐ Document Summarization

[Save](#)

Note:
 1. Please ensure SNOW details must be configured in AEX.
 2. Product does not store any data generated from AEX.

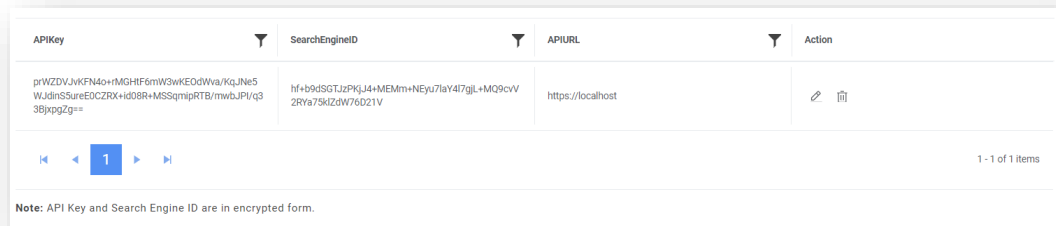
Figure 427 – Google Custom Search API/AEX API Details (Cont.)

- a. Provide AEX tenant URL.
- b. Provide the Token URL of AEX to generate token.
- c. Provide the user id and password to authenticate AEX.
- d. Enable Options:
 - **KB Generation:** To generate the knowledge article corresponding to a ticket.
 - **Related Tickets:** It shows similar ticket details for a ticket. Enabling this asks user to provide below details:
 - **Collection for Related Ticket:** Name of collection to get related ticket from AEX.
 - **Method for Related Ticket:** The method to be appended in the URL for the API.
 - **Related Knowledge Articles:** It shows similar knowledge articles corresponding to a ticket. Enabling this asks user to provide below details:
 - **Collection for Knowledge Articles:** Name of collection to get knowledge articles from AEX.
 - **Method for Knowledge Articles:** The method to be appended in the URL for the API.
 - **Ansible Playbook Generation:** It generates Ansible playbook for a ticket. Enabling this asks user to provide below details:
 - **Chain Name for Playbook generation:** Name of chain to get playbook response.
 - **Method for Playbook Generation:** The method to be appended in the URL for the API.
 - **Document Summarization:** Generates summary of document using AEX. Enabling this asks user to provide below details:
 - **Chain Name for Document Summarization:** Name of chain to get document summary for a description.
 - **Method for Document Summarization:** The method to be appended in the URL for the API.

3.2.3.4.9.1 Edit and Delete Google Custom Search API/AEX API Details

User can review the existing Google Custom Search APIs or AEX API details, edit their details, or delete existing API keys by performing the following steps:

1. On the **Google Custom Search API/AEX API details** page, to edit Google Custom Search API, click  next to the API that user wants to edit.



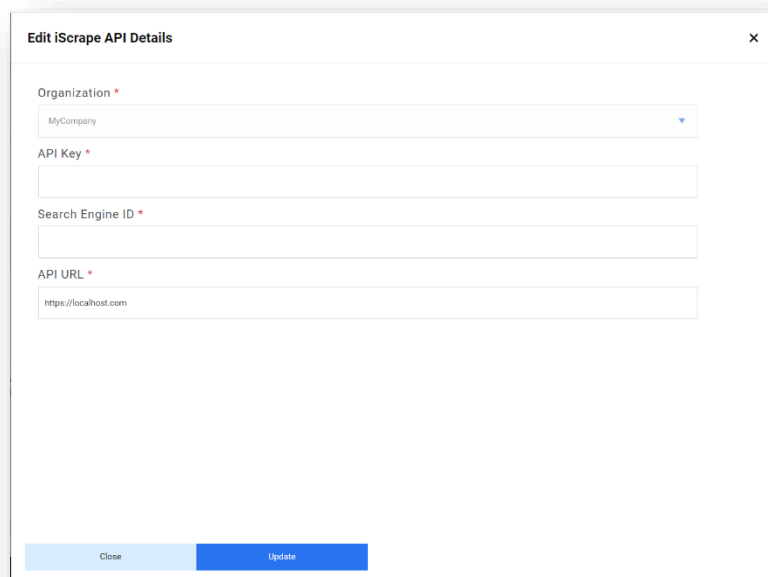
APIKey	SearchEngineID	APIURL	Action
prWZDVJnKF4oHtMGHIF6mW3wKEOdWva/KqJNe5WJdnSSureEDCZRX+id08R+MSSqmpRTB/mwbJPI/q338jxpgZg==	hf+b9dSGTJzPKjJ4+MEMm+NEyu7laY47gLL+MQ9cvV2Rya79KJZdW76DZ1V	https://localhost	 

1 - 1 of 1 items

Note: API Key and Search Engine ID are in encrypted form.

Figure 428- - Google Custom Search API/AEX API Details (Cont.)

2. It displays the selected **API Key details**.



Edit iScrape API Details ×

Organization *

API Key *

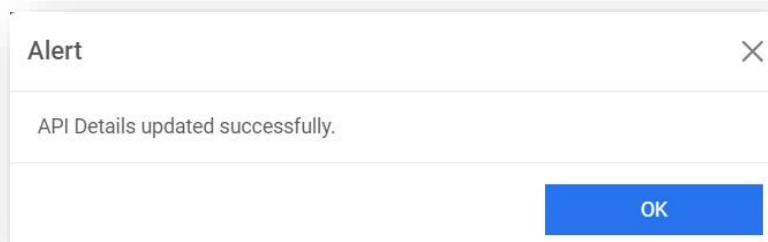
Search Engine ID *

API URL *

Close Update

Figure 429- Google Custom Search API/AEX API Details (Cont.)

3. Edit the required details and click **Update**. A confirmation dialog box appears.



Alert ×

API Details updated successfully.

OK

Figure 430- - Google Custom Search API/AEX API Details (Cont.)

4. To delete an **API Key**, click  next to the organization you want to delete. A confirmation dialog box appears.

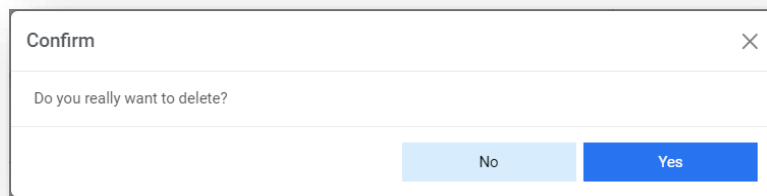


Figure 431- Google Custom Search API/AEX API Details (Cont.)

- Click on Yes and it displays below alert.

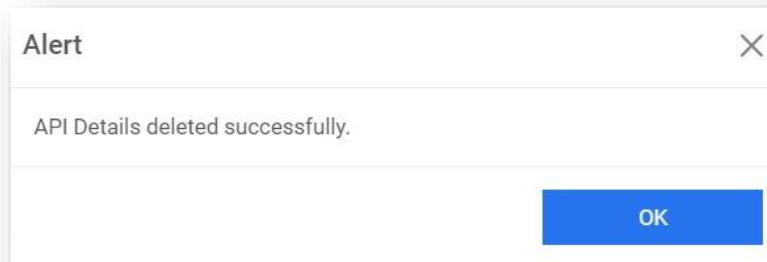


Figure 432- - Google Custom Search API/AEX API Details (Cont.)

- To edit AEX API details, click on AEX API tab, and update the required details and click on Save button.

Please be aware that you are interacting with an AI chatbot. HCL Software makes no warranty or guarantee as to the accuracy, completeness or reliability of the output generated by the chatbot. For your privacy and security, please do not provide any personal data, including but not limited to phone numbers or email addresses.

3.2.3.4.10 Connection Details

User can Manage the connection details from this menu.

To manage the connection details, perform the following steps:

- On the main menu bar, click Advance Configuration->Connectivity, and then click Connection Details.
- The **Connection Details** page appears.

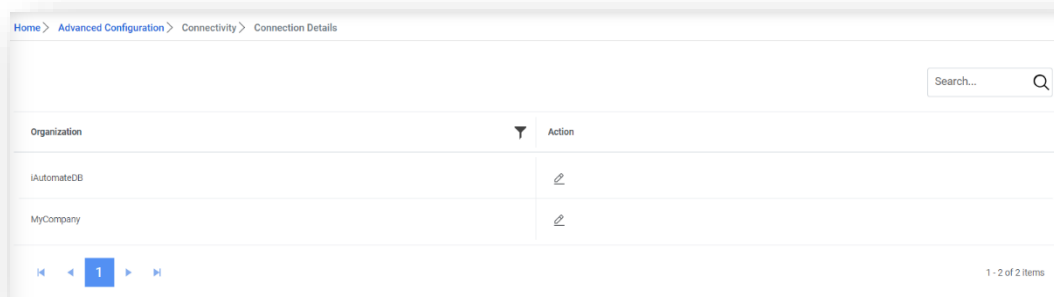
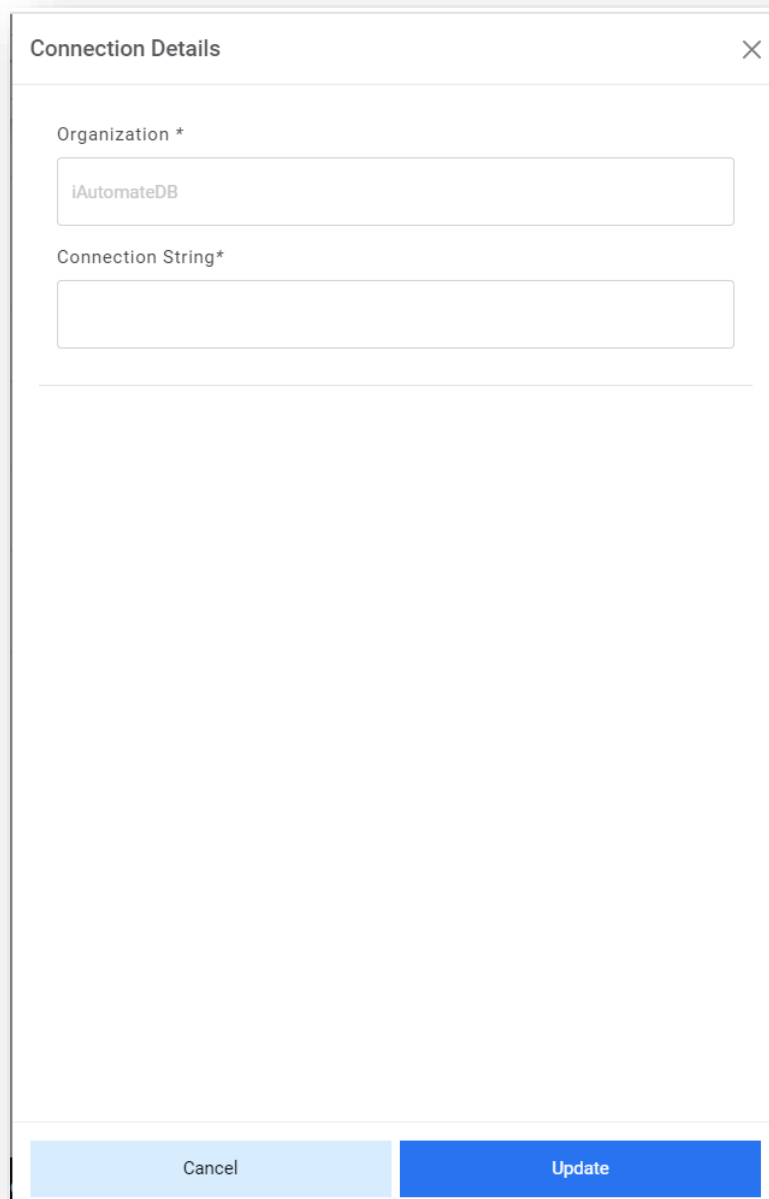


Figure 433- Connection Details

- It lists the existing Organization.
- Click the Edit icon under the **Action** tab to edit the details.

On the click of edit, the connection string will only be visible in the textbox if the below key is set to 'Y' in BaseUI's web.config. If its value is 'N', then the Connection String textbox will be empty.

```
<add key="isDecryptConnection" value="Y" />
```



The image shows a 'Connection Details' dialog box with a close button (X) in the top right corner. It contains two input fields: 'Organization *' with the text 'iAutomateDB' and 'Connection String*' which is empty. At the bottom, there are two buttons: 'Cancel' and 'Update'.

Figure 434- Connection Details (Cont.)

5. Type the updated connection string. Click **Update** to make the changes. A confirmation dialog box appears.

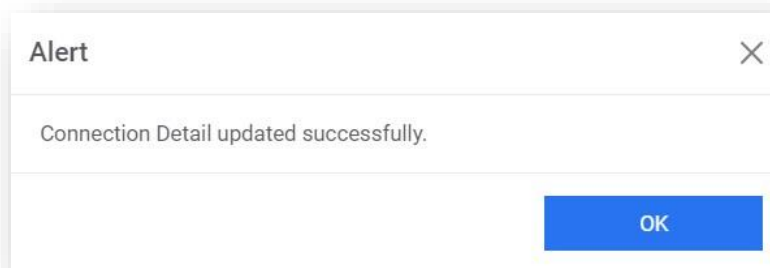


Figure 435- Connection Details (Cont.)

3.2.3.4.11 Entity

This section describes how to extract entities such as an operating system, application name, and so on from the input summary of a ticket. This is considered one of the main inputs for the recommendation model. An entity can be defined as a noun or a pattern such as application name, operating system, and so on.

To build an entity model, perform the following steps:

1. On the main menu bar, click **Advance Configuration→Entity**. The drop-down lists the following options.
 - [Manage Named Entity](#)
 - [Entity Creation](#)
 - [Entity Mapping](#)

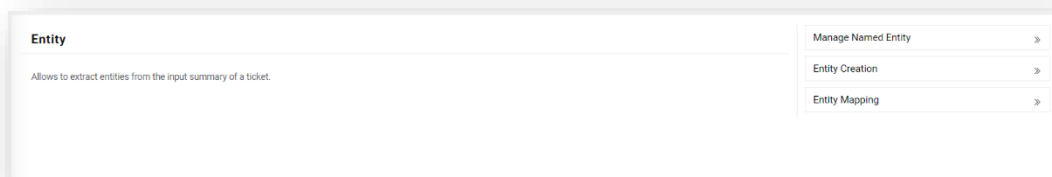


Figure 436- Entity

3.2.3.4.11.1 Manage Named Entity

Named Entities are specially curated entities against any given runbook that provides control over recommendation of a runbook against a ticket.

Consider a scenario where the system has two runbooks for the same issue but with different domains. For e.g., we may have a runbook which automates the operation of database backup. But the requirement is to support multiple types of databases like MSSQL, Oracle, etc. For each type of the database, a new runbook needs to be available in the system. For the system to understand and recommend the relevant runbook for a particular type of database, named entities need to be mapped against the runbooks.

If we want system to return only MSSQL runbook for a ticket, then we need to specifically map 'MSSQL' and '!MSSQL' against runbook for MSSQL and Oracle respectively.

The user can map named entities against runbooks using this menu item.

To add named entities, perform the following steps:

1. On the main menu bar, click Advance Configuration->Entity and then Manage Named Entity. The Named Entity page appears.
2. Select Organization, Module, and the Runbook Tool.
3. Click **Search**. All the runbooks which are configured within the selected **Runbook Tool** will be listed.
4. Type in the **Named Entities** against the respective **Runbook Name**.
E.g. - !windows, windows

Figure 437 - Manage Named Entities

5. Click **Save** to commit the changes.
6. Below alert will be generated.

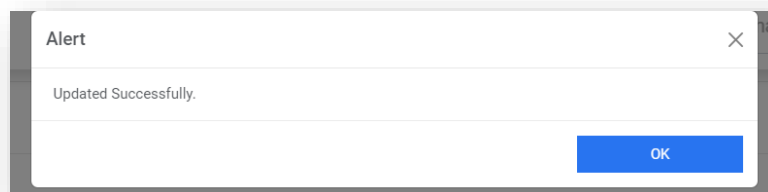


Figure 438 - Manage Named Entities

It is not mandatory to mention the named entities for every runbook. It should be used only if required. Multiple values can be provided as comma separated values.

3.2.3.4.11.2 Entity Creation

User can manage entities such as an operating system, application name, and so on in an organization by performing the following steps:

1. On the main menu bar, click Advance Configuration→ Entity then Entity Creation.
2. The **Entity Creation** page appears. It enables the user to add a new entity and lists the existing entities in a tabular view.
3. Click on icon  to Create Entity.

Create Entity Entity Mapping

Create Entity

Name *

Description *

Organization *

Type *

Language *

☐ Fuzzy Match

Entity

Name	Description	Organization	Type	Language	Fuzzy Logic	Action
User_Entity	User_Entity	MyCompany	LIST	ENGLISH (US)	Y	Edit Delete
System_Commands	System_Commands	MyCompany	LIST	ENGLISH (US)	N	Edit Delete

Figure 439- Manage Entity

Add New Entity

User can create a new entity in a customer environment by performing the following steps:

1. On the **Entity Creation** page, type the entity name in the **Name** field, and then describe the entity in the **Description** field.
2. Select the organization to which you want to map the entity.
3. Select the entity from the **Type** list and then select the required language from the **Language** field.
4. If required, select the **Fuzzy Match** check box to enable fuzzy match. It allows for any spelling errors in entities in the ticket summary.
5. Click **Save**.

Name *

Description *

Organization *

Type *

Language *

☒ Fuzzy Match

Figure 440-Add New Entity

6. A confirmation message dialog box appears.

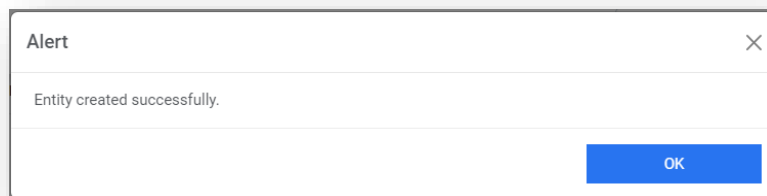


Figure 441-Add New Entity (cont.)

All fields marked with an asterisk (*) are mandatory.

The new entity is added and appears in a tabular view.

Create Entity

Entity Mapping

Create Entity

Entity

Search...

Name	Description	Organization	Type	Language	Fuzzy Logic	Action
MyEntity	My Entity Description	MyCompany	LIST	ENGLISH (US)	Y	
User_Entity	User_Entity	MyCompany	LIST	ENGLISH (US)	Y	
System_Commands	System_Commands	MyCompany	LIST	ENGLISH (US)	N	

Figure 442-Add New Entity (cont.)

Edit Entity

User can view and change the existing entities by performing the following steps:

1. On the **Entity Creation** page, click next to the entity user wants to edit.

Entity						
Name	Description	Organization	Type	Language	Fuzzy Logic	Action
MyEntity	My Entity Description	MyCompany	LIST	ENGLISH (US)	Y	
User_Entity	User_Entity	MyCompany	LIST	ENGLISH (US)	Y	
System_Commands	System_Commands	MyCompany	LIST	ENGLISH (US)	N	

Figure 443- Edit Entity

2. This populates the details of the selected entity.

Name *
MyEntity

Description *
My Entity Description

Organization *
MyCompany

Type *
LIST

Language *
ENGLISH (US)

☒ Fuzzy Match

Cancel Update

Figure 444- Edit Entity (Cont.)

3. Edit the required entity details.
4. To update changes, click **Update**. A confirmation dialog box appears.

Alert

Entity updated successfully

OK

Figure 445- Edit Entity (Cont.)

All fields marked with an asterisk (*) are mandatory.

Delete Entity

If user no longer wants a certain entity in an environment, it can be deleted by performing the following step.

1. On the **Entity Creation** page, click  next to the entity you want to delete.

Name	Description	Organization	Type	Language	Fuzzy Logic	Action
MyEntity	My Entity Description	MyCompany	LIST	ENGLISH (US)	Y	 Delete Entity
User_Entity	User_Entity	MyCompany	LIST	ENGLISH (US)	Y	
System_Commands	System_Commands	MyCompany	LIST	ENGLISH (US)	N	

Figure 446- Delete Entity

2. A confirmation dialog box appears.

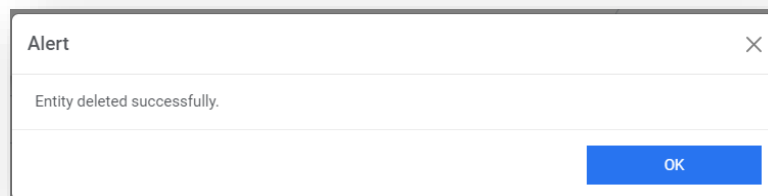


Figure 447- Delete Entity (Cont.)

3.2.3.4.11.3 Entity Mapping

User can map an entity to an organization by performing the following steps.

1. On the main menu bar, click **Advance Configuration** then **Entity** and then click **Entity Mapping**. The **Entity Mapping** page appears.

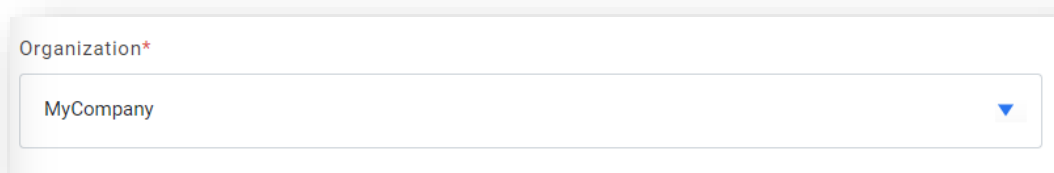


Figure 448- Entity Mapping

2. Select an **organization** from the drop-down list.

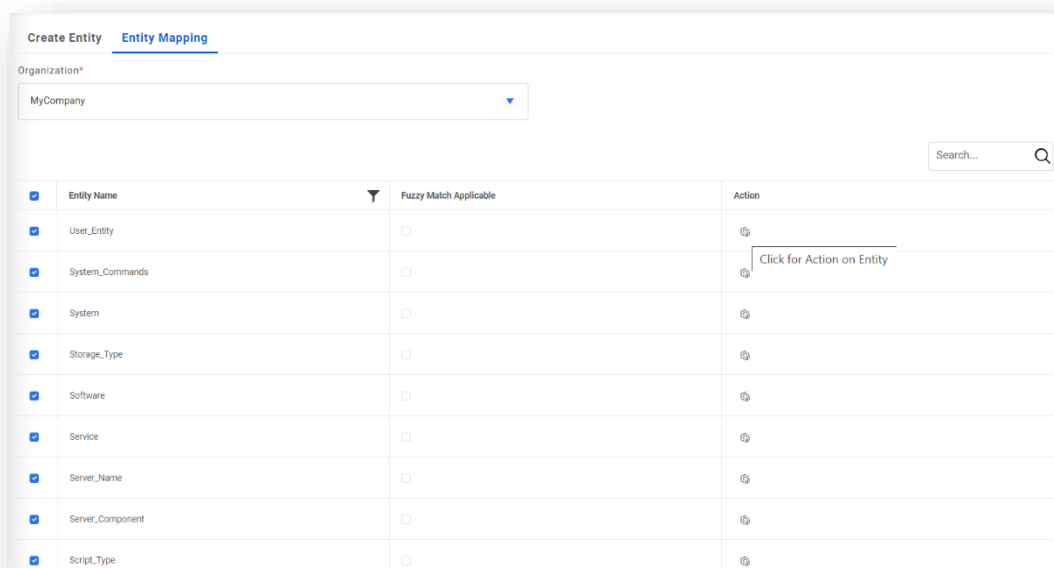


Figure 449- Entity Mapping (Cont.)

3. It lists the entities created in **Entity Creation tab** in a tabular view.
4. To map an entity, select the check box corresponding to the entity. A confirmation dialog box appears.

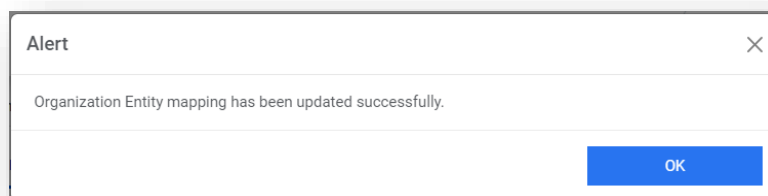


Figure 450- Entity Mapping (Cont.)

5. On successful mapping, the **Action** column enables  to perform multiple actions on the mapped entity.

Organization*

MyCompany

Search...

☒	Entity Name	Fuzzy Match Applicable	Action
☒	User_Entity	☐	
☒	System_Commands	☐	
☒	System	☐	
☒	Storage_Type	☐	
☒	Software	☐	
☒	Service	☐	
☒	Server_Name	☐	
☒	Server_Component	☐	
☒	Script_Type	☐	

Figure 451- Entity Mapping (Cont.)

6. To manage an organization specific entity, click .

System_Commands

Create a value for System_Commands

Values for System_Commands

Is Mapped	Value	Synonym	Pattern	Action
☐	PING	ping		
☐	SSH	Secure Shell		

Cancel

Note: - Use \$~\$ as regex separator

Figure 452- Entity Mapping (Cont.)

- To map a value to the selected entity, select the **Is Mapped** check box for the corresponding value under the **Value for Entity** tab. A confirmation dialog box appears.

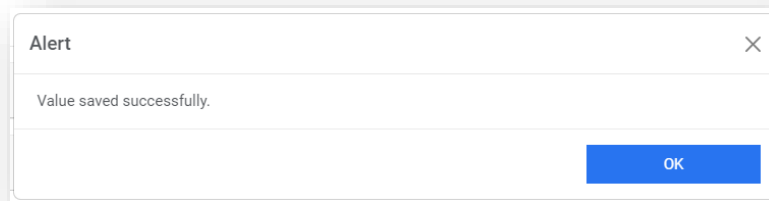


Figure 453- Entity Mapping (Cont.)

- After successful mapping of a value, user can edit or delete the value by clicking on  or .

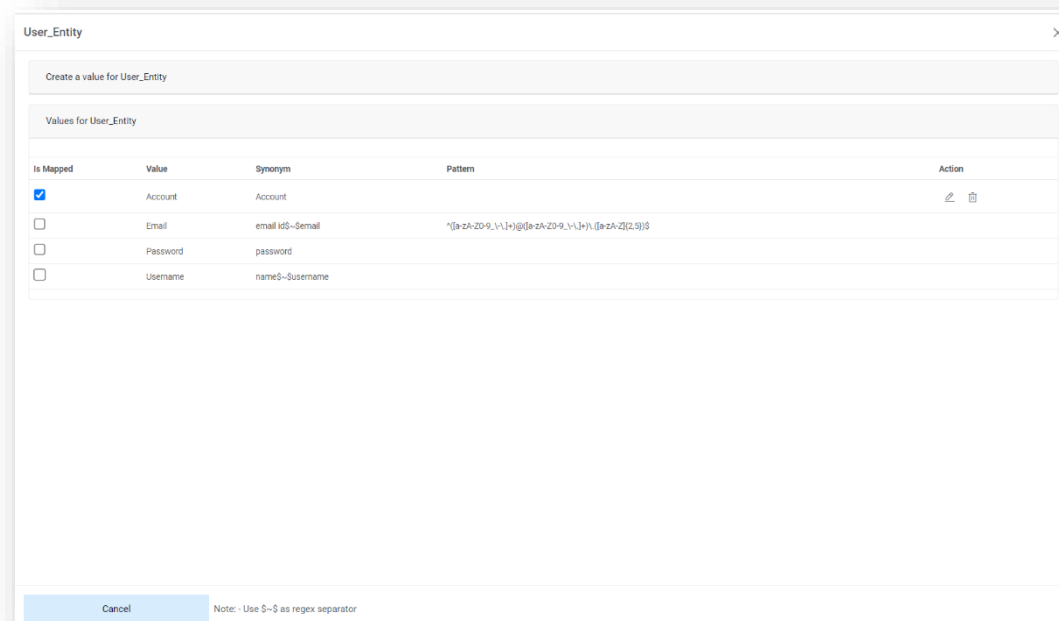


Figure 454- Entity Mapping (Cont.)

- Click **Create a value for Entity** to add specific organization values to an entity.

The screenshot shows a dialog box titled "User_Entity" with a close button (X) in the top right corner. Inside the dialog, there is a section titled "Create a value for User_Entity". This section contains three input fields: "Value Name*", "Synonym*", and "Pattern *". Below these fields is a blue "Save" button. At the bottom of the dialog, there is a "Cancel" button and a note that says "Note: - Use \$~\$ as regex separator". Below the "Create a value" section, there is a section titled "Values for User_Entity" which is currently empty.

Figure 455- Entity Mapping (Cont.)

10. A page appears for you to type the **Value Name**, **Synonym**, and **Pattern** (or regular expression).
11. Click **Save**. A confirmation dialog box appears.

The screenshot shows an "Alert" dialog box with a close button (X) in the top right corner. The message inside the dialog says "Value saved successfully.". At the bottom right of the dialog is a blue "OK" button.

Figure 456- Entity Mapping (Cont.)

12. The new value is added and appears in the **Values for Entity** tab.

User_Entity

Create a value for User_Entity

Values for User_Entity

Is Mapped	Value	Synonym	Pattern	Action
☒	Account	Account		
☐	Email	email id\$-\$email	^[a-zA-Z0-9_\\+]{1}@([a-zA-Z0-9_\\+]{1})\\.([a-zA-Z]{2,5})\$	
☒	myValue	mySynonym	myPattern	
☐	Password	password		
☐	Username	name\$-\$username		

Cancel

Note - Use \$-\$ as regex separator

Figure 457- Entity Mapping (Cont.)

User can edit or delete the existing values for the entity by clicking on or .

- User can select the **Fuzzy Match Applicable** check box to enable fuzzy match.

Organization*

MyCompany

Search...

☒	Entity Name	Fuzzy Match Applicable	Action
☒	User_Entity	☒	
☒	System_Commands	☐	
☒	System	☒	
☒	Storage_Type	☒	
☒	Software	☐	

Figure 458- Entity Mapping (Cont.)

All fields marked with an asterisk (*) are mandatory.

3.2.3.4.12 Workbench

WorkBench analysis allows users to build different versions of the recommendation and unique models for an organization. WorkBench provides a UI to capture SME feedback for results received for these models. If the SME considers a particular version of the model is about 80% to 90% accurate, then user can deploy the same model in a production environment. Users can use the deployed model for future clustering of tickets and recommendations.

To run and build different versions of the same model (for ticket clustering and Runbook Recommendation), the SME defines the configurations, also called as hyperparameters for each version. SMEs can use these models to test the current unique and recommendation models anytime and update them as required.

- It is recommended to perform the workbench analysis before deploying a unique and recommendation model in the production environment.
- The Workbench option is visible only to Super Admin.

1. To manage workbench analysis, on the main menu bar, click **Advance Configuration**→ **WorkBench**. The drop-down lists the following options:

- Unique Analysis
- [Recommendation Analysis](#)

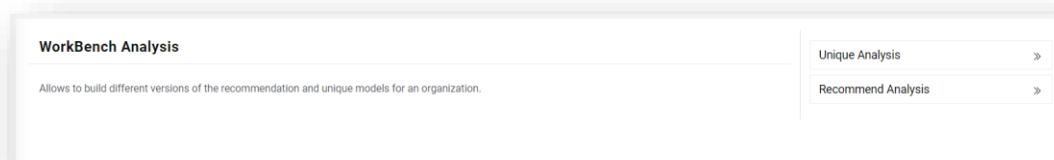


Figure 459- Workbench

3.2.3.4.12.1 Unique Analysis

Unique analysis modifies the hyperparameters (or configuration) of the **iUnique** module to increase accuracy in the customer specific environment.

1. To manage workbench unique analysis, on the main menu bar, click **Advance Configuration**-> **WorkBench** and then click **Unique Analysis**. The **Unique Analysis** page appears.

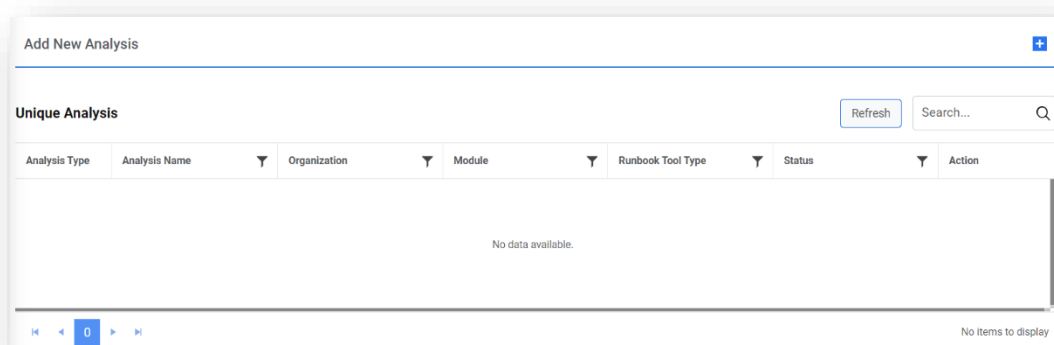


Figure 460- Workbench Unique Analysis

2. This lists the available unique analysis types in a tabular view which enables user to add new iterations to the existing analysis, add new unique analysis, and view, edit, or publish the existing unique analysis.

User can only perform one unique analysis for a single organization at one time. However, you can run multiple analyses for different organizations simultaneously.

Add New Iteration

If the existing configuration (or hyperparameters template) of unique analysis do not provide the expected results, you can add multiple configurations (or hyperparameters template) to get better results.

To add a new iteration, perform the following steps.

1. On the Unique Analysis page, click Run New Iteration.

Unique Analysis							Refresh	Search...
Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action		
CSV	ProcessUniqueMyAnalysis	MyMockOrg	Incident Management	ANSIBLE TOWER/AWX	Successful	Run new Iteration		

Iteration No.	Parameter Template	Is Published	Action
1	BaseUniqueTemplate	Yes	

1 - 1 of 1 items

Figure 461- Workbench Unique Analysis

- On the **Iteration** page, select **Hyperparameter Template** from the drop-down menu, and then click **Run**.

Iteration

Hyper Parameter Template

-Select- ▼

Run

Figure 462- Workbench Unique Analysis

To create a new hyperparameters template, see [Hyperparameter Configuration](#).

- The confirmation dialog box appears.

Alert

Iteration initiated successfully.

OK

Figure 463- Workbench Unique Analysis

- This adds the iteration and appears at the bottom of the list in a grid below.

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action
CSV	ProcessUniqueMyAnalysis	MyMockOrg	Incident Management	ANSIBLE TOWER/AWX	Successful	Run new iteration

Iteration No.	Parameter Template	Is Published	Action
1	BaseUniqTemplate	Yes	View Edit Delete
2	NewUniqTemplate	No	View Edit Delete

Figure 464- Workbench Unique Analysis

Add New Unique Analysis Type

User can add a new workbench unique analysis type for an organization by performing the following steps.

1. On the Unique Analysis screen, click on icon

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action
No data available.						

Figure 465- Add New Unique Analysis

2. The **Upload WorkBench Data** page appears. User can define general attributes for the new analysis on this page. Attributes must be set for fields marked with an asterisk (*) to appropriate values for environment before creating an analysis.

Organization *

Module *

Runbook Tool Type *

Analysis Name *

Select File *

Hyper Parameter Template Version *

Figure 466- Add New Unique Analysis (Cont.)

User can create a dummy organization using **Add Mock Organization**.

3. Select the organization from the list of organizations available in **Organization** field. You can also create a mock organization using the following steps:
 - a. Select **Add Mock Organization** from the drop-down list of the organizations, and it will prompt you to type the **Mock Organization** name.

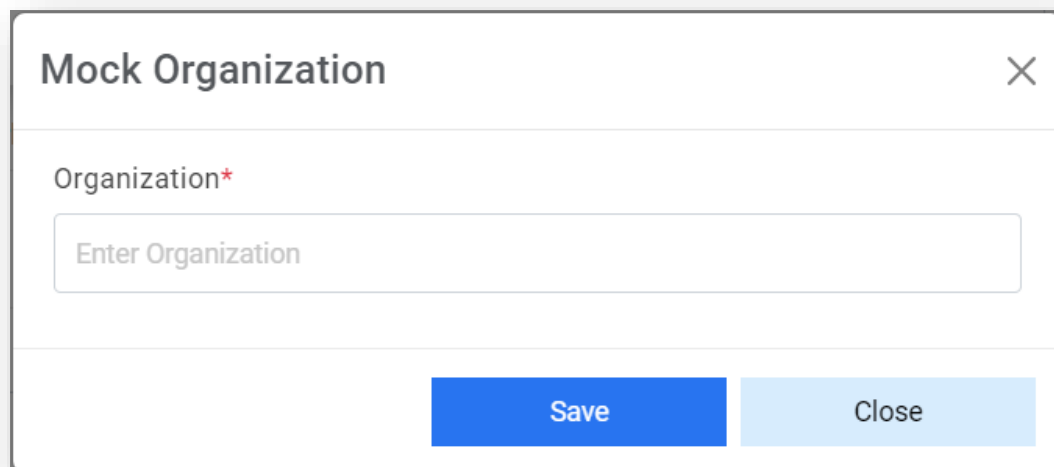
A dialog box titled "Mock Organization" with a close button (X) in the top right corner. Below the title is a label "Organization*" followed by a text input field containing the placeholder text "Enter Organization". At the bottom of the dialog box are two buttons: a blue "Save" button and a light blue "Close" button.

Figure 467- Add New Unique Analysis (Cont.)

- b. Click **Save**. This adds the new mock organization and appears in the **Organization** drop-down list.
4. Select a module from the list of modules available in the **Modules** field.
5. Select **Runbook Tool Type** from the list of available tool types in dropdown.
6. In the **Analysis Name** field, type the unique name for the analysis to be created.
7. Click **Download Template** to download the CSV template to upload analysis details.
8. Fill the details in the downloaded template and click **Choose File** to upload the updated CSV template.
9. Select the hyperparameter template version from the templates available in the **Hyperparameter Template Version** field.

It lists all the **Hyperparameter Templates** added in [Add New Template](#).

10. To start a unique analysis, click **Start Analysis**.

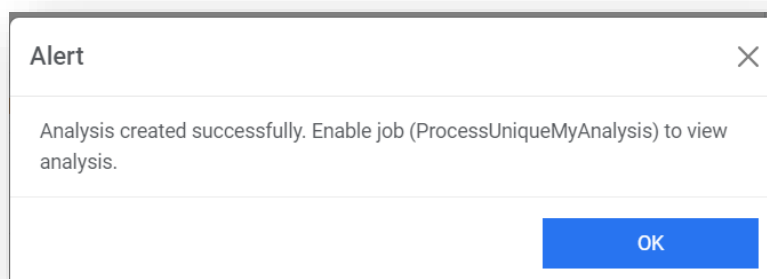
An alert dialog box titled "Alert" with a close button (X) in the top right corner. The message inside reads: "Analysis created successfully. Enable job (ProcessUniqueMyAnalysis) to view analysis." At the bottom right of the dialog box is a blue "OK" button.

Figure 468- Add New Unique Analysis (Cont.)

On clicking **Start Analysis**, one job is created for **Unique Analysis** and another for Recommendation Analysis. Newly added analyses are listed on the [Manage Jobs](#) page.

11. To enable a job to view analysis, go to Manage Jobs.

☐	Enabled	Name	Organization	Status	Service Name	Module Name	Component Name	Action
☒	No	ProcessUniqueMyAnalysis	MyMockOrg	Queued	SNOW	Incident Management	Unique Clustering	
☐	No	FetchUniqueRecommendationMyAnalysis	MyMockOrg	Queued	SNOW	Incident Management	Recommend	

1 - 2 of 2 items

Figure 469- Add New Unique Analysis (Cont.)

- Select the newly added job for unique analysis with the status as **Queued** and then click **Enable Jobs**. A confirmation dialog box appears.

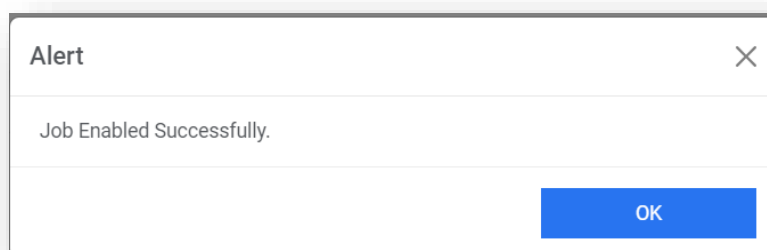


Figure 470- Add New Unique Analysis (Cont.)

- This adds the analysis and lists it in on the **Unique Analysis** page with an **In-Progress** status.

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action
CSV	ProcessUniqueMyAnalysis	MyMockOrg	Incident Management	ANSIBLE TOWER/AWX	In Progress	Run new Iteration

1 - 1 of 1 items

Figure 471- Add New Unique Analysis (Cont.)

- After the unique analysis is completed, the status changes to **Pending Verification**. The SMEs can now validate the results.

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action
CSV	ProcessUniqueMyAnalysis	MyMockOrg	Incident Management	ANSIBLE TOWER/AWX	Pending Verification	Run new Iteration

1 - 1 of 1 items

Figure 472- Add New Unique Analysis (Cont.)

- To analyze the added unique analysis data, click next to the analysis to be verified.
- This auto fills the data available in the template of the selected analysis and allows user to view, edit, or publish the analysis.

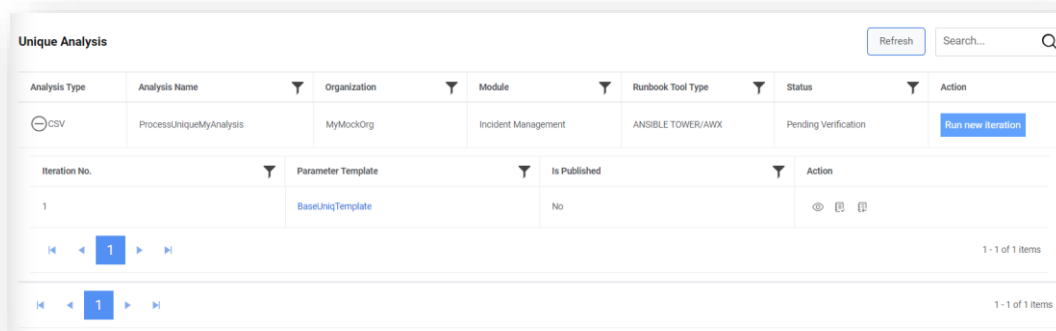


Figure 473- Add New Unique Analysis (Cont.)

View Unique Analysis

User can view the information about an analysis that has already been defined in the workbench.

To view a unique analysis, perform the following steps:

1. On the **Unique Analysis** page, click  next to the analysis user wants to view.

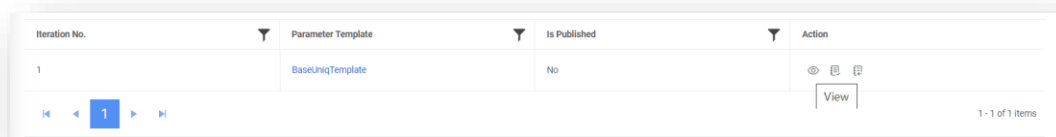


Figure 474- View Unique Analysis

The **WorkbenchVerifyTicket** page appears where user can edit the required **Similarity Score** to view the canonical summary of the analysis.

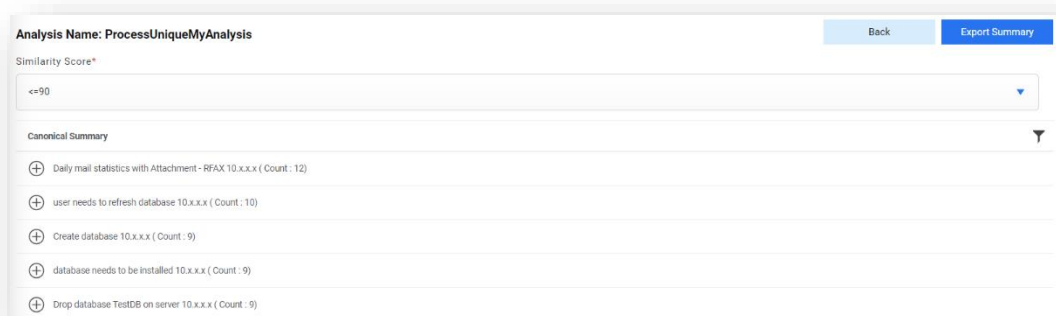


Figure 475- View Unique Analysis (Cont.)

Click **Export Summary** to export the canonical summary of the analysis to your folder or click **Back** to go back to the previous screen.

Edit Unique Analysis

User can open an existing analysis, review the available information, and change the analysis details by performing the following steps:

1. On the **Unique Analysis** page, click  next to the analysis you want to verify.

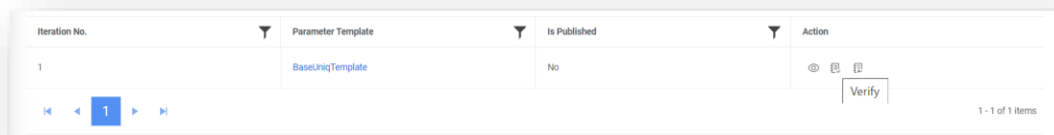


Figure 476- Verify Unique Analysis

2. The **Canonical Summary** page appears where user can edit the required **Similarity Score** to see the canonical summary of the analysis.

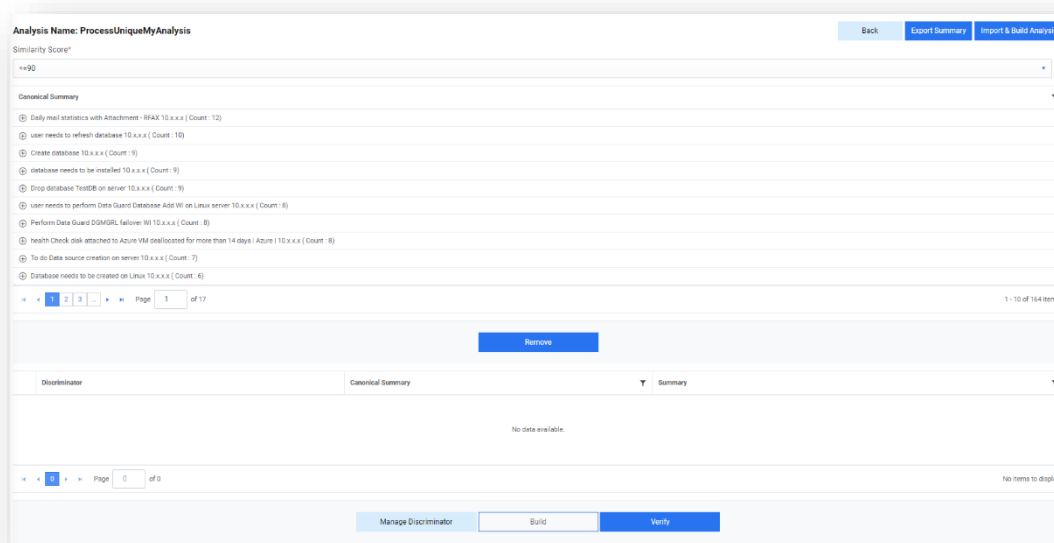


Figure 477- Edit Unique Analysis (Cont.)

3. Expand the selected **Canonical Summary** and all the available tickets under the summary appear in a tabular view.

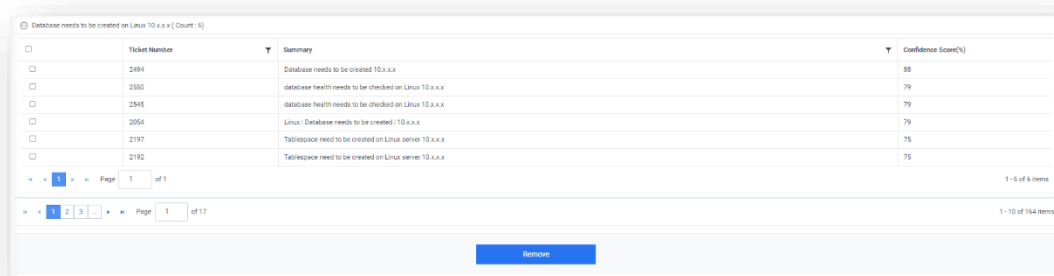


Figure 478- Edit Unique Analysis (Cont.)

4. To delete tickets from the selected analysis, select tickets under the canonical summary and click **Remove**.
5. The **Discriminator** page appears that allows user to select the **Existing Discriminator**.
6. Type a new (at least two comma-separated values) discriminator to verify the uniqueness of the selected tickets and click **Save**.

Discriminator

Select Existing discriminator

Select

Enter discriminator

Save

Figure 479- Edit Unique Analysis (Cont.)

- The new discriminator is added and listed in the grid below.

	Discriminator	Canonical Summary	Summary
	Tablespace, database	Database needs to be created on Linux 10.x.x.x	Linux Database needs to be created 10.x.x.x
	Tablespace, database	Database needs to be created on Linux 10.x.x.x	Tablespace need to be created on Linux server 10.x.x.x

Page 1 of 1
1 - 2 of 2 items

Manage Discriminator
Build
Verify

Figure 480- Edit Unique Analysis (Cont.)

- To manage the added discriminator for analysis, select **Manage Discriminator**.
- The **Manage Discriminator** page appears and allows user to delete the discriminator by clicking  .

Manage Discriminator

Discriminator	
Tablespace, database	

Page 1 of 1
1 - 1 of 1 items

Figure 481- Edit Unique Analysis (Cont.)

- Click **Yes** to confirm the updates for all discriminators.

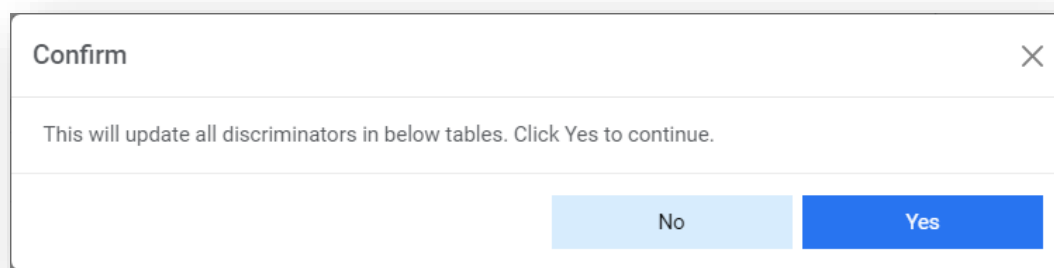


Figure 482- Edit Unique Analysis (Cont.)

11. After the discriminators are configured, click **Build** to reinitiate the unique analysis of selected tickets cluster, based on the newly added discriminator.
12. This will redirect user to the **Unique Analysis** page where the analysis status changes to **Queued (Build Initiated)**. On successful completion of unique analysis, the status automatically changes to **Pending Verification**.

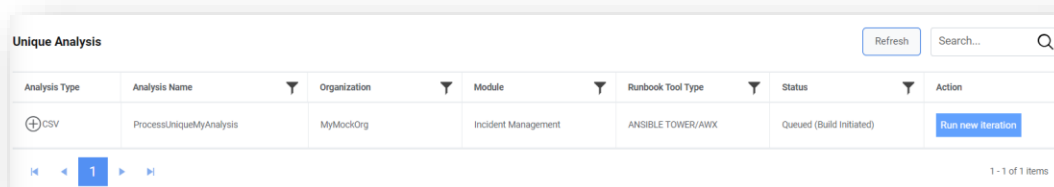


Figure 483- Edit Unique Analysis (Cont.)

13. To verify the pending verification of the analysis, click on  next to the analysis you want to verify. This will redirect you to [Figure 477- Edit Unique Analysis \(Cont.\)](#)
14. Click **Verify** to approve analysis. A confirmation dialog box appears.

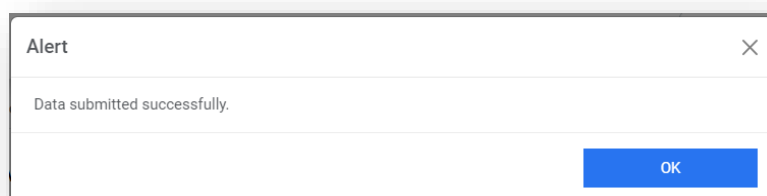


Figure 484- Edit Unique Analysis (Cont.)

15. The status of the unique analysis changes to **Successful**.

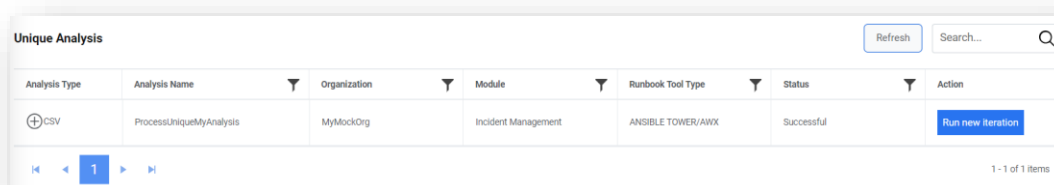


Figure 485- Edit Unique Analysis (Cont.)

User cannot add a discriminator to a ticket for analysis after verification of the unique analysis.

Publish Unique Analysis

After user has verified the configuration of the existing hyperparameter template for an analysis, user can publish the most optimized hyperparameter template by performing the following steps.

1. On the **Unique Analysis** screen, click  next to the analysis user want to publish.

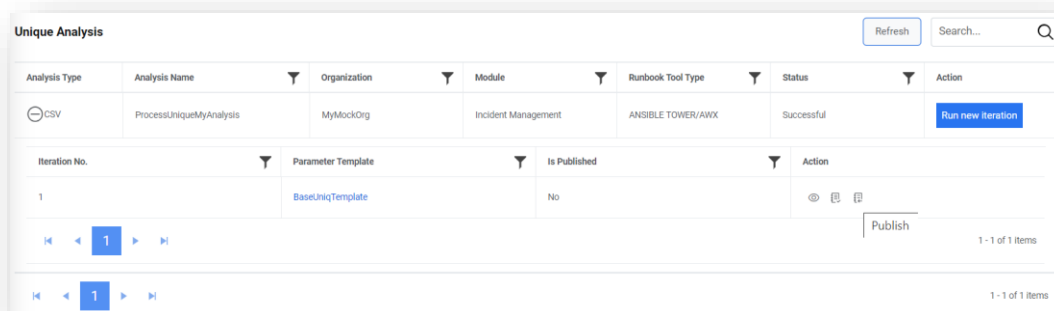


Figure 486- Publish Unique Analysis

User can only publish the successful iterations.

2. A confirmation dialog box appears.

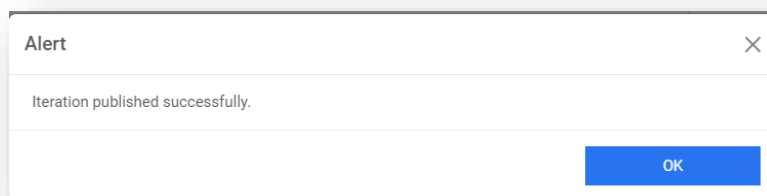


Figure 487- Publish Unique Analysis (Cont.)

3. Successful publishing of the hyperparameter template enables  in the **Action** column.
4. Click  to export the parameter template. This can further be used to create a new template for iUnique using the **Hyperparameter Configuration** screen.

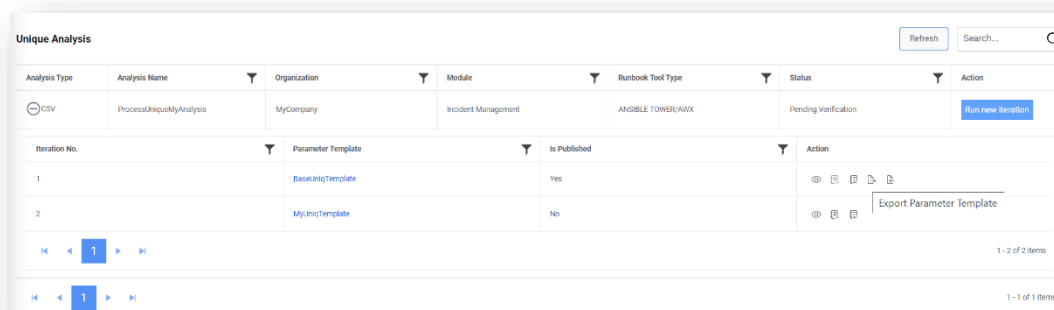


Figure 488- Export Parameter Template

User can also create a new parameter template. Click  in the **Action** column which takes the user to the **Map template with Organization**.

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action
CSV	ProcessUniqueMyAnalysis	MyCompany	Incident Management	ANSIBLE TOWER/AWX	Pending Verification	Run new iteration

Iteration No.	Parameter Template	Is Published	Action
1	BaseUniqueTemplate	Yes	🔍 📄 📄 📄 📄
2	MyUniqueTemplate	No	🔍 📄 📄 📄 📄

1 - 2 of 2 items

1 - 1 of 1 items

Figure 489 - Import Parameter Template

Map template with Organization

Template Name*

Provide key text here...

Organization*

-Select-

Module*

Save

Figure 490 - Map Template with Organization

User can refresh the data on the screen by clicking **Refresh**.

3.2.3.4.12.2 WorkBench Recommend Analysis

The Workbench Recommendation Analysis optimizes the hyperparameters (or configuration) of the iRecommend module. It identifies hyperparameters values for iRecommend by running multiple iterations of iRecommend and selects the most optimal hyperparameter values. Later on, these hyperparameter values can be used in production environment. These hyperparameter values can be defined in [Hyperparameter Configuration](#).

To manage workbench recommendation analysis, perform the following steps:

1. On the main menu bar, click Advance Configuration->WorkBench.
2. Click Recommend Analysis. The Recommend Analysis screen appears.

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action
CSV	FetchUniqueRecommendationMyAnalysis	MyCompany	Incident Management	ANSIBLE TOWER/AWX	Queued	Run new iteration

Figure 491- Workbench Recommendation Analysis

- It lists the available recommendation analysis types in a tabular view and enables user to add a new recommendation analysis or view, edit, or publish the existing recommendation analysis.

If the published unique analysis is available for an organization, only then user can run the new iteration on recommendation analysis for the same organization.

Add New Iteration

This section describes how to add a new workbench recommendation analysis for an organization.

- Before adding a new iteration, ensure that the unique analysis for the organization for which you are adding the new iteration is published. Then enable the recommendation job from the [Manage Jobs](#) page.

Enabled	Name	Organization	Status	Service Name	Module Name	Component Name	Action
☐	ProcessUniqueMyAnalysis	MyCompany	Successful	SNOW	Incident Management	Unique Clustering	View Edit Delete
☒	FetchUniqueRecommendationMyAnalysis	MyCompany	Queued	SNOW	Incident Management	Recommend	Run new iteration View Edit Delete

Figure 492- Add New Iteration

- After the job is enabled, click **Run new iteration** to run a new iteration of recommendation analysis for the same customer.

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action
CSV	FetchUniqueRecommendationMyAnalysis	MyCompany	Incident Management	ANSIBLE TOWER/AWX	Queued	Run new iteration

Figure 493- Add New Iteration (Cont.)

If user does not get the expected results from the configured hyperparameter template of the recommendation analysis, then user can add multiple iterations of recommendation analysis corresponding to hyperparameter templates to modify the results.

To add a new iteration, perform the following steps:

- Go to main menu bar, click on **Advance Configuration**→**Workbench**. Click on the **Recommend Analysis** page, click **Run New Iteration** for the organization under analysis.

Recommend Analysis							Refresh	Search...	Q
Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action			
CSV	FetchUniqueRecommendationMyAnalysis	MyCompany	Incident Management	ANSIBLE TOWER/AWX	Queued	Run new iteration			

Figure 494- Add New Iteration (Cont.)

- The **Template Versions** page appears.

Template Version(s)

Hyper Parameter Template

-Select-

Run

Figure 495- Add New Iteration (Cont.)

- Select a template from the **Hyperparameter Template** drop-down list.

Template Version(s)

Hyper Parameter Template

-Select-

-Select-

BaseRecTemplate

MyTemplate

Run

Figure 496- Add New Iteration (Cont.)

- Click **Run**.

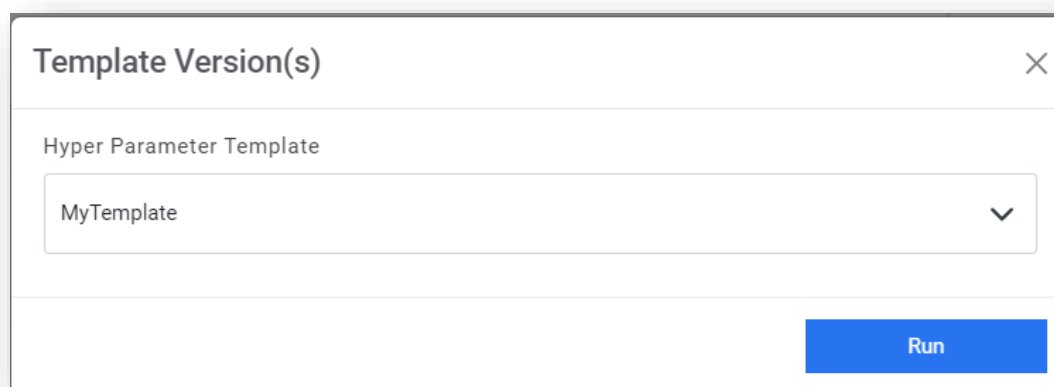


Figure 497- Add New Iteration (Cont.)

5. A confirmation dialog box appears.

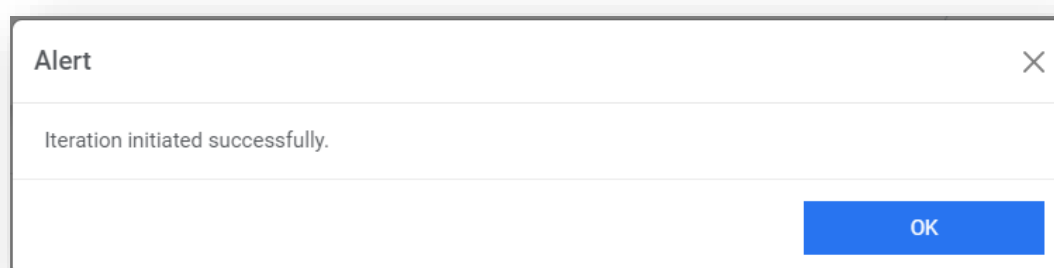


Figure 498- Add New Iteration (Cont.)

6. The new iteration is added and appears at the bottom of the list in the grid below.

Iteration No.	Parameter Template	Is Published	Action
1	BaseRecTemplate	No	
2	MyTemplate	No	

1 - 1 of 1 items

Figure 499- Add New Iteration (Cont.)

View Recommendation Analysis

User can view information about an analysis that has already been configured.

To view recommendation analysis, perform the following steps:

1. On the **Recommend Analysis** screen, click next to the analysis you want to view.

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action
CSV	FetchUniqueRecommendationMyAnalysis	MyCompany	Incident Management	ANSIBLE TOWER/AWX	In Progress	Run new iteration

Iteration No.	Parameter Template	Is Published	Action
1	BaseRecTemplate	No	Click to View Analysis
2	MyTemplate	No	Click to View Analysis

Figure 500- View Recommendation Analysis

For detailed information, see View Analysis.

Status	Bucket Description	Runbook	Approve Runbook	Confidence Score	SOP Required
🟢	CPU utilization by SQL server processes 10.x.x.x	Linux_High_CPU_Utilization	🟢	99.00	🟢
🟢	(ASD) - User wants to check CPU utilization by SQL server processes on Linux server 10.x.x.x	Linux_High_CPU_Utilization	🟢	92.00	🟢
🟢	10.x.x.x SQL server processes CPU utilization	Linux_High_CPU_Utilization	🟢	71.00	🟢
🟢	Check CPU utilization on Linux server 10.x.x.x	Linux_High_CPU_Utilization	🟢	100.00	🟢

Figure 501- View Recommendation Analysis

Click **Export** to export the summary of the analysis to your folder or click **Back** to go back to the previous screen.

Publish Recommendation Analysis

After verifying the configuration of the existing hyperparameter template in an analysis, user can publish the most optimized hyperparameter template by performing the following steps.

1. On the **Recommend Analysis** screen, click  next to the analysis user wants to publish.

Analysis Type	Analysis Name	Organization	Module	Runbook Tool Type	Status	Action
CSV	FetchUniqueRecommendationMyAnalysis	MyCompany	Incident Management	ANSIBLE TOWER/AWX	Successful	Run new iteration

Iteration No.	Parameter Template	Is Published	Action
1	BaseRecTemplate	No	🟢 📄
2	MyTemplate	No	🟢 📄 Publish

Figure 502- Publish Recommendation Analysis

User can only publish successful iterations.

2. A confirmation dialog box appears.

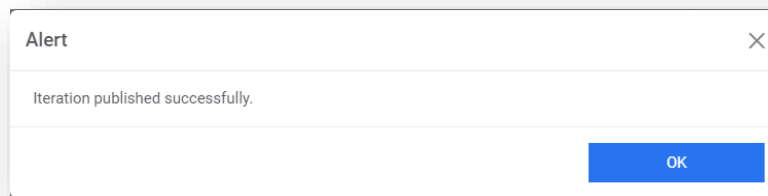


Figure 503- Publish Recommendation Analysis

3. Successful publishing of the hyperparameter template enables  in the **Action** column.
4. Click  to export the parameter template. This can further be used to create a new template for iRecommend using the **Add Hyperparameters Details** screen.

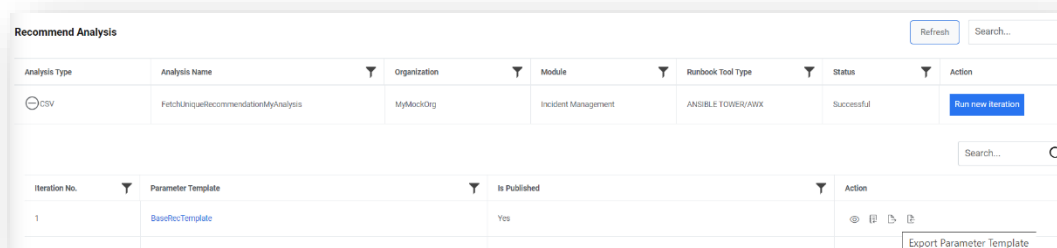


Figure 504 - Export Parameter Template

5. User can also create a new parameter template. Click  in the **Action** column which takes the user to the **Map template with Organization**.

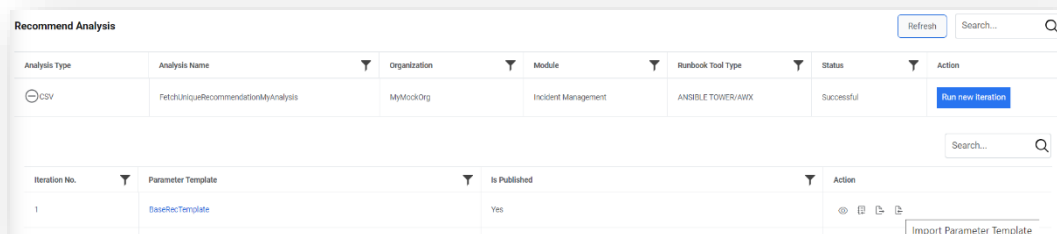
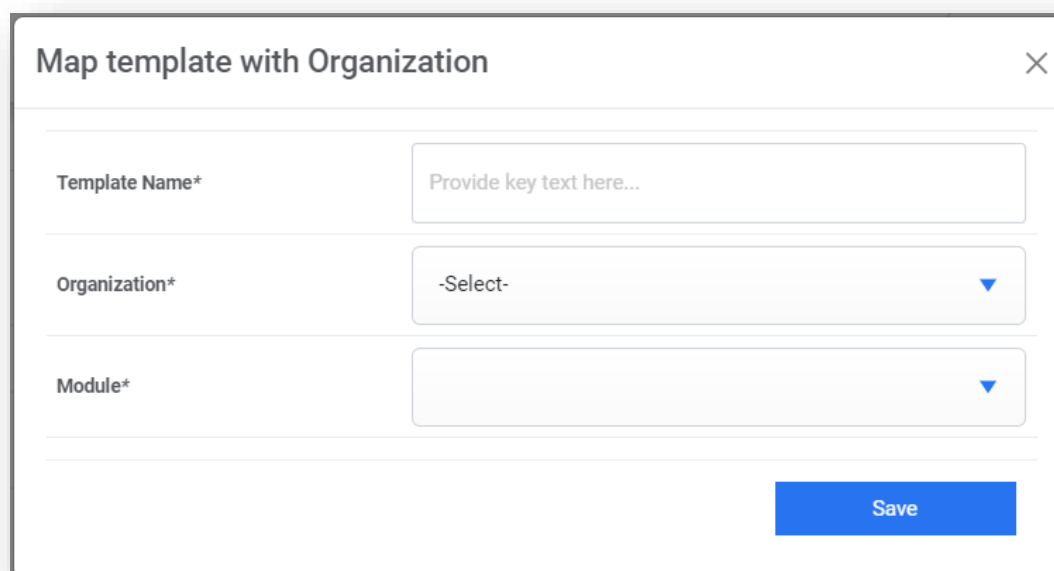


Figure 505 - Import Parameter Template



A dialog box titled "Map template with Organization" with a close button (X) in the top right corner. It contains three input fields: "Template Name*" with a placeholder "Provide key text here...", "Organization*" with a dropdown menu showing "-Select-", and "Module*" with a dropdown menu showing a downward arrow. A blue "Save" button is located at the bottom right.

Figure 506 - Map template with Organization

Click **Refresh** to refresh the data being viewed.

3.2.3.4.13 Manage Custom Script

User can create the custom scripts in Python that can be executed from iAutomate through the API.

To execute Python scripts, it is required that Python is installed on the web server and its Environment Variable is set with name 'PYTHON_HOME' and its value will be the path where python.exe is present.

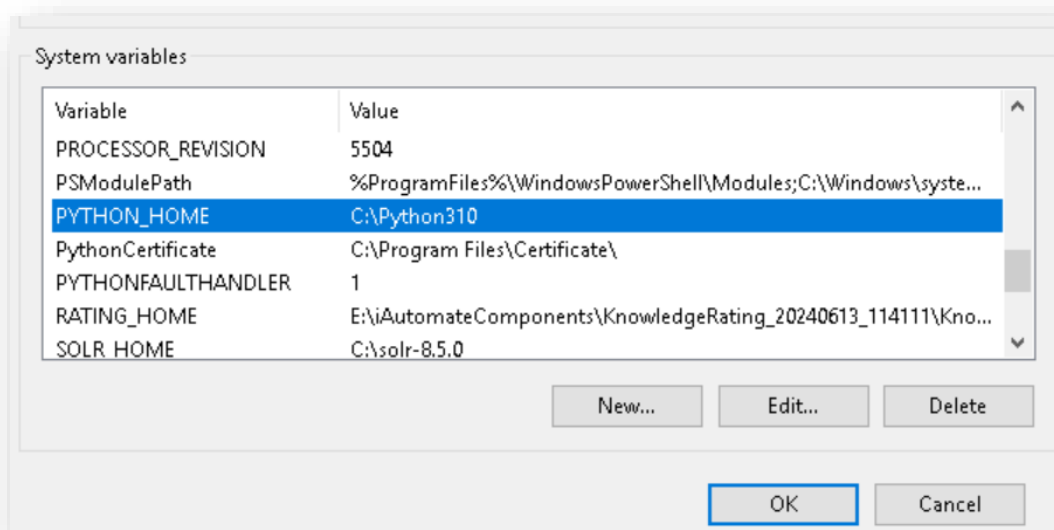


Figure 507 - Environment Variables

- To create/manage custom scripts, click on **Advance Configuration** → **Script Menu** and then click on **Manage Custom Script**. The following page will appear:

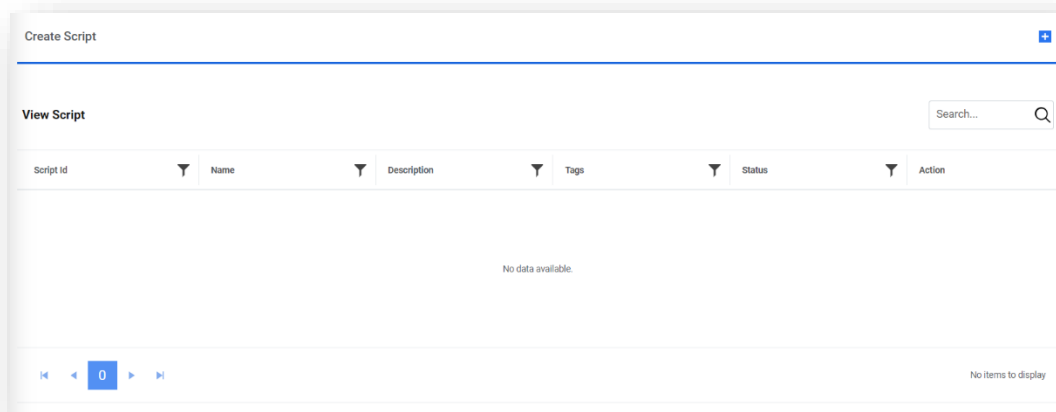


Figure 508- Manage Custom Script

7. The user can view and create scripts here.
8. On View Script tab, below grid appears.

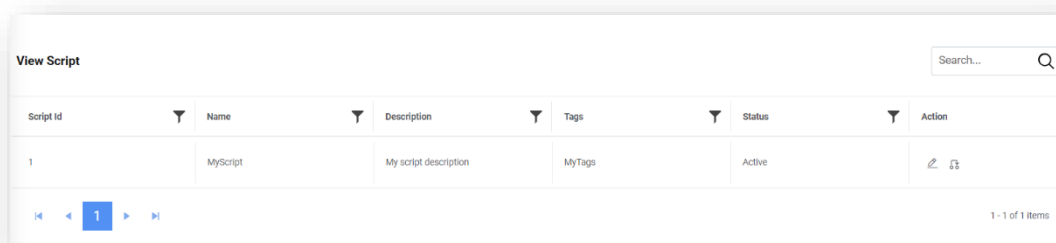


Figure 509- Manage Custom Script (cont.)

The table shows the **Script Id** of that script saved in the database, **Name** of the script, **Description** given for the script, the **Tags** defined while script creation, the **Status** of the script whether active or inactive and some **Action** buttons.

To edit any script, click on  icon:

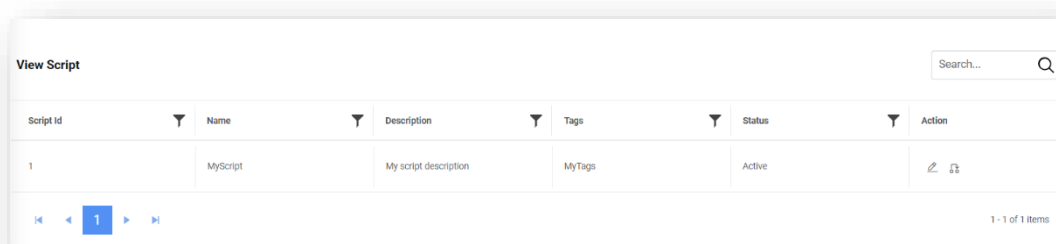
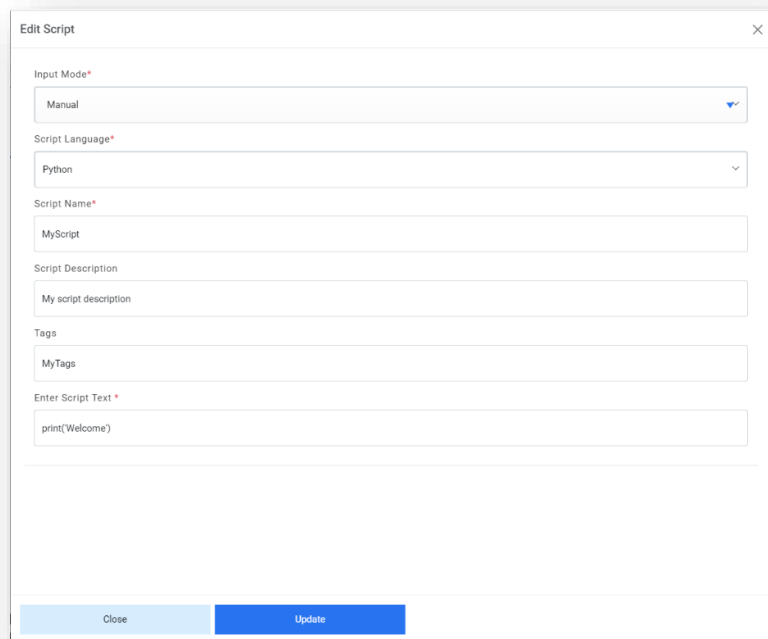


Figure 510- Manage Custom Script (Cont.)

Create Script tab will be active with all the details of the script filled in the fields of this page:

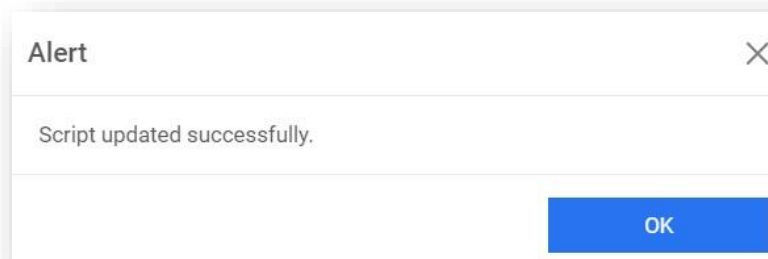


The 'Edit Script' dialog box contains the following fields and controls:

- Input Mode***: A dropdown menu with 'Manual' selected.
- Script Language***: A dropdown menu with 'Python' selected.
- Script Name***: A text input field containing 'MyScript'.
- Script Description**: A text input field containing 'My script description'.
- Tags**: A text input field containing 'MyTags'.
- Enter Script Text ***: A text input field containing 'print(Welcome)'.
- At the bottom, there are two buttons: 'Close' (light blue) and 'Update' (blue).

Figure 511- Manage Custom Script (Cont.)

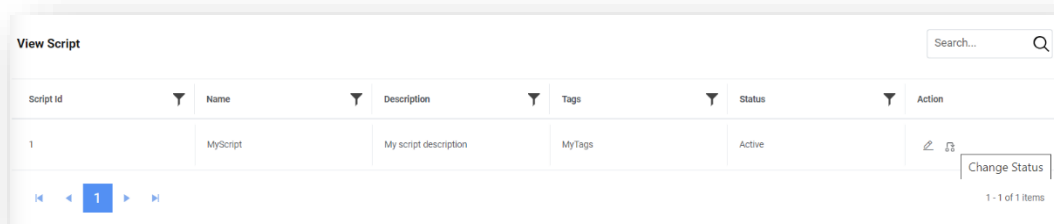
9. Edit the script as per the requirement and click **Update**. A confirmation box will appear as below:



The 'Alert' dialog box displays the message 'Script updated successfully.' and has a single 'OK' button at the bottom right.

Figure 512- Manage Custom Script (Cont.)

10. To change the status of any script, click on  icon:



The 'View Script' table shows a list of scripts with the following columns: Script Id, Name, Description, Tags, Status, and Action. The first row contains the data for 'MyScript'.

Script Id	Name	Description	Tags	Status	Action
1	MyScript	My script description	MyTags	Active	  Change Status

At the bottom of the table, there is a pagination bar showing '1' of 1 items and a 'Change Status' button.

Figure 513- Manage Custom Script (Cont.)

11. A dialog box will appear to confirm whether user wants to change the status of the script:

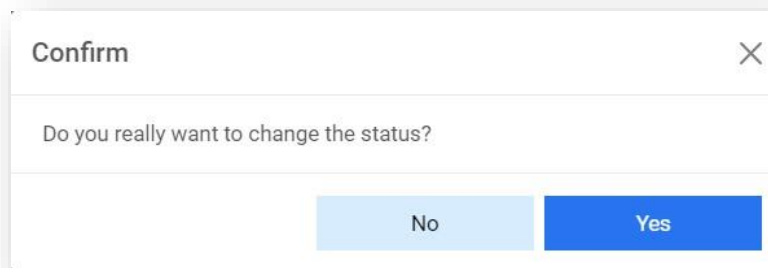


Figure 514- Manage Custom Script (Cont.)

12. If yes, then the confirmation dialog box appears as below:

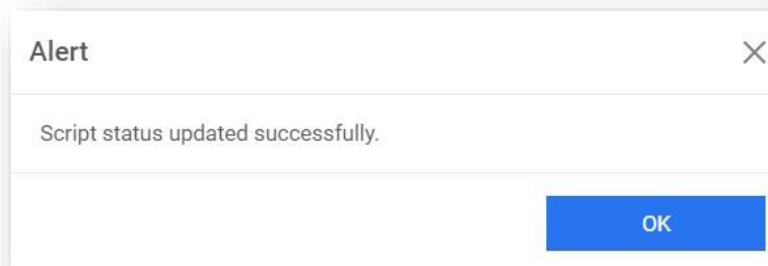


Figure 515 - Manage Custom Script (Cont.)

13. To create a script, click on  tab and the below page appears:

Figure 516- Manage Custom Script (Cont.)

14. The **Input Mode** dropdown has two following options:

- a. **Manual:** user can fill all the details on this page manually
- b. **Json:** User can import a valid json file to fill all the details through that file only.

Figure 517- Manage Custom Script (Cont.)

Click on **Download Template** button to get the template for a valid Json file.

15. The **Script Language** dropdown has following options:

- a. **Python:** To create a script in Python language

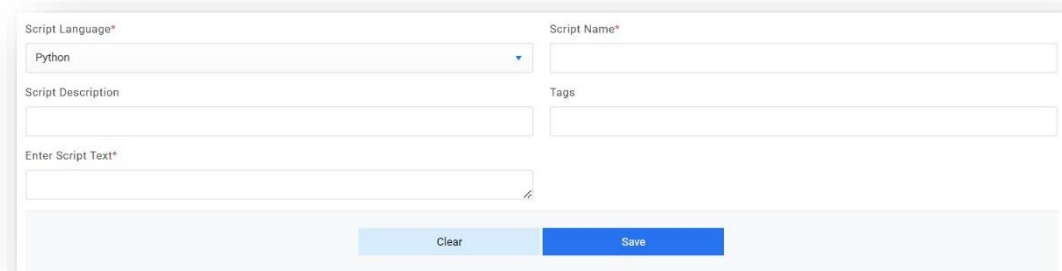


Figure 518- Manage Custom Script (Cont.)

16. Enter the script name in the **Script Name** text box.
17. Enter the suitable script description corresponding to **Script Description** text box.
18. Enter the tags for better filtering of scripts.
19. Enter the script text as per the language chosen in **Script Language** dropdown.
20. Once all entries are filled, click **Save**. A confirmation dialog box will appear.

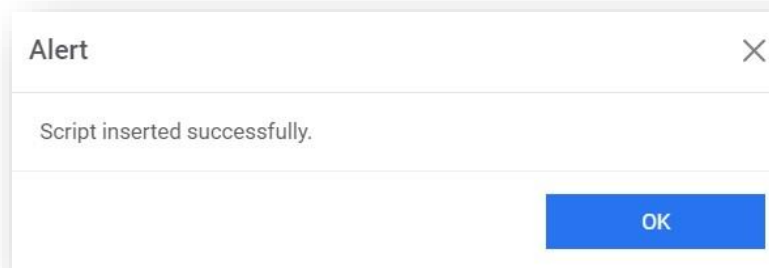


Figure 519- Manage Custom Script (Cont.)

This feature can be used to support complex third-party system integration where the script can be simply created for the complex logic and this script can be used via API wherever needed.

3.2.3.4.14 Toil Configuration

This section describes how to perform component configurations and control the behavior of each individual component within iAutomate.

To configure the components, perform the following steps:

1. On the main menu bar, click **Advance Configuration**, and then click **Toil Configuration**.
2. The Toil Configuration page appears.
3. **Toil Value (For Manual Execution)** is the maximum manual execution time of runbook (in minutes). By default, it is set to 60 which users can change.
4. **Toil Value (For Auto Execution)** is the maximum auto execution time of runbook (in minutes). By default, it is set to 6 which users can change.

Figure 520- Product Configurations

5. To update any of these values, enter the updated value and click on Update. Below alert appears.

Figure 521- Product Configurations

3.2.3.4.15 Load Balancer Configuration

Users can check accessibility of provided URL from service and can update the Load balancer URL of any service.

1. Select a component from the drop-down list next to the **Component Name** field.

Figure 522- Load Balancer Configurations (Cont.)

2. Type the **Load Balancer URL** for the selected component to evenly distribute the workload among multiple instances, increasing system throughput.
3. Click on **Test Connection** to check accessibility of provided URL from service.
4. To test connection, the URL of the service should be whitelisted else it will throw alert stating 'Use only WhiteListed URL '. To whitelist the URL kindly refer '**HCL iAutomate KRS Guide**'.
5. Select **Recommendation** or **Entity** as a component. This will prompt you to provide the folder location to create the recommendation or an entity model in the **Recommendation** or **Entity Model Location** field.

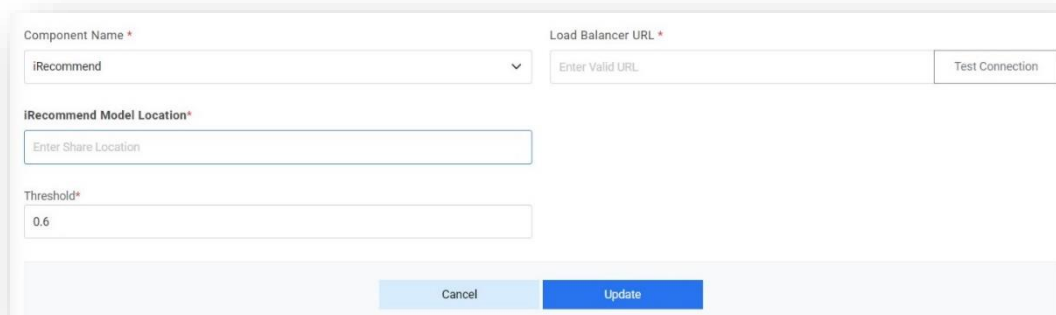


Figure 523- Load Balancer Configurations (Cont.) shows a configuration window for iRecommend. The window has the following fields and buttons:

- Component Name ***: A dropdown menu with "iRecommend" selected.
- Load Balancer URL ***: A text input field with the placeholder "Enter Valid URL" and a "Test Connection" button.
- iRecommend Model Location***: A text input field with the placeholder "Enter Share Location".
- Threshold***: A text input field with the value "0.6".
- Buttons**: "Cancel" and "Update" buttons at the bottom.

Figure 523- Load Balancer Configurations (Cont.)

6. Click **Save**. Below alert appears.

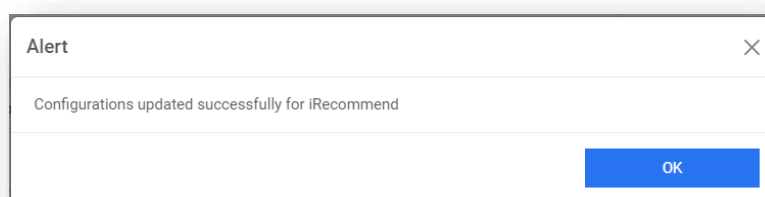


Figure 524 – Load balancer Configurations (Cont.) shows an alert dialog box with the following content:

- Title**: Alert
- Message**: Configurations updated successfully for iRecommend
- Buttons**: "OK" button at the bottom right.

Figure 524 – Load balancer Configurations (Cont.)

3.2.3.5 Knowledge

This section describes how to configure the knowledge, including domains, collections, knowledge search, and knowledge analysis for the environment.

To configure knowledge, perform the following steps:

1. On the main menu bar, click **Knowledge**. The Knowledge page displays following sections:
 - [Manage Collections](#)
 - [Knowledge Search](#)
 - [Knowledge Analysis](#)
 - [Knowledge Assistant](#)

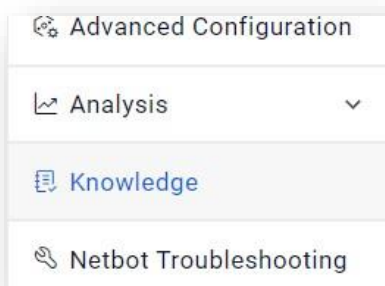


Figure 525 – Knowledge shows a dropdown menu with the following options:

- Advanced Configuration** (with a gear icon)
- Analysis** (with a line graph icon and a dropdown arrow)
- Knowledge** (with a document icon, highlighted in blue)
- Netbot Troubleshooting** (with a wrench icon)

Figure 525 – Knowledge

Ensure user is logged in as administrator to create and manage Knowledge and associated parameters.

3.2.3.5.1 Manage Collections

User can manage collections, which are a logical grouping of document repositories, and configure multiple repositories.

To manage collections, perform the following steps:

1. On the main menu bar, click Knowledge and then click Manage Collections.
2. The **Manage Collections** page appears.

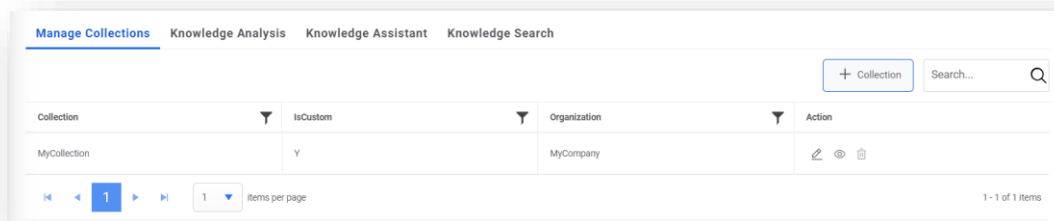


Figure 526- Manage Collections

3. Click on Add Collection tab to add a collection.
4. Provide the collection name, the collection description.
5. In case of Super Admin, elect a type of collection from the **Collection Type** field. The collections may be of the following types:
 - Generic- Available for all organizations and contains the default collection configuration.
 - Custom- Customized for organizations and contains the customer specific collection configuration.

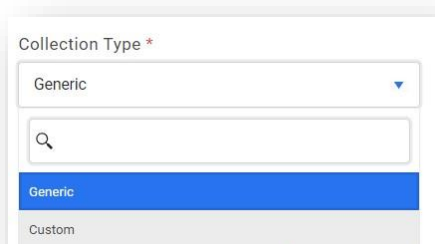
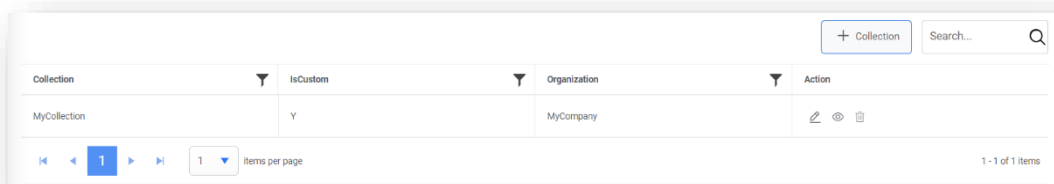


Figure 527- Manage Collections

- For generic type, User can select the organizations to which collection needs to be mapped.
 - For Custom type, Users need to select an organization to which it will be mapped.
6. Click on Save to create the collection. The collection will now be listed on the grid.



Collection	IsCustom	Organization	Action
MyCollection	Y	MyCompany	  

1 - 1 of 1 items

Figure 528- Manage Collections (Cont.)



Add Collection

Collection Name *

Collection Description

Organization *

-Select-

+ Repository

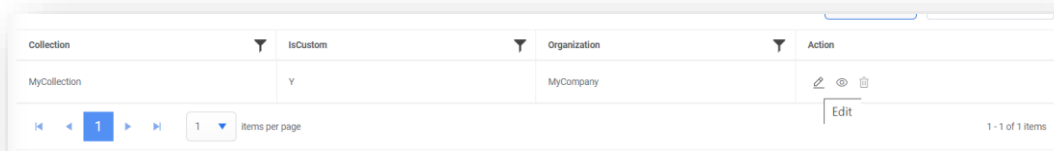
Figure 529- Manage Collections (Cont.)

3.2.3.5.1.1 Manage Repositories in Collections

User can define the repository configuration based on the type of repositories, such as **Web URL**, **ServiceNow**, **File Folder**, **Satori** that will be deployed in the environment.

To manage repositories, perform the following steps:

1. On the **Manage Collections** page, click on  icon corresponding to the collection.



Collection	IsCustom	Organization	Action
MyCollection	Y	MyCompany	   Edit

1 - 1 of 1 items

Figure 530- Manage Repository

2. This lists the existing repositories under the selected collection and enables user to view the documents, view the status, or delete existing repositories, and add repositories.

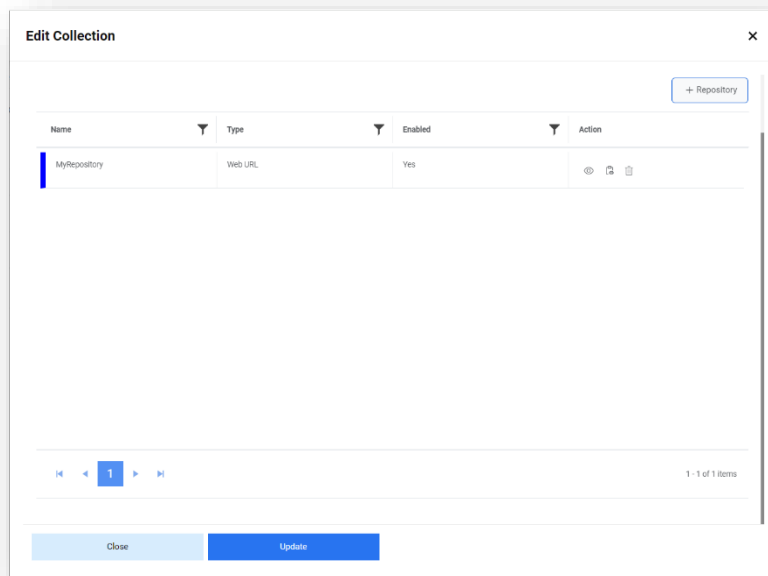


Figure 531- Manage Repository

- To view the documents associated with a repository, click next to the repository.

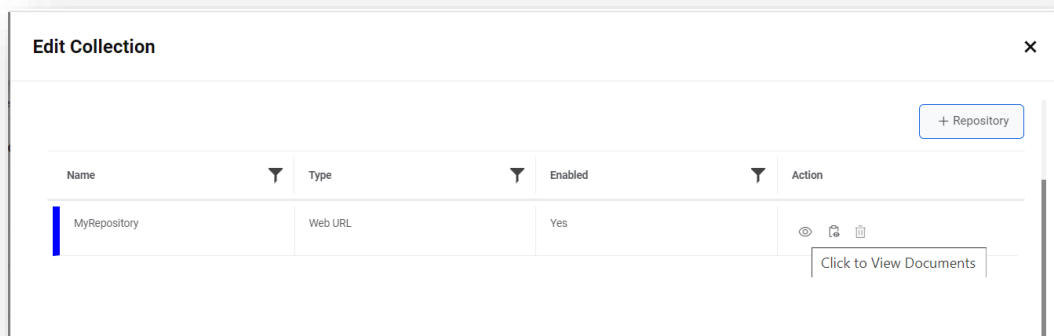


Figure 532- Manage Repository (Cont.)

- The **Document Summary** page appears, displaying the Total Documents and Total Processed Documents in a tabular view.

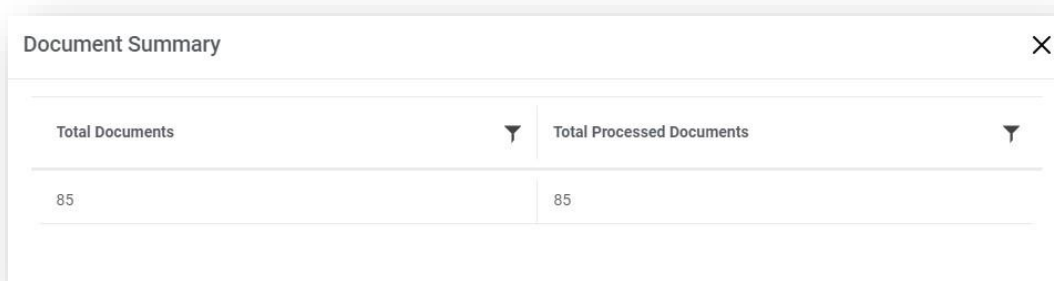


Figure 533- Manage Repository (Cont.)

- To view the repository status, click next to the repository.

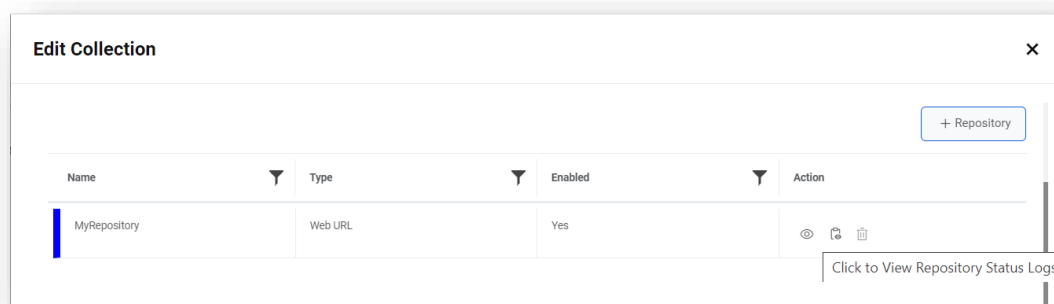


Figure 534- Manage Repository (Cont.)

- The **Repository Status Log** page appears and displays the status summary for each concurrent repository.

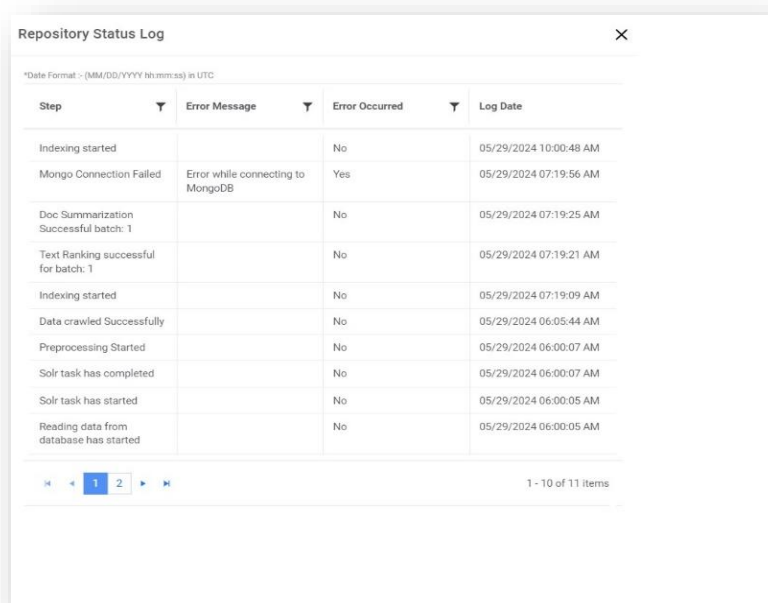


Figure 535- Manage Repository (Cont.)

- To delete a repository, click on and below alert appears.

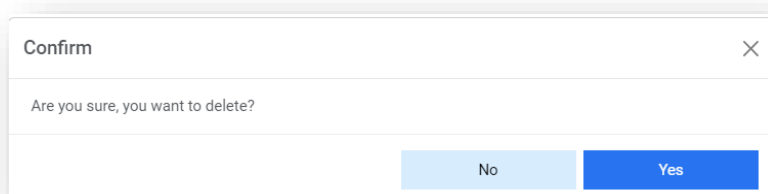


Figure 536 – Manage Repository

- Click on Yes to delete the repository.

3.2.3.5.1.2 Add Repository

User can configure a repository in the collection by using the following steps:

- On the Manage Collections page, create or edit a collection and click on + Repository button.

Figure 537- Add Repository

2. It displays the following fields to fill in the appropriate details:

- Type the repository name in the **Name** field. This must be unique for each repository.
- Type the repository description in the **Description** field.
- Select **Schedule Type**.

Figure 538- Add Repository (Cont.)

- To schedule the recurring update of repository, select the frequency interval in **Second, Minute, Hour, Day, or Month** and type the duration next to the **Occurring Every** field.

Figure 539- Add Repository (Cont.)

- Select the **Repository Type** to store data. The following types of repositories are available to store data:

- Web URL
- File Folder
- Satori
- ServiceNow

Figure 540- Add Repository (Cont.)

- Selecting the repository type displays the following fields.
- In case of **Web URL** repository type:
 - Type the root URL for the website to be crawled in the **URL** field.
 - Specify the level to which the documents are to be crawled in the **Depth Level** field.
 - Select **Restrict Domain** checkbox to filter for documents of the same domain as mentioned in the URL.

Figure 541- Add Repository (Cont.)

- In case of File **Folder** repository type:
 - Specify a path in the local drive where the documents have been stored in the **Folder Path** field.

Repository Type *

File Folder

Folder Path*

Figure 542- Add Repository (Cont.)

- In case of **Satori** repository type:
 - Type the URL of the selected repository in the **Repository URL** field.
 - Type the username and password (encrypted form) of the domain user with access to the repository in the **UserName** and **Password** field.
 - Type the domain name in the **Organization Domain** field.
 - Type the user ID in the **UserId** field.
 - Type the base URL of Satori in the **Satori URL** field.

Repository Type *

Satori

Repository URL*

UserName*

Password*

Organization Domain*

UserId*

Satori URL*

Figure 543- Add Repository (Cont.)

- In case of **ServiceNow** repository type:
 - Type the URL of the selected repository in the **URL** field.
 - Type the username and password (encrypted form) of the **ServiceNow** user with access to the repository in the **UserName** and **Password** fields.

Repository Type *

ServiceNow

URL*

UserName*

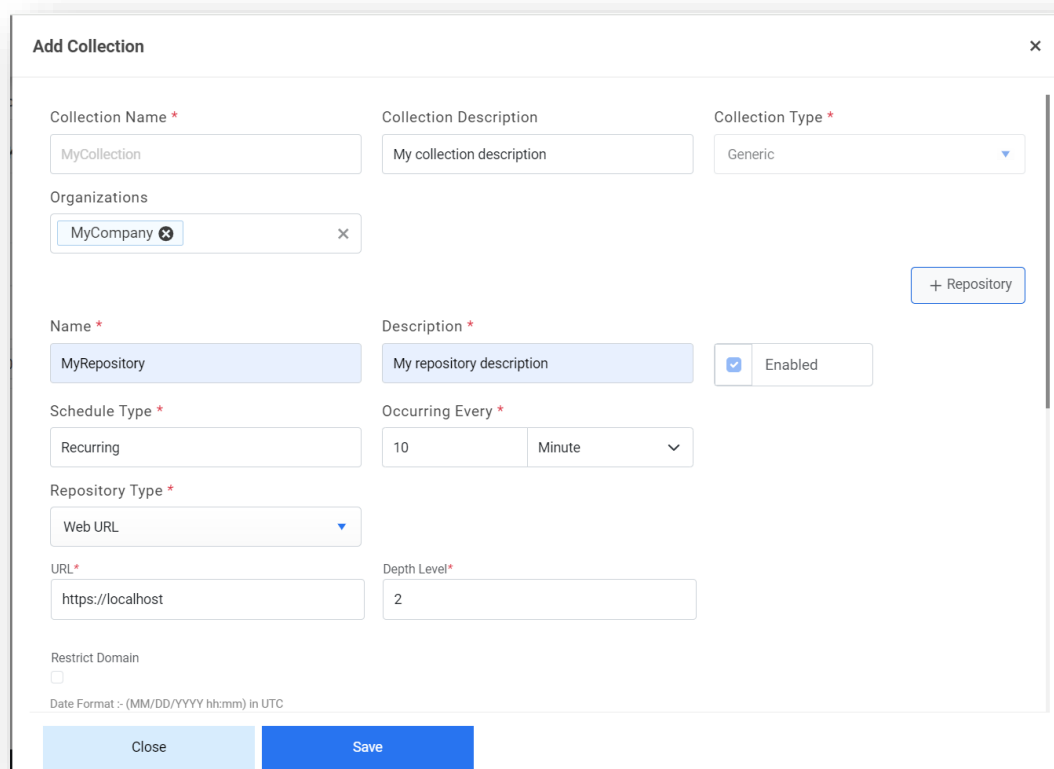
Password*

Date Format :- (MM/DD/YYYY hh:mm) in UTC

Cancel Save

Figure 544- Add Repository (Cont.)

3. Click **Save**.



Add Collection [X]

Collection Name * Collection Description Collection Type * Generic ▾

Organizations [X]

[+ Repository](#)

Name * Description * ☒ Enabled

Schedule Type * Occurring Every * Minute ▾

Repository Type * Web URL ▾

URL * Depth Level *

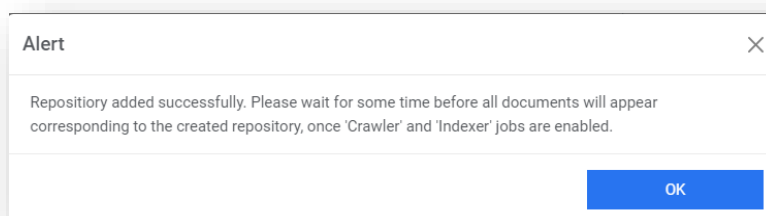
☐ Restrict Domain

Date Format :- (MM/DD/YYYY hh:mm) in UTC

[Close](#) [Save](#)

Figure 545- Add Repository (Cont.)

4. A confirmation dialog box appears.



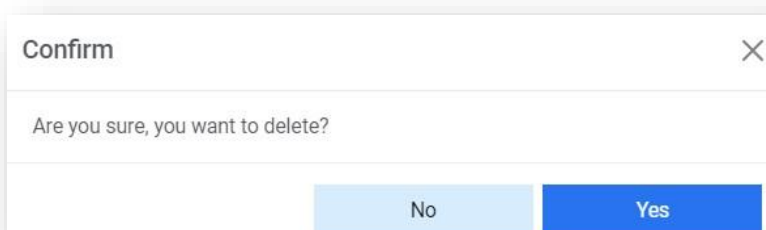
Alert [X]

Repository added successfully. Please wait for some time before all documents will appear corresponding to the created repository, once 'Crawler' and 'Indexer' jobs are enabled.

[OK](#)

Figure 546- Add Repository (Cont.)

This adds the new repository and lists it in a tabular view.



Confirm [X]

Are you sure, you want to delete?

[No](#) [Yes](#)

Figure 547 – Add Repository (Cont.)

3.2.3.5.2 Knowledge Analysis

This section provides the user with an analytical view of the document repository. This includes:

- **Cluster View** – provides a clustered view of the documents. Categorizes the documents into clusters based on context.
- **Document Similarity View** – recommends similar documents based on the currently viewed document for user's reference.
- **Topic/Concept view** – provides a categorization of documents based on the topics identified from within the documents.

To manage knowledge analysis, perform the following steps:

1. On the main menu bar, click Knowledge and then click Knowledge Analysis.
2. The **Knowledge Analysis** page appears.

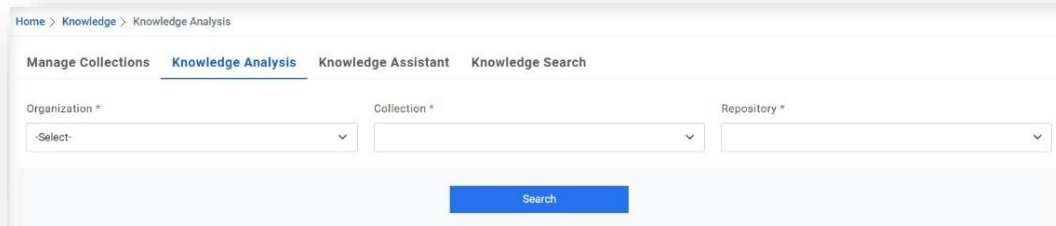


Figure 548- Knowledge Analysis

3. Select the **Organization** for which you want to visualize the data and then select the **Collection** from where you want to fetch the data.
4. Select the corresponding **Repository** from the drop-down list.
5. Click **Search**.
6. This displays a clustered view of the selected document repository. The left pane displays the cluster, and the cluster topic is displayed as a legend in the right pane. The numbers appearing on each cluster represent the number of documents listed in the selected cluster.

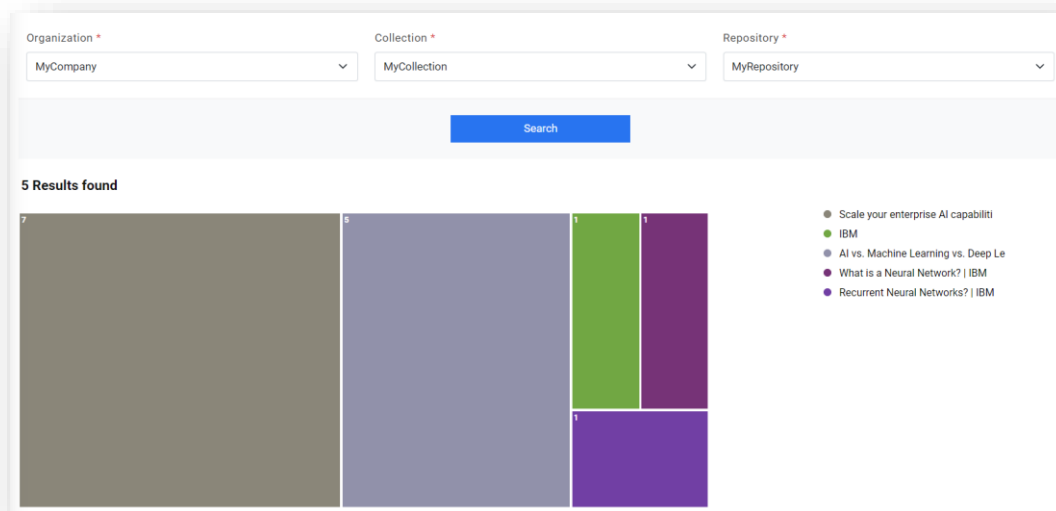


Figure 549- Knowledge Analysis (cont.)

Selecting a cluster lists the documents associated with the selected cluster, including the **Document Title**, **Source URL of the documents**, and the **Document Summary**.

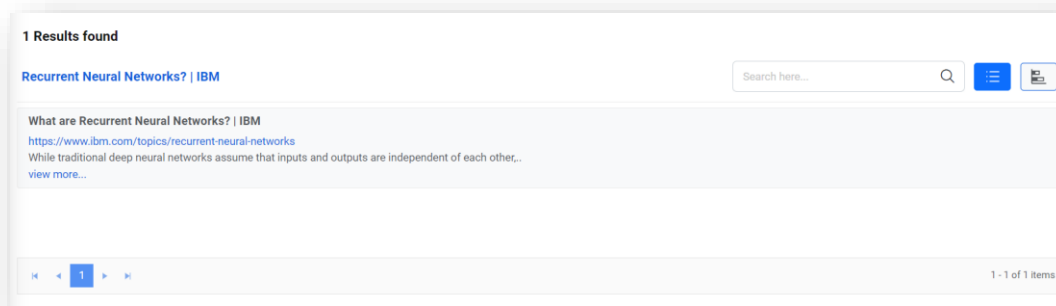


Figure 550- Knowledge Analysis (cont.)

Selecting a document title displays the document information including relevant Topics and Tags, Summary, and the List of all similar documents along with their similarity percentage.

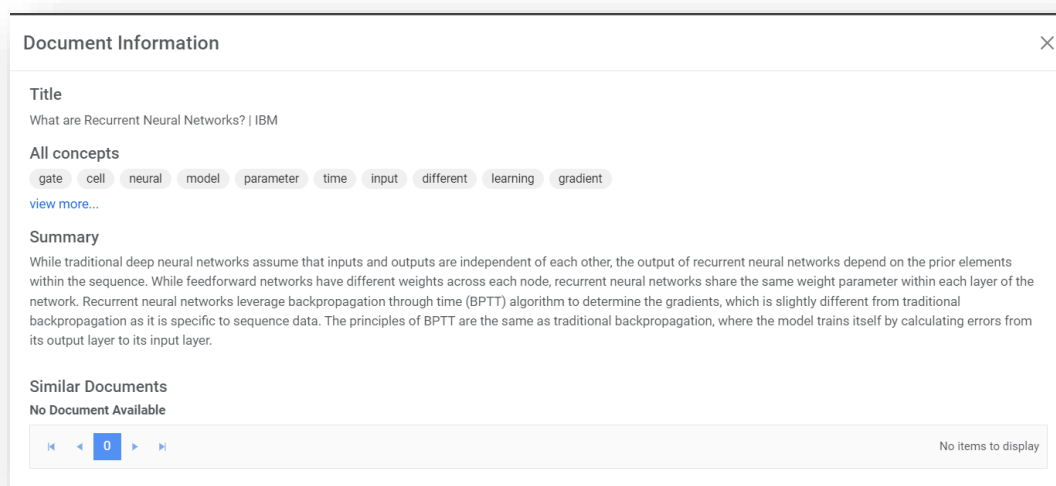


Figure 551- Knowledge Analysis (cont.)

You can also get the topic view for all documents for the selected cluster by clicking  on the search result bar. This view represents relevant **Topics** or in **Terms of Cluster** arranged by relevance. This also allows you to find documents for a particular topic.

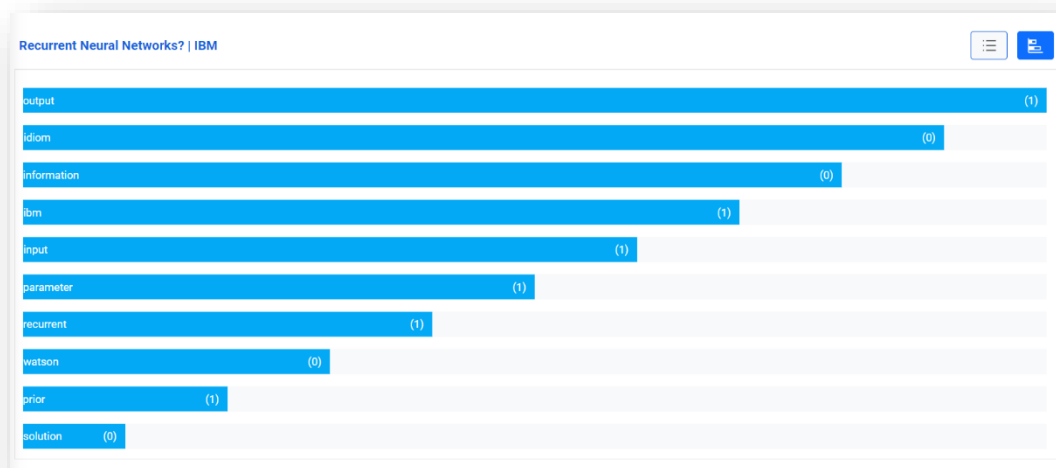


Figure 552- Knowledge Analysis (cont.)

The numerical value of each term represents the frequency of occurrence of a particular term or topic in a cluster. Selecting **Term** lists all the available documents containing the selected term.

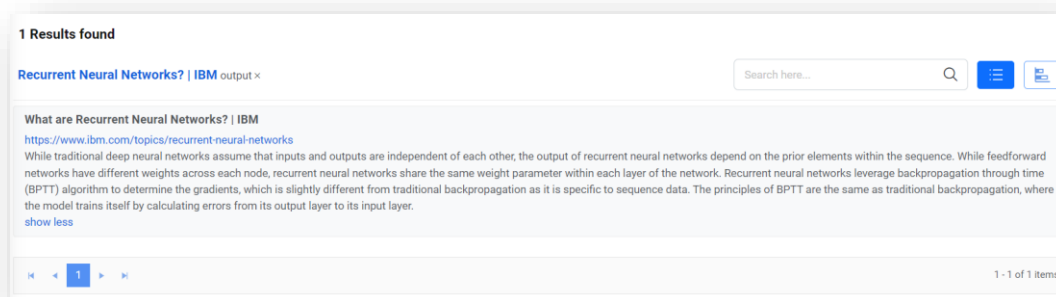


Figure 553- Knowledge Analysis (cont.)

All fields marked with an asterisk (*) are mandatory.

3.2.3.5.3 Knowledge Search

This section provides the user with the documents fetched for any description.

To use knowledge search, use following steps:

1. On the Knowledge menu, click on Knowledge Search. Below screen appears:

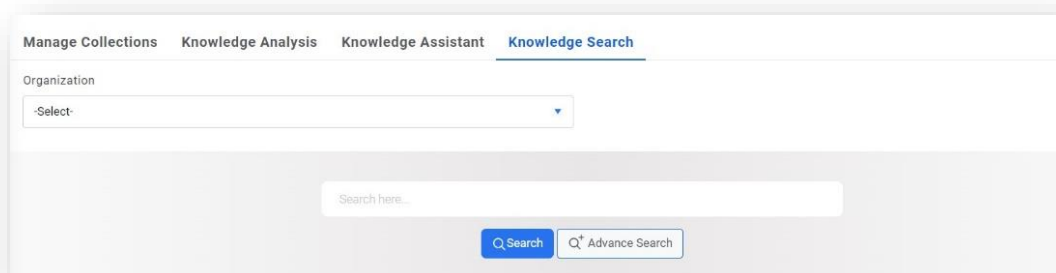


Figure 554- Knowledge Search

2. Select the organization and then enter the desired description and click on  Search icon.

3. The relevant data would appear as below:

The screenshot shows a search interface with the following elements:

- Organization: Dryice188
- Search bar: CPU Utilization is high
- Buttons: Q Search, Q* Advance Search
- Filter section: Contains (dropdown), And (dropdown), Search Value (input), +Add (button)
- Buttons: Clear Filter, Apply Filter
- Results: 1 Record(s) found
- Record details:
 - Title: Online Learning Platform for Universities | Coursera
 - URL: https://www.coursera.org/campus?utm_campaign=website
 - Repository Type: Web URL
 - Collection Name: testCollection29May2024
 - Description: Survey of ,000 students and employers in 11 countries finds that the majority value Professional Certificates for driving employment outcomes. Professional Certificates help students demonstrate to employers that they are qualified and job-ready. Coursera gives us confidence that we re providing our [More]
 - Tags: student find course employer professional university coursera certificate

Figure 555- Knowledge Search (Cont.)

4. User can apply additional filters for the search. For that, click on **Advance Search**. A popup will be opened.

The screenshot shows the filter section of the Knowledge Search interface:

- Contains (dropdown)
- And (dropdown)
- Search Value (input)
- +Add (button)
- Clear Filter (button)
- Apply Filter (button)

Figure 556-Knowledge Search (Cont.)

5. From the condition dropdown, select any of the conditions:

The screenshot shows the condition dropdown menu with the following options:

- Contains
- Does not contains
- Equal
- Not equal

Figure 557-Knowledge Search (Cont.)

6. Enter **Search Term** and select condition as **AND** or **OR**.

The screenshot shows the filter section of the Knowledge Search interface with the following table:

Condition	Search Term	Operator	Action
Contains	High	And	B
Contains	Linux	And	B

Buttons: Clear Filter, Apply Filter

Figure 558 - Knowledge Search (Cont.)

7. Add all the conditions and click **Search**. Now the data will be filtered as per the advance search conditions.

Organization: MyCompany

Search Term: machine

Buttons: Search, Advance Search

Condition: Contains, Operator: And, Search Value: , +Add

Condition	Search Term	Operator	Action
Contains	IBM	And	[X]

Buttons: Clear Filter, Apply Filter

Advance search conditions: Contains: IBM x

5 Record(s) found

What Is Machine Learning (ML)? | IBM
<https://www.ibm.com/topics/machine-learning>
 Repository Type: Web URL Collection Name: collection ★★★★★
<https://www.ibm.com/topics/machine-learning>
 Depending on your budget, need for speed and precision required, each algorithm type supervised, unsupervised, semi-supervised, or reinforcement has its own advantages and disadvantages. For example, decision tree algorithms are used for both predicting numerical values (regression problems) and cla [More]
 car question tool node design language outcome output best just system ibm consumer analysis online link one across look automation

Figure 559-Knowledge Search (Cont.)

8. Users can click on any of the links to get detailed information.
9. User can also give rating to any of the fetched links whatever suits him the right.

1 Record(s) found

Online Learning Platform for Universities | Coursera
https://www.coursera.org/campus?utm_campaign=website
 Repository Type: Web URL Collection Name: testCollection29May2024 ★★★★★
https://www.coursera.org/campus?utm_campaign=website
 Survey of ,000 students and employers in 11 countries finds that the majority value Professional Certificates for Pretty good - 4 stars is. Professional Certificates help students demonstrate to employers that they are qualified and job-ready. Coursera gives us confidence that we re providing our [More]
 student find course employer professional university coursera certificate

Figure 560-Knowledge Search (Cont.)

10. A confirmation dialog box opens.

Alert [X]

Rating saved.

OK

Figure 561-Knowledge Search (Cont.)

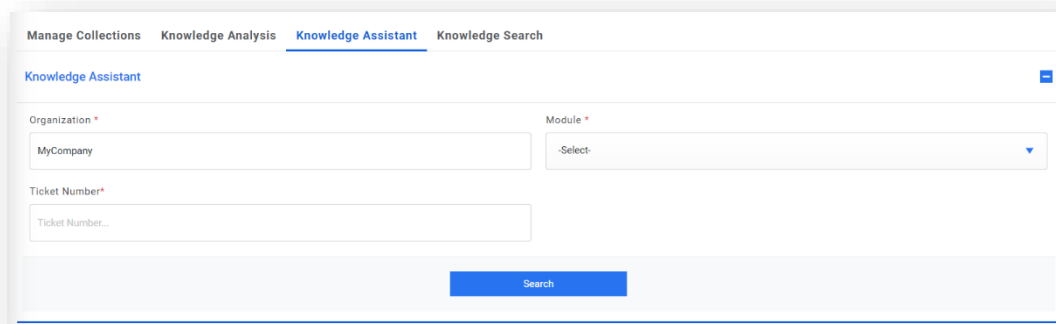
3.2.3.5.4 Knowledge Assistant

This section provides the user with the relevant knowledge recommendations based on the ticket descriptions. This includes:

- **Related Tickets**– This section provides information about all the similar tickets, created / resolved in the past and related details.
- **Related Articles**– This section provides all the relevant knowledge articles from multiple sources, based on the ticket description, to the user. The data sources from where this information will be retrieved, depends on the configuration in your environment.

To use Knowledge Assistant, perform the following steps:

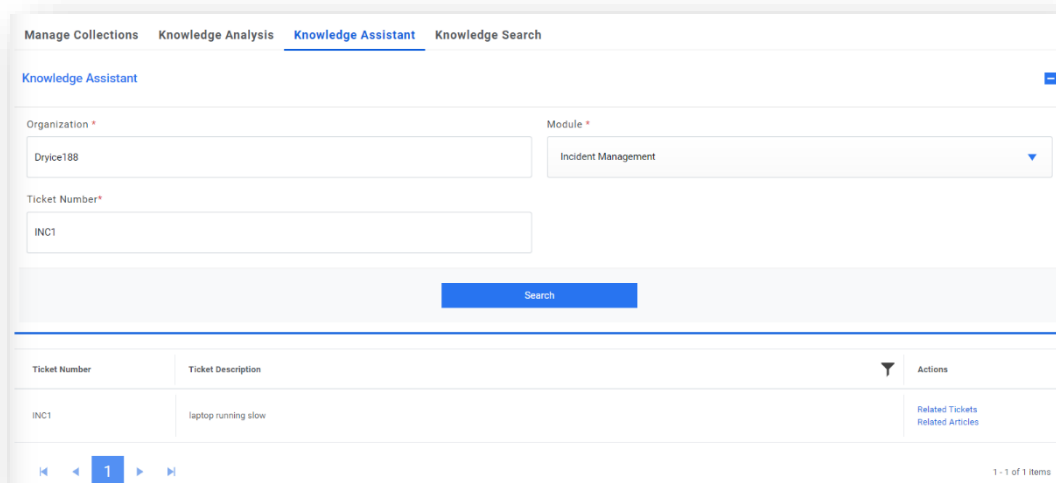
1. On the main menu bar, click Knowledge. Click on the Knowledge Assistant menu.
2. Select the **Organization** for which you want to visualize the data and then select the **Module** from where you want to fetch the data.



The screenshot shows the 'Knowledge Assistant' tab selected in the top navigation bar. Below the navigation bar, there are three input fields: 'Organization *' with the value 'MyCompany', 'Module *' with a dropdown menu showing '-Select-', and 'Ticket Number*' with a placeholder 'Ticket Number...'. A blue 'Search' button is located at the bottom right of the form.

Figure 562- Knowledge Assistant

3. Enter the Ticket Number.
4. Click **Search**.



The screenshot shows the 'Knowledge Assistant' tab with the search results displayed. The 'Organization *' field now contains 'Dryice188' and the 'Module *' dropdown menu shows 'Incident Management'. The 'Ticket Number*' field contains 'INC1'. The 'Search' button is still present. Below the form, there is a table with the following data:

Ticket Number	Ticket Description	Actions
INC1	laptop running slow	Related Tickets Related Articles

At the bottom of the table, there is a pagination control showing '1' and a total of '1 - 1 of 1 items'.

Figure 563- Knowledge Assistant (cont.)

5. Click on Related Tickets. Below popup opens.

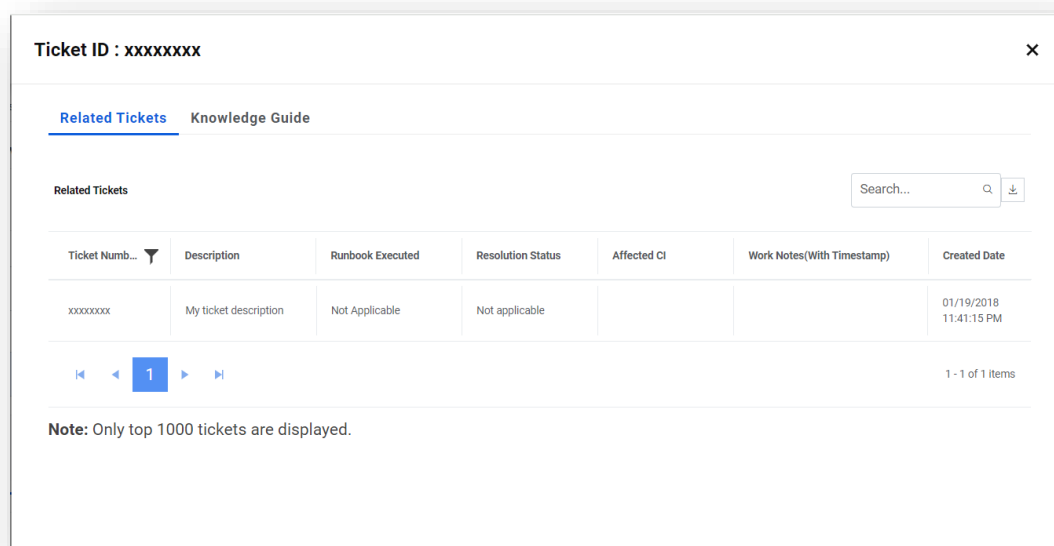


Figure 564- Knowledge Assistant (cont.)

The response received in related tickets will be based on the option checked on Google Custom Search API/AEX API details page under AEX API tab. If Related Tickets option is checked, data will be visible from AEX prompt else it will be visible using internal APIs.

6. Click on Related Articles. Below popup opens.

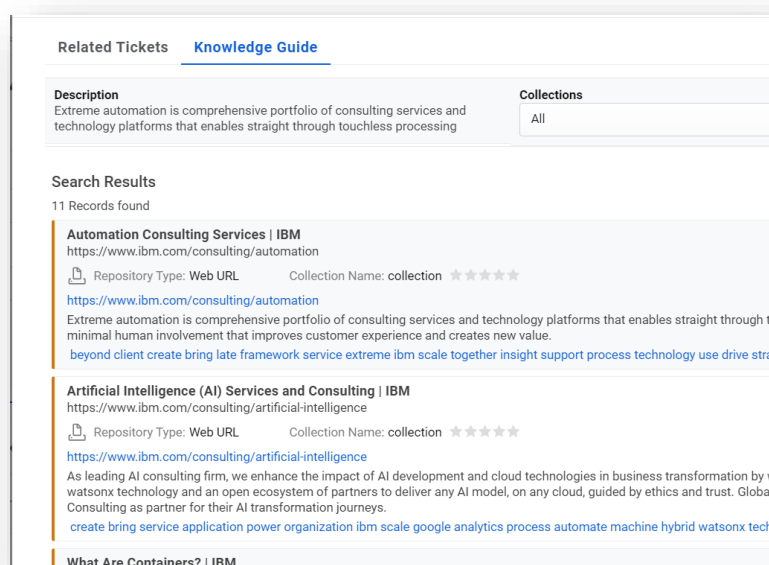


Figure 565- Knowledge Assistant (cont.)

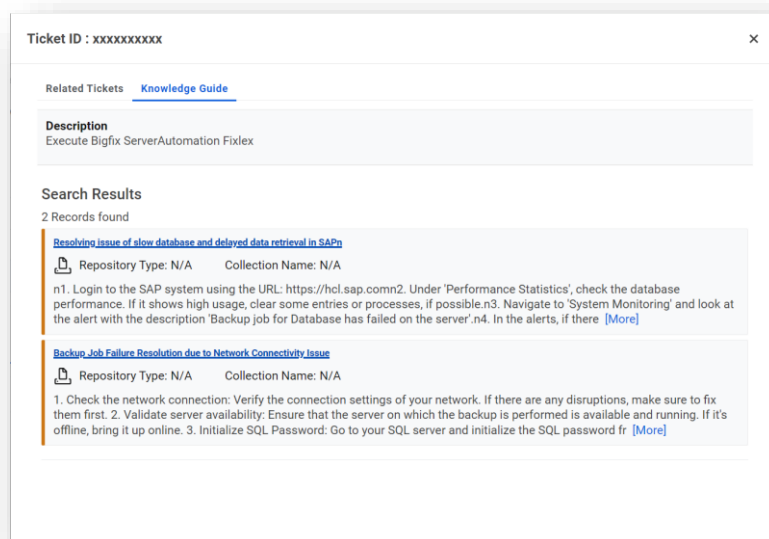


Figure 566 - Knowledge Assistant response from AEX (cont.)

The response received in related articles will be based on the option checked on Google Custom Search API/AEX API details page under AEX API tab. If Related Knowledge Articles option is checked, data will be visible from AEX prompt else it will be visible using internal APIs.

3.2.3.6 Logs

3.2.3.6.1 Component Logs

This section describes the complete activity logs of iAutomate components.

To view the component logs, perform the following steps:

1. On main menu bar, click on Logs and the Component Logs.
2. Select Component Name, **From Date** and **To Date**.
3. Click **Search**.

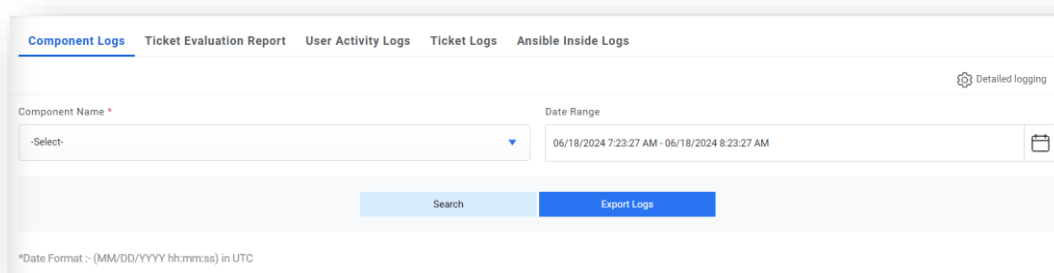


Figure 567- Component Logs

4. The selection lists the relevant logs in a tabular view.

Date	Level Code	Job Id	Job Name	Request ID	Logger	Message
06/18/2024 08:23:24 AM	INFO	96	CollectSRTaskMyCompany	xxxx-xxxx-xxxx	HCL iAutomate DataCollector D	{"ThresName": "LoginUpdateJobState-Completed", "data": {"requestId": "xxxx-xxxx-xxxx"}}
06/18/2024 08:23:24 AM	INFO	96	CollectSRTaskMyCompany	xxxx-xxxx-xxxx	HCL iAutomate DataCollector D	{"ThresName": "LoginUpdateJobState-Initiated", "data": {"requestId": "xxxx-xxxx-xxxx"}}
06/18/2024 08:23:24 AM	INFO	96	CollectSRTaskMyCompany	xxxx-xxxx-xxxx	HCL iAutomate DataCollector D	{"ThresName": "LoginProcessData-Completed", "data": {"requestId": "xxxx-xxxx-xxxx"}}
06/18/2024 08:23:24 AM	INFO	96	CollectSRTaskMyCompany	xxxx-xxxx-xxxx	HCL iAutomate DataCollector D	{"ThresName": "LoginUpdateJobState-Completed", "data": {"requestId": "xxxx-xxxx-xxxx"}}

Figure 568- Component Logs (Cont.)

5. In case of Website and Web API, below screen appears:

Date	Level Code	User	Logger	Message
06/18/2024 08:23:22 AM	INFO	user@hcl.com	iAutomate.Application	login page log Message: User ID:4 User Name:My User
06/18/2024 08:23:19 AM	INFO	user@hcl.com	iAutomate.Application	Key validation is True
06/18/2024 08:23:19 AM	INFO	user@hcl.com	iAutomate.Application	Extracting Time of License Key value :- checking with system time.
06/18/2024 08:23:19 AM	INFO	user@hcl.com	iAutomate.Application	Calling Ip to Get License Key.

Figure 569- Component Logs (Cont.)

The user can apply filters on the **User** column. This is available only for Website and Web API only.

Date	Level Code	User	Logger
06/18/2024 08:23:22 AM	INFO	user@hcl.com	
06/18/2024 08:23:19 AM	INFO	user@hcl.com	
06/18/2024 08:23:19 AM	INFO	user@hcl.com	
06/18/2024 08:23:19 AM	INFO	user@hcl.com	
06/18/2024 08:23:19 AM	INFO	user@hcl.com	

Figure 570- Component Logs (Cont.)

3.2.3.6.2 User Activity Logs

In this section, users can view the history of user activity using the following steps:

1. To view the user activity history in iAutomate, click Logs and then click **User Activity Logs** to access the **User Activity Logs** page.

Organization: All

User: Enter Valid User Email

Date Range: 04/18/2024 8:31:38 AM - 06/18/2024 8:31:38 AM

Search

*Date Format :- (MM/DD/YYYY hh:mm:ss) in UTC

Figure 571- User Activity Logs

- Click **Search** to refine the **User Activity Logs** results. Depending on the application used to access the **User Activity Logs**, the **Organization**, **User**, or **Date** filter options will be available.
- Select the search options and click **Search**.
- This displays the filtered user activity log, in a tabular view.

Organization: All

User: Enter Valid User Email

Date Range: 04/18/2024 8:31:38 AM - 06/18/2024 8:31:38 AM

Search

Search...

User Name	Last Login Date	Logout Date	IP Address	No. of Login Attempts
Super Admin(myadmin@hcl.com)	06/18/2024 08:31:15 AM	NA	XXXX	41
MyUser(myuser@hcl.com)	06/17/2024 06:30:00 AM	06/17/2024 11:32:32 AM	XXXX	3

Figure 572- User Activity Logs

- The **Export UserActivity Logs** feature allows users to download a comprehensive log of user activities in a CSV file format. This functionality is accessible via a dedicated button labeled "Export UserActivity Logs" within the application interface.
- Selecting a **UserName** opens the **User Activity Details** page displaying the log of all user activities.

Page Path	Report Description	Action Time (MM/DD/YYYY H:mm:ss)
~/logpages/UserActivityLog.aspx	User Activity Logs	06/18/2024 08:31:38 AM
~/logpages/ComponentLog.aspx	Component Logs	06/18/2024 08:31:25 AM
~/logpages/ComponentLog.aspx	Logs	06/18/2024 08:31:25 AM
~/index.aspx	License Report	06/18/2024 08:31:15 AM
~/logpages/ComponentLog.aspx	Component Logs	06/18/2024 08:22:59 AM
~/logpages/ComponentLog.aspx	Logs	06/18/2024 08:22:59 AM
~/logpages/ComponentLog.aspx	Component Logs	06/18/2024 08:22:55 AM
~/logpages/ComponentLog.aspx	Logs	06/18/2024 08:22:55 AM
~/RBAC/user_management.aspx	User Management	06/18/2024 07:52:38 AM
~/organization/Organization.aspx	Manage Organizations	06/18/2024 07:48:19 AM

Figure 573- User Activity Logs (Cont.)

- The **Export UserActivity Details** feature allows users to download a comprehensive log of user Details in a CSV file format. This functionality is accessible via a dedicated button labeled "Export UserActivity Details" within the application interface.
- Selecting the **No. of Login Attempts** next to a **UserName** displays the entire log details for all attempts by a particular user.

Login Date (MM/DD/YYYY H:mm:ss)	Logout Date (MM/DD/YYYY H:mm:ss)	IP Address
06/18/2024 08:31:13 AM		X.X.X.X
06/18/2024 07:48:06 AM	06/18/2024 07:55:11 AM	X.X.X.X
06/18/2024 07:21:12 AM	06/18/2024 07:22:09 AM	X.X.X.X
06/18/2024 06:52:24 AM	06/18/2024 08:23:15 AM	X.X.X.X
06/18/2024 05:55:14 AM	06/18/2024 05:56:23 AM	X.X.X.X
06/17/2024 02:45:38 PM	06/18/2024 06:07:19 AM	X.X.X.X
06/17/2024 01:45:57 PM	06/17/2024 01:47:00 PM	X.X.X.X
06/17/2024 1:22:08 PM	06/17/2024 01:21:47 PM	X.X.X.X
06/15/2024 03:35:51 PM		X.X.X.X
06/14/2024 02:55:30 PM		X.X.X.X

Figure 574- User Activity Logs (Cont.)

- The **Export login/logout Details** feature allows users to download a comprehensive log of user Details in a CSV file format. This functionality is accessible via a dedicated button labeled "Export login/logout Details" within the application interface.

3.2.3.6.3 Ticket Evaluation Report

User can evaluate any built model for an organization, its **module**, and the mapped runbook tool.

1. On the main menu bar, Click Logs and then click **Ticket Evaluation Report**.

Download CSV

Organization *
-Select-

Module *
-

Runbook Tool *
-

Model Version *
-

Date Range
06/18/2024 7:39:15 AM - 06/18/2024 8:39:15 AM

Search

*Date Format :- (MM/DD/YYYY hh:mm:ss) in UTC

No data available

Figure 575 - Ticket Evaluation Report

2. Select **Organization**, **Module**, **Runbook Tool**, **Model Version**, and the time for which user needs to see the data.
3. Then click on **Search**. All the ticket data that has been processed during the selected time will be shown in the form of a graph with **Month** on x-axis, **Success %** on left y-axis and **Successful Count** and **Failed Count** on right y-axis.

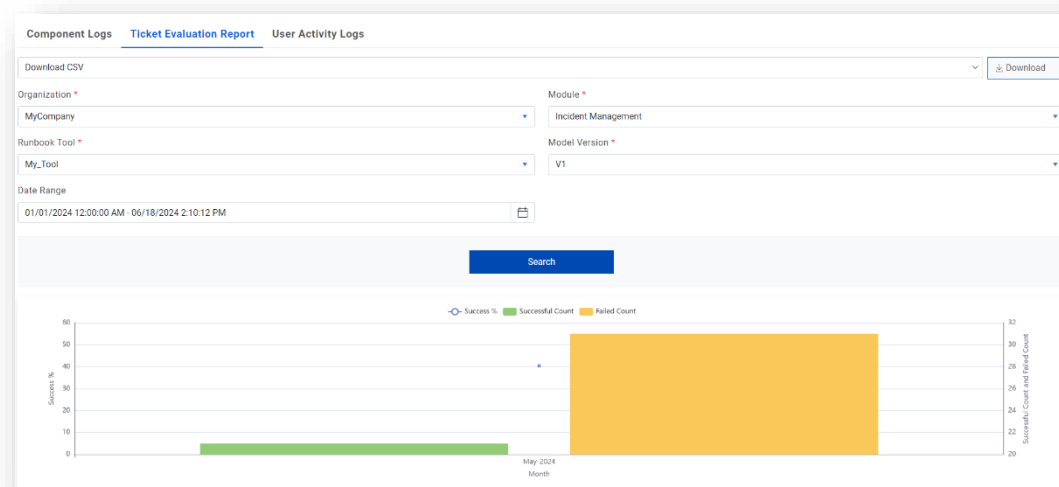


Figure 576 - Ticket Evaluation Report

4. When hovered on **Successful Count** graph, it displays the no. of successful tickets for the defined period. When hovered on **Failed Count** graph, it displays the no. of failed tickets for the defined period and when hovered on the **Success %**, it shows the percentage of successful tickets for the mentioned period.

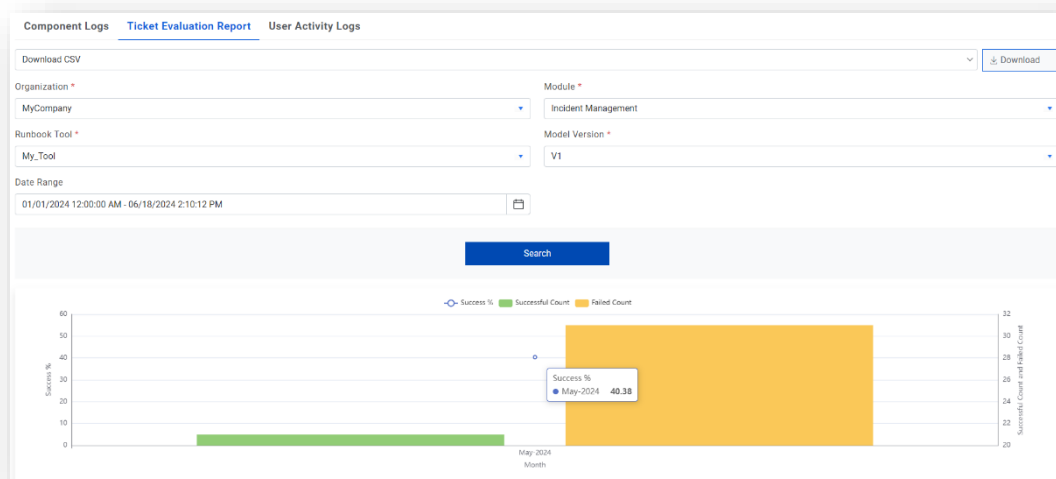


Figure 577 - Graphical Display of Ticket Evaluation Report

5. User can download this information in the form of CSV or PDF. For this, select either **Download CSV** or **Download PDF** and click on button .

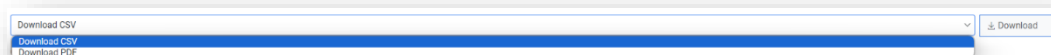


Figure 578 - Download Options

6. To get the detailed information for any block of data, click on that block. A popup will be opened that displays the **No. of tickets**, **Bucket Description**, **Bucket Detail**, **Published Duration**.

Figure 579 is a detailed ticket evaluation report popup. The title bar shows 'Version : V1 | Status : Success | Total Tickets : 21'. The main content is a table with the following columns: 'Actions', 'No. of Tickets', 'Bucket Description', 'Bucket Detail', and 'Published Duration'. The table contains one row with the following data: '21' tickets, 'My Bucket description', 'My Bucket detail', and a duration of '05/29/2024 13:06:47 to 5/31/2024 10:18:04'. A 'Download CSV' button and a search bar are located at the top right of the table.

Actions	No. of Tickets	Bucket Description	Bucket Detail	Published Duration
	21	My Bucket description	My Bucket detail	05/29/2024 13:06:47 to 5/31/2024 10:18:04

Figure 579 – Detailed Ticket Evaluation Report

7. Click on  icon to get the ticket details for that bucket description along with **Ticket Number**, its **Description**, **Remarks**, **Executed Runbook** on that ticket and **Recommended Runbook List** for that ticket.

Version : V1 | Status : Success | Total Tickets : 21

Download CSV

Search...

Actions	No. of Tickets	Bucket Description	Bucket Detail	Published Duration
☯	21	My Bucket description	My Bucket detail	05/29/2024 13:06:47 to 5/31/2024 10:18:04

Ticket Number	Description	Remarks	Executed Runbook	Recommend Runbook List
xxxxxxxx	My ticket description	Success	My_Runbook	My_Runbook : 100.00
xxxxxxxx	My ticket description	Success	My_Runbook	My_Runbook : 100.00
xxxxxxxx	My ticket description	Success	My_Runbook	My_Runbook : 100.00

Figure 580 - Detailed Ticket Evaluation Report- Ticket Details

- User can also download this ticket information in the form of CSV. For this, click on button

Download CSV

3.2.3.6.4 Ticket Logs

Users can view the comprehensive log of all the activities for a ticket, including updates and notifications, whether it is by a user or by iAutomate.

To view the ticket logs, perform the following steps:

- On the main menu bar, click Logs and then click Ticket Logs.
- The Ticket Logs screen appears.

Organization

Module

MyCompany

Change Request Task

Figure 581 - Ticket Logs

- Select an organization from the drop-down list and then select the Module.

Component Logs

Ticket Evaluation Report

User Activity Logs

Ticket Logs

Ansible Inside Logs

Organization

Module

MyCompany

Incident Management

Current

Archived

Search...

Download

Ticket Number	Current State	Executed Runbook	Interaction Id	Acted By	Queued On	Last Modified	Action
XXXXXXXXXX	Moved To Manual Mode	N/A	N/A	System	07/17/2024 10:15:26 AM	07/17/2024 10:19:52 AM	View SOP

Figure 582 - Organization and Module

- This lists the ticket log for organization and module-specific tickets in the following tabs.
 - Current:** Lists the log details of the tickets available for execution in the selected organization, including the ticket number, current state, executed runbook, interaction id, acted by, queued on, and last modified information.

Selecting a Ticket Number displays the detailed log information including logged on and logged by details, action was taken on the ticket, the reason for the action taken, and remarks.

Ticket Number : xxxxxxxxxx

Search...  

Logged On	Logged By	Action	Interaction Id	Reason	Remarks
06/14/2024 02:33:13 PM	RBAExecutor	Interaction ID Generated (Run book in Progress)	xxxxxxx		Summary: Interaction State is Failure Fatal N. view more
06/14/2024 02:33:13 PM	RBAExecutor	Initiate Interaction	xxxxxxx	Picked for Initiation of the RBA Interaction Id	Initiated Runbook (RBA Uniqueid) Check_Service_L1. view more
06/14/2024 02:32:48 PM	My User	Initiated Manual Mode	xxxxxxx	Initiated in Manual Mode	Summary Created Execution Id: 2 Initiated Runbook. view more
06/14/2024 02:30:48 PM	Auto	Moved To Manual Mode	N/A	Runbook Auto Execution disabled	
06/14/2024 02:29:38 PM	Parser	Moved to Assignment Decision	N/A	Parsing Completed	
06/14/2024 02:29:38 PM	Parser	Picked For Parsing	N/A	Picked for parsing	
06/14/2024 02:29:21 PM	Recommender	Move to Parsing	N/A	Recommendation Completed	Summary Runbooks recommended: Runbookid:RBAUniquel. view more
06/14/2024 02:29:21 PM	Recommender	Picked For Recommendation	N/A	Picked for recommendation	Summary Text used for getting recommendation Check. view more
06/14/2024 02:29:21 PM	Recommender	Picked For	N/A	Picked for recommendation	Summary Fields used for recommendation are

Figure 583 - Ticket Logs

- Archived:** Lists the log details of the ticket that are marked as closed in the selected organization, including the ticket number, current state, executed runbook, acted by, queued on, and last modified information. Selecting a Ticket Number displays the detailed log information including logged on and logged by details, action that was taken on the ticket, the reason for the action taken, and remarks.

5. Users can export the log details using the  button above the Log Details view.

3.2.3.6.5 Ansible Inside Logs

This screen shows the information regarding console and component logs of all the tickets executed through Ansible Inside tool.

- Component Log:** The logs of the wrapper component that triggers the execution at Ansible Inside’s end.
- Console Log:** The logs of the console at Ansible Inside end when command is triggered.

1. On the main menu bar, Click Reports and then click Ansible Inside logs.

Component Logs Ticket Evaluation Report User Activity Logs Ticket Logs **Ansible Inside Logs**

Ansible Inside Logs

Organization: MyCompany

Module: Incident Management

Runbook Tool: My_Inside_Tool

Search

Figure 584 – Ansible Inside Logs

2. Select the organization, Module and Runbook tool (Only Ansible Inside tool type will be populated here). Click Search. All the executed tickets under this tool will be populated in the grid.

The screenshot shows a web interface for viewing Ansible Inside logs. At the top, there are three dropdown menus for filtering: 'Organization' (set to 'MyCompany'), 'Module' (set to 'Incident Management'), and 'Runbook Tool' (set to 'My_Inside_Tool'). Below these is a blue 'Search' button. The main area contains a table with the following structure:

Ticket Number	Ticket Description	Download
xxxxxxxx	My ticket description	Component Log Console Log
xxxxxxxx	My ticket description	Component Log Console Log
xxxxxxxx	My ticket description	Component Log Console Log
xxxxxxxx	My ticket description	Component Log Console Log
xxxxxxxx	My ticket description	Component Log Console Log
xxxxxxxx	My ticket description	Component Log Console Log

At the bottom of the table, there is a pagination control showing '1' and a status indicator '1 - 6 of 6 items'.

Figure 585 – Ansible Inside Logs (Cont.)

3. Filter the data based on ticket number. Click on the corresponding log which will download the log file.
4. The corresponding logs will be written in the downloaded file.

3.2.3.7 Dashboard

The dashboard provides a complete view of the system in your environment and helps visualize various operational metrics in real time. Each Dashboard User Interface (UI) element can instantly provide additional data insights. You can also create reports using the preconfigured widgets available on the dashboard.

This menu is available to Organization Admin, and Operations Users only.
The Netbot Report tab under Dashboard is available to Netbot User, Netbot Admin, and Netbot Approver.

To manage the dashboard, perform the following steps:

1. On the main menu bar, click **Dashboard**. The **Dashboard** screen displays.

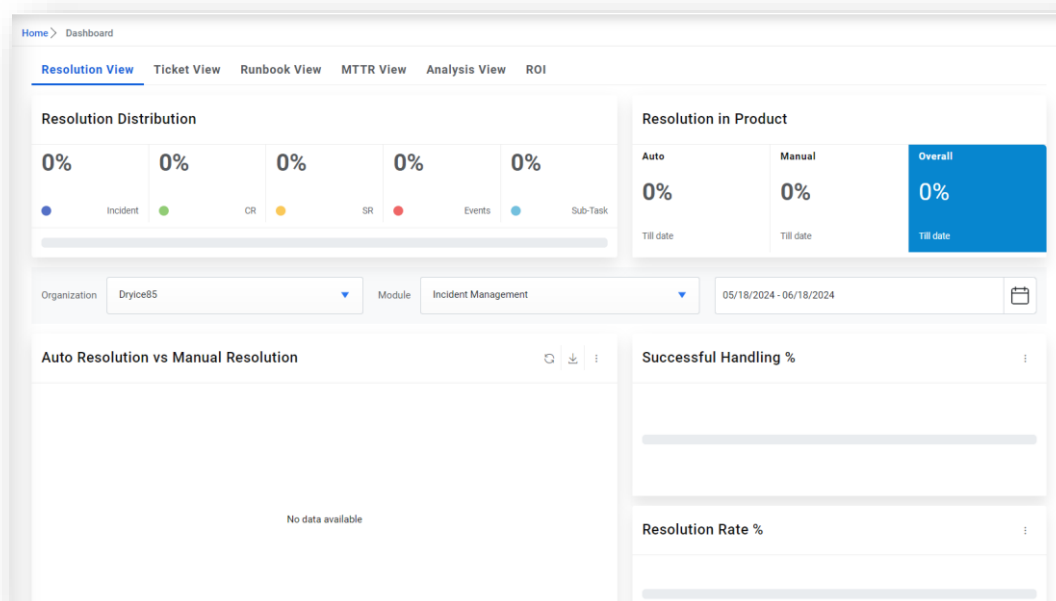


Figure 586- Dashboard

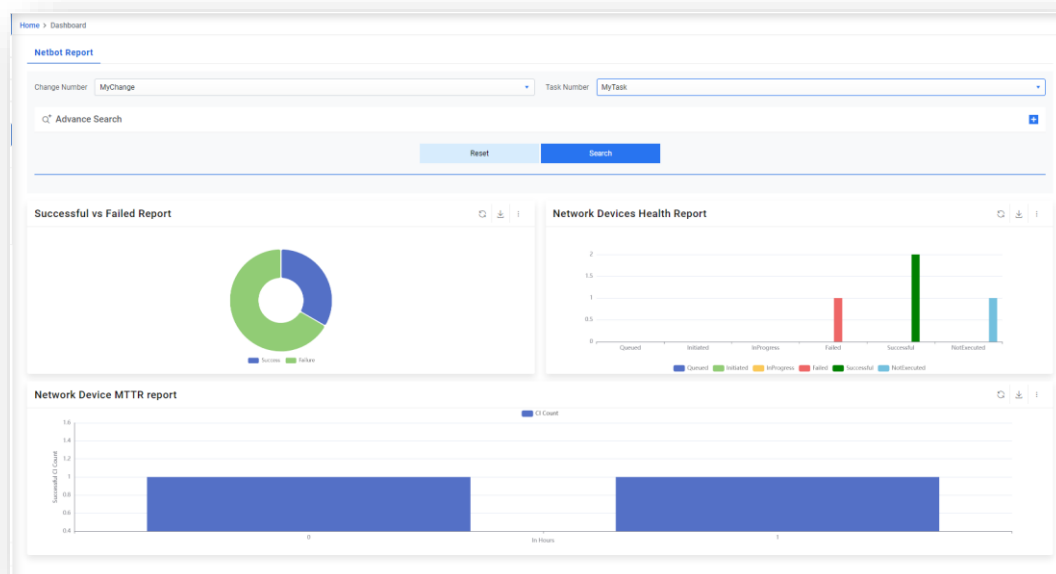


Figure 587 - Dashboard for Netbot Roles

- It displays the predefined widgets in the Dashboard Filters pane. Users can add new widgets from the predefined widgets and change or remove existing widgets from the organization.

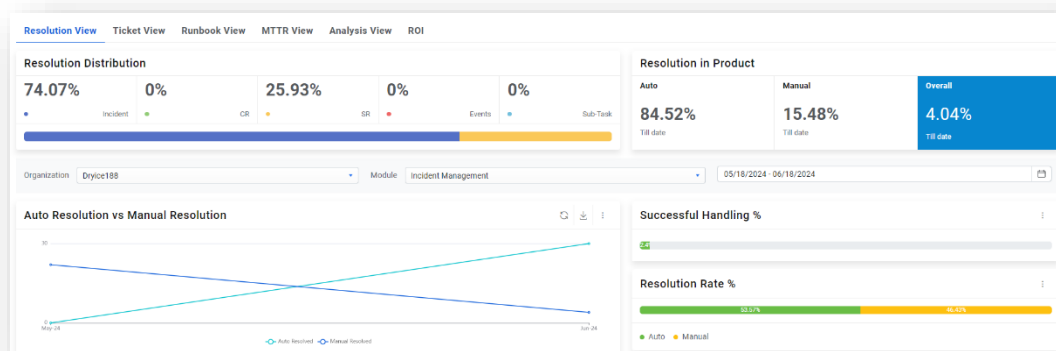


Figure 588- Dashboard (Cont.)

User can view drill-down details of certain report appearing on the widget by clicking a specific data point on the widget. This allows users to explore multi-dimensional data by navigating down one level to view more details. To view the drill-down report, click any visualization to view the drill-down report appearing on a widget.



Figure 589- Dashboard (Cont.)

The drill-down report is displayed on the screen.

TicketNumber	Summary	Is Recommended ...	Max Threshold Ru...	Executed Runbook	Executed Runboo...	Is Runbook SME ...	Queued On	Completed On
xxxxxxxxxxxx	My ticket summary	Y	My_Runbook	My_Runbook	Runbook Name: My_Runbook; Recommendation Threshold: 100.00	N	06/05/2024 10:11:48.000	06/05/2024 10:35:25.000
xxxxxxxxxxxx	My ticket summary	Y	My_Runbook	My_Runbook	Runbook Name: My_Runbook; Recommendation Threshold: 100.00	N	06/05/2024 07:16:09.000	06/05/2024 10:09:46.000
xxxxxxxxxxxx	My ticket summary	Y	My_Runbook	My_Runbook	Runbook Name: My_Runbook; Recommendation Threshold: 100.00	N	06/04/2024 10:57:46.000	06/04/2024 11:14:33.000
xxxxxxxxxxxx	My ticket summary	Y	My_Runbook	My_Runbook	Runbook Name: My_Runbook; Recommendation Threshold: 100.00	N	06/04/2024 10:55:03.000	06/04/2024 12:06:20.000

Figure 590 – Dashboard Drill down (Cont.)

The navigation bar on each widget contains the following menus.

Table 7- Functions of Tabs

Tabs	Name and Function
	Change the view of widget to chart view or tabular view.
	Refresh the data in a widget.
	Export the data in a widget to PDF or CSV format.

3.2.3.8 Netbot troubleshooting

Netbot functionality provides functionality to create DAG/Node and execute the same to monitor the network and see the historical records of executed nodes/DAGs.

There are two types of Nodes: Information & Script type. Information node contains information and does not execute. Script node contains python script and related parameters that execute by API.

DAG- A Node don't have any parent and have one or child(s). If Dag mapped a child, parent will be treated as Dag and the DAG that mapped as child will be treated as Node. Dag are identified by in purple, and Node are in light green color.

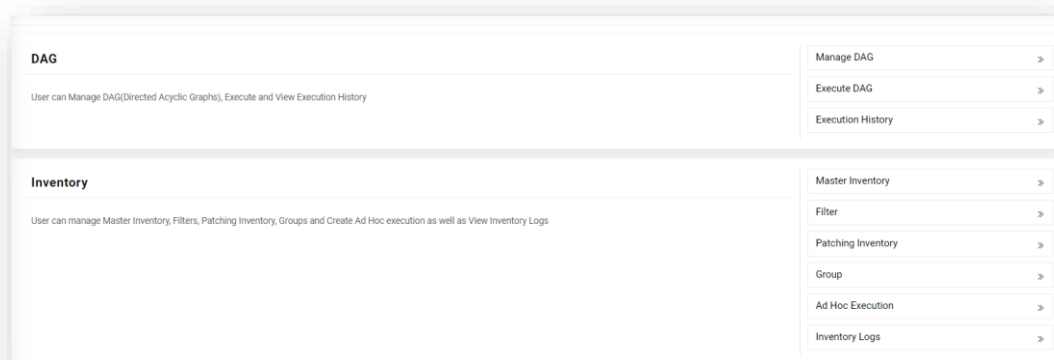


Figure 591 – Netbot Troubleshooting

3.2.3.8.1 DAG

3.2.3.8.1.1 Manage DAG

1. To manage a DAG or node, click on Netbot Troubleshooting→Manage DAG.

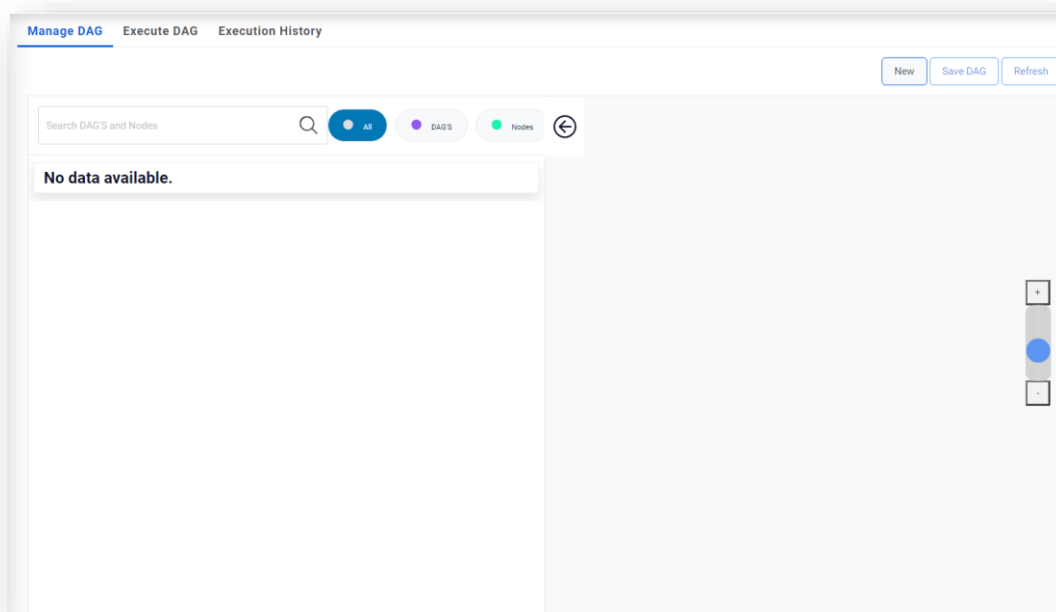


Figure 592 – Manage DAG

2. User can add a Node/Dag by clicking “New” button and filling details like Name, Description, and Information/script under the Create DAG property window. Click “OK’ then click on “Save DAG” button.

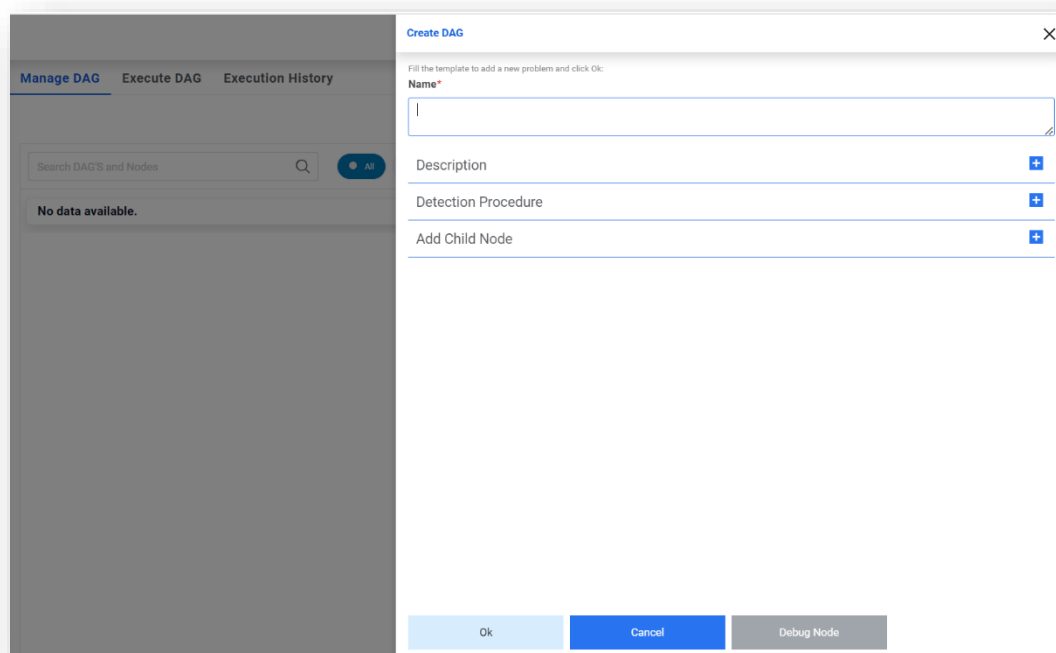


Figure 593 – Manage DAG (Cont.)

3. An alert will be generated:

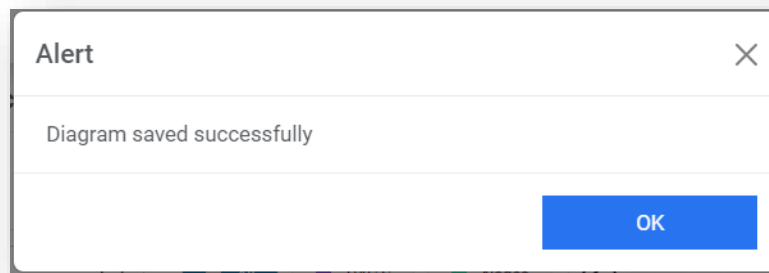


Figure 594 – Manage DAG (Cont.)

4. All the created DAGs and nodes will now be visible on left pane and when user click on any of them, its diagram will be visible in right pane.

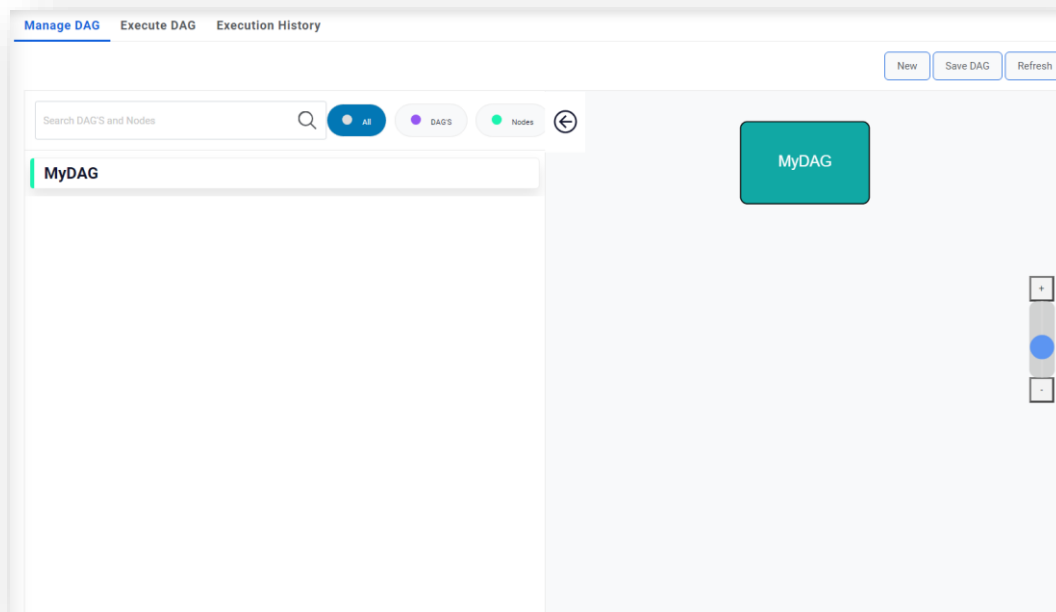


Figure 595 – Manage DAG (Cont.)

5. Use can map a node as child node Selecting a node from “Add Child Node” dropdown and clicking “Add New child” button on the Create Dag property window. Adding child (s) node under a DAG, all the child(s) node mapping (linking)will appear on diagram by clicking the OK button and diagram will save by clicking save DAG button.

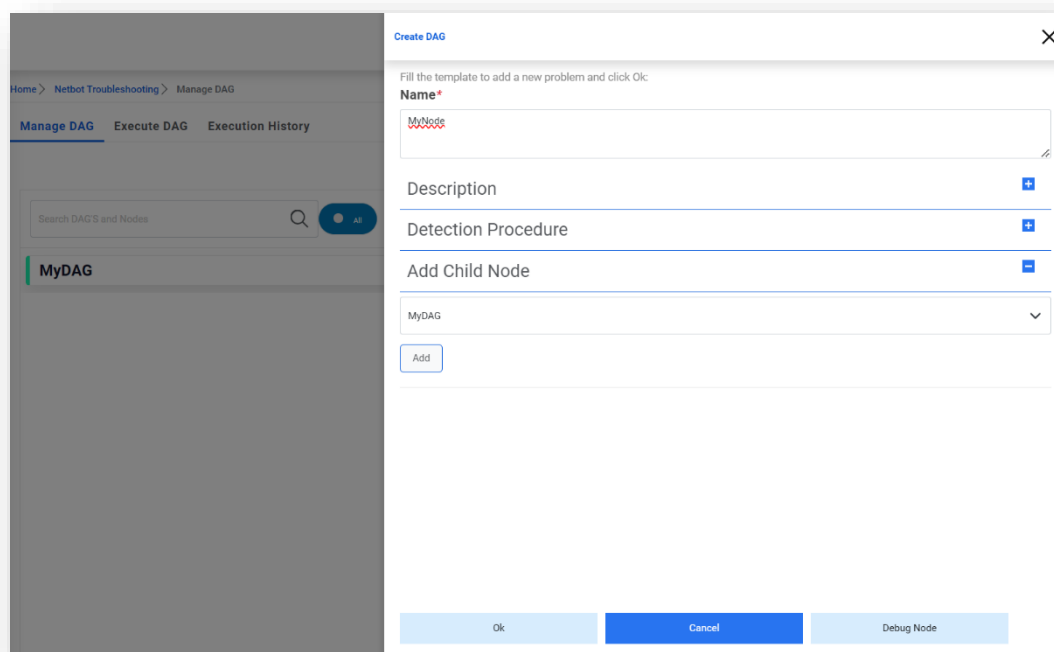


Figure 596 – Manage DAG (Cont.)

6. Once child node is added, an arrow linking will be visible in the diagram of the DAG.

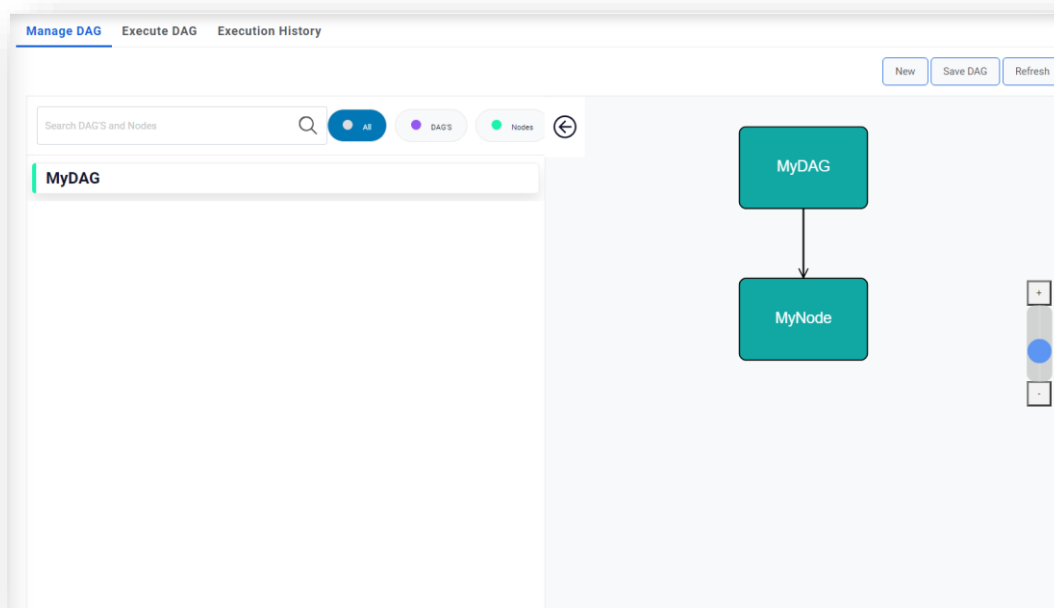


Figure 597 – Manage DAG (Cont.)

7. A dag/Node can be edited by selecting a dag/node from left side. Selecting Dag/Node, related diagram will populate in right side. Clicking pencil icon (screenshot below), one can edit a dag/node, we can add a child or edit the properties like Description, Information, parameter changes.

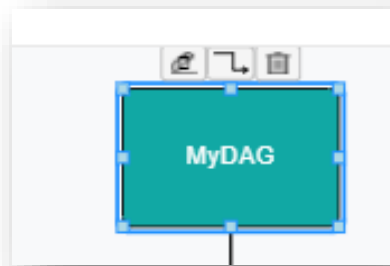


Figure 598 – Manage DAG (Cont.)

8. **Node/Dag Mapping** – One can change map a child by dragging the arrow from one node to another node and save Dag.

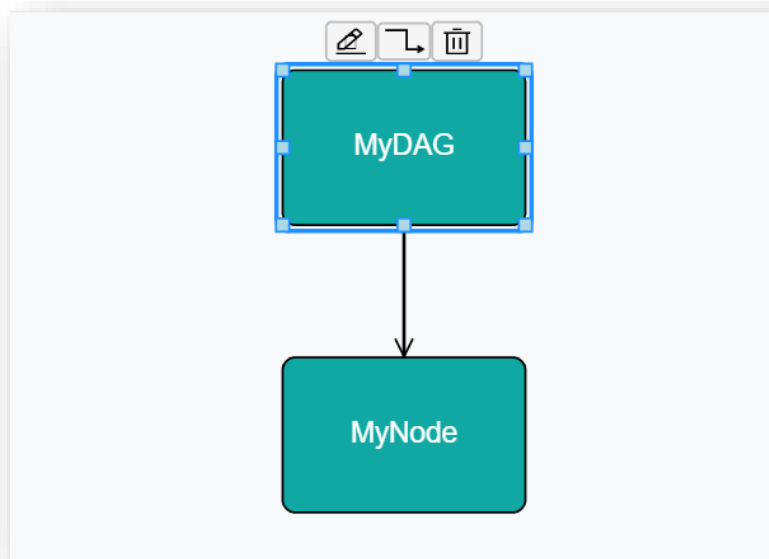


Figure 599 – Manage DAG (Cont.)

9. **Change in mapping** – if a node is already mapped to another node and to make changes, first need to delete the mapping link from the node and mapped the node from the any node by dragging the mapping link and save Dag.
10. **Delete a Dag/Node-** A node can be deleted by clicking delete icon appear on the node and save Dag.
11. **Deleting a Node having no child or parent node-** A node can be deleted by clicking delete icon appear on Node and save Dag.

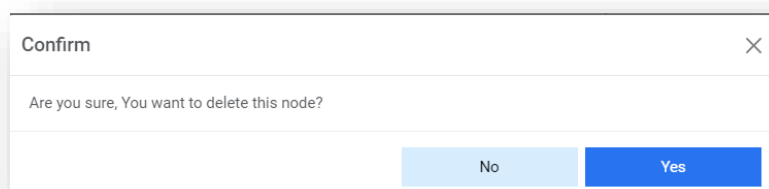


Figure 600 – Manage DAG (Cont.)

12. **Search (Dag/Nodes)-** Dag/Node can be search by entering text, Clicking Dag or Nodes.

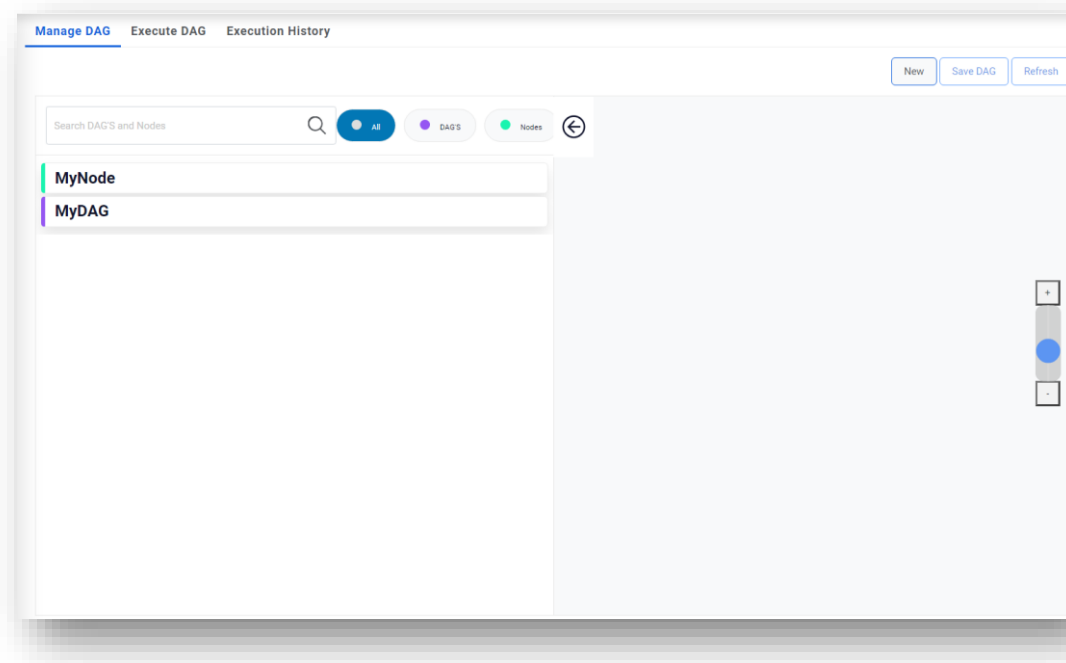


Figure 601 – Manage DAG (Cont.)

3.2.3.8.1.2 Execute DAG

Execute DAG provide following features:

- a. To execute a DAG/Node and see the live progress for devices after the execution.
- b. To see the Most recent execution status for a DAG/Node

There are some basic rules to execute a DAG/Node:

- a. A standalone having information only can't be executed.
- b. A Dag/Node having all the information type of node can't be executed.
- c. Execute Node mean – only selected node will be executed if it is script type node.
- d. Execute DAG- Selected node and it's child will be executed (at least on script type node should be there under the selected Node).

There is color code defined to represent different status that appears on after execution:

- a. If node contains script, then actual color (green/red/yellow) will be displayed.
- b. If node contains information and doesn't have any child, then it will be grey.
- c. If node contains information and have child, then color will be light version of child node (red/green/yellow) having script.

Execution Steps:

1. User can navigate to Execute DAG by Netbot Troubleshooting> Execute DAG.
2. A DAG or node can be executed by filter its name under the DAG'S Tab.

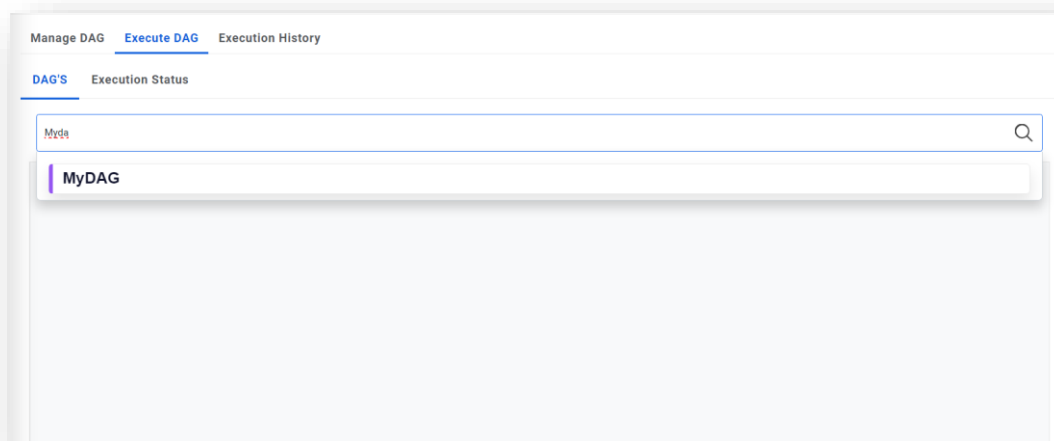


Figure 602 – Execute DAG

3. Selecting a node, related diagram will appear and selecting a node its information will appear the sliding property window and union all the paraments will appear as screenshot below.

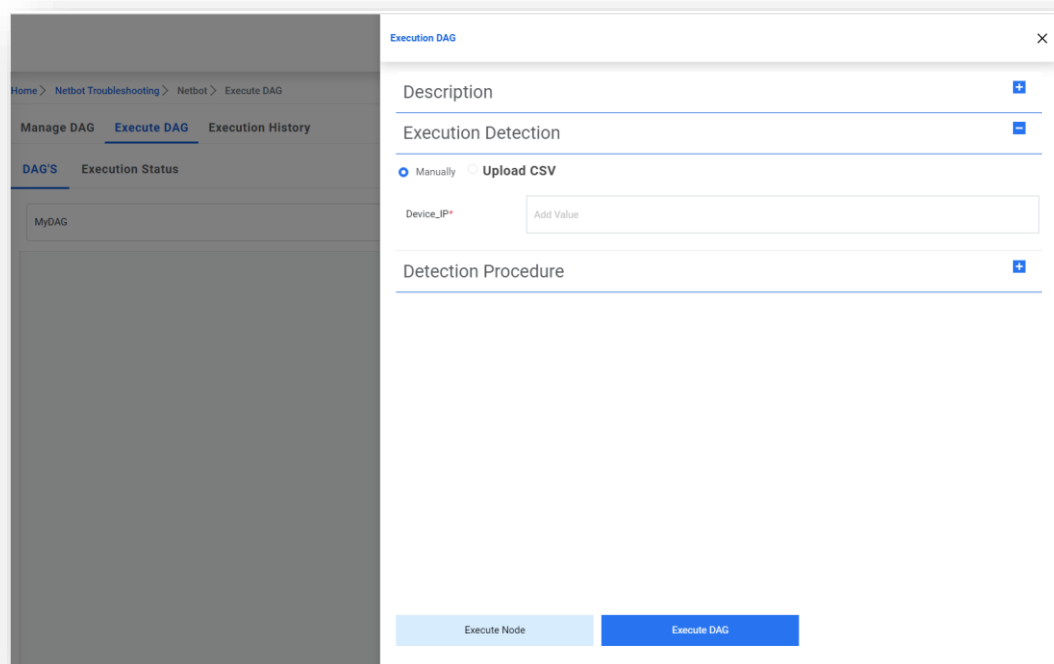


Figure 603 – Execute DAG (Cont.)

4. Enter Device_IP and other parameters (if required).
5. User will prompt "Execution Initiated" and should redirect to Execution Status tab.

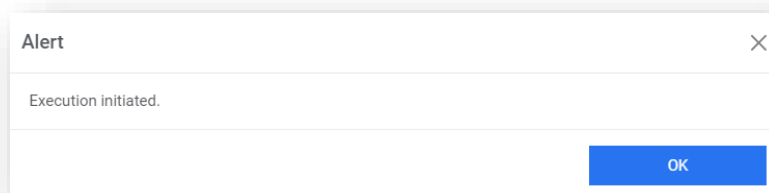


Figure 604 – Execute DAG (Cont.)

6. Enter Device IP should populate in the DAG IP dropdown list and Dag/Node (diagram) should appear in right panel and related execution status should appear in left panel.
7. Over the period, there should be additional status log and node color should turn as per final execution of Node as screenshot below.

DAG'S **Execution Status**

Test Parent Node

■ Default
 ■ Success Node
 ■ Failure Node
 ■ Python file error
 ■ Script not present
 ■ This node currently running
 ■ Success child Node
 ■ Failure child Node
 ■ Python file error in child Node

Execution Status: Completed

*Date Format :- (MM/DD/YYYY hh:mm:ss) in UTC

Execution Id	Device IP	Name	Status	Date
21	x.x.x.x	Test child 3	Success	06/18/2024 10:34:41 AM
21	x.x.x.x	Test Child 1	Success	06/18/2024 10:34:34 AM
21	x.x.x.x	Test node 2	Success	06/18/2024 10:34:22 AM
21	x.x.x.x	Test Parent Node	Success	06/18/2024 10:34:14 AM
21	x.x.x.x	Test child 3	InProgress	06/18/2024 10:34:08 AM
21	x.x.x.x	Test Child 1	InProgress	06/18/2024 10:34:08 AM
21	x.x.x.x	Test node 2	InProgress	06/18/2024 10:34:08 AM
21	x.x.x.x	Test Parent Node	InProgress	06/18/2024 10:34:08 AM
21	x.x.x.x	Test Parent Node	Initiated	06/18/2024 10:34:07 AM
21	x.x.x.x	Test node 2	Initiated	06/18/2024 10:34:07 AM
21	x.x.x.x	Test child 3	Initiated	06/18/2024 10:34:07 AM

Test node 2

Figure 605 – Execute DAG (Cont.)

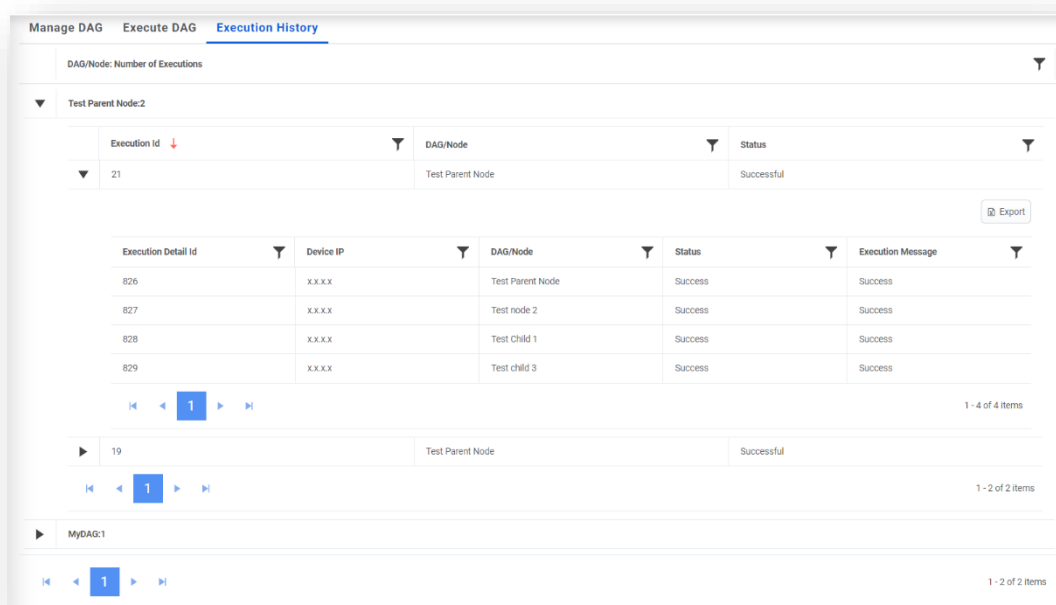
8. There is 2 different ways to execute a DAG/Node- one is "Manually" wherein user enter Device_IP onscreen input box and another one is by "Upload CSV" using download csv template and upload the same after filling the parameter values.
9. After execution, all the device_IPs should appear in Dag IP dropdownlist with very first device IP in uploaded csv will appear in the Dag IP dropdown list and related Execution status will appear in the panel below.
10. User can select the different Device IP from Dag IP dropdown list and see the status.

11. To see the most recent execution status of any executed Dag/Node, user can navigate to Execute Status tab and search the Dag/Node in the search filter and can see the result for all the devices executed is most recent execution.

3.2.3.8.1.3 Execution History

This feature allows user to see the historical execution status of a DAG/Node. Here one can filter a DAG/Node and see all the execution happened in the past.

1. To view execution history, on main menu bar, click on Netbot Troubleshooting→ Execution History
2. Expand the DAG to view the history of any execution Id. User can also download the logs by clicking on Export button.



The screenshot shows the 'Execution History' tab in a web application. At the top, there are tabs for 'Manage DAG', 'Execute DAG', and 'Execution History'. Below the tabs, there is a search bar labeled 'DAG/Node: Number of Executions'. A dropdown menu shows 'Test Parent Node:2'. Below this, there is a table with columns: 'Execution Id', 'DAG/Node', and 'Status'. The table shows one entry with Execution Id '21', DAG/Node 'Test Parent Node', and Status 'Successful'. To the right of the table is an 'Export' button. Below the table, there is a pagination bar showing '1' of 4 items. Below the pagination bar, there is another table with columns: 'Execution Detail Id', 'Device IP', 'DAG/Node', 'Status', and 'Execution Message'. This table shows four entries with Execution Detail Ids 826, 827, 828, and 829, all with Status 'Success'. Below this table, there is another pagination bar showing '1' of 2 items. Below the pagination bar, there is a third table with columns: 'Execution Id', 'DAG/Node', and 'Status'. This table shows one entry with Execution Id '19', DAG/Node 'Test Parent Node', and Status 'Successful'. Below this table, there is another pagination bar showing '1' of 2 items. Below the pagination bar, there is a fourth table with columns: 'Execution Id', 'DAG/Node', and 'Status'. This table shows one entry with Execution Id 'MyDAG:1', DAG/Node 'Test Parent Node', and Status 'Successful'. Below this table, there is another pagination bar showing '1' of 2 items.

Execution Id	DAG/Node	Status
21	Test Parent Node	Successful

Execution Detail Id	Device IP	DAG/Node	Status	Execution Message
826	x.x.x.x	Test Parent Node	Success	Success
827	x.x.x.x	Test node 2	Success	Success
828	x.x.x.x	Test Child 1	Success	Success
829	x.x.x.x	Test child 3	Success	Success

Execution Id	DAG/Node	Status
19	Test Parent Node	Successful

Execution Id	DAG/Node	Status
MyDAG:1	Test Parent Node	Successful

Figure 606 – Execution History

3.2.3.8.2 Inventory

Inventory management feature enables User to manage Master Inventory, Filters, Patching Inventory, Groups and Create Ad Hoc execution as well as View Inventory Logs for the list of devices.

3.2.3.8.2.1 Master Inventory

This screen allows users to manage master inventory where host name will be used as distinct entity. Users can either add a single device or upload bulk data using the import feature.

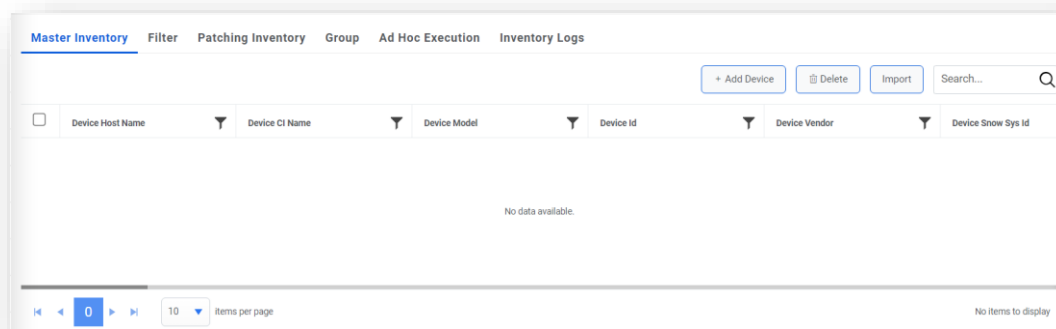


Figure 607 – Master Inventory

- **To add a single device,**
 - a. click on the Add Device button. The below popup appears:

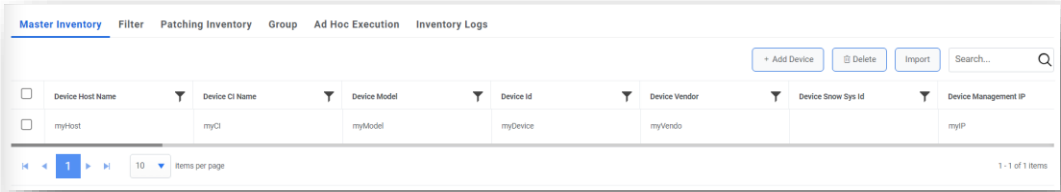
Figure 608 – Master Inventory – Add Device

- b. Fill all the mandatory fields and the optional fields, if needed. Click on Save. The below alert appears:



Figure 609 – Master Inventory – Add Device (Cont.)

c. The data now appears in the grid.

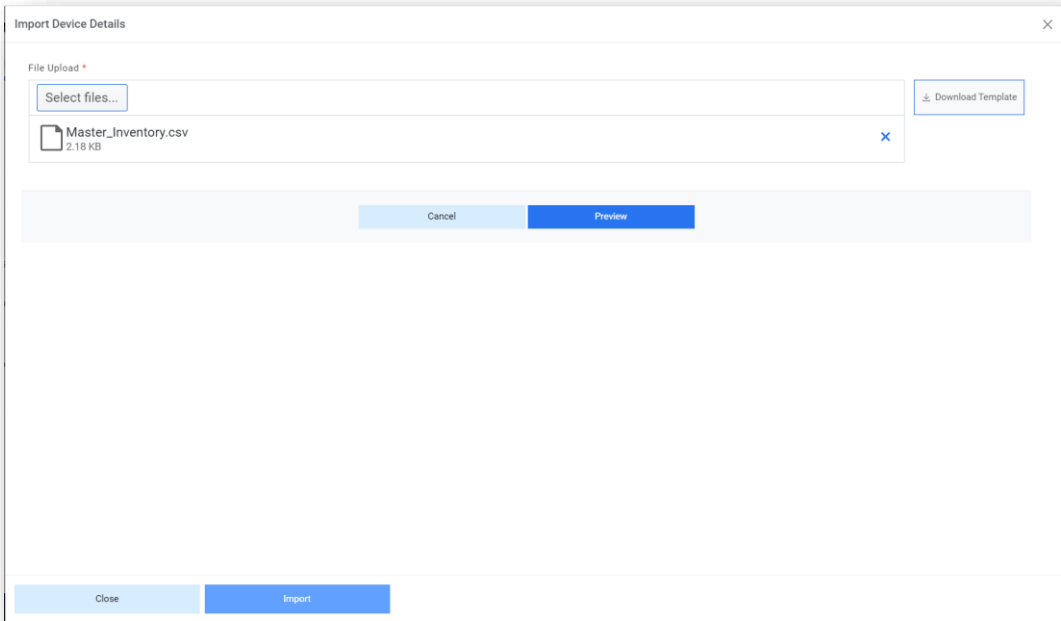


The screenshot shows a web application interface for 'Master Inventory'. At the top, there are tabs: 'Master Inventory' (selected), 'Filter', 'Patching Inventory', 'Group', 'Ad Hoc Execution', and 'Inventory Logs'. On the right, there are buttons for '+ Add Device', 'Delete', and 'Import', along with a search bar. Below these is a table with columns: Device Host Name, Device CI Name, Device Model, Device Id, Device Vendor, Device Snow Sys Id, and Device Management IP. The table contains one row with the following data: myHost, myCI, myModel, myDevice, myVendor, and myIP. At the bottom left, there are navigation controls showing '1' of 1 items and a dropdown for '10 Items per page'. At the bottom right, it says '1 - 1 of 1 Items'.

Device Host Name	Device CI Name	Device Model	Device Id	Device Vendor	Device Snow Sys Id	Device Management IP
myHost	myCI	myModel	myDevice	myVendor		myIP

Figure 610 – Master Inventory – Add Device (Cont.)

- To bulk upload any data,
 - a. click on Import and select the file to be imported.



The screenshot shows a dialog box titled 'Import Device Details'. It has a close button (X) in the top right corner. Inside, there is a section for 'File Upload' with a 'Select files...' button and a 'Download Template' button. Below this, a file named 'Master_Inventory.csv' (2.18 KB) is listed with a blue 'x' icon to its right. At the bottom of the dialog, there are two buttons: 'Cancel' and 'Preview'. At the very bottom, there are two buttons: 'Close' and 'Import'.

Figure 611 – Master Inventory – Bulk Data Upload

- b. Click on Preview to have a look at the data being uploaded before proceeding.

The 'Import Device Details' dialog box contains a 'File Upload' section with a 'Select files...' button and a 'Download Template' link. Below this is a 'Cancel' button and a 'Preview' button. The 'Preview Imported Device(s)' section features a search bar and a table with the following data:

id	Device Snow Sys Id	Device CI Name	Device Host Name	Device Management IP	Device Application
1	mySysId	myDeviceCI	myHost	myIP	myApplication

Below the table is a pagination control showing '1' of '1' items per page. At the bottom are 'Close' and 'Import' buttons.

Figure 612 – Master Inventory – Bulk Data Upload (Cont.)

- c. Click on Import to upload the data. Below alert appears:

The 'Alert' dialog box displays the message 'Device added successfully.' and includes an 'OK' button.

Figure 613 – Master Inventory – Bulk Data Upload (Cont.)

– **To delete the devices,**

- a. Select those devices and click on Delete. Below alert appears:

The 'Confirm' dialog box asks 'Are you sure want to delete the selected record(s)?' and provides 'No' and 'Yes' buttons.

Figure 614 – Master Inventory – Delete a Device

- b. Click on Yes to delete the selected records. Below alert generated:

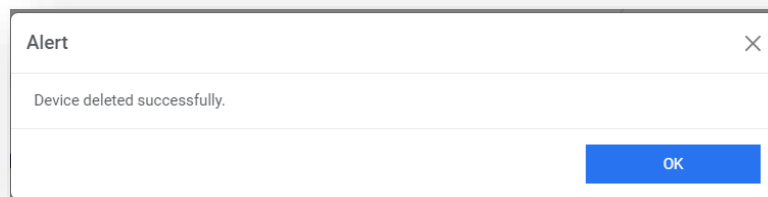


Figure 615 – Master Inventory – Delete a Device (Cont.)

– To edit any record,

- a. Click on  under action column and update the required fields and click on Update button.

A form titled 'Edit Devices' with a close button 'X' in the top right corner. The form is organized into three columns and multiple rows of input fields. The first column contains fields for Host Name, Management IP, Sub Category, Manufacturer Name, Location, and an 'Optional' section with Application, Sub Status, and Function. The second column contains fields for Device Id, Status, Support Group, Product Name, Serial Number, and an 'Optional' section with Snow System Id, Component Criticality, and OS. The third column contains fields for CI Name, Category, Type, Model, Vendor, and an 'Optional' section with Environment, Component Category, and Business Unit. At the bottom left, there is a light blue button labeled 'Close', and at the bottom right, there is a blue button labeled 'Update'.

Figure 616 – Master Inventory – Edit Record

- b. On successful update, below alert appears:

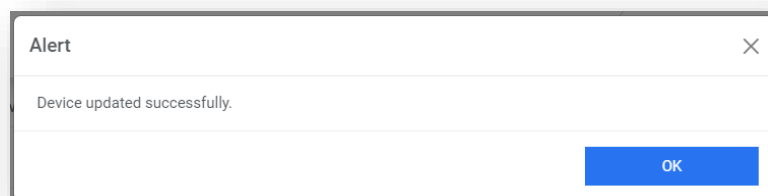


Figure 617 – Master Inventory – Edit Record (Cont.)

3.2.3.8.2.2 Filter

This screen allows user to create filters which are nothing but conditions that can be applied on the available devices under a change number to segregate specific type of records.

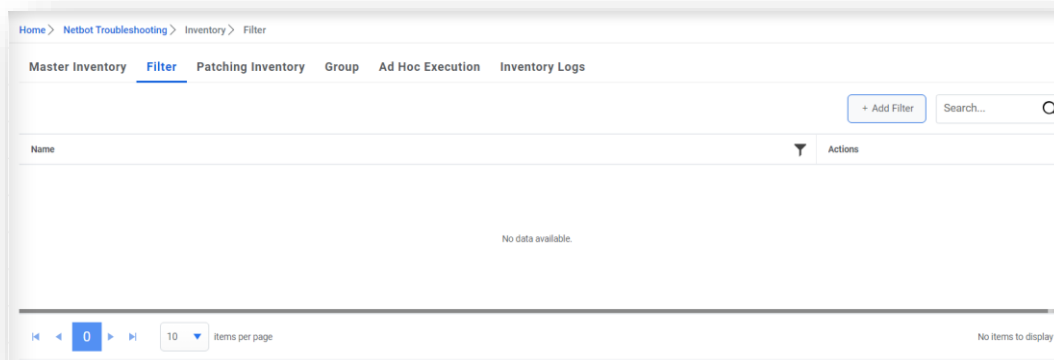


Figure 618 – Filter

- **To create a filter,**
 - a. Click on Add Filter button and provide the filter name:

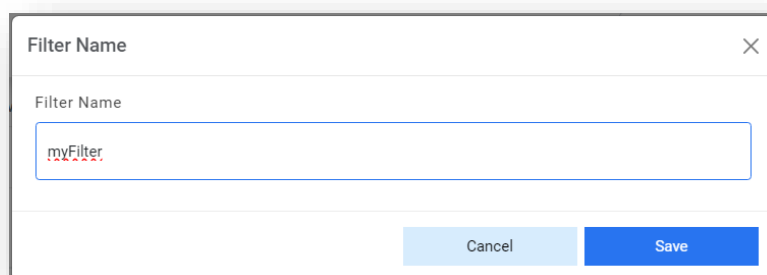


Figure 619 – Filter (Cont.)

- b. Click on Save button and below alert appears:

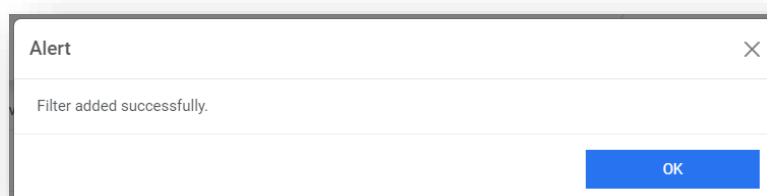


Figure 620 – Filter (Cont.)

- c. The filter now appears in the grid. To add condition to the filter, click on  under actions column.

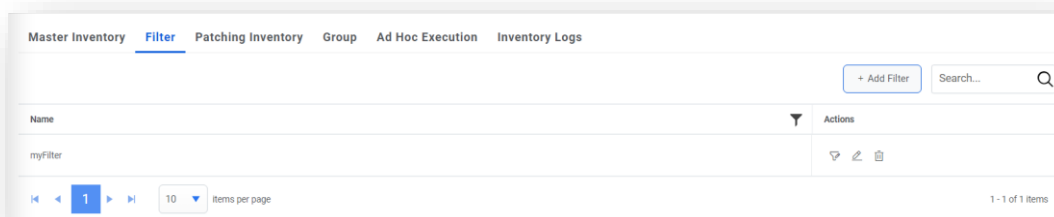


Figure 621 – Filter (Cont.)

- d. Below popup opens to provide the conditions:

The 'Filter Conditions' popup window is shown with a close button (X) in the top right corner. It contains five main input areas: 'Column' with a '-Select-' dropdown, 'Operator' with a '-Select-' dropdown, 'Value' with an 'Enter Value' text field, 'Clause' with a '-Select-' dropdown, and 'Sub Clause' with a '-Select-' dropdown. At the bottom, there are three buttons: 'Cancel' (light blue), 'Save' (blue), and 'Reset' (light blue).

Figure 622 – Filter (Cont.)

- e. Select the column name on which condition will be applied, select the valid operator and then provide the column value. In case of multiple conditions select the clause/sub clause and provide multiple conditions.

The 'Filter Conditions' popup window is shown with a close button (X) in the top right corner. It contains two rows of conditions. The first row has 'ToolCIName' in the 'Column' field, 'contains' in the 'Operator' field, 'MyCIName' in the 'Value' field, 'AND' in the 'Clause' field, and '-Select-' in the 'Sub Clause' field. The second row has 'ToolCICategory' in the 'Column' field, 'contains' in the 'Operator' field, 'MyCategory' in the 'Value' field, '-Select-' in the 'Clause' field, and '-Select-' in the 'Sub Clause' field. A trash icon is visible to the right of the second row. At the bottom, there are three buttons: 'Cancel' (light blue), 'Save' (blue), and 'Reset' (light blue).

Figure 623 – Filter (Cont.)

- f. Click on the save button to save the conditions for the filter. Below alert will be generated:

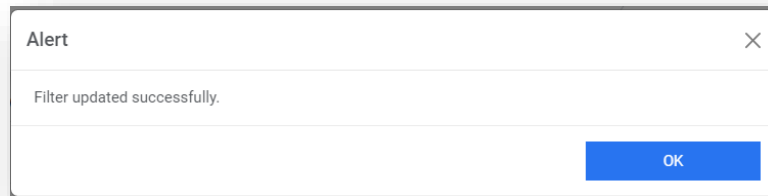


Figure 624 – Filter (Cont.)

- g. To edit the name of the filter, click on  under Actions column and update the filter name and click on Save.
- h. To delete any filter, click on  under Actions column and below confirmation box appears.

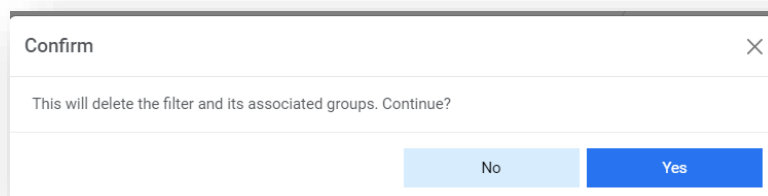


Figure 625 – Filter (Cont.)

- i. Click on Yes to delete the filter and below alert gets generated.

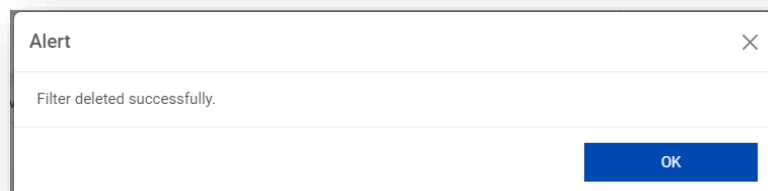


Figure 626 – Filter (Cont.)

3.2.3.8.2.3 Patching Inventory

This screen allows users to manage the patching inventory data for a change number. To upload a patching, a change number must be associated with it.

- **To upload patching data,**

a. click on the +Create button.

The screenshot shows the 'Patching Inventory' form. At the top, there are tabs: 'Master Inventory', 'Filter', 'Patching Inventory' (selected), 'Group', 'Ad Hoc Execution', and 'Inventory Logs'. Below the tabs are two buttons: 'View' and '+ Create'. The form has two main input sections. The first is 'Change Number *' with a text box containing 'Enter Change Number here'. The second is 'Select File *' with a 'Select files...' button and a 'Download Template' link. At the bottom of the form are two buttons: 'Reset' and 'Preview'.

Figure 627 – Patching Inventory

b. Provide the change number and select the file.

The screenshot shows the 'Patching Inventory' form with the 'Change Number *' field filled with 'MyChange'. The 'Select File *' section now shows a file named 'Patching_Inventory.csv' (7.73 KB) selected, with a close button (X) to its right. The 'Reset' and 'Preview' buttons remain at the bottom.

Figure 628 – Patching Inventory (Cont.)

c. Click on Preview.

The screenshot shows a dialog titled 'Uploaded Data For MyChange'. It has two tabs: 'New Records' (selected) and 'Existing Records'. A legend indicates that a blue dot 'Denotes partial records for update'. The 'Records List' section contains a table with the following data:

	Id	Device Snow Sys Id	Device CI Name	Device Host Name	Device Management IP	Device Application
☐	1	MySysId	MyCI	MyHost	MyIp	MyApplication
☐	2	MySys1	MyCI1	MyHost1	MyIP1	MyApplication1

At the bottom of the dialog are two buttons: 'Cancel' and 'Upload'.

Figure 629 – Patching Inventory (Cont.)

- d. It will show 2 sections:
- **New Records:** It will show all new/updated records which are there in uploaded Patching template but not there in Master Inventory. The records which are there in the master inventory as well as in uploaded data but have different value in any field are displayed in different colour. The following operations can be performed on this tab:
 - **Discard:** User can select single or multiple records from Grid to Discard inventory from uploaded list.
 - **Add/Update:** User can select single or multiple records from Grid to Add/Update in Master Inventory list.
 - **Existing Records:** It will show all the records which are there in the Master Inventory as well as in Uploaded Inventory.
- e. Click on the “Upload” button to upload Inventory list. The data will now appear under the View tab.

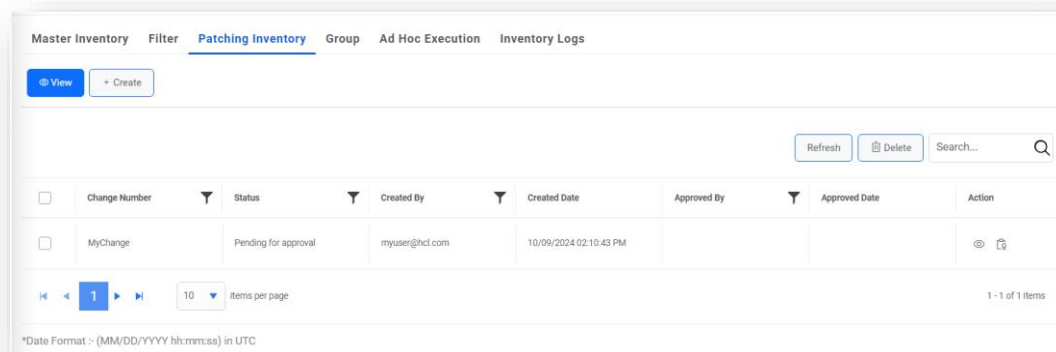


Figure 630 – Patching Inventory (Cont.)

- f. To view the uploaded data, click on  under Actions column.

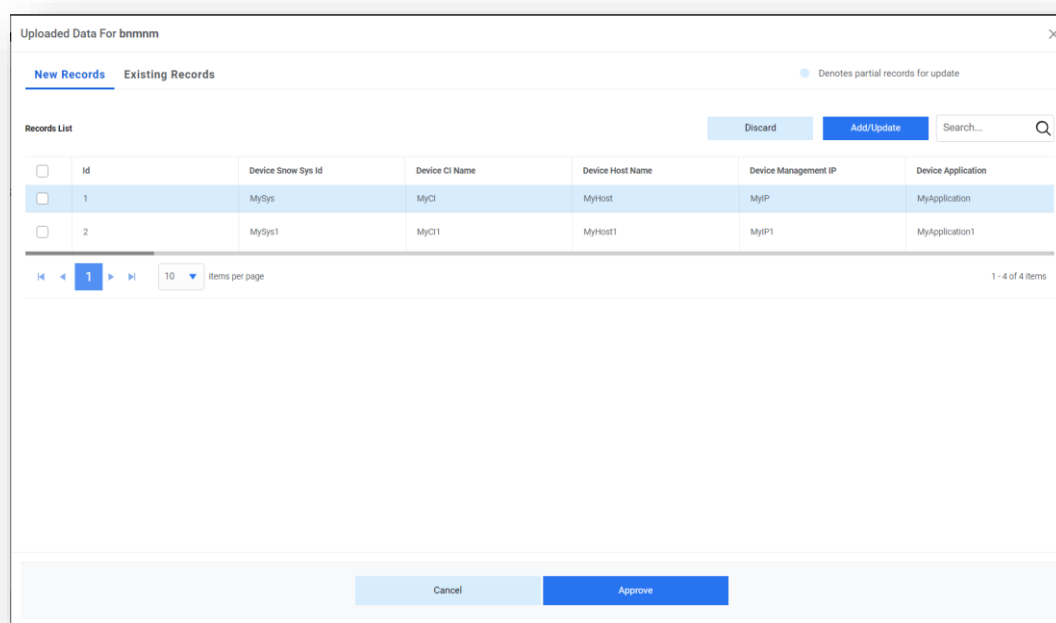


Figure 631 – Patching Inventory (Cont.)

- g. Click on the Approve button to approve the uploaded inventory. Another way to approve the uploaded data is to click on  under Actions column. A confirmation box is generated.

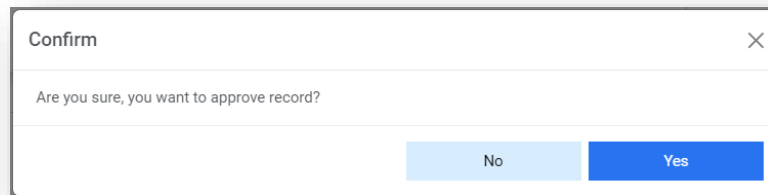


Figure 632 – Patching Inventory (Cont.)

- h. Click on yes. An alert will be generated.

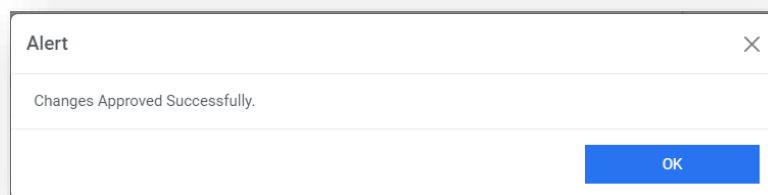


Figure 633 – Patching Inventory (Cont.)

- i. To delete the records, select the change and click on the Delete button. A confirmation box is generated.

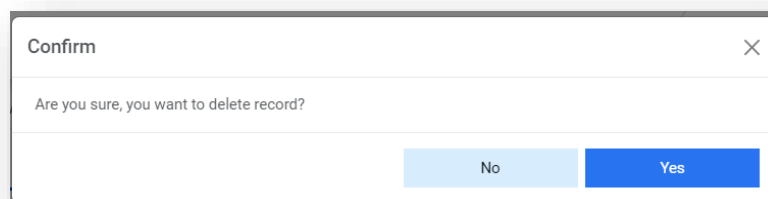


Figure 634 – Patching Inventory (Cont.)

- j. Click on yes. An alert will be generated.

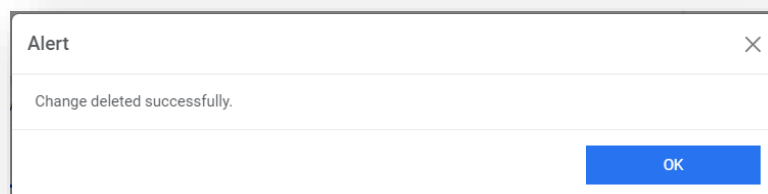
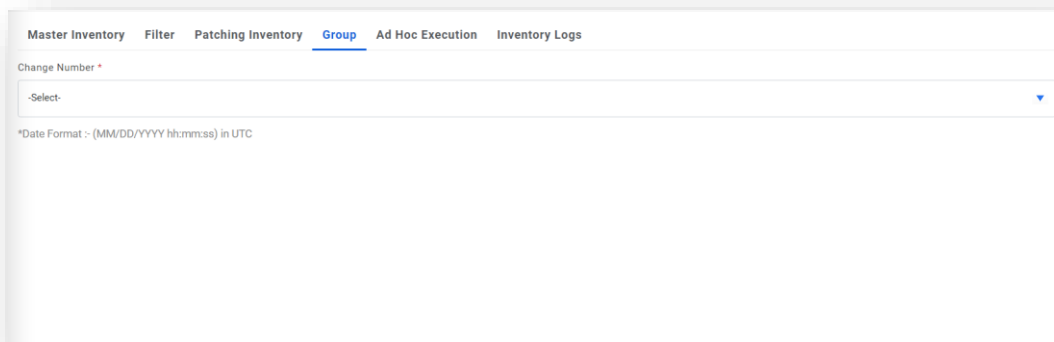


Figure 635 – Patching Inventory (Cont.)

Netbot approver can only approve the changes uploaded by users. Netbot admin can both upload and approve the data changes. Netbot users can only upload the change data.

3.2.3.8.2.4 Group

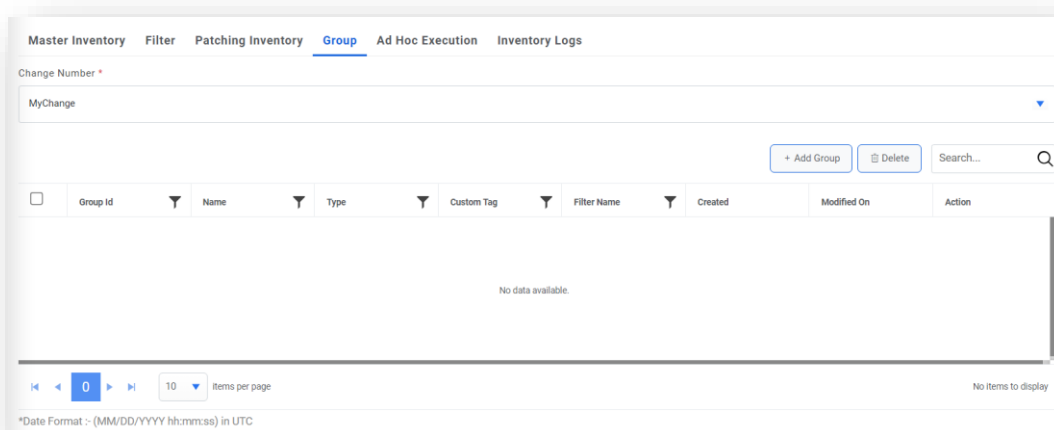
This screen allows user to manage groups. Groups are used for the grouping of devices in the data uploaded corresponding to a change in patching inventory based on the already created filters.



The screenshot shows the 'Group' tab in the navigation bar. Below it, there is a 'Change Number' dropdown menu with a red asterisk indicating it is required. The dropdown is currently set to '-Select-'. Below the dropdown, there is a note: '*Date Format -> (MM/DD/YYYY hh:mm:ss) in UTC'.

Figure 636 – Group (Cont.)

- To create a group,
 - a. select a change number.



The screenshot shows the 'Group' tab in the navigation bar. Below it, there is a 'Change Number' dropdown menu with a red asterisk indicating it is required. The dropdown is currently set to 'MyChange'. Below the dropdown, there are two buttons: '+ Add Group' and 'Delete'. To the right of these buttons is a search bar with the placeholder text 'Search...'. Below the buttons and search bar is a table with the following columns: Group Id, Name, Type, Custom Tag, Filter Name, Created, Modified On, and Action. The table is currently empty, and the text 'No data available.' is displayed in the center. At the bottom of the table, there is a pagination bar with the text '10 Items per page' and 'No items to display'.

Figure 637 – Group (Cont.)

- b. Click on the Add Group button. And populate mandatory fields.

Manage Groups

Name * MyGroupName

Type * MyGroupType

Custom Tag * MyGroupTag

Filter* MyFilter **Apply**

Filter Result Search...

Host Name	CI Name
MyHost1	MyCI1
MyHost2	MyCI2
MyHost3	MyCI3
MyHost4	MyCI4

1 - 4 of 4 items

Close **Save**

Figure 638 – Group (Cont.)

- c. Select the filter and click Apply. The conditions under selected filter gets applied on the devices uploaded under selected change number and in the filter result all those devices are listed on which condition gets satisfied. Click on Save. Below alert is generated.

Alert

Group added successfully.

OK

Figure 639 – Group (Cont.)

d. The record gets listed in the grid.

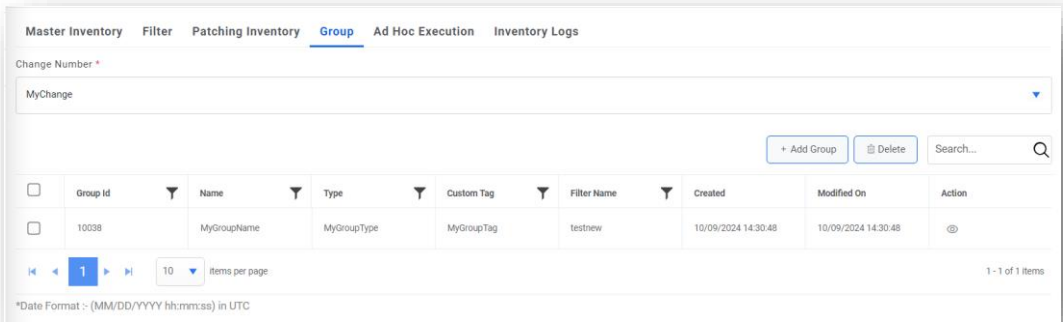


Figure 640 – Group (Cont.)

e. To view the group and what all devices are falling under that group, click on  under Action column. To delete any record, select the record and click on Delete button. Below confirmation box generates.

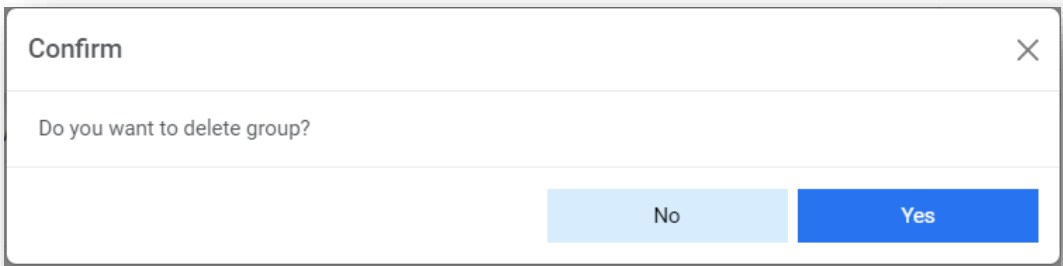


Figure 641 – Group (Cont.)

f. Click on yes to delete the record. An alert is generated.

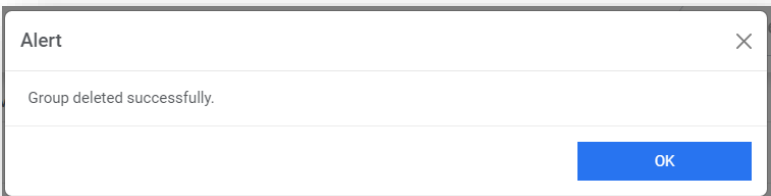


Figure 642 – Group (Cont.)

3.2.3.8.2.5 Ad Hoc Execution

This screen allows users to execute the ansible tower playbook on any change number. All the runbooks available under Ansible Tower/AWX playbook mapped with organization and change request task module will be available for ad hoc execution.

Master Inventory Filter Patching Inventory Group **Ad Hoc Execution** Inventory Logs

[+ Create](#) [View](#)

Runbook(s)

Search Runbook

MyPlaybook

Change Number *

Activity *

Task Number *

Time Zone *

Runbook Parameters

Parameter Name	Is Group?	Value	Action
No data available.			

10 items per page No items to display

Note: Only runbooks of Ansible Tower/AWX mapped with organization and module will appear in the list.

[Reset](#) [Schedule](#)

Figure 643 – Ad Hoc Execution

- Select any playbook to execute. Select the change number on which the playbook will be executed, select the activity either Post/Pre. Provide the task number. Select the Time Zone and based on it, select the Start Time at which the playbook will be executed.

Master Inventory Filter Patching Inventory Group **Ad Hoc Execution** Inventory Logs

[+ Create](#) [View](#)

Runbook(s)

Search Runbook

MyPlaybook

Change Number *

Activity *

Task Number *

Time Zone *

Start Time *

Runbook Parameters

Parameter Name	Is Group?	Value	Action
My_Param1	☐	My_value	Edit
My_Param2	☐	My_Value	Edit

5 items per page 1 - 2 of 2 items

Note: Only runbooks of Ansible Tower/AWX mapped with organization and module will appear in the list.

[Reset](#) [Schedule](#)

Figure 644 – Ad Hoc Execution (Cont.)

- b. To trigger the execution, it is mandatory to have at least one parameter of playbook as a group parameter. For that, edit the parameter and tick the Is Group checkbox and under Value column, select the group so that the playbook will be executed on all the devices that fall under that group.

Runbook Parameters

Parameter Name	Is Group?	Value	Action
My_Param1	☒	MyGroup	Save Cancel
My_Param2	☐	My_Value	

Figure 645 – Ad Hoc Execution (Cont.)

- c. Ater all fields have been entered, click on Schedule. An alert will be generated.

Alert

Ad hoc saved successfully.

OK

Figure 646 – Ad Hoc Execution (Cont.)

- d. User is redirected to the View tab of the page which lists all the ad hoc execution that have been scheduled.

Master InventoryFilterPatching InventoryGroupAd Hoc ExecutionInventory Logs

+ Create

View

Refresh

Search...

Schedule Id	Runbook Name	Change Number	Task Number	Activity	Time Zone	Run Date	Last Run Date	Status	Actions
1	MyPlaybook	MyChange	MyTask	Post	GMT	09-10-2024 08:45:58 PM	N/A	Queued	

1

10

Items per page

1 - 1 of 1 items

*Date Format -> (DD-MM-YYYY hh:mm:ss)

Figure 647 – Ad Hoc Execution (Cont.)

- e. To view the parameters of the scheduled ad hoc, click on  under Actions column.

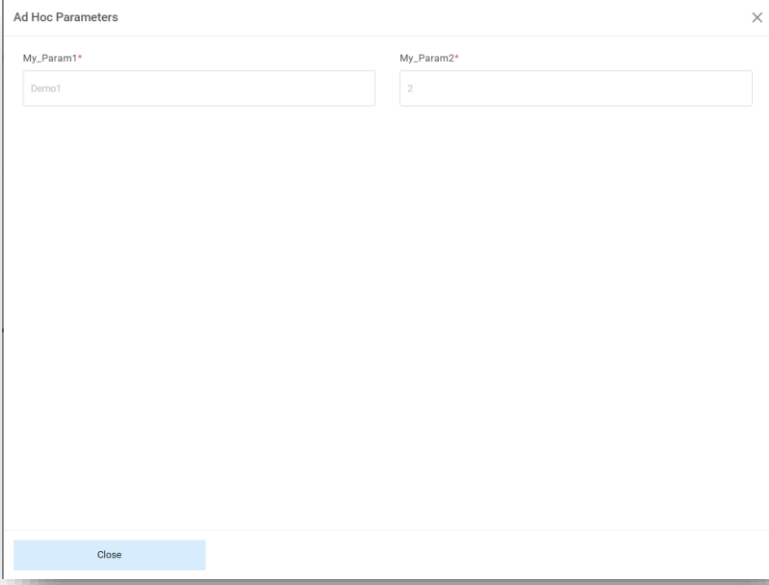
A dialog box titled "Ad Hoc Parameters" with a close button (X) in the top right corner. It contains two input fields: "My_Param1*" with the value "Demo1" and "My_Param2*" with the value "2". At the bottom left, there is a "Close" button.

Figure 648 – Ad Hoc Execution (Cont.)

- f. Click on refresh button to see the status update on any ad hoc scheduled. User can delete any ad hoc scheduled if it's in queued state. For that click on  under Actions column. A confirmation box will be generated.

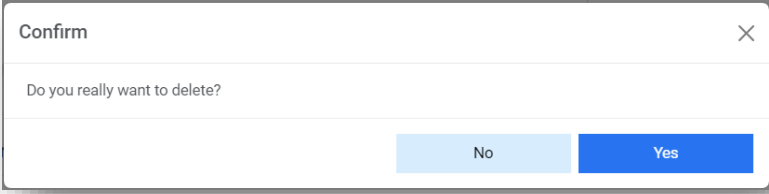
A dialog box titled "Confirm" with a close button (X) in the top right corner. It contains the text "Do you really want to delete?". At the bottom right, there are two buttons: "No" and "Yes".

Figure 649 – Ad Hoc Execution (Cont.)

- g. Click on yes and the below alert will be generated.

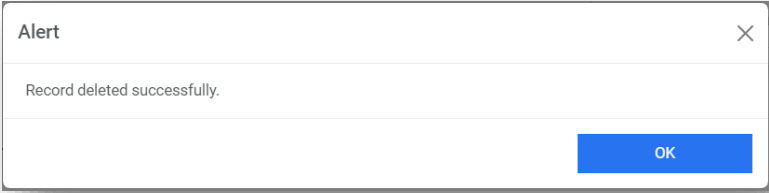
A dialog box titled "Alert" with a close button (X) in the top right corner. It contains the text "Record deleted successfully.". At the bottom right, there is an "OK" button.

Figure 650 – Ad Hoc Execution (Cont.)

3.2.3.8.2.6 Inventory Logs

This screen allows user to see all CI (Hostname) wise execution logs. The download button will be available once work starts, and log file gets created.

CI Name	Status	TaskNumber	ActivityCode	Action
MyCI1	Queued	MyTask1	Pre	Download
MyCI2	Failed	MyTask2	Post	Download
MyCI3	Queued	MyTask3	Post	Download
MyCI4	Successful	MyTask4	Pre	Download

Figure 651 – Ad Hoc Execution (Cont.)

To view the logs on any CI, click on Download button, a file with all the available logs will be downloaded.

3.3 Quick Links

User has an option to add a maximum of 6 menus for easy access. For all the menus that are frequently required can be added here so that they can be easily accessed from this menu.

1. For that, click on icon  corresponding to Quick Links option available at the bottom of the menu.

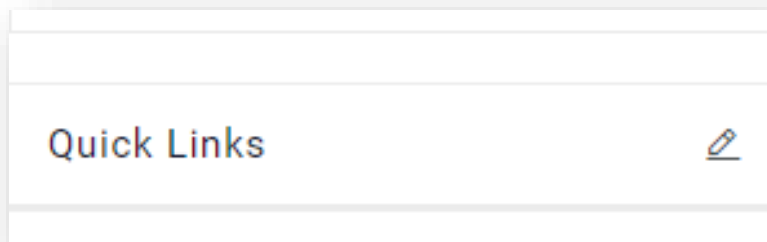


Figure 652 – Quick Links

The below popup will be added.

Figure 653 – Added to Quick Links

2. Users can select a maximum of 6 menus from the dropdown and click on Submit. Below alert will be generated.

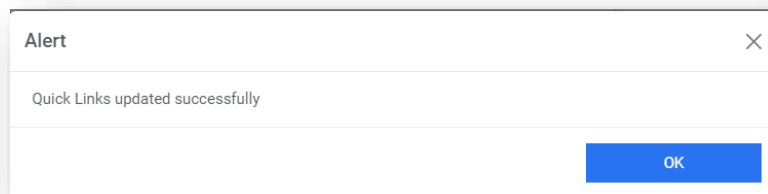


Figure 654 – Added to Quick Links

3. These menus then can be directly accessed without looking for them under menus.

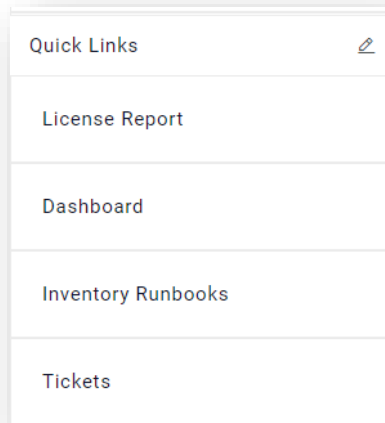


Figure 655 – Added to Quick Links

3.4 Help

This page helps the user to locate the necessary documents for better understanding of the tool as well as get the details of the components being running in iAutomate.

1. On the main menu bar, click on **Help** at the bottom of the menu. The below page appears:

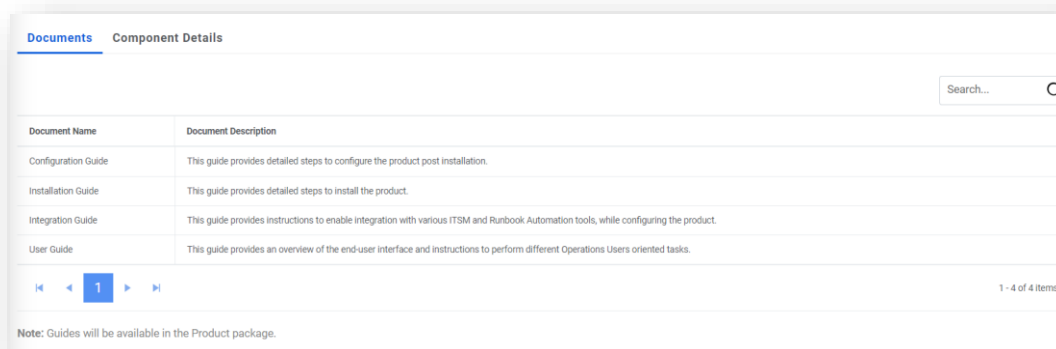
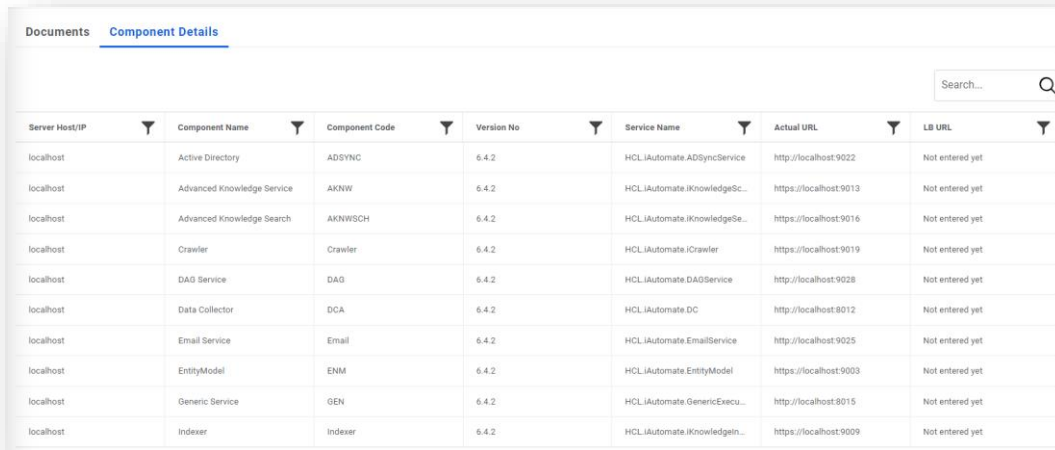


Figure 656- Help

It has two tabs:

- a. **Documents:** On this tab, it shows all the required documents needed for better understanding of iAutomate:
 - Configuration Guide
 - Installation Guide

- Integration Guide
 - User Guide
- b. **Component Details:** On this, it displays all the components running on iAutomate along with the server Host/IP on which component is running, the name of the component, component code, the version of iAutomate currently running, the service name with which component is installed, the actual URL along with port on which component is running and the LB URL, if exists, for the component.



Server Host/IP	Component Name	Component Code	Version No	Service Name	Actual URL	LB URL
localhost	Active Directory	ADSYNC	6.4.2	HCL iAutomate ADsyncService	http://localhost:9022	Not entered yet
localhost	Advanced Knowledge Service	AKNW	6.4.2	HCL iAutomate iKnowledgeSe...	https://localhost:9013	Not entered yet
localhost	Advanced Knowledge Search	AKNWSCH	6.4.2	HCL iAutomate iKnowledgeSe...	https://localhost:9016	Not entered yet
localhost	Crawler	Crawler	6.4.2	HCL iAutomate iCrawler	https://localhost:9019	Not entered yet
localhost	DAG Service	DAG	6.4.2	HCL iAutomate DAGService	http://localhost:9028	Not entered yet
localhost	Data Collector	DCA	6.4.2	HCL iAutomate DC	http://localhost:8012	Not entered yet
localhost	Email Service	Email	6.4.2	HCL iAutomate EmailService	http://localhost:9025	Not entered yet
localhost	EntityModel	ENM	6.4.2	HCL iAutomate EntityModel	https://localhost:9003	Not entered yet
localhost	Generic Service	GEN	6.4.2	HCL iAutomate GenericExecu...	http://localhost:8015	Not entered yet
localhost	Indexer	Indexer	6.4.2	HCL iAutomate iKnowledgegain...	https://localhost:9009	Not entered yet

Figure 657- Help (Cont.)

4 Support

To get support for this product, go to [Support](#).

For any additional queries, please reach out to us at iAuto-Product-Supp@hcl.com.

5 Appendix

5.1 List of Abbreviations

Table 8 – List of Abbreviations

Abbreviation	Expansion
AD	Active Directory
AI	Artificial Intelligence
ITOPS	IT Operations
ITSMS	IT Service Management System
KEDB	Known Error Database
SNOW	ServiceNow

HCLSoftware

hcltechsw.com