QLIK INSIGHT BOT PORTAL

A COMPREHENSIVE GUIDE

Contents

Introduction

Qlik Insight Bot Portal is designed with the purpose to provide one stop solution to configure and manage apps and users for Qlik Insight Bot. It enables customers to manage Qlik Sense application(s) for Qlik Insight Bot as well managing users and their access to Qlik Insight Bot. Other than that, it also provides other configuration options and settings which will help customers improve the control and administration of Qlik Insight Bot.

Qlik Insight Bot Management Console can be accessed using https://localhost:4435 on the server. Credentials are the same as used for Configuration Application.

To summarize, with Qlik Insight Bot portal, a user can –

- Manage apps
  - Train the bot
  - Load/refresh the metadata
  - Undeploy apps
  - Sync apps
- Configure apps
  - Choose only required dimensions and/or measures to be deployed.
  - Add tags (as synonyms) for chosen dimensions and/or measures.
  - Associate Date fields for specific measures.
  - Create Measure-Dimension(s) mappings to improve analytics.
  - Create rules using Rule Engine to customize the answer.
- Manage users
  - Manage Users and their Access to Qlik Insight Bot.
- Schedule a task
  - Create a task to schedule a bot training.

Tip: Best viewed and experienced in Google Chrome.

Qlik Sense applications

User will see the list of all Qlik Sense apps of the stream(s) user have configured in Qlik Insight Bot Configuration application. From this portal, a user can sync the apps, load/reload the metadata, train the bot or undeploy any app. Qlik Insight Bot will answer only for the apps which have been trained from the portal.

Sync

If user has published/unpublished any application(s) in the configured stream on Qlik Sense server, that list of application(s) will not be updated to the portal automatically. Click Sync to update the app list.

Applications

- **Application Name**
  Application name of published applications in the configured stream(s).
- **Stream**
  Display the Stream name of an application in which application is published.
- **Modified Date**
  Date on which any operations like modification in synonyms of dimension(s)/measures(s) or mappings, load/reload metadata are performed on an application.
- **Metadata Status**

  - If the data of an application are yet to pulled from Qlik Sense to local repository.

  - If the data of an application are successfully pulled from Qlik Sense to local repository.
- **Push Status**

  - If the data of an application are yet to pushed from local repository to NLU.

  - If the data of an application are successfully pushed from local repository to NLU.

- **Last Activity Status**

Queued - <task>	Application is queued to perform a task.
Loading	Metadata is being loaded from the Qlik Sense Application.
NLU Updating	Metadata is being updated to NLU for the application.
Reloading	Metadata of an application is reloading from the Qlik Sense Application.
Reloading (Triggered)	Metadata of an application is reloading automatically on Qlik Sense Application reload.
Undeploying	Application is being undeployed from Bot
Unloading	Metadata is being removing from the QIB storage
Loaded	Metadata loaded successfully from QS app.
NLU Updated	Metadata is updated in NLU successfully for requested app
Reloaded	Metadata of an application reloaded successfully from QS app.
Reloaded (Triggered)	Metadata of an application reloaded automatically successfully from QS app.
Undeployed	Application undeployed successfully from the QIB.
Unloaded	Metadata unloaded successfully from QIB.
Load Failed	Metadata loading from QS app has been failed.
NLU Update Failed	Metadata update to NLU has been failed.
Reload Failed	Metadata reload has been failed.
Reload Failed (Triggered)	Automatically reload of metadata has been failed.
Undeploy Failed	Application undeployment has been failed.
Unload Failed	Metadata removing from QIB storage has been failed

- **Portal Controls**

	Load metadata of an application.
	Reload metadata of an application.
	Push metadata of an application to update NLU.
	Un-deploy an application.
	Backup metadata of an application.
	Restore metadata of an application.
	Refresh application list.
Sync	Sync the application list with configured Qlik Sense server.
Train	Train bot only for those application of which metadata has been pushed successfully.

Load metadata of an application

Qlik Insight Bot stores the details of all measures and dimensions as a metadata, which will help Qlik Insight Bot to understand the questions better. The metadata must be loaded before training the bot. User can also add (or remove) synonyms of measure(s) or dimension(s). Adding the synonyms helps Qlik Insight Bot to identify the right measure/dimension whenever user asks questions. Also, user can add mappings of measure-dimensions after loading the metadata.
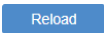
Click ⬇ to load the metadata of an application.

User can view and manage dimensions/measures/mappings of an application. Click the application name, once the metadata of the application has been loaded successfully.
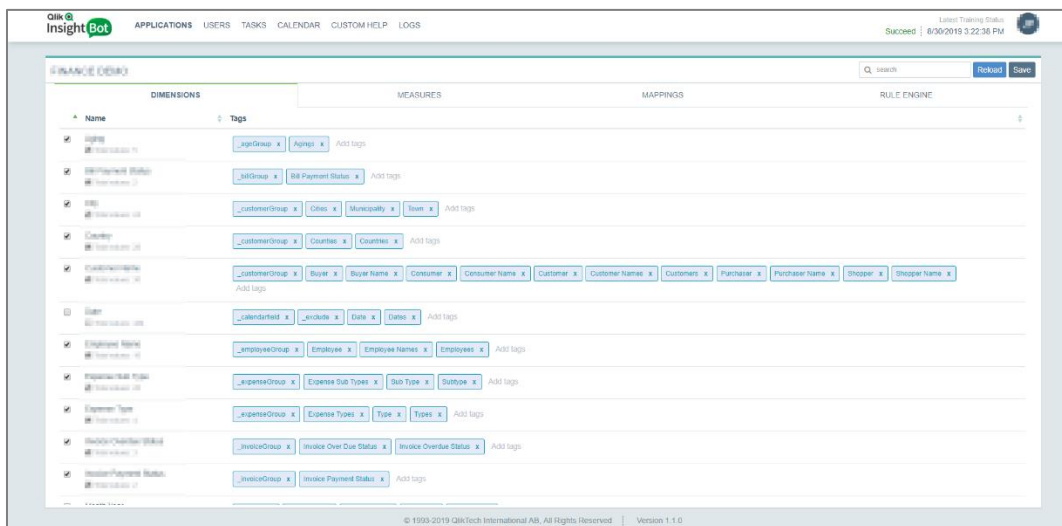
Dimensions

User can add tags which will act as a synonym of a dimension while doing conversation with Qlik Insight Bot. Adding more relevant synonyms will help Qlik Insight Bot to understand user request more efficiently.

E.g. the end user may refer Sales Person as Agent, Sales Rep, Sales Representative, or Salesman etc.

User can also exclude/include dimension(s) or dimension values using check boxes. Excluding dimension will not push dimension and its values as well and excluding dimension values will push dimension only i.e. it will not push dimension values.

If any new dimension(s) are added to the Qlik Sense application after the metadata has already been loaded on Portal, user can have them on the list by reloading the dimensions list. Click Reload to load newly added dimension(s) to the list. Save the changes by clicking Save
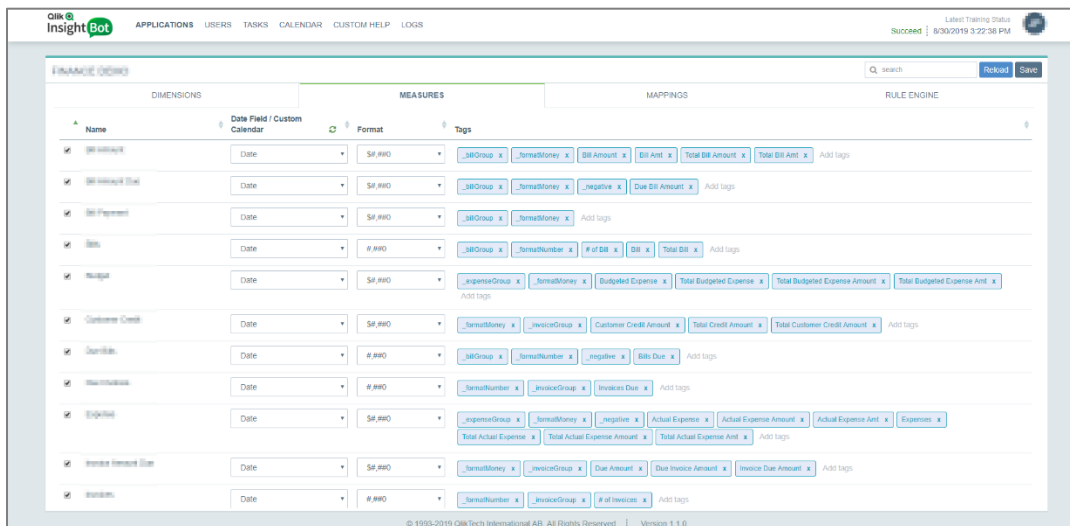
Measures

User can add tags which will act as a synonym of that measure while doing conversation with Qlik Insight Bot. Adding more relevant synonyms will help Qlik Insight Bot to understand user request more efficiently.

E.g. the end user may refer Total Employees as Headcount, Employee count, Employees, Users etc.

For each measure, you can associate a separate date field. The default date field will be the date field for which there has been added "_calendarfield" tag. This will help Qlik Insight Bot to apply filter on correct date field. E.g. For a measure "Total Leads", you may associate it with the date field "Lead Created Date" while "Total Oppty" may associated with "Oppty Created Date".

Format will help Qlik Insight Bot to display value of Measure in a proper and desired format. User can also exclude/include measures(s) using check boxes.

If any new measure(s) are been added to the Qlik Sense application after the metadata has already been loaded on Portal, user can have them on the list by reloading the measures list. Click Reload to load newly added measure(s) to the list. Save the changes by clicking Save

Below is the list of supported formats for measure by Qlik Insight Bot.

| Money	Number	Percent
$#,##0	#,##0	#,##0%
$#,##0.0	#,##0.0	#,##0.0%
$#,##0.00	#,##0.00	#,##0.00%
$#,##0;($#,##0)		#,##0%;(#,##0%)
$#,##0.0;($#,##0.0)		#,##0.0%;(#,##0.0%)
$#,##0.00;($#,##0.00)		#,##0.00%;(#,##0.00%)
£#,##0		
£#,##0.0		
£#,##0.00		
£#,##0;(£#,##0)		
£#,##0.0;(£#,##0.0)		
£#,##0.00;(£#,##0.00)		

Mappings

Mappings are measure-dimension(s) pair which performs a key role in generating advanced narratives, showing surprising facts around a measure/dimension and to suggest relevant measures according the user question.

When user loads an app, several mappings will be generated automatically based on the charts available in QS app.

E.g. let's assume the QS app has two charts - 1) Sales by City 2) sales by Product. Hence, the resultant mappings will be 1) Sales-City 2) Sales-Product.

User can generate such more mappings from the MAPPINGS tab. Save all changes by clicking Save .
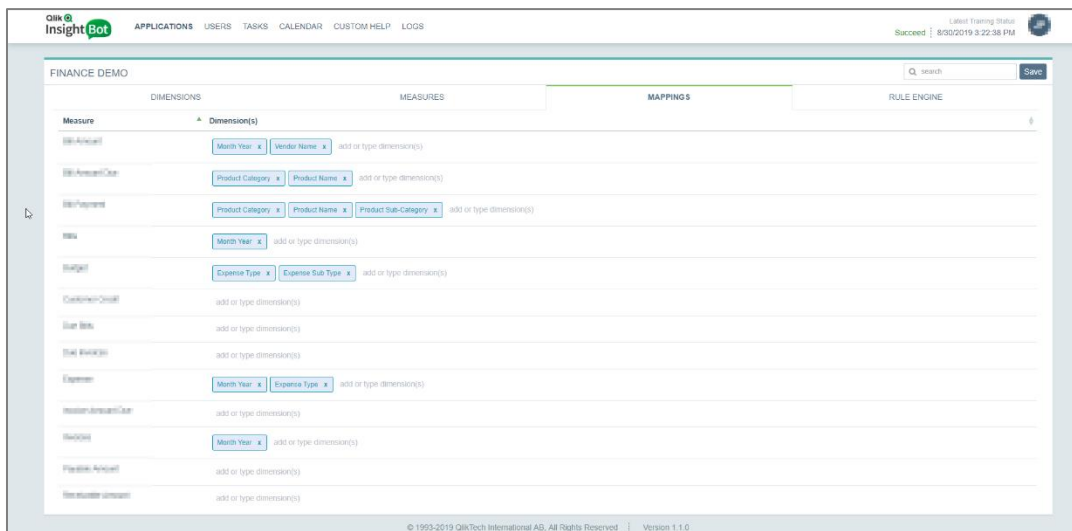
Rule Engine

With the help of the Rule Engine user can create tailored responses. User can create different types of rules by why user can have total control on the responses Qlik Insight Bot going serve to the other users of user's organization.

Create a Rule

1. Click Add Rule button on the top right corner. Select the type of rule you want to set, which are as below -
   a. Limit
   b. Measures
   c. Dimensions
   d. Filter Dimensions

2. After selecting the type, click + to set custom answer and other conditions.
   You can set the custom answer text in the textbox provided. The custom answer will contain two types of text –
   a) A dynamic text e.g. the measure value, dimension value or a filter value etc.
   b) A static text which will form the rest of the statement.

Adding a dynamic text to the response requires a certain syntax to be followed, as shown in a table below.

Syntax	Description
@[Measure]	To display Measure value. E.g. Here is the total sales @[Total Sales].
#[Dimension]	To display Dimension value. You can use list to display dimension value in a list format. E.g. Categories wise Orders: <list>#[Category] - @[Orders]</list>
.[Dimension Value]	To get a response of a measure for particular value of a dimension. E.g. Total sales of New York is @[Total Sales]#[City].[New York] *Note: ".[Dimension Value]" must be preceded by "#[Dimension].*
.[Time Period]	To get a response of a measure by a time period. E.g. Sales for current year is @[Total Sales].[Current Year]. *Note: ".[Time Period] must be preceded by @[Measure]".*
$FilterValue	To get a response for a particular dimension value. E.g. For $FilterValue, Total Sales is @[Total Sales] and Gross Margin is @[Gross Margin].
<list>………</list>	To display values as a list. e.g. Sales by Store: <list> @[Sales]- #[Store]</list>
Break Line (Enter)	To add line break.

Note: All Keywords are case sensitive. Use the Tab key to change Dimension or Measure name after typing @[or #[.

Measures rule

If you require Qlik Insight Bot to give a tailor-made response when a question regarding a specific measure is asked, you need to set a Measure rule. Along with tailor-made message, you can also add a specific type of chart i.e. bar chart, pie chart etc. to the response, having a measure and a dimension of importance.

<u>E.g.</u> When you ask about "sales" and in a response you want Qlik Insight Bot to provide a custom message containing sales and expense. Also, you want to show a line chart of sales by month year.

Now, whenever any user will ask regarding the "sales", bot should respond with a custom answer.

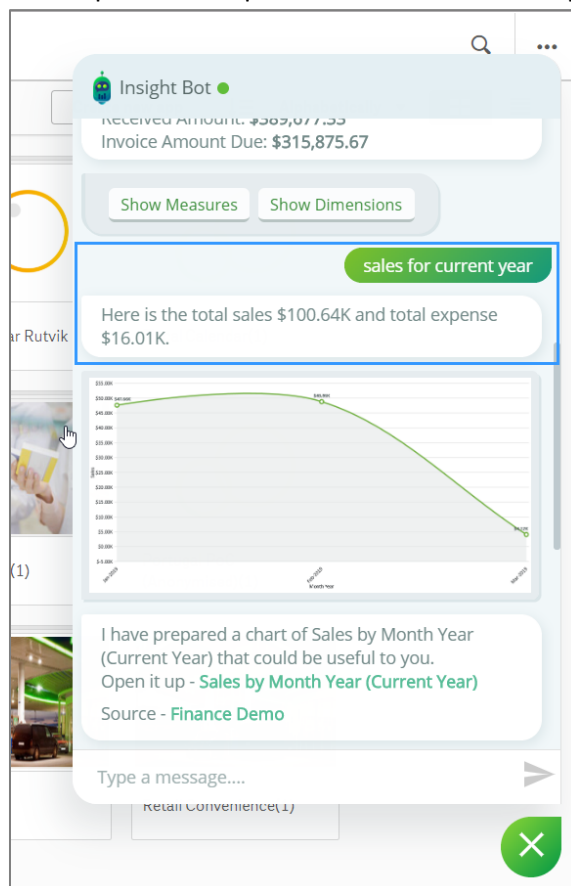**Adding Date Periods for custom answers**

What if you want to bind a measure to some selected date periods i.e. Last Quarter, MTD, Today etc.? Meaning, you want Qlik Insight Bot to provide a custom answer to the user only when user asks about a measure for a particular date period.

Qlik Insight Bot's Rule Engine allows you to set specific date periods for any type of rule. To do so, check "Allow Date Periods" and select the period(s) of your choice.

E.g. You want a custom answer for a sales for current date periods only and no other date periods.
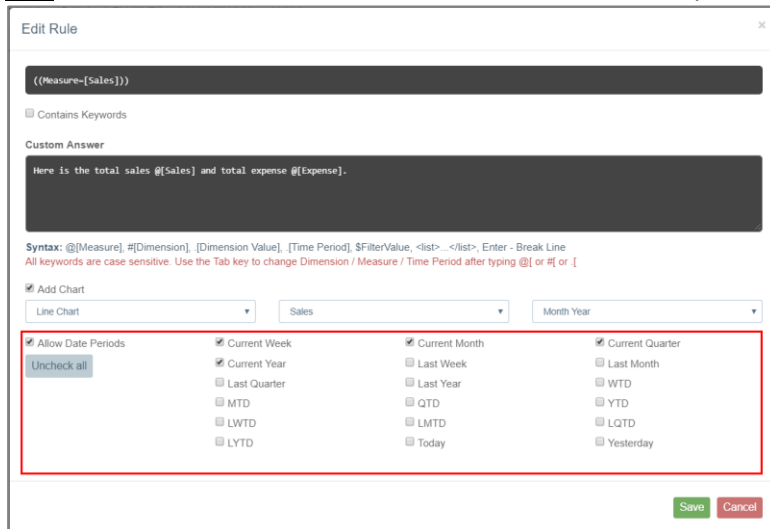
The response for a question with allowed date period –

The response for a question with other date period –

Setting a custom answer for targeted Keyword(s)

You have seen how you can leverage the capabilities of the Rule Engine to set custom answers. What if you want to get a custom answer for measure (or any other rule type) when you ask about it with a combination of a specific keyword?

E.g. Tell me the **sales summary**. Here, "sales" is a measure and "summary" is keyword.

To which the bot will respond –

Dimensions rule

The dimension type rule works same as a measure rule. Set the dimension rule when you want a custom-made answer from the bot specific to a dimension.

E.g. You want to see sales by cities only by saying the dimension name (city) and nothing else. The rule would be –

The bot should respond like this upon asking about category -
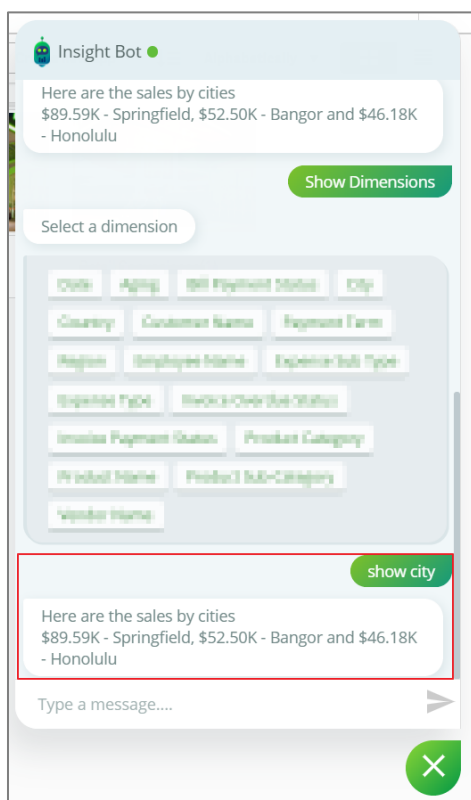
Filter Dimensions rule

Set the Filter Dimension rule when you want a custom answer for a dimension value against any measure.

E.g. You want the bot to show sales, expense and budget details based on the dimension value.

Below should be the response when a user will ask about Tobacco detail –

Limit rule

Set the Limit rule whenever you want a custom answer for questions asking for a top or bottom list. i.e. Show me top states by sales. The limit rule must include at least one measure or dimension.

E.g. When user asks about top products, you want the bot to reply with top products by sales.

When you ask let's say Top products by sales, the output would be –

Edit a Rule

User can edit any exist rule by clicking next to rule.

Delete a Rule

User can edit any exist rule by clicking next to rule.

Push

If you have made any change in Measure(s) or Dimension(s), click ➤ to push the metadata to the NLU.

Train

Once you pushed metadata of an application(s), click Train to train the bot. This will train the bot only for those application of which metadata has been pushed successfully.

> If pushing metadata or training bot is taking more than 30 minutes and showing status like "*NLU Update Failed*" or "*Training Failed*", follow the bellow steps to change the request timeout.
>
> 1. Go to "*C:\Program Files (x86)\Qlik Insight Bot\Qlik Insight Bot Deployment Engine Service*".
> 2. Open **Qlik Insight Bot Deployment Engine Service.exe.config** file in text editor.
> 3. Find the tag for **RequestTimeout** under **appsettings** tag.
> 4. Change the value for **RequestTimeout**.
>
> *Note: The value for time is in milliseconds.*

Backup metadata of an application

Qlik Insight Bot allows you to backup the details of all measures, dimensions, Mapping and/or Rule(s) with a single click. The same can be used again when user want to train the app which is being re-deployed. With a single click all backed-up information of an app will be restored.

Clicking ☁ will ask you to select All/Dimension/Measure/Mappings/ Rules to either take backup of everything or the selected one. Click Backup after performing the selections to take a Backup.

```
Backup Metadata                                    ×

  ☐ All        ☐ Dimensions    ☐ Measures    ☐ Mappings
               ☐ Rules

                                        Backup  Cancel
```
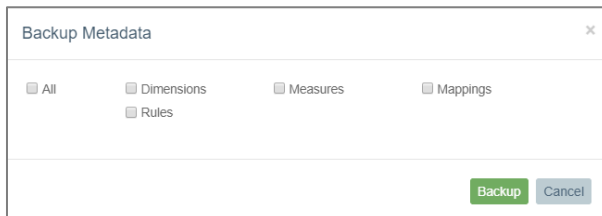
Restore metadata of an application
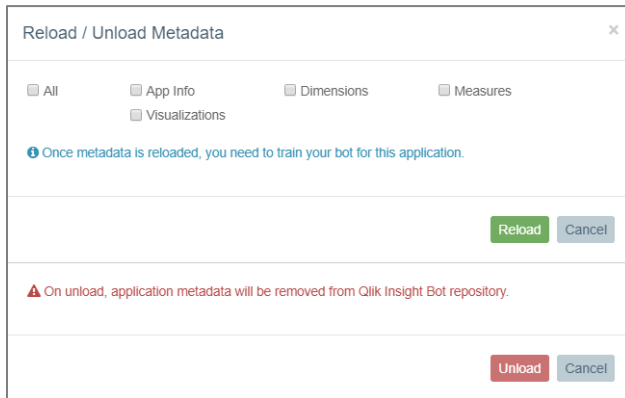
Qlik Insight Bot allows you to restore details of all measures, dimensions, Mapping and/or Rule(s) of an application with a single click. Clicking ☐ will ask you to upload the JSON file. Select the file and click Upload to upload the file.

```
Restore Metadata                                   ×

Are you sure you want to restore Finance Demo app metadata?

Upload File    Choose File  No file chosen

Note: It would replace your existing metadata.

                                        Upload  Cancel
```
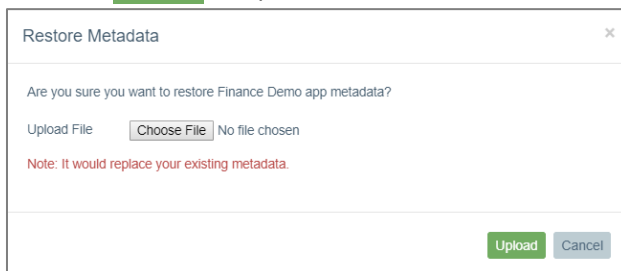
Reload metadata of an application

If user have made any changes in measure(s) or dimension(s) in Qlik Sense application or you changed the Qlik Sense application name and you want Qlik Insight Bot to give an answer related to those application information, measure(s) or dimenison(s), user need to reload that metadata of an application. Click [↻] to reload the metadata.

If you have not pushed metadata for an application, it will give you an option to reload App Info, Dimensions, Measures and Visualizations along with an option to unload the metadata.

If you have pushed metadata for an application already, it will give you an option to reload App Info, Dimension, Measures and Visualization only.

Please note that reload button on Application details page i.e. [🔍 search | Reload | Save] will do the same operation.

Undeploy an application

If user wants to remove any app from Qlik Insight Bot, user have to undeploy the same. Click [🔧] to undeploy the app. Once, the last activity status changes to "Undeployed", it is needed to train the bot again.
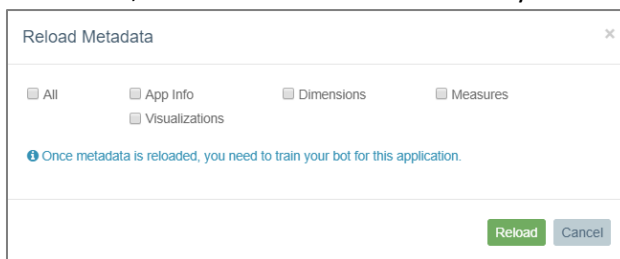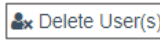
Refresh List
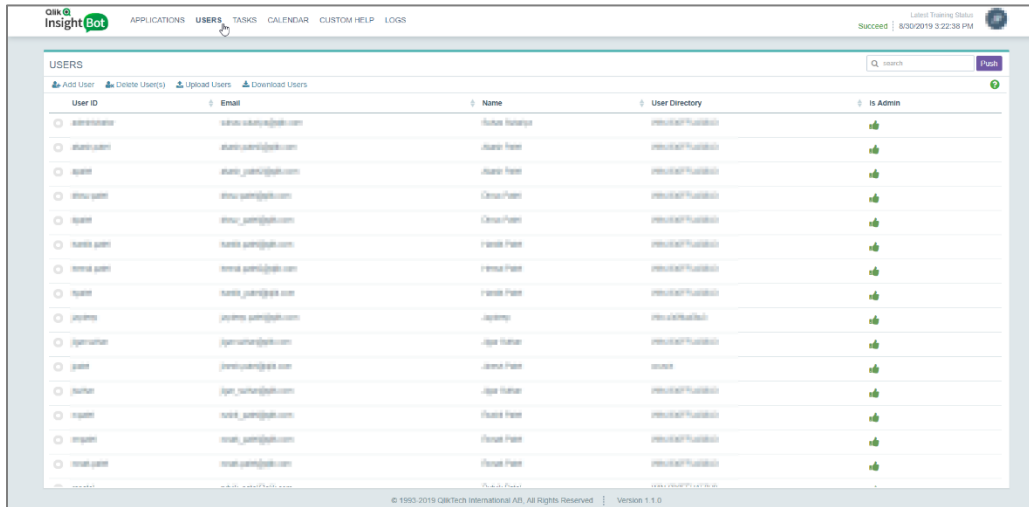
When user is training the bot or undeploying any application or user have made changes in synonyms of dimension(s)/measure(s) or user have changed measure-dimension mapping(s), user can check the status of process by clicking [↻] .

Users

Here, portal admin can add new user(s), edit details and rights of user(s) or delete the existing user(s). User can download users list of configured Qlik Sense Server, active directory and configured workspace of Slack. Also, portal admin can add multiple users simultaneously.

- **Controls**

Push	Push updated user list to NLU. This will help NLU to identify the name and email of a user.
(edit icon)	Edit existing user details.
Add User	Add new user details.
Delete User(s)	Delete users(s).
Upload Users	Upload user(s) list.
Download Users	Download user(s) list.

Click (help icon) to get more information about users.
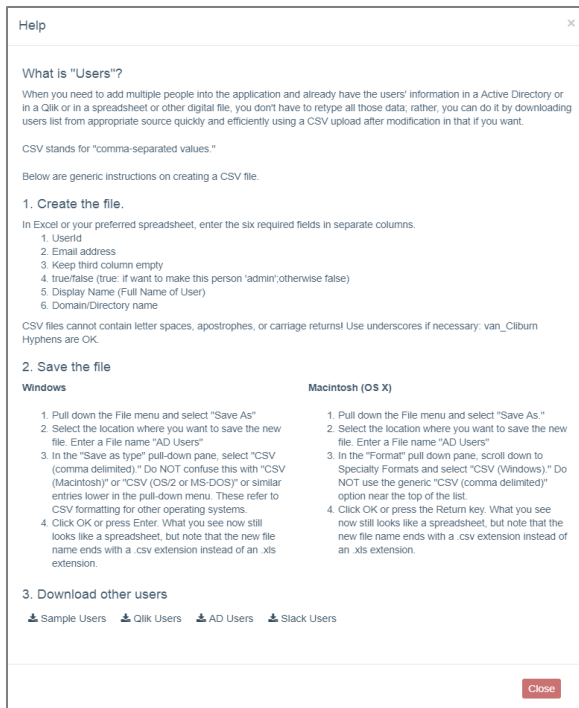
If you want to get list of all users from Qlik Sense or Active Directory or Slack, there is an option to download the same under "Help" of Users as shown in above image.

Below are the options under Download other users:

Sample Users: This is to download the zip file containing a sample csv file and a readme.txt (explains the file format).

Qlik users: This is to download the list of all users of configured Qlik Sense server. You can use this file to import directly to add multiple users at times. Please make sure Email Id to users are bound.

AD users: This is to download the users from Active Directory. Below parameters needs to be provided for download AD Users.

Path	Domain Path of a AD. Ex. LDAP://xxxxx
Username	Domain Admin User.
Password	Password of Admin User

Slack users: This is to download the list of all users from slack. This will work only when slack channel is configured from Configuration Application.

Note:
1. *Before uploading users make sure that users list file must match with the Sample Users file format.*
2. *If you import the Users file, it will replace the existing users with the new one. You can find the old list of users from archive folder at C://ProgramData/Qlik Insight Bot/Qlik/Archive.*

Add Users

User can add users by clicking

Enter below Details to add a new user.

User ID	The user ID using which user are used login in Qlik Hub/QMC. e.g. jdoe
User Directory	User directory of a user. e.g. Domain
Email	Email Id of user. e.g. jdoe@domail.com
Name	User's name. e.g. John Doe
Is Admin	To create new user as an Admin, check this.
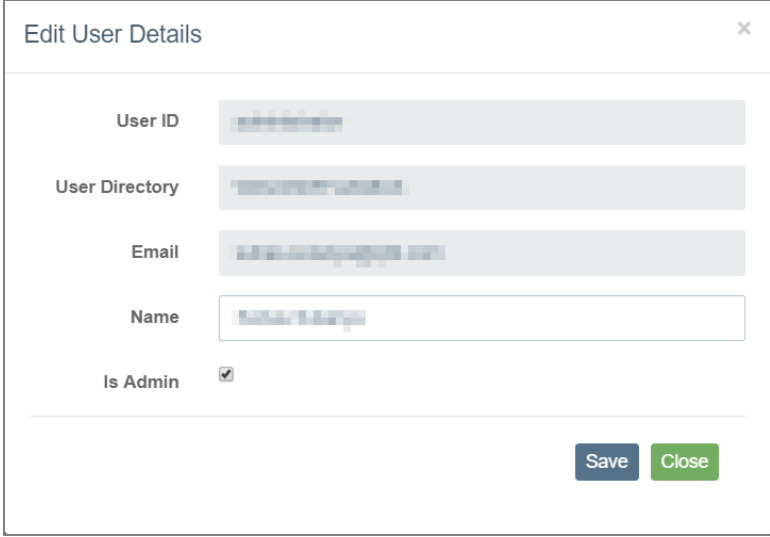
What is "Is Admin"?

An admin user can refresh the bot by asking "Refresh" in chat box. This will work as a command which will remove all users' connections to Qlik Sense application and hence the context.

If a non-admin user wants to clear his connection and context to the application, he/she can ask "Disconnect app" or "Disconnect application".

Edit User

To modify existing user details, click ✏️
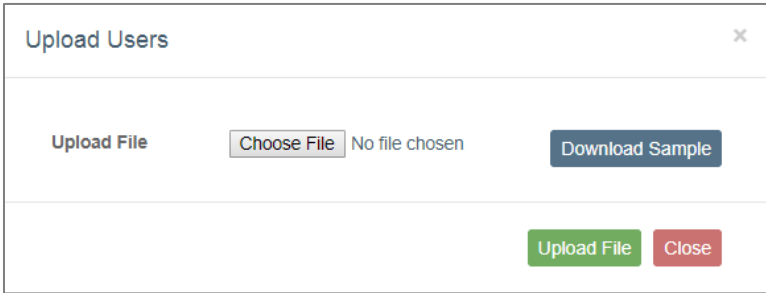
Delete User

To delete user(s) check mark the checkbox(s) beside the user ID(s), click **⚫ Delete User(s)**

Upload Users

To upload users, click **⬆ Upload Users**. Select the **CSV** file which contains users list, or user can also download the sample and edit it, select **CSV** file, and click **Upload File**

Download Users

Click **⬇ Download Users** to download detail of all users.

Push Users

Once user makes any changes to the users list, user need to train the NLU. This is required to help Qlik Insight Bot to share insights to others via email just by telling the name of a person to the bot. Qlik Insight Bot will identify the appropriate email for the person.

User can use **Push** button to push the updated users list to the NLU for update.

Tasks

Here, user can schedule the bot training to be done automatically. The scheduling module is one similar to QMC task scheduler. The user can set the time zone, date/time of task starts and ends and recurring frequency of a task. Also, user can disable particular task when not necessary.

- **Controls**

  | Add Task | Add new task. |

  Edit existing task details.

  Delete task.

Task Scheduler ✕

☑ Enabled

| Timezone | Select Timezone ▼ |

| Start Date | 05/05/2019 | 05:59 PM |

| Recurring Frequency | Hourly ▼ |

| Recurring Hour(s) | 0 |

| Recurring Minute(s) | 0 |

| End Date | 01/01/0001 | 12:00 AM |

☑ Infinite

Save

There are different recurring frequencies for task to be executed.

1. **Once**

   This will allow task to be executed only once.

Recurring Frequency	Once ▾

2. **Hourly**

   This will allow the task to be executed after every set hours/minute.

   E.g. If you have set 2 as recurring hours and 30 as recurring minutes, the task will be executed after every 2 and a half hours from task start date/time.

Recurring Frequency	Hourly ▾
Recurring Hour(s)	0
Recurring Minute(s)	0

3. **Daily**

   This will allow the task to be executed after every day(s) given.

   E.g. If you have set 4 as recurring days, the task will be executed after every 4 days from task start date.

Recurring Frequency	Daily ▾
Recurring Day(s)	0

4. **Weekly**

   This will allow the task to be executed after every week(s) given. You can also set the day of a week on which the task should be executed.

   E.g. If you set 3 as recurring weeks and Monday as recurring day, the task will be executed every 3 weeks on upcoming Monday from task start date.

Recurring Frequency	Weekly ▾
Recurring Week(s)	0
Recurring Day	Monday ▾

5. **Monthly**

   This will allow the task to be executed every month on a particular day.

   E.g. If you set 2 as recurring date, the task will be executed on every 2nd date of a month from task start date.

Recurring Frequency	Monthly ▾
Recurring Date	0

Custom Calendar

Qlik Insight Bot's custom calendar allows you to apply date selections based on the fiscal calendar available in your Qlik Sense app. From Management Console you can map various time dimensions i.e. Year, Quarter, Period, Week with the corresponding fiscal date fields. Once mapped, you can assign the custom calendar to the measures of your choice. The custom calendar can be created per application for which the data has been loaded.

Click **Add Calendar** to create a new custom calendar.
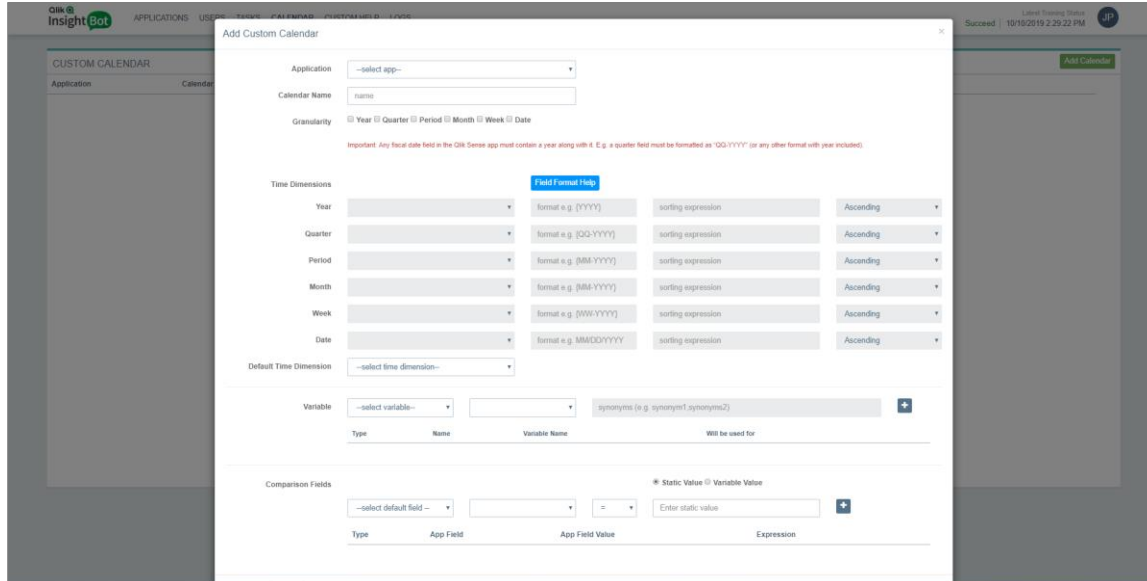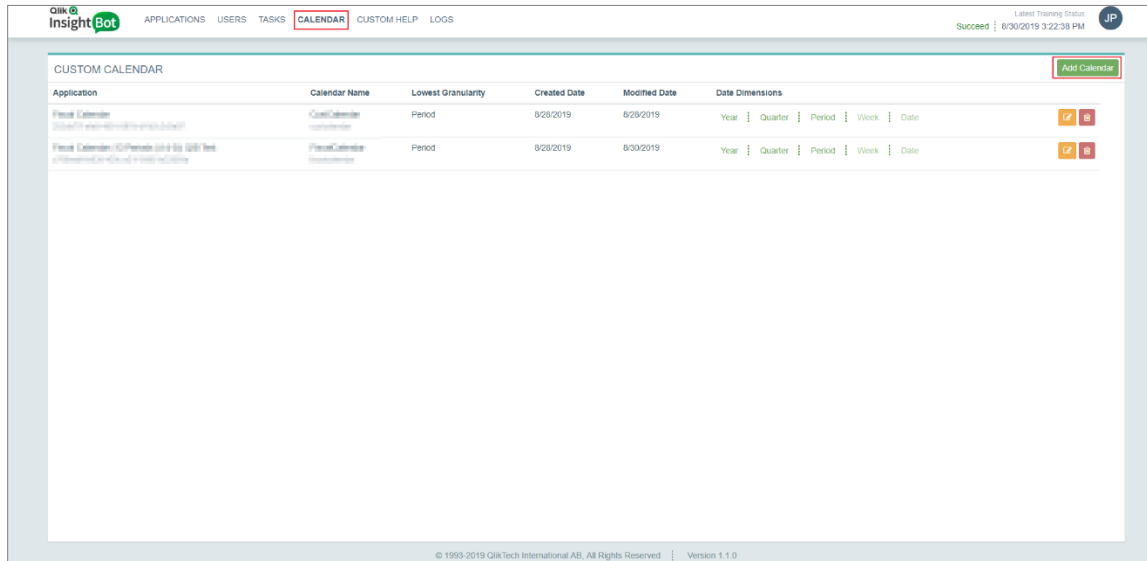
1. **Application**
   Select application for which you want to configure the custom calendar.
2. **Calendar Name**
   Appropriate name for the calendar. This calendar name will be added to the list of **Date Field** in Measures tab of an app which you have selected E.g. Fiscal Calendar
3. **Granularity**
   Select the appropriate date fields (to be chosen from – Year, Quarter, Period, Month, Week, Date) from the list based on the fields available in the Qlik Sense app.

4. Time Dimensions

The relevant time dimension(s) will be enabled for further configuration based on the granularity value selected.
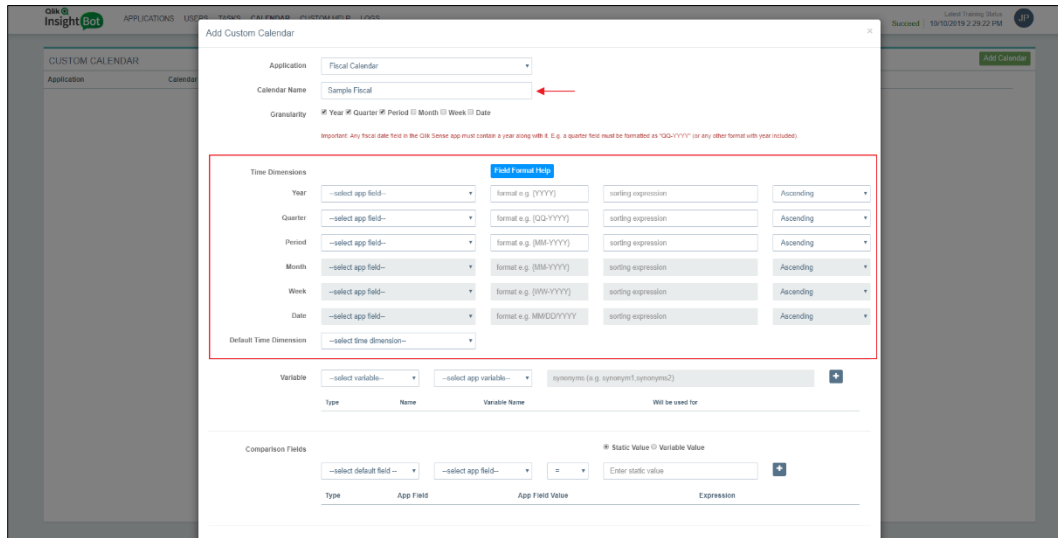
Below mentioned items are required to configure the selected time dimension.

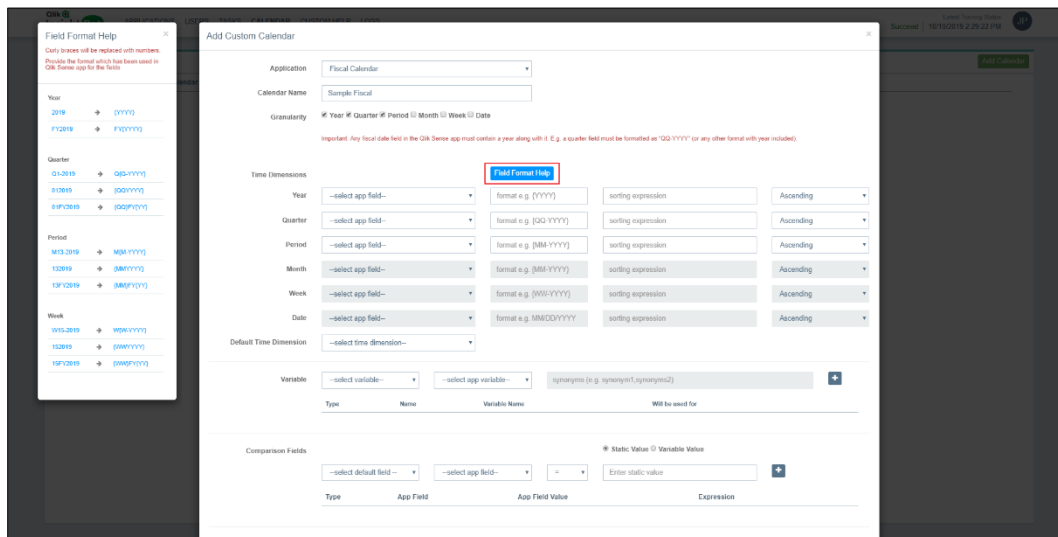| Field name	Select appropriate field of QS application for the selected time dimension.
Format	Type the exact format which is already assigned to the above selected field in the Qlik Sense app. *NOTE: Click Field Format Help button to know how to give format.*
Sorting Expression	Add appropriate sorting expression (This is similar to applying a sorting expression in the Qlik Sense app). This is optional.
Sorting Order	Select appropriate sorting order. This is optional.

Any fiscal date field in the Qlik Sense app must contain a year along with it. E.g. a quarter field must be formatted as "QQ-YYYY" (or any other format with year included).

5. **Default Time Dimension**

On asking a question containing only measure (ex. Show me sales) shows a chart of measure by month-year. In the case of custom/fiscal calendar, one can set the time dimension field on which measure by time dimension chart will be created. Ex. If default time dimension is set to **Period** and on asking "Show me Sales", it will show chart of Sales by Period (field assigned to Period).

6. **Variable**

This section allows you to form a response for the questions asking a measure value for a *current/previous time period* i.e. Show me the sales for current quarter.

This can be done by mapping a variable of Qlik Sense app with the QIB variable (Refer "Preparing Bot Compatible Qlik Sense application" document).
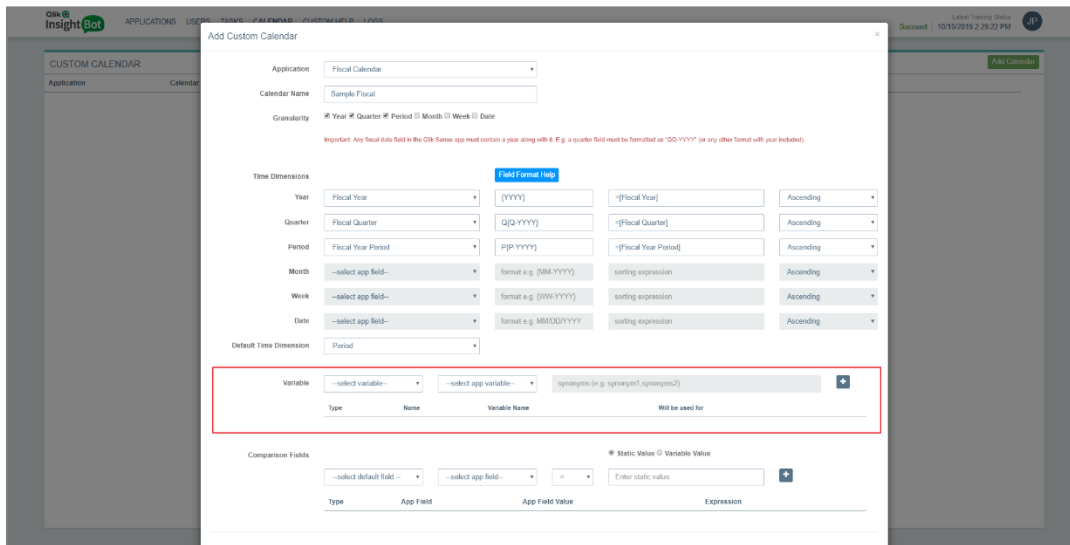
Select the variable from the variable drop-down list for the custom dates based on the granularity level. Select appropriate app variable from second dropdown list.

Variable name	Select a variable for a specific time period. Set variables only for selected Time Dimensions.
App variable	Select the relevant Qlik Sense app variable. *NOTE: All variables of Qlik Sense app will be listed.*
Synonyms	User can add relevant synonyms for the same. Synonyms must be comma separated.
✚	Click to add variable.

7. **Comparison Fields**

This section allows you to form a response for the questions asking for period over period comparison i.e. YoY Sales , MoM Sales, QoQ Sales, etc. Also, QIB will show the buttons for period over period comparison after each answer asked for a measure.

This can be done by mapping appropriate values of 'to date' fields.

Default Field	Select a field for a specific time period.
App Field	Select the relevant Qlik Sense app field. *NOTE: All fields of Qlik Sense app will be listed.*
Operator	It could be equal to or not equal.
Enter Static value/Variable	Add the appropriate value of field for the comparison condition. It can be a static value or a variable. i.e. 1 or vYTD
✚	Click to add mapping.

9. **Measures**

   Select measure(s) for which you want the bot to answer with respect to custom calendar.

10. **Refresh App Fields & Variables**

   Click [Refresh App Fields & Variables] to reflect any changes made in QS application field(s) and variable(s).

Click [Save] to save all above configurations.

Custom Help

Custom Help let you insert the customized response whenever user ask for the help specific to the app. You can now set the application wise custom help text. If you do not want to set any custom help for any application, QIB will show the default custom help. You can also change the default custom help displayed as **General** in Management Console.

Click **Add Custom Help** to set customized help text.
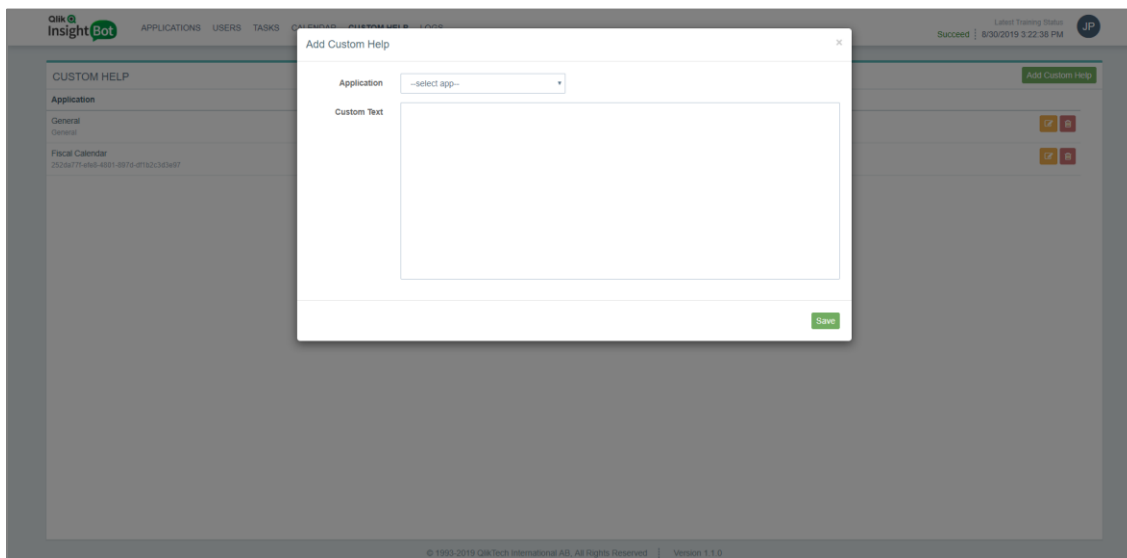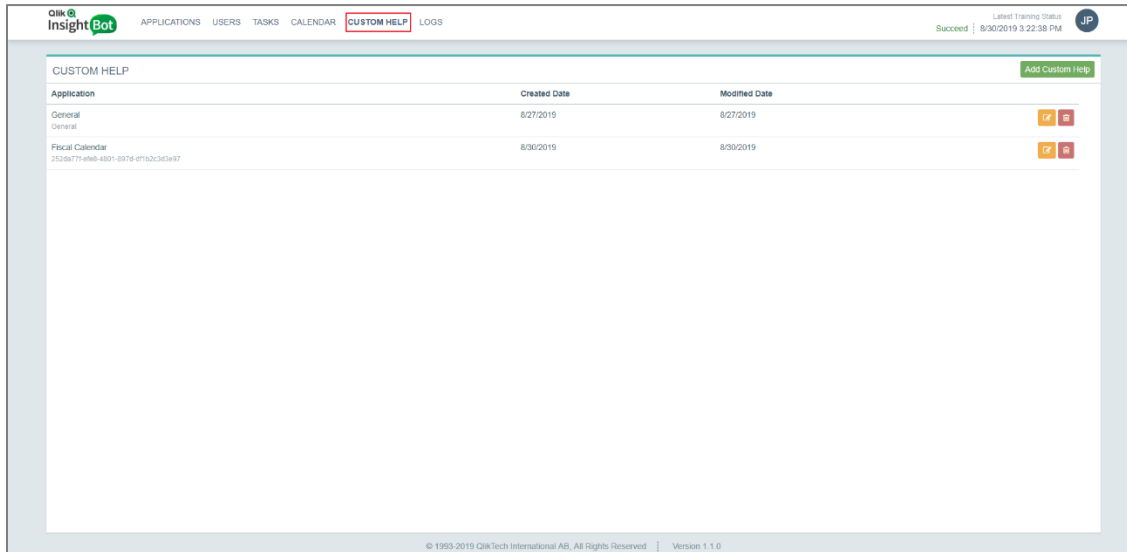
Application	Select application for which you want to add customized text.
Custom text	Add customized text for selected application.

Click **Save** to save the customized help text.

Logs

A user can also see the activity logs of an application. The logs show details of which events, at what time have been occurred to the application i.e. when the app data was loaded/reloaded, when the app was queued to be pushed, when the app was pushed etc. This also shows a descriptive message or an error message (in any) associated with the event.

--- EOD ---