AMBIENCE 2025 SETUP GUIDE

ELIXIR TECHNOLOGY PTE LTD

URL: www.elixirtech.com Email: info@elixirtech.com

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Ambience 2025 Setup Guide

This document describes the setup of the Ambience 2025 software and its pre-requisites, as well as creating a simple dashboard.

Refer to the following websites for more information:

- https://docs.elixirtech.com/Ambience/2025.0/index.html
- www.elixirtech.com

1. Pre-requisites

The following are the pre-requisites for Ambience software suite:

- Java 17 or above (including OpenJDK)
- MongoDB 4.4.x or above (including MongoDB Atlas)
- Ambience 2025

2. Setup Ambience

2.1. Installation

2.1.1. Install Dependencies – Java, MongoDB

Install Java 17

You need to download and install any Java 17 (including Open JDK) or higher for Ambience.

Install MongoDB

MongoDB is a document database with the scalability and flexibility that you want with the querying and indexing that you need. It uses JSON-like documents with schema.

Below are the steps to install MongoDB:

1. Go to https://www.mongodb.com/download-center/community website.
2. In the webpage, select MongoDB Community Server and select the following:
   - MongoDB 4.4.x or above (latest release is recommended)
   - Desired OS
   - Desired package

   Ambience also supports MongoDB Atlas.
3. Click on the “Download” button.
4. Installing the package:
   a. For MSI package, use the following steps:
      i. Go to the directory where you downloaded the MongoDB installer (*.msi* file). By default, this is your downloads directory.
      ii. Double click on the *.msi* file and follow the instructions in the installer wizard.
   b. For ZIP package, use the following steps:
      i. Extract the zip file into the desired location.
      ii. Create a folder “data/db” in the root directory of the location. This directory is required to save the database records.

   You may be prompted to install MongoDB Compass. It is an optional application.
5. To run MongoDB:
   - From Windows Explorer/File Explorer, go to the “../MongoDB\Server/4.x/bin/” directory and double-click on *mongod.exe*.
     Depending on the OS, a command window will appear and may close after a few seconds.
   - For terminal window or command prompt for Windows, navigate to the “../MongoDB\Server/4.x/bin/” directory and execute the command “`mongod.exe`”.

   The MongoDB server runs at the default port 27017.

For further details and advice on MongoDB installation, please refer to the MongoDB website.

2.1.2. Install Ambience

Contact our representatives for the Ambience suite. The Ambience comes in a form of a zip file. By default, the Ambience comes with a licence for a minimal set of modules that allows the administrator to log in and perform the basic setup. To acquire a larger set of modules, you will need to a new licence.

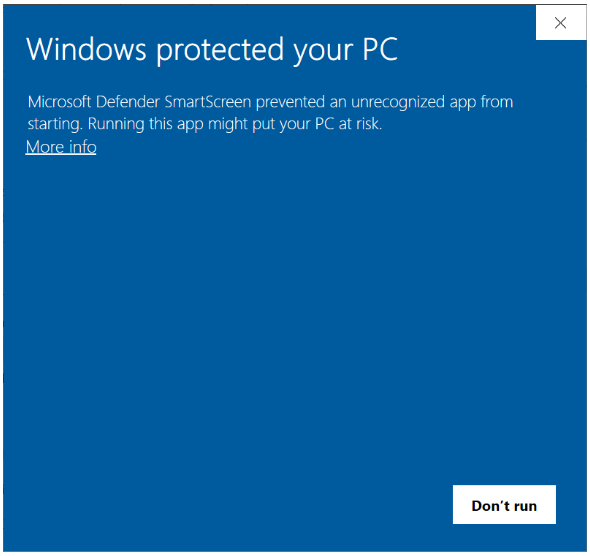
To install Ambience, extract the zip file to the desired location.

2.2. Ambience

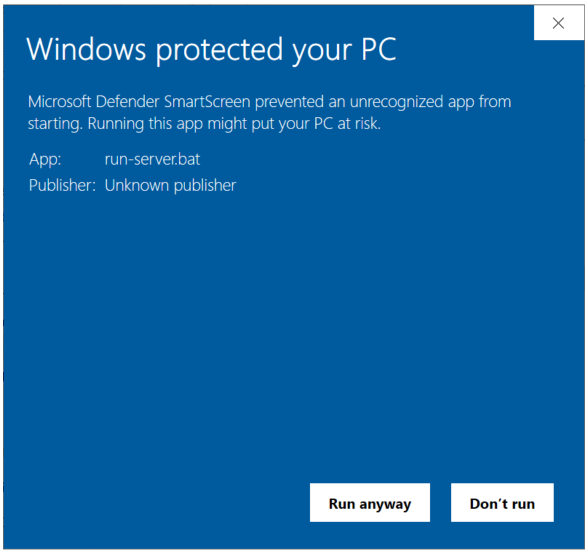
2.2.1. Launch Ambience on Windows

Use the following steps to launch Ambience on Windows:

1. Launch MongoDB and use either one of the following methods:
   a. From Windows Explorer/File Explorer, go to the "../MongoDB\Server/4.x/bin/" directory and double-click on mongod.exe.
   b. For terminal window or command prompt for Windows, navigate to the "../MongoDB\Server/4.x/bin/" directory and execute the command "`mongod.exe`".
2. Go to Ambience root directory, then to the "bin" folder.
3. To launch Ambience:
   - Double click on the "run-server.bat" file for Windows
   - Execute "run-server" in terminal window
4. For Windows, if this is the first time you launch Ambience, a dialog will appear.

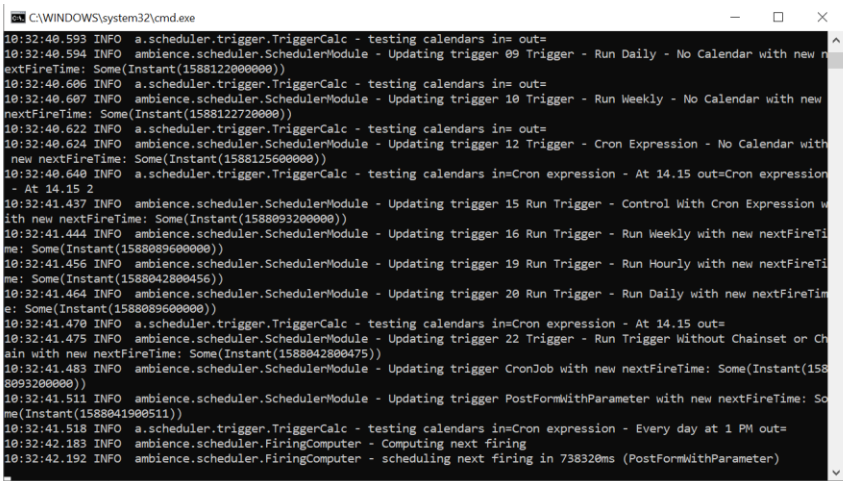


In the dialog box, click on "More Info".



Click on "Run anyway" button at the bottom.

5. A command window will appear. DO NOT close this command window.

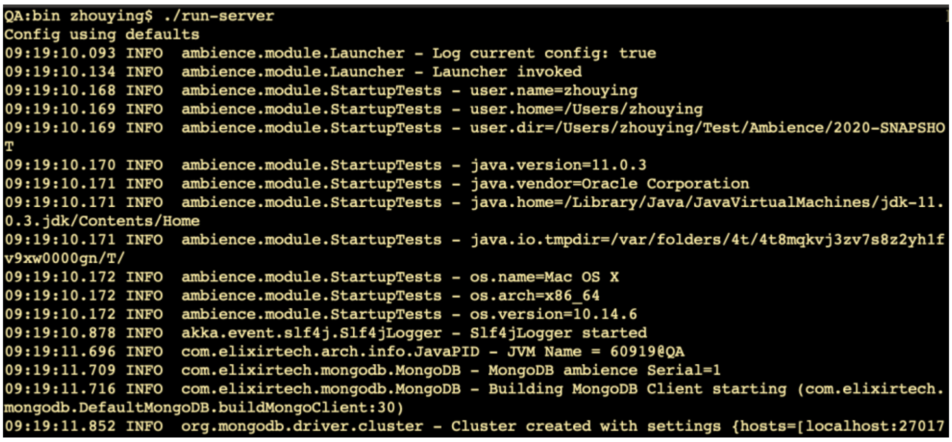


6. Check the command window for any error messages. After a few seconds, you will see a message "ambience.module.Launcher – Server listening on 0.0.0.0, 1740".
7. Open a browser, key in "localhost:1740" on the address bar and hit the "Enter" key.
8. The Elixir Ambience login page will appear.

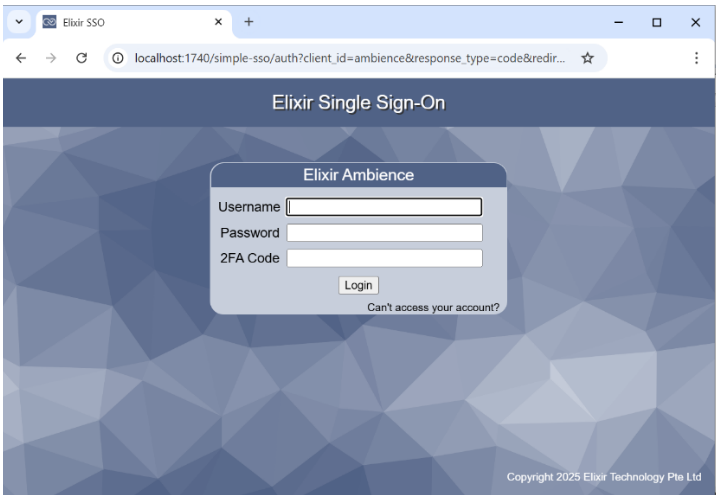
2.2.2. Launch Ambience on Ubuntu

Use the following steps to launch Ambience on Ubuntu:

1. Launch MongoDB and use the following steps:
   a. In the terminal window, execute the command to start MongoDB:
      ```
      sudo systemctl start mongod
      ```
   b. If an error message is received, execute the commands:
      ```
      sudo systemctl daemon-reload
      sudo systemctl start mongod
      ```
   c. To verify that MongoDB has started successfully, execute the command:
      ```
      sudo systemctl status mongod
      ```
   d. To ensure that MongoDB will start following a system reboot, execute the command (optional):
      ```
      sudo systemctl enable mongod
      ```
2. In the terminal window, navigate to the Ambience root directory, then to the “bin” folder.
3. In the terminal window, execute the command to launch Ambience:
   ```
   ./run-server
   ```



4. Open a browser, key in “localhost:1740” on the address bar and hit the “Enter” key.
5. The Elixir Ambience login page will appear.



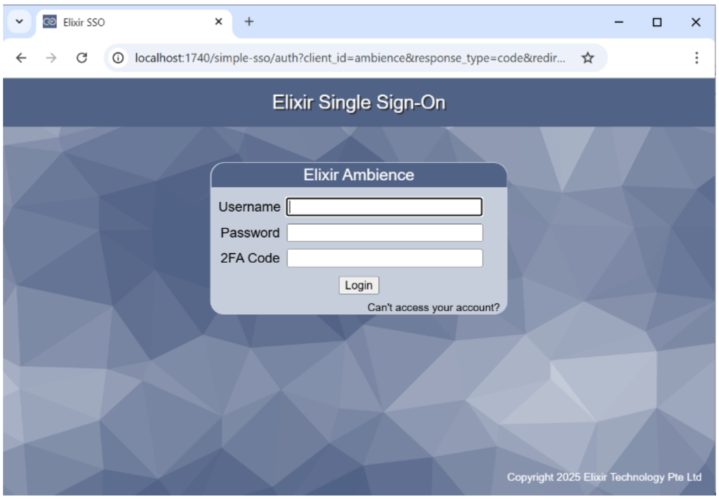
2.2.3. Launch Ambience on macOS

Use the following steps to launch Ambience on macOS:

1. Launch MongoDB and use the following steps:
   a. Open a terminal window, execute the command “brew services start mongodb-community@4.x” to run MongoDB as a service.
   b. To verify that MongoDB has started successfully, execute the command:
      `ps aux | grep -v grep | grep mongod`
2. In the terminal window, navigate to the Ambience root directory, then to the “bin” folder.
3. In the terminal window, execute the command
   `./run-server`

```
QA:bin zhouying$ ./run-server
Config using defaults
09:19:10.093 INFO  ambience.module.Launcher - Log current config: true
09:19:10.134 INFO  ambience.module.Launcher - Launcher invoked
09:19:10.168 INFO  ambience.module.StartupTests - user.name=zhouying
09:19:10.169 INFO  ambience.module.StartupTests - user.home=/Users/zhouying
09:19:10.169 INFO  ambience.module.StartupTests - user.dir=/Users/zhouying/Test/Ambience/2020-SNAPSHO
T
09:19:10.170 INFO  ambience.module.StartupTests - java.version=11.0.3
09:19:10.171 INFO  ambience.module.StartupTests - java.vendor=Oracle Corporation
09:19:10.171 INFO  ambience.module.StartupTests - java.home=/Library/Java/JavaVirtualMachines/jdk-11.
0.3.jdk/Contents/Home
09:19:10.171 INFO  ambience.module.StartupTests - java.io.tmpdir=/var/folders/4t/4t8mqkvj3zv7s8z2yh1f
v9xw0000gn/T/
09:19:10.172 INFO  ambience.module.StartupTests - os.name=Mac OS X
09:19:10.172 INFO  ambience.module.StartupTests - os.arch=x86_64
09:19:10.172 INFO  ambience.module.StartupTests - os.version=10.14.6
09:19:10.878 INFO  akka.event.slf4j.Slf4jLogger - Slf4jLogger started
09:19:11.696 INFO  com.elixirtech.arch.info.JavaPID - JVM Name = 60919@QA
09:19:11.709 INFO  com.elixirtech.mongodb.MongoDB - MongoDB ambience Serial=1
09:19:11.716 INFO  com.elixirtech.mongodb.MongoDB - Building MongoDB Client starting (com.elixirtech.
mongodb.DefaultMongoDB.buildMongoClient:30)
09:19:11.852 INFO  org.mongodb.driver.cluster - Cluster created with settings {hosts=[localhost:27017
```

4. Open a browser, key in “localhost:1740” on the address bar and hit the “Enter” key.
5. The Elixir Ambience login page will appear.

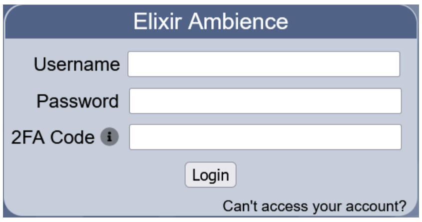


2.2.4. Login

By default, the Ambience has a super user “admin”.

Use the following steps to log into Ambience:

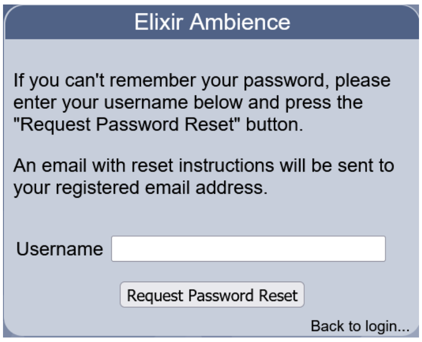
1. After launching Ambience, the log-in page will appear.
2. To log into Ambience, key in the following:
   - Username: admin
   - Password: sa
   - 2FA Code: 6-digit code



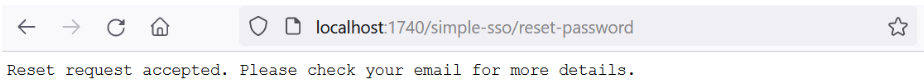
If 2FA has not been enabled, the 2FA Code will not appear in the log-in page. Refer to the Ambience/Repertoire Admin Guide on how to enable 2FA.

If the user has not set up the 2FA yet, leaves the 2FA Code blank.

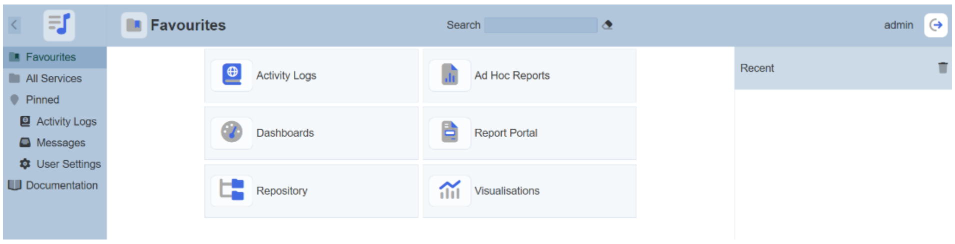
If the user has forgotten the password, click on the “Can’t access your account?” link at the bottom right. A dialog box will appear, prompting the user to enter the user’s username.



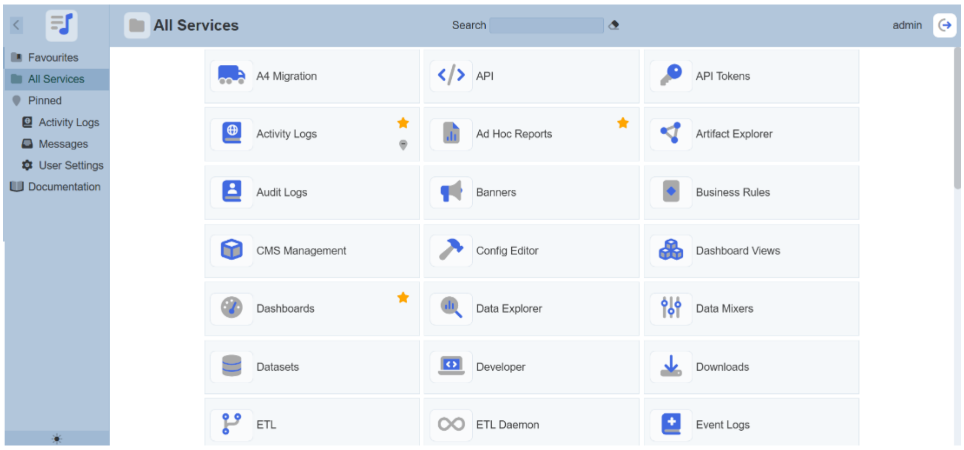
Click on the “Request Password Reset” button and the new password will be sent to the user’s email along with a notification. To abort this action, click on the “Back to login…” link at the bottom right.



3. Click on the "Login" button. Upon login, the "Service Chooser" screen will appear with the "Favourites" option selected, showing a list of favourite modules in the right panel.



4. Select "All Services" option in the left panel to view all the available modules.



5. If the licence in Ambience is the minimal licence, the "All Services" option will display the set of modules that are allowed by the minimal licence. To be able to use more modules, a new licence will be required. Contact our representatives for the new licence.

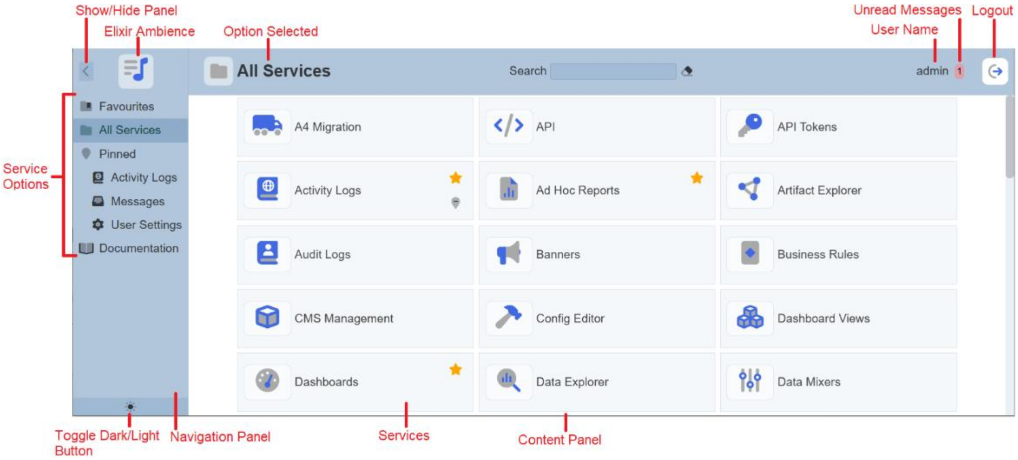
2.2.5. Logout

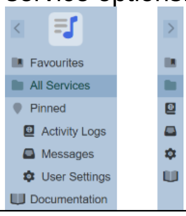
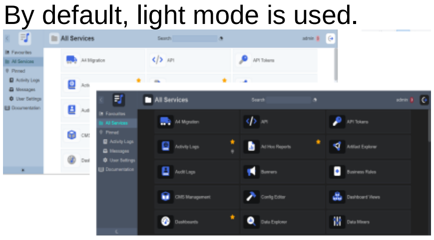
To log out of Ambience, click on the "Profile" icon on the upper right corner of the page. A dialog box will appear. Click on the "Sign out from Ambience Suite" portion to log out of Ambience.

2.2.6. Ambience Interface

This section briefly describes the interface of the Ambience “Service Chooser” page.

Upon login into Ambience, you will see the “Service Chooser” page. This page will display all the modules that are currently available.



Navigation Panel	Consists of three parts: • At the top – Show/Hide button and Elixir Ambience logo • At the centre – List of service options • At the bottom – Dark/Light Mode button
Show/Hide button	Expand or collapse the navigation panel. By default, the navigation panel is shown (expanded). If collapsed, the navigation panel shows only the icons of the service options. 
Elixir Ambience Logo	The Elixir Ambience logo allows user to return to the Favourites option from any page the user has navigated to.
Service Options	Any option selected in this panel will have its content displayed in the Content Panel.
Toggle Dark/Light button	Allows user to toggle between light and dark mode. By default, light mode is used. 
Content Panel	Displays the content of the option selected in the Navigation Panel or any other page navigated to. When the “All Services” option is selected, the services available to the user will be displayed.
Logout	When clicked upon, a pop-up will appear. Displaying the user’s profile at the top and the logout option below. Click on the “Sign out from Elixir Ambience” to log out of Ambience.

2.3. Import Licence

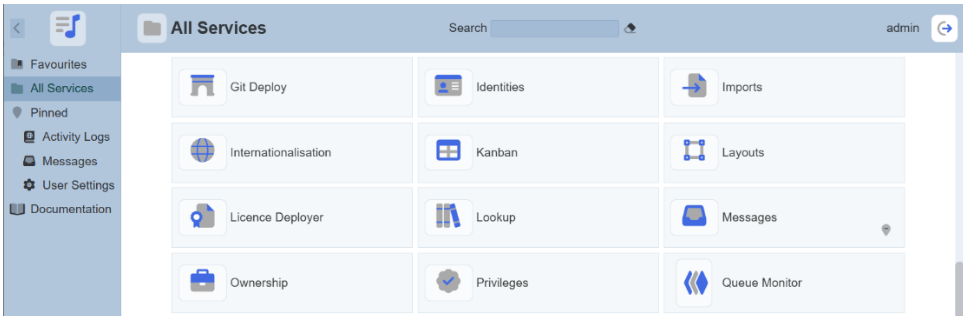
When the Ambience is initially installed, it comes with a default licence. This default licence allows a minimal set of modules and does not have an expiration date.

To access to other modules in Ambience, a new licence needs to be imported into Ambience. This new licence has an expiration date and need to be replaced before the expiry or Ambience will fall back onto the minimal set of modules.

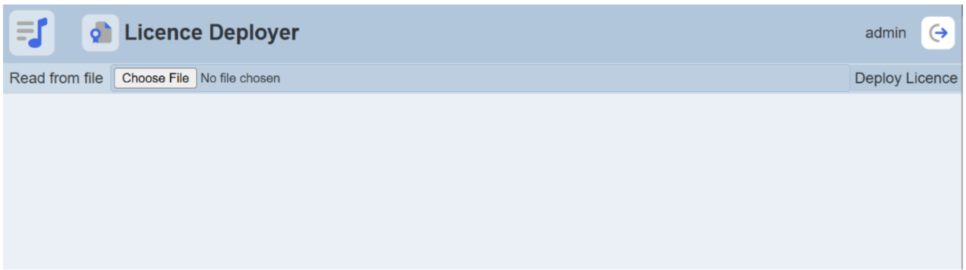
There are two methods to import the licence, either by using the Ambience interface or by using the Ambience command line interface. This method is useful during setup as you can install the licence before starting the server, hence avoiding the need to stop and restart.

To import a licence using Ambience interface:

1. From the “Service Chooser” page, select the “Licence Deployer” from the right panel. If Ambience is initially installed and logged in for the first time, step 2 will appear directly.



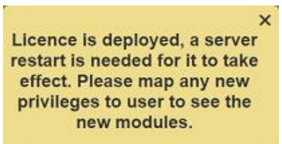
2. The “Licence Deployer” page will appear.



3. Click on the “Choose File” button and browse to the location of the licence file (*ElixirAmbience.licence*). The content of the licence file will appear in the editor.

4. If the content is correct, click on the “Deploy Licence” button at the upper right corner of the page.

5. Upon successful upload, a message will appear.



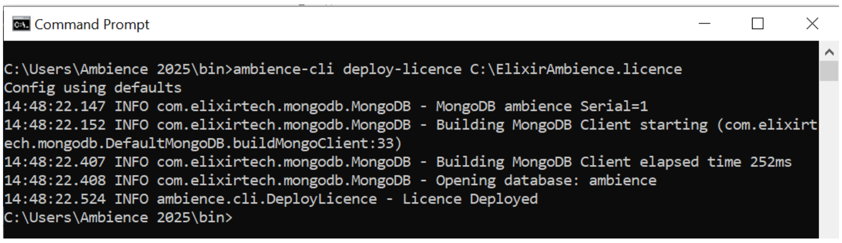
6. After the licence has been deployed to the server. Restart the server for the licence to take effect.
7. Ensure to map any new privileges to the desired users to see the new modules.

To import a licence using Ambience command line interface:

1. Open a terminal window and navigate to the Ambience main folder, then navigate to the “bin” folder.
2. In the command line, key in the following command:

```
ambience-cli deploy-licence <path of ElixirAmbience.licence file>
```

3. The command line window will display messages indicating the successful deployment.



4. Restart the server to allow the new licence to take effect.

2.4. Build Dashboard

The Dashboards module provides data visualization and interaction through various view types and configurations. The data presented on the dashboards are based on the available datasets set up in the Datasets module.

To build a dashboard, the following steps are required:

1. Import data and create a dataset in Ambience (Imports module)
   Or
   Create a dataset from the imported data (Datasets module)
2. Create a dashboard to display the dataset (Dashboards module)

The following sections describes the above steps.

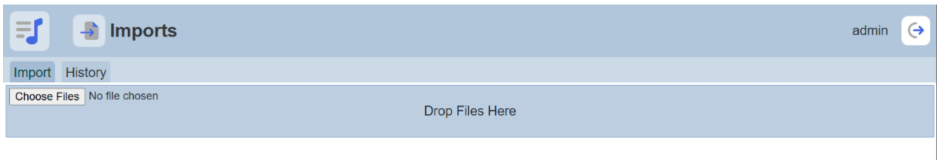
2.4.1. Import Data and Create Dataset

Data is imported into Ambience via the Imports module. The Imports module can also create a dataset from the data imported.

In the example below, it is assumed that there is only one database in MongoDB and the data to be imported is new.

Use the following steps to import the new data into Ambience:

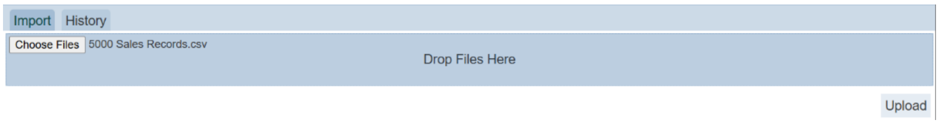
1. From the “Service Chooser” page, select “Imports” from the right panel. The “Imports” page will appear.



2. In the “Import” tab, browse to the location of the data file to be imported or simply drag-and-drop the data file onto the “Drop Files Here” portion.

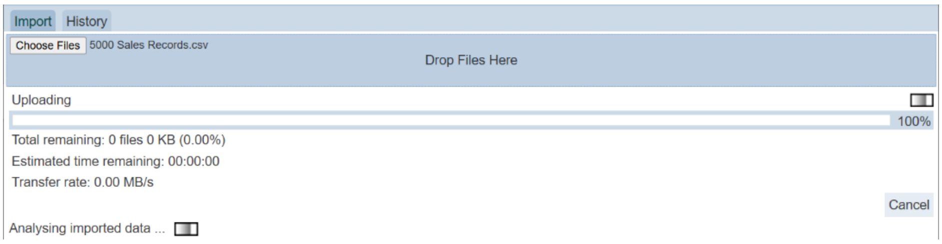
   Upon detecting the file of supported types, the name of the file is displayed next to the “Browse” button and the “Upload” button will appear at the lower right below the “Drop Files Here” portion.

   An error message will appear if the selected file is not supported.

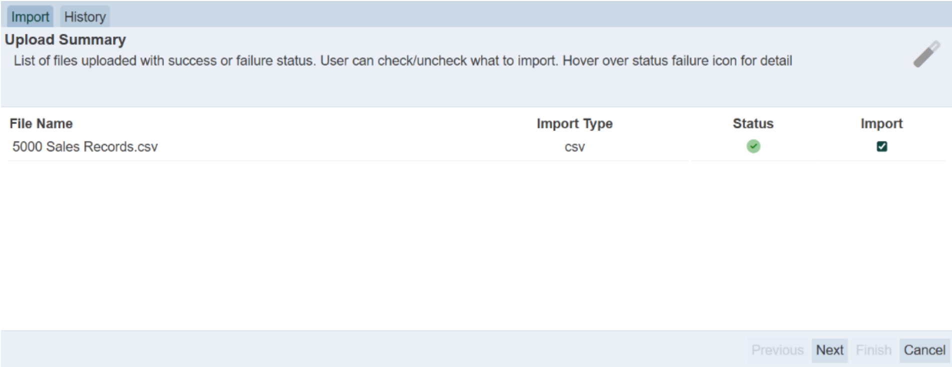


3. Click on the “Upload” button and the progress page will appear.

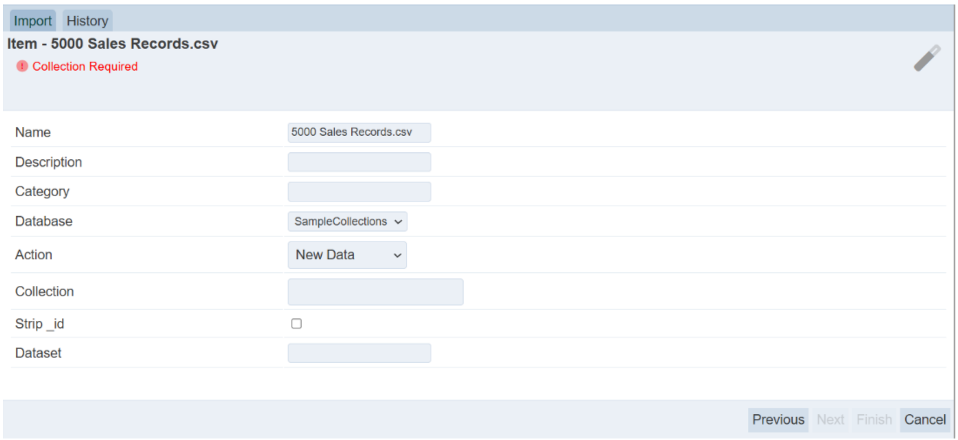
   Do note that the progress page will appear during uploading and will disappear after data is uploaded. If the data file is too small, the progress page may not be visible. You can abort the uploading by clicking on the “Cancel” button at the bottom right of the page.



4. Upon successful uploading, the details of the data file are displayed. If a gzip file is selected, the list of files contained in the gzip will be displayed. You can select the desired file(s) to be imported. If no file is selected, only the “Finish” button will be selectable.



5. After selecting the desired file, click on the “Next” button to continue. The next page allows you to select the desired database and collection.

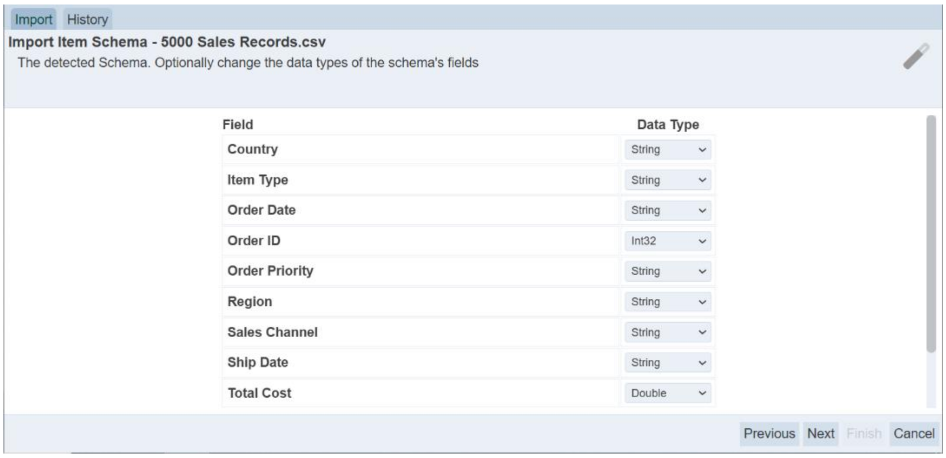


6. In the “Import” page, select and key in the following:

   - “Name” field – By default, the file name of the import file is used (if this is not desired, you can rename it)
   - “Description” field – Key in a brief description for the data (optional)
   - “Database” field – Ensure “eno” is selected
   - “Action” field – Selects the appropriate action type from drop-down list (in this example, select “New Data”)
   - “Collection” field – Key in the collection name for the data file
   - “Strip _id” field – Selects this field if _id field is not required in the dataset
   - “Dataset” field – Key in the dataset name of the data file (left this field blank if you do not wish to create a dataset)

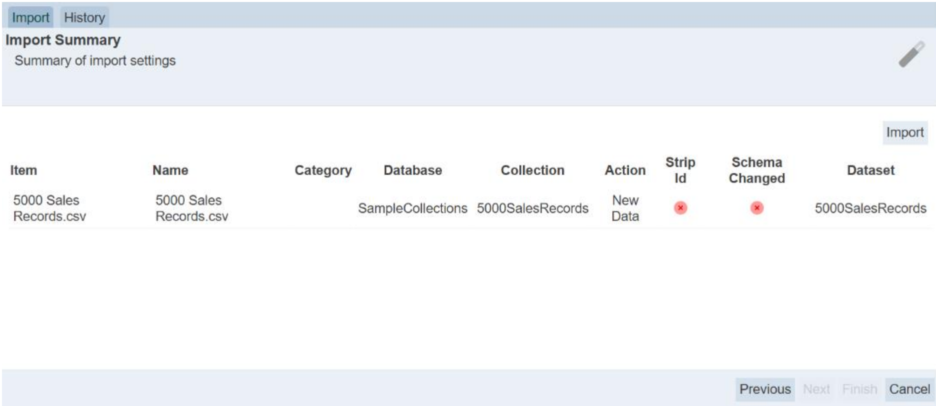
7. After all the required data is filled, the “Next” button will appear. You can always click on the “Previous” button to go back to step 4.

8. If the imported data file is a CSV file, The “Import Item Schema” page will appear.

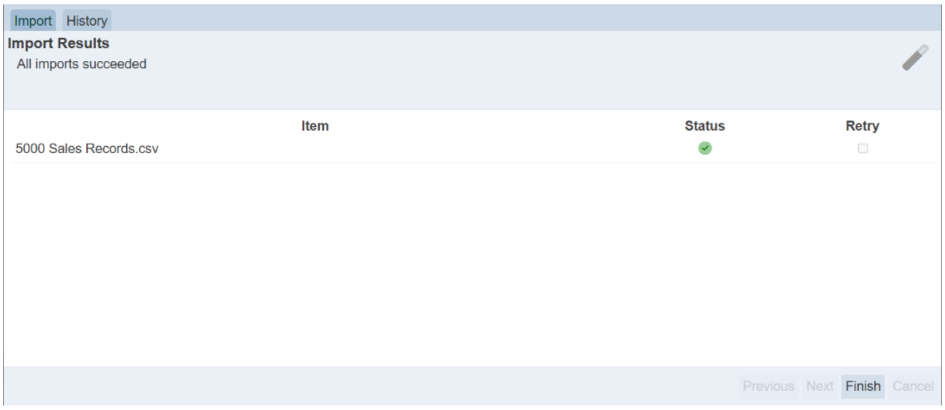


Select according and click on the “Next” button.

9. The “Import Summary” page will appear. Check through the information and click on the “Import” button on the upper right to import the data and create a dataset.



10. The “Import Results” page will appear, showing you the status of list of items selected for import.



Any item that failed to import is indicated by a red cross under the “Status” column. You can try to import the item again by selecting the checkbox under the “Retry” column and click on the “Next” button that appears.

If the item has a green tick under the “Status” column, it indicates that the import is successful. Click on the “Finish” button to complete the import and create the dataset.

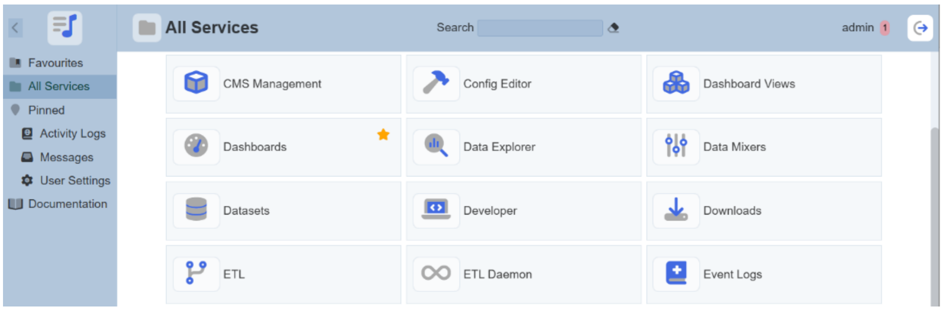
11. Click on the “History” tab and you will see the imported data.

2.4.2. Create Dataset

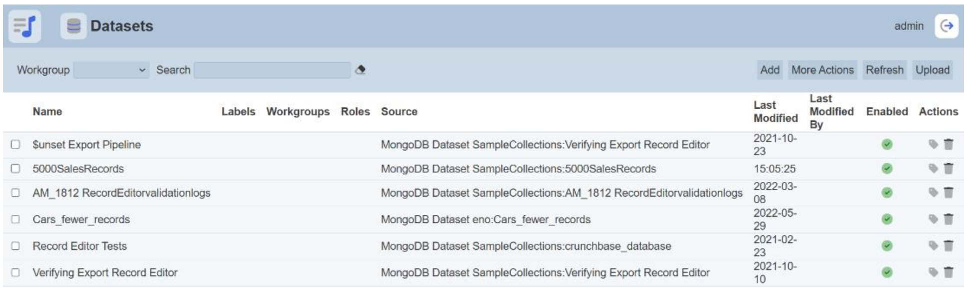
If the data imported has not been converted to a dataset in the Imports module, you can convert the data to a dataset using the Datasets module.

Use the following steps to create a dataset:

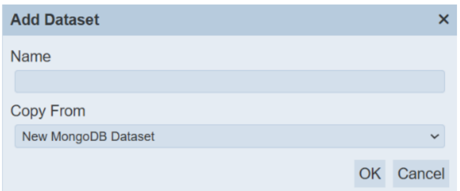
1. Click on the "Elixir Ambience" logo and select the "All Services" option in the left panel, then select "Datasets" in the right panel.



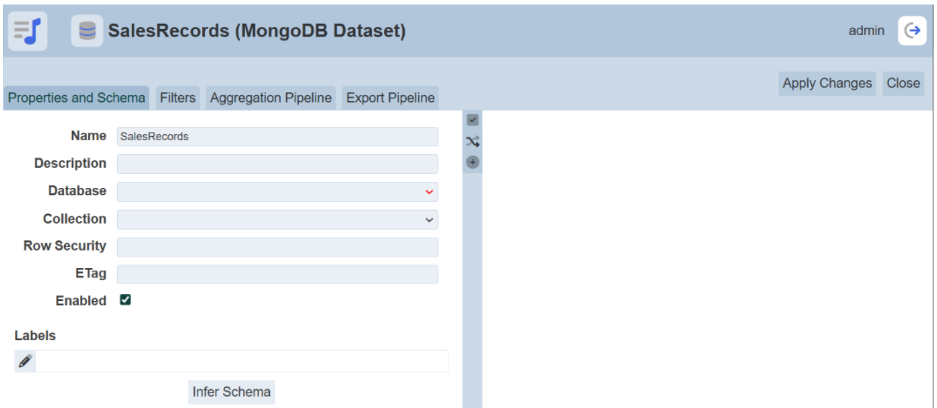
2. The "Datasets" page will appear.



3. Click on the "Add" button at the upper right corner of the page and the "Add Dataset" dialog box will appear.



4. In the "Copy From" field, select "New MongoDB Dataset" and click on the "OK" button. The "Add" panel will appear.

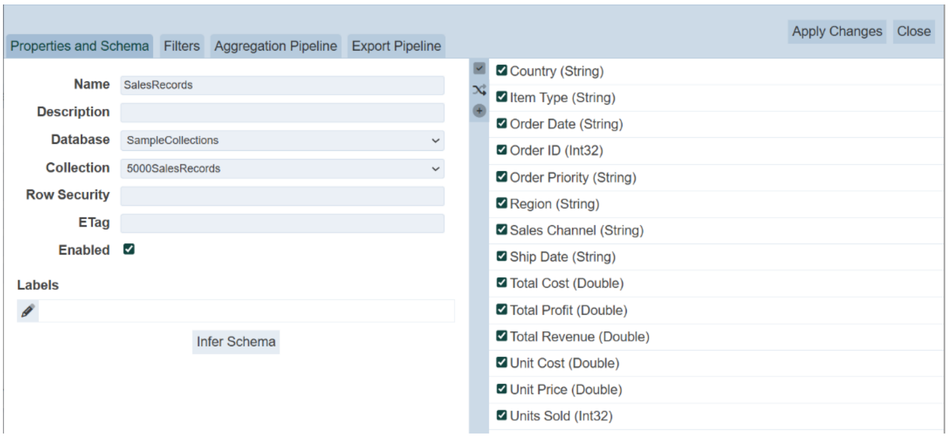


5. In the “Properties Schema” tab, key in and select the following:

   - “Name” field – Key in a name for the dataset
   - “Description” field – Key in a brief description of the dataset (optional)
   - “Database” field – Selects the appropriate database from the drop-down list
   - “Collection” field – Selects the desired data from the drop-down list
   - “Row Security” field – Key in the field to be used as access rights control for the dataset (optional)
   - “ETag” field – Key in an appropriate tag for the dataset (optional)
   - “Enabled” field – Ensure this field is selected

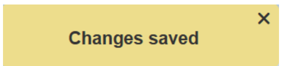
   The “ETag” field is used to reflect when the dataset has changed by checking the last modified datatime.

6. After all settings are done, click on the “Infer Schema” button.



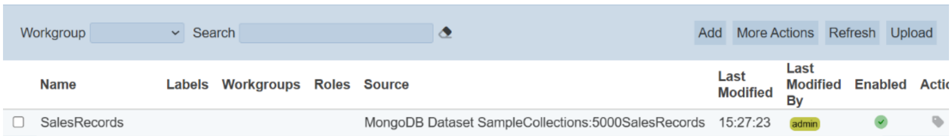
7. From list of fields of the dataset displayed, you can choose to unselect any of the fields by un-selecting the checkbox.

8. Click on the “Apply Changes” button to save the dataset. A message will appear upon successful adding the dataset.



   Click on the “Close” button to exit and return to the management page.

9. The dataset is now added into Ambience and can be used by other modules.



2.4.3. Create Dashboard

A dashboard provides data visualization and interaction through various view types and configurations. The data presented on the dashboards are based on the available datasets set up in the Datasets module.

With the correct privileges, the following features are available in the Dashboards module:

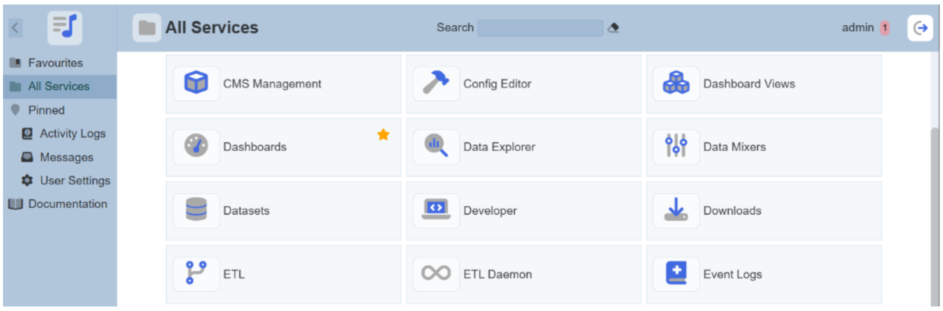
- View the list of dashboards
- Add new dashboard (via Dashboard Designer)
- Upload/download dashboard
- Edit dashboard
- Open dashboard (via Dashboard Viewer)
- Delete dashboard

In the below sections, you will create a new dashboard, with two different charts (pie chart and sunburst chart) using the same dataset.

2.4.3.1. Create New Dashboard

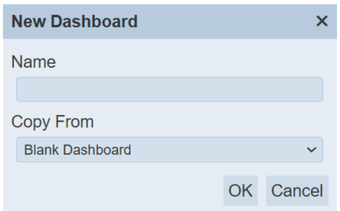
Use the following steps to create a dashboard:

1. Click on the “Elixir Ambience” logo and select the “All Services” option in the left panel, then select “Dashboards” in the right panel.



2. The “Dashboards” page will appear.

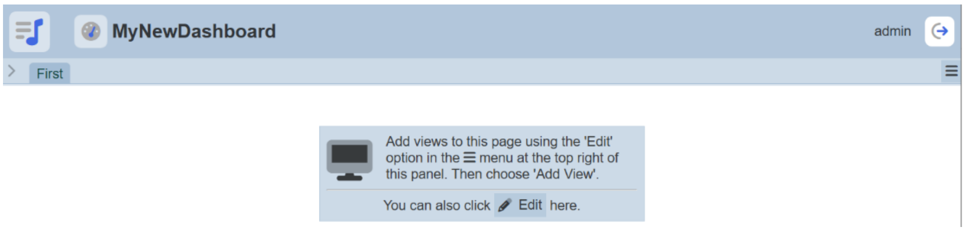
3. In the “Dashboards” page, click on the “Add” button on the upper right corner of the page. A “New Dashboard” dialog box will appear.



4. In the “New Dashboard” dialog box, key in and select the following:

   - “Name” field – Key in a name for the new dashboard
   - “Copy From” field – Selects to copy from existing dashboards from drop-down list or a blank dashboard
     (in this example, a blank dashboard is selected)

5. Click on the “OK” button to create the new blank dashboard. In this mode, you are in the Dashboard Designer page.



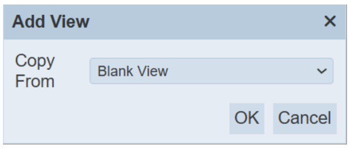
6. By default, the first page is labelled as “First”.

2.4.3.2. Create Pie Chart

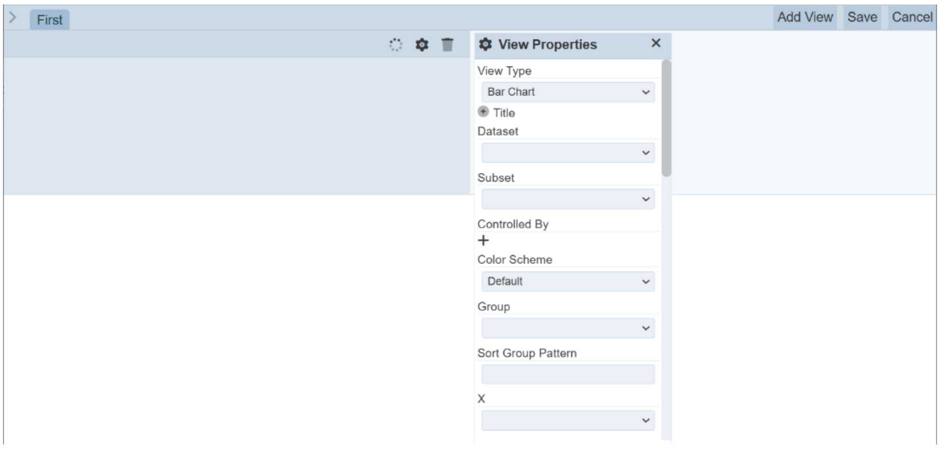
In this section, you will create a pie chart.

1. Click on the “Edit” button in the dialog box. The “Add View”, “Save” and “Cancel” buttons appears on the upper right corner of the page.

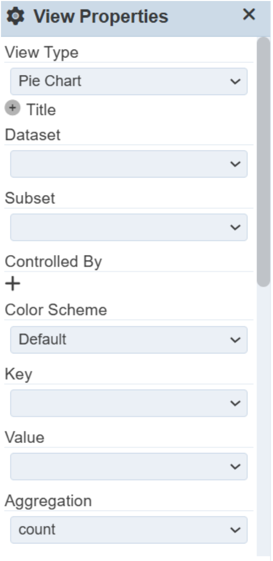
2. To add a view, click on the “Add View” button. The “Add View” dialog box appears.



3. In the dialog box, you can select a blank view or copy from existing views from the drop-down list. In this example, select a blank view.
4. Click on the “OK” button to create the view.
5. A blank area and the “View Properties” dialog box appears in the page. The fields in the “View Properties” dialog box will vary according to the different type of chart or view selected.



6. In the “View Type” field, select “Pie Chart” from the drop-down list and the other fields for pie chart will appear.



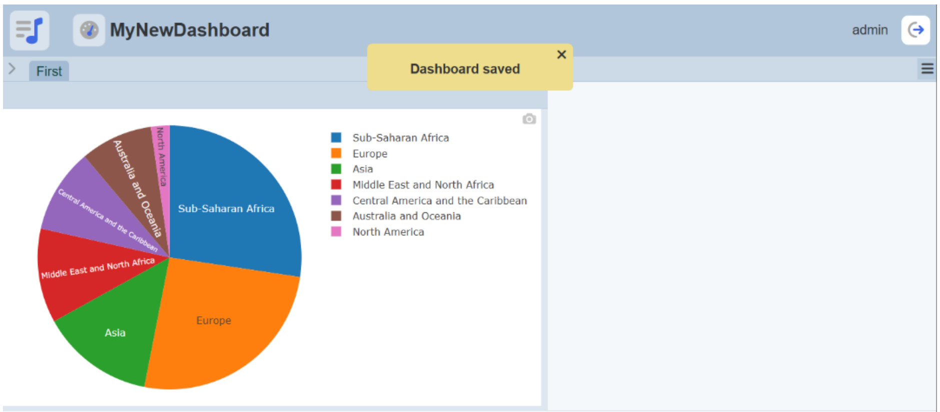
7. In the “View Properties” dialog box, select the following:

- “Dataset” field – Selects the appropriate data set from drop-down list
- “Key” field – Selects the appropriate field from drop-down list (this field groups output into separate groups based on the selected value)
- “Value” field – Selects appropriate field from drop-down list as main output point (determines size of each portion based on selected “Aggregation”)
- “Aggregation” field – Selects either “sum”, “average” and “count” from drop-down list (by default, “count” is selected) (this field is the accumulation of data by count, average or summation)

In this example, only the mandatory fields are used. The other optional fields are used to enhance or add features to the pie chart.

8. You can adjust the size of the view window by dragging the ⤡ icon at the lower right corner of the view window when hover over the corner.

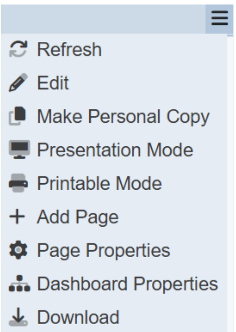
9. Click on the “Save” button to save the chart. A message will appear to inform you that the dashboard has been saved successfully.



2.4.3.3. Create Sunburst Chart

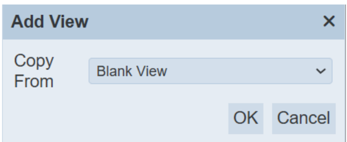
In this section, you will create a simple sunburst chart.

1. In the dashboard page, click on the ☰ "More Actions" icon at the upper right corner of the page to display a list of available actions.



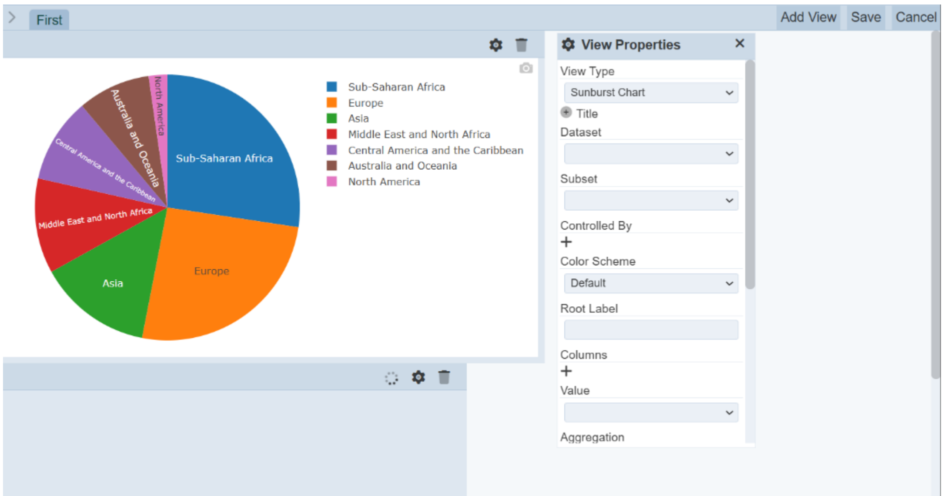
2. Select "Edit" and click on the "Add View" button on the upper right corner of the dashboard.

3. In the "Add View" dialog box that appears, select a blank view.

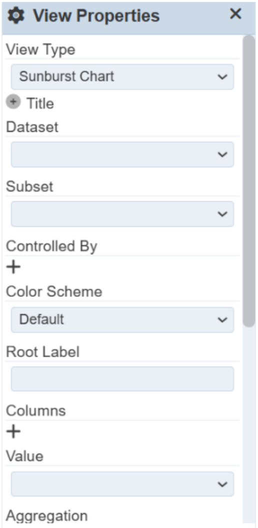


4. Click on the "OK" button to create the view.

5. A blank area and the "View Properties" dialog box appears in the page. By default, the new blank area is located below the first view. You can re-locate the view window and re-size the window.



6. In the “View Type” field, select “Sunburst Chart” from the drop-down list and the other fields for sunburst chart will appear.



7. In the “View Properties” dialog box, select the following:

- “Dataset” field – Selects the appropriate data set from drop-down list
- “Columns” field – Selects the appropriate fields (see step 8)
- “Value” field – Selects appropriate field from drop-down list as main output point (determines size of each portion based on selected “Aggregation”)
- “Aggregation” field – Selects either “sum”, “average” and “count” from drop-down list (by default, “count” is selected) (this field is the accumulation of data by count, average or summation)

The sunburst chart uses the same dataset used in the pie chart and two nodes are selected.

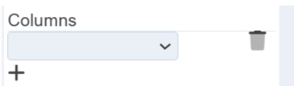
In this example, only the mandatory fields are used. The other optional fields are used to enhance or add features to the sunburst chart.

8. The “Columns” field defines the fields (nodes) to be displayed in the chart. The first column defined will be the innermost ring of the chart. The last column defined will be the outermost ring of the chart.

Use the following steps to add the two nodes:

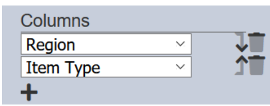
a. Click on the “+” icon below the “Columns” field to add a node.

b. Select an appropriate field from the drop-down list.

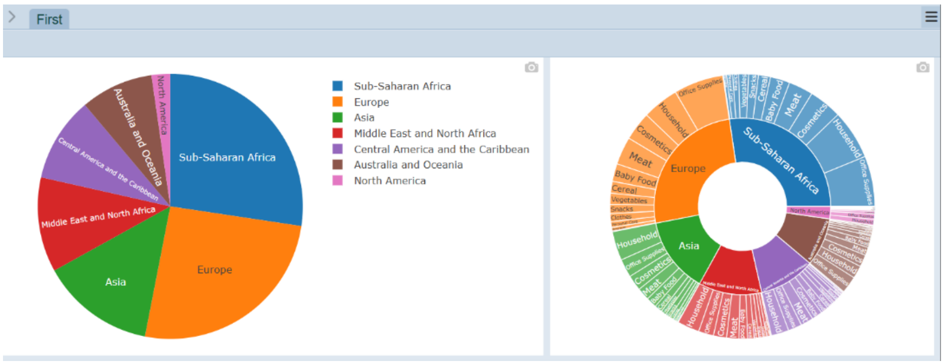


c. Repeat steps a and b for another node.

d. You can re-order the nodes clicking on the “Move Up” and “Move Down” icons.

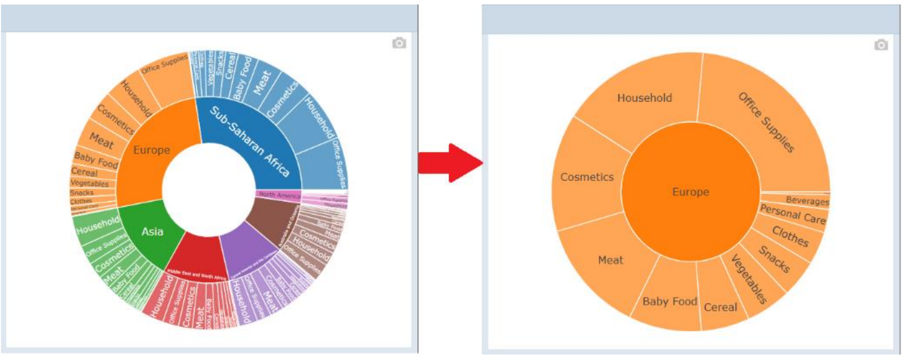


9. Click on the “Save” button to save the chart. A message will appear to inform you that the dashboard has been saved successfully.



10. In the sunburst chart, clicking on any portion in the inner ring and the chart will display the details of that portion.

    In the below example, “Europe” is selected, the sunburst chart will display the details of Europe.



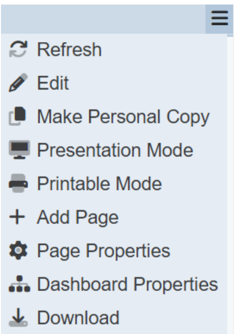
    To return to the original chart, click on the “Europe” at the centre of the chart.

2.4.4. Edit Dashboard

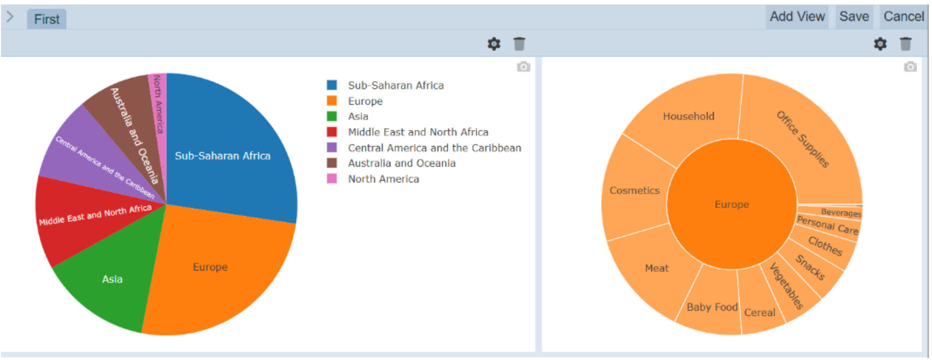
You can edit the dashboard views using the Dashboard Designer.

Use the following steps to edit a dashboard:

1. In the dashboard page, click on the ☰ "More Actions" icon at the upper right corner of the page to display a list of available actions.



2. In the list, select "Edit" to go to the Dashboard Designer (i.e., edit mode).



In the Dashboard Designer, the following functions are available:

- Edit the existing view, table or chart
- Delete the view, table or chart
- Add a new view, table or chart
- Add and/or edit control filters

Edit

To edit the view, table or chart, click on the "Properties" icon at the upper right corner of the pie chart window. The "View Properties" dialog box will appear. You can make the necessary changes and click on the "Save" button to save the changes.

Delete

To delete the view, table or chart, click on the "Delete" icon at the upper right corner of the pie chart window.

Add View

To add a new view, table or chart, click on the "Add View" button at the upper right corner of the page. A new blank area and the "View Properties" dialog box appears in the page. See Section 2.3.3 Create Dashboard onwards for how to create the new view.

Control Filters

See Section 2.4.1 Control Filters on how to create control filters.

2.4.5. Dashboard Pages

There are several operations that can be performed on the dashboard:

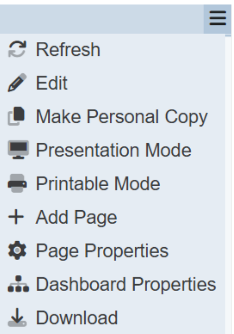
- Add dashboard page
- Switch between pages
- Edit page properties

2.4.5.1. Add Dashboard Page

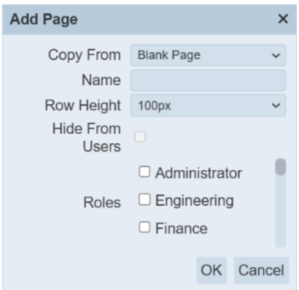
You can add pages to a dashboard. This will allow you to create more views or charts on the same dashboard.

Use the following steps to add a dashboard page:

1. In the dashboard page, click on the “More Actions” icon on the upper right corner of the page to display a list of available actions.



2. To add a new page, select and click on “Add Page”. The “Add Page” dialog box will appear.



3. In the “Add Page” dialog box, select and key in the following:
   - “Copy From” field – Selects to copy from existing page or create a blank page (in this example, select “Blank Page”)
   - “Name” field – Key in a unique name for the new page
   - “Row Height” field – Height of the page (default is 100 px)
   - “Roles” field – Selects the appropriate roles
4. Click on the “OK” button to save the changes. A new page will be added to the dashboard.

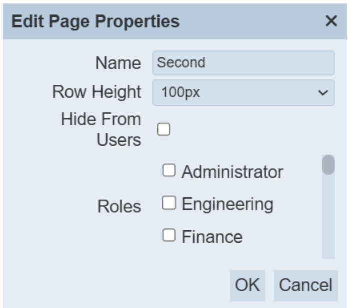
2.4.5.2. Switch Between Pages

To switch between pages, click on the name of the page, that is, “First” and “Second”.

2.4.5.3. Edit Dashboard Page

Use the following steps to edit the dashboard page:

1. Select the desired page.
2. Click on the ≡ "More Actions" icon on the upper right corner of the page and select "Page Properties". The "Edit Page Properties" dialog box will appear.



3. In the "Edit Page Properties" dialog box, make the necessary changes.
4. Click on the "OK" button to save the changes.

2.5. Build Dynamic Dashboard

2.5.1. Control Filters

Control filters provides a highly customizable ways of controlling the data to be displayed on the dashboard views.

Managing and configuring a dashboard’s controls are done through the Dashboard Designer. A control can be linked to multiple views across all pages on the dashboard and a view can also be linked with multiple controls.

Controls become usable, typically as interactive filters for users, through the Dashboard Viewer.

Controls can be categorized into several types:

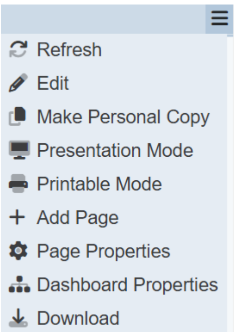
• Filter control	Apply filters on a specific field of the dataset displayed on a view
• Inject control	Advanced features for passing data (e.g., filter values as input parameters values) to other modules, such as ETL.
• Parameter control	Allows parameterisation of aggregation pipeline
• Timer control	Provides an easy way to add real-time or near real-time data updates on the dashboard

2.5.1.1. Checkbox Filter Control

Below is an example on how to create a checkbox filter control for the pie chart that was created earlier.

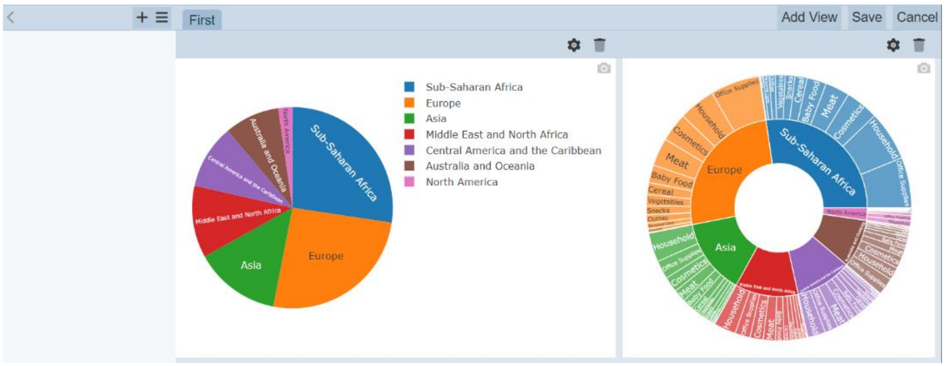
Use the following steps to create a checkbox filter control:

1. In the dashboard page, click on the “More Actions” icon on the upper right corner of the page and select “Edit”. The dashboard is now in the Dashboard Designer mode.

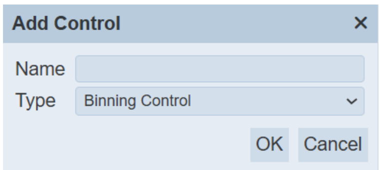


2. On the upper left corner of the page, click on the “Open Filter Panel” icon.

3. This will open the Filter Panel.



4. In the Filter Panel, click on the “+” icon to create a new control. The “Add Control” dialog box will appear.

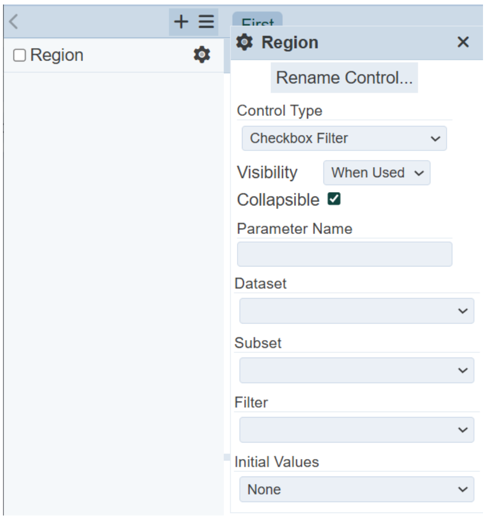


5. In the “Add Control”: dialog box, key in and select the following:

   - “Name” field – Key in a name for the control
   - “Type” field – Selects “Checkbox Filter” from the drop-down list

6. Click on the “OK” button to save the settings and the “Add Control” dialog box will close.

7. The new filter is added onto the Filter Panel and the dialog box for the new filter appears.



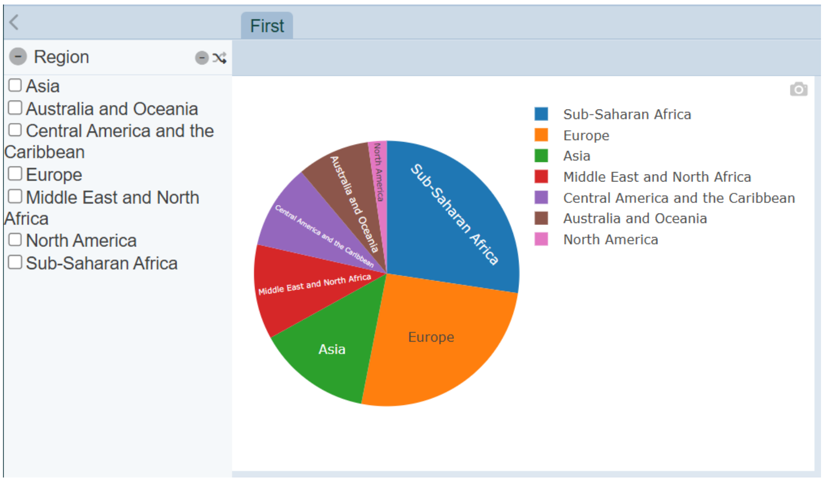
8. Select the following:

   - “Visibility” field – Selects “Always” to show filter in the filter panel at all time
   - “Dataset” field – Selects the same dataset as for the pie chart
   - “Filter” field – Selects a field from the drop-down list as the filter value

9. Click on the “Properties” icon on the pie chart window to display the “View Properties” dialog box.

10. In the “View Properties” dialog box, click on the “+” icon below the “Controlled By” field. Select the newly added filter control.

11. Click on the “Save” button on the upper right corner of the page to save the changes and goes back to the Dashboard Viewer.
12. In the dashboard, click on the “Expand” icon to display the values. Select the desired values and see the effect of the filter control by comparing the below chart with the chart in step 3.



13. To quickly reverse the selection, click on the “Invert Selection” icon in the Filter Panel or remove all selection by clicking on the “Deselect All” icon.
14. To close the Filter Panel, click on the “Collapse” icon on the left. Do note that by doing so, the selection in the control filter will not take effect.

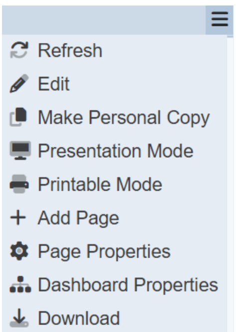
2.5.1.2. Interval Timer Control

Timer control provides an easy way to add real-time or near real-time data updates on the dashboard.

This timer control is used to created fixed-interval data refreshing on the dashboard, specifically by reloading the datasets displayed on views it controls.

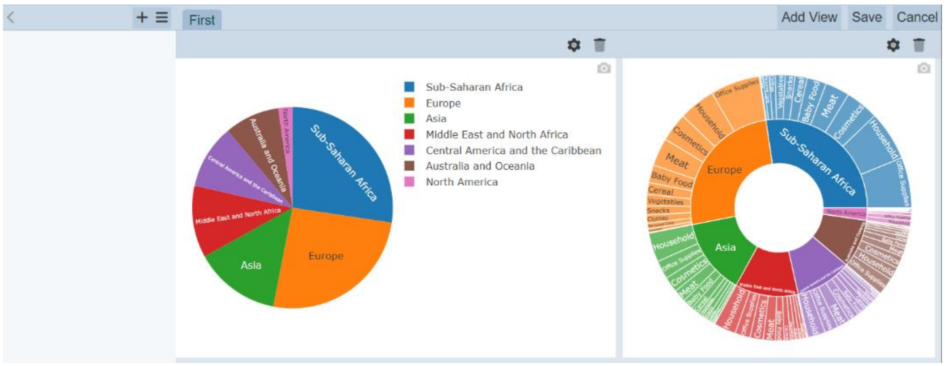
Use the following steps to create a timer control:

1. In the dashboard page, click on the “More Actions” icon on the upper right corner of the page and select “Edit”. The dashboard is now in the Dashboard Designer mode.

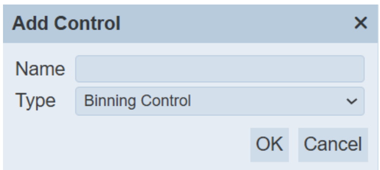


2. On the upper left corner of the page, click on the icon.

3. This will open the Filter Panel.



4. In the Filter Panel, click on the “+” icon to create a new control. The “Add Control” dialog box will appear.

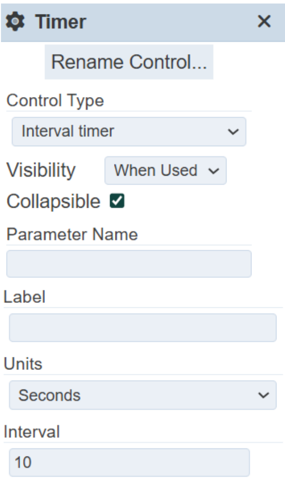


5. In the “Add Control”: dialog box, key in and select the following:

   - “Name” field – Key in a name for the control
   - “Type” field – Selects “Interval timer” from the drop-down list

6. Click on the “OK” button to save the settings and the “Add Control” dialog box will close.

7. The new filter is added onto the Filter Panel and the dialog box for the new filter appears.



8. In the dialog box, key in and select the following:

   - “Control Type” field – Selects “Interval timer” from drop-down list
   - “Units” field – Selects the desired time unit from drop-down list
   - “Interval” field – Key in the desired interval in the text box or alternatively increase or decrease the value by clicking on the “Increase” or “Decrease” icons

9. For any dashboard that requires regular refresh, select this timer control in the “Controlled By” field in the “View Properties”.

2.5.2. Interactivity

There are several ways to interact between views and dashboard pages. Below are two methods:

- Select to Control
- Click to Page

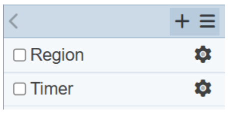
2.5.2.1. Select to Control

The “Select to Control” feature allows you to use the current view or chart to control the content of a view or chart. Do note that both views or charts must use the same dataset.

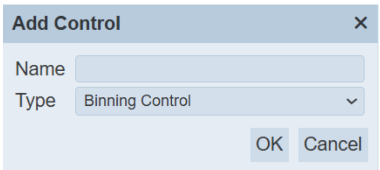
Use the following steps to create a “Select to Control” feature:

1. In the Dashboards page and select the desired dashboard.
2. Ensure there are at least two views or charts in the dashboard.
3. In the dashboard page, click on the ≡ “More Actions” icon and select “Edit”.
4. Create a filter control:

   a. Click on the > icon on the upper left corner of the page to display the Filter Panel.

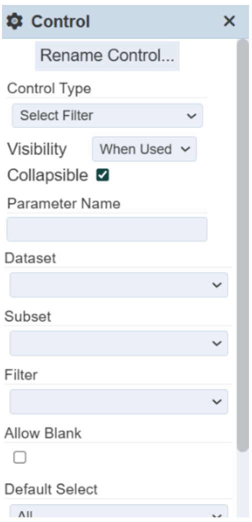
   b. Click on the “+” icon in the Filter Panel. The “Add Control” dialog box will appear.

   c. In the dialog box, key in and select the following:

   - “Name” field – A unique name for the control
   - “Type” field – Selects “Select Filter” from the drop-down list

   d. Click on “OK” button to create the new filter. The “Control” dialog box will appear.

e. In the “Control” dialog box, select the following:

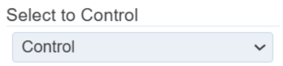
- “Control Type” field – Selects “Select Filter” from drop-down list
- “Visibility” field – Selects “Hidden” from drop-down list
- “Dataset” field – Selects the same dataset as the two charts created earlier from the drop-down list
- “Filter” field – Selects the same field selected as “Key” in the two charts from drop-down list

By selecting “Hidden” for “Visibility” field, this filter will only be shown in the Dashboard Designer mode (or Edit mode). In Dashboard View mode, this filter will not be displayed in the Filter Panel, thus user will not be able make selection on this filter. In this example, it is recommended to keep this filter hidden.

5. In the first view (pie chart), perform the following:

   a. Click on the “Properties” icon to display the “View Properties” dialog box.

   b. In the dialog box, scroll to the “Select to Control” field.



   c. Select the newly created filter control from the drop-down list.

6. In the second view (sunburst chart), perform the following:

   a. Click on the “Properties” icon to display the “View Properties” dialog box.

   b. In the dialog box, scroll to the “Controlled By” field.

   c. Click on the “+” icon to add a new selection.

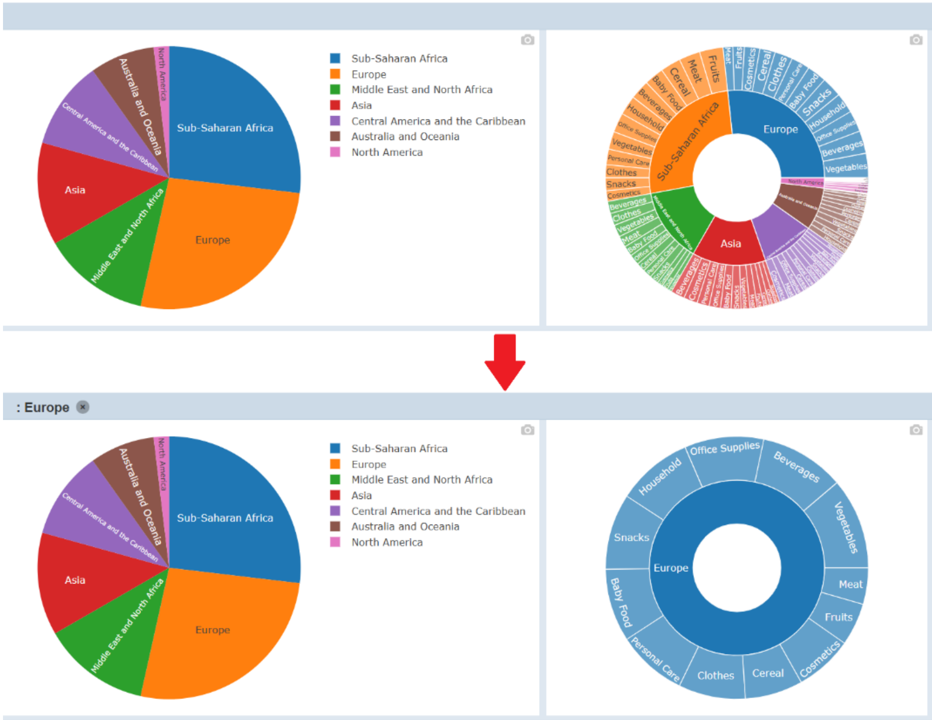
   d. Select the newly created filter control from the drop-down list.

7. Click on the “Save” button on the upper right corner of the page to save the changes.

8. Close the Filter Panel if it is not closed.

9. Click on any portion of the pie chart, the contents in the sunburst chart changes accordingly.

   In the below example, “Europe” is selected in the pie chart. The sunburst chart changes to display the contents for Europe only. To revert back to the original view, click in the ⊗ “Reset” icon on the title of the pie chart.

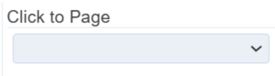


2.5.2.2. Click to Page

The “Click to Page” feature allows you to switch to another dashboard page with a single click on the view.

Use the following steps to create a “Click to Page” feature:

1. In the “Dashboards” page and select the desired dashboard.
2. Ensure there are at least two pages in the dashboard.
3. In the dashboard, click on the “More Actions” icon and select “Edit”.
4. Click on the “Properties” icon in the view window to display the “View Properties” dialog box.
5. In the dialog box, scroll to “Click to Page” field.



6. Select the desired page to from the drop-down list.
7. Click on the “Save” button to save the change.
8. To see the effect, click anywhere in the dashboard page and it will bring you to the selected page.

Do note that there are some weightings on some of the features. Some properties have priorities over others. You may have noticed that once the “Click to Page” feature is implemented, the “Select to Control” feature is ineffective. Thus, these two features should not be used together.

2.6. Create ETL

The ETL module enables writing powerful and versatile high-level functions that can be used for various purposes including but not limited to:

- ETL (extract, transform, load) for preparing and enriching data
- Log monitoring
- Report generation
- Maintenance or cleanup
- Sending notifications
- Making external API calls

A record or item in the ETL interface is called a chainset. Each chainset can contain as many chains as desired. Each chain is made up of a set of steps. These steps are the building blocks in the ETL module.

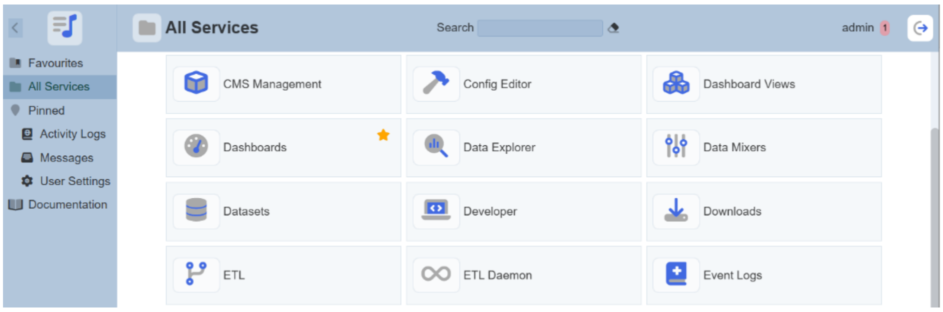
The ETL module allows you to perform the following:

- Add ETL
- Upload ETL
- Delete ETL
- Edit ETL
- Open ETL Designer
- Download ETL

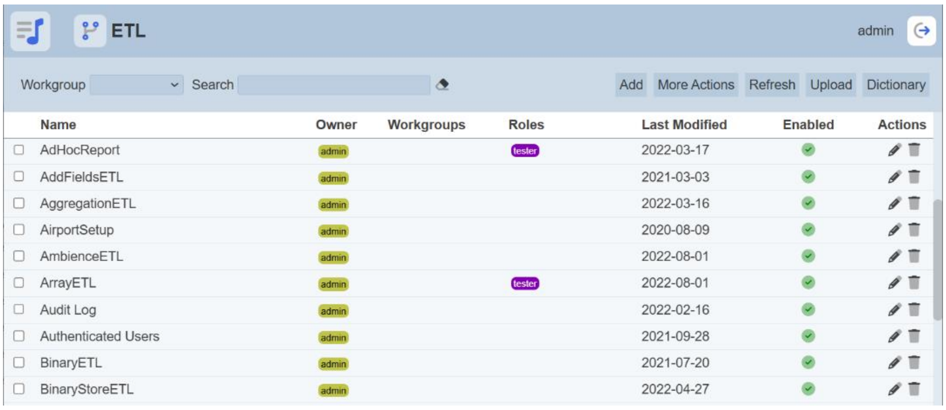
2.6.1. Simple Calculation ETL

Below is an example of creating a very simple calculation ETL.

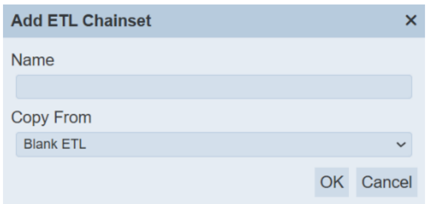
1. Click on the “Elixir Ambience” logo and select the “All Services” option in the left panel, then select “ETL” in the right panel.



2. The ETL page will appear.



3. In the ETL page, click on the “Add” button on the upper right corner of the page. A dialog box will appear.

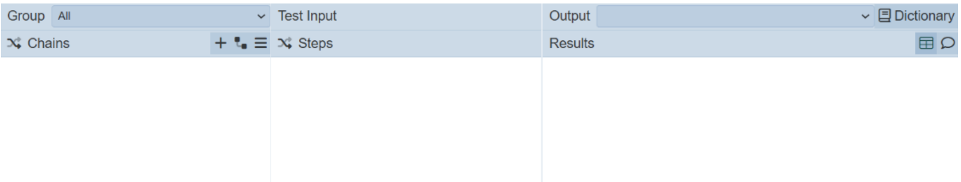


4. In the dialog box, key in and select the following:

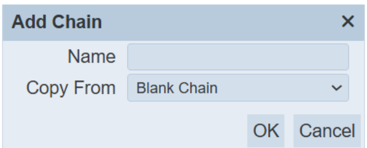
- “Name” field – Key in a name for the new ETL
- “Copy From” field – Selects an existing ETL from drop-down list or a blank ETL (in this example, select “Blank ETL”)

5. Click on the “OK” button to save the changes.

6. The ETL Designer page appears.



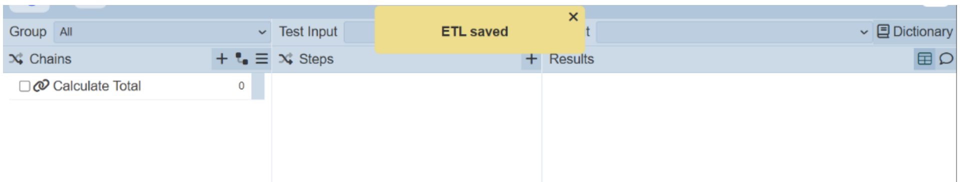
7. In “Chains” section, click on the “+” icon. The “Add” dialog box will appear.



8. In the dialog box, key in and select the following:

- “Name” Field – Key in a name for the new
- “Copy From” field – Selects an existing chain from the drop-down list or a blank chain (in this example, select “Blank Chain”)

9. Click on the “OK” button to save the changes. A message will appear upon successful saving the ETL.

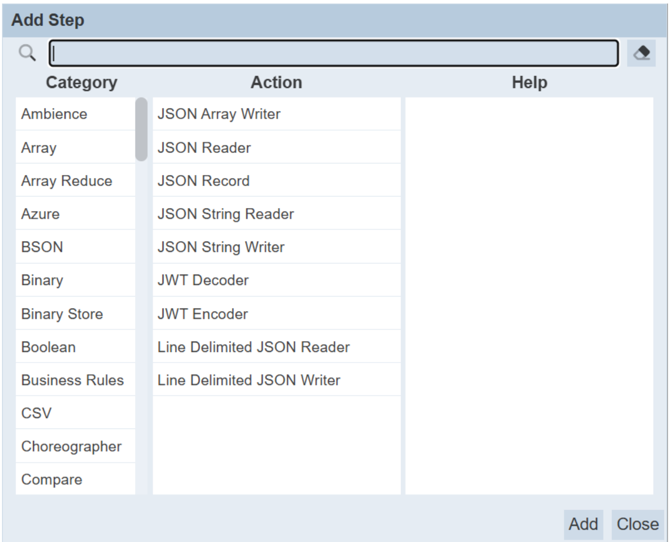


10. In this example, two steps are required:

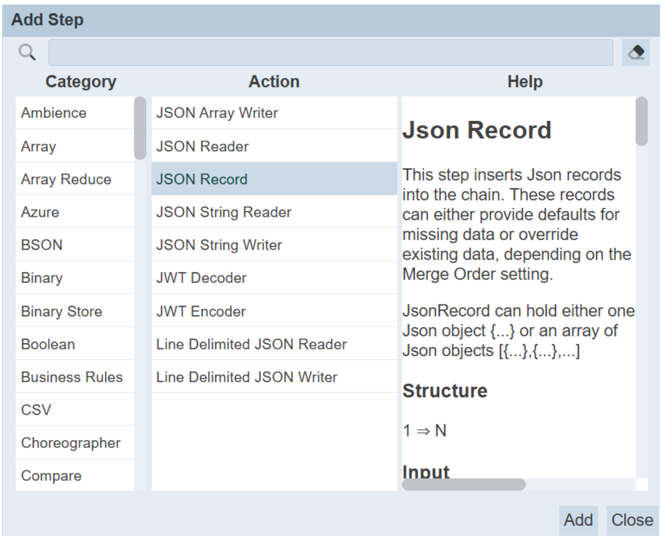
    a. First step – Adds two JSON records
    b. Second step – Creates a total by multiplying two fields in the JSON record

11. Add steps:

    a. In the “Steps” section, click on the “+” icon. The “Add Step” dialog box will appear.

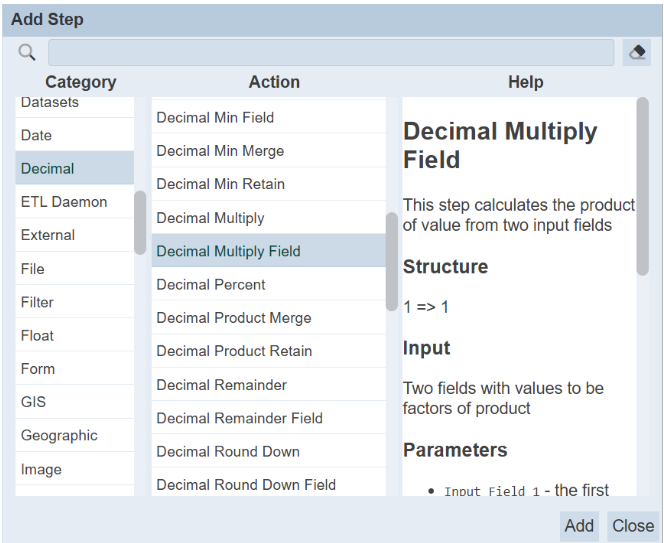
    

    b. In the “Category” section, select “JSON”. The list of available actions will appear in the “Action” section. From the list of actions, select “JSON Record”.

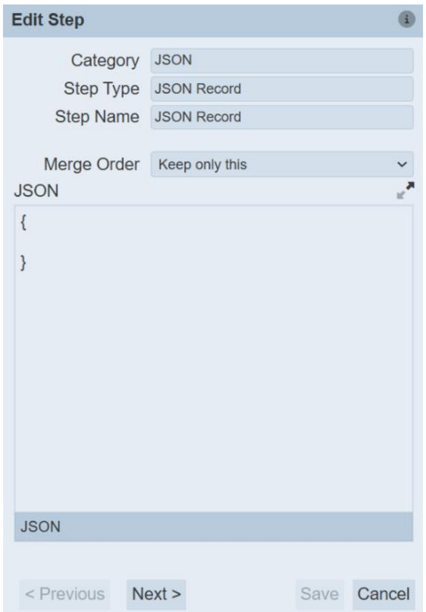
    c. Click on the “Add” button to add the step. The new step is added in the background.

d. In the “Category” section, select “Decimal”, then select “Decimal Multiply Field” in the “Action” section.



e. Click on the “Add” button to add the step. The new step is added in the background.

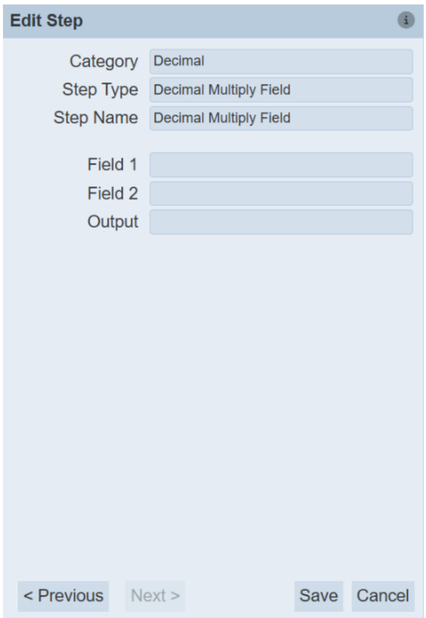
f. Click on the “Close” button to close the dialog box. Another dialog box “Edit Step” will appear.



g. In the “JSON” section, key in the following:

```
[
  {
    “fruit” : “Apple”,
    “unit” : 10,
    “cost” : 2
  },
  {
    “fruit” : “Orange”,
    “unit” : 8,
    “cost” : 5
  }
]
```

h. Click on the “Next” button to go to the second ETL step.



i. In the “Edit Step” dialog box, key in the following:

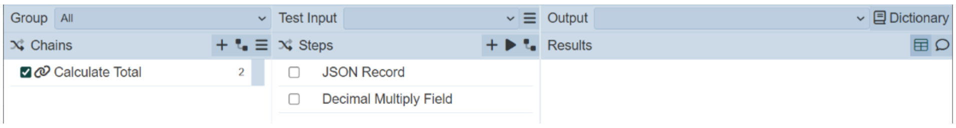
- “Field 1” field – Key in “unit”
- “Field 2” field – Key in “cost”
- “Output” field – Key in “total”

j. Click on the “Save” button to save the step.

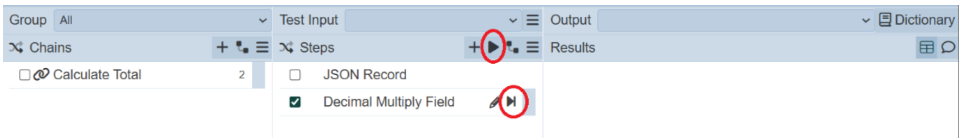
k. You can edit the step by clicking on the “Edit” icon. The “Edit Step” dialog box will appear.

In the “Edit Step” dialog box, you can switch between the first and second step by clicking on the “Previous” and “Next” buttons at the lower left corner of the dialog box.

12. The first and second steps are now added to the chain.



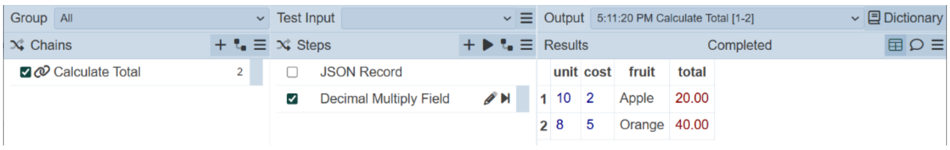
13. To run the steps, select “Decimal Multiply Field” to display the available action icons next to it.



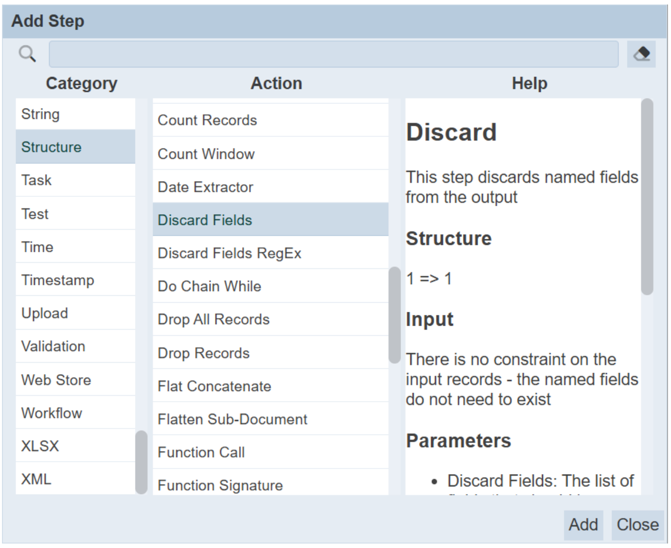
14. Click on the “Run to Step” icon of the last step to run the steps. By selecting the last step, you will run both steps sequentially. Or, you can select and run the steps individually and sequentially.

Another way is to click on the “Run Steps” icon to run all the steps in the chain.

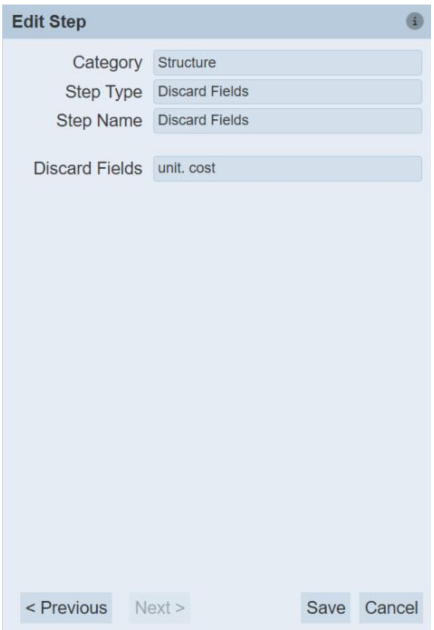
15. The outputs are displayed in the “Results” sections. The field “total” is added and it is the result of “unit” multiply by “cost”.



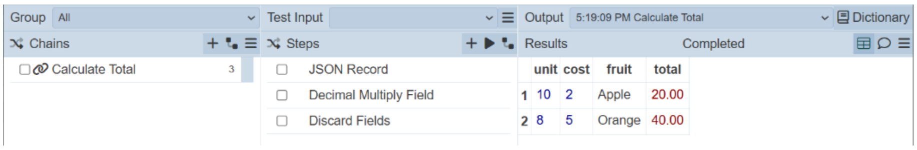
16. If you do not want to display “unit” and “cost” in “Results”, you can add another step to the chain to remove them.
    a. In the “Steps” section, click on the “+” to add a new step.
    b. In the “Add Step” dialog box, select “Structure”, then select “Discard Fields”.



    c. Click on the “Add” button to add the new step, then click on the “Close” button to close the dialog box. The “Edit Step” dialog box will appear.
    d. In the “Edit Step” dialog box, key in “unit, cost” into the “Discard Fields” field.



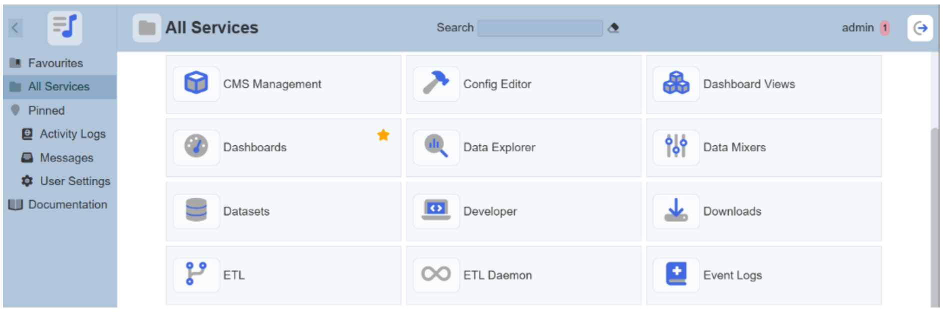
    e. Click on the “Save” button to save the changes.
    f. Select the newly added step and click on the “Run Steps” icon. The result now displays the “total” field.



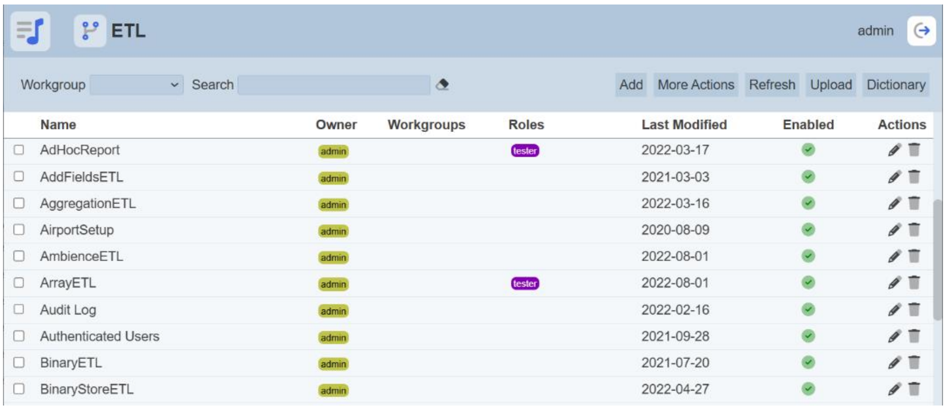
2.6.2. MongoDB Read ETL

Below is an example of reading data from MongoDB.

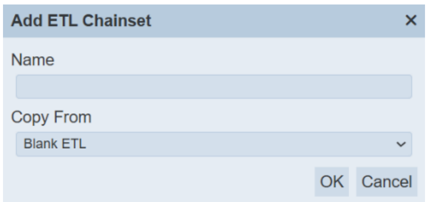
1. Click on the “Elixir Ambience” logo and select the “All Services” option in the left panel, then select “ETL” in the right panel.



2. The “ETL” page will appear.



3. In the “ETL” page, click on the “Add” button on the upper right corner of the page. A “Create ETL” dialog box will appear.

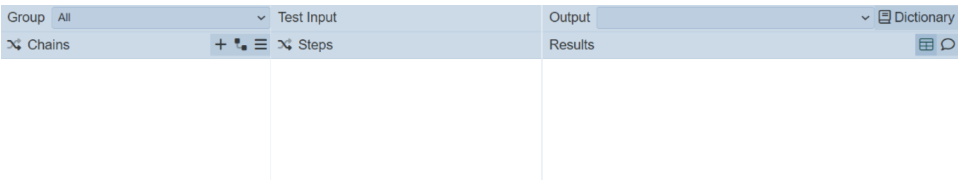


4. In the dialog box, key in and select the following:

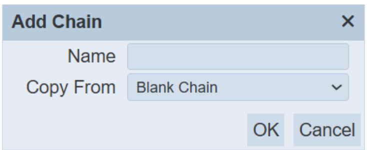
   - “Name” field – Key in a name for the new ETL
   - “Copy From” field – Selects an existing ETL from drop-down list or a blank ETL (in this example, select “Blank ETL”)

5. Click on the “OK” button to save the changes.

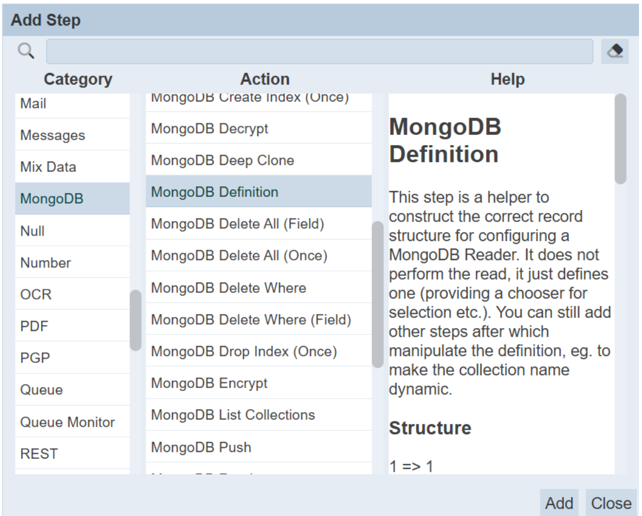
6. The ETL Designer page appears.



7. In "Chains" section, click on the "+" icon. The "Add" dialog box will appear.

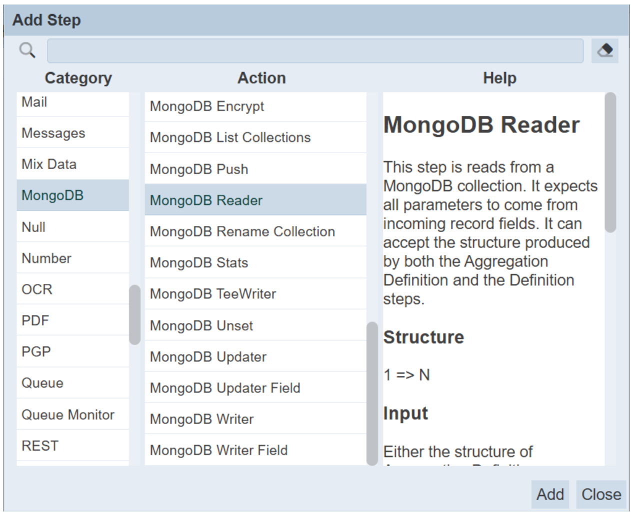


8. In the dialog box, key in and select the following:
   - "Name" Field – Key in a name for the new
   - "Copy From" field – Selects an existing chain from the drop-down list or a blank chain (in this example, select "Blank Chain")
9. Click on the "OK" button to save the changes. A message will appear upon successful saving the ETL.
10. In this example, two steps are required:
    a. First step – Defines MongoDB
    b. Second step – Read from MongoDB
11. Add steps:
    a. In the "Steps" section, click on the "+" icon. The "Add Step" dialog box will appear.
    b. In the "Category" section, select "MongoDB, then select "MongoDB Definition" in the "Action" section.

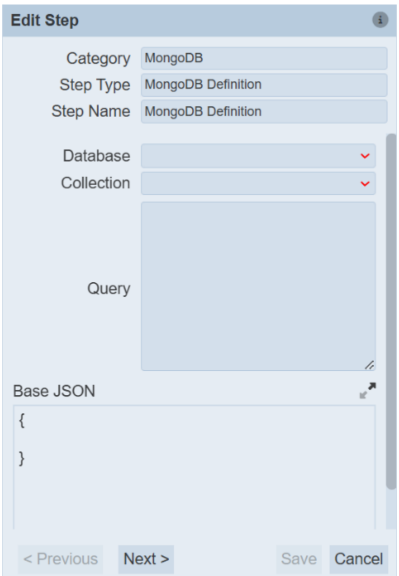


    c. Click on the "Add" button to add the step. The new step is added in the background.

d. In the “Category” section, select “MongoDB, then select “MongoDB Reader” in the “Action” section.

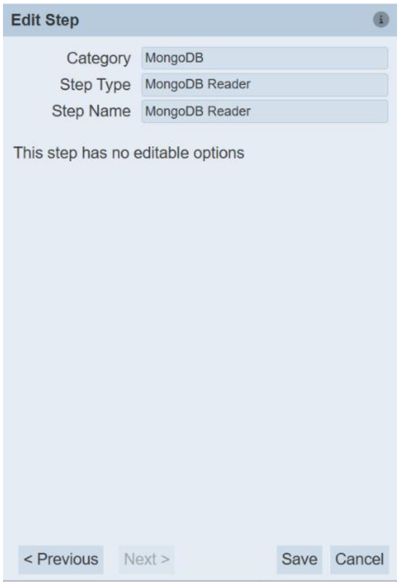


e. Click on the “Add” button to add the step. Click on the “Close” button to close the dialog box. Another dialog box “Edit Step” will appear.



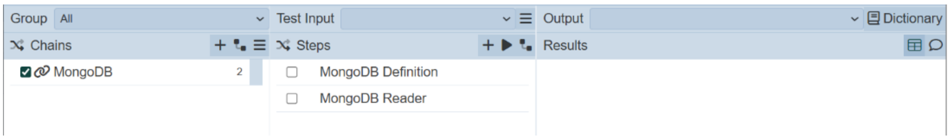
f. In the “Edit Step” dialog box, select the appropriate database and collection.

g. Click on the “Next” button to go to the second step.

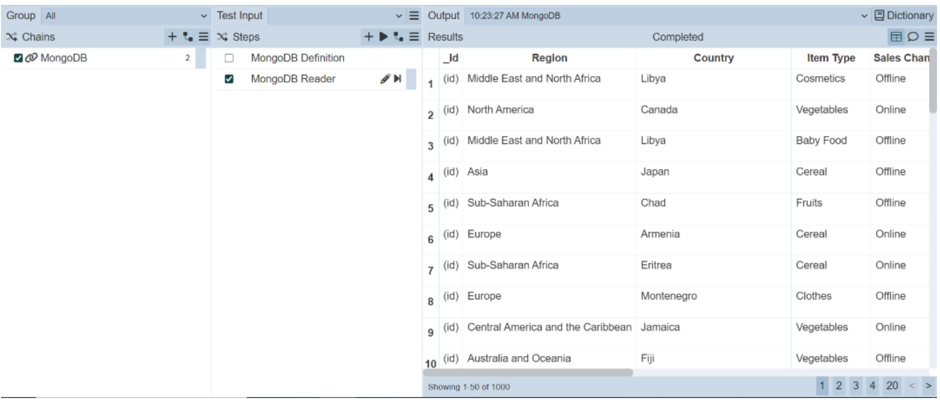


h. There are no editable options in this step. Click on the “Save” button to exit the dialog box.

12. The first and second steps are now added to the chain.
13. To run the steps, click on the “Run Steps” icon.



14. Alternatively, click on the “Run to Step” icon of the last step to run the steps. By selecting the last step, you will run both steps sequentially. Or you can select and run the steps individually and sequentially.
15. The outputs are displayed in the Results” sections.



2.6.3. Scheduler ETL

Ambience allows user to scheduler jobs for generating reports for example. It will be useful if an alert can be generated to inform the user that the scheduled job has been triggered.

You can create an ETL to send an alert to the desired user(s). This ETL will be used in conjunction with the Scheduler in Ambience to perform the above function.

This alert can be in two forms:

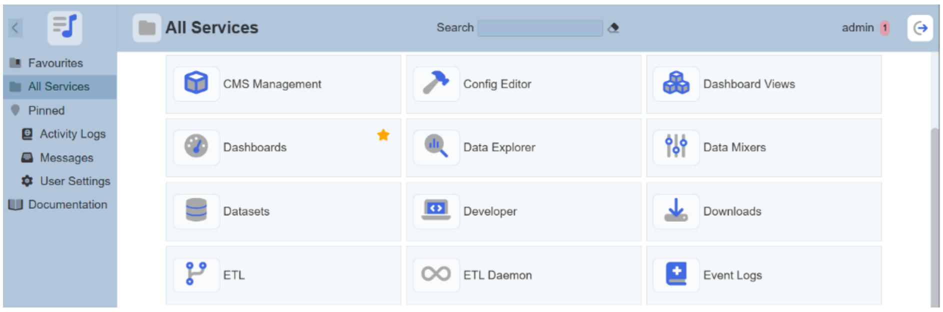
- Via email
- Via message to the Messages module to users within Ambience

2.6.3.1. Via Email

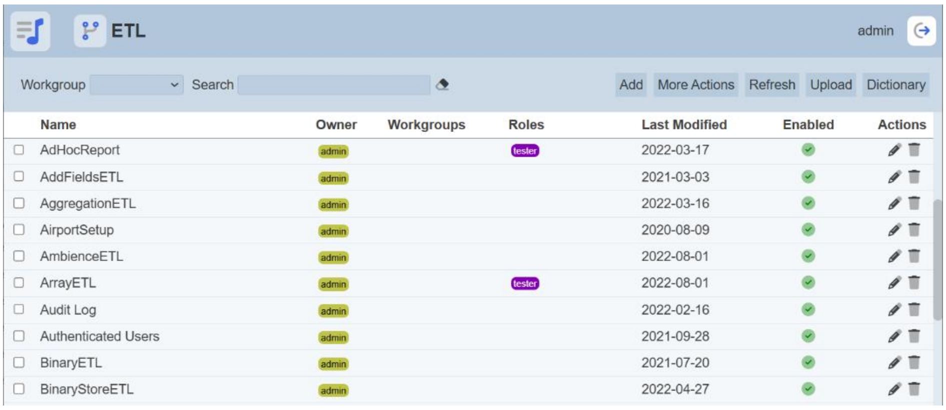
This method allows you to send an alert to any users, as long as their email addresses are defined in the step.

Use the following steps to create a scheduler ETL via email:

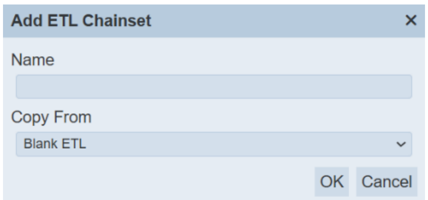
1. Click on the “Elixir Ambience” logo and select the “All Services” option in the left panel, then select “ETL” in the right panel.



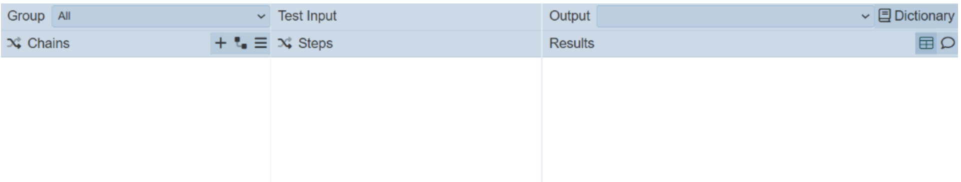
2. The “ETL” page will appear.



3. In the “ETL” page, click on the “Add” button on the upper right corner of the page. A “Create ETL” dialog box will appear.



4. In the dialog box, key in and select the following:
   - "Name" field – Key in a name for the new ETL
   - "Copy From" field – Selects an existing ETL from drop-down list or a blank ETL (in this example, select "Blank ETL")
5. Click on the "OK" button to save the changes.
6. The ETL Designer page appears.

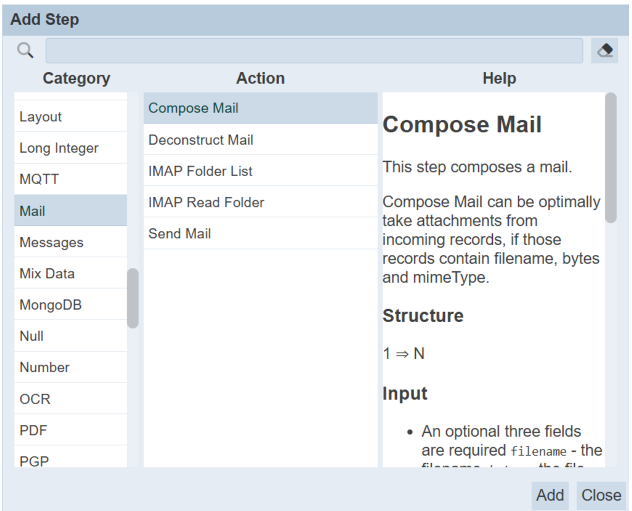


7. In "Chains" section, click on the "+" icon. The "Add" dialog box will appear.

8. In the dialog box, key in and select the following:
   - "Name" Field – Key in a name for the new
   - "Copy From" field – Selects an existing chain from the drop-down list or a Blank chain (in this example, select "Blank Chain")
9. Click on the "OK" button to save the changes. A message will appear upon successful saving the ETL.
10. For the via email method, two steps are required:

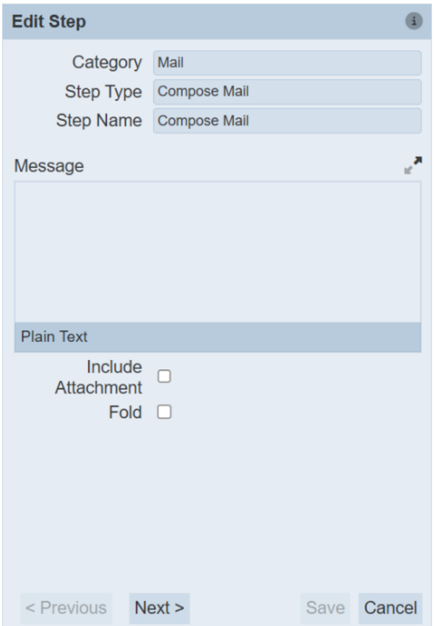
    a. First step – Compose Mail
    b. Second step – Send Mail

11. Add steps:
    a. In the "Steps" section, click on the "+" icon. The "Add Step" dialog box will appear.
    b. In the "Category" section, select "Mail, then select "Compose Mail" in the "Action" section.



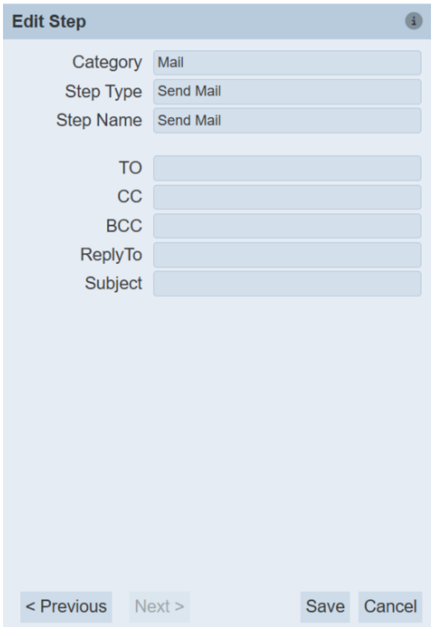
    c. Click on the "Add" button to add the step. The new step is added in the background.
    d. In the same "Category" section, select "Mail", then select "Send Mail" in the "Action" section.
    e. Click on the "Add" button to add the step. The new step is added in the background.
    f. Click on the "Close" button to close the dialog box.

12. The "Edit Step" dialog box will appear. This "Edit Step" is for the first step "Compose Mail".



13. In the "Edit Step" dialog box, key in appropriate message for the email. You can also opt to include attachment.

14. Click on the "Next" button on the lower left corner of the dialog box to display the "Edit Step" for the second step.



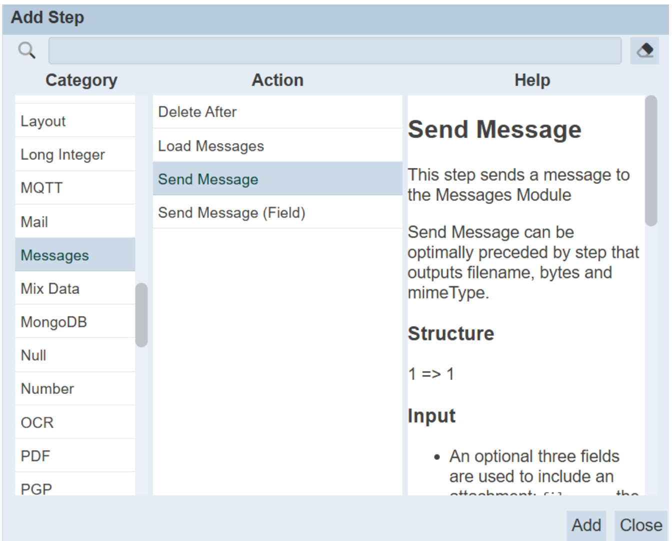
15. In the dialog box, key in the appropriate email addresses and subject in the respective fields.
16. Click on the "Save" button to save the edits.

2.6.3.2. Via Message

This method sends an alert via message to the Message module to users within Ambience.

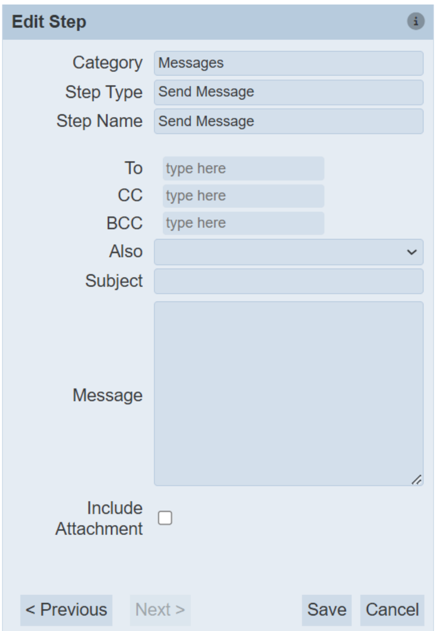
Use the following steps:

1. Follow steps 1 to 8 from the [Section 2.5.3.1 Via Email](#).
2. In the "Steps" section, click on the "+" icon. The "Add Step" dialog box will appear.



3. In the "Category" section, select "Messages", then select "Send Message".

4. Click on the “OK” button to save the step. The new step is added in the background. Click on the “Close” button. The “Edit Step” dialog box will appear.



5. In the dialog box, select and key in the following:

- “To” field – Selects the desired user from drop-down list
- “CC” field – Selects the desired user from drop-down list
- “BCC” field – Selects the desired user from drop-down list
- “Also” field – Selects which group to include the current user from drop-down list
- “Subject” field – Key in the appropriate subject title
- “Message” field – Key in the appropriate message
- “Include Attachment” field – Selects to include attachment

6. Click on the “Save” button to save the changes.

2.7. Scheduler

The Scheduler module in Ambience allows you to set up jobs to automatically trigger the generation of these reports. The Scheduler module also allows you to view the status of the job, or sent an email to you, if it is being set up.

The Scheduler module consists of three pages:

- Status – Shows the status of the job triggers that have run or are currently running (shows last 200)
- Trigger – Lists all jobs that are available for the owner
- Calendar – Lists all constraints shared among the triggers

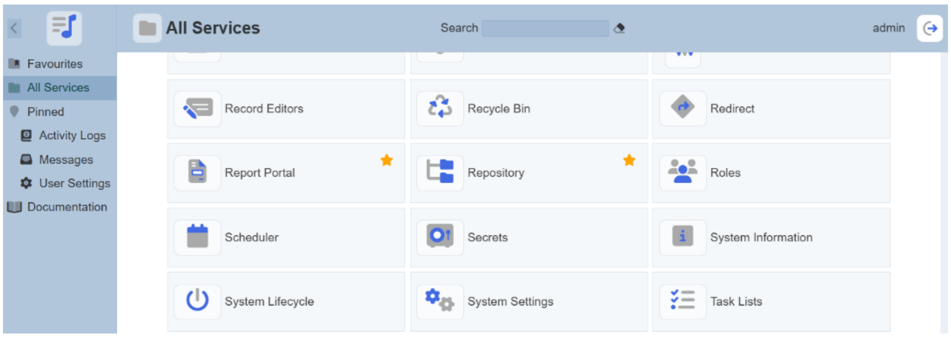
In the below example, a job trigger that occurs on the 10th of each month. The selected day must be a weekday and must not be a public holiday.

2.7.1. Calendar

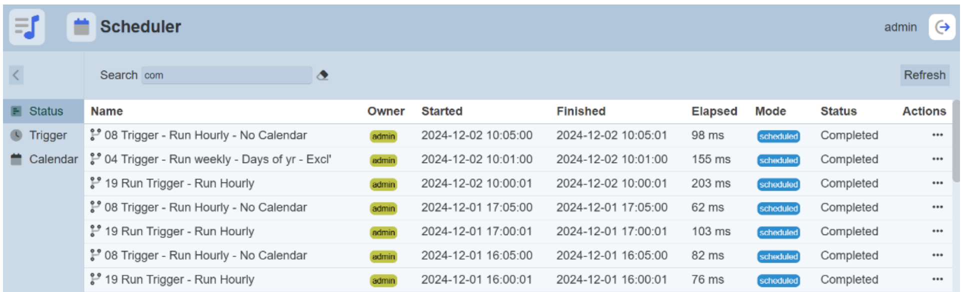
The Calendar page in the Scheduler module allows you to set conditions or constraints in these calendars and apply them onto the trigger to determine when the job is to be run, such as which year, month, day and/or time, as well as the time zone. Do note that the calendar constraints may be shared and can be used by more than one trigger.

Use the following steps to create a simple public holiday calendar:

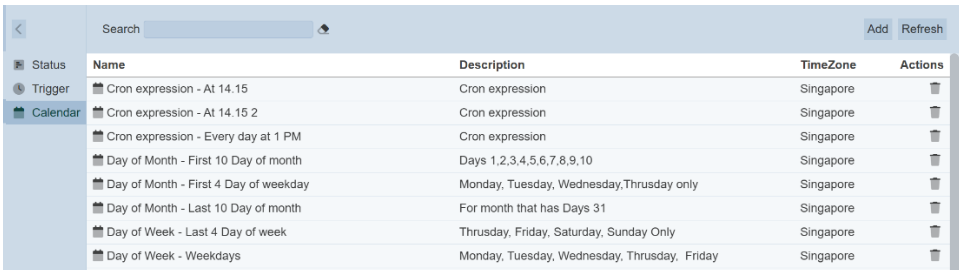
1. Click on the “Elixir Ambience” logo and select the “All Services” option in the left panel, then select “Scheduler” in the right panel



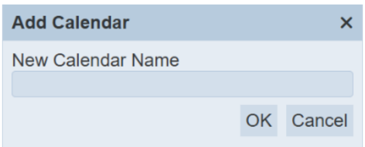
2. The “Scheduler” page will appear.



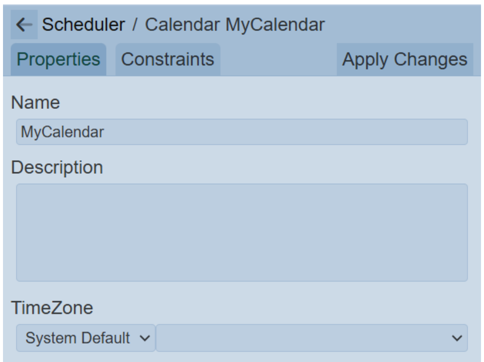
3. Click on the “Calendar” option in the left panel.



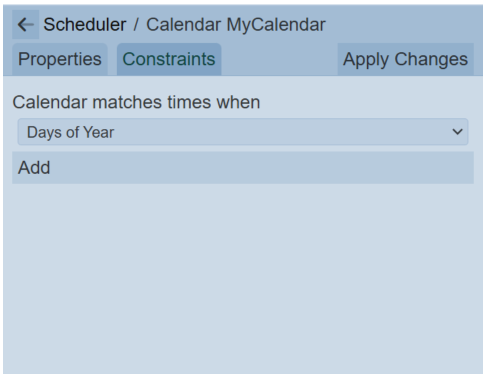
4. Click on the “Add” button on the upper right corner of the “Calendar” page. The “Add Calendar” dialog box will appear.



5. In the dialog box, key in a unique name .and click on the “OK” button to create the new calendar.
6. The new calendar is created and will appear in the management page.
7. To edit the calendar, click on the name of the calendar under the “Name” column.
8. The “Scheduler / Calendar” panel will appear.



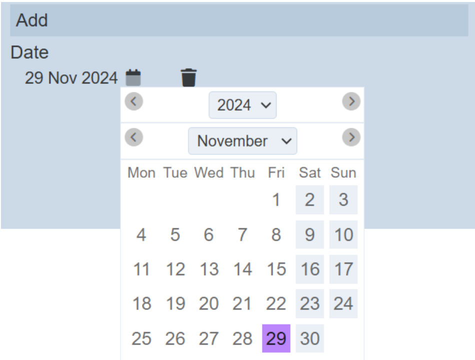
9. In the “Properties” tab, key in and select the following:
   - “Name” field – Edit the unique name of the calendar
   - “Description” field – Key in a brief description for the calendar (optional)
   - “TimeZone” field – Selects timezone from drop-down list (optional but recommended) (in this example, select “Singapore”)
10. In the “Constraints” tab, select the following:
    - “Calendar matches times when” field – Selects “Day of Year”
    - The next field is dependent on the above field, one or more fields may appear



11. Click on the “Add” button in the “Constraints” tab to add a new date.

By default, the current date is selected.

12. Click on the “Calendar” icon and select the correct date.



13. Repeat steps 6 and 7 until all public holidays are added.
14. Click on the “Apply Changes” button to save the changes.
15. Click on the “Previous” icon to return to the management page.

Repeat the above steps to create a weekday calendar that involves Monday to Friday only.

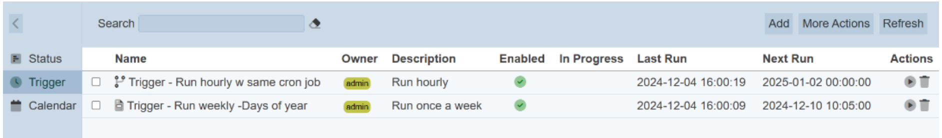
2.7.2. Trigger

A trigger defines the following:

- Chain or chainset to run
- Frequency or interval of the trigger
- Calendars to decide when a trigger should fire at a particular month, date, day and/or time, as well as the time zone

Use the following steps to create a simple trigger:

1. Click on the “Trigger” option in the left panel to display the list of triggers.



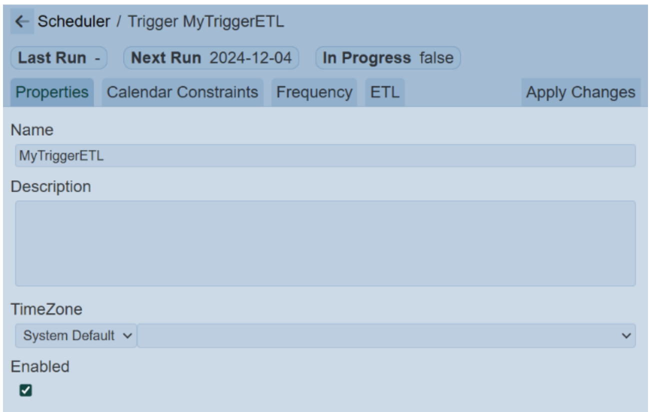
2. Click on the “Add” button on the upper right corner of the page.
3. The “Add Trigger” dialog box will appear.

4. Key in a unique name for the trigger in the “Name” field and select the type of trigger for the “Type” field.

   There are two types of triggers:

   - ETL – Job run by ETL chain/chainset
   - Report – Job run by defining report

5. The new trigger is created and will appear in the management page.
6. To edit the trigger, click on the name of trigger under the “Name” column. The “Scheduler / Trigger” panel will appear.



7. In the “Properties” tab, key in and select the following:

   - “Name” field – Key in a unique name for the calendar
   - “Description” field – Key in a brief description for the calendar (optional)
   - “TimeZone” field – Selects timezone from drop-down list (optional but recommended) (in this example, select “Singapore”)
   - “Enabled” field – Ensure this field is selected

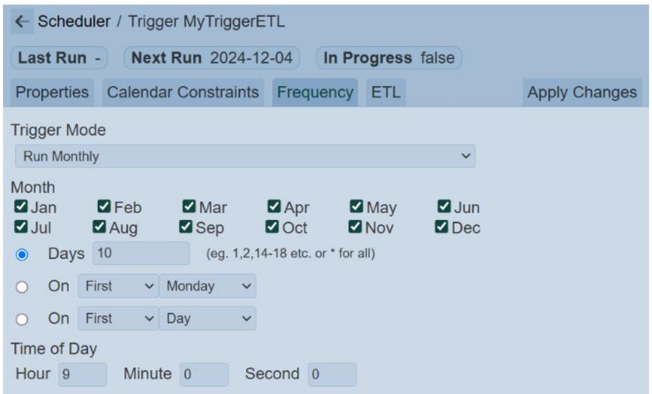
8. In the "Constraint" tab, select the following:

   - "Day of Week – Weekdays" – Selects "Include"
   - "Public Holiday Singapore" – Selects "Exclude"

   This will ensure only weekday and non-public holidays will trigger the job.

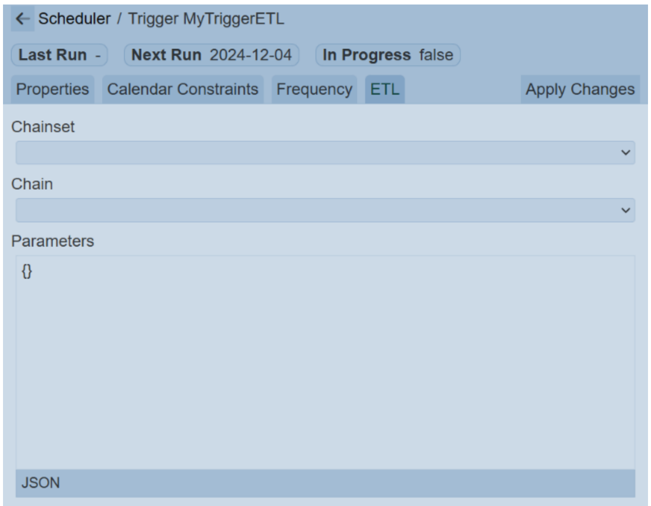
9. In the "Frequency" tab, key in and select the following:

   - "Trigger Mode" field – Selects "Run Monthly"
   - "Monthly" field – Selects all months
   - "Days" field – Selects this field and key in "10"
   - "Time of Day" field – Key in "9" in the "Hour" field



10. The last tab depends on which type of trigger is selected prior. In this case, ETL is selected.

11. In the “ETL” tab, select the scheduler ETL that was created in Section 2.5.3 Scheduler ETL.



12. Click on the “Apply Changes” button to save the changes.
13. Click on the “Previous” icon to return to the management page

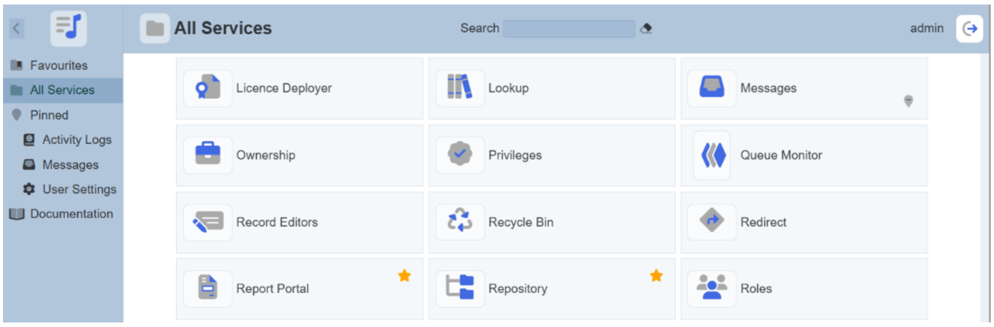
3. Annex

3.1. Add User

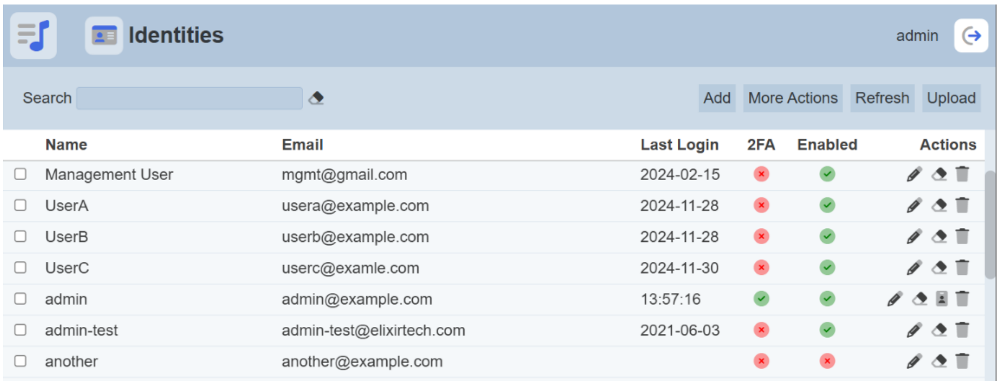
There may be a situation where you need to add a user into Ambience.

Use the following steps to add a user:

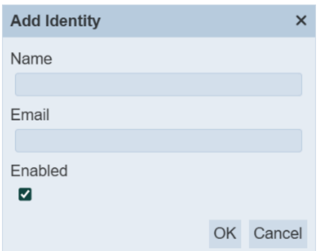
1. Click on the “Elixir Ambience” logo and select the “All Services” option in the left panel.



2. In the “Service Chooser” page, select “Identities” in the right panel. The “Identities” page will appear.



3. To add a new identity, click on the “Add” button on the upper right corner of the page. The “Add Identity” dialog box will appear.

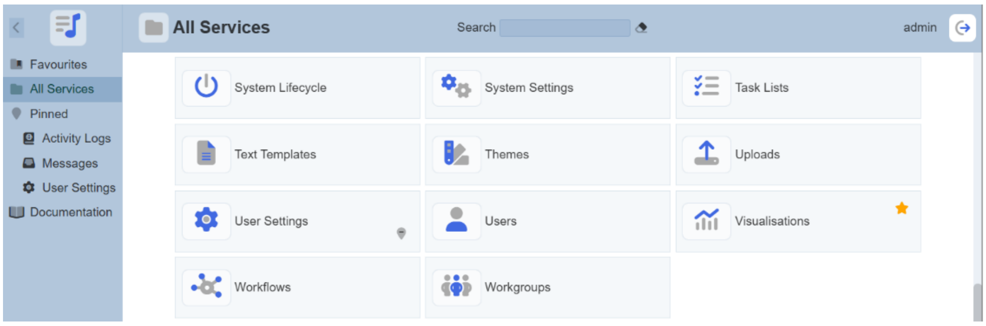


4. In the dialog box, key in and select the following:

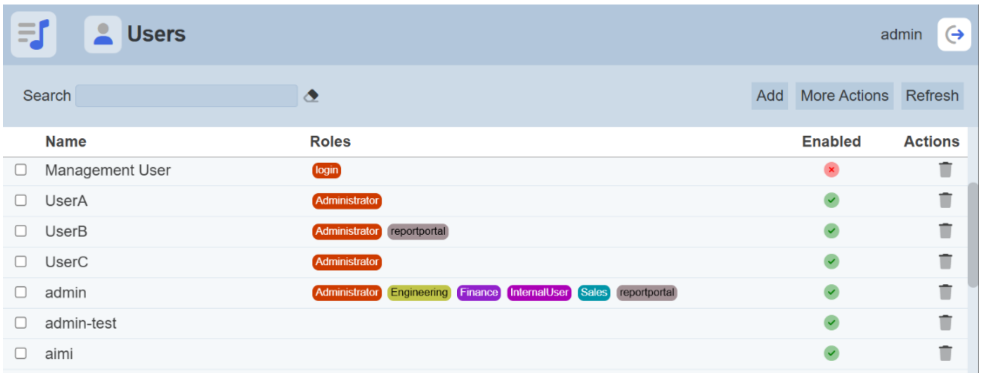
   - “Name” field – Key in a unique name
   - “Email” field – Key in the email of the new identity
   - “Enabled” field – Ensure this field is selected

5. Click on the “OK” button in the dialog box.

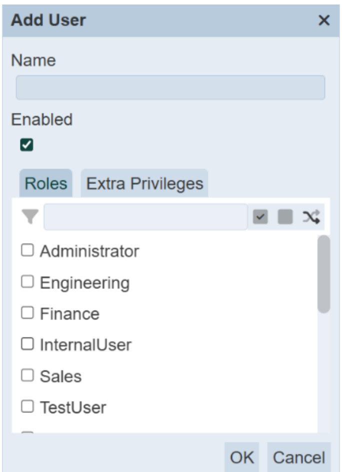
6. Click on the "Elixir Ambience" logo on the upper left corner of the page and select "All Services" option in the left panel.



7. In the "Service Chooser" page, select "Users" in the right panel. The "Users" page will appear.



8. Click on the "Add" button at the upper right corner of the page.



9. Key in and select the following:
   - "Name" field – Unique name created in the Identities module in the "Name" field
   - "Enabled" field – Ensure this field is selected
   - "Roles" tab – Selects the appropriate role for the new user
   - "Extra Privileges" tab – Selects the appropriate privileges

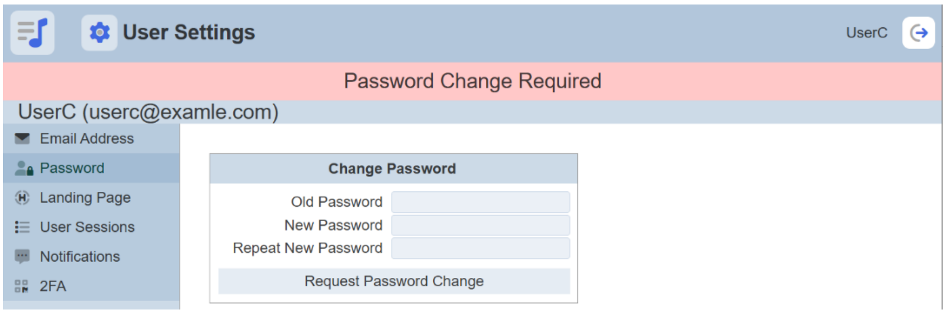
10. Click on the "OK" button in the dialog box.

11. If the email server has been set up, an email will be sent to the new user with a randomly generated password. The new user will need to change the password upon login.

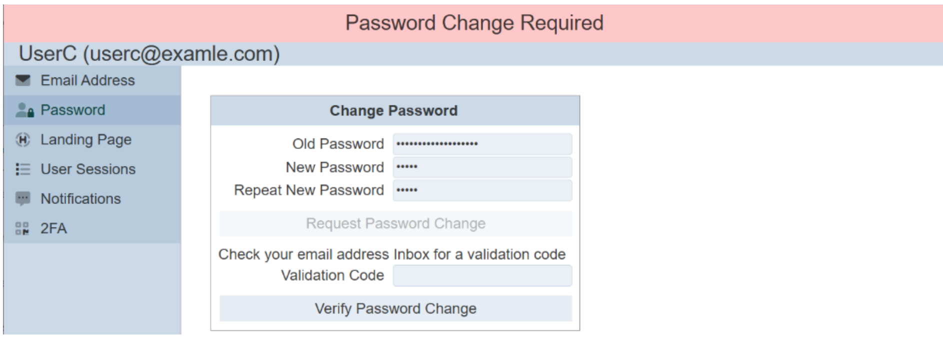
    If the email server has not been set up, the random password can be found in a text file in the "/mail" folder in the Ambience root directory.

3.2. Change Password

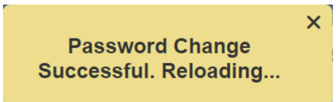
For normal users, you will be prompted to change your password on your first log in.



In the “Change Password” section, key in the old password and key in the new password twice. Hit the “Request Password Change” button. A verification panel will appear to request you to key in the validation code.



A validation code will be sent to your email upon successful change password request. Key in the validation code and click on the “Verify Password Change” button. A message will appear to inform you that the password change is successful.



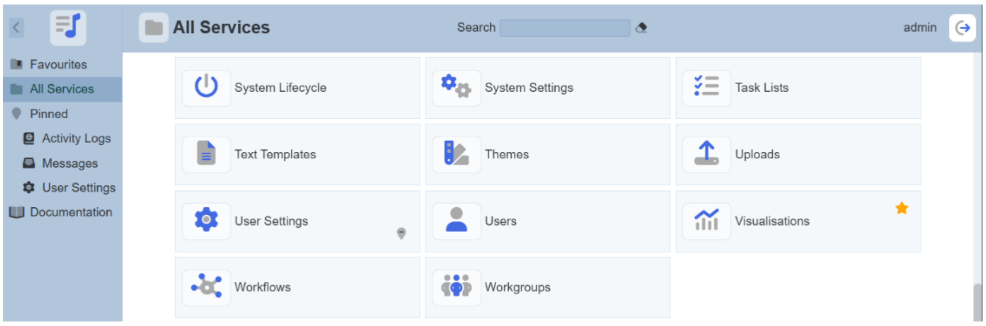
After reloading, the Service Chooser page will appear.

3.3. Setup 2FA

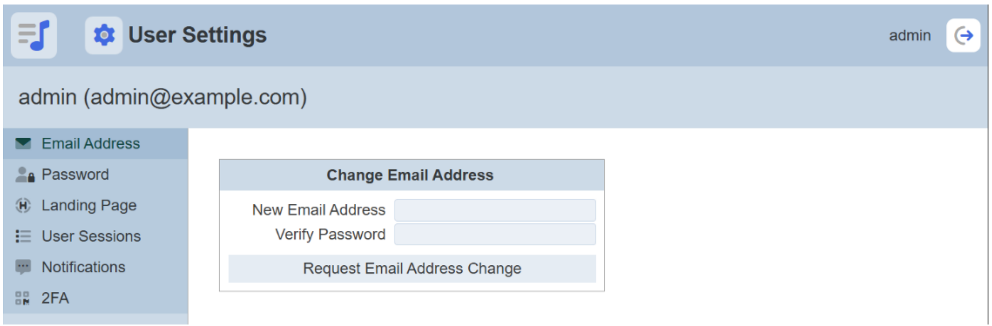
By default, TOTP 2FA is disabled in Ambience. If it is enabled, users can set up their own TOTP 2FA using the User Settings module.

Use the following steps to setup 2FA:

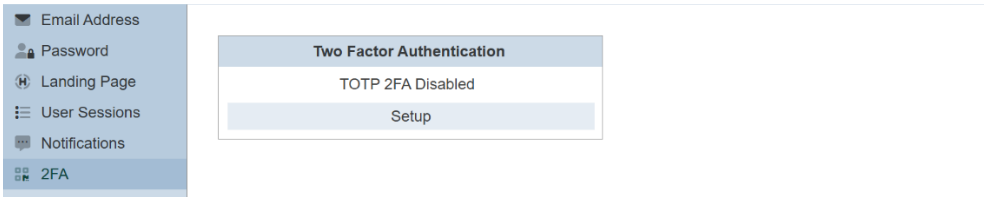
1. Click on the “Elixir Ambience” logo on the upper left corner of the page and select “All Services” option in the left panel.



2. In the “Service Chooser” page, select “User Settings” in the right panel. The “User Settings” page will appear.



3. Select “2FA” from the left panel.

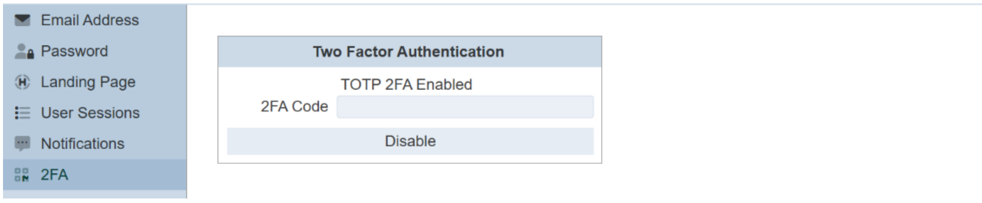


4. In the “Two Factor Authentication” section, click on the “Setup” button to display the QR code.

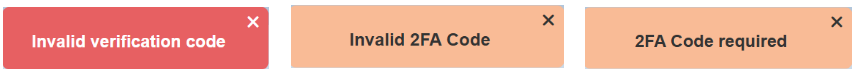
5. Open any 2FA Authenticator (such as Google Authenticator) on your phone to scan the QR Code. The app will register “*ElixirAmbience (<username>)*” and provides a 6-digit code. This code will change every 30 seconds.

   Ambience provides a minute window for clock drift. Ensure the 2FA app and the Ambience server is in sync.

6. Enter the 6-digit code as the 2FA Verification Code (with or without) space and click on the “Confirm” button. Once authentication is completed, the “TOTP 2FA Enabled” panel will appear.



7. If the wrong code (6-digit, less than 6-digit) or no code is entered, the following error messages will appear accordingly.



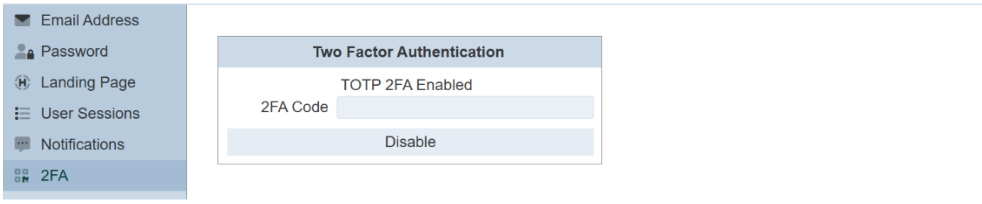
3.4. Disable 2FA

There are two ways to disable 2FA. User can disable it for themselves using User Settings module. Identity administrators can disable 2FA for any user via the Identities module (e.g., if a user has lost their 2FA device). Once the 2FA is disabled or reset, the user will need to set up 2FA again.

3.4.1. User Settings

One way is to use the User Settings module.

In the “Two Factor Authentication” section, key in the 6-digit code generated from the 2FA Authenticator into the “2FA Code” field and click on the “Disable” button.

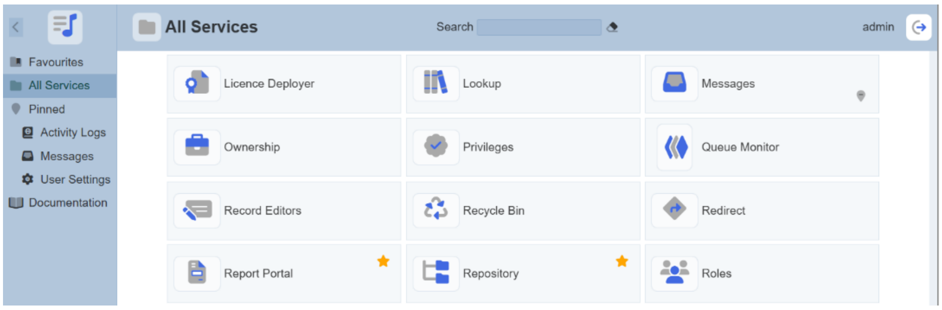


3.4.2. Identity

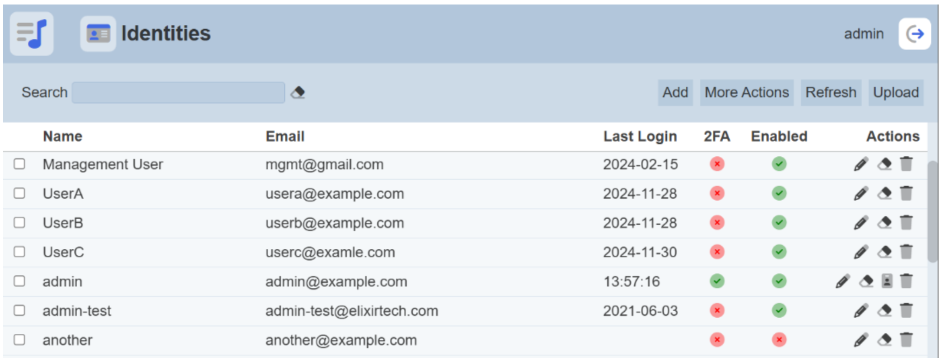
The other method is to use the Identities module.

To disable 2FA, use the following steps:

1. Click on the “Elixir Ambience” logo and select the “All Services” option in the left panel.

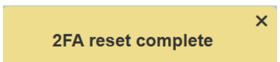


2. In the “Service Chooser” page, select “Identities” in the right panel. The “Identities” page will appear.



3. Select the “Reset 2FA” icon under the Actions column corresponding the desired user.

4. Upon successful deletion, a notification will appear.



3.5. Configure and Test Mail Server

When identities are added, an email is sent containing a random password. When a user wants to change email or password, a verification is sent via email as well.

If you have not set up an email server, the default behaviour is to store the emails in the "/mail" folder within Ambience. This is usually for diagnosis or debugging purposes. It is recommended to set up a mail server at the start.

Below are two examples of how to set up a mail server.

Example 1: Uses Gmail

1. Gmail allows only OAuth2 authentication without weakening security. Visit https://console.developers.google.com/apis/credentials to set up a "*clientID*" and "*clientSecret*". Use these to generate a "*refreshToken*".
2. In the Ambience root folder, navigate to the "/etc" folder. Open the "*application.conf*" file using a text editor. In the "*elixir.mail*" section, edit the following with the information obtained earlier accordingly.

```
elixir.mail {
  smtp = "gmail"
  gmail {
    host = "smtp.gmail.com"
    port = 587
    debug = true
    oauth2 {
      userName = "xxx@gmail.com"
      clientId = "XXXX"
      clientSecret = "YYYY"
      refreshToken = "ZZZZ"
    }
  }
}
```

3. After the above is edited in the "*application.conf*" file, start the Ambience server and go to Identities module to create a user with a valid email address.

Example 2: Uses AWS

1. In the Ambience root folder, navigate to the "/etc" folder. Open the "*application.conf*" file using a text editor. In the "*elixir.mail*" section, edit the following:

```
elixir.mail {
  smtp = "aws"
  aws {
    from = "user@elixirtech.com"
    host = "email-smtp.us-west-2.amazonaws.com"
    dnsResolver = ""
    port = 465
    user = "XXXX"
    password = "YYYY"
    connectionTimeout = 30000
    tls = true
    ssl = true
    authMechanism = ""
    debug = false
  }
}
```

2. After the above is edited in the "*application.conf*" file, start the Ambience server and go to Identities module to create a user with a valid email address.