ELIXIR AMBIENCE 2025 SETUP GUIDE



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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.

Elixir Single Sign-On	
Elixir Ambience	
Username	
Password	
2FA Code	
Login	
Can't access your account?	
	Copyright 2025 Elixir Technology Pte Ltd

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-ser	ver
QA:bin zhouying\$./run-server
Config using defa	aults
09:19:10.093 INF) ambience.module.Launcher - Log current config: true
09:19:10.134 INF) ambience.module.Launcher - Launcher invoked
09:19:10.168 INF) ambience.module.StartupTests - user.name=zhouying
09:19:10.169 INF	ambience.module.StartupTests - user.home=/Users/zhouying
09:19:10.169 INF) ambience.module.StartupTests - user.dir=/Users/zhouying/Test/Ambience/2020-SNAPSHO
т	
09:19:10.170 INF) ambience.module.StartupTests - java.version=11.0.3
09:19:10.171 INF) ambience.module.StartupTests - java.vendor=Oracle Corporation
09:19:10.171 INF	<pre>ambience.module.StartupTests - java.home=/Library/Java/JavaVirtualMachines/jdk-11.</pre>
0.3.jdk/Contents	(Home
09:19:10.171 INF) ambience.module.StartupTests - java.io.tmpdir=/var/folders/4t/4t8mqkvj3zv7s8z2yh1f
v9xw0000gn/T/	
09:19:10.172 INF) ambience.module.StartupTests - os.name=Mac OS X
09:19:10.172 INF) ambience.module.StartupTests - os.arch=x86_64
09:19:10.172 INF) ambience.module.StartupTests - os.version=10.14.6
09:19:10.878 INF) akka.event.slf4j.Slf4jLogger - Slf4jLogger started
09:19:11.696 INF) com.elixirtech.arch.info.JavaPID - JVM Name = 609198QA
09:19:11.709 INF) com.elixirtech.mongodb.MongoDB - MongoDB ambience Serial=1
09:19:11.716 INF) com.elixirtech.mongodb.MongoDB - Building MongoDB Client starting (com.elixirtech.
mongodb.DefaultMe	ongoDB.buildMongoClient:30)
09:19:11.852 INF	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.

•	8	Elixir SSG	D		×	+	-		×
←	\rightarrow	C	0	localhost	1740/sim	$ple-sso/auth?client_id=ambience&response_type=code&redir$:
						Elixir Single Sign-On			
					Us Pa 2F	Elixir Ambience ername	ir Techni	lology Pl	e Ltd

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-serv	ver
QA:bin zhouying\$./run-server
Config using defa	ults
09:19:10.093 INFC	ambience.module.Launcher - Log current config: true
09:19:10.134 INFO	ambience.module.Launcher - Launcher invoked
09:19:10.168 INFC	<pre>ambience.module.StartupTests - user.name=zhouying</pre>
09:19:10.169 INFC	ambience.module.StartupTests - user.home=/Users/zhouying
09:19:10.169 INFC	ambience.module.StartupTests - user.dir=/Users/zhouying/Test/Ambience/2020-SNAPSHO
т	
09:19:10.170 INFC	ambience.module.StartupTests - java.version=11.0.3
09:19:10.171 INFO	<pre>ambience.module.StartupTests - java.vendor=Oracle Corporation</pre>
09:19:10.171 INFC	ambience.module.StartupTests - java.home=/Library/Java/JavaVirtualMachines/jdk-11.
0.3.jdk/Contents/	Home
09:19:10.171 INFC	ambience.module.StartupTests - java.io.tmpdir=/var/folders/4t/4t8mqkvj3zv7s8z2yhlf
v9xw0000gn/T/	
09:19:10.172 INFO	ambience.module.StartupTests - os.name=Mac OS X
09:19:10.172 INFC	ambience.module.StartupTests - os.arch=x86_64
09:19:10.172 INFO	<pre>ambience.module.StartupTests - os.version=10.14.6</pre>
09:19:10.878 INFC	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.DefaultMc	ngoDB.buildMongoClient:30)
09:19:11.852 INFC	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.

Contraction Elixir SSO	× +	-	×
\leftrightarrow \rightarrow C \bigcirc localhost:1740	/simple-sso/auth?client_id=ambience&response_type=code&redir 🛠		:
	Elixir Single Sign-On		
	Elixir Ambience		
	Username		
	Password		
	2FA Code		
	Login		
	Can't access your account?		
	Copyright 2025 Elix	r Techno	e Ltd

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

	Elixir Ambience
Username	
Password	
2FA Code 🚺	
	Login
	Can't access your account?

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

Elixir Ambience						
If you can't remember your password, please enter your username below and press the "Request Password Reset" button.						
An email with reset instructions will be sent to your registered email address.						
Username						
Request Password Reset						
Back to login						

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.



Reset request accepted. Please check your email for more details.

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.

≤ =j	Favourites	Search		admin 🔶
Favourites All Services Pinned	Ce Activity Logs	Ad Hoc Reports	Recent	T
 Activity Logs Messages 	Dashboards	Report Portal		
 User Settings Documentation 	Repository	Visualisations		

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

< =	All Services	Se	arch		admin 🕞
Favourites All Services Pinned	A4 Mig	ration	API	API Tokens	
Activity Logs Messages	Activity	r Logs	Ad Hoc Reports	Artifact Explorer	
 User Settings Documentation 	Audit L	ogs	Banners	Business Rules	
	СМВ М	Management	Config Editor	Dashboard Views	
	Dashbo	pards 📩 🔍	Data Explorer	Data Mixers	
	Datase	ts	Developer	Downloads	
*	P ETL	00	ETL Daemon	Event Logs	

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.

		All Serv	/ices		Sea	irch	٥		admin <u>1</u> (=
	Favourites All Services		A4 Migration			API		P	API Tokens
Service Options	Activity Logs Messages	•	Activity Logs	*	a	Ad Hoc Reports	*	4	Artifact Explorer
	User Settings	8	Audit Logs		-	Banners		٠	Business Rules
			CMS Management		>	Config Editor		*	Dashboard Views
	* 1		Dashboards	*		Data Explorer		ŶļŶ	Data Mixers

Navigation	Consists of three parts:						
Denel	At the ten Ober (lide butter and Elivin Ambience land						
Panel	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	Expand or collapse the navigation panel.						
button	By default, the navigation panel is shown (expanded). If						
	collapsed, the navigation panel shows only the icons of the						
	service options.						
	≤ = 5						
	E Favourites						
	All Services						
	Pinned						
	Messages						
	🗘 User Settings						
	UDocumentation						
Elixir	The Elixir Ambience logo allows user to return to the Favourites						
Ambience	option from any page the user has navigated to.						
Logo							
Service	Any option selected in this panel will have its content displayed						
Options	in the Content Panel.						
Toggle	Allows user to toggle between light and dark mode.						
Dark/Light	t By default, light mode is used.						
button	E C I II Al Benices tono some E C R Transk R H Denotes R J Steppen C D AT P Artition						
	P Treat E Anita (procession) Constanting						
	In the second seco						
	Constant Constan						
	a Distancial Distribution						
	😧 Old Hangareet 🖈 Confighture 🎎 Determinations						
	C Instrument C Ins						
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.						
	1						

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.

< ₹	All Services	Search	admin 😝
FavouritesAll ServicesPinned	Git Deploy	Identities	Imports
 Activity Logs Messages User Settings 	Internationalisation	Kanban	Layouts
Documentation	Licence Deployer	Lookup	Messages
	Ownership	Privileges	Queue Monitor

2. The "Licence Deployer" page will appear.

Elicence Deployer	admin (
Read from file Choose File No file chosen	Deploy Licence

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.

			~~~~
Command Prompt	_		X
			~
C:\Users\Ambience 2025\bin>ambience-cli deploy-licence C:\ElixirAmbience.licenc	e		
Config using defaults			
14:48:22.147 INFO com.elixirtech.mongodb.MongoDB - MongoDB ambience Serial=1			
14:48:22.152 INFO com.elixirtech.mongodb.MongoDB - Building MongoDB Client star	ting (o	com.eli	kirt
ech.mongodb.DefaultMongoDB.buildMongoClient:33)			
14:48:22.407 INFO com.elixirtech.mongodb.MongoDB - Building MongoDB Client elap	sed tim	ne 252m	5
14:48:22.408 INFO com.elixirtech.mongodb.MongoDB - Opening database: ambience			
14:48:22.524 INFO ambience.cli.DeployLicence - Licence Deployed			
C:\Users\Ambience 2025\bin>			

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.

=j Imports	admin	⇔
Import History		
Choose Files No file chosen Drop Files Here		

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.

Import History	
Choose Files 5000 Sales Records.csv Drop Files Here	
Upic	bad

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.

Import History	
Choose Files 5000 Sales Records.csv	Drop Files Here
Uploading	
	100%
Total remaining: 0 files 0 KB (0.00%)	
Estimated time remaining: 00:00:00	
Transfer rate: 0.00 MB/s	
	Cancel
Analysing imported data	

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.

Import History					
Upload Summary	heck what to import. Hover over status failu	ire icon for detail			P
	neek what to import hover over status fait				•
File Name	Import Type	Status		Impor	t
5000 Sales Records.csv	CSV	<b>e</b>		$\checkmark$	
			Next		Cancel

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.

Import History	
Item - 5000 Sales Records.csv	R
Collection Required	
Name	5000 Sales Records.csv
Description	
Category	
Database	SampleCollections ~
Action	New Data ~
Collection	
Strip _id	
Dataset	
	Previous Next Finish Canad

- 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.

detected Schema.	Optionally change the data types of the schema's fields	3			
	Field	Data Ty	pe		
	Country	String	~		
	Item Type	String	~		
	Order Date	String	~		
	Order ID	Int32	~		
	Order Priority	String	~		
	Region	String	~		
	Sales Channel	String	~		
	Ship Date	String	~		
	Total Cont	Double			

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.

								Impor
em	Name	Category	Database	Collection	Action	Strip Id	Schema Changed	Dataset
000 Sales ≀ecords.csv	5000 Sales Records.csv	S	SampleCollections	5000SalesRecords	New Data		۲	5000SalesRecord

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

Import History				
Import Results All imports succeeded				P
5000 Sales Records.csv	ltem s	Status	Ret	ry
			Next Fin	sh Cancel

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.

Previous Next

Cancel

# 11. Click on the "History" tab and you will see the imported data.

Import History					
Search	₫				Refresh
Name	Database	Collection	Action	Ву	Actions
5000 Sales Records.csv	SampleCollections	5000SalesRecords	new	admin	٩

### 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 ^{II} "Elixir Ambience" logo and select the "All Services" option in the left panel, then select "Datasets" in the right panel.

	All Services	Search 🖉	admin 🐧 ( 🔶
Favourites     All Services     Pinned	CMS Management	Config Editor	Dashboard Views
<ul> <li>Activity Logs</li> <li>Messages</li> <li>Here Certines</li> </ul>	Dashboards *	Data Explorer	Data Mixers
Documentation	Datasets	Developer	Downloads
	ETL	ETL Daemon	Event Logs

2. The "Datasets" page will appear.

=J 🛢 Datasets						adr	nin 🕞
Workgroup - Search		•		Add	More Actions	Refresh	Upload
Name	Labels Workgroups	Roles	Source	Last Modifie	Last Modified By	Enabled	Actions
Sunset Export Pipeline			MongoDB Dataset SampleCollections:Verifying Export Record Editor	2021-10 23	)-	•	
5000SalesRecords			MongoDB Dataset SampleCollections:5000SalesRecords	15:05:2	5		
AM_1812 RecordEditorvalidationlogs			MongoDB Dataset SampleCollections:AM_1812 RecordEditorvalidationlogs	2022-03	}-	۲	<u>Ф</u> П
Cars_fewer_records			MongoDB Dataset eno:Cars_fewer_records	2022-05	j-	۲	9.11
Record Editor Tests			MongoDB Dataset SampleCollections:crunchbase_database	2021-02	2-	0	● Ⅲ
<ul> <li>Verifying Export Record Editor</li> </ul>			MongoDB Dataset SampleCollections:Verifying Export Record Editor	2021-10	)-	۲	9.11

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

Add Dataset	×
Name	
Copy From	
New MongoDB Dataset	~
	OK Cancel

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

	SalesRec	ords (MongoDB I	Dataset)				admi	n 🤆
Properties and Sc	hema Filters	Aggregation Pipeline	Export Pipeline				Apply Changes	Close
Name Description Database Collection Row Security ETag Enabled	SalesRecords		<b>`</b>	₩ X: ⊕				
Labels Ø		Infer Schema						

•

- 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.

Properties and So	hema	Filters	Aggregation Pipeline	Export Pipeline			Apply Changes	Close
	_				<b>V</b>	Country (String)		
Name	SalesR	lecords			×,	✓ Item Type (String)		
Description					œ	☑ Order Date (String)		
Database	Sampl	eCollectio	ns	~		✓ Order ID (Int32)		
Collection	5000S	alesReco	rds	~		Order Priority (String)		
Row Security						Region (String)		
ETag						Sales Channel (String)		
Enabled						Ship Date (String)		
Labels						Total Cost (Double)		
1 com						Total Profit (Double)		
		In	fer Schema			✓ Total Revenue (Double)		
						Unit Cost (Double)		
						Unit Price (Double)		
						Units Sold (Int32)		

- 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.

X Changes saved

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.

W	orkgroup	✓ Search	•	Add More A	actions Re	fresh Up	load
	Name	Labels Workgroups Roles	Source	Last Modified	Last Modified By	Enabled	Actio
	SalesRecords		MongoDB Dataset SampleCollections:5000SalesRecord	5 15:27:23	admin	•	•

### 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 ^{II} "Elixir Ambience" logo and select the "All Services" option in the left panel, then select "Dashboards" in the right panel.

K =5	All Services	Search		admin 1 ( 🔶
Favourites     All Services     Pinned	CMS Management	Config Editor	Dashboard Views	
<ul> <li>Activity Logs</li> <li>Messages</li> <li>Hear Settings</li> </ul>	Dashboards *	Data Explorer	Data Mixers	
Documentation	Datasets	Developer	Downloads	
	ETL	CO ETL Daemon	Event Logs	

2. The "Dashboards" page will appear.

=j 🛞 Das	shboards						adr	min 🤶
Workgroup	∽ Search		•		Add	More Actions	Refresh	Upload
Name	Owner	Workgroups	Roles	Last Modified		Enabled		Actions
MyDashboard	admin			2024-11-24		<b>e</b>		Ø 🔳

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.

New Dashboard	×
Name	
Copy From	
Blank Dashboard	~
	OK Cancel

- 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.

f 🕜 MyNewDashboard		admin 🔶
First		=
	Add views to this page using the 'Edit' option in the ≡ menu at the top right of this panel. Then choose 'Add View'.	
	You can also click 🖋 Edit here.	

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

### 2.4.3.2. Create Pie Chart

> First

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.

Add View	,		×
Copy From	Blank View		~
		OK	Cancel

- 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.

View Properties	×
View Type	
Pie Chart	~
✤ Title	
Dataset	
	~
Subset	_
	~
Controlled By	
Color Scheme	
Default	~
Кеу	
	~
Value	
	~
Aggregation	
count	~

- 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 dropdown 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 size of 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  $\equiv$  "More Actions" icon at the upper right corner of the page to display a list of available actions.

	Ξ
C	Refresh
Ø	Edit
	Make Personal Copy
	Presentation Mode
-	Printable Mode
+	Add Page
\$	Page Properties
*	Dashboard Properties
₹	Download

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

> First	Add View	Save	Cancel

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

Add View	,		×
Copy From	Blank View		~
		ОК	Cancel

- 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.

> First		Add View	Save	Cancel
¢ 11	Solution View Properties X			
Sub-Saharan Africa Sub-Saharan Africa Sub-Sa	View Type Subburst Chart			
ं 🗢 🔳	+ Value			
	Aggregation			

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

View Properties	×
View Type	
Sunburst Chart	~
Title	
Dataset	
	~
Subset	
	~
Controlled By	_
Color Scheme	
Default	~
Root Label	
Columns	
+	
Value	
	~
Aggregation	

- 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 dropdown 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.

Columns +

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

Columns		
	~	
+		

- c. Repeat steps a and b for another node.
- d. You can re-order the nodes clicking on the  $\Upsilon$  "Move Up" and  $\downarrow$  "Move Down" icons.

Columns		
Region	~	- VI
Item Type	×.	
+		

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  $\equiv$  "More Actions" icon at the upper right corner of the page to display a list of available actions.

=
C Refresh
🖋 Edit
Make Personal Copy
Presentation Mode
🖶 Printable Mode
+ Add Page
Page Properties
🚠 Dashboard Properties

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 **T** "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 <u>Section 2.3.3 Create Dashboard</u> onwards for how to create the new view.

### **Control Filters**

See <u>Section 2.4.1 Control Filters</u> 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.

=
C Refresh
🖉 Edit
Make Personal Copy
Presentation Mode
🖶 Printable Mode
+ Add Page
Page Properties
品 Dashboard Properties
🛓 Download
To odd o now nogo

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

Add Page		×
Copy From	Blank Page	~
Name		
Row Height	100px	~
Hide From Users		
	Administrator	
Roles	Engineering	
	□ Finance	
	OK C	ancel

- 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.

First	Second		
		Add views to this page using the 'Edit' option in the $\equiv$ menu at the top right of this panel. Then choose 'Add View'.	
		You can also click 🖋 Edit here.	

### 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.

Edit Page Properties		
Name	Second	
Row Height	100px 🗸	
Hide From Users		
	Administrator	
Roles	Engineering	
	□ Finance	
	OK Cancel	

- 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:

		≡
C	Refresh	
Ø	Edit	
	Make Personal Copy	,
	Presentation Mode	
-	Printable Mode	
+	Add Page	
\$	Page Properties	
*	Dashboard Propertie	s
↓	Download	

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

> First Add View Save Cancel

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.

Add Control			×
Name			
Туре	Binning Control		~
		OK	Cancel

- 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.

<	+ =	Circt	
Region	\$	Region >	۲.
-	-	Rename Control	
		Control Type	
		Checkbox Filter 🗸 🗸	
		Visibility When Used v	
		Collapsible	
		Parameter Name	
		Dataset	
		~	1
		Subset	
		· · · · · · · · · · · · · · · · · · ·	/
		Filter	
		· · · · · · · · · · · · · · · · · · ·	/
		Initial Values	
		None	-

- 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.

Controlled By	
+	

- 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.



### 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:

Ξ
C Refresh
Ø Edit
🝺 Make Personal Copy
Presentation Mode
🖶 Printable Mode
+ Add Page
Page Properties
Lashboard Properties
🖌 Download

> First

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

Add View Save Cancel

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.

Add Co	ontrol		×
Name			
Туре	Binning Control		~
		OK	Cancel

- 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.

🅸 Timer		×
Renar	ne Control	
Control Type		
Interval time	er	~
Visibility	When Used 🗸	
Collapsible		
Parameter N	ame	
Label		
Units		
Seconds		~
Interval		
10		

•

- 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  $\equiv$  "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.

<	+ =
Region	\$
Timer	\$

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

Add Co	ontrol		×
Name			
Туре	Binning Control		~
		OK	Cancel

- 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.

🏟 Control			×
Renam	e Control		
Control Type			
Select Filter		~	
Visibility	When Used	~	
Collapsible	✓		
Parameter N	ame		
Dataset			
			~
Subset			
			~
Filter			
			~
Allow Blank			
Default Selec	t		
All			

- 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.

Select to Control

- 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  $\equiv$  "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.

Click to Page	
	~

- 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 ^{II} "Elixir Ambience" logo and select the "All Services" option in the left panel, then select "ETL" in the right panel.

< ₹	All Services	Search	admin 🚺 ( 🔶
Favourites     All Services     Pinned	CMS Management	Config Editor	Bashboard Views
<ul> <li>Activity Logs</li> <li>Messages</li> <li>Here Certification</li> </ul>	Dashboards *	Data Explorer	Data Mixers
Documentation	Datasets	Developer	Downloads
	ETL	ETL Daemon	Event Logs

2. The ETL page will appear.

FJ P ETL					admin (
Workgroup ~ Search	٩		Add More Actions	Refresh Upload	Dictionary
Name	Owner Workgroups	Roles	Last Modified	Enabled	Actions
AdHocReport	admin	tester	2022-03-17		1
AddFieldsETL	admin		2021-03-03		1
AggregationETL	admin		2022-03-16	۲	1
AirportSetup	admin		2020-08-09		1
AmbienceETL	admin		2022-08-01	۲	1
ArrayETL	admin	tester	2022-08-01	۲	1
Audit Log	admin		2022-02-16	۲	11
Authenticated Users	admin		2021-09-28		1
BinaryETL	admin		2021-07-20	۲	1
BinaryStoreETL	admin		2022-04-27		Ø 11

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

Add ETL Chainset	×
Name	
Copy From	
Blank ETL	~
	OK Cancel

- 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.

Group All	~ Te	est Input	Output	~ 🗏 Dictionary
X Chains	$+ t_{\bullet} \equiv \infty$	\$ Steps	Results	

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

Add Chain			×
Name			
Copy From	Blank Chain		~
		OK	Cancel

- 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.

			X	
Group All	✓ Test Ir	nput ETL saved	t	~ E Dictionary
🗙 Chains	+ •• ≡ >\$ Ste	eps +	Results	Ð
Calculate Total	0			

- 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".

Add Step		
Q		٩
Category	Action	Help
Ambience	JSON Array Writer	leen Decord
Array	JSON Reader	Json Record
Array Reduce	JSON Record	This step inserts Json records
Azure	JSON String Reader	can either provide defaults for
BSON	JSON String Writer	missing data or override existing data, depending on the
Binary	JWT Decoder	Merge Order setting.
Binary Store	JWT Encoder	JsonRecord can hold either one
Boolean	Line Delimited JSON Reader	Json object {} or an array of Json objects [{},{},]
Business Rules	Line Delimited JSON Writer	Structure
CSV		
Choreographer		1 ⇒ N
Compare		Input
		Add Close

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.

Edit Step		٩
Category	JSON	
Step Type	JSON Record	
Step Name	JSON Record	
Merge Order	Keep only this	~
JSON		
{		
3		
}		
}		
}		
}		
}		
}		
}		
}		
} JSON		
} JSON		

g. In the "JSON" section, key in the following:

h.	Click on	the	"Next"	button	to	go t	o the	second	ETL	step.

Edit Step	(
Category	Decimal
Step Type	Decimal Multiply Field
Step Name	Decimal Multiply Field
Field 1	
Field 2	
Output	

- 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.

Group All	~	Test Input	~ =	Output	~ 🗏 Dictionary
X♣ Chains	+ ℃ ≡	X♣ Steps	+ 🕨 😘	Results	
Calculate Total	2	JSON Record			
		Decimal Multiply Field			

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

Group All	~	Test Input	~ ≡ Output	~ 🗏 Dictionary
X♣ Chains	+ ℃ ≡	X♣ Steps	+	E Q
Calculate Total	2	JSON Record		
		Decimal Multiply Field	<b>A</b> N	

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".

Group All	~	Test Input	~ =	Output 5:1	11:20 PM Calculate To	tal [1-2] v 🛛 Dictionary
X Chains	$+  {\mathfrak t}_{\bullet} \equiv$	X Steps	+ ▶ ‰ ≡	Results	С	completed $\blacksquare \mathcal{O} \equiv$
🗹 🛷 Calculate Total	2	JSON Record		unit cost	t fruit total	
		Decimal Multiply Field	Ø 🕨	1 10 2	Apple 20.00	
				285	Orange 40.00	
1						

- 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".

Add Step			
Q			٩
Category	Action		Help
String	Count Records		Discard
Structure	Count Window		Discaru
Task	Date Extractor		This step discards named fields
Test	Discard Fields	ľ	
Time	Discard Fields RegEx		Structure
Timestamp	Do Chain While		1 => 1
Upload	Drop All Records	ŀ	Input
Validation	Drop Records		There is no constraint on the
Web Store	Flat Concatenate	i	input records - the named fields
Workflow	Flatten Sub-Document		do not need to exist
XLSX	Function Call		Parameters
XML	Function Signature		Discard Fields: The list of
			Add Close

- 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.

	۲
Category	Structure
Step Type	Discard Fields
Step Name	Discard Fields
Discard Fields	unit. cost

- 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.

Gro	IIA qu	~	Test Input		~ =		Dutpu	t 5:1	9:09 PM Ca	lculate Te	otal	~ 🗏 Dictio	onary
⊃\$ (	Chains	+ ⁼. ≡	🗙 Steps		+ 🕨 😘	F	Result	ts		C	Completed	1	⊃≡
	Calculate Total	3	🗆 JS	ON Record			unit	cost	fruit	total			
			🗆 De	cimal Multiply Field		1	10	2	Apple	20.00			
			🗆 Dis	scard Fields		2	8	5	Orange	40.00			

## 2.6.2. MongoDB Read ETL

Below is an example of reading data from MongoDB.

1. Click on the ^{II} "Elixir Ambience" logo and select the "All Services" option in the left panel, then select "ETL" in the right panel.

	All Services	Search	admin 🔋 🕞
Favourites     All Services     Pinned	CMS Management	Config Editor	Dashboard Views
<ul> <li>Activity Logs</li> <li>Messages</li> <li>Humouri</li> </ul>	Dashboards *	Data Explorer	Data Mixers
<ul> <li>User Settings</li> <li>Documentation</li> </ul>	Datasets	Developer	Downloads
	ETL	CO ETL Daemon	Event Logs

2. The "ETL" page will appear.

ETL					admin (
Workgroup - Search	٥		Add More Actions F	Refresh Upload	Dictionary
Name	Owner Workgroups	Roles	Last Modified	Enabled	Actions
AdHocReport	admin	tester	2022-03-17	•	1
AddFieldsETL	admin		2021-03-03		1
AggregationETL	admin		2022-03-16	۲	1
AirportSetup	admin		2020-08-09	9	Ø 🗊
AmbienceETL	admin		2022-08-01	۲	1
ArrayETL	admin	tester	2022-08-01	•	1
Audit Log	admin		2022-02-16		11
<ul> <li>Authenticated Users</li> </ul>	admin		2021-09-28		01
BinaryETL	admin		2021-07-20	0	01
BinaryStoreETL	admin		2022-04-27	0	1

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.

Add ETL Chainset		×
Name		
Copy From		
Blank ETL		~
	OK	Cancel

- 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.

Add Chain			×
Name			
Copy From	Blank Chain		~
		OK	Cancel

- 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.

Edit Step			(i)
Category	MongoDB		
Step Type	MongoDB Definition		
Step Name	MongoDB Definition		
Database			~
Collection			~
Query			k
Base JSON			28
{			
}			
< Previous No	ext >	Save	Cancel

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.

Edit Step			(
Category	MongoDB		
Step Type	MongoDB Reader		
Step Name	MongoDB Reader		
This step has no e	editable options		
< Previous No	ext >	Save	Cancel

- 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.

Group All	~	Test Input	~ =	Output	✓
X [↓] Chains	$+  {\mathfrak t}_{\bullet} \equiv$	🗙 Steps	+ ▶ ₹.	Results	
🗹 🔗 MongoDB	2	MongoDB Definition			
		MongoDB Reader			

- 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.

Group All	~	Test In	nput	~ =	0	utput	10:23:27 AM MongoDB		~	Dictionary
X Chains	+ ⁼. ≡	X4 St	eps	+ ▶ % ≡	Re	esults	3	Completed		
🗹 🛷 MongoDB	2		MongoDB Definition			_ld	Region	Country	Item Type	Sales Chan
		MongoDB Reader	# H	1	(id)	Middle East and North Africa	Libya	Cosmetics	Offline	
				2	(id)	North America	Canada	Vegetables	Online	
				3	(id)	Middle East and North Africa	Libya	Baby Food	Offline	
					4	(id)	Asia	Japan	Cereal	Offline
					5	(id)	Sub-Saharan Africa	Chad	Fruits	Offline
				6	(id)	Europe	Armenia	Cereal	Online	
				7	(id)	Sub-Saharan Africa	Eritrea	Cereal	Online	
				8	(id)	Europe	Montenegro	Clothes	Offline	
					9	(id)	Central America and the Caribbean	Jamaica	Vegetables	Online
			10	(id)	Australia and Oceania	Fiji	Vegetables	Offline		
					Sh	owing	1-50 of 1000		1 2 3	4 20 < >

### 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 ^{II} "Elixir Ambience" logo and select the "All Services" option in the left panel, then select "ETL" in the right panel.

< =1	All Services	Search	admin 🔋 (
Favourites     All Services     Pinned	CMS Management	Config Editor	Dashboard Views
<ul> <li>Activity Logs</li> <li>Messages</li> <li>Here Certifiered</li> </ul>	Dashboards *	Data Explorer	Data Mixers
Documentation	Datasets	Developer	Downloads
	ETL	ETL Daemon	Event Logs

### 2. The "ETL" page will appear.

=J P ETL admin 😔							
Workgroup ~ Search		٥		Add More Actions	Refresh Upload	Dictionary	
Name	Owner	Workgroups	Roles	Last Modified	Enabled	Actions	
AdHocReport	admin		tester	2022-03-17	0	1	
AddFieldsETL	admin			2021-03-03	0	1	
AggregationETL	admin			2022-03-16	9	1	
AirportSetup	admin			2020-08-09	9	01	
AmbienceETL	admin			2022-08-01	۲	1	
ArrayETL	admin		tester	2022-08-01	0	1	
Audit Log	admin			2022-02-16	۲	11	
Authenticated Users	admin			2021-09-28	۲	1	
BinaryETL	admin			2021-07-20	۲	11	
BinaryStoreETL	admin			2022-04-27		1	

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.

Add ETL Chainset	×
Name	
Copy From	
Blank ETL	~
	OK Cancel

- 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.

Group All	✓ Test Input	Output	~ 🗐 Dictionary
X Chains	+ 🔩 🚍 🔀 Steps	Results	

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

Add Chain			×
Name			
Copy From	Blank Chain		~
		OK	Cancel

- 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.

Add Step		
Q		٩
Category	Action	Help
Layout	Compose Mail	Compose Mail
Long Integer	Deconstruct Mail	Compose Man
MQTT	IMAP Folder List	This step composes a mail.
Mail	IMAP Read Folder	Compose Mail can be optimally
Messages	Send Mail	incoming records, if those
Mix Data		records contain filename, bytes and mimeType.
MongoDB		Structure
Null		
Number		1 ⇒ N
OCR		Input
PDF		An optional three fields
PGP		are required filename - the
		Add Close

- 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".

Edit Step			(i)
Category	Mail		
Step Type	Compose Mail		
Step Name	Compose Mail		
Message			
Plain Text			
Include			
Attachment			
Fold			
< Previous Ne	ext >	Save	Cancel

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.

Edit Step		i
Category	Mail	
Step Type	Send Mail	
Step Name	Send Mail	
TO		
10		
CC BCC		
ReplyTo		
Subject		
< Previous No	ext > Save	Cancel

- 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.

Add Step		
Q		٩
Category	Action	Help
Layout	Delete After	Sond Mossago
Long Integer	Load Messages	Selid Message
MQTT	Send Message	This step sends a message to
Mail	Send Message (Field)	
Messages		Send Message can be optimally preceded by step that outputs filename, bytes and
Mix Data		mimeType.
MongoDB		Structure
Null		
Number		1 => 1
OCR		Input
PDF		An optional three fields
PGP		are used to include an
		Add Close

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

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

Edit Step	•
Category	Messages
Step Type	Send Message
Step Name	Send Message
To CC	type here type here
BCC	type here
Also	~
Subject	
Message	
Include Attachment	
< Previous No	ext > Save Cancel

- 5. In the dialog box, select and key in the following:
  - "To" field
  - "CC" field
  - "BCC" field
  - "Also" field

•

•

- Selects the desired user from drop-down list
- Selects the desired user from drop-down list
- Selects the desired user from drop-down list
- 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

< =	All Services	Search 👲		admin (
E Favourites				
All Services				
Pinned	Record Editors	Contraction Recycle Bin	Redirect	
Activity Logs				
Messages	Report Portal	H Repository	Palaa	
User Settings	liteport Portai	Repository	Roles	
U Documentation				
	Scheduler	Secrets	System Information	
	System Lifecycle	System Settings	Task Lists	

### 2. The "Scheduler" page will appear.

=	Scheduler						1	admin 🕞
<	Search com							Refresh
E Status	Name	Owner	Started	Finished	Elapsed	Mode	Status	Actions
S Trigger	🚏 08 Trigger - Run Hourly - No Calendar	admin	2024-12-02 10:05:00	2024-12-02 10:05:01	98 ms	scheduled	Completed	
🛗 Calendar	9 04 Trigger - Run weekly - Days of yr - Excl'	admin	2024-12-02 10:01:00	2024-12-02 10:01:00	155 ms	scheduled	Completed	
	👶 19 Run Trigger - Run Hourly	admin	2024-12-02 10:00:01	2024-12-02 10:00:01	203 ms	scheduled	Completed	
	👶 08 Trigger - Run Hourly - No Calendar	admin	2024-12-01 17:05:00	2024-12-01 17:05:00	62 ms	scheduled	Completed	
	🚏 19 Run Trigger - Run Hourly	admin	2024-12-01 17:00:01	2024-12-01 17:00:01	103 ms	scheduled	Completed	
	💡 08 Trigger - Run Hourly - No Calendar	admin	2024-12-01 16:05:00	2024-12-01 16:05:00	82 ms	scheduled	Completed	
	🐉 19 Run Trigger - Run Hourly	admin	2024-12-01 16:00:01	2024-12-01 16:00:01	76 ms	scheduled	Completed	

### 3. Click on the "Calendar" option in the left panel.

<	Search		Ade	d Refresh
Status	Name	Description	TimeZone	Actions
Trigger	Cron expression - At 14.15	Cron expression	Singapore	Ť
🚞 Calendar	Cron expression - At 14.15 2	Cron expression	Singapore	
	Cron expression - Every day at 1 PM	Cron expression	Singapore	1
	Day of Month - First 10 Day of month	Days 1,2,3,4,5,6,7,8,9,10	Singapore	1
	Day of Month - First 4 Day of weekday	Monday, Tuesday, Wednesday, Thrusday only	Singapore	1
	m Day of Month - Last 10 Day of month	For month that has Days 31	Singapore	T
	Day of Week - Last 4 Day of week	Thrusday, Friday, Saturday, Sunday Only	Singapore	T
	Day of Week - Weekdays	Monday, Tuesday, Wednesday, Thrusday, Friday	Singapore	

.

•

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

Add Calendar		×
New Calendar Name		
	ОК	Cancel

- 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.

← Scheduler / Calendar MyCalendar						
Properties	Constraints		Apply Changes			
Name						
MyCalendar						
Description						
TimeZone						
System Defa	iult 🗸		~			

- 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

← Scheduler / Calendar MyCalendar					
Properties	Constraints		Apply Changes		
Calendar ma	atches times v	when			
Days of Year			~		
Add					

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

Add Date 29 Nov 2024

By default, the current date is selected.

12. Click on the "Calendar" icon and select the correct date.

Add							
Date			_				
29 Nov 2024				024	~		
			Alay	.024	•		
	Mon	Тие	Wed	Thu	n ▼ Fri	Sat	Sun
	mon	140	mou	, nu	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	

- 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  $\leftarrow$  "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.

<		Search	<u>e</u>						Add	More Actions	Refresh
Status		Name	e	Owner	Description	Enabled	In Progress	Last Run	Next F	Run	Actions
Trigge	r	🗆 😲 Tri	gger - Run hourly w same cron job	admin	Run hourly			2024-12-04 16:00:19	2025-0	01-02 00:00:00	• 1
🛗 Calend	dar	🗆 🗎 Trig	gger - Run weekly -Days of year	admin	Run once a week	•		2024-12-04 16:00:09	2024-	12-10 10:05:00	•

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

Add Trig	Add Trigger		
Name			
Туре	ETL		~
		ОК	Cancel

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.

← Scheduler / Trigger MyTriggerETL				
Last Run - Next Run 2024-12-04 In Progress false				
Properties Calendar Constraints Frequency ETL Apply Changes				
Name				
MyTriggerETL				
Description				
TimeZone				
System Default V				
Enabled				

- 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.

Cheduler / Trigger MyTriggerETL					
Last Run	Next Run 2024-12-04 In Progress false				
Properties	Calendar Constraints Frequency ETL Apply Changes				
~	Cron expression - At 14.15				
~	Cron expression - At 14.15 2				
~	Cron expression - Every day at 1 PM				
~	Day of Month - First 10 Day of month				
~	Day of Month - First 4 Day of weekday				
~	Day of Month - Last 10 Day of month				
~	Day of Week - Last 4 Day of week				
~	Day of Week - Weekdays				
~	Day of Week - Weekend				
~	Day of Year - days 1,5,11,15,20,25,30 March 2020				
~	Days of Year - Labour Day				
~	Edit Calendar				
~	MyCalendar				
~	Time of Day - 14.30.30 to 14.31.30				
~	ime of Day - 9 AM to 5 PM				
~	Time of Day - 9 AM to 6 PM				

- 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 ar
  - 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 <u>Section 2.5.3</u> <u>Scheduler ETL</u>.

← Scheduler / Trigger MyTriggerETL					
Last Run - Next Run 2024-12	2-04 In Pr	ogress false			
Properties Calendar Constraints	Frequency	ETL	Apply Changes		
Chainset					
			~		
Chain					
			~		
Parameters					
8					
JSON					

- 12. Click on the "Apply Changes" button to save the changes.
- 13. Click on the  $\leftarrow$  "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.

	All Services	Search	admin (
Favourites     All Services     Pinned	Licence Deployer	Lookup	Messages 👳
<ul> <li>Activity Logs</li> <li>Messages</li> <li>Lloss Settings</li> </ul>	Ownership	Privileges	Queue Monitor
Documentation	Record Editors	Recycle Bin	Redirect
	Report Portal	Repository	Roles

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

	Identities					admin 🔶
Se	earch	٥	Add	More	Actions	Refresh Upload
	Name	Email	Last Login	2FA	Enabled	Actions
	Management User	mgmt@gmail.com	2024-02-15	×	<b>~</b>	1 🖉 🖄 🖺
	UserA	usera@example.com	2024-11-28	*	<b>~</b>	1 🛆 🗊
	UserB	userb@example.com	2024-11-28	*	•	1 🛆 🔳
	UserC	userc@examle.com	2024-11-30	*	•	101
	admin	admin@example.com	13:57:16	~	•	Ø 🕭 🖩 🖺
	admin-test	admin-test@elixirtech.com	2021-06-03	۲	•	1 🛆 🔳
	another	another@example.com		*		1 🛆 🔳

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.

Add Identity		×
Name		
Email		
Enabled		
	014	0
	OK	Cancel

- 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 ^{III} "Elixir Ambience" logo on the upper left corner of the page and select "All Services" option in the left panel.

< <b>I</b>	All Services	Search	admin (
Favourites     All Services     Pinned	U System Lifecycle	System Settings	Task Lists
<ul> <li>Activity Logs</li> <li>Messages</li> <li>Heas Settings</li> </ul>	Text Templates	Themes	Uploads
<ul> <li>Oser Settings</li> <li>Documentation</li> </ul>	User Settings	Users	Visualisations
	Workflows	Workgroups	

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

et Users admin						
Search		Add	More Actions	Refresh		
Name	Roles		Enabled	Actions		
Management User	login		*	T		
UserA	Administrator		•			
□ UserB	Administrator (reportportal)		<ul> <li>Image: A start of the start of</li></ul>	T		
UserC	Administrator		<ul> <li>Image: A start of the start of</li></ul>	T		
admin	Administrator Engineering Finance InternalUser Sales reportportal		<ul> <li>Image: A start of the start of</li></ul>			
□ admin-test			<ul> <li>Image: A start of the start of</li></ul>	T.		
□ aimi			•			

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

Add User		×			
Name					
Enabled					
Roles Extra Privileges					
T	~	X 🗐			
Administrator					
Finance					
□ InternalUser					
□ Sales					
□ TestUser					
_					
	OK	Cancel			

- 9. Key in and select the following:
  - "Name" field Unique name created in the Identities module in the "Name" field
  - "Enabled" field En
    - 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.

🗐 🔹 User 🕄	Settings				
	Password Change Require				
UserC (userc@examle.com)					
Email Address					
Password	Change Password				
(i) Landing Page	Old Password				
E User Sessions	New Password				
Notifications	Repeat New Password				
2FA	Request Password Change				

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.

Password Change Required						
UserC (userc@examle.com)						
Email Address						
Password Change Password						
(H) Landing Page	Old Password	•••••				
E User Sessions	New Password	•••••				
Notifications	Repeat New Password	•••••				
Request Passw		sword Change				
	Check your email address Validation Code	Inbox for a validation code				
	Verify Pass	word Change				

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

< <b>I</b>	All Services	Search	admin (
E Favourites			
All Services	System Lifecycle	System Settings	Task Lists
Pinned			
Activity Logs	Text Templates	Themes	
Messages			
User Settings			
	User Settings	Users	Visualisations
	Workflows	Workgroups	

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

🗐 🔅 User S	User Settings						
admin (admin@example.com)							
Email Address							
Password	Change Email Address						
Eanding Page	New Email Address						
User Sessions	Verify Password						
Motifications	Request Email Address Change						
₽ <mark>₽</mark> 2FA							

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.

	Email Address				
-	Password		Two	Factor Authentication	
Ð	Landing Page			TOTP 2FA Enabled	
∷≡	User Sessions	:	2FA Code		
	Notifications			Disable	
	2FA				
••	264				

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 ^{II} "Elixir Ambience" logo and select the "All Services" option in the left panel.

K =	All Services	Search	ac	dmin 🧿
Favourites     All Services     Pinned	Licence Deployer	Lookup	Messages 👳	
<ul> <li>Activity Logs</li> <li>Messages</li> <li>Hear Settings</li> </ul>	Ownership	Privileges	Queue Monitor	
Documentation	Record Editors	Recycle Bin	Redirect	
	Report Portal	Repository	Roles	

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

el ldentities admin 😔						
Se	earch	٥	Add	More	Actions	Refresh Upload
	Name	Email	Last Login	2FA	Enabled	Actions
	Management User	mgmt@gmail.com	2024-02-15		•	121
	UserA	usera@example.com	2024-11-28		•	1 🖉 🗂
	UserB	userb@example.com	2024-11-28	*	•	1 🛆 🔳
	UserC	userc@examle.com	2024-11-30	*	<b>~</b>	121
	admin	admin@example.com	13:57:16	•	<b>~</b>	Ø 🕭 🖩 🖺
	admin-test	admin-test@elixirtech.com	2021-06-03	*	•	1 🛆 🔳
	another	another@example.com			۲	Ø 🕭 🔳

- 3. Select the select 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

- Gmail allows only OAuth2 authentication without weakening security. Visit <u>https://console.developers.google.com/apis/credentials</u> 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.