

# Microsoft Fabric

## Fabric Analyst in a Day Lab 4

Version: March 2024



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## Introduction

In our scenario, Supplier Data is in Snowflake, Customer Data is in Dataverse, and Employee Data is in SharePoint. All these data sources are updated at different times. To minimize the number of data refreshes of Dataflows, we are going to create individual Dataflows for each of these data sources.

**Note:** Multiple data sources are supported in a single Dataflow.

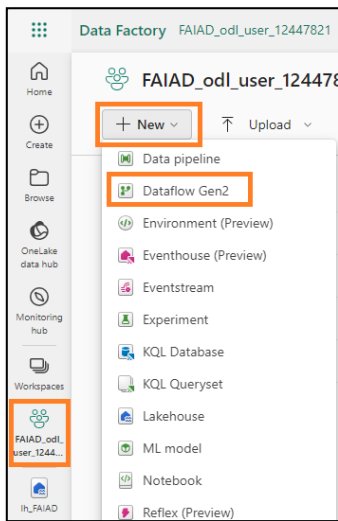
By the end of this lab, you will have learned:

- How to connect to Snowflake using Dataflow Gen2 and ingest data into Lakehouse
- How to connect to SharePoint using Dataflow Gen2 and ingest data into Lakehouse
- How to connect to Dataverse using Dataflow Gen2 and ingest data into Lakehouse

## Dataflow Gen2

Task 1: Copy Snowflake queries to Dataflow

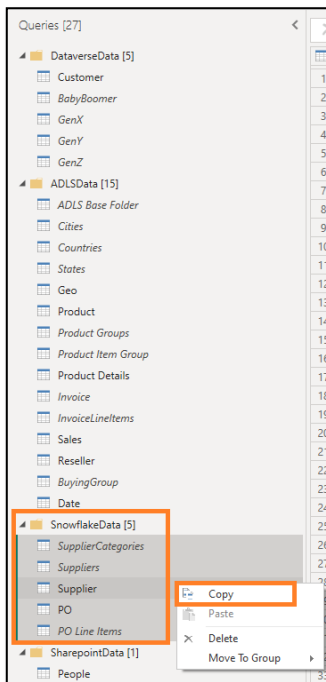
1. Let's navigate back to the Fabric workspace, **FAIAD\_<username>** you created in Lab 2, Task 9.
2. From the top menu, select **New -> Dataflow Gen2**.



You will be navigated to the **Dataflow page**. Now that we are familiar with Dataflow, let's go ahead and copy the queries from Power BI Desktop into Dataflow.

3. If you have not already opened it, open the **FAIAD.pbix** located in the **C:\FAIAD\Reports** folder of your lab environment.

4. From the ribbon select **Home -> Transform data**. Power Query window opens. As you have noticed in the earlier lab, queries in the left panel are organized by data source.
5. Power Query window opens. From the left panel, under the SnowflakeData folder **Ctrl+Select** or **Shift+Select** the following queries:
  - a. SupplierCategories
  - b. Suppliers
  - c. Supplier
  - d. PO
  - e. PO Line Items
6. **Right click** and select **Copy**.

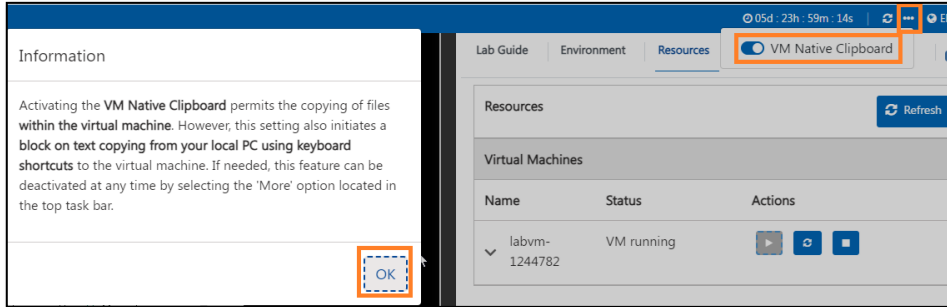


7. Navigate back to the **browser**.
8. In the **Dataflow pane** select the **center pane**, enter **Ctrl+V** (currently right click Paste is not supported). If you are using MAC device, please use Cmd+V to paste.

**Note:** If you are working in the lab environment, please select the ellipsis on the top right of the screen. Use the slider to **enable VM Native Clipboard**. Select OK in the dialog. Once done pasting the queries you can disable this option.]

Commented [TF1]: Can we include the screenshot again here since this is a new lab?

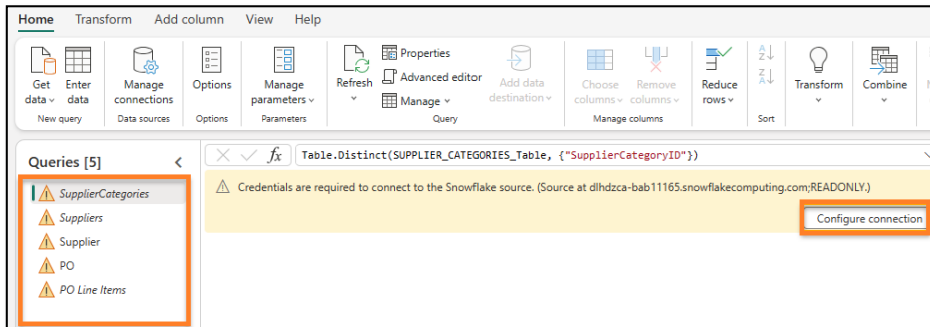
Commented [NP2R1]: Done



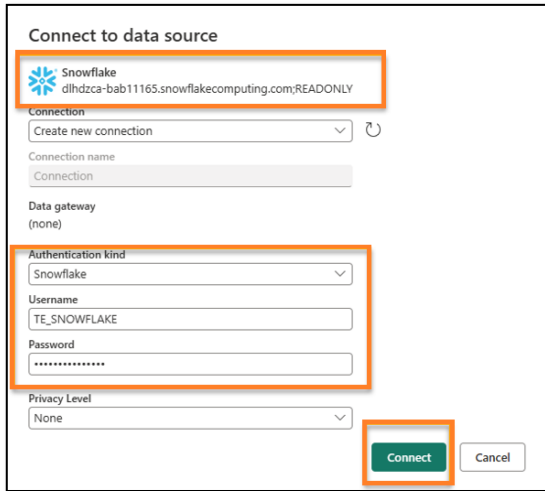
## Task 2: Create connection to Snowflake

Notice the five queries are pasted and now you have the Queries panel on the left. Since we do not have a connection created for Snowflake, you will see a warning message requesting you to configure the connection.

### 1. Select **Configure connection**.

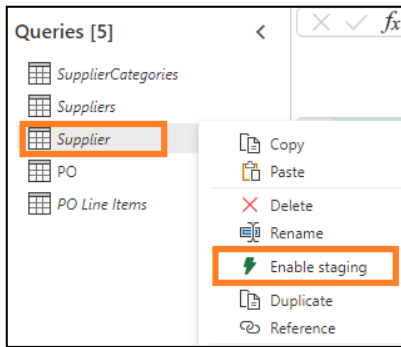


2. Connect to data source dialog opens. In the **Connection** dropdown make sure, **Create new connection** is selected.
3. **Authentication kind** should be **Snowflake**.
4. Enter the **Snowflake Username and Password** available in the Environment Variables tab (next to the Lab Guide tab).
5. Select **Connect**.



Connection is established and you can view the data in the preview panel. Feel free to navigate through the Applied Steps of the queries. Basically, Suppliers query has the details of suppliers and SupplierCategories as the name implies has supplier categories. These two tables are joined to create Supplier dimension, with the columns we need. Similarly, we have PO Line Items merged with PO to create the PO fact. Now we need to ingest the Supplier and PO data into Lakehouse.

- As mentioned earlier, we are not staging any of this data. So **right click on Supplier** query in the Queries pane and select **Enable staging** to remove the check mark.

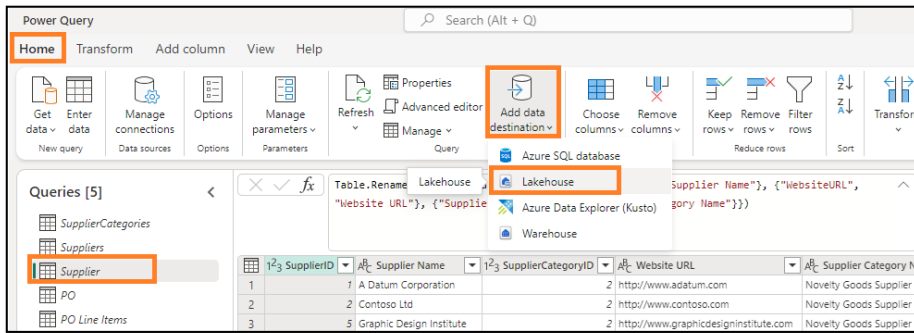


- Similarly, right click on **PO** query. Select **Enable staging** to remove the check mark.

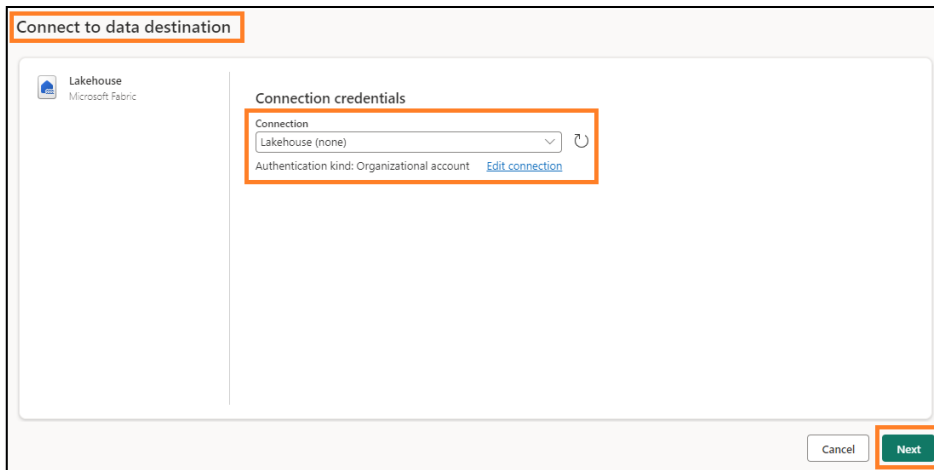
**Note:** We do not have to disable staging for the other three queries because Enable Load was disabled in Power BI Desktop (from where these queries were copied from).

### Task 3: Configure Data Destination for Supplier and PO queries

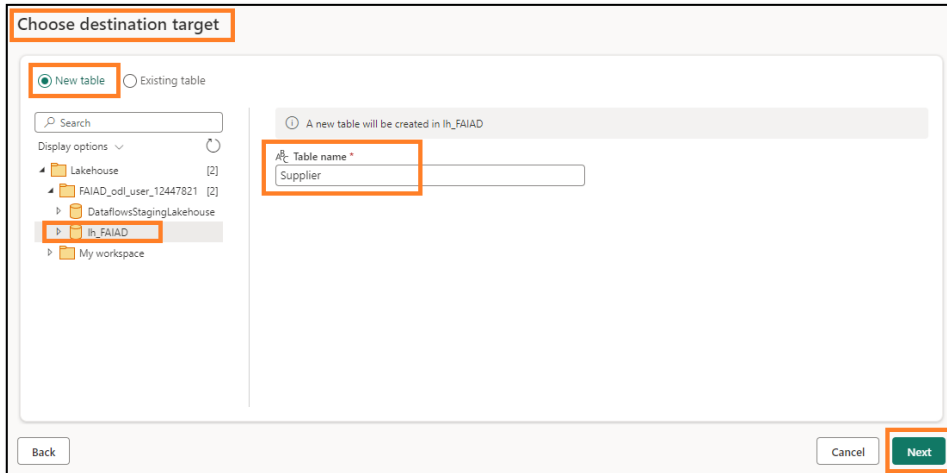
1. Select the **Supplier** query.
2. From the ribbon select **Home** -> **Add data destination** -> **Lakehouse**.



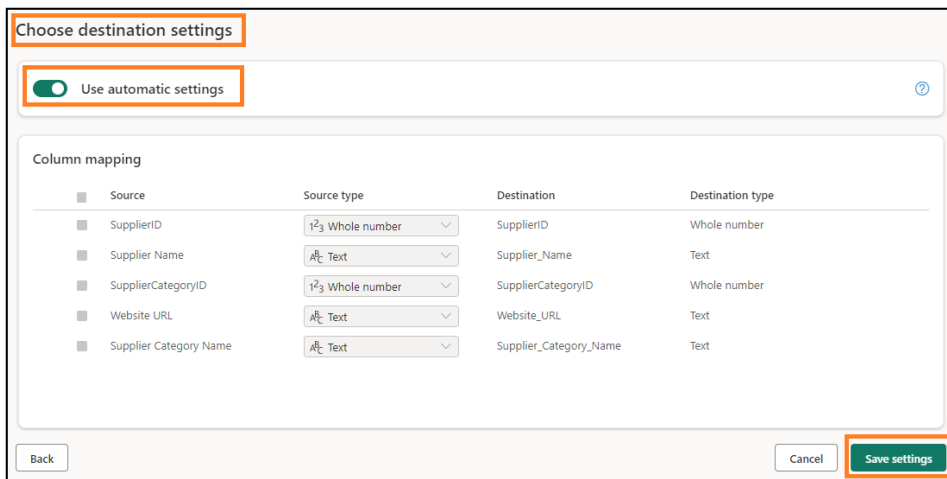
3. Connect to data destination dialog opens. From the **Connection dropdown** select **Lakehouse (none)**.
4. Select **Next**.



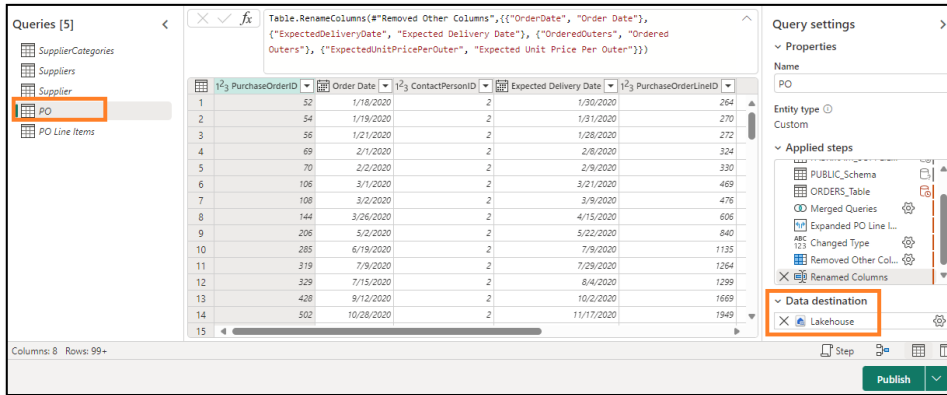
5. Choose destination target dialog opens. Make sure the **New table radio button** is selected, since we are creating a new table.
6. We want to create the table in the Lakehouse we created earlier. In the left panel, navigate to **Lakehouse -> FAIAD\_<username>**.
7. Select **lh\_FAIID**
8. Leave the table name as **Supplier**
9. Select **Next**.



10. Choose destination settings dialog opens. This time around we will use the automatic settings as this will do a full update of the data. Also, it will rename the columns as needed. Select **Save settings**.

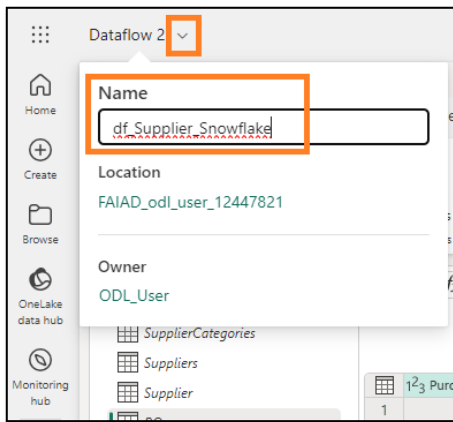


11. You will be navigated back to the **Power Query window**. Notice on the bottom **right corner**, **Data destination** is set to **Lakehouse**. Similarly, **set up the Data Destination for PO query**. Once it is done, your PO query should have **Data Destination** set to **Lakehouse** as shown in the screenshot below.

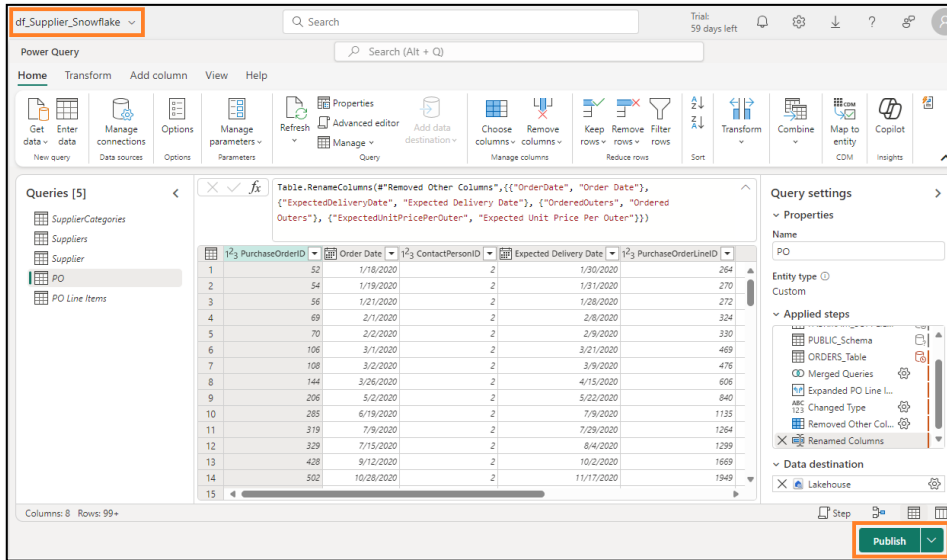


#### Task 4: Rename and Publish Snowflake Dataflow

1. From the top of the screen, select the **arrow next to Dataflow 2** to rename.
2. In the dialog, change the name to **df\_Supplier\_Snowflake**
3. Click on **Enter** to save the name change.



4. On the bottom right corner, select **Publish**.



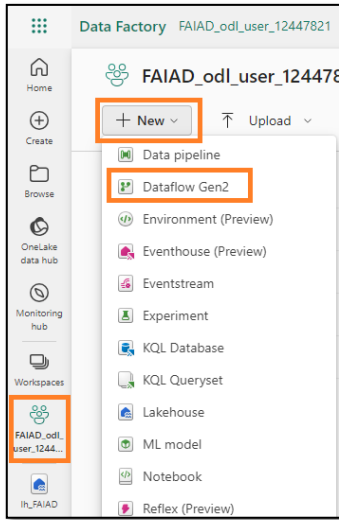
You will be navigated back to **FAIAD\_<username> workspace**. It may take a few moments for the Dataflow to Publish. (Now let's create a dataflow to bring in data from Dataverse.)

**Commented [TF3]:** I see that you removed the section about the Dataflow name not getting updated. Are we confident this doesn't happen anymore?

### Task 5: Copy Dataverse queries to Dataflow

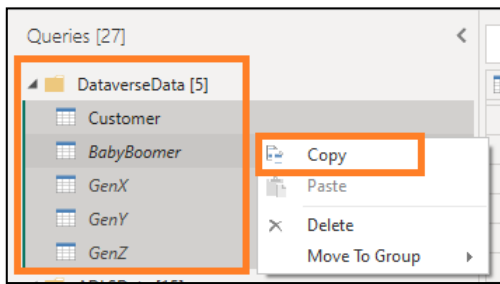
1. From the top menu, select **New -> Dataflow Gen2**.

**Commented [NP4R3]:** Yes I have not seen the issue. Looks like it is resolved.



You will be navigated to the **Dataflow page**. Now that we are familiar with Dataflow, let's go ahead and copy the queries from Power BI Desktop into Dataflow.

2. If you have not already opened it, open **FAIAD.pbix** located in the **C:\FAIAD\Reports** folder of your lab environment.
3. From the ribbon select **Home -> Transform data**. Power Query window opens. As you have noticed in the earlier lab, queries in the left panel are organized by data source.
4. Power Query window opens. From the left panel, under **DataverseData** folder **Ctrl+Select** the following queries:
  - a. **BabyBoomer**
  - b. **GenX**
  - c. **GenY**
  - d. **GenZ**
  - e. **Customer**
5. **Right click** and select **Copy**.



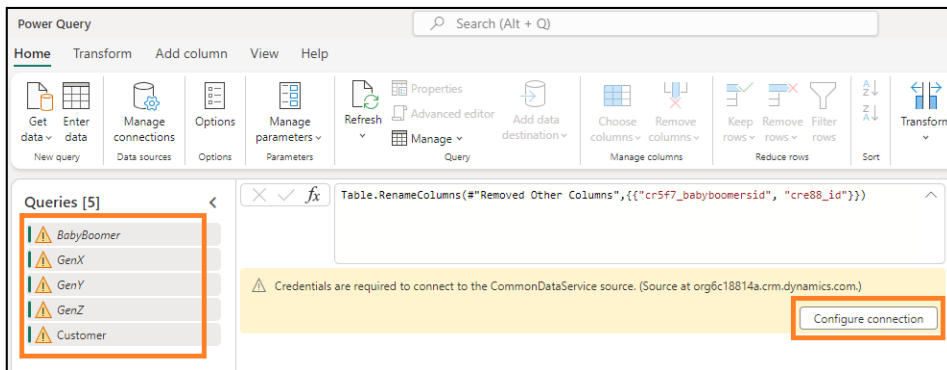
- Navigate back to the **Dataflow page** in your browser.
- In the **Dataflow pane**, enter **Ctrl+V** (currently right click Paste is not supported). If you are using MAC device, please use Cmd+V to paste.

**Note:** If you are working in the lab environment, please select the ellipsis on the top right of the screen. Use the slider to **enable VM Native Clipboard**. Select OK in the dialog. Once done pasting the queries you can disable this option.

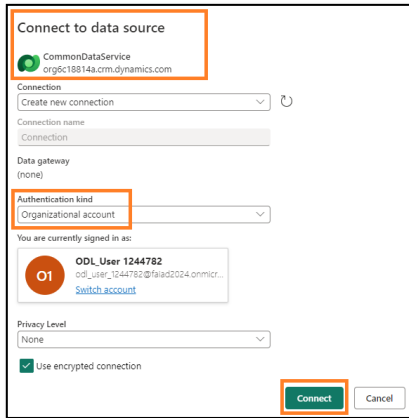
### Task 6: Create connection to Dataverse

Notice the five queries are pasted and now you have the Queries panel on the left. Since we do not have a connection created for Dataverse, you will see a warning message requesting you to configure the connection.

- Select **Configure connection**.



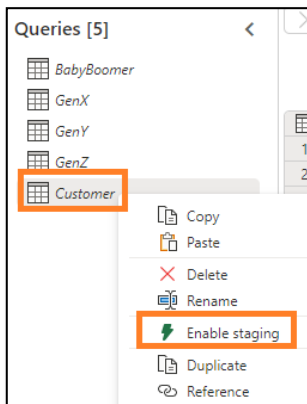
- Connect to data source dialog opens. In the **Connection dropdown** make sure, **Create new connection** is selected.
- Authentication kind** should be **Organizational Account**.
- Select **Connect**.



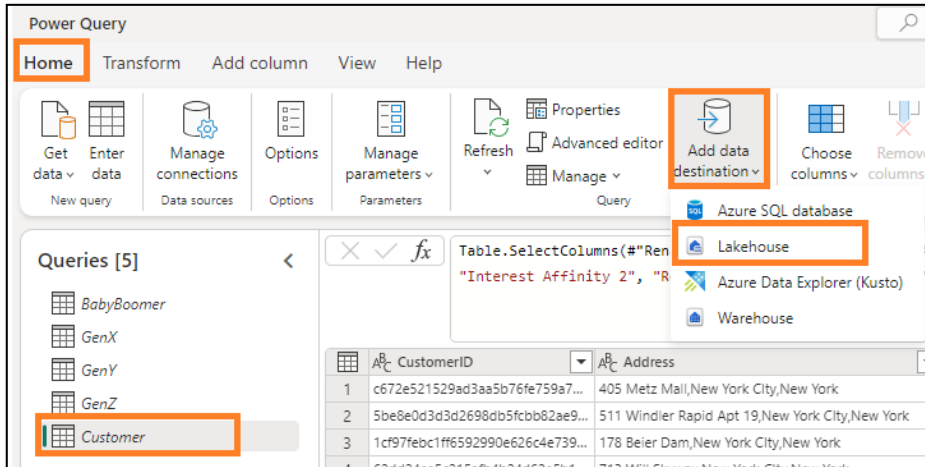
### Task 7: Create Data destination for Customer query

Connection is established and you can view the data in the preview panel. Feel free to navigate through the Applied Steps of the queries. Customer data is available by Category: BabyBoomer, GenX, GenY, and GenZ. These four queries are appended to create the Customer query. Now we need to ingest the Customer data into Lakehouse.

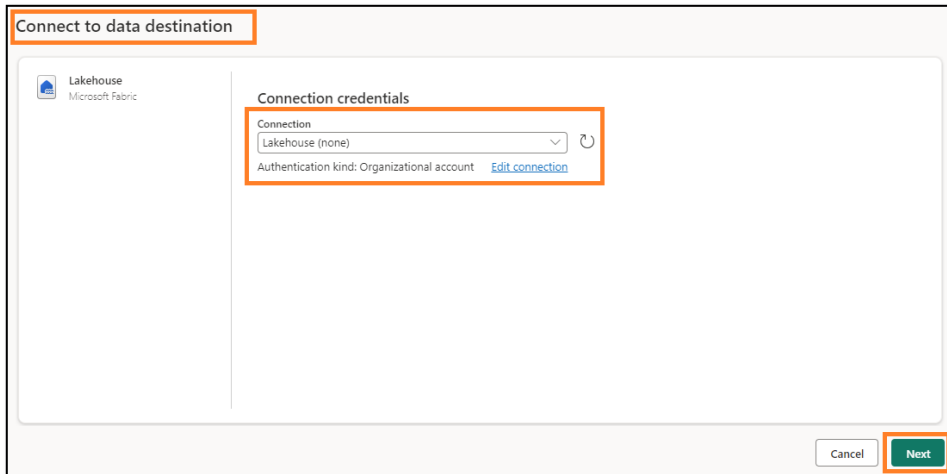
1. As mentioned earlier, we are not staging any of this data. So **right click** on the **Customer** query in the Queries pane and select **Enable staging** to remove the check mark.



2. Select **Customer** query.
3. From the ribbon select **Home** -> **Add data destination** -> **Lakehouse**.

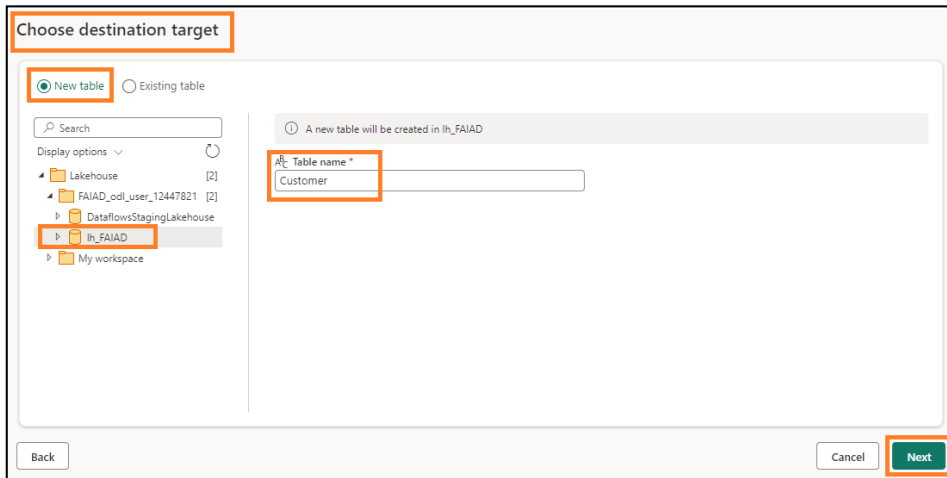


4. Connect to data destination dialog opens. From the **Connection dropdown** select **Lakehouse (none)**.
5. Select **Next**.

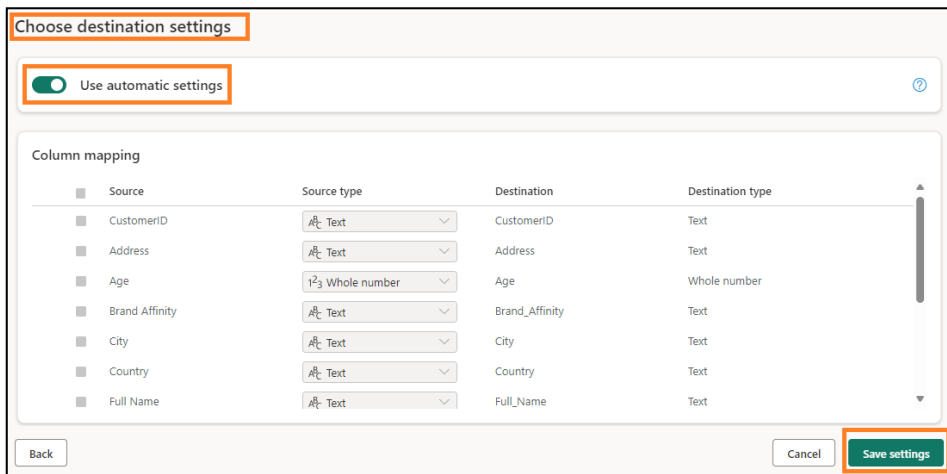


6. Choose destination target dialog opens. Make sure the **New table radio button** is selected, since we are creating a new table.
7. We want to create the table in the Lakehouse we created earlier. In the left panel, navigate to **Lakehouse -> FAIAD\_<username>**
8. Select **Ih\_FAIID**
9. Leave the table name as **Customer**

10. Select **Next**.



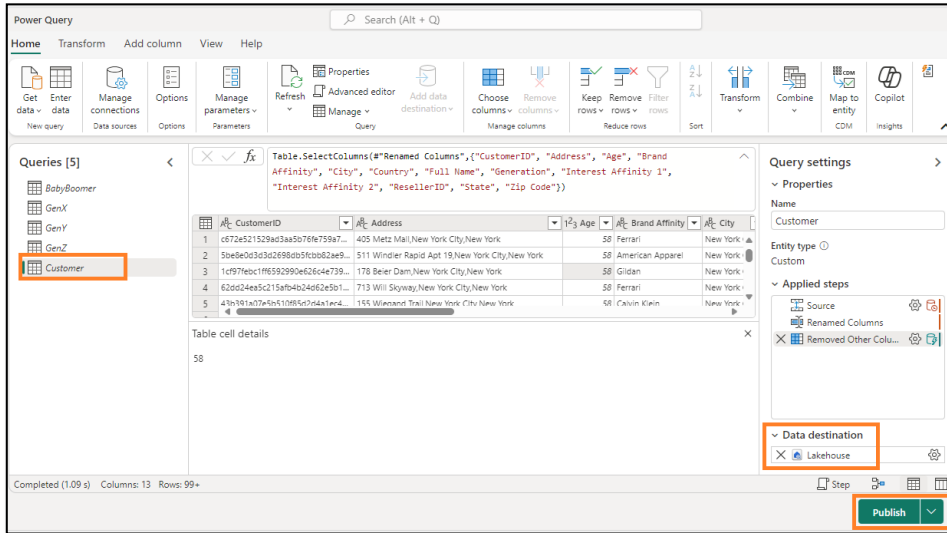
11. Choose destination settings dialog opens. This time around we will use the automatic settings as this will do a full update of the data. Also, it will rename the columns as needed. Select **Save settings**.



## Task 8: Publish and Rename Dataverse Dataflow

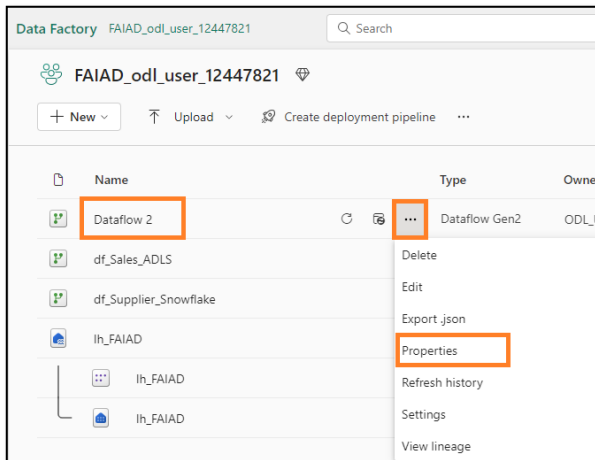
1. You will be navigated back to the **Power Query window**. Notice on the bottom **right corner**, **Data destination** is set to **Lakehouse**.

2. On the bottom right corner, select **Publish**.



**Note:** You will be navigated back to **FAIAD\_<username> workspace**. It may take a few moments for the Dataflow to Publish.

3. Dataflow 2 is the dataflow we were working in. Let's rename it before we continue. Click on the **ellipsis (...)** next to Dataflow 1. Select **Properties**.



4. Dataflow properties dialog opens. Change the **Name** to **df\_Customer\_Dataverse**

5. In the **Description** text box add **Dataflow to ingest Customer data from Dataverse to Lakehouse**.
6. Select **Save**.

**Dataflow 2**

\* Required

Name

df\_Customer\_Dataverse

Description

Dataflow to ingest Customer data from Dataverse to Lakehouse

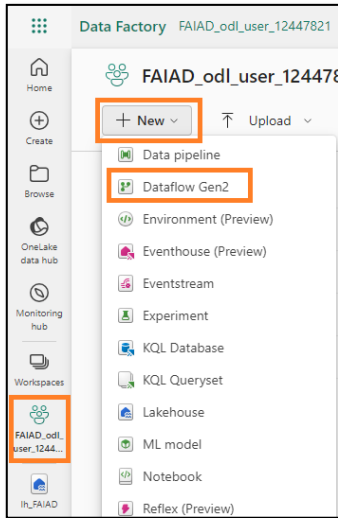
Last edited on 3/2/2024 at 7:09:10 PM by ODL\_User 1244782

Save Cancel

You will be navigated back to **FAIAD\_<username> workspace**. Now let's create a dataflow to bring in data from SharePoint.

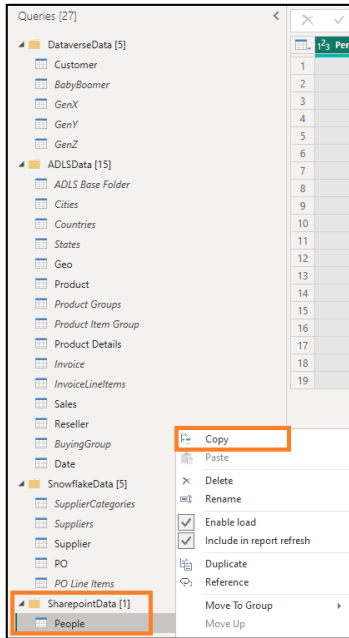
#### Task 9: Copy SharePoint queries to Dataflow

1. From the top menu, select **New -> Dataflow Gen2**.



You will be navigated to the **Dataflow page**. Now that we are familiar with Dataflow, let's go ahead and copy the queries from Power BI Desktop into Dataflow.

7. If you have not already opened it, open the **FAIAD.pbix** located in the **C:\FAIAD\Reports** folder of your lab environment.
8. From the ribbon select **Home -> Transform data**. Power Query window opens. As you have noticed in the earlier lab, queries in the left panel are organized by data source.
9. Power Query window opens. From the left panel, under the SharepointData folder **select People** query.
10. **Right click** and select **Copy**.



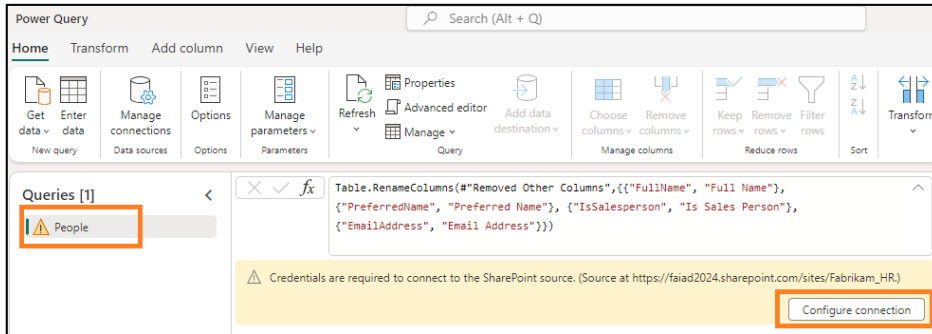
11. Navigate back to the **Dataflow** screen in the browser.
12. In the **Dataflow** pane, enter **Ctrl+V** (currently right click Paste is not supported).

**Note:** If you are working in the lab environment, please select the ellipsis on the top right of the screen. Use the slider to **enable VM Native Clipboard**. Select OK in the dialog. Once done pasting the queries you can disable this option.

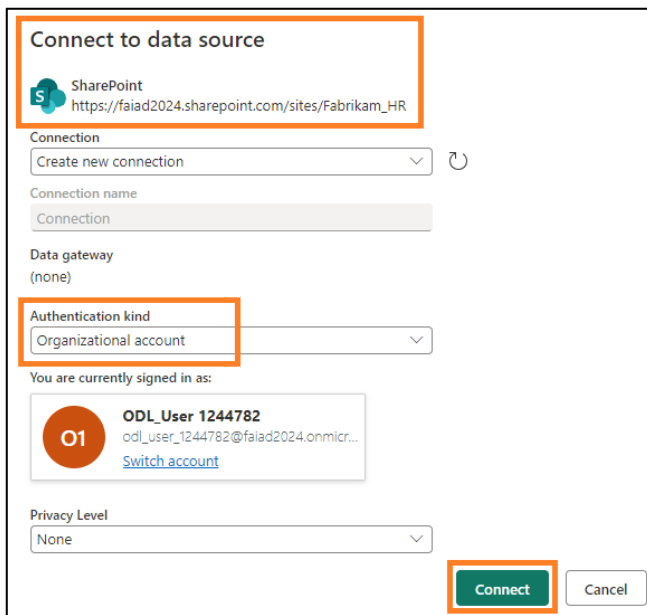
Notice the query pasted and is available in the left panel. Since we do not have a connection created to SharePoint, you will see a warning message requesting you to configure the connection.

### Task 10: Create SharePoint connection

1. Select **Configure connection**.



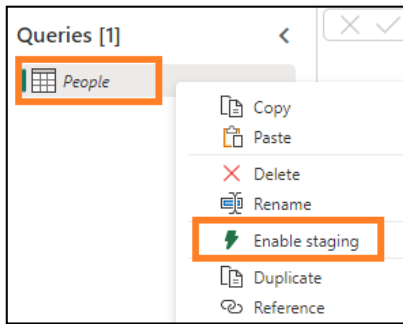
2. Connect to data source dialog opens. In the **Connection** dropdown make sure **Create new connection** is selected.
3. **Authentication kind** should be **Organizational Account**.
4. Select **Connect**.



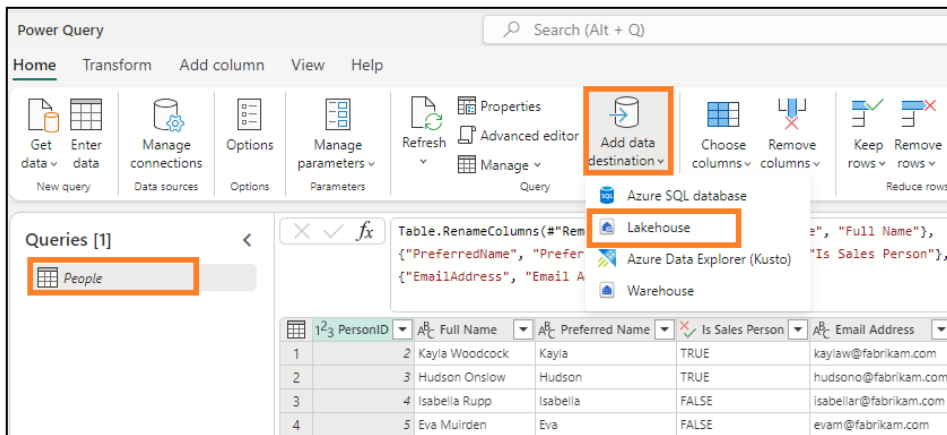
### Task 11: Configure Data destination for People query

Connection is established and you can view the data in the preview panel. Feel free to navigate through the Applied Steps of the queries. Now we need to ingest People data into Lakehouse.

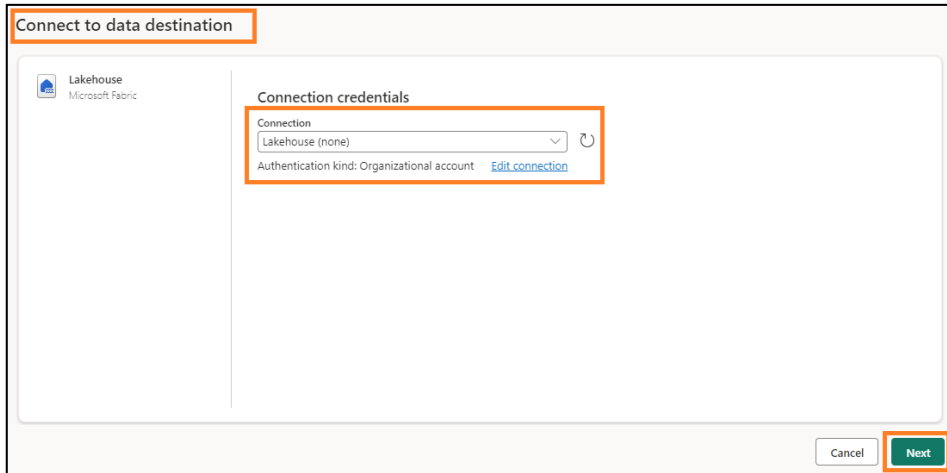
1. As mentioned earlier, we are not staging any of this data. So **right click** on the **People** query in the Queries pane and select **Enable staging** to remove the check mark.



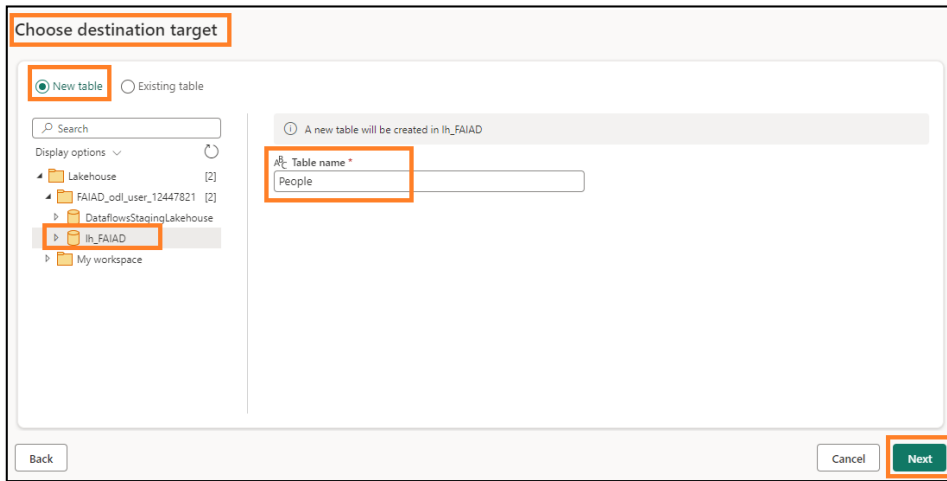
2. Select **People** query.
3. From the ribbon select **Home** -> **Add data destination** -> **Lakehouse**.



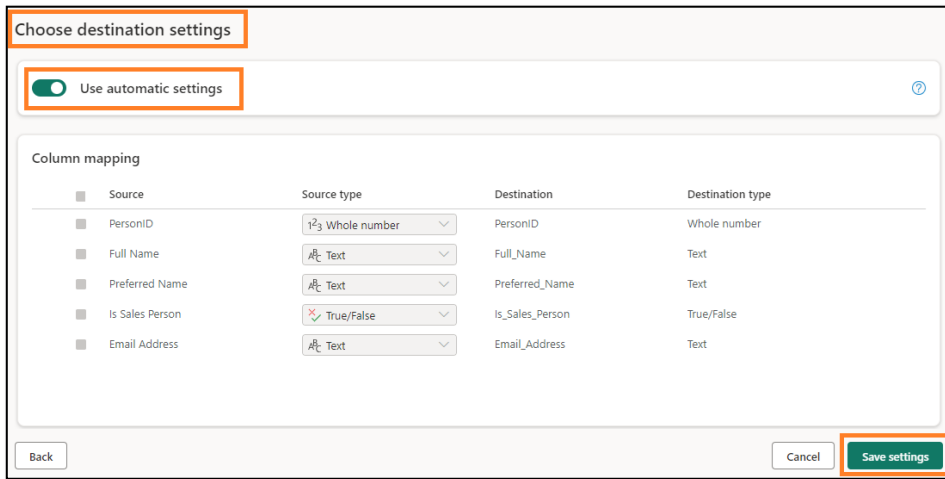
4. Connect to data destination dialog opens. From the **Connection dropdown** select **Lakehouse (none)**.
5. Select **Next**.



6. Choose destination target dialog opens. Make sure the **New table radio button** is selected, since we are creating a new table.
7. We want to create the table in the Lakehouse we created earlier. In the left panel, navigate to **Lakehouse -> FAIAD\_<username>**.
8. Select **lh\_FAIAD**
9. Leave the table name as **People**
10. Select **Next**.

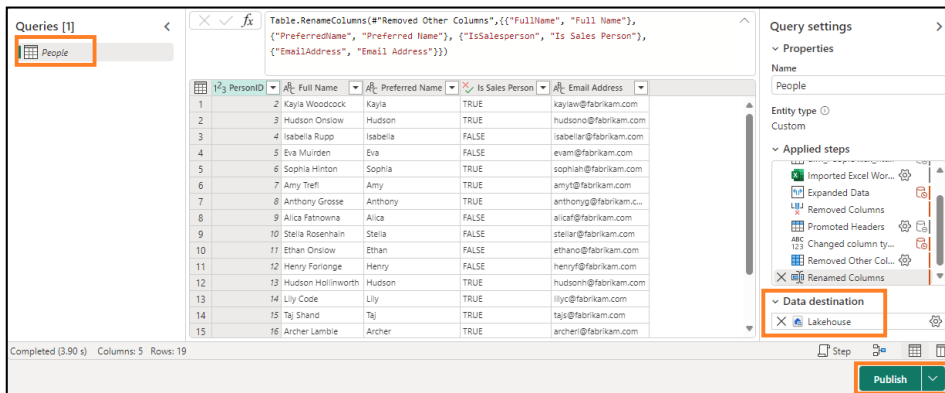


- Choose destination settings dialog opens. This time around we will use the automatic settings as this will do a full update of the data. Also, it will rename the columns as needed. Select **Save settings**.



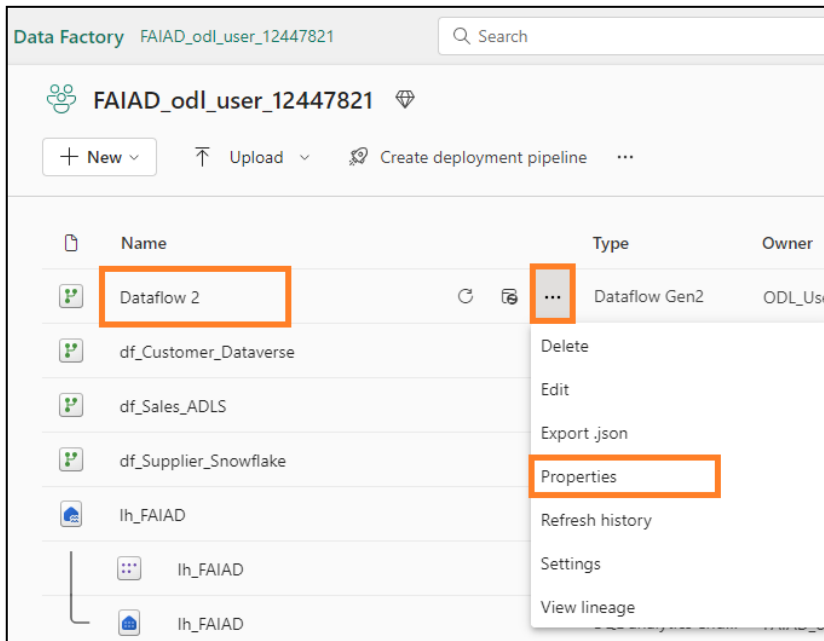
## Task 12: Publish and Rename SharePoint Dataflow

- You will be navigated back to the **Power Query window**. Notice on the bottom right corner, Data destination is set to **Lakehouse**.
- On the bottom right corner, select **Publish**.



**Note:** You will be navigated back to **FAIAD\_<username> workspace**. It may take a few moments for the Dataflow to Publish.

3. Dataflow 2 is the dataflow we were working in. Let's rename it before we continue. Click on the ellipsis (...) next to Dataflow 2. Select **Properties**.



4. Dataflow properties dialog opens. Change the **name** to **df\_People\_SharePoint**
5. In the **Description** text box add **Dataflow to ingest People data from SharePoint to Lakehouse**.
6. Select **Save**.

**Dataflow 2**

\* Required

Name

df\_People\_SharePoint

Description

Dataflow to ingest People data from SharePoint to Lakehouse

Last edited on 3/2/2024 at 7:56:13 PM by ODL\_User 1244782

Save Cancel

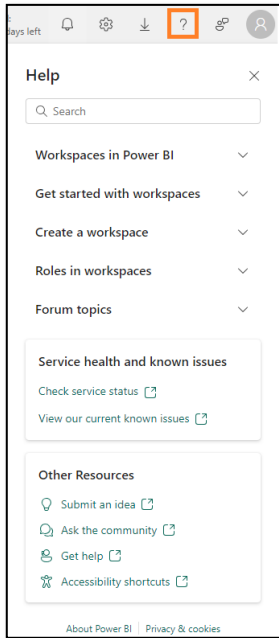
You will be navigated back to **FAIAD\_<username> workspace**. We have now ingested all the data into Lakehouse. In the next lab, we will schedule Dataflow refresh.

Commented [TF5]: Same as above

Commented [NP6R5]: Done

## References

Fabric Analyst in a Day (FAIAD) introduces you to some of the key functions available in Microsoft Fabric. In the menu of the service, the Help (?) section has links to some great resources.



Here are a few more resources that will help you with your next steps with Microsoft Fabric.

- See blog post to read the full [Microsoft Fabric GA announcement](#)
- Explore Fabric through the [Guided Tour](#)
- Sign up for the [Microsoft Fabric free trial](#)
- Visit the [Microsoft Fabric website](#)
- Learn new skills by exploring the [Fabric Learning modules](#)
- Explore the [Fabric technical documentation](#)
- Read the [free e-book on getting started with Fabric](#)
- Join the [Fabric community](#) to post your questions, share your feedback, and learn from others

Read the more in-depth Fabric experience announcement blogs:

- [Data Factory experience in Fabric blog](#)
- [Synapse Data Engineering experience in Fabric blog](#)
- [Synapse Data Science experience in Fabric blog](#)
- [Synapse Data Warehousing experience in Fabric blog](#)
- [Synapse Real-Time Analytics experience in Fabric blog](#)
- [Power BI announcement blog](#)
- [Data Activator experience in Fabric blog](#)
- [Administration and governance in Fabric blog](#)
- [OneLake in Fabric blog](#)

- [Dataverse and Microsoft Fabric integration blog](#)

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