MICROSOFT FABRIC

Get started

Summary

To use Microsoft Fabric to store data and to transform and visualize it

Jerry Lau

elearning4jerry@gmail.com
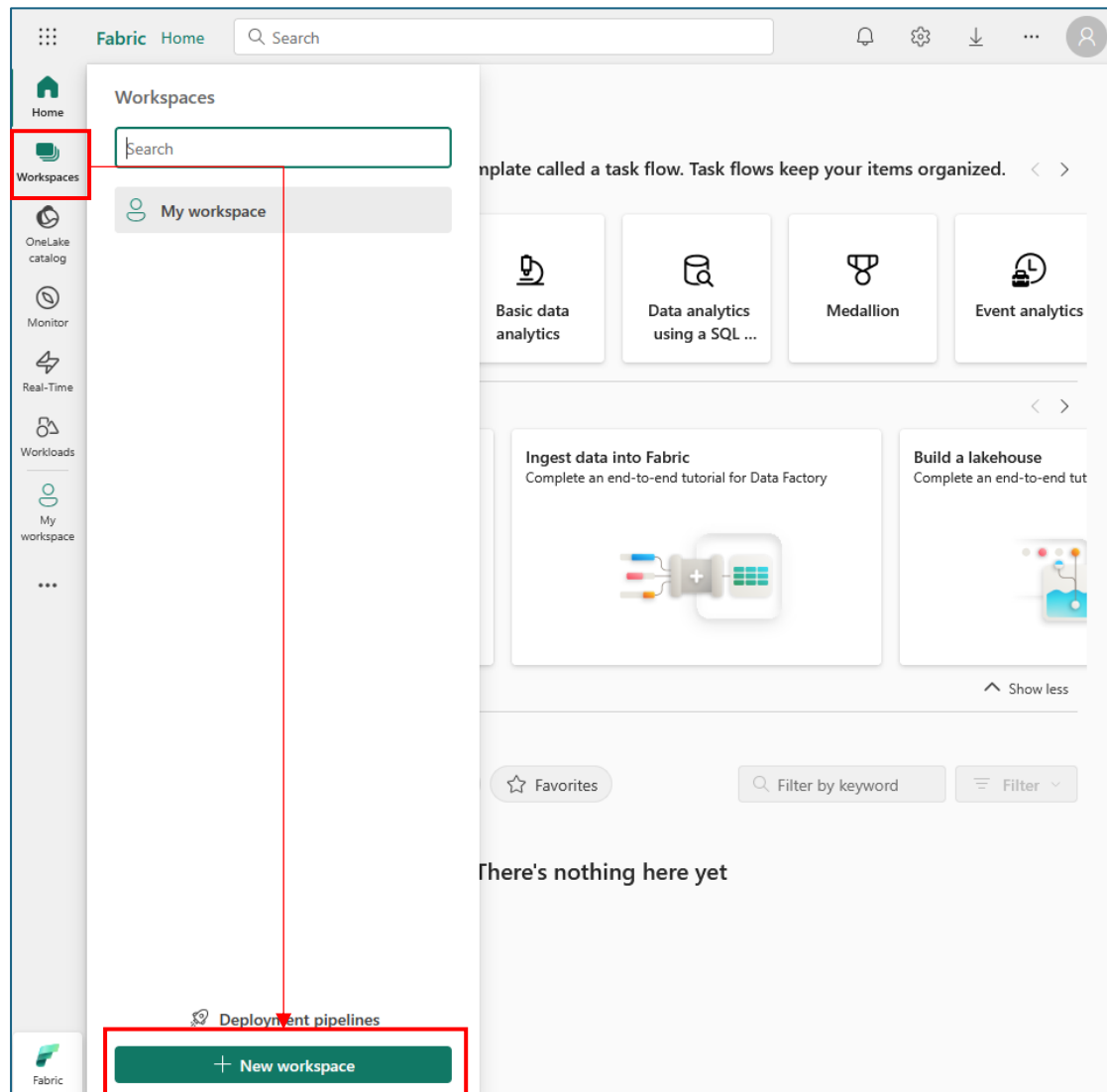
Table of contents

Introduction

In this demo:

1. A new workspace will be created.

2. A lakehouse will be created to store files.

3. A file will be uploaded to lakehouse and transformed into table.

4. The data will be analyzed and aggregated by SQL query and visual query.

5. The data will be visualized in Power BI.

Reference: https://microsoftlearning.github.io/mslearn-fabric/Instructions/Labs/01-lakehouse.html

Create a workspace

Go to Fabric home page.   On left hand side, click Workspace -> "+ New
Workspace"

Give a name to your new workspace

Create a workspace

Name *

jerry's workspac

✓ This name is available

Description

Describe this workspace

Domain ⓘ

Assign to a domain (optional) ⌄

Learn more about workspace settings ⎋

Workspace image

⬆ Upload

↺ Reset

Advanced ⌄

Apply Cancel

(optional) Check "License mode" under "Advanced".   Click "Apply" to create (proceed with trial for 60 days if applicable)

Create a workspace   ✕

Advanced ∧

Contact list * ⓘ

> ⨍⟮ fa2 (Owner)   ✕

License mode ⓘ

◉ Pro

Select Pro to use basic Power BI features and collaborate on reports, dashboards, and scorecards. To access a Pro workspace, users need Pro per-user licenses. Learn more ⌕

○ Trial

Select Trial to assign this workspace to a Fabric trial capacity. A Microsoft Fabric trial capacity allows user to explore the capabilities of Microsoft Fabric like Data Factory, Data Engineering and Real-Time Intelligence among others. Learn more ⌕

○ Premium per-user

Select Premium per-user to collaborate using Power BI Premium features, including paginated reports, dataflows, and datamarts. To collaborate and share content in a Premium per-user workspace, users need Premium per-user licenses. Learn more ⌕

○ Premium capacity

Select premium capacity if the workspace will be hosted in a premium capacity. When you share, collaborate on, and distribute Power BI and Microsoft Fabric content, users in the viewer role can access this content without needing a Pro or Premium per-user license. Learn more ⌕

○ Embedded

Select embedded if the workspace will be hosted in an Azure embedded capacity. ISVs and developers use Power BI Embedded to embed visuals and analytics in their applications. Learn more ⌕
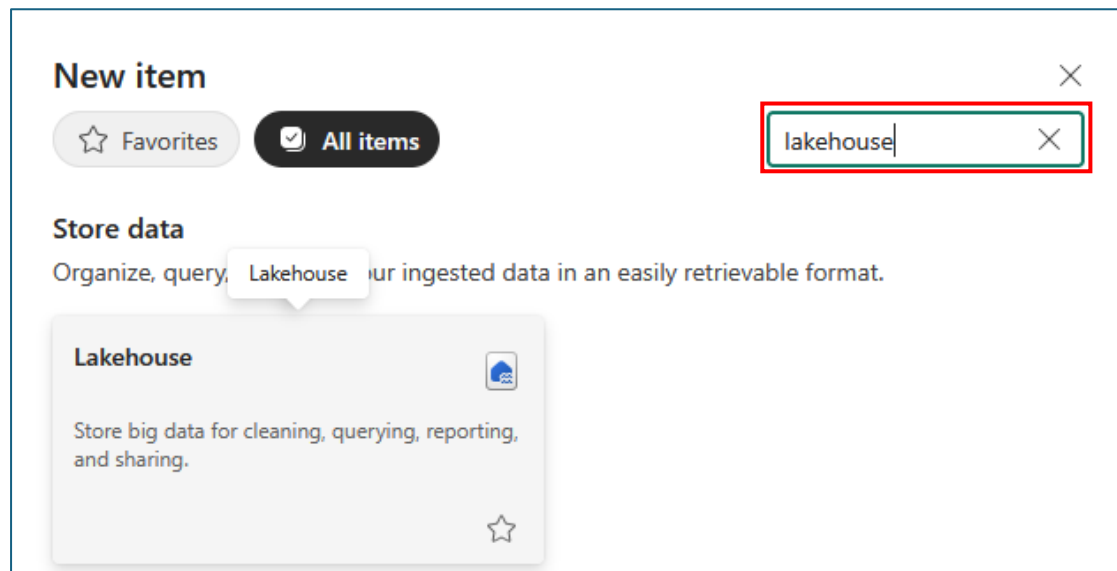
○ Fabric capacity

Select Fabric capacity if the workspace will be hosted in a Microsoft Fabric capacity. With Fabric capacities, users can create Microsoft Fabric items and collaborate with others using Fabric features and experiences. Explore new capabilities in Power BI, Data Factory, Data Engineering, and Real-Time Intelligence, among others. Learn more ⌕

Create a Lakehouse

Go to your new workspace.   Click "+ New item"
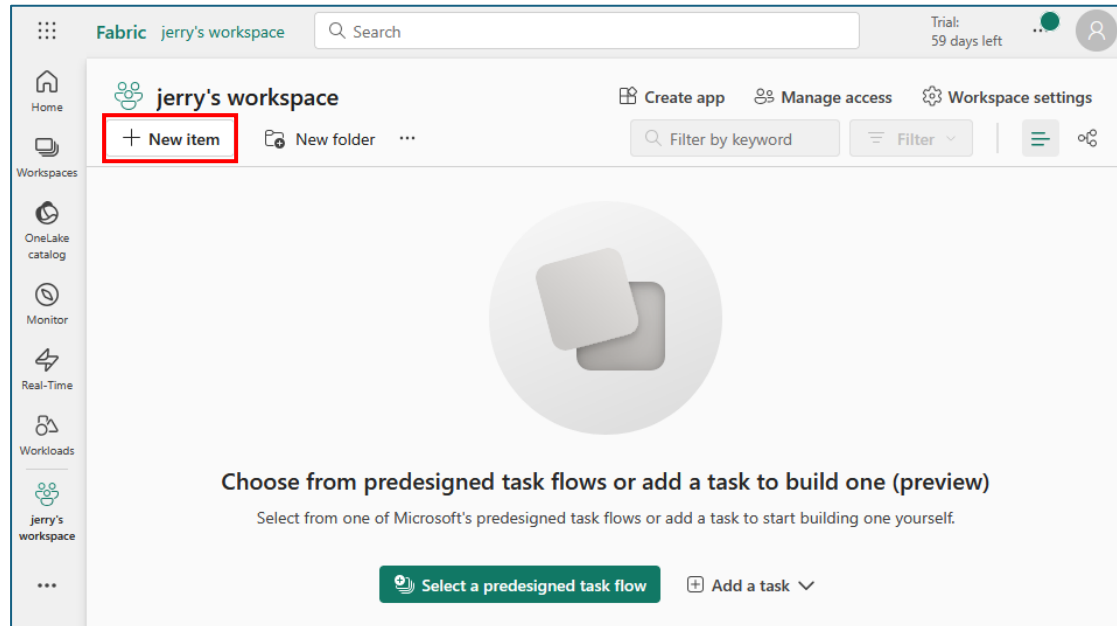
Search for "lakehouse"

You may see these

Upgrade to a free Microsoft Fabric trial

To create a Lakehouse, your workspace jerry's workspace needs to be upgraded to a free Fabric trial capacity. Upgrading requires us to create a free trial capacity for you and assign this workspace to it. Learn more ⤴

○ We're preparing a free trial capacity...

OK

Successfully upgraded to a free Microsoft Fabric trial

We've upgraded the workspace jerry's workspace to a free Fabric trial capacity. You can create and work with any new item types available in this workspace now. Other users can also assign their workspaces to this capacity. Learn more ⤴

✓ Prepared a free trial capacity.

✓ Assigned this workspace to the prepared trial capacity.

✓ Finished the upgrade now.

OK

Skip default schema and click "Create"

Tables: query-able using SQL

Files: not associated with managed delta table (can contain shortcuts to external files)
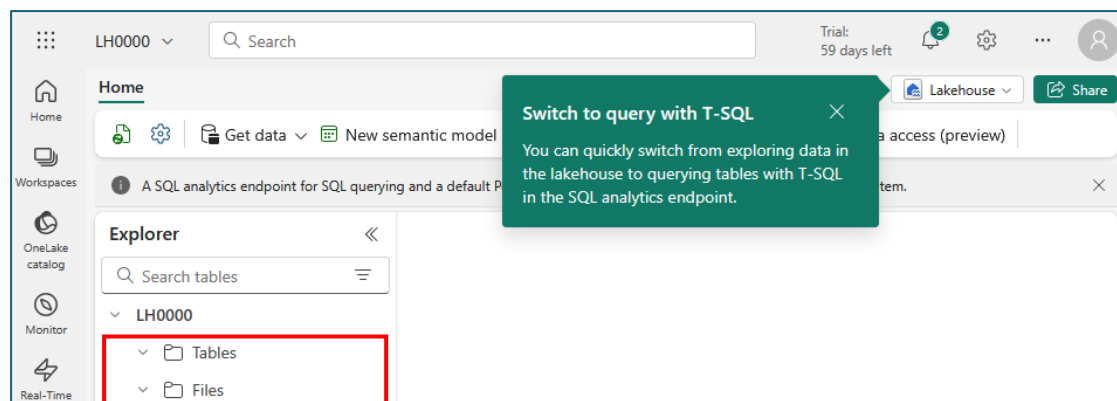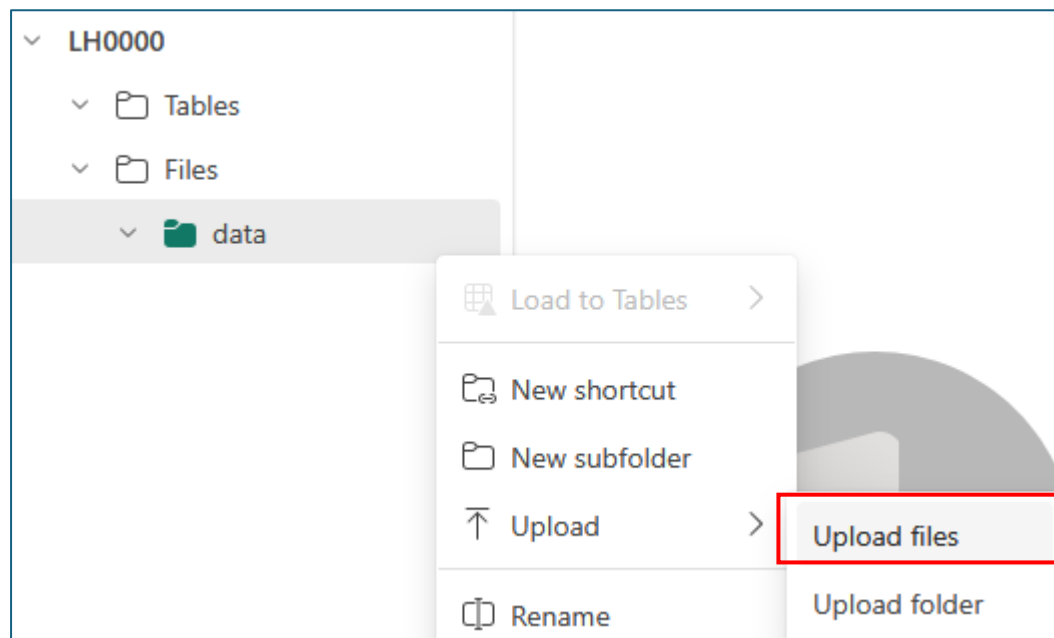
Upload a file

Create a subfolder "data" under "Files"
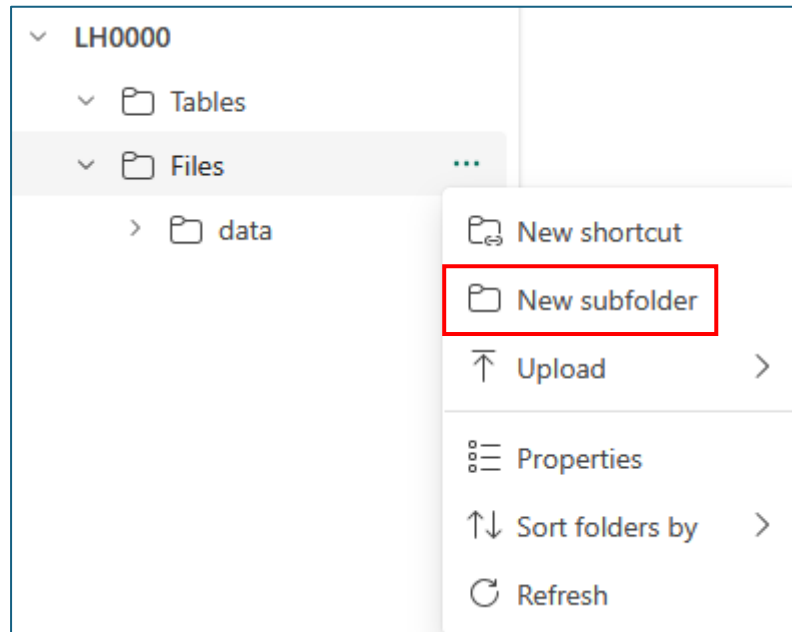
Upload a file to the data subfolder

Upload files

Files/data/

☐ Overwrite if files already exist

Upload

Current uploads

Dismiss: Completed All

File Name	Lakehouse Name		
sales.csv	LH0000	○ 1 MB / 3 MB	🗑

Preview the data

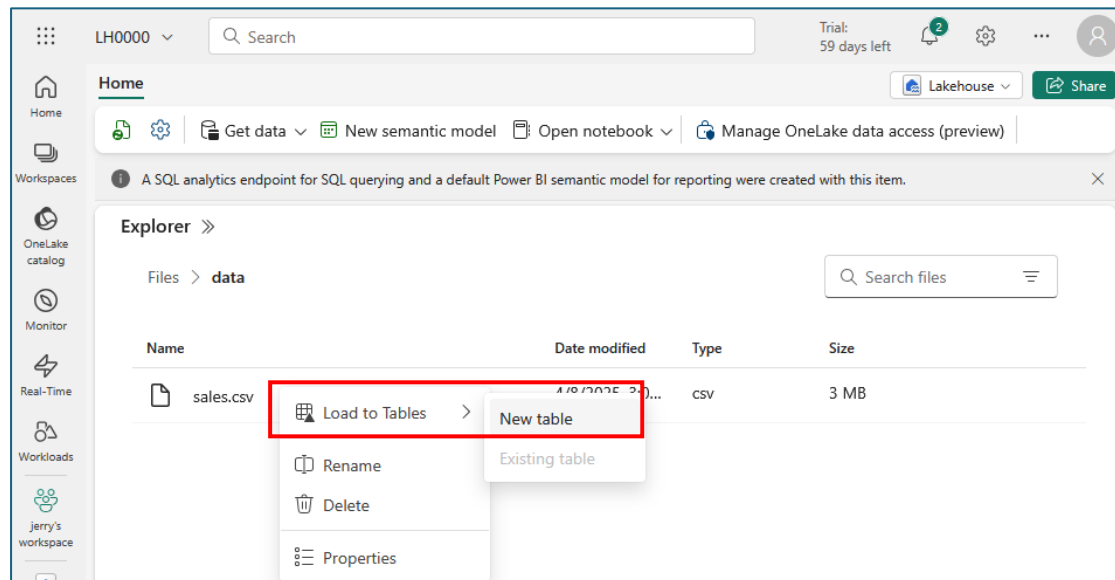# Navigate shortcut

Get data -> New shortcut
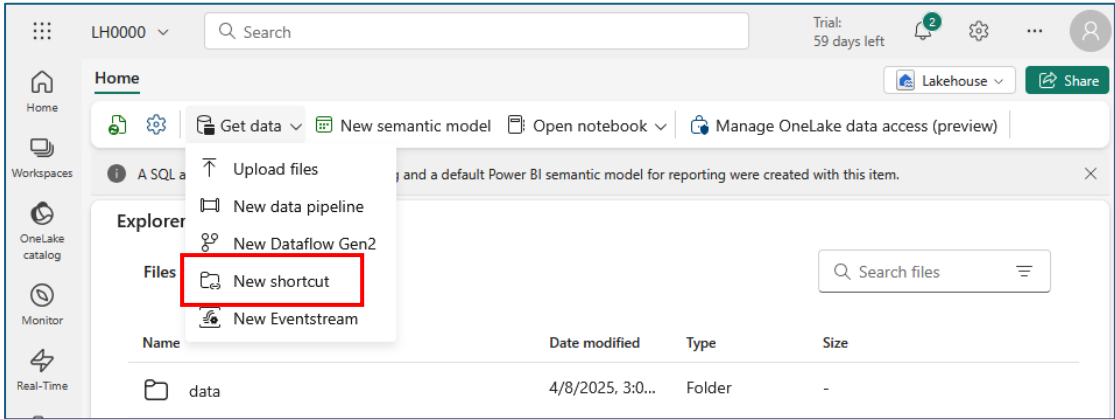
Options available:
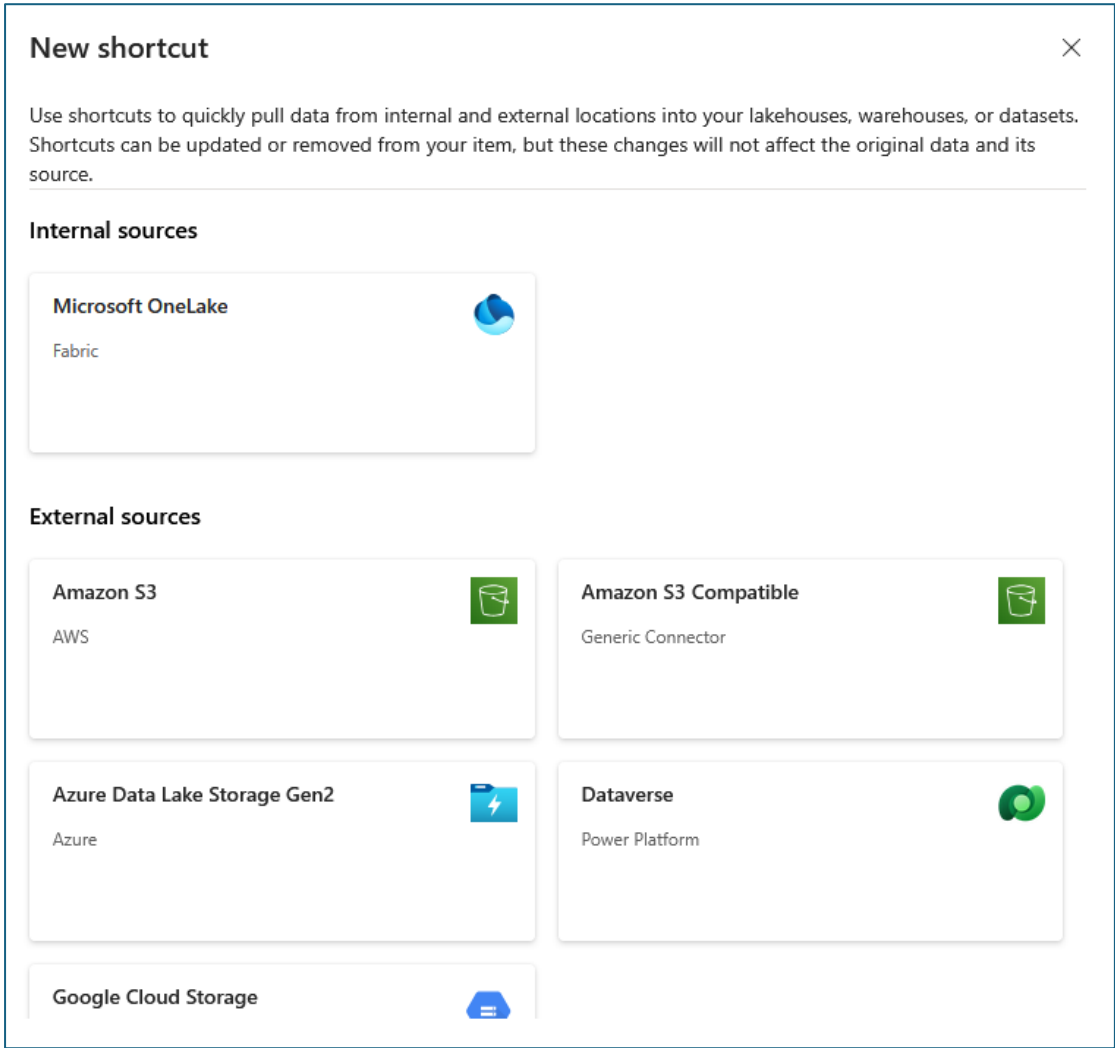
Load file data into a table

Go back to the uploaded file, right-click and choose "Load to Tables" -> "New table"

Click "Load" to create
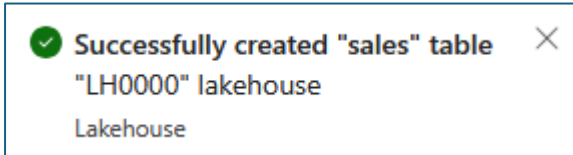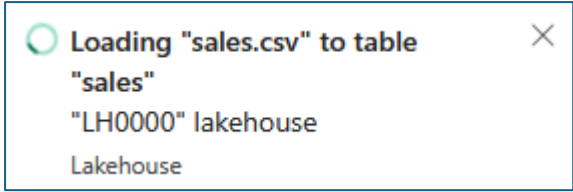
Navigate to <your lakehouse name> -> Tables -> sales to preview the data
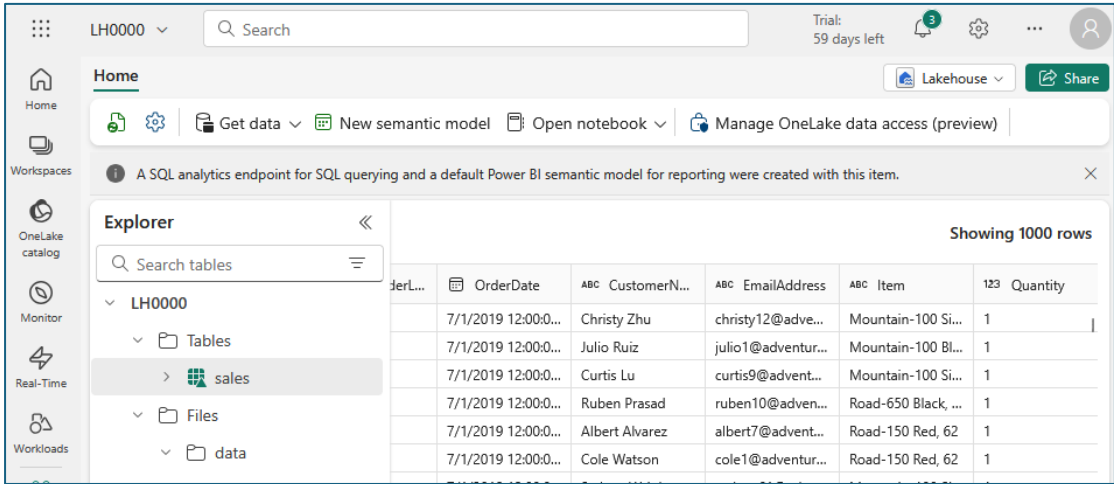
Go into "View files" to inspect the underlying files for the table

Use SQL to query tables

Switch to SQL analytics endpoint at top right corner

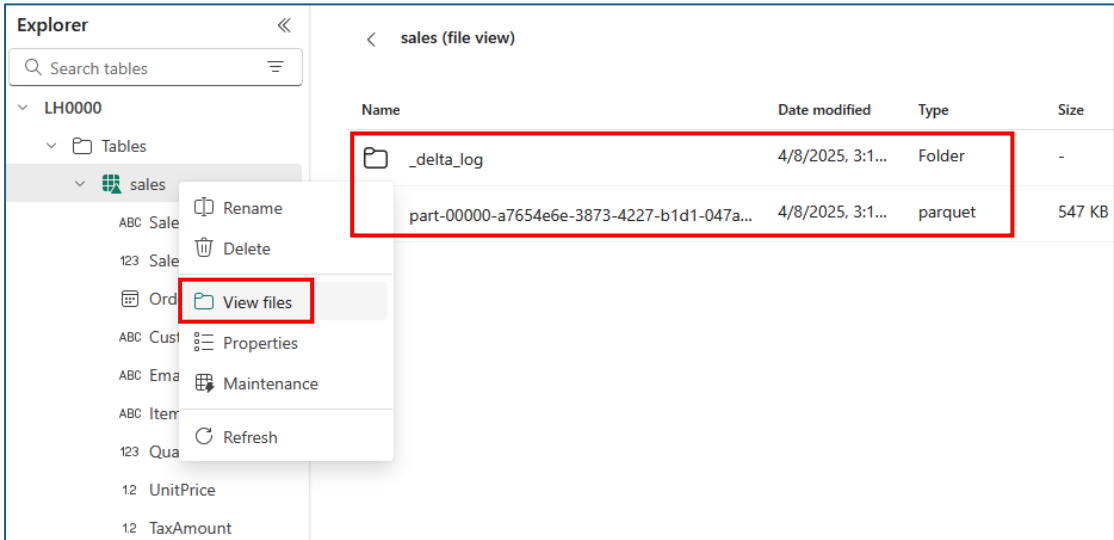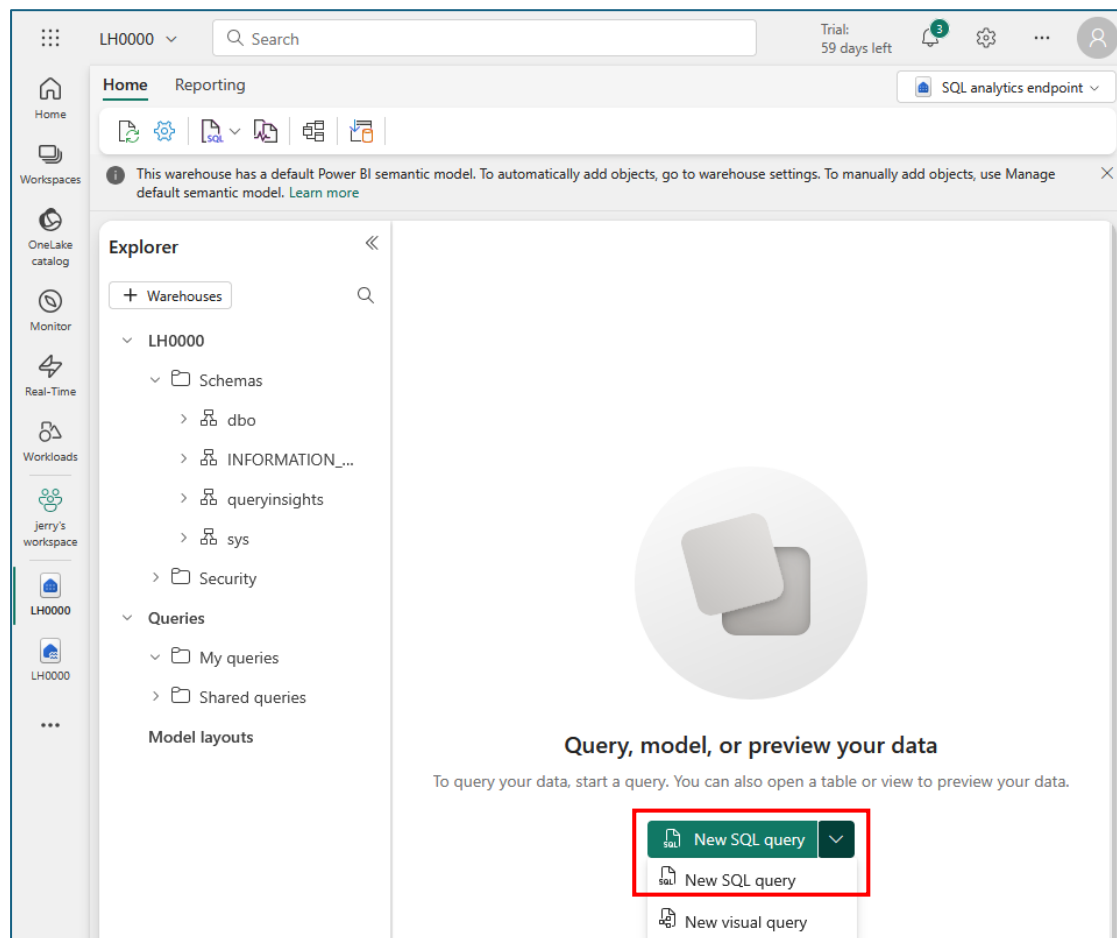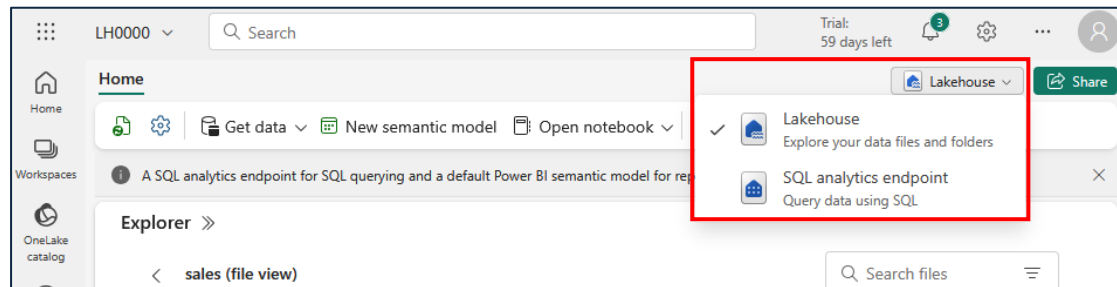Home   Reporting   🔵 SQL analytics endpoint ∨

ℹ This warehouse has a default Power BI semantic model. To automatically add objects, go to warehouse settings. To manually add objects, use Manage default semantic model. Learn more   ✕

Explorer ≪

＋ Warehouses   🔍

∨ LH0000
  ∨ 📁 Schemas
    › 🗄 dbo
    › 🗄 INFORMATION_...
    › 🗄 queryinsights
    › 🗄 sys
  › 📁 Security
∨ Queries
  ∨ 📁 My queries
      🗒 SQL query 1
  › 📁 Shared queries
Model layouts

🗒 SQL query 1   ✕

▷ Run   🗐 Save as view

```
1   SELECT Item, SUM(Quantity * UnitPrice) AS Revenue
2   FROM sales
3   GROUP BY Item
4   ORDER BY Revenue DESC;
5
```

Messages   **Results**   📊 🔍 ∨   ⌃

🗐 Copy ∨   🔍 Search

|	ABC Item	1.2F Revenue
1	Road-150 Red, 48	1205876.99
2	Road-150 Red, 62	1202298.72
3	Road-150 Red, 52	1080637.54
4	Road-150 Red, 56	1055589.65
5	Road-150 Red, 44	1005493.87
6	Mountain-200 Black, 46	925946.498199999
7	Mountain-200 Black, 42	844474.353399999
8	Mountain-200 Silver, 46	816222.188399999
9	Mountain-200 Silver, 38	815145.050399999

✅ Succeeded (4 sec 686 ms)   Columns: 2 Rows: 130
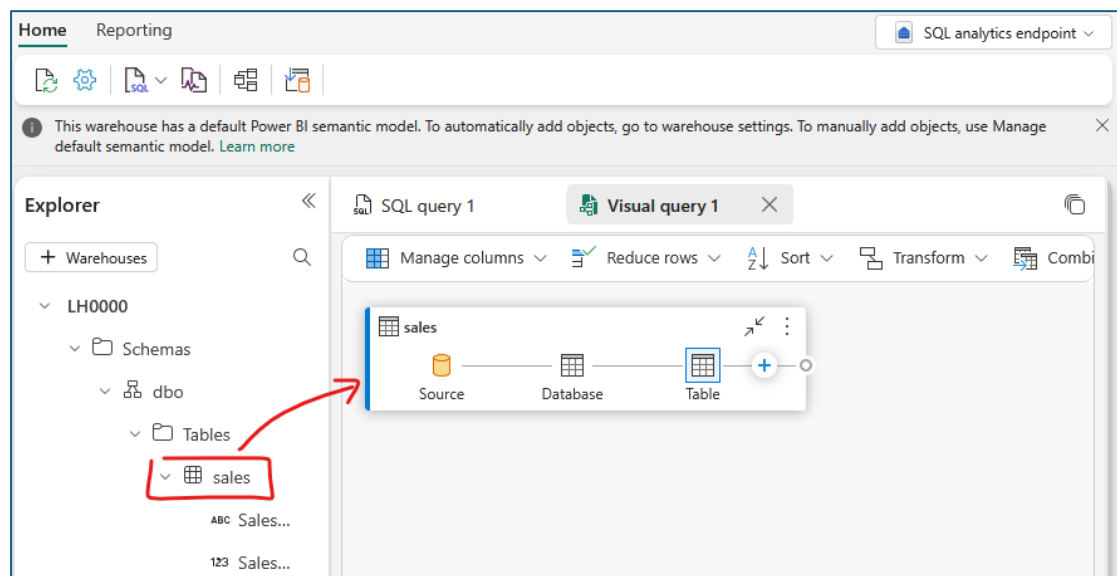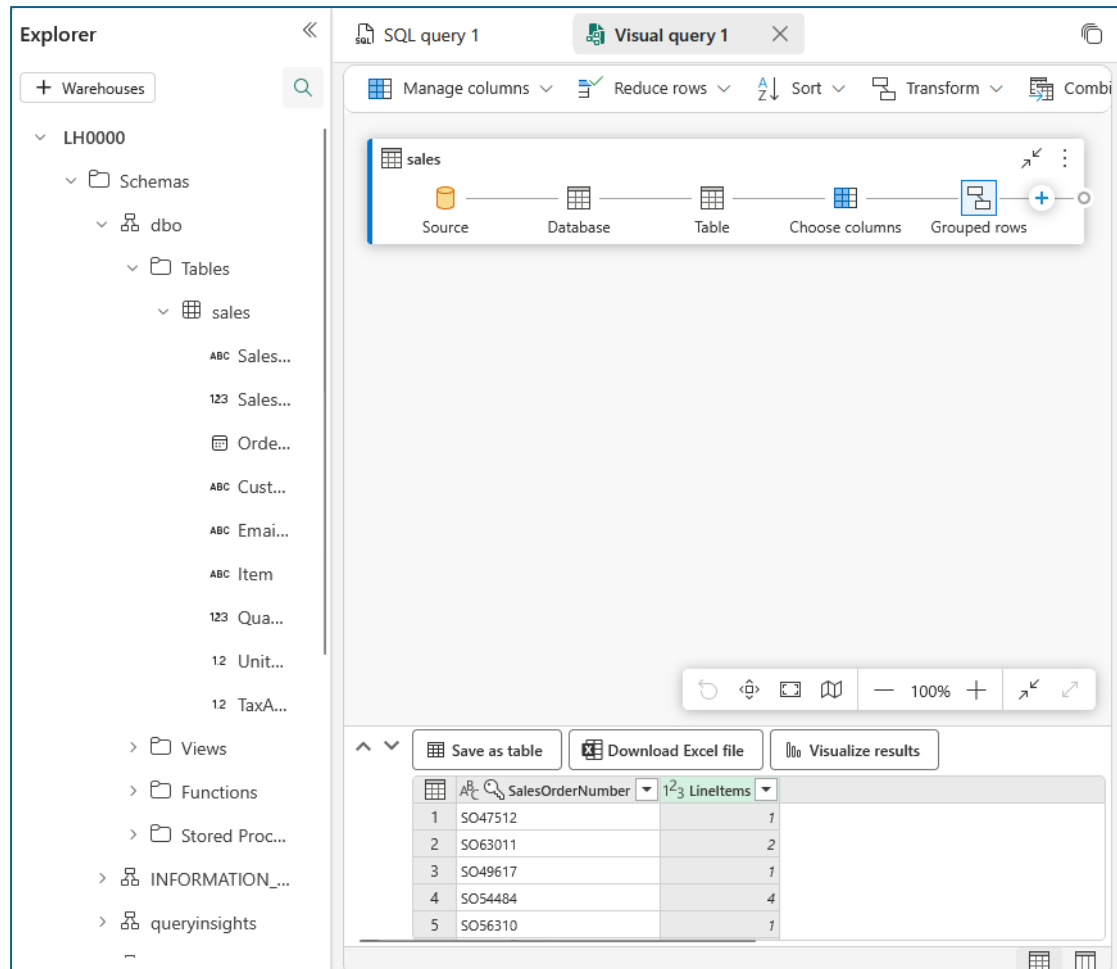
Create a visual query

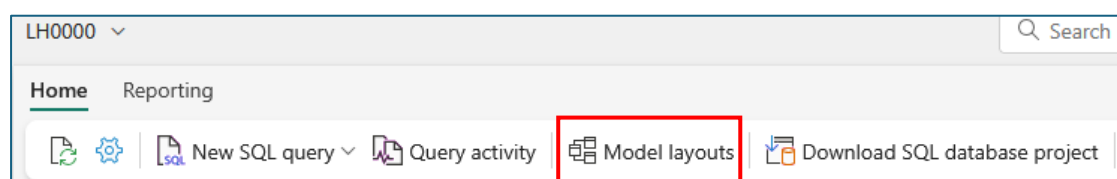Click "New visual query" on top
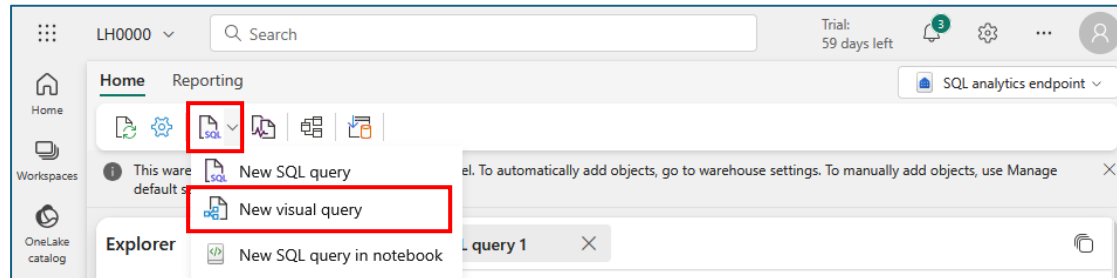
Drag the sales table to the canvas

Use "Mange columns" to select columns, use "Transform" -> "Group by" to aggregate values

Choose "Model layouts" on top

Ignore other tables automatically created by Fabric

t... ⚠ ···	exec_sessions_history ⚠ ···	frequently_run_que... ⚠ ···	long_running_queri... ⚠ ···	sales ⚠ ···
s	ansi_defaults	avg_total_elapsed_time_ms	database_name	CustomerName
	ansi_null_dflt_on	database_name	last_dist_statement_id	EmailAddress
	ansi_nulls	last_dist_statement_id	last_run_command	Item
	ansi_padding	last_run_command	last_run_session_id	OrderDate
	ansi_warnings	last_run_start_time	last_run_start_time	Quantity
y_mb	arithabort	last_run_total_elapsed_time_ms	last_run_total_elapsed_time_ms	SalesOrderLineNumber
storage_mb	authenticating_database_id	max_run_total_elapsed_time_ms	median_total_elapsed_time_ms	SalesOrderNumber
	concat_null_yields_null	min_run_total_elapsed_time_ms	number_of_runs	TaxAmount
id	connection id	number of canceled runs	query hash	UnitPrice
Collapse ⌃	Collapse ⌃	Collapse ⌃	Collapse ⌃	Collapse ⌃

Create a report

On top, select Reporting -> New report to bring up Power BI
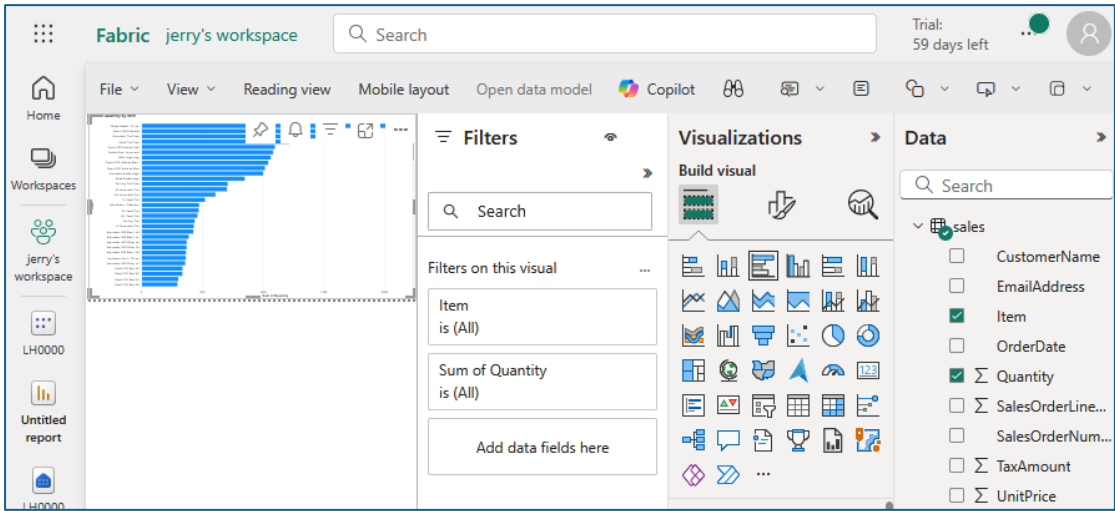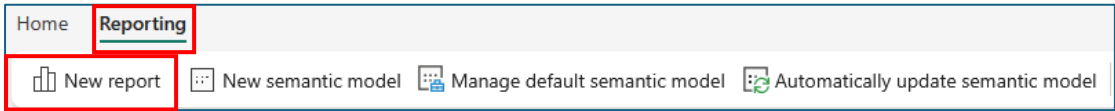
The report can be saved in your workspace
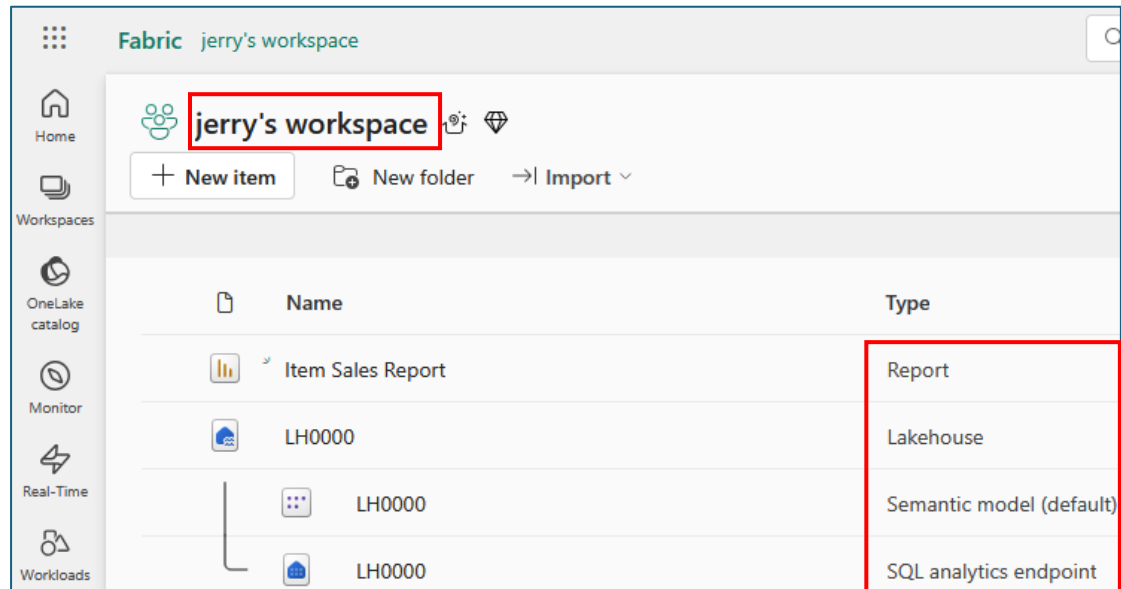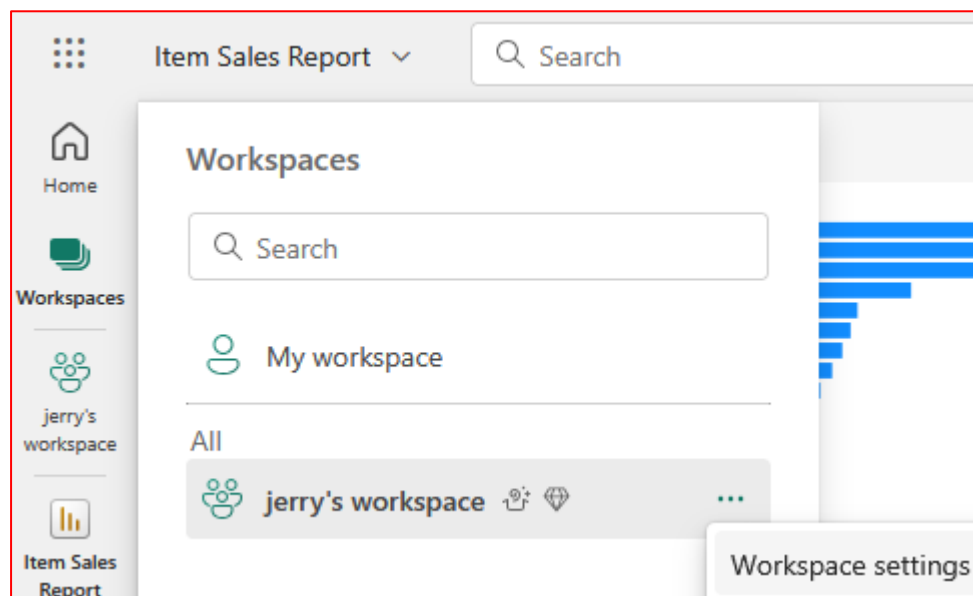
Clean up resources

Items created so far

Go to Workspace settings of your created workspace

Click "Remove this workspace", click "Delete" to confirm

Workspace settings   ×

General

License info

Azure connections

System storage

Git integration

OneLake

Workspace identity

Network security

Monitoring

Power BI ⌄

Delegated Settings ⌄

**Data Engineering/
Science** ⌄

Data Factory ⌄

Domain

Assign this workspace to a relevant domain to help people discover the content inside it. Each workspace can be assigned to one domain.

Assign to a domain (optional)	⌄

— Notifications

Workspace contacts

Add the people you'll collaborate with in this workspace. Workspace contacts will get notifications about issues affecting the workspace. You must add at least one person.

ff fa2 fa2 ×

— OneDrive

Workspace OneDrive

Enter groups

— Manage

Delete workspace

This workspace will be permanently deleted after a retention period of 7 days, as defined by your Fabric administrator. Contact your Fabric administrator if you need to restore the workspace and recover the items in it during this retention period.

🗑 **Remove this workspace**