

# MICROSOFT FABRIC

Get started

[Summary](#)

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

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# Introduction

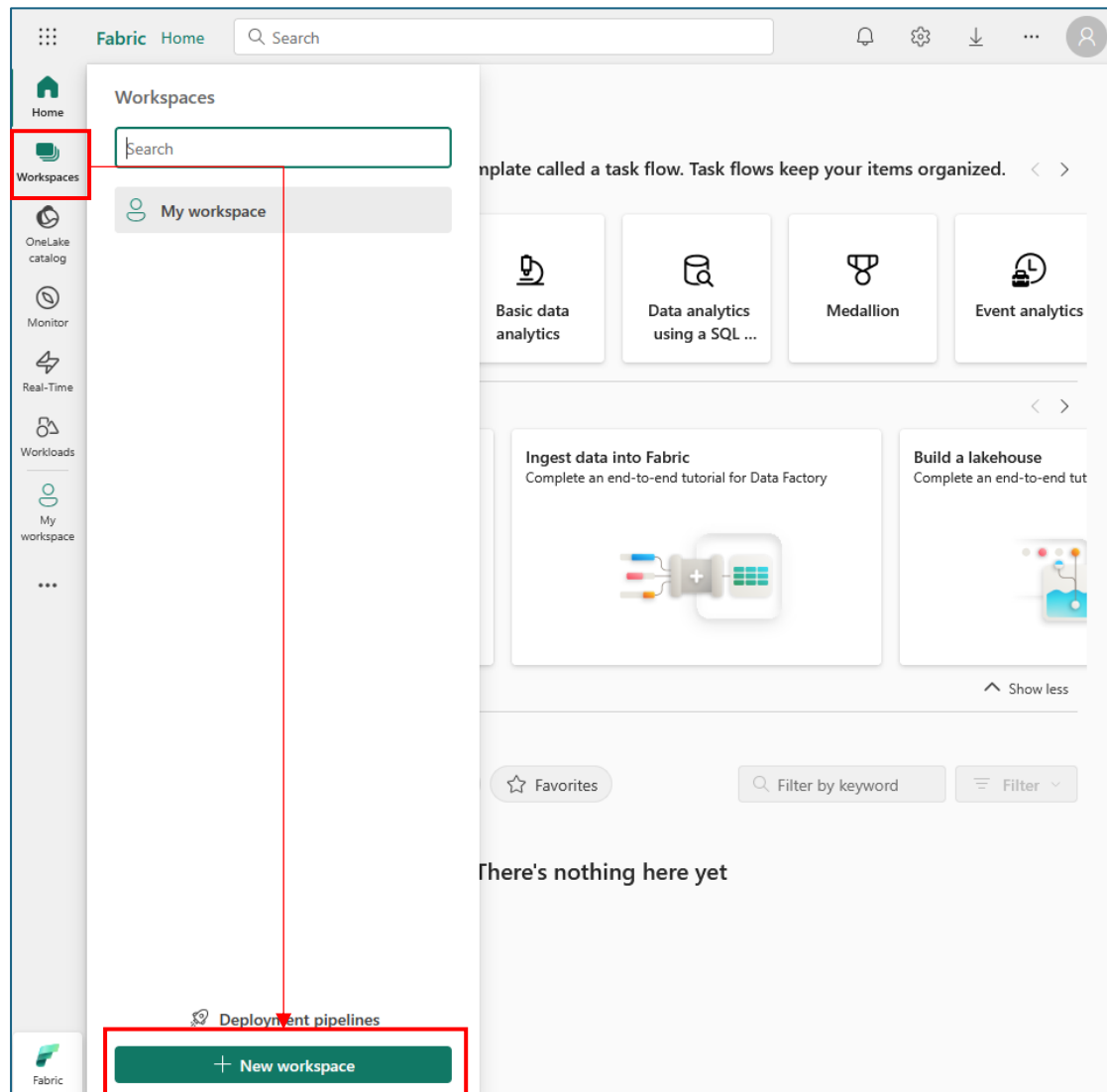
In this demo:

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

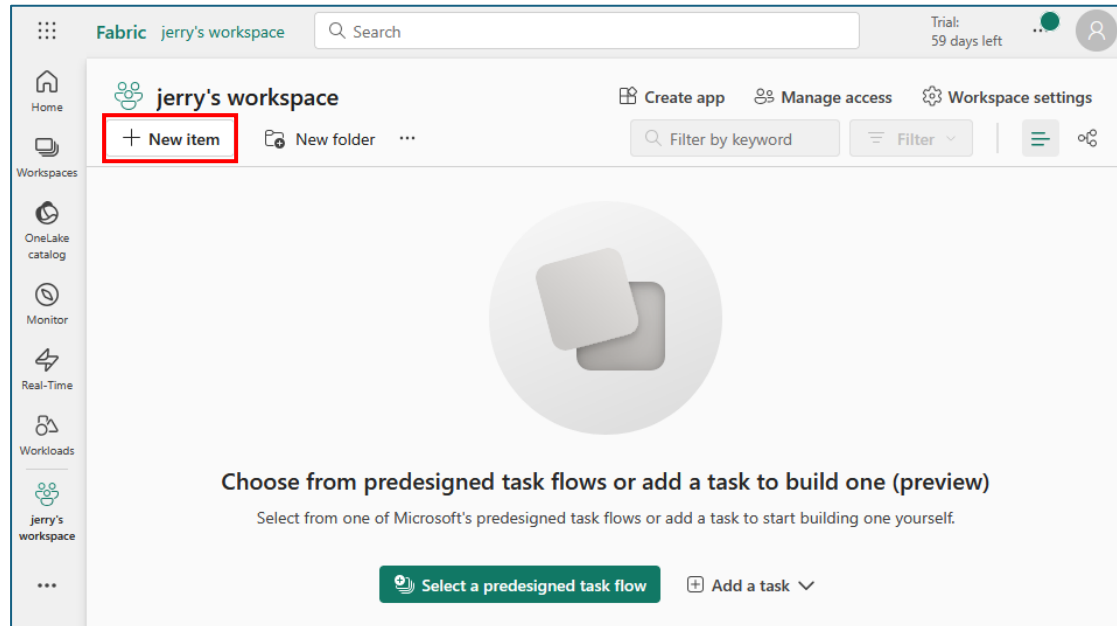
Select embedded if the workspace will be hosted in an Azure embedded capacity. ISVs and developers use Power BI Embedded to embed visuals and analytics in their applications. [Learn more](#) ↗

☐ Fabric capacity

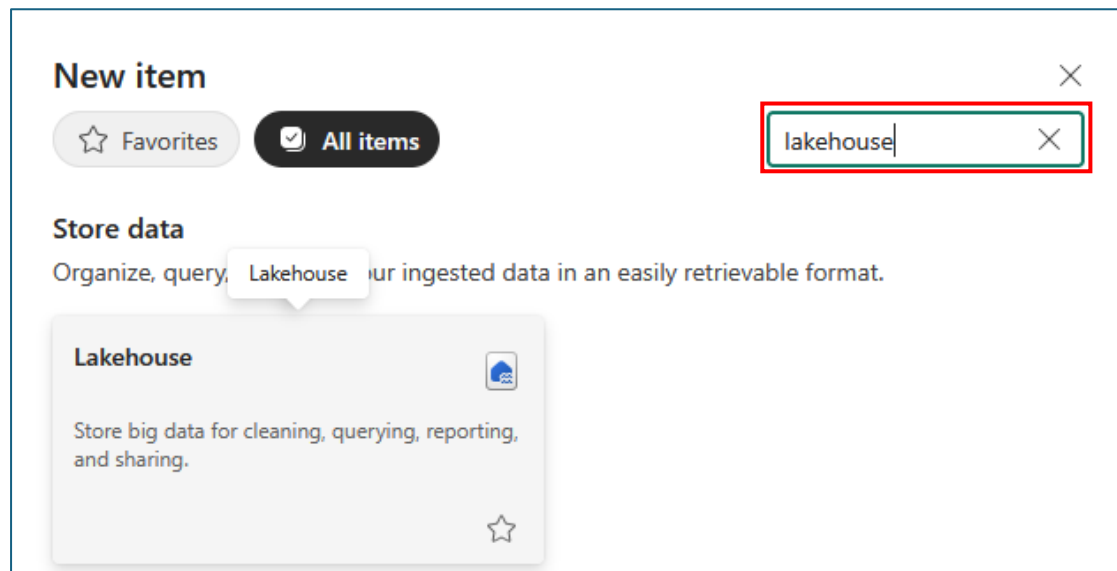
Select Fabric capacity if the workspace will be hosted in a Microsoft Fabric capacity. With Fabric capacities, users can create Microsoft Fabric items and collaborate with others using Fabric features and experiences. Explore new capabilities in Power BI, Data Factory, Data Engineering, and Real-Time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



## New lakehouse

Name \*

LH0000

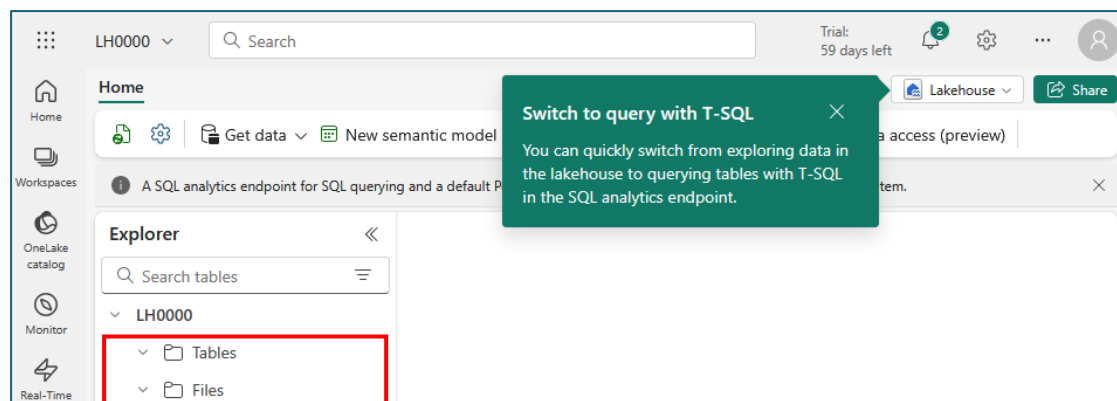
☐ Lakehouse schemas (Public Preview) ⓘ

CreateCancel

Schemas let you manage and reference objects in your lakehouse more easily. You can use a default schema to automatically fill in file paths when referencing a data object in code.

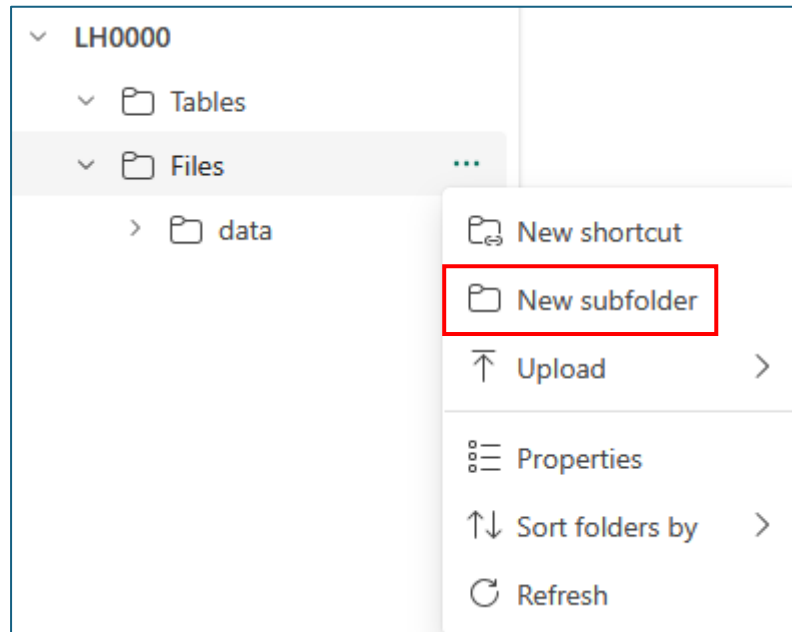
Tables: query-able using SQL

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

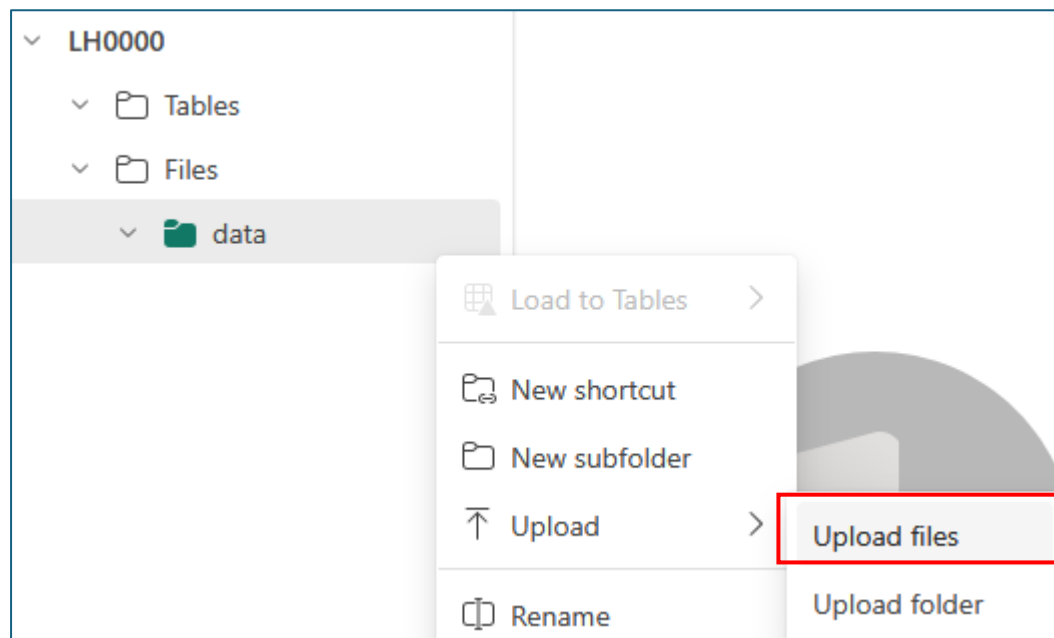


# Upload a file

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	<div>1 MB / 3 MB</div>	

## Preview the data

LH0000

Search

Trial

59 days left

2

Home

Workspaces

OneLake catalog

Monitor

Real-Time

Workloads

Home

Lakehouse

Share

Get data

New semantic model

Open notebook

Manage OneLake data access (preview)

A SQL analytics endpoint for SQL querying and a default Power BI semantic model for reporting were created with this item.

Explorer

Files > data > sales.csv (preview)

1 SalesOrderNumber,SalesOrderLineNumber,OrderDate,CustomerName,EmailAddress,Item,Quantity

2 S043701,1,2019-07-01,Christy Zhu,christy12@adventure-works.com,"Mountain-100 Silver, 48",1,357.27

3 S043704,1,2019-07-01,Julio Ruiz,julio1@adventure-works.com,"Mountain-100 Black, 48",1,357.27

4 S043705,1,2019-07-01,Curtis Lu,curtis9@adventure-works.com,"Mountain-100 Silver, 38",1,357.27

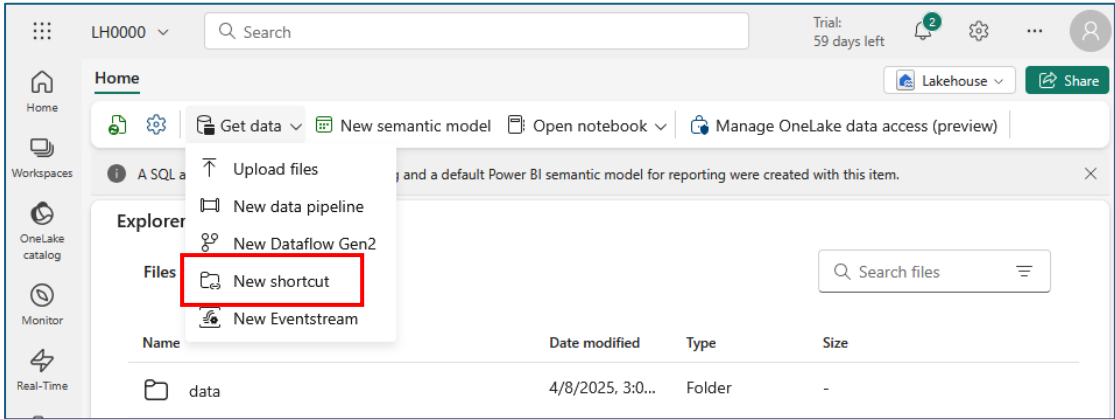
5 S043700,1,2019-07-01,Ruben Prasad,ruben10@adventure-works.com,"Road-650 Black, 62",1,357.27

6 S043703,1,2019-07-01,Albert Alvarez,albert7@adventure-works.com,"Road-150 Red, 62",1,357.27

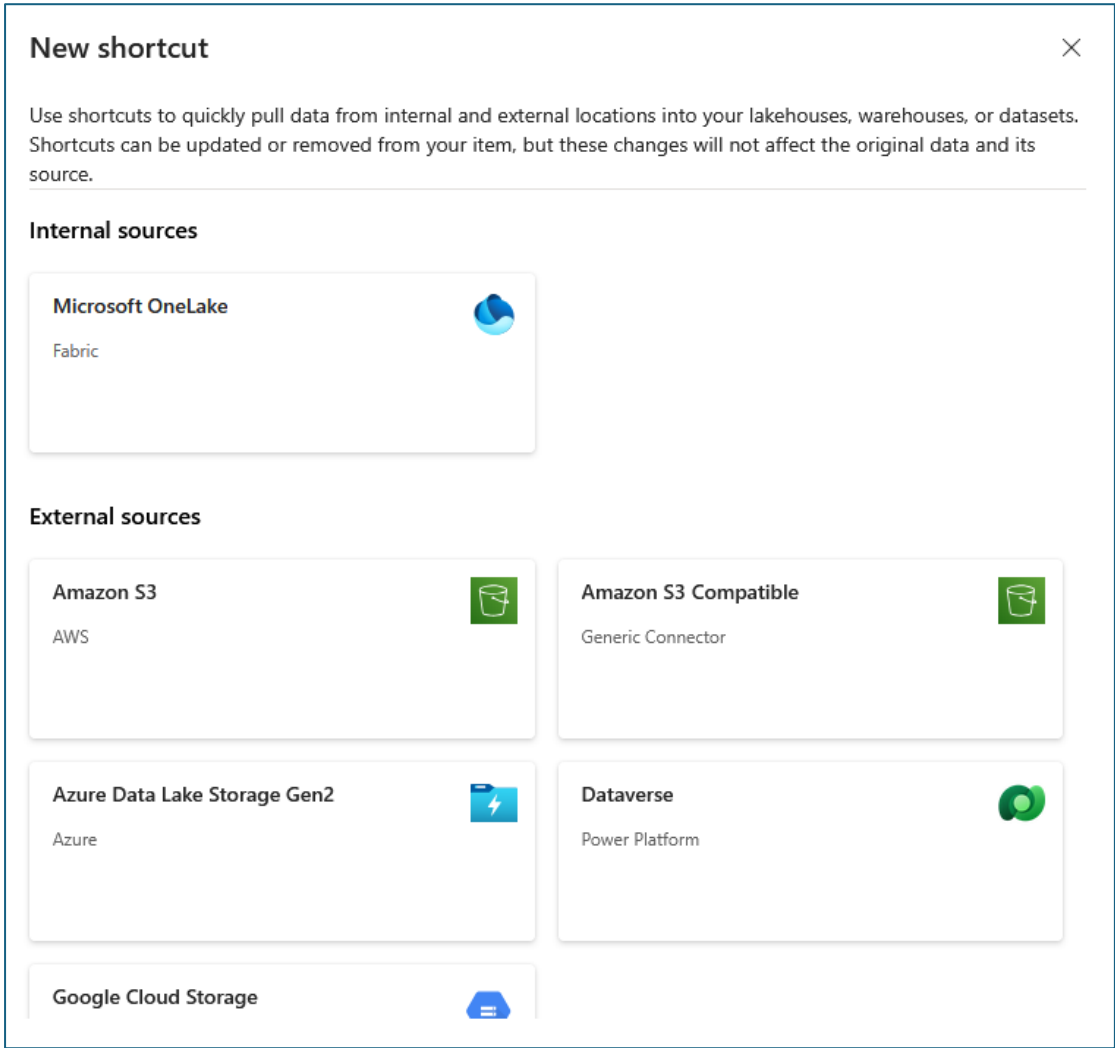
7 S043697,1,2019-07-01,Cole Watson,cole1@adventure-works.com,"Road-150 Red, 62",1,357.27

# Navigate shortcut

Get data -> New shortcut

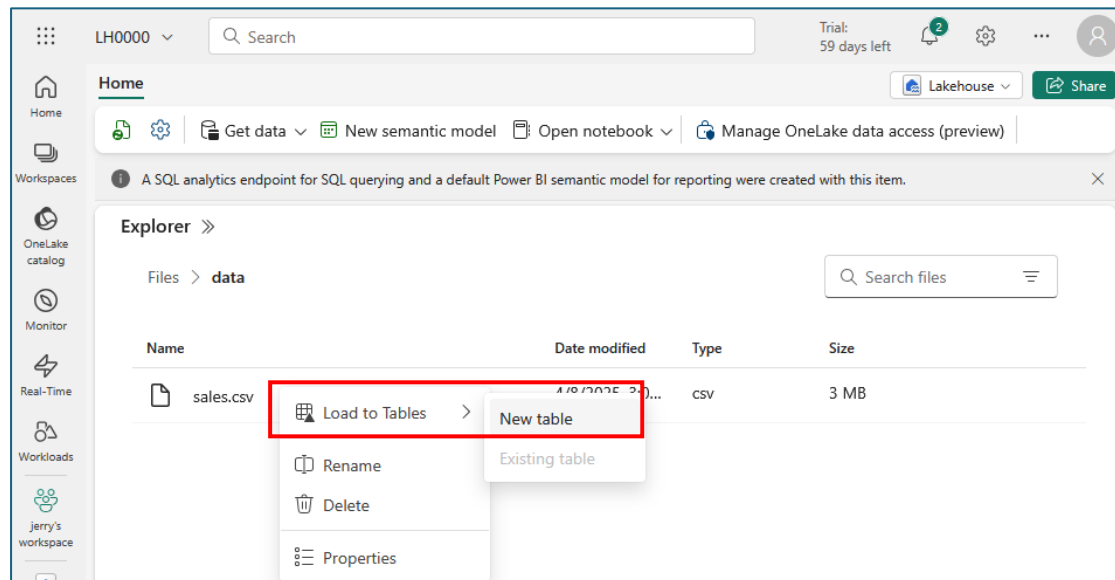


Options available:



# 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

## Load file to new table

All fields marked with \* are required

**New table name \***

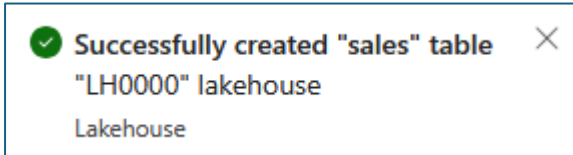
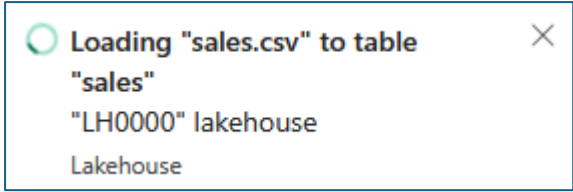
**Column header ⓘ**

☒ Use header for column names

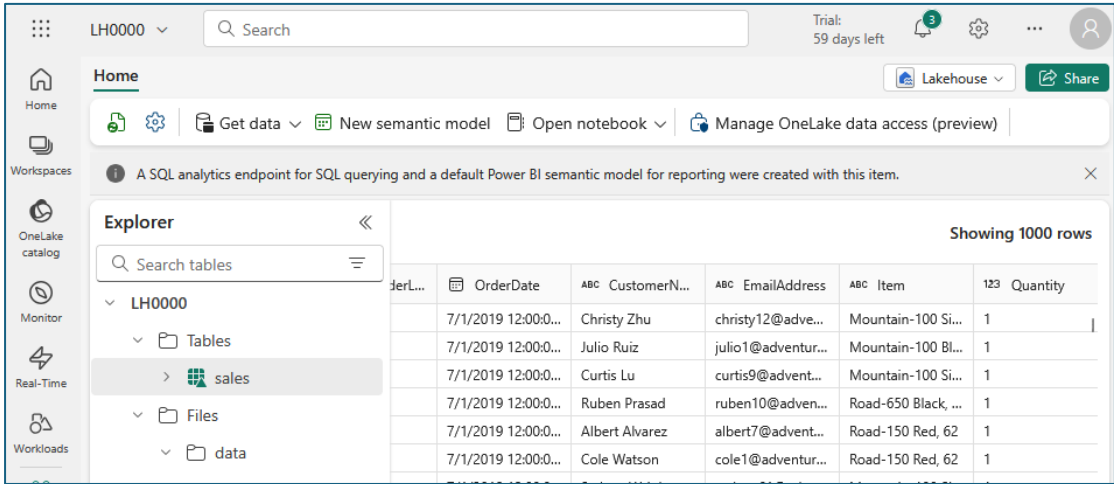
**Separator ⓘ**

Separators cannot use the following characters: () [] {} ' ' "

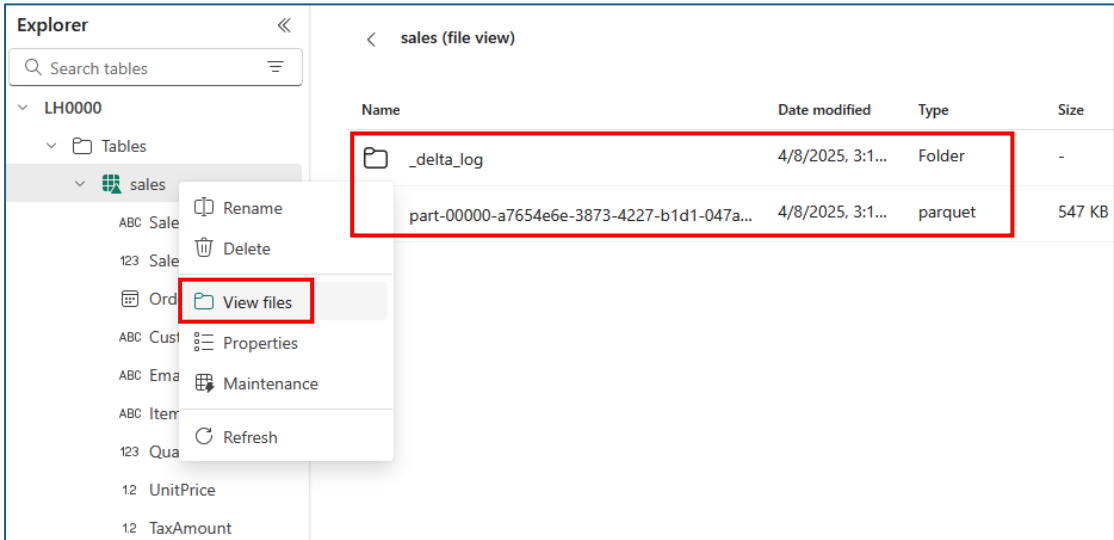
LoadCancel



Navigate to <your lakehouse name> -> Tables -> sales to preview the data

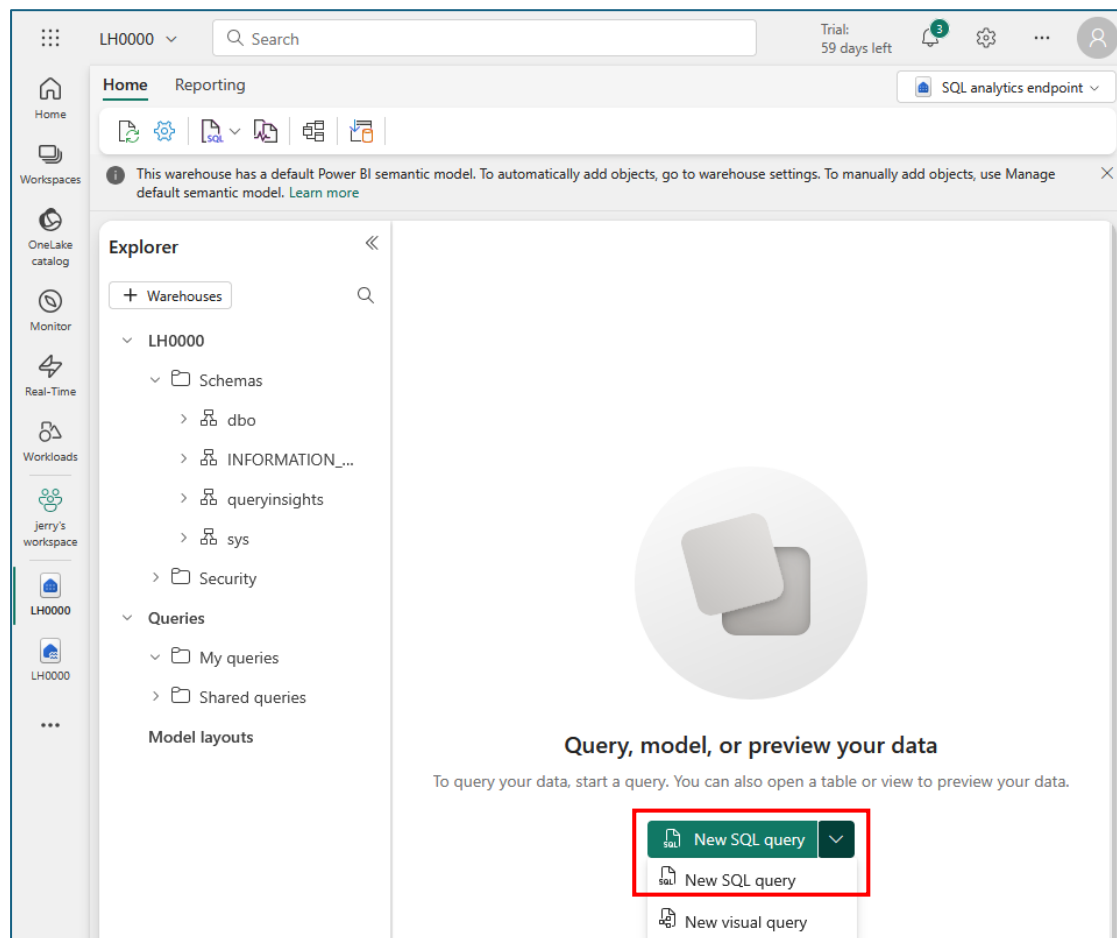
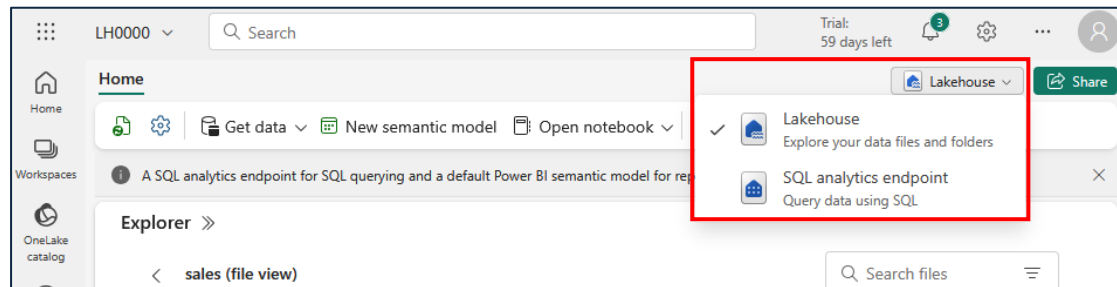


Go into "View files" to inspect the underlying files for the table



# Use SQL to query tables

Switch to SQL analytics endpoint at top right corner



LH0000

Search

Trial:

59 days left

3

Home

Workspaces

OneLake catalog

Monitor

Real-Time

Workloads

jerry's workspace

LH0000

LH0000

...

Fabric

Home

Reporting

SQL analytics endpoint

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

2

3

4

5

SELECT

Item,

SUM(Quantity \* UnitPrice)

AS

Revenue

FROM

sales

GROUP BY

Item

ORDER BY

Revenue

DESC;

Messages

Results

Copy

Search

	ABC	Item	12F	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
10		Mountain-200 Black, 38		788148.201100000

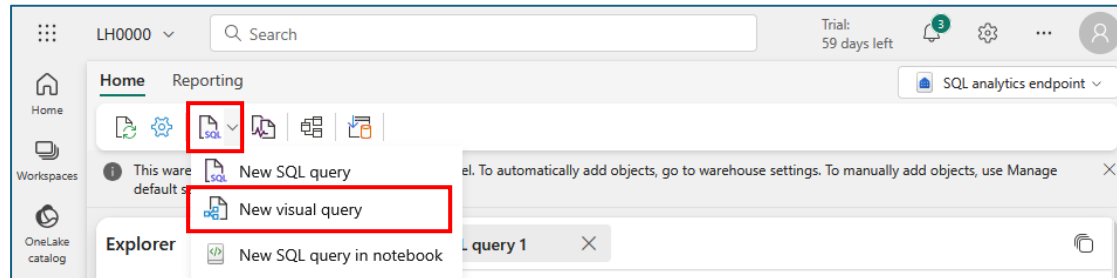
Succeeded (4 sec 686 ms)

Columns: 2 Rows: 130

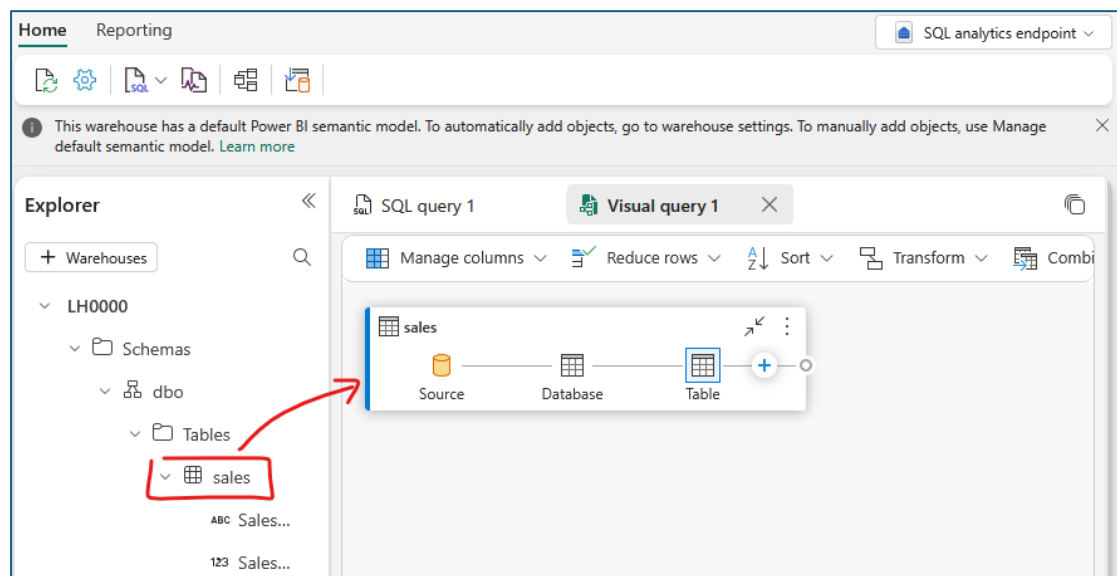


# Create a visual query

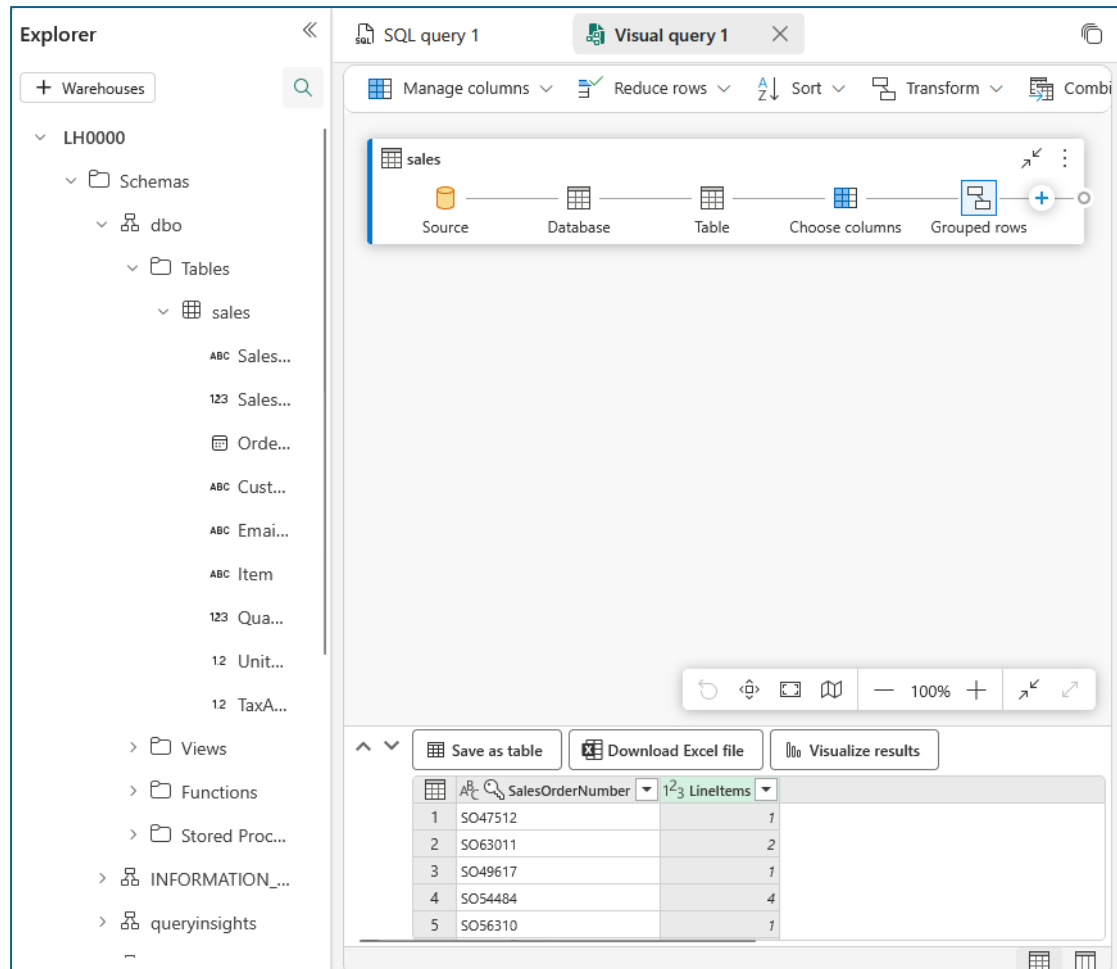
Click “New visual query” on top



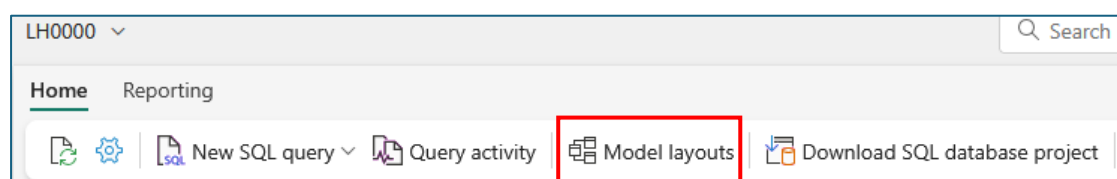
Drag the sales table to the canvas



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

SQL query 1   Visual query 1   Model layouts

...

...

exec\_sessions\_history

ansi\_defaults  
ansi\_null\_dflt\_on  
ansi\_nulls  
ansi\_padding  
ansi\_warnings  
arithabort  
authenticating\_database\_id  
concat\_null\_yields\_null  
connection\_id

Collapse ^

frequently\_run\_que...

avg\_total\_elapsed\_time\_ms  
database\_name  
last\_dist\_statement\_id  
last\_run\_command  
last\_run\_session\_id  
last\_run\_start\_time  
last\_run\_total\_elapsed\_time\_ms  
max\_run\_total\_elapsed\_time\_ms  
min\_run\_total\_elapsed\_time\_ms  
number\_of\_canceled\_runs

Collapse ^

long\_running\_queri...

database\_name  
last\_dist\_statement\_id  
last\_run\_command  
last\_run\_session\_id  
last\_run\_start\_time  
last\_run\_total\_elapsed\_time\_ms  
median\_total\_elapsed\_time\_ms  
number\_of\_runs

Collapse ^

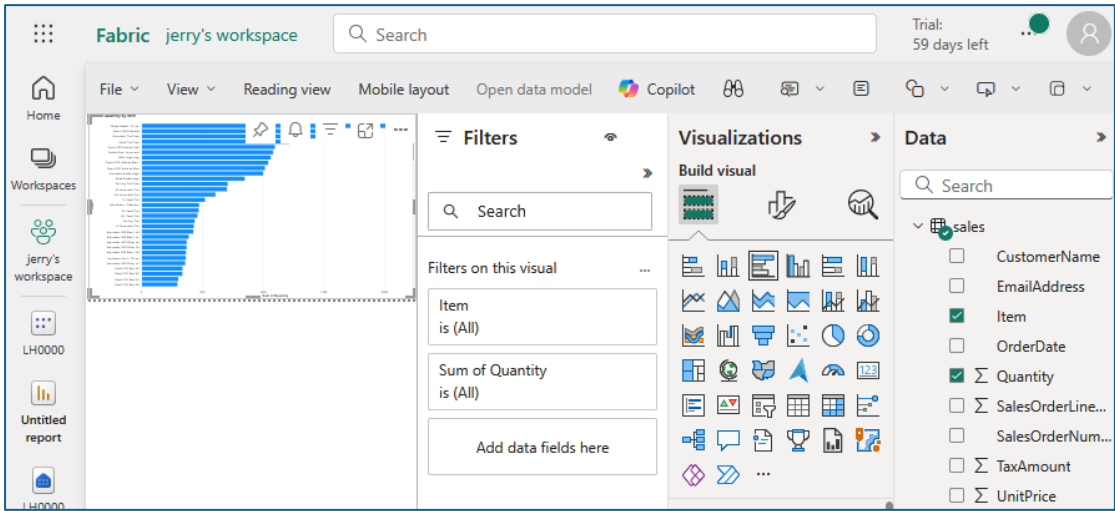
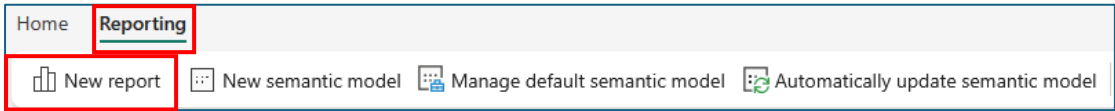
sales

CustomerName  
EmailAddress  
Item  
OrderDate  
Quantity  
SalesOrderLineNumber  
SalesOrderNumber  
TaxAmount  
UnitPrice

Collapse ^

# Create a report

On top, select Reporting -> New report to bring up Power BI



The report can be saved in your workspace

Save your report

< jerry's workspace

New folder

Name	Type	Owner
LH0000	Lakehouse	fa2 fa2
LH0000	Semantic model (default)	jerry's workspace
LH0000	SQL analytics endpoint	fa2 fa2

Enter a name for your r...

Item Sales Report

Assign to task

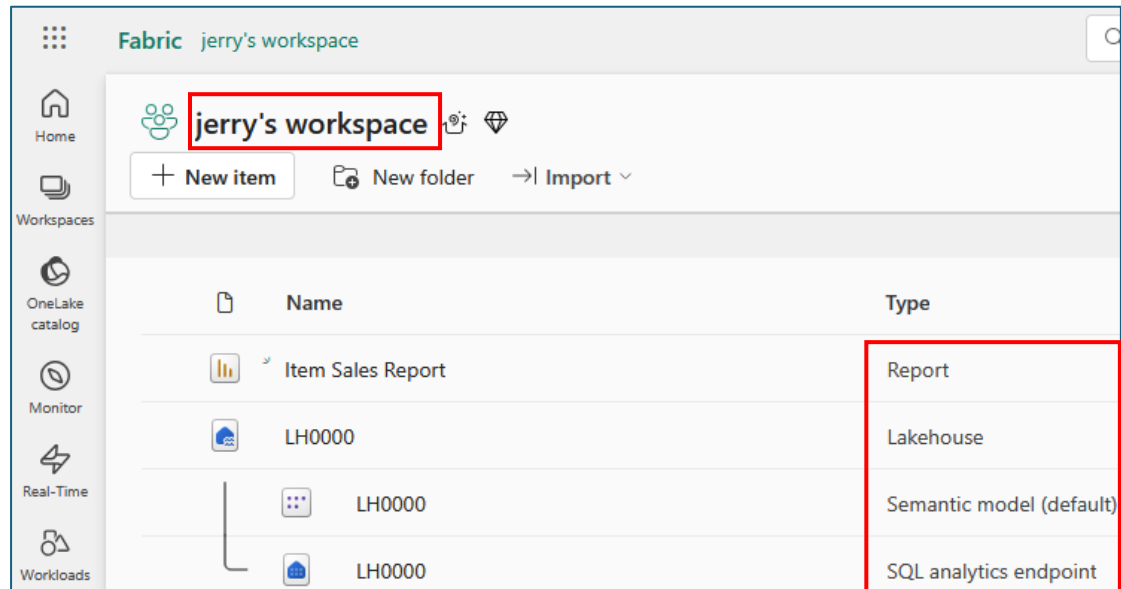
Select a task

Save

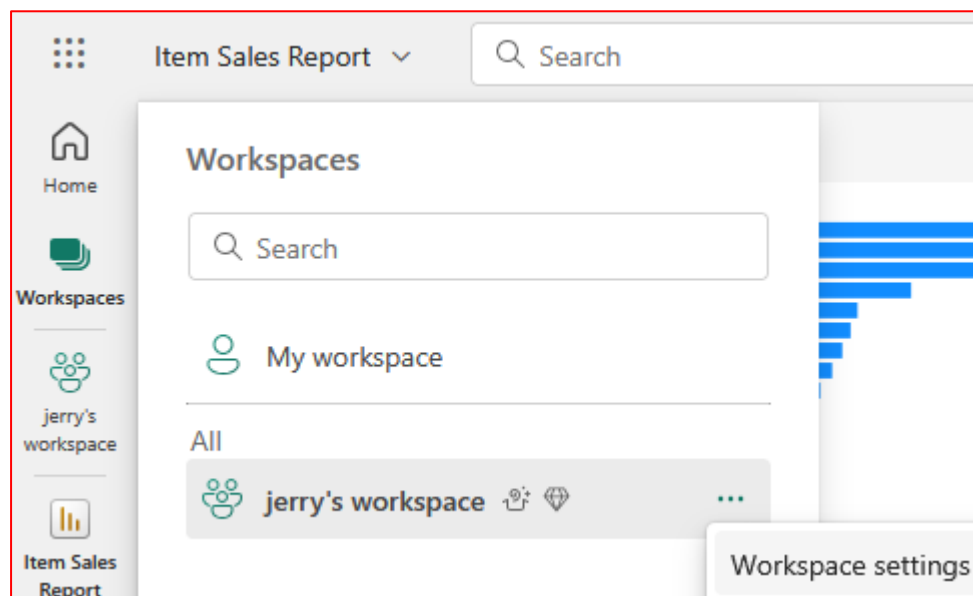
Cancel

# 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.

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