

Creating Azure Synapse Analytics Workspace Steps -

Create Synapse workspace

Basic

Security

Networking

Tags

Review + create

Create a Synapse workspace to develop an enterprise analytics solution in just a few clicks.

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all of your resources.

Subscription

Free Trial

Resource group

(New) mysynapse-ag

Create new

Managed resource group

Enter managed resource group name

Create Synapse workspace ...

Workspace name *

myownsynapseworkspace ✓

Region *

East US ▼

Select Data Lake Storage Gen2 * ⓘ

☒ From subscription ☐ Manually via URL

Account name * ⓘ

(New) gen2synapseacct ▼

[Create new](#)

File system name *

(New) synapsefolder ▼

[Create new](#)

☒ Assign myself the Storage Blob Data Contributor role on the Data Lake Storage Gen2 account to interactively query it in the workspace.

i We will automatically grant the workspace identity data access to the specified Data Lake Storage Gen2 account, using the [Storage Blob Data Contributor](#) role. To enable other users to use this storage account after you create your workspace, perform these tasks:

- Assign other users to the **Contributor** role on workspace
- Assign other users the appropriate [Synapse RBAC roles](#) using Synapse Studio
- Assign yourself and other users to the **Storage Blob Data Contributor** role on the storage account

[Learn more](#)

Create Synapse workspace ...

* Basics * Security Networking Tags Review + create

Configure security options for your workspace.

Authentication

Choose the authentication method for access to workspace resources such as SQL pools. The authentication method can be changed later on. [Learn more](#)

Authentication method ⓘ

- ☒ Use both local and Microsoft Entra ID authentication
- ☐ Use only Microsoft Entra ID authentication

SQL Server admin login * ⓘ

sqladminuser

SQL Password ⓘ

..... ✓

Confirm password

..... ✓

System assigned managed identity permission

Select to grant the workspace network access to the Data Lake Storage Gen2 account using the workspace system identity. [Learn more](#)

☐ Allow network access to Data Lake Storage Gen2 account. ⓘ


i The selected Data Lake Storage Gen2 account does not restrict network access using any network access rules, or you selected a storage account manually via URL under Basics tab. [Learn more](#)


Create Synapse workspace ...


* Basics * Security Networking Tags Review + create

Configure networking options for your workspace.


Managed virtual network

Choose whether to set up a dedicated Azure Synapse-managed virtual network for your workspace. [Learn more](#) 

Managed virtual network  ☐ Enable ☒ Disable

 To control public network access to your Synapse workspace, you must enable managed virtual network.


Firewall rules

 Azure Synapse Studio and other client tools will only connect to the workspace endpoints if this setting is selected. Connections from specific IP addresses or all Azure services can be allowed or disallowed after the workspace is provisioned.

Allow connections from all IP addresses to your workspace's endpoints. You can restrict these permissions to just Azure datacenter IP addresses and/or specific IP address ranges after creating the workspace.

☒ Allow connections from all IP addresses

Encrypted connections

Azure Synapse Analytics applies TLS1.2 encryption protocol for all network connections. [Learn more](#) 

Minimum TLS version

[Review + create](#)

[< Previous](#)

[Next: Tags >](#)

Create Synapse workspace ...

* Basics * Security Networking Tags Review + create

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [learn more](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.


Name ⓘ	Value ⓘ	Resource
<input type="text"/>	: <input type="text"/>	Synapse workspace

Create Synapse workspace ...


* Basics * Security Networking Tags Review + create

Configure networking options for your workspace.


Managed virtual network

Choose whether to set up a dedicated Azure Synapse-managed virtual network for your workspace. [Learn more](#) 

Managed virtual network  ☐ Enable ☒ Disable

 To control public network access to your Synapse workspace, you must enable managed virtual network.


Firewall rules

 Azure Synapse Studio and other client tools will only connect to the workspace endpoints if this setting is selected. Connections from specific IP addresses or all Azure services can be allowed or disallowed after the workspace is provisioned.

Allow connections from all IP addresses to your workspace's endpoints. You can restrict these permissions to just Azure datacenter IP addresses and/or specific IP address ranges after creating the workspace.

☒ Allow connections from all IP addresses

Encrypted connections

Azure Synapse Analytics applies TLS1.2 encryption protocol for all network connections. [Learn more](#) 

Minimum TLS version

[Review + create](#)

[< Previous](#)

[Next: Tags >](#)

Create Synapse workspace ...

✓ Validation succeeded

Subscription	Free Trial
Resource group	(new) mysynapse-ag
Region	East US
Workspace name	(new) myownsynapseworkspace
Data Lake Storage Gen2 account	(new) https://gen2synapseacct.dfs.core.windows.net
Data Lake Storage Gen2 file system	(new) synapsefolder
Managed resource group	None
Role assignments	The Storage Blob Data Contributor role will be assigned on the specified Data Lake Storage Gen2 account to both the workspace managed identity and the current user.

Security

Authentication method	Use both local and Microsoft Entra ID authentication
SQL Server admin login	sqladminuser
SQL Password	*****
Double encryption	No

Networking

Managed virtual network	No
Allow connections from all IP addresses	Yes

Microsoft.Azure.SynapseAnalytics-20231225172105 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

Deployment is in progress

Deployment name : Microsoft.Azure.SynapseAnalytics-20231225172105

Subscription : Free Trial

Resource group : synapse-rg

Start time : 12/25/2023, 5:42:09 PM

Correlation ID : 3142e5bc-f7ea-488b-bf12-12215bd0ad49

Deployment details

Resource	Type	Status	Operation details
gen2storageaccount24	Storage account	Accepted	Operation details

Give feedback

Tell us about your experience with deployment

Microsoft.Azure.SynapseAnalytics-20231225220523 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name : Microsoft.Azure.SynapseAnalytics-202312252205...

Subscription : Free Trial

Resource group : mysynapse-ag

Start time : 12/25/2023, 10:11:31 PM

Correlation ID : 1c7b2e9f-10b4-4451-a7cc-e07d6485bbf9

> Deployment details

< Next steps

Go to resource group

Give feedback

Tell us about your experience with deployment

Running Serverless SQL Pool:

All services > gen2synapseacct

gen2synapseacct | Containers

Search

+ Container Change access level Restore containers Refresh Delete Give feedback

Overview

Activity log

Tags

Diagnose and solve problems

Access Control (IAM)

Data migration

Events

Storage browser

Data storage

Containers

File shares

Queues

Tables

Security + networking

Networking

Access keys

Shared access signature

Search containers by prefix

Show deleted containers

Name	Last modified	Anonymous access level	Lease state
<input type="checkbox"/> synapsefolder	12/25/2023, 10:12:02 PM	Private	Available

All services > gen2synapseacct | Containers >

synapsefolder

Search

Upload Add Directory Refresh Rename

Overview

Authentication method: Access key (Switch to Microsoft Entra use)

Location: synapsefolder

Open

Synapse > serverless_sql

Search serverless_sql

Organize New folder

Name	Date modified	Type
employee	25-12-2023 21:36	Micros
NVCTripSmall.parquet	25-12-2023 21:36	PARQ

Azure Synapse Ana...
Default Directory

+ Create

Manage view

...

Filter for any field...

Name ↑

myownsynapseworkspace

myownsynapseworkspace
Synapse workspace

Search

+ New dedicated SQL pool

+ New Apache Spark pool

+ New Data Explorer pool (preview)

Refresh

...

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Microsoft Entra ID

Properties

Locks

Analytics pools

SQL pools

Apache Spark pools

Data Explorer pools (preview)

Security

Encryption

Networking

Subscription ID
fa7afb93-8b88-4ec7-abdb-9fdee62b5383

Managed virtual network
No

Managed Identity object ID
7781f57b-012e-48e9-b4a6-98ee60c1ee94

Workspace web URL
<https://web.azure.synapse.net?workspace=%2fsubscriptions%2f...>

Tags (edit)
[Add tags](#)

SQL Microsoft Entra admin
live.com#khasnobis.sanjit2024@outlook.com

Dedicated SQL endpoint
myownsynapseworkspace.sql.azure.synapse.net

Serverless SQL endpoint
myownsynapseworkspace-ondemand.sql.azure.synapse.net

Development endpoint
<https://myownsynapseworkspace.dev.azure.synapse.net>

Getting started

Open Synapse Studio

Start building your fully-integrated analytics solution and unlock new insights.

Open it

Read documentation

Learn how to be productive quickly. Explore concepts, tutorials, and samples.

Learn more it

Analytics pools

Search to filter items...

Name	Type	Size
------	------	------

We use optional cookies to provide a better experience. [Learn more](#)

Accept

Reject

More options

Synapse live

Validate all

Publish all

Analytics pools

SQL pools

Apache Spark pools

Data Explorer pools (previ...

External connections

Linked services

Microsoft Purview

Integration

Triggers

Integration runtimes

SQL pools

The serverless SQL pool, Built-in, is immediately available for your workspace. Dedicated SQL pools can be configured to adapt to team or organizational requirements and constraints. [Learn more](#)

+ New

Refresh

Filter by name

Showing 1-1 of 1 items (1 Serverless, 0 Dedicated)

Name	Type	Status	Size
Built-in	Serverless	Online	Auto

Synapse live

Validate all

Publish all

Data

Workspace

Linked

Filter resources by name

Azure Data Lake Storage Gen2 2

myownsynapseworkspace (Primary...

synapsefolder (Primary)

(Attached Containers)

synapsefolder

New SQL script

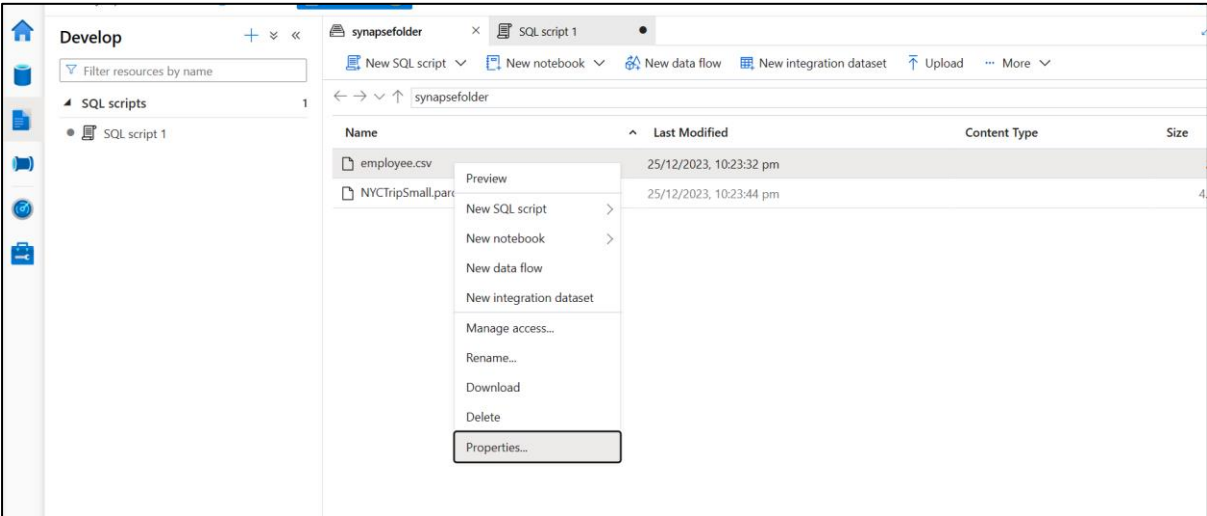
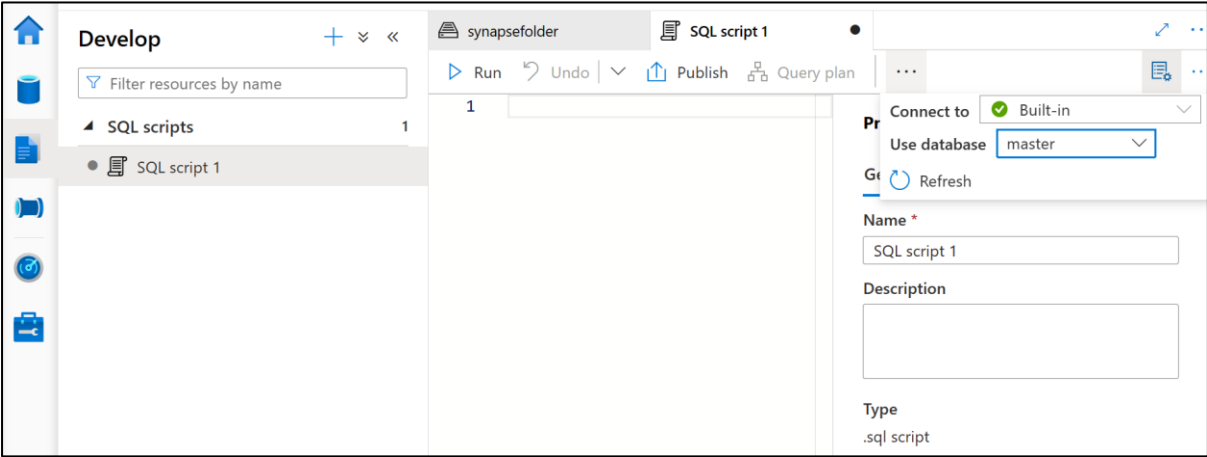
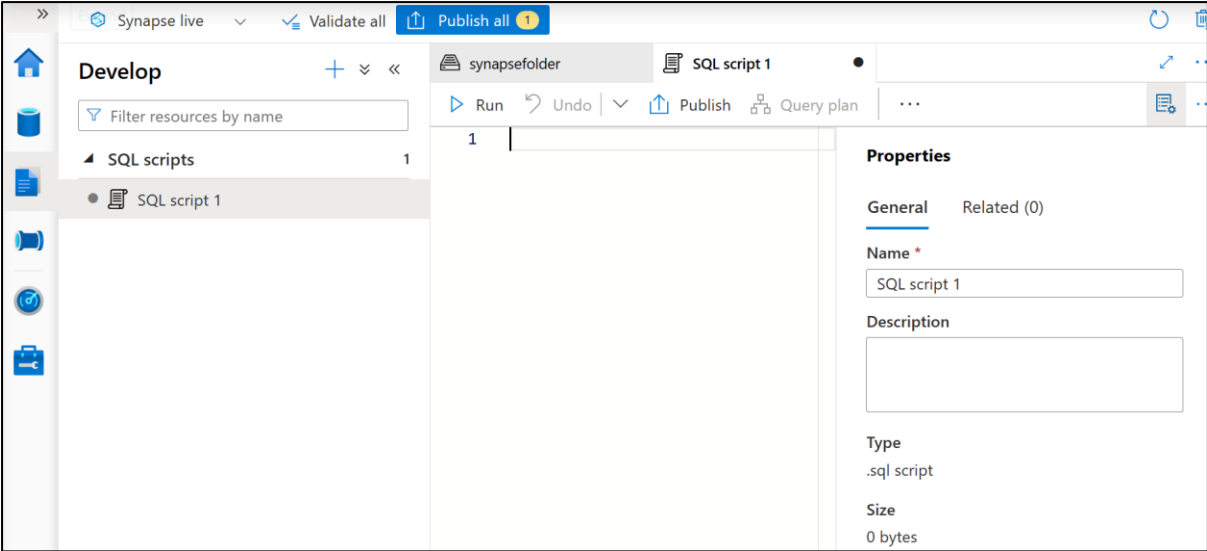
New notebook

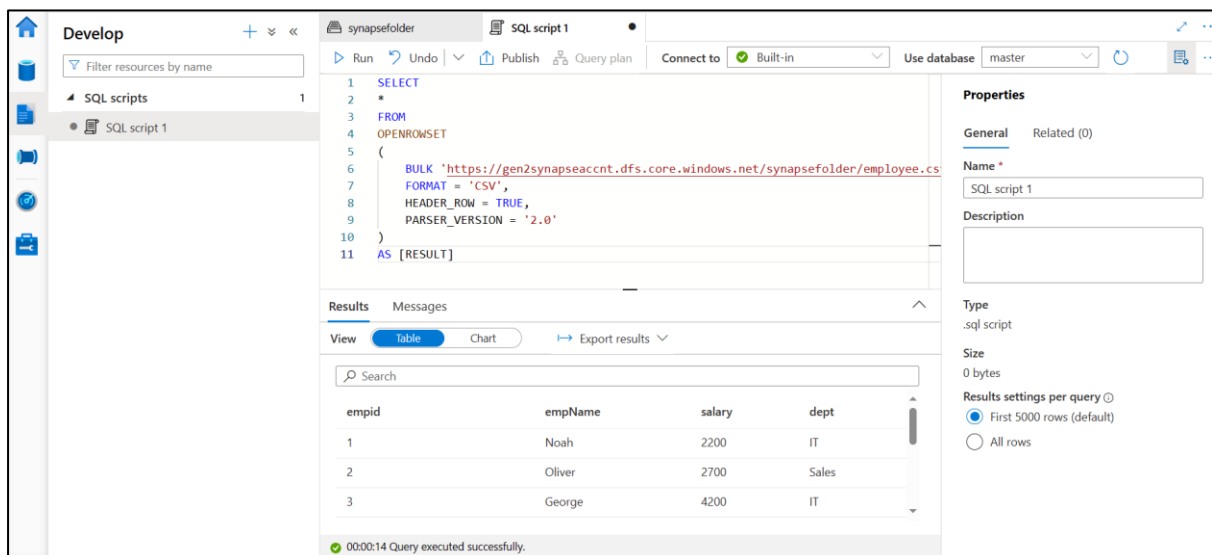
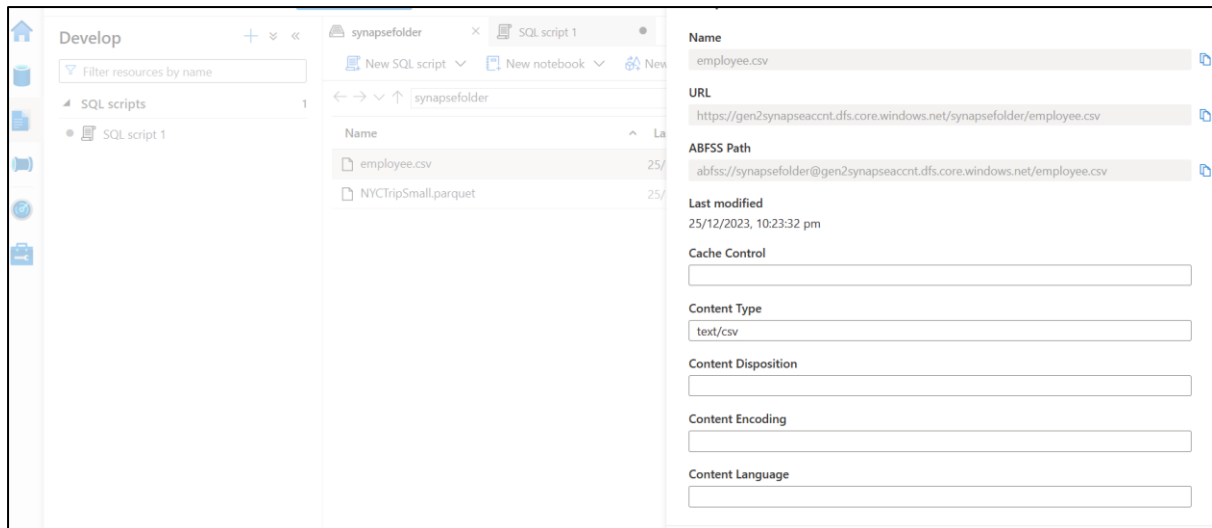
New data flow

More

synapsefolder

Name	Last Modified	Content Type	Size
employee.csv	25/12/2023, 10:23:32 pm		207 B
NYCTripSmall.parquet	25/12/2023, 10:23:44 pm		4.9 MB





```
SELECT
*
FROM
OPENROWSET
(
    BULK
'https://gen2synapseacct.dfs.core.windows.net/synapsefolder/employee.csv',
    FORMAT = 'CSV',
    HEADER_ROW = TRUE,
    PARSER_VERSION = '2.0'
)
AS [RESULT]
```

Develop

Filter resources by name

SQL scripts 1

SQL script 1

```

1 SELECT
2 dept,SUM(salary) AS TotalSalary
3 FROM
4 OPENROWSET
5 (
6     BULK 'https://gen2synapseacctn.dfs.core.windows.net/synapsefolder/employee.csv',
7     FORMAT = 'CSV',
8     HEADER_ROW = TRUE,
9     PARSE_VERSION = '2.0'
10 )
11 AS [RESULT]
12 GROUP BY DEPT

```

Run Undo Publish Query plan Connect to Built-in Use database master

Properties

General Related (0)

Name * SQL script 1

Description

Type .sql script

Size 0 bytes

Results settings per query ☒ First 5000 rows (default) ☐ All rows

Results Messages

View Table Chart Export results

Search

dept	TotalSalary
Sales	8100
IT	14800
HR	7600

```

SELECT
dept,SUM(salary) AS TotalSalary
FROM
OPENROWSET
(
    BULK
'https://gen2synapseacctn.dfs.core.windows.net/synapsefolder/employee.csv',
    FORMAT = 'CSV',
    HEADER_ROW = TRUE,
    PARSE_VERSION = '2.0'
)
AS [RESULT]
GROUP BY DEPT

```

Develop

Filter resources by name

SQL scripts ...

SQL script 1

```

1 SELECT
2 dept,SUM(salary) AS TotalSalary
3 FROM
4 OPENROWSET
5 (
6     BULK 'https://gen2synapseacctn.dfs.core.windows.net/synapsefolder/employee.csv',
7     FORMAT = 'CSV',
8     HEADER_ROW = TRUE,
9     PARSE_VERSION = '2.0'
10 )
11 AS [RESULT]
12 GROUP BY DEPT

```

Run Undo Publish Query plan Connect to Built-in Use database master

Properties

General Related (0)

Name * SQL script 1

Description

Type .sql script

Size 0 bytes

Results settings per query ☒ First 5000 rows (default) ☐ All rows

Results Messages

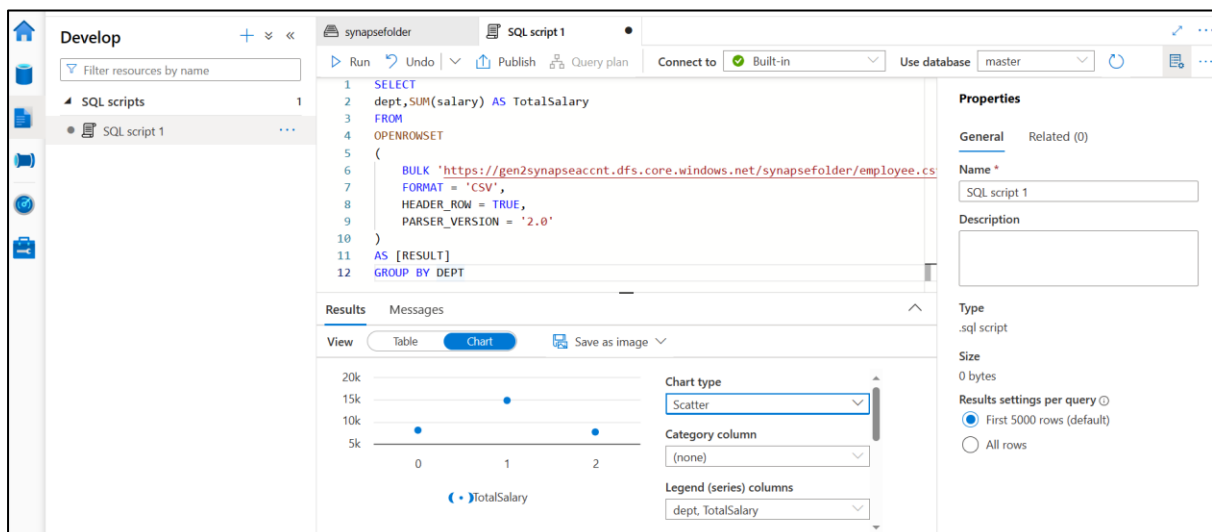
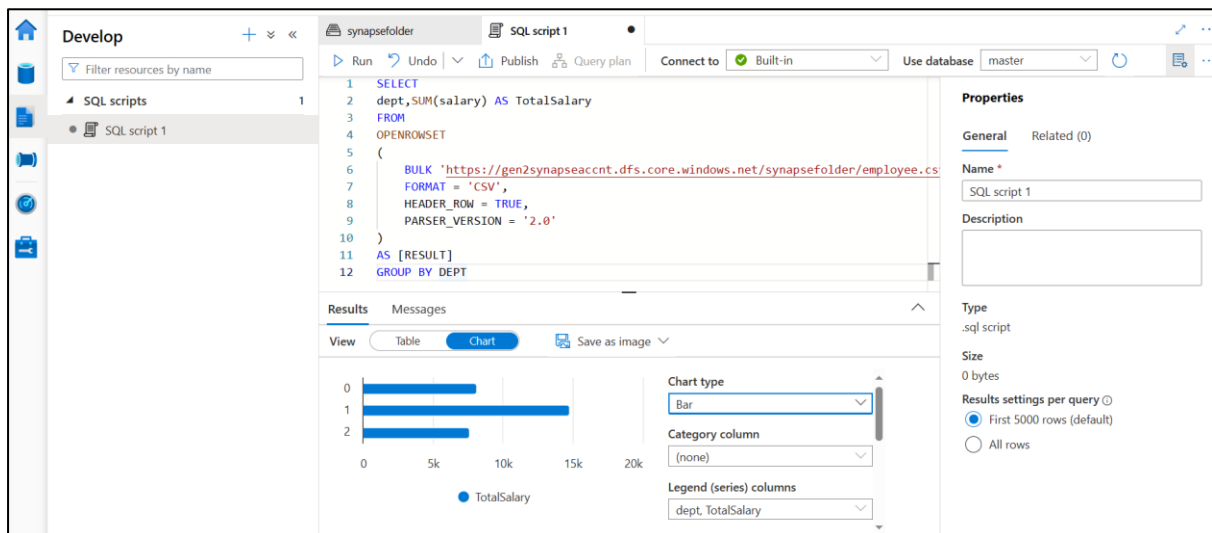
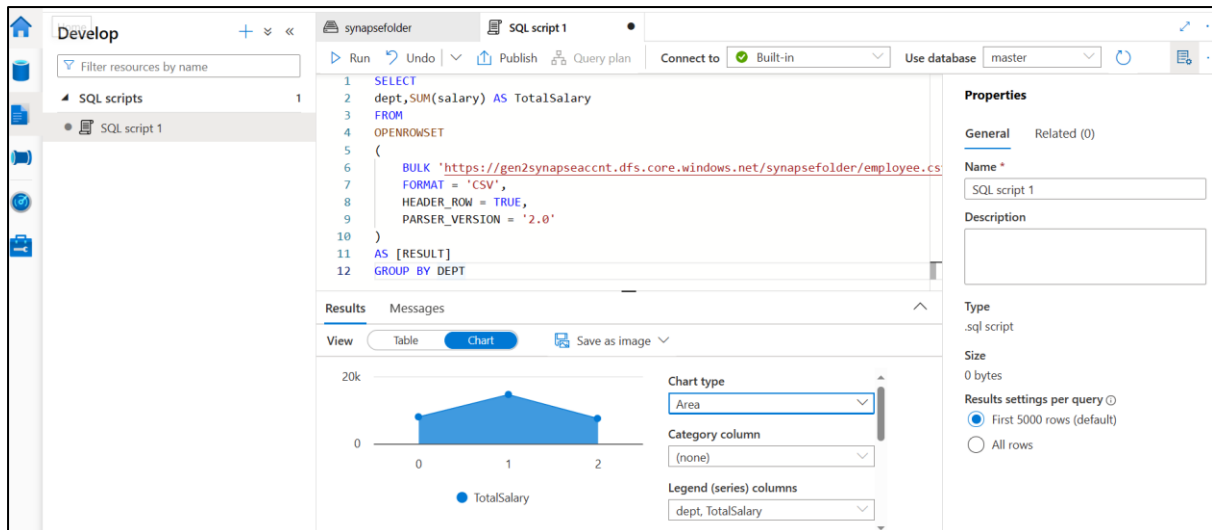
View Table Chart Save as image

Chart type Line

Category column (none)

Legend (series) columns dept, TotalSalary

16k
14k
12k



Synapse live | Validate all | Publish all

Develop

Filter resources by name

SQL scripts 1

- SQL script 1

SQL script 1

```
1 SELECT
2 dept,SUM(salary) AS TotalSalary
3 FROM
4 OPENROWSET
5 (
6     BULK 'https://gen2synapseacct.dfs.core.windows.net/synapsefolder/employee.csv',
7     FORMAT = 'CSV',
8     HEADER_ROW = TRUE,
9     PARSER_VERSION = '2.0'
10 )
11 AS [RESULT]
12 GROUP BY DEPT
```

Results Messages

View Table Chart Save as image

HR Sales IT

Category column: dept

Legend (series) column: TotalSalary

Legend position: bottom - center

Properties

General Related (0)

Name * SQL script 1

Description

Type .sql script

Size 0 bytes

Results settings per query

☒ First 5000 rows (default)

☐ All rows

Synapse live | Validate all | Publish all

Develop

Filter resources by name

SQL scripts 1

- SQL script 1

SQL script 1

```
1 SELECT
2 *
3 FROM
4 OPENROWSET
5 (
6     BULK 'https://gen2synapseacct.blob.core.windows.net/synapsefolder/NYCTrip5ma',
7     FORMAT = 'PARQUET'
8 )
9 AS [RESULT]
10
```

Results Messages

View Table Chart Export results

DateID	MedallionID	HackneyLicens...	PickupTimeID	DropoffTimeID	Pick...
20131231	10624	35117	63879	64392	172
20131231	7263	11597	61733	62114	870
20131231	1899	5301	59488	59815	821
20131231	9471	28727	69093	69548	276

Properties

General Related (0)

Name * SQL script 1

Description

Type .sql script

Size 0 bytes

Results settings per query

☒ First 5000 rows (default)

☐ All rows

