

Exercise - Create pools in Azure Synapse Analytics

Note: *In this reading you can see the steps involved in the process of creating pools in Azure Synapse Analytics workspace.*

To create an Azure Synapse Analytics pool, perform the following steps:

For Azure Synapse SQL pool

1. Launch Azure Synapse Studio. The URL can be found in the Azure Synapse Workspace created in the Azure portal.

Microsoft Azure

Search resources, services, and docs (G+)

Home > Microsoft.Azure.SynapseAnalytics-20210824125427 > demorg >

workspacebmk

Synapse workspace

Search (Cmd+)

New dedicated SQL pool

New Apache Spark pool

Refresh

Reset SQL admin password

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

SQL Active Directory admin

Properties

Locks

Analytics pools

SQL pools

Apache Spark pools

Security

Encryption

Networking

Managed identities

Private endpoint connections

Approved Azure AD tenants

Azure SQL Auditing

Security Center

Monitoring

Essentials

Resource group (change) : demorg

Status : Succeeded

Location : North Europe

Subscription (change) : MSDN Platforms

Subscription ID : 7b9e1f3f-d79d-4a28-bc66-08d344e3ee46

Managed virtual network : No

Managed Identity object ... : b43145b8-7b36-45db-9ca3-8ce78c172f2d

Workspace web URL : https://web.azuresynapse.net?workspace=%2fsubscriptions%2f7b9e1f3f-d79d-4a28-

Tags (change) : Click here to add tags

Getting started

Open Synapse Studio

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

Open

Read documentation

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

Learn more

Analytics pools

Search to filter items...

Name	Type
SQL pools	
Built-in	Serverless
Apache Spark pools	

My workspace - Synapse studio

2. In Azure Synapse Studio, navigate to the **Management Hub** in the left navigation by selecting the **Manage** icon.

Microsoft Azure | Synapse Analytics | workspacebmk

Synapse live | Validate all | Publish all

Analytics pools

- SQL pools
- Apache Spark pools

External connections

- Linked services
- Azure Purview (Preview)

Integration

- Triggers
- Integration runtimes

Security

- Access control
- Credentials
- Managed private endpoints

SQL pools

The serverless SQL pool, Built-in, is immediately available for your workspace. Dedicated SQL pools can be co [Learn more](#)

+ New Refresh Allow pipelines

Filter by name

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

Name	Type	Status
Built-in	Serverless	Online

Select the Manage icon

3. Once in the Management Hub, navigate to the **SQL pools** section to see the current list of SQL pools that are available in the workspace.

4. Select **+ New** command and the new SQL pool create wizard will appear.

New dedicated SQL pool

Basics * Additional settings * Tags Review + create

Create a dedicated SQL pool with your preferred configurations. Complete the Basics tab then go to Review + Create to provision with smart defaults. [Learn more](#)

Dedicated SQL pool details

Name your dedicated SQL pool and choose its initial settings.

Dedicated SQL pool name *	<input type="text" value="SQLPool01"/>
Performance level ⓘ	<div><div></div><div>DW100c</div></div>
Estimated price ⓘ	<div><div>Est. cost per hour 1.17 EUR View pricing details</div></div>

New dedicated SQL pool

5. Enter the following details in the **Basics** tab:

- SQL pool name: SQLPool01
- Performance level: DW100c

6. In the next tab, **Additional settings**, select **none** to provision the SQL pool without data. Leave the default collation as selected.

New dedicated SQL pool

Basics * Additional settings * Tags Review + create

Customize additional configuration parameters including collation.

Data source

Start with a blank dedicated SQL pool or restore from a backup to populate your new dedicated SQL pool.

Use existing data *

None

Backup

Restore point

SQL pool collation

Collation defines the rules that sort and compare data, and cannot be changed after SQL compute creation. The default collation is SQL_Latin1_General_CP1_CI_AS. [Learn more](#)

Collation * ⓘ

SQL_Latin1_General_CP1_CI_AS

New dedicated SQL Pool

7. We won't add any tags for now, so next select **Review + create**.

8. In the **Review + create** tab, make sure that the details look correct based on what was previously entered, and press **create**.

New dedicated SQL pool

✓ Validation succeeded.


Basics * Additional settings * Tags **Review + create**

Product details

Azure Synapse Analytics dedicated
SQL pool by Microsoft
[Terms of use](#) | [Privacy policy](#)

Est. cost per hour
1.17 EUR
[View pricing details](#)

Terms

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. For additional details see [Azure Marketplace Terms](#) 

Data source

Dedicated SQL pool name	SQLPool01
Performance level	DW100c

Additional settings

Create

< Previous

[Download template for automation](#)

New dedicated SQL pool

At this point, the resource provisioning flow will start. After the provisioning completes, navigating back to the workspace will show a new entry for the newly created SQL pool. 9. Once the SQL pool is created, it will be available in the workspace for loading data, processing streams, reading from the lake, etc.

Microsoft Azure | Synapse Analytics | workspacebm

Synapse live | Validate all | Publish all

Analytics pools

- SQL pools
- Apache Spark pools

External connections

- Linked services
- Azure Purview (Preview)

Integration

- Triggers
- Integration runtimes

Security

- Access control
- Credentials
- Managed private endpoints

Code libraries

- Workspace packages

SQL pools

The serverless SQL pool, Built-in, is immediately available for your workspace. Dedicated SQL pools can be configured. [Learn more](#)

+ New | Refresh | ☒ Allow pipelines ⓘ

Filter by name

Showing 1-2 of 2 items (1 Serverless, 1 Dedicated)

Name	Type	Status
Built-in	Serverless	Online
SQLPool01	Dedicated	Online

New dedicated SQL pool

Azure Synapse Spark pool

1. Launch Azure Synapse Studio. The URL can be found in the Azure Synapse Workspace created in the Azure portal.

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Synapse workspace

Search (Cmd+)

New dedicated SQL pool

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Azure SQL Auditing

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Monitoring

Essentials

Resource group (change) : demorg

Status : Succeeded

Location : North Europe

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Analytics pools

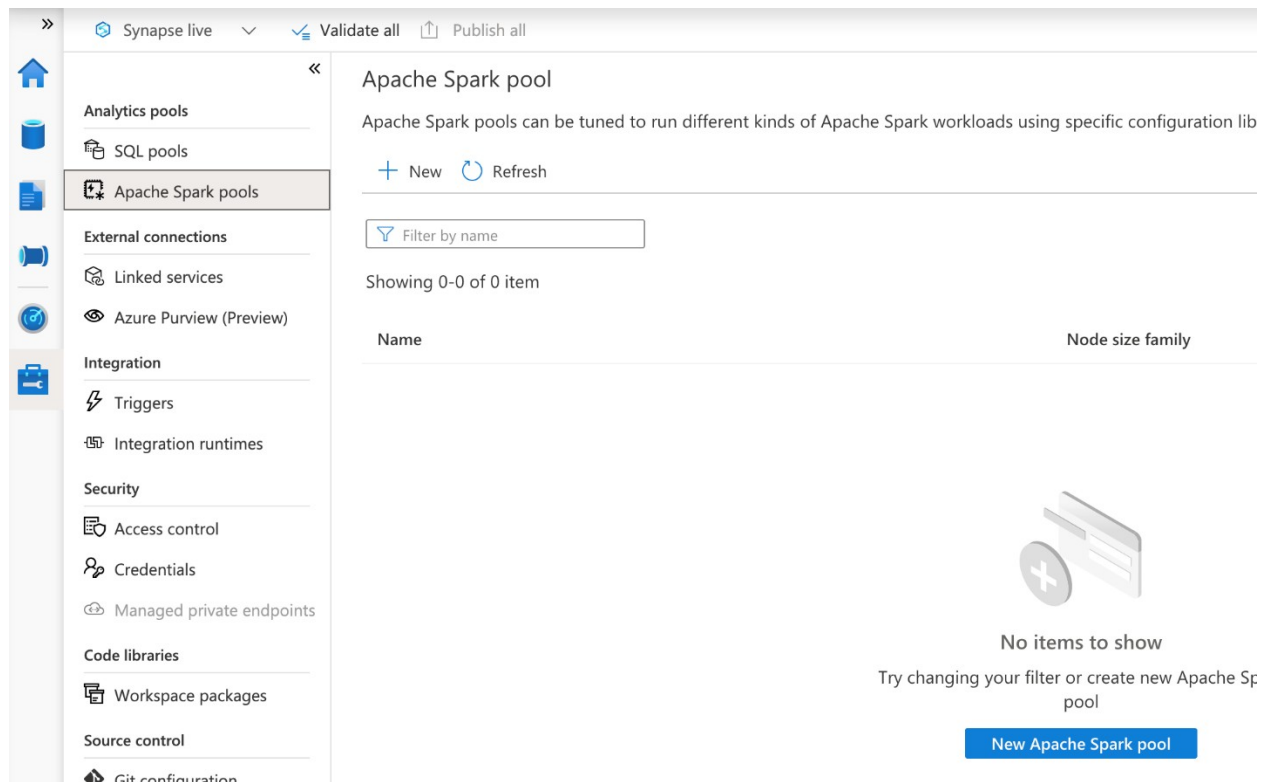
Search to filter items...

Name	Type
SQL pools	
Built-in	Serverless
Apache Spark pools	

Open Synapse Studio

2. In Azure Synapse Studio, navigate to the **Management Hub** in the left navigation by selecting the **Manage** icon.

3. Once in the Management Hub, navigate to the **Apache Spark pools** section to see the current list of Apache Spark pools that are available in the workspace.



Apache Spark pools

4. Select **+ New** and the new Apache Spark pool create wizard will appear.

5. Enter the following details in the **Basics** tab:

- Apache Spark Pool name: Sparkpool01
- Node size: Small (4 vCPU / 32 GB)
- Autoscale: Disabled
- Number of Nodes: 8


New Apache Spark pool

Basics • Additional settings * Tags Review + create

Create an Synapse Analytics Apache Spark pool with your preferred configurations. Complete the Basics tab then go to Review + Create to provision with smart defaults, or visit each tab to customize.

Apache Spark pool details

Name your Apache Spark pool and choose its initial settings.

Apache Spark pool name *	<input type="text" value="SparkPool01"/>
Node size family *	<input type="text" value="Memory Optimized"/>
Node size *	<input type="text" value="Small (4 vCores / 32 GB)"/>
Autoscale * ⓘ	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Number of nodes *	<input type="text" value="3"/>  <input type="text" value="8"/>
Estimated price ⓘ	<div>Est. cost per hour 1.47 to 3.91 EUR View pricing details</div>

Apache Spark pool create wizard

6. In the next tab (Additional settings), leave all settings as defaults.

7. We won't add any tags for now, so select **Review + create**.

8. In the **Review + create** tab, make sure that the details look correct based on what was previously entered, and press **Create**.

New Apache Spark pool

✓ Validation succeeded.


Basics * Additional settings * Tags **Review + create**

Product details

Azure Synapse Analytics Apache
Spark pool by Microsoft
[Terms of use](#) | [Privacy policy](#)

Est. cost per hour
1.47 to 3.91 EUR
[View pricing details](#)

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Basics

Subscription	MSDN Platforms
Resource group	demorg
Apache Spark pool name	SparkPool01

Create

< Previous

[Download template for automation](#)

New Apache Spark pool - select Review and create tab

9. The Apache Spark pool will start the provisioning process. Once the provisioning is complete, the new Apache Spark pool will appear in the list.

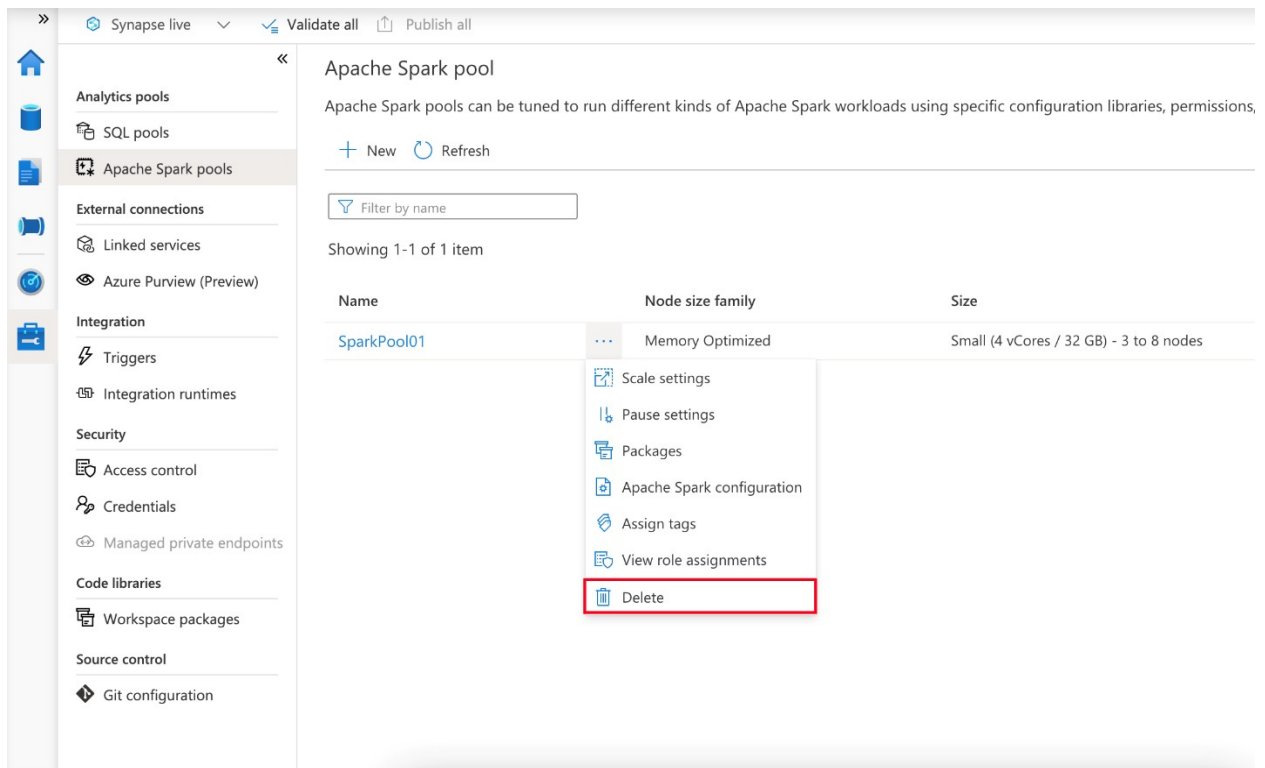
The screenshot shows the Synapse Studio interface. On the left is a navigation pane with categories: Analytics pools (containing SQL pools and Apache Spark pools), External connections, Integration (containing Triggers and Integration runtimes), Security (containing Access control, Credentials, and Managed private endpoints), Code libraries (containing Workspace packages), and Source control (containing Git configuration). The 'Apache Spark pools' item is selected. The main pane is titled 'Apache Spark pool' and contains a description: 'Apache Spark pools can be tuned to run different kinds of Apache Spark workloads using specific configuration libraries, permissions,'. Below this are '+ New' and 'Refresh' buttons. A 'Filter by name' search box is present. It shows 'Showing 1-1 of 1 item'. A table lists the pool:

Name	Node size family	Size
SparkPool01	Memory Optimized	Small (4 vCores / 32 GB) - 3 to 8 nodes

Apache Spark pool

Delete a pool

1. Navigate to the pools in the Management Hub in Synapse Studio. In this case Apache Spark
2. Select the ellipsis next to the Apache pool to be deleted (in this case, **Sparkpool01**) to show the commands for the Apache Spark pool.



Delete a SparkPool

3. Press **Delete**.

4. Confirm the deletion, and press **Delete** button.

5. When the process completes successfully, the Apache Spark pool will no longer be listed in the workspace resources.

6. Once completed, repeat steps 1- 5 in 'Delete a pool' to delete the Synapse SQL Pool.