# Implement Synapse Link for Cosmos DB

In this reading you can see the steps involved in the process of implementing Synapse Link for Cosmos DB.

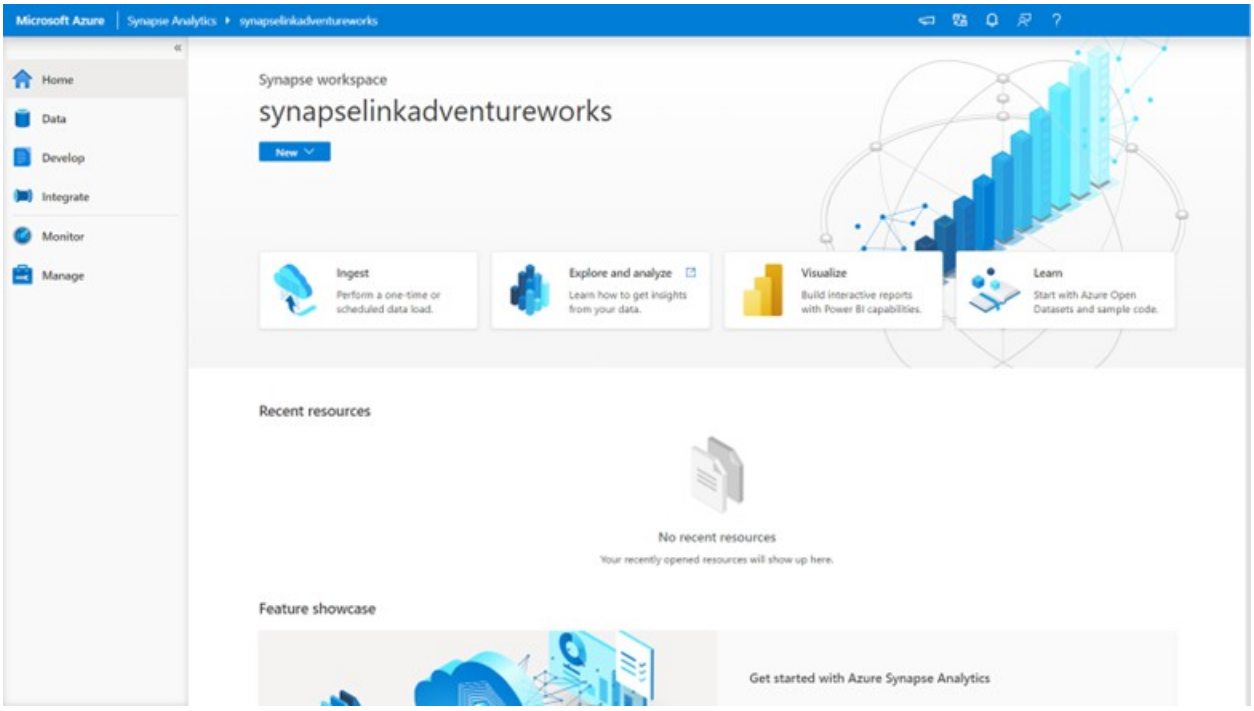
**Note**

You are not required to complete the processes, tasks, activities, or steps presented in this example. Your system set-up may differ from the system set-up in the demonstration in this reading. The various samples provided are for illustrative purposes only and it's likely that if you try this out you will encounter issues in your system.

In order to query the data within our Cosmos DB analytical store from Azure Synapse using Spark, we need to configure a linked service.

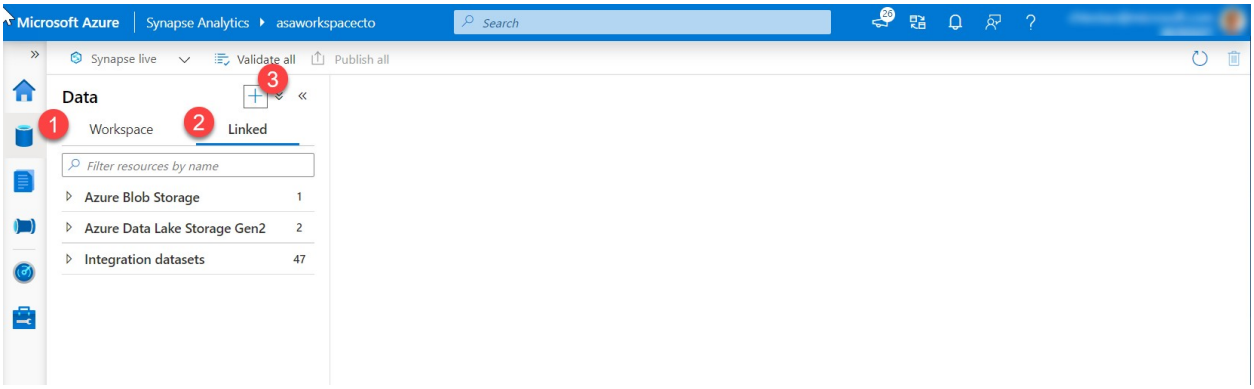
## Configure Azure Synapse Linked Service for Azure Cosmos DB Core (SQL) API

To configure the Azure Synapse Linked Service for Azure Cosmos DB Core (SQL) API, perform the following steps:




Azure Synapse Studio.

1. Connect to a previously deployed Azure Synapse Workspace running an Azure Synapse SQL Serverless instance **(deployed by default with the workspace)** and an Azure Synapse Spark Pool **(you need to have previously deployed this)**.

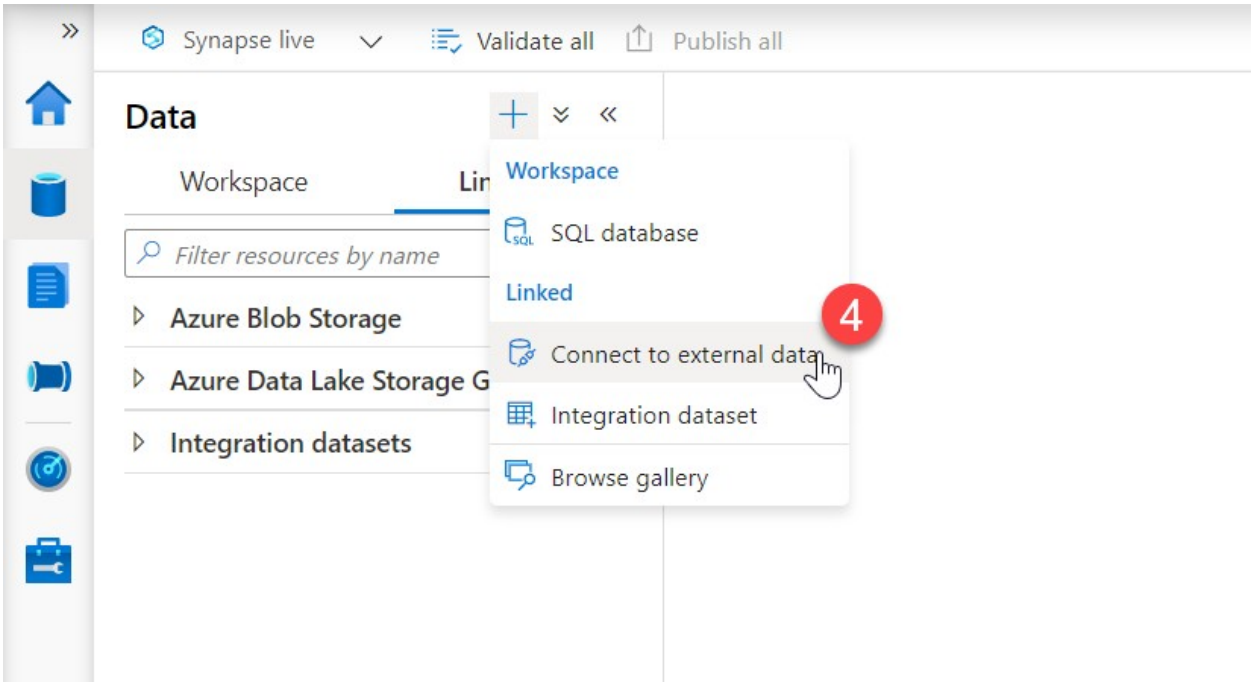



Adding a new resource in Azure Synapse Studio.

2. In the left-hand menu, select **Data (1)**

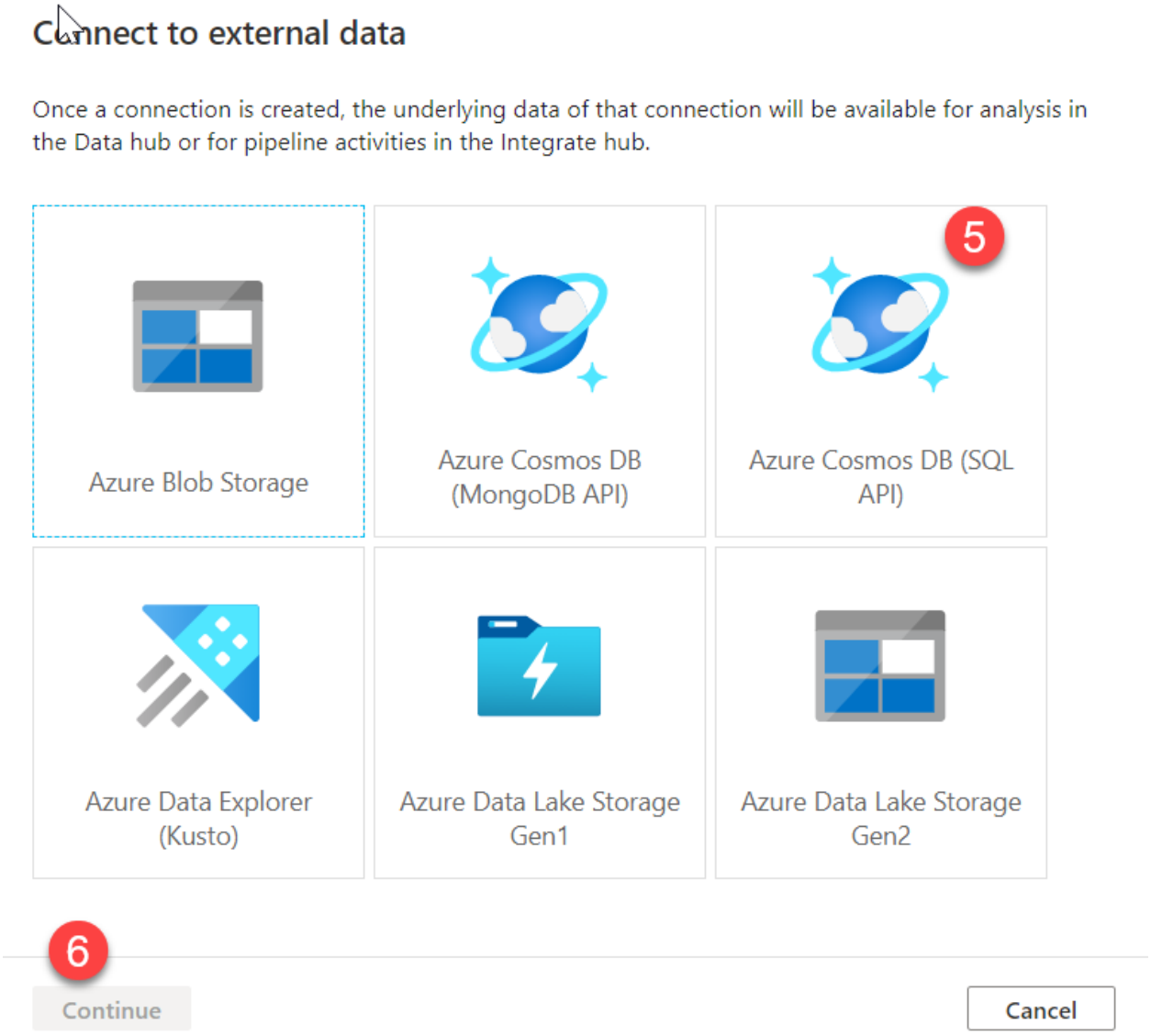
3. Click on the **Linked tab** in the explorer view **(2)**

4. Click the **+ button** to add a resource **(3)**



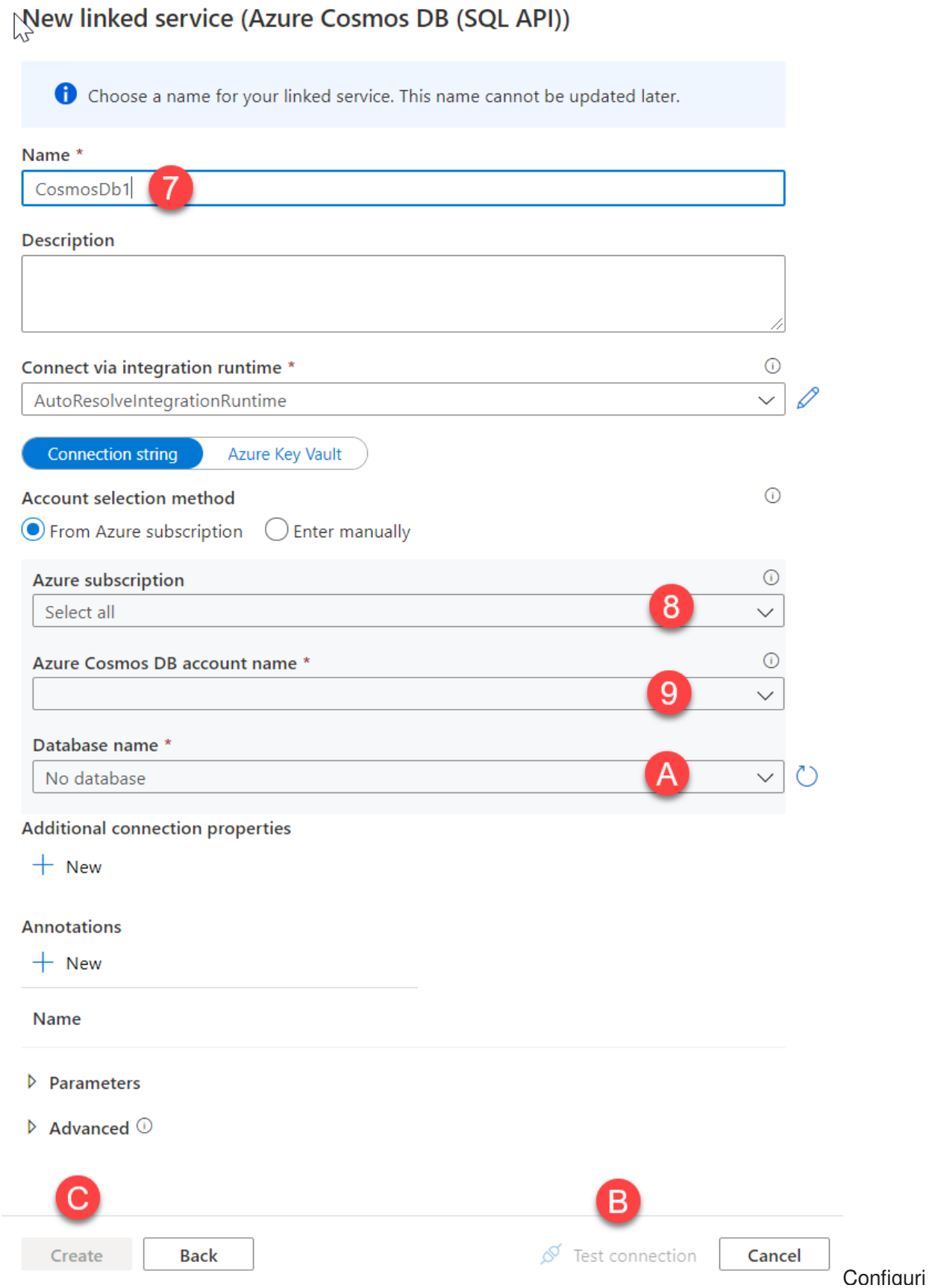

Connect to external data in Azure Synapse Studio.

5. Select **Connect to external data** from the list that pops up **(4)**




Connect to Cosmos DB in Azure Synapse Studio.
6. Select **Azure Cosmos DB SQL API**

7. Click **Continue**


New linked service (Azure Cosmos DB (SQL API))
Choose a name for your linked service. This name cannot be updated later.
Name *
CosmosDb1
7
Description
Connect via integration runtime *
AutoResolveIntegrationRuntime
Connection string
Azure Key Vault
Account selection method
From Azure subscription
Enter manually
Azure subscription
Select all
8
Azure Cosmos DB account name *
9
Database name *
No database
A
Additional connection properties
New
Annotations
New
Name
Parameters
Advanced
C
B
Create
Back
Test connection
Cancel

Configuri

ng Cosmos DB linked service in Azure Synapse Studio.
8. Type **AdventureWorksSQL** as the name of our linked service **(7)**

9. Select the **Azure Subscription** in which the previously configured Azure Cosmos DB Core (SQL) API account exists from the drop-down list **(8)**

10. Select the **Azure Cosmos DB account** from the drop-down list **(9)**

11. Select the **Sales** database from the drop-down list.

12. Click **Test connection**.

You should immediately receive confirmation that the connection was successful.

13. Click **Create**.

You are done creating your Linked service for your Azure Cosmos DB Core **(SQL)** API

# Configure Azure Synapse linked service for Azure Cosmos DB API for MongoDB

To configure the Azure Synapse Linked Service for Azure Cosmos DB API for MongoDB, perform the following steps:

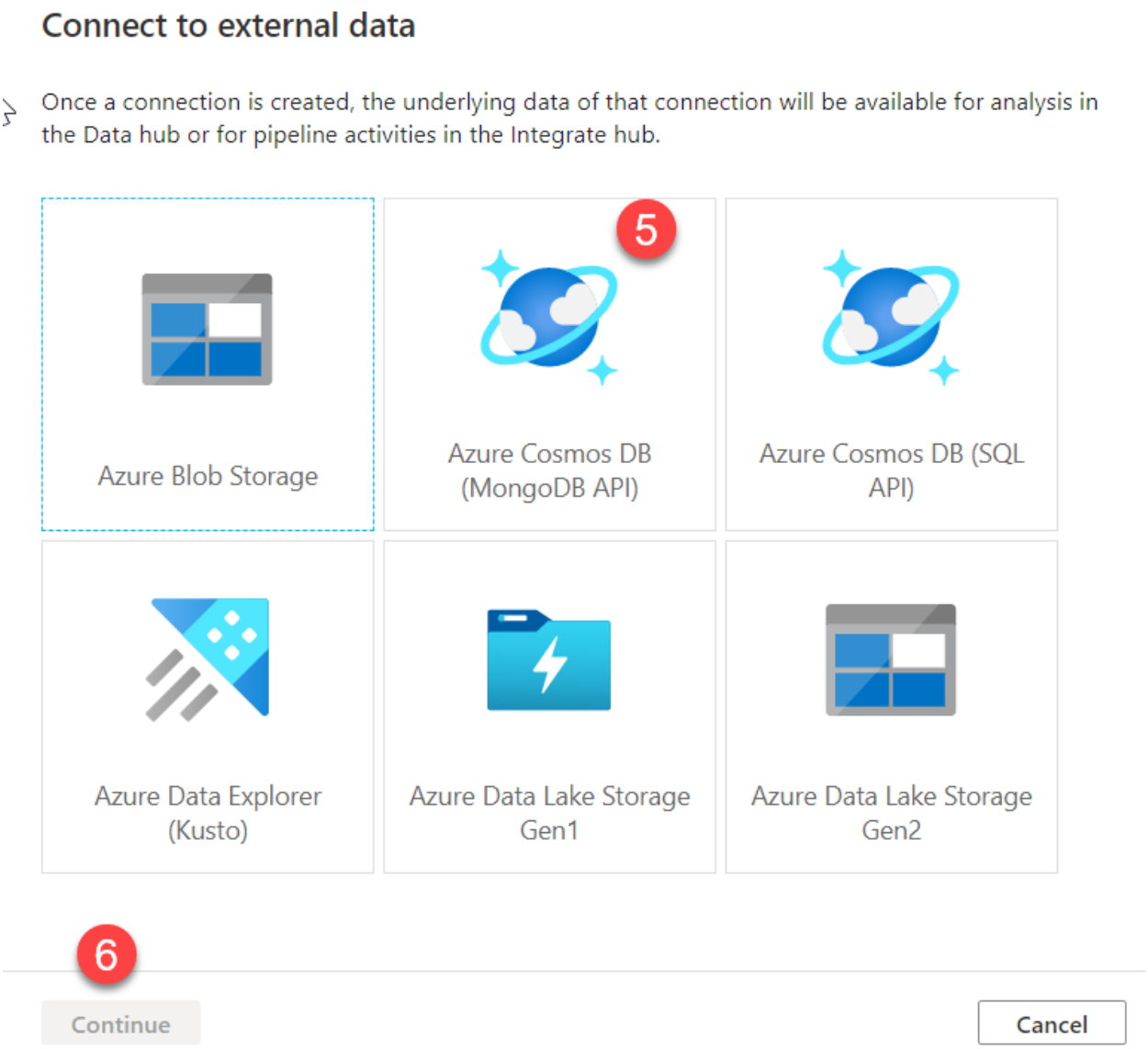
1. Connect to a previously deployed Azure Synapse Workspace

2. In the left-hand menu, select **Data**

3. Click on the **Linked tab** in the explorer view.

4. Click the **+ button** to add a resource.

5. Select **Connect to external data** from the list that pops up.




Configuring Cosmos DB linked service for Mongo DB in Azure Synapse Studio.
6. Select **Azure Cosmos DB (MongoDB API) (5)**

7. Click **Continue (6)**

8. Type **AdventureWorksMongoDB** as the name of our linked service

9. Select the **Azure Subscription** in which the previously configured Azure Cosmos DB API for MongoDB account exists from the drop-down list.

10. Select the **Azure Cosmos DB account** from the drop-down list.

11. Select the **Sales** database from the drop-down list.

12. Click **Test connection**

You should immediately receive confirmation that the connection was successful.

13. Click **Create**

You are done creating your Linked service for your Azure Cosmos DB API for MongoDB