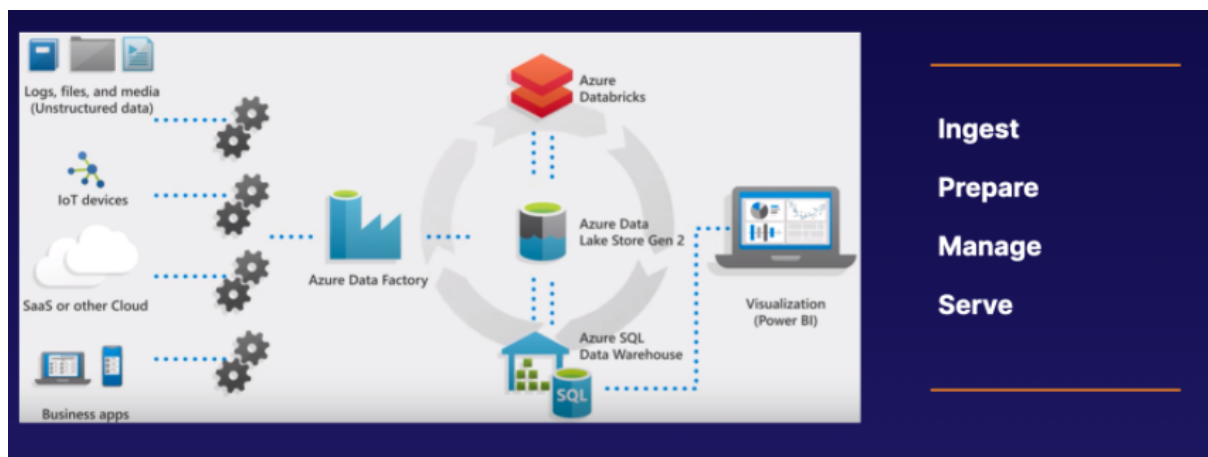# Provisioning an Azure Synapse Analytics Instance

Introduction

In this lab, we will create and configure an instance of Azure Synapse Analytics. In addition to basic provisioning, we will explore Synapse Studio and learn how to find sample data and scripts, learn how to create SQL pools, and explore how to allow other Azure services and resources to access our new workspace.

Provision an Azure Synapse Account

1. Navigate to Azure Synapse Analytics.
2. Click Create Synapse workspace.
3. Under Basics, set the following values:
   - Subscription: Leave as the default.
   - Resource group: Choose the existing resource group.
   - Workspace name: Enter a unique name.
   - Region: Central US
   - Select Data Lake Storage Gen2: From subscription
   - Account name: Enter a unique name.
   - File system name: Enter a unique name.
4. Click Next: Security.
5. Under Admin username, enter a unique name, and a secure password.
6. Check the Allow pipelines box, and click Next: Networking.
7. Check the Allow connections from all IP addresses box, and click Next: Tags.

8. Click Next: Review + create.

9. Click Create.

10. Once completed, click Go to resource group.

11. Review the newly created resources.

12. Click on the Synapse workspace.

13. Under Security, click Firewalls.

14. Toggle the Allow Azure services and resources to access this workspace setting to ON, and click + Add client IP.

15. Click Save.

Access Synapse Studio

1. Once the firewall rules have been updated, in the left-hand menu click Overview.

2. In the Getting started box, under Open Synapse Studio, click Open.

3. Click Learn.

4. Click Browse gallery.

5. Find and click the Boston Safety Data dataset.

6. Click Add dataset.

7. Review the dataset.

8. In the left-hand menu, click Home, and return to the gallery.

9. At the top of the page, click the Notebook tab. Review the different tabs to see the other options that are available.

10. In the SQL scripts tab, select Create External Tables.

11. Click Open script.

12. At the top of the page, review the Deployment failed error.

SQL Pools

1. Leaving the Synapse Workspace open, use a new tab to return to the Azure Portal and open the Synapse Workspace created at the start of the lab.

2. Under Analytics pools, click SQL pools.

3. Click + New.

4. Enter a unique name.

5. For the Performance level, drag the slider all the way to the left, and select DW100C.
6. Click Next: Additional Settings.
7. Click Next: Tags.
8. Click Review + create.
9. Click Create.
10. Back in the Synapse Workspace, in the left-hand menu, click Data.
11. Click the Workspace tab.
12. Review the DW100C SQL pool created earlier.
13. Back in the Azure Portal, in the Synapse Workspace, click the dedicated SQL pool.
14. Click Pause. This can also be done from the Manage tab in Synapse Studio.