

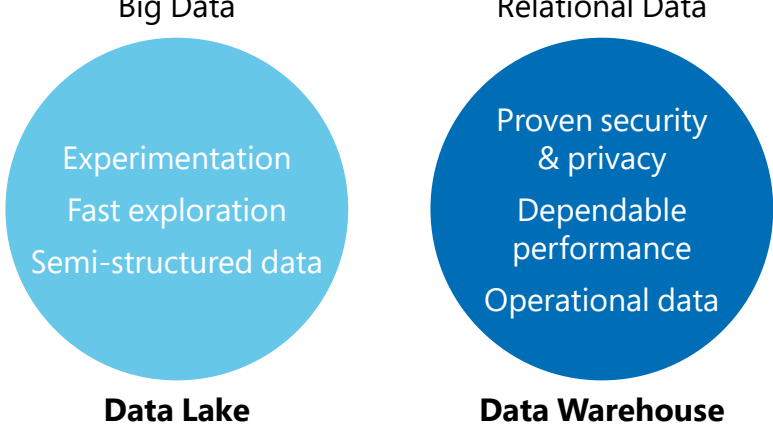
Data lake and data warehouse unified with Azure Synapse Analytics

Azure Synapse brings big data analytics and data warehousing together with a unified service that offers deeply integrated Apache Spark and SQL engines, as well as two consumption models for analytics:

- Serverless queries over the data lake
- Provisioned resources for both SQL Pools and Spark Pools

Tip: Get started with Azure Synapse Analytics in [four quick steps](#).

Prior to Azure Synapse Analytics, many businesses maintained two critical, yet independent analytics systems for big data analytics and data warehousing.

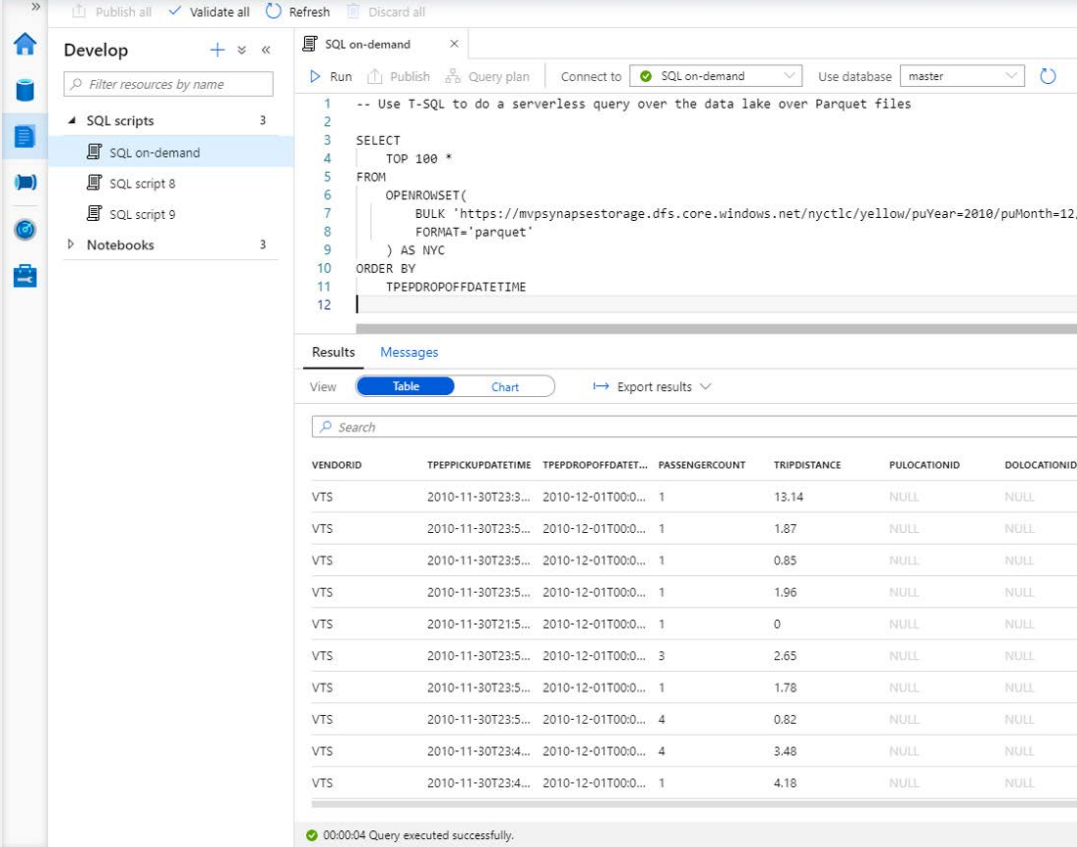


Azure Synapse brings big data analytics and data warehousing together by offering two consumption models for analytics in a single service.

Here are three examples showing how to quickly go from serverless data lake to provisioned data warehouse with Azure Synapse.

Use T-SQL to do a serverless query over the data lake over Parquet files

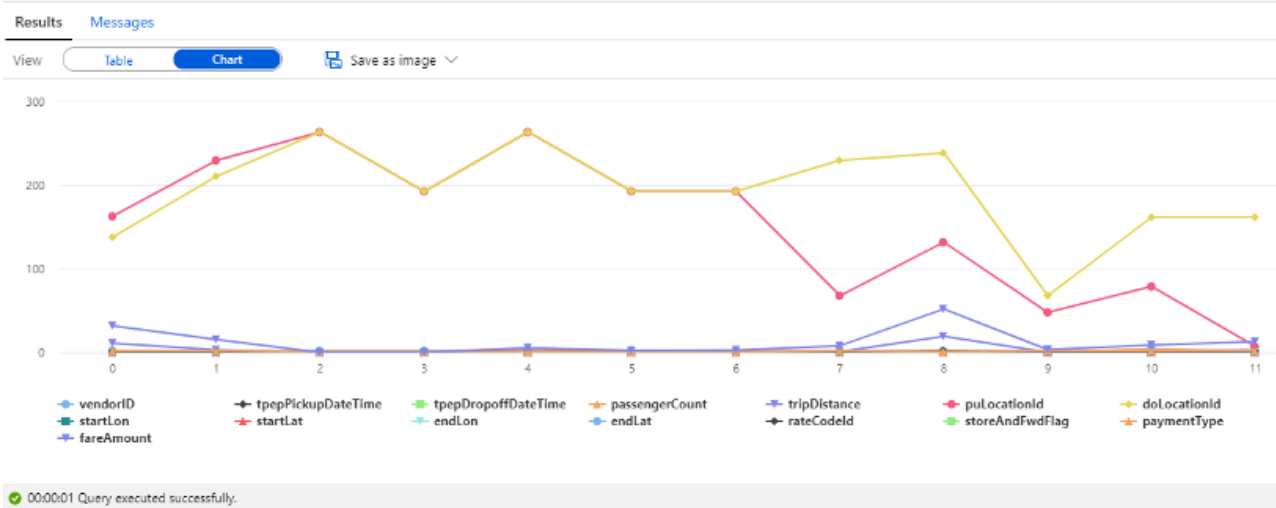
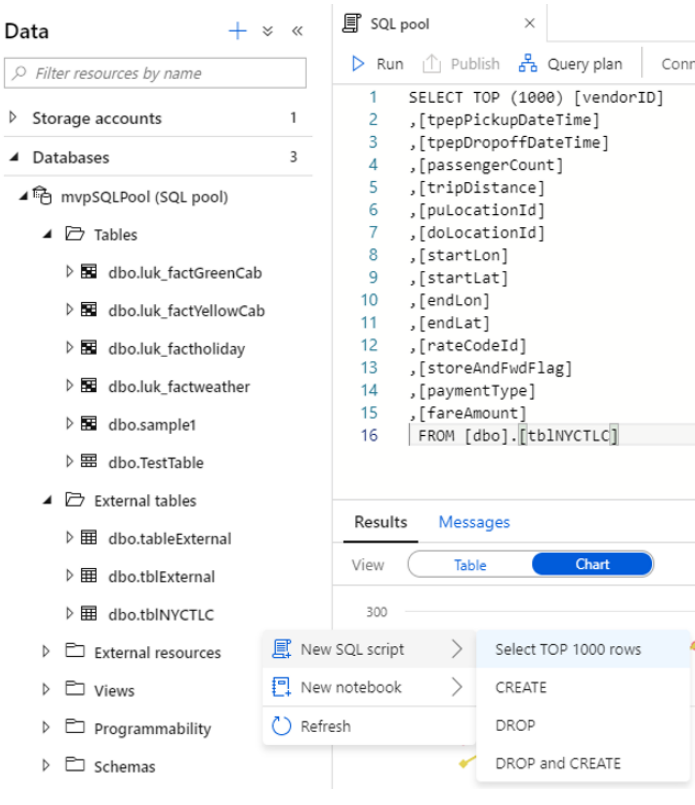
Here, Parquet files are stored in an Azure Data Lake Storage account. T-SQL syntax is used to run a serverless query over the data lake over Parquet files instantly without provisioning any infrastructure.



Use provisioned compute for data warehouse (SQL pools), also using SQL

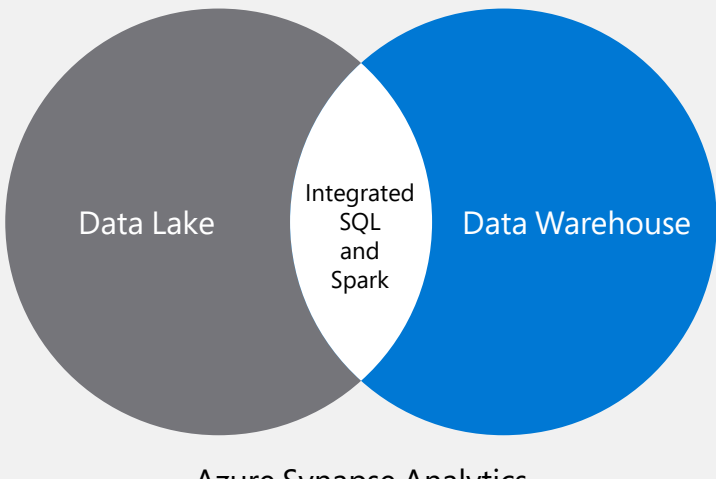
Each SQL pool has an associated database. A SQL pool can be scaled, paused, and resumed manually or automatically and can scale from 100 Data Warehouse Units (DWU) up to 30,000 DWU.

This example shows how easy it is to query tables in a SQL pool using familiar T-SQL syntax. Rapidly generate SQL scripts from the **Data** hub for tables in the SQL pool and gain valuable insights from your data.

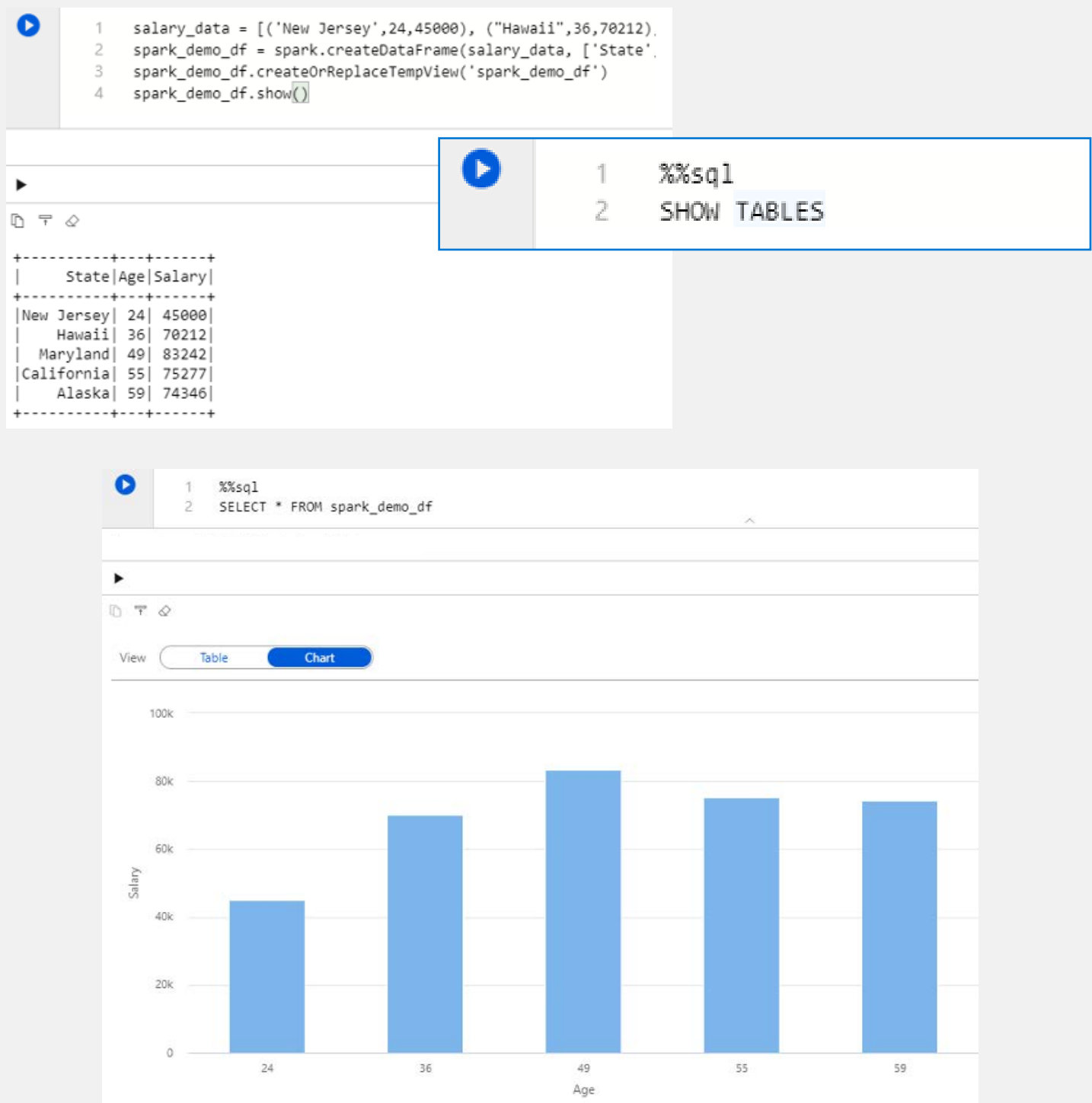


Integrated SQL and Spark runtimes

Azure Synapse connects various analytics runtimes (such as SQL and Spark) through a single platform.



In this example, create an ad-hoc table using PySpark and output it to a Spark pool, then use SQL to run queries against the Spark pool and visualize the data.



Get started with Azure Synapse today.

Sign up for an Azure free account

Get more details in a free technical e-book from Packt

Speak to a sales specialist for help with pricing, best practices, and implementing a proof of concept