

## COURSE: DP-3012 Implementing a Data Analytics Solution with Azure Synapse Analytics

This is a single day Instructor Lead Course designed to give the learners instruction on the SQL dedicated and serverless Spark pools and providing instruction of data wrangling and the ELT process using Synapse Pipelines which is very similar to those familiar with Azure Data Factory (ADF) to move data into the Synapse dedicated pool database.

### Summary

<i>Duration:</i>	<i>1 day</i>
<i>Level:</i>	<i>200</i>
<i>Delivery method:</i>	<i>Virtual Instructor-led class</i>
<i>Language:</i>	<i>English or Bulgarian</i>

\* The difficulty level is consistent with the widely accepted scale of technical difficulty of training on Microsoft Corp

### AUDIENCE:

The Audience should have familiarity with notebooks that use different languages and a Spark engine, such as Databricks, Jupyter Notebooks, Zeppelin notebooks and more. They should also have some experience with SQL, Python, and Azure tools, such as Data Factory.

### AFTER THE TRAINING ATTENDEES WILL BE ABLE TO:

- Identify the business problems that Azure Synapse Analytics addresses
- Describe core capabilities of Azure Synapse Analytics
- Determine when to use Azure Synapse Analytics
- Identify capabilities and use cases for serverless SQL pools in Azure Synapse Analytics
- Query CSV, JSON, and Parquet files using a serverless SQL pool
- Create external database objects in a serverless SQL pool
- Identify core features and capabilities of Apache Spark
- Configure a Spark pool in Azure Synapse Analytics
- Run code to load, analyse, and visualise data in a Spark notebook
- Describe core features and capabilities of Delta Lake
- Create and use Delta Lake tables in a Synapse Analytics Spark pool and more

### TOPICS:

**Module 1:** Introduction to Azure Synapse Analytics

**Module 2:** Use Azure Synapse serverless SQL pool to query files in a data lake

**Module 3:** Analyze data with Apache Spark in Azure Synapse Analytics

**Module 4:** Use Delta Lake in Azure Synapse Analytics

**Module 5:** Analyze data in a relational data warehouse

**Module 6:** Build a data pipeline in Azure Synapse Analytics