

# Implementing a Data Analytics Solution with Azure Synapse Analytics (DP-3012)

# **Description**

Complete Training on Azure Synapse Analytics: "Implementing a Data Analytics Solution with Azure Synapse Analytics (DP-3012)". Whether you are a beginner or an experienced professional in the field of data analysis, this training will guide you through the various applications and features of Azure Synapse to transform data into actionable insights.

Learn how to query files in a data lake with the **serverless SQL pool**, analyze data with **Apache Spark**, and optimize data workflows with **Delta Lake** in our detailed modules. You will also learn how to design data warehouse schemas and build efficient data pipelines in Azure Synapse Analytics. Join the course 'Implementing a Data Analytics Solution with Azure Synapse Analytics (DP-3012)' to master these essential skills and propel your career in the field of Big Data and data analytics.

#### **Course Content**

## **Module 1 - Introduction to Azure Synapse Analytics**

- What is Azure Synapse Analytics
- How Azure Synapse Analytics works
- When to use Azure Synapse Analytics

## Module 2 - Using Azure Synapse's serverless SQL pool to query files in a data lake

- Understand the capabilities and use cases of the serverless SQL pool in Azure Synapse
- Query files using a serverless SQL pool
- Create external database objects

## Module 3 - Analyzing data with Apache Spark in Azure Synapse Analytics

- Get acquainted with Apache Spark
- Use Spark in Azure Synapse Analytics
- Analyze data with Spark
- Visualize data with Spark

# Module 4 - Using Delta Lake in Azure Synapse Analytics

- Understand Delta Lake
- Create Delta Lake tables
- Create catalog tables
- Use Delta Lake with streaming data
- Use Delta Lake in a SQL pool

## Module 5 - Analyzing data in a relational data warehouse

- Design a data warehouse schema
- Create data warehouse tables
- Load data warehouse tables
- Query a data warehouse

## Module 6 - Building a data pipeline in Azure Synapse Analytics

- Understand pipelines in Azure Synapse Analytics
- Create a pipeline in Azure Synapse Studio
- Define data flows
- Execute a pipeline

#### **Documentation**

· Digital course material included

## Participant profiles

- Administrators
- Data specialists

## **Prerequisites**

- Familiarity with notebooks using various languages and a Spark engine
- Experience with SQL and Python
- Skills in Azure tools, including Data Factory

## **Objectives**

- Provide a complete understanding of Azure Synapse Analytics
- Teach the use of serverless and dedicated SQL pools
- Train on data analysis with Apache Spark
- Integrate Delta Lake for advanced data management
- Design and implement a relational data warehouse
- Build and execute data pipelines

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#### Niveau

Intermédiaire

## **Classroom Registration Price (CHF)**

900

## **Virtual Classroom Registration Price (CHF)**

850

## **Duration (in Days)**

1 **Reference** DP-3012