

DP-203T00: Data Engineering on Microsoft Azure

Duration: 32 Hours (4 Days)

Course Overview

The DP-203T00: Data Engineering on Microsoft Azure course is designed to impart the knowledge and skills necessary to design and implement Data engineering solutions on Azure. It covers a comprehensive range of Azure services including Azure Data Lake Storage Gen2, Azure Synapse Analytics, Azure Stream Analytics, and Azure Data Bricks among others. Learners will gain practical experience through labs that reinforce the lessons, such as querying data with Server less SQL pools, performing Data engineering with Azure Synapse Apache Spark Pools, and implementing Real-time analytics with Azure Stream Analytics. The course also dives into security and compliance with modules on End-to-end security, and it explores Integration with Power BI for reporting and Azure Synapse Analytics for machine learning processes. By the end of this course, participants will have a strong foundation in Data engineering practices, enabling them to build scalable and secure data solutions in the cloud. This course is beneficial for professionals looking to leverage Azure for data processing, and analytics, and to gain insights that can drive business value.

Audience profile

The DP-203T00 course equips professionals with advanced skills in Azure data engineering, focusing on data storage, processing, and analytics. Job roles and audience for the course include:

- Data Engineers
- Data Architects
- Data Scientists
- Database Administrators
- IT Professionals with a focus on data solutions
- Business Intelligence Professionals
- Cloud Solution Architects
- Professionals seeking certification in Microsoft Azure Data Engineering
- Technical Team Leads managing data-centric projects
- Data Analysts aiming to upgrade their skills to include big data and real-time analytics
- Software Engineers looking to specialize in data engineering on Azure platforms
- DevOps Engineers working with data-intensive applications and analytics pipelines

Course Syllabus

Module 1: Get started with data engineering on Azure

- Lesson01: Introduction to data engineering on Azure
- Lesson02: Introduction to Azure Data Lake Storage Gen2
- Lesson03: Introduction to Azure Synapse Analytics

Module 2: Build data analytics solutions using Azure Synapse Analytics serverless SQL pools

- Lesson01: Use a serverless SQL pool to query files in a data lake
- Lesson02: Use a serverless SQL pool to transform data
- Lesson03: Create a lake database

Module 3: Perform data engineering with Azure Synapse Apache Spark Pools

- Lesson01: Analyze data with Apache Spark in Azure Synapse Analytics
- Lesson02: Transform data with Apache Spark in Azure Synapse Analytics
- Lesson03: Use Delta Lake in Azure Synapse Analytics

Module 4: Work with data warehouses using Azure Synapse Analytics

- Lesson01: Analyze data in a relational data warehouse
- Lesson02: Load data into a relational data warehouse

Module 5: Transfer and transform data with Azure Synapse Analytics Pipelines

- Lesson01: Build a data pipeline in Azure Synapse Analytics
- Lesson02: Use Spark Notebooks in an Azure Synapse Pipeline

Module 6: Work with hybrid transactional and analytical processing (HTAP) Solutions using Azure Synapse Analytics

- Lesson01: Plan hybrid transactional and analytical processing
- Lesson02: Implement Azure Synapse Link with Azure Cosmos DB Lesson03: Implement Azure Synapse Link for SQL

Module 7: Implement a data streaming solution with Azure Stream Analytics

- Lesson01: Get started with Azure Stream Analytics
- Lesson02: Ingest streaming data using Azure Stream Analytics and Azure Synapse Analytics
- Lesson03 :Visualise real-time data with Azure Stream Analytics and Power BI

Module 8: Govern data across an enterprise

- Lesson01: Introduction to Microsoft Purview
- Lesson02: Integrate Microsoft Purview and Azure Synapse Analytics

Module09: Data engineering with Azure Databricks

- Lesson01: Explore Azure Databricks
- Lesson02: Use Apache Spark in Azure Databricks
- Lesson03: Run Azure Databricks notebooks in Azure Data Factory