Reference: SM/EN/203

Data Engineering Training Course (DP-203)

with Azure Data Lake, Synapse, Data Factory and Spark

Duration: 4 Days | Hours: 28 h

Remote · Sessions guaranteed from 1 registrant · 60% hands-on practice

DESCRIPTION

With the rise of big data and distributed architectures, companies need engineers who can design, automate and manage reliable and scalable data pipelines. This training covers key Azure technologies — Data Lake, Synapse Analytics, Data Factory, Azure SQL, Stream Analytics and Spark — that form the backbone of modern data platforms in the Microsoft cloud.

Note: the original DP-203 certification was retired by Microsoft in 2024 in favour of DP-700 (Microsoft Fabric Data Engineer Associate). This training still covers the underlying Azure technologies, which remain widely deployed in production, and explains the migration path to Microsoft Fabric. Through a project-based approach, you will learn how to ingest, store, transform and secure data, in batch or in real time.

LEARNING OBJECTIVES

By the end of this training course, participants will be able to:

- Understand the architecture of data solutions in Azure
- Design ingestion pipelines with Azure Data Factory and Synapse
- Work with structured and unstructured data (SQL, NoSQL, JSON, Parquet)
- Implement analytics solutions with Azure Synapse and Apache Spark
- Manage data security, privacy and governance

PREREQUISITES

- Experience in data processing, SQL, ETL or BI
- Basic knowledge of cloud computing and the Azure platform
- Optional but useful: development skills (Python, Spark, Scala)

> *Because each participant is unique, a personalised interview is systematically organised in advance with our expert to design a training programme perfectly aligned with their objectives, level and professional challenges.*

TARGET AUDIENCE

Data teams, BI developers, cloud consultants and data solution architects working on Azure data platforms.

DETAILED PROGRAMME

> The training alternates between theoretical input and hands-on practice (approximately 60% of the time). Modules are built around practical exercises based on real-world business use cases.

Module 1 – Fundamentals of Data Architecture on Azure

- Overview of services: Synapse, Data Lake Gen2, Storage
- Azure SQL and Cosmos DB
- Lakehouse architecture and Microsoft Fabric positioning

Module 2 – Data Ingestion with Azure Data Factory

- Pipelines, triggers and Mapping Dataflows
- Cloud and hybrid integration scenarios
- Connectors and self-hosted integration runtimes

Module 3 – Modelling and Transformation with Synapse and Spark

- Spark pools and notebooks
- Exploratory analysis, cleaning and joins
- Parquet, CSV and Delta Lake formats

Module 4 – Data Security and Governance

- RBAC access and Azure Purview
- Dynamic data masking and encryption
- Key management and GDPR compliance

Module 5 – Real-Time and Streaming Data

- Azure Stream Analytics and Event Hub
- Stream processing patterns and windowing
- Lambda architecture for batch + streaming

TEACHING METHODS

Format and Delivery

The training is delivered remotely via an interactive virtual classroom. It can also be delivered on-site, with content customised to match the needs of your professional project. The theory/practice split is approximately 40%/60%.

MFE-IT Ultra-Personalised Format

Each session accommodates between 1 and 3 participants, ensuring highly individualised support. A preliminary interview allows us to tailor the content to each participant's profile. Inter-company sessions are guaranteed from just 1 registrant (except in cases of force majeure).

Skills Assessment

Throughout the training, the trainer assesses participant progress through multiple-choice questions, role-playing exercises and hands-on work. At the end, a certificate of achievement is issued to each participant.

Post-Training Support

For one month following the training, each participant can contact MFE-IT trainers with questions about implementing acquired knowledge. A response is provided by email or telephone within 48 working hours.

Accessibility

MFE-IT is committed to welcoming people with disabilities. Contact: contact@mfe-it.com.

PRACTICAL INFORMATION

Trainer Resources

- Structured demonstrations aligned with the detailed programme
- Exercise briefs and solutions throughout the training
- A ready-to-use technical environment for practical workshops
- Trainer validation of acquired knowledge at the end of each workshop
- Digital reference documents

Certification and Validation

At the end of the training, a certificate is sent by email specifying the objectives, nature, duration and assessment results. A completion certificate can also be provided on request.

Benefits for Participants

- Train from your workplace or home, with no travel required
- Benefit from an expert trainer-consultant on the subject
- Enjoy an ultra-personalised format (1 to 3 participants)
- Continue training even in the event of unforeseen circumstances

Benefits for the Organisation

- Optimise the training budget by reducing travel and accommodation costs
- Offer quality training to all employees, regardless of location
- Reduce absence time linked to travel
- Support team upskilling in all contexts