

Microsoft Fabric Data Engineer (DP-700T00)

Duration: 4 days

Audience: Professionnel TI|Analyste de données

Who is this training for?

This course is intended for data professionals with experience extracting, transforming, and loading data. The DP-700 course is designed for professionals who need to build and deploy data engineering solutions using Microsoft Fabric for enterprise-wide data analytics. Learners should also have experience manipulating and transforming data with one of the following programming languages: Structured Query Language (SQL), PySpark or Kusto Query Language (KQL).

Training objectives

- Explore data engineering solutions with Microsoft Fabric
- Develop efficient data loading models and manage data architectures
- Transform and orchestrate data in a secure environment
- Design solutions based on SQL, PySpark, and KQL technologies
- Implement real-time systems and utilize advanced event stream analysis capabilities
- Administer and configure Microsoft Fabric enterprise-wide

Summary

This course enables IT professionals to manage their Azure subscriptions, secure identities, administer infrastructure, configure virtual networking, connect Azure and on-premises sites, manage network traffic, implement storage solutions, create and scale virtual machines, to implement web applications and containers, back up and share data, and monitor your solution.

Course outline

- Learning Path 1: Explore End-to-End Analytics with Microsoft Fabric
- Describe End-to-End Analytics in Microsoft Fabric
- Understand Data Teams and Roles Using Fabric
- Describe how to enable and use Fabric
- Learning Path 2: Get started with lakehouses in Microsoft Fabric
- Describe end-to-end analytics in Microsoft Fabric
- Understand data teams and roles using Fabric
- Describe how to enable and use Fabric
- Learning path 3: Use Apache Spark in Microsoft Fabric
- Describe end-to-end analytics in Microsoft Fabric
- Understand data teams and roles using Fabric
- Describe how to enable

and use Fabric • Learning path 4: Work with Delta Lake tables in Microsoft Fabric • Understand Delta Lake and delta tables in Microsoft Fabric • Create and manage delta tables with Spark • Optimize delta tables • Use delta tables with Spark structured streaming • Learning path 5: Ingestion of data with Dataflows (Gen2) in Microsoft Fabric • Describe the capabilities of Dataflow Gen2 in Microsoft Fabric • Create Dataflow solutions to ingest and transform data • Include a Dataflow in a pipeline • Learning path 6: Orchestrate processes and data movement • Describe the capabilities of pipelines in Microsoft Fabric • Use the Copy Data to a Pipeline activity • Create pipelines based on predefined templates • Run and monitor pipelines • Learning path 7: Organize a Fabric lakehouse with the medallion architecture • Describe the principles of using the medallion architecture in data management • Apply the medallion architecture framework • Analyze the data stored in the lakehouse using DirectLake in Power BI • Learning path 8 : Get started with real-time intelligence in Microsoft Fabric • Understand real-time data analytics concepts • Explore the core components of real-time intelligence in Microsoft Fabric • Learning path 9: Use real-time eventstreams in Microsoft Fabric • Configure sources and destinations in Microsoft Fabric eventstreams • Capture, transform, and route data using Microsoft Fabric eventstreams • Learning Path 10: Work with real-time data in a Microsoft Fabric event house • Create an event house in Microsoft Fabric • Query data in real time with Kusto Query Language (KQL) • Create materialized views and functions stored in a KQL database • Learning path 11: Get started with data warehouses in Microsoft Fabric • Describe data warehouses in Fabric • Understand the difference between a data warehouse and data warehouse. Data and a Data Lakehouse • Work with Data Warehouses in Fabric • Create and Manage Fact Tables and Dimensions in a Data Warehouse • Learning Path 12: Load Data into a Microsoft Fabric Data Warehouse • Strategies for Loading Data into a Data Warehouse in Microsoft Fabric • Build a Data Pipeline to Load a Data Warehouse into Microsoft Fabric • Load Data into a Data Warehouse with T-SQL • Load and transform data with Dataflow (Gen2) • Learning Path 13: Monitor a Microsoft Fabric data warehouse • Monitor capacity unit utilization with the Microsoft Fabric Capacity Metrics app • Monitor current activity in the data warehouse with dynamic management views • Monitor query trends with query insights views • Learning path 14: Secure a Microsoft Fabric data warehouse • Understand the concepts of securing a data warehouse in Microsoft Fabric • Implement dynamic data masking, row-level security, and column-level security • Configure granular permissions with T-SQL • Learning path 15: Implement

continuous integration and continuous deployment (CI/CD) • Define CI/CD and describe how it is implemented in Fabric • Implement control version and Git integration • Use deployment pipelines to automate the deployment process • Automate CI/CD using Fabric APIs • Learning path 16: Monitor activities in Microsoft Fabric • Apply monitoring concepts to Microsoft Fabric • Use Monitoring Hub in Microsoft Fabric • Trigger actions with Activator in Microsoft Fabric • Learning path 17: Secure data access in Microsoft Fabric • Understand the Fabric security model • Configure permissions for workspaces and items • Apply granular permissions • Learning path 18: Administer Microsoft Fabric • Describe Fabric administration tasks • Navigate the admin center • Manage user access

Approach and methodology

Practical and structured approach combining focused theory and guided workshops. Participants gradually develop data engineering expertise with Microsoft Fabric through real-world exercises inspired by professional scenarios, promoting immediate application of learning. They learn how to design, orchestrate, and optimize data pipelines, as well as leverage the built-in capabilities of Fabric to manage and transform data at scale. Led by a Microsoft certified trainer, the training focuses on interactivity and the development of directly transferable technical skills to build modern data solutions in a professional context.

Prerequisites

Experience with Power BI (reporting and dashboards), basic understanding of data warehouse concepts, familiarity with SQL fundamentals, basic knowledge of cloud computing concepts, experience with data analysis, experience working with relational databases, basic understanding of data modeling, familiarity with Microsoft Excel.

Recommendations

Solid foundation in data management and transformation Knowledge of SQL and/or Python Understanding of Data Engineering concepts (ETL/ELT, pipelines) Familiarity with modern data architectures (lakehouse, data warehouse) Notions of Power BI / Azure / Fabric platforms (asset)