
DP-600T00- Implement analytics solutions using Microsoft Fabric

Overview

Course Duration: 4 Days

About This Course

This course covers how to prepare, enrich, and serve data for analysis by consumers such as data analysts, report developers, and AI agents. The course focuses on designing dimensional models and transforming data by using dataflows, notebooks, and T-SQL across lakehouses, warehouses, and eventhouses in Microsoft Fabric. The course also covers building and optimizing semantic models, managing the analytics development lifecycle, and enforcing security and governance across data assets.

Audience Profile

This course is intended for data professionals with experience in data modeling, transformation, and analytics. Learners should have prior experience translating business requirements into analytical measures by using Structured Query Language (SQL) or Data Analysis Expressions (DAX). Experience building semantic models and reports in Power BI is recommended. Familiarity with Kusto Query Language (KQL) and Python is also helpful but not required.

Course Outline

Module 1: Explore analytics data stores in Microsoft Fabric

Understand how Microsoft Fabric unifies analytics storage through OneLake, and evaluate when to use lakehouses, warehouses, or eventhouses for your data workloads.

- Introduction to end-to-end analytics using Microsoft Fabric
- Discover and connect to data in OneLake
- Get started with lakehouses in Microsoft Fabric
- Get started with data warehouses in Microsoft Fabric
- Get started with Real-Time Intelligence in Microsoft Fabric

Module 2: Design and transform analytics data in Microsoft Fabric

Design dimensional models and apply transformations using dataflows, Spark notebooks, and T-SQL to produce consistent, analysis-ready data in Microsoft Fabric.

- Choose data stores in Microsoft Fabric
- Design dimensional models for analytics in Microsoft Fabric
- Transform data using Dataflows Gen2 in Microsoft Fabric
- Transform data using notebooks in Microsoft Fabric
- Transform data using T-SQL in Microsoft Fabric

Module 3: Design and manage semantic models in Microsoft Fabric

Create semantic models that serve reliable, governed analytics at scale — from initial DAX logic through performance optimization, data access control, and automated lifecycle management.

- Create DAX calculations in semantic models
- Design semantic models for scale in Microsoft Fabric
- Optimize semantic model performance
- Enforce semantic model security
- Manage the semantic model development lifecycle

Module 4: Prepare AI-ready analytics data in Microsoft Fabric

Prepare your semantic layer for AI by adding metadata and linguistic context to gold-layer data stores and semantic models, then generate ontologies that AI agents use to answer business questions.

- Prepare the semantic layer for AI in Microsoft Fabric
- Understand Microsoft Fabric IQ fundamentals
- Create an ontology with Fabric IQ

Module 5: Secure and govern analytics data in Microsoft Fabric

Implement layered access controls across Microsoft Fabric workspaces and data stores, then establish governance policies that help consumers identify trustworthy, certified analytics assets.

- Secure data access in Microsoft Fabric
- Secure a Microsoft Fabric data warehouse
- Govern data in Microsoft Fabric with Purview
- Govern analytics data in Microsoft Fabric

Prerequisites

- Familiarity with data concepts and terminology
- Experience working with data stores such as lakes or warehouses
- Familiarity with SQL query syntax
- Understanding of data modeling concepts such as tables, relationships, and keys
- Experience building reports in Power BI
- Familiarity with DAX syntax including measures and calculated columns
- Understanding of dimensional data modeling design concepts
- Experience designing and publishing semantic models in Microsoft Fabric
- Familiarity with DAX measures and relationships in semantic models
- Basic understanding of how AI agents consume structured data
- Experience administering Microsoft Fabric workspaces
- Familiarity with role-based access control concepts
- Understanding of data sensitivity classification and labeling