

# AI-powered Analytics with Microsoft Fabric

## Course Overview

Duration - 16 Hours | Level - Intermediate

Microsoft Fabric is an all-in-one analytics solution for enterprises that covers everything from data movement to data science, and business intelligence. Attend this course to learn more about this comprehensive suite of services, including Data Engineering, Data Warehousing and Data Insights, all in one place. Learn how to implement this easy-to-use product that is designed to simplify analytics needs of enterprises.

## Course Modules

### Day 1

#### Module 1 - Introduction to Microsoft Fabric

Microsoft Fabric - The unified data platform for AI transformation

Copilot in Microsoft Fabric

Administer Microsoft Fabric

#### Module 2 - Get started with Data Engineering experiences using Microsoft Fabric

Data Engineering in Microsoft Fabric

Work with Lakehouse

OneLake Shortcut Transformations

Data integration and transformation with Data Factory in Microsoft Fabric

Transform and enrich data seamlessly with AI functions

Manage a Workspace with git

#### Hands on labs

Use Case 1 - Create a Lakehouse, ingest sample data and build a report

Use Case 2 - Perform Sentiment analysis and Text translation with AI functions in Microsoft Fabric

### Day 2

#### Module 3 - Data Engineering using Apache Spark, Delta Lakes and Notebooks

Apache Spark in Microsoft Fabric

Delta Lake tables optimization and V-Order  
Use Microsoft Fabric Notebooks  
Microsoft Fabric extension for Visual Studio Code  
Spark Administration settings

## **Module 4 – Secure and govern data with Microsoft Purview**

Secure data with Microsoft Purview  
Data governance with Microsoft Purview

### **Hands on labs**

Use Case 3 - Analyze data with Apache Spark  
Use Case 4 - A Data Factory solution for moving and transforming data with dataflows and data pipelines

## **Day 3**

## **Module 5 - Performance at scale with Data Warehousing in Microsoft Fabric**

Data Warehousing in Microsoft Fabric  
Data ingestion options  
Mirror databases in Microsoft Fabric  
Dimensional modeling  
Query and monitor the Data Warehouse  
Power BI semantic models in Microsoft Fabric  
Warehouse snapshots  
Manage performance

### **Hands on labs**

Use Case 5 - Build a Sales and Geography Data Warehouse for Contoso in Microsoft Fabric  
Use Case 6 - Real-Time Intelligence and Data Warehousing with AbboCost in Microsoft Fabric  
Use Case 7 - Secure a Microsoft Fabric Data Warehouse

## **Day 4**

## **Module 6 - Data insights with AI in Microsoft Fabric**

Data Science in Microsoft Fabric  
Prepare Data  
Track models and experiments  
Train machine learning models  
Automated Machine Learning (AutoML)

Model Scoring

## **Module 7 - Agentic AI with Microsoft Fabric and Azure AI Foundry**

Enhance data interaction with Fabric data agent

Deliver Agentic AI experiences with Azure AI Foundry

### **Hands on labs**

Use Case 8 - Train and track a model in Microsoft Fabric

Use Case 9 - Implement a Data Science scenario in Microsoft Fabric

Use Case 10 - Identify and extract text with Document Intelligence in Microsoft Fabric

Use Case 11 - Chat with your data using Fabric data agent (Optional)