

DP-604T00: Implement a data science and machine learning solution for AI with Microsoft Fabric

Course Description

Explore the data science process and learn how to train machine learning models to accomplish artificial intelligence in Microsoft Fabric. This training equips you with hands-on skills in notebooks, model tracking with MLflow, and deploying solutions for batch predictions—all within Microsoft Fabric's unified analytics platform.

Duration : 8 hours

Prerequisites

You should be familiar with:

- Basic data concepts and terminology
- Fundamental understanding of machine learning workflows
- Experience working with structured data is helpful but not required

Learning Objectives

By the end of this course, you'll be able to:

- Navigate Microsoft Fabric's tools for data science and machine learning
- Perform data exploration using notebooks and Data Wrangler
- Train, track, and manage ML models using MLflow within Fabric
- Deploy models and generate batch predictions using Delta tables
- Collaborate across teams within Fabric's unified environment

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Module 01. Introduction to end-to-end analytics using Microsoft Fabric

- Explore end-to-end analytics with Microsoft Fabric
- Explore data teams and Microsoft Fabric
- Enable and use Microsoft Fabric

Module 02. Get started with data science in Microsoft Fabric

- Understand the data science process
- Explore and process data with Microsoft Fabric
- Train and score models with Microsoft Fabric
- Exercise - Explore data science in Microsoft Fabric

Module 03. Explore data for data science with notebooks in Microsoft Fabric

- Explore notebooks
- Load data for exploration
- Understand data distribution
- Check for missing data in notebooks
- Apply advanced data exploration techniques
- Visualize charts in notebooks
- Exercise - Use notebook for data exploration in Microsoft Fabric

Module 04. Preprocess data with Data Wrangler in Microsoft Fabric

- Understand Data Wrangler
- Perform data exploration
- Handle missing data
- Transform data with operators

- Exercise - Preprocess data with Data Wrangler in Microsoft Fabric

Module 05. Train and track machine learning models with MLflow in Microsoft Fabric

- Understand how to train machine learning models
- Train and track models with MLflow and experiments
- Manage models in Microsoft Fabric
- Exercise - Train and track a model in Microsoft Fabric

Module 06. Generate batch predictions using a deployed model in Microsoft Fabric

- Customize the model's behavior for batch scoring
- Prepare data before generating predictions
- Generate and save predictions to a Delta table
- Exercise - Generate and save batch predictions