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

Course Outline

Get started with data science in Microsoft Fabric

- Understand the data science process
- Train models with notebooks in Microsoft Fabric
- Track model training metrics with MLflow and experiments
- Lab: Explore data science in Microsoft Fabric

Explore data for data science with notebooks in Microsoft Fabric

- Load data and perform initial data exploration
- Gain knowledge about different types of data distributions
- Understand the concept of missing data, and strategies to handle missing data effectively
- Visualize data using various data visualization techniques and libraries
- Lab: Use notebook for data exploration in Microsoft Fabric

Preprocess data with Data Wrangler in Microsoft Fabric

- Learn Data Wrangler features, and its role in the data science workflow
- Perform different types of preprocessing operations in data science
- Learn how to handle missing values, and imputation strategies
- Use one-hot encoding and other techniques to convert categorical data into a format suitable for machine learning algorithms
- Lab: Preprocess data with Data Wrangler in Microsoft Fabric

Train and track machine learning models with MLflow in Microsoft Fabric

- Train machine learning models with open-source frameworks
- Train models with notebooks in Microsoft Fabric
- Track model training metrics with MLflow and experiments in Microsoft Fabric
- Lab: Train and track a model in Microsoft Fabric

Generate batch predictions using a deployed model in Microsoft Fabric

- Save a model in the Microsoft Fabric workspace
- Prepare a dataset for batch predictions
- Apply the model to dataset to generate new predictions
- Save the predictions to a Delta table
- Lab: Generate and save batch predictions