

**Implement Data Science and Machine Learning for AI in Microsoft Fabric (DP-604)**

**Course Number:** MOC-DP-604
**Duration:** 1 day

**Overview**

This official Microsoft course, Implement Data Science and Machine Learning for AI in Microsoft Fabric (DP-604T00), teaches attendees how to use notebooks and Data Wrangler to explore and preprocess data in Microsoft Fabric. Students also learn how to train and track machine learning models and then use a deployed model to generate batch predictions.

**Prerequisites**

Students should be familiar with basic data concepts and terminology.

**Materials**

All Microsoft training students receive Microsoft official courseware.

For all Microsoft Official Courses taught in their entirety that have a corresponding certification exam, an exam voucher is included for each participant.

**Software Needed on Each Student PC**

Attendees will not need to install any software on their computers for this class. The class will be conducted in a remote environment that Accelebrate will provide; students will only need a local computer with a web browser and a stable Internet connection. Any recent version of Microsoft Edge, Mozilla Firefox, or Google Chrome will work well.

**Objectives**

* Manage data, notebooks, experiments, and models while easily accessing data from across an organization
* Use Microsoft Fabric notebooks to uncover hidden patterns and relationships in datasets
* Use Data Wrangler to clean data, handle missing values, and transform features to build Machine Learning models
* Train models in notebooks, track work in experiments, and manage models with MLflow
* Save and use machine learning models in Microsoft Fabric to generate batch predictions and enrich data

**Outline**

* Introduction
* 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
* 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
* Preprocess data with Data Wrangler in Microsoft Fabric
	+ Understand Data Wrangler
	+ Perform data exploration
	+ Handle missing data
	+ Transform data with operators
* 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
* 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
* Conclusion