

# Implement a data science and machine learning solution for AI in Microsoft Fabric (DP-604)

## Description

### Implementing a data science solution with Microsoft Fabric

The DP-604 training teaches you how to leverage data science to create high-performance Machine Learning models. You will discover how to use Microsoft Fabric to manage, explore, and preprocess your data. You will learn to train, track, and deploy your AI models while collaborating effectively with your team. You will explore notebooks to analyze your data, use Data Wrangler for preprocessing, and deploy your models with MLflow. Each module includes practical exercises to help you master every step of the process.

With DP-604, you will develop key data science skills. You will learn how to transform raw data into predictive models and generate batch predictions. This training prepares you to optimize your AI projects by fully leveraging the capabilities of Microsoft Fabric.

### Using Machine Learning to create artificial intelligence

This training is designed for professionals looking to master Machine Learning to enhance their data science skills. You will learn how to configure your environments, train models, and track your results. By the end of the course, you will be able to generate predictions and integrate your AI models into your data systems.

## Course Content

### Module 1: Introduction to end-to-end analytics using Microsoft Fabric

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

### Module 2: 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

### Module 3: Explore data for data science with notebooks in Microsoft Fabric

- Explore notebooks and their functionalities
- Load data for exploration
- Understand data distribution
- Check for missing data in notebooks
- Apply advanced data exploration techniques
- Visualize charts in notebooks

### Module 4: Preprocess data with Data Wrangler in Microsoft Fabric

- Understand the role of Data Wrangler

- Perform data exploration
- Handle missing data
- Transform data with operators

## **Module 5: 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

## **Module 6: 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

## **Lab / Exercises**

- Ce cours vous donne un accès exclusif au laboratoire officiel Microsoft, vous permettant de mettre en pratique vos compétences dans un environnement professionnel.

## **Documentation**

- Accès à Microsoft Learn, la plateforme d'apprentissage en ligne Microsoft, offrant des ressources interactives et des contenus pédagogiques pour approfondir vos connaissances et développer vos compétences techniques.

## **Participant profiles**

- Data Scientist
- Data Analyst
- Data Engineer

## **Prerequisites**

- Understand the basics of data science
- Know the terminology of Machine Learning
- Have basic data processing skills

## **Objectives**

- Understand the data science process
- Explore and process data with Microsoft Fabric
- Preprocess data with Data Wrangler
- Train and track Machine Learning models
- Manage models with MLflow
- Generate batch predictions

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## **Niveau**

Fondamental

## **Classroom Registration Price (CHF)**

900

## **Virtual Classroom Registration Price (CHF)**

850  
**Duration (in Days)**  
1  
**Reference**  
DP-604