

# DP-090: Implementing a Machine Learning Solution with Microsoft Azure Databricks

- **Formato do curso:** Presencial e Live Training
- **Localidade:** Porto
- **Data:** 18 Set. 2023 a 18 Set. 2023
- **Preço:** 530€
- **Horário:** Laboral - 09h00 - 17h00
- **Duração:** 7 horas

Azure Databricks is a cloud-scale platform for data analytics and machine learning. In this one-day course, you'll learn how to use Azure Databricks to explore, prepare, and model data; and integrate Databricks machine learning processes with Azure Machine Learning.

## Destinatários

This course is designed for data scientists with experience of Python who need to learn how to apply their data science and machine learning skills on Azure Databricks

## Pré-requisitos

- Before attending this course, you should have experience of using Python to work with data, and some knowledge of machine learning concepts.

## Objectivos

- Provision an Azure Databricks workspace and cluster
- Use Azure Databricks to train a machine learning model
- Use MLflow to track experiments and manage machine learning models
- Integrate Azure Databricks with Azure Machine Learning

# Programa

## **Get started with Azure Databricks**

- Understand Azure Databricks
- Provision Azure Databricks workspaces and clusters
- Work with notebooks in Azure Databricks
- Exercise - Get started with Azure Databricks
- Knowledge check

## **Work with data in Azure Databricks**

- Understand dataframes
- Query dataframes
- Visualize data
- Exercise - Work with data in Azure Databricks
- Knowledge check

## **Prepare data for machine learning with Azure Databricks**

- Understand machine learning concepts
- Perform data cleaning
- Perform feature engineering
- Perform data scaling
- Perform data encoding
- Exercise - Prepare data for machine learning
- Knowledge check

## **Train a machine learning model with Azure Databricks**

- Understand Spark ML
- Train and validate a model
- Use other machine learning frameworks
- Exercise - Train a machine learning model
- Knowledge check

## **Use MLflow to track experiments in Azure Databricks**

- Understand capabilities of MLflow
- Use MLflow terminology
- Run experiments
- Exercise - Use MLflow to track an experiment
- Knowledge check

## **Manage machine learning models in Azure Databricks**

- Describe considerations for model management
- Register models

- Manage model versioning
- Exercise - Manage models in Azure Databricks
- Knowledge check

### **Track Azure Databricks experiments in Azure Machine Learning**

- Describe Azure Machine Learning
- Run Azure Databricks experiments in Azure Machine Learning
- Log metrics in Azure Machine Learning with MLflow
- Run Azure Machine Learning pipelines on Azure Databricks compute
- Exercise - Use Azure Databricks with Azure Machine Learning
- Knowledge check

### **Deploy Azure Databricks models in Azure Machine Learning**

- Describe considerations for model deployment
- Plan for Azure Machine Learning deployment endpoints
- Deploy a model to Azure Machine Learning
- Troubleshoot model deployment
- Exercise - Deploy an Azure Databricks model in Azure Machine Learning
- Knowledge check

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Ao concluir com aproveitamento esta formação, cumprindo a percentagem mínima de 70% de assiduidade e após avaliação ao curso, o formando poderá receber o seu Certificado Microsoft de conclusão e o badge digital para partilhar com a sua rede profissional online.