

# DP-100: Designing and Implementing a Data Science Solution on Azure

- **Formato do curso:** Presencial e Live Training
- **Localidade:** Porto
- **Data:** 15 Set. 2021 a 17 Set. 2021
- **Preço:** 1170€
- **Horário:** Laboral - das 9h00 às 17h00
- **Duração:** 21 horas

Learn how to operate machine learning solutions at cloud scale using Azure Machine Learning. This course teaches you to leverage your existing knowledge of Python and machine learning to manage data ingestion and preparation, model training and deployment, and machine learning solution monitoring in Microsoft Azure.

## Destinatários

This course is designed for data scientists with existing knowledge of Python and machine learning frameworks like Scikit-Learn, PyTorch, and Tensorflow, who want to build and operate machine learning solutions in the cloud.

## Pré-requisitos

Successful Azure Data Scientists start this role with a fundamental knowledge of cloud computing concepts, and experience in general data science and machine learning tools and techniques. Specifically:

- Creating cloud resources in Microsoft Azure.
- Using Python to explore and visualize data.
- Training and validating machine learning models using common frameworks like Scikit-Learn, PyTorch, and TensorFlow.
- Working with containers

If you are completely new to data science and machine learning, please complete [Microsoft Azure AI Fundamentals](#) first.

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## Objetivos

- Create and publish models without writing code
  - Prepare for Exam DP-100: Designing and Implementing a Data Science Solution on Azure, Exam AI-900: Microsoft Azure AI Fundamentals
  - Create and manage enterprise-ready ML solutions
  - Explore, prepare, and model data; and integrate with Azure Machine Learning
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## Programa

### **Create machine learning models**

- Explore and analyze data with Python
- Train and evaluate regression models
- Train and evaluate classification models
- Train and evaluate clustering models
- Train and evaluate deep learning models

### **Explore visual tools for machine learning**

- Use Automated Machine Learning in Azure Machine Learning
- Create a regression model with Azure Machine Learning designer
- Create a classification model with Azure Machine Learning designer
- Create a clustering model with Azure Machine Learning designer

### **Build and operate machine learning solutions with Azure Machine Learning**

- Introduction to the Azure Machine Learning SDK
- Train a machine learning model with Azure Machine Learning
- Work with Data in Azure Machine Learning
- Work with Compute in Azure Machine Learning
- Orchestrate machine learning with pipelines
- Deploy real-time machine learning services with Azure Machine Learning
- Deploy batch inference pipelines with Azure Machine Learning
- Tune hyperparameters with Azure Machine Learning
- Automate machine learning model selection with Azure Machine Learning
- Explore differential privacy
- Explain machine learning models with Azure Machine Learning
- Detect and mitigate unfairness in models with Azure Machine Learning
- Monitor models with Azure Machine Learning
- Monitor data drift with Azure Machine Learning
- Explore security concepts in Azure Machine Learning

### **Build and operate machine learning solutions with Azure Databricks**

- Get started with Azure Databricks
- Work with data in Azure Databricks
- Prepare data for machine learning with Azure Databricks
- Train a machine learning model with Azure Databricks
- Use MLflow to track experiments in Azure Databricks
- Manage machine learning models in Azure Databricks
- Track Azure Databricks experiments in Azure Machine Learning
- Deploy Azure Databricks models in Azure Machine Learning
- Tune hyperparameters with Azure Databricks
- Distributed deep learning with Horovod and Azure Databricks

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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.