

# Performing Big Data Engineering on Microsoft Cloud Services (20776)

- **Formato do curso:** Presencial
- **Localidade:** Porto
- **Data:** 13 Mai. 2019 a 24 Mai. 2019
- **Preço:** 1670€
- **Horário:** Pós-laboral - das 18h30 às 22h00
- **Duração:** 35 horas

## Destinatários

The primary audience for this course is data engineers (IT professionals, developers, and information workers) who plan to implement big data engineering workflows on Azure.

## Pré-requisitos

- A good understanding of Azure data services.
- A basic knowledge of the Microsoft Windows operating system and its core functionality.
- A good knowledge of relational databases.

## Objetivos

- Describe common architectures for processing big data using Azure tools and services.
- Describe how to use Azure Stream Analytics to design and implement stream processing over large-scale data.
- Describe how to include custom functions and incorporate machine learning activities into an Azure Stream Analytics job.
- Describe how to use Azure Data Lake Store as a large-scale repository of data files.
- Describe how to use Azure Data Lake Analytics to examine and process data held in Azure Data Lake Store.
- Describe how to create and deploy custom functions and operations, integrate with Python and R, and protect and optimize jobs.
- Describe how to use Azure SQL Data Warehouse to create a repository that can support large-scale

analytical processing over data at rest.

- Describe how to use Azure SQL Data Warehouse to perform analytical processing, how to maintain performance, and how to protect the data.
  - Describe how to use Azure Data Factory to import, transform, and transfer data between repositories and services.
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## Programa

### **Architectures for Big Data Engineering with Azure**

- Understanding Big Data
- Architectures for Processing Big Data
- Considerations for designing Big Data solutions

### **Processing Event Streams using Azure Stream Analytics**

- Introduction to Azure Stream Analytics
- Configuring Azure Stream Analytics jobs

### **Performing custom processing in Azure Stream Analytics**

- Implementing Custom Functions
- Incorporating Machine Learning into an Azure Stream Analytics Job

### **Managing Big Data in Azure Data Lake Store**

- Using Azure Data Lake Store
- Monitoring and protecting data in Azure Data Lake Store

### **Processing Big Data using Azure Data Lake Analytics**

- Introduction to Azure Data Lake Analytics
- Analyzing Data with U-SQL
- Sorting, grouping, and joining data

### **Implementing custom operations and monitoring performance in Azure Data Lake Analytics**

- Incorporating custom functionality into Analytics jobs
- Managing and Optimizing jobs

### **Implementing Azure SQL Data Warehouse**

- Introduction to Azure SQL Data Warehouse
- Designing tables for efficient queries
- Importing Data into Azure SQL Data Warehouse

### **Performing Analytics with Azure SQL Data Warehouse**

- Querying Data in Azure SQL Data Warehouse
- Maintaining Performance
- Protecting Data in Azure SQL Data Warehouse

### **Automating the Data Flow with Azure Data Factory**

- Introduction to Azure Data Factory
- Transferring Data
- Transforming Data
- Monitoring Performance and Protecting Data