

## Hadoop Fundamentals

- **Formato do curso:** Presencial e Live Training
- **Localidade:** Porto
- **Data:** 05 Set. 2022 a 07 Set. 2022
- **Preço:** 900€
- **Horário:** Laboral - das 09h30 às 16h30
- **Duração:** 18 horas

This Hadoop Fundamentals course teaches you the basics of Apache Hadoop and the concept of Big Data.

### Destinatários

- This course targets it professionals that want to start learning Hadoop.

### Pré-requisitos

- Participants of this course need to have some understanding of Java/Python programming and SQL.

### Objectivos

- It takes you on a journey that explains the Hadoop conceptual design
- It looks how to use the application and then manipulate data without the use of complex coding.

### Programa

#### **Hadoop 3: Background and Introduction**

- How it all started
- What Hadoop is and why it is important
- How Apache Hadoop works
- Hadoop 3.x releases and new features
- Choosing the right Hadoop distribution

#### **Planning and Setting Up Hadoop Clusters**

- Prerequisites for Hadoop setup
- Running Hadoop in standalone mode
- Setting up a pseudo Hadoop cluster
- Planning and sizing clusters
- Setting up Hadoop in cluster mode
- Diagnosing the Hadoop cluster

## **Hadoop Distributed File System**

- How HDFS works
- Key features of HDFS
- Data flow patterns of HDFS
- HDFS configuration files
- Hadoop filesystem CLIs
- Working with data structures in HDFS

## **Developing MapReduce Applications**

- How MapReduce works
- Configuring a MapReduce environment
- Understanding Hadoop APIs and packages
- Setting up a MapReduce project
- Deep diving into MapReduce APIs
- Compiling and running MapReduce jobs
- Streaming in MapReduce programming

## **Building Rich YARN Applications**

- Understanding YARN architecture
- Key features of YARN
- Configuring the YARN environment in a cluster
- Working with YARN distributed CLI
- Deep dive with YARN application framework
- Building and monitoring a YARN application on a cluster

## **Monitoring and Administration of a Hadoop Cluster**

- Roles and responsibilities of Hadoop administrators
- Planning your distributed cluster
- Resource management in Hadoop
- High availability of Hadoop
- Securing Hadoop clusters
- Performing routine tasks

## **Demystifying Hadoop Ecosystem Components**

- Understanding Hadoop's Ecosystem
- Working with Apache Kafka

- Understanding Hive
- Using HBase for NoSQL storage

### **Other Topics in Apache Hadoop**

- Hadoop use cases in industries
- Advanced Hadoop data storage file formats
- Data analytics with Apache Spark