



## Hadoop Fundamentals

Tecnologias de Informação - Data & Analytics

Promoção: **Curso com 10% de desconto** Aproveite já!

Live Training ( também disponível em presencial )

- **Localidade:**
- **Data:** 07 Apr 2025
- **Preço:** 1080 € ( Os valores apresentados não incluem IVA. Oferta de IVA a particulares e estudantes. )
- **Horário:** Laboral das 09h00 - 12h30
- **Nível:**
- **Duração:** 18h

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## Sobre o curso

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

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## Destinatários

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

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## Objetivos

- 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.

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## Pré-requisitos

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

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## Programa

- Hadoop 3: Background and Introduction
- Planning and Setting Up Hadoop Clusters
- Hadoop Distributed File System

- Developing MapReduce Applications
- Building Rich YARN Applications
- Monitoring and Administration of a Hadoop Cluster
- Demystifying Hadoop Ecosystem Components
- Other Topics in Apache Hadoop

### **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