

Big Data Foundation Certification

Course Summary

Description

This is a foundation level course designed to provide you with an understanding of Big Data, the potential sources of Big Data that can be used for solving real business problems and also provide an overview of Data Mining and the tools used in it.

This is a fundamental course with practical exercises designed to provide you with some degree of hands-on experience in using two of the most popular technologies in Big Data processing – Hadoop and MongoDB. You will get the opportunity to practice installing these two technologies through our Work-Labs. The course exposes you to real-life Big Data technologies with the purpose of obtaining results from real datasets from Twitter. After completing the course, you will be equipped not only with fundamental Big Data knowledge, but will also be introduced to a working development environment containing Hadoop and MongoDB, installed by yourself. This practical knowledge can be used as a starting point in the organizational Big Data journey.

Objectives

By the end of this course, students will be able to: Big Data fundamentals

- Big Data fundamentals
- Big Data technologies
- Big Data governance
- Available Sources of Big Data
- Data Mining, its concepts and some of the tools used for Data Mining
- Hadoop, including its concepts, how to install and configure it, the concepts behind MapReduce, and how Hadoop can be used in real life scenarios
- MongoDB, including its concepts, how to install and configure it, the concepts behind document databases and how MongoDB can be used in real life scenarios

Topics

- Big Data Fundamentals
- Big Data Technologies – Overview
- Big Data Success Stories
- Big Data – Privacy and Ethics
- Big Data Projects
- Big Data Sources
- Data Mining – Concepts and Tools
- Big Data Technologies - MongoDB

Audience

This course is best suited to Information Technology professionals who possess intermediate to advanced programming, system administration or relational database skills and are looking to move into the area of Big Data. These include:

- Software Engineers
- Application Developers
- IT architects
- System administrators

The course can also be of benefit to other professionals, e.g. business, research, etc., who possess strong Information Technology skills and have a deep interest in Big Data analytics and the benefits it can bring to an organization.

Prerequisites

There are no prerequisites for this course.

Duration

Two days

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Course Outline

- I. Course Introduction**
 - A. Course Learning Objectives
 - B. Course Agenda
 - C. Case Study
 - D. Activities
 - E. Module End Questions and Exam
 - F. Course Book
 - G. Cloud Credential Council
 - H. Certification Value
- II. Big Data Fundamentals**
 - A. Big Data – History, Overview and Characteristics
 - B. Big Data Technologies – Overview
 - C. Big Data Success Stories
 - D. Big Data – Privacy and Ethics
 - E. Big Data Projects
- III. Big Data Sources**
 - A. Enterprise Data Sources
 - B. Social Media Data Sources
 - C. Public Data Sources
- IV. Data Mining – Concepts and Tools**
 - A. Data Mining – Introduction
 - B. Data Mining – Tools
- V. Big Data Technologies – Hadoop**
 - A. Hadoop Fundamentals
 - B. Install and Configure
 - C. MapReduce
 - D. Data Processing with Hadoop
- VI. Big Data Technologies - MongoDB**
 - A. MongoDB Fundamentals
 - B. Install and Configure
 - C. Document Databases
 - D. Data Modelling with Document Databases
- VII. Exam Preparation Guide**
 - A. Mock Exam