

Module Title : Big Data Foundation

Duration : 2 days

Overview

Certificate: Big Data Foundation (from CCC)

Accreditor: Cloud Credential Council

Duration: 2 days

Language: English

Course Delivery: Classroom

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 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.

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, such as business analytics and research analytics, who possess strong Information Technology skills and have a deep interest in Big Data analytics and the benefits it can bring to an organization.

Learning Objectives

Individuals certified at this level will have demonstrated their understanding of:

- 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

Benefits of taking this course

Participants in this course will obtain the following benefits:

- Detailed understanding of Big Data and Data Mining concepts.
- Ability to identify and obtain relevant datasets when looking at a business problem.
- Ability to install and manage Big Data processing environments based on Hadoop or MongoDB at a departmental level.

Prerequisites

None

Course Materials

For Participants:

- Course Book
- eBook
- Labs

For Instructor:

- Presentations

- Course Book (E-book)

Examination

- Exam Format: closed-book format.
- Exam Delivery: Online and paper-based
- Questions: 40 questions
- Passing Score: 65%
- Exam Duration: 60 minutes. 15 minutes extra time for non-native English speakers
- Proctoring: Web proctoring

Technical Requirements

For eBooks:

- Internet is required only for downloading the eBook. The eBooks can be read offline.
- eBooks can be downloaded and read on the following devices Laptop, tablet, Smart Phone, eReader PDF Reader, recommended Adobe Reader.
- Instructions for download are available [here](#).

For practical exercises:

- Laptop with a minimum of 4GB RAM
- Participants need to bring laptops

Agenda

Day 1	Day 2
1. Course Introduction	5. Big Data Technologies – Hadoop
2. Big Data Fundamentals	6. Big Data Technologies – MongoDB
3. Big Data Sources	7. Exam Preparation Guide
4. Data Mining – Concepts and Tools	

Course Outline

Module 1: Course Introduction

- 1.1 Course Learning Objectives
- 1.2 Course Agenda
- 1.4 Activities
- 1.5 Exam
- 1.6 Course Book
- 1.7 Cloud Credential Council®(CCC)
- 1.8 Certification Value

Module 2: Big Data Fundamentals

- 2.1 Big Data – History, Overview, and Characteristics
- 2.2 Big Data Technologies – Overview
- 2.3 Big Data Success Stories
- 2.4 Big Data – Privacy and Ethics
- 2.5 Big Data Projects

Module 3: Big Data Sources

- 3.1 Enterprise Data Sources
- 3.2 Social Media Data Sources
- 3.3 Public Data Sources

Module 4: Data Mining – Concepts and Tools

- 4.1 Data Mining – Introduction
- 4.2 Data Mining – Tools

Module 5: Big Data Technologies – Hadoop

- 5.1 Hadoop Fundamentals
- 5.2 Install and Configure
- 5.3 MapReduce
- 5.4 Data Processing with Hadoop

Module 6: Big Data Technologies – MongoDB

- 6.1 MongoDB Fundamentals
- 6.2 Install and Configure
- 6.3 Document Databases
- 6.4 Data Modelling with Document Databases

Module 7: Exam Preparation Guide

- 7.1 Qualification Learning Objectives
- 7.2 Learning Level of the Syllabus



- 7.3 Certification
- 7.4 Exam Instructions
- 7.5 Tips for Exam Taking
- 7.6 Mock Exam