



Digital Transformation and Innovation

Big Data Analytics for Managers & Business Leaders

Course Introduction

This training course is designed to provide participants with the essential concepts of Big Data and how they can utilize it to advanced decision-making and business benefits.

As managers or specialists are expected to decipher insights from an organization-wide IT system and be able to provide precise analysis and recommendations for senior managers/executives. This course will highlight topics such as cutting-edge techniques to recognize Big Data trends, and toolset for data analysis to help them make better decisions and recommendations.

Target Audience

This course is designed for business professionals handling functions related to data and data analysis such as strategists, programme/project managers, analysts, and business process managers.

Learning Objectives

- Gain an in-depth understanding of the data lifecycle from source to destination
- Discuss the nature of Big Data and technologies in place for storing Big Data
- Enhance understanding on big data to formulate business strategy
- Explore projects on Big Data analysis for decision-making
- Recognize patterns in data and choose the best tools for analysis

Course Outline

- **Day 01**

- **What is data and how does it come into existence?**
- Data lifecycle – From cradle to grave
- From data generation, data processing and data analysis to data-driven insights
- Translating data insights into business insights
- Classification of data
- Structured vs. semi-structured vs. unstructured data
- Continuous vs. categorical data
- Nominal vs. ordinal data
- Demystifying data terminology
- Big Data -- Data Analytics -- Data Science -- Data Intelligence -- Data Insights

- **Day 02**

- **Big Data project overview**
- Different stakeholders in a typical Big Data project
- Role of each stakeholder in the data landscape – Data Analysts vs. Data Scientists vs. Big Data Engineers
- Overview of Big Data and its proliferation over the last decade
- Big Data landscape overview
- Different tools and technologies that have come into existence for addressing Big Data
- Four dimensions of Big Data – Volume, Velocity, Variety, Veracity
- Functional nuances of the four V's of Big Data
- Apache Software Foundation – The cornerstone of the modern open source software ecosystem
- Apache Foundation tools and technologies for Big Data

- **Day 03**

- Introduction to the Hadoop ecosystem
- Overview of Hadoop, MapReduce, YARN and Spark and some of the other key components of the Big Data world · Different computing frameworks in the Big Data computing world
- Cluster computing vs. parallel computing vs. distributed computing
- Utility of each of the frameworks and application scenarios
- Building an analytics layer for Big Data problem statements

- **Day 04**

- **Data analytics for Big Data**
- Analytics to explore and prepare data models

- Identify the type of analytics problem to apply the appropriate set of techniques
- Scenarios and Use Cases – Big Data with analytics and data science
- Delivering business benefit from Big Data
- Establishing the business importance of Big Data
- Data governance and cybersecurity

Application of Big data for analytical decision-making

- Data flow management and data pipelines
- How to design data pipelines for effective data flow
- Master data management
- Governance, policies, processes, standards and tools
- Big Data modelling and management systems
- Why a Big Data infrastructure plan is needed
- Different types of databases – Relational Database Management System (RDBMS), data warehouse, data lakes, SQL vs. No-SQL
- Real-time streaming data vs. batch data - Cloud computing vs. on-premise computing
- Differences between a traditional database management system and a Big Data management system

Confirmed Sessions

| FROM | TO | DURATION | FEES | LOCATION |
|----------------|----------------|----------|------------|-------------------|
| April 14, 2025 | April 17, 2025 | 4 days | 4250.00 \$ | UAE - Dubai |
| July 6, 2025 | July 9, 2025 | 4 days | 2150.00 \$ | Virtual - Online |
| Sept. 1, 2025 | Sept. 4, 2025 | 4 days | 4250.00 \$ | UAE - Dubai |
| Nov. 3, 2025 | Nov. 6, 2025 | 4 days | 4950.00 \$ | Spain - Barcelona |