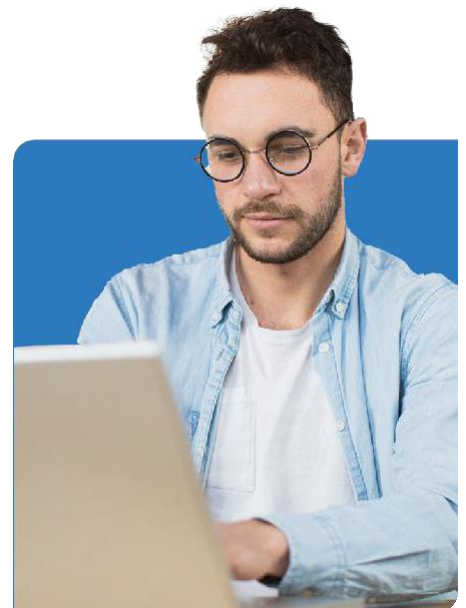




Introduction to Big Data

TDXBI-106



ThriveDX Introduction to Big Data

Time Commitment

2 days (total of 16 hours / 8 hours per day)

Skill Level

Professional Level

Course Category

BI & Big Data

The term "Big Data" refers to technologies for analyzing and managing data repositories that are unstructured, coming from multiple sources, in varying quantities, and with variable quality.

The course introduces the students to the realm of big data, the basic concepts, tools and techniques.

Objectives

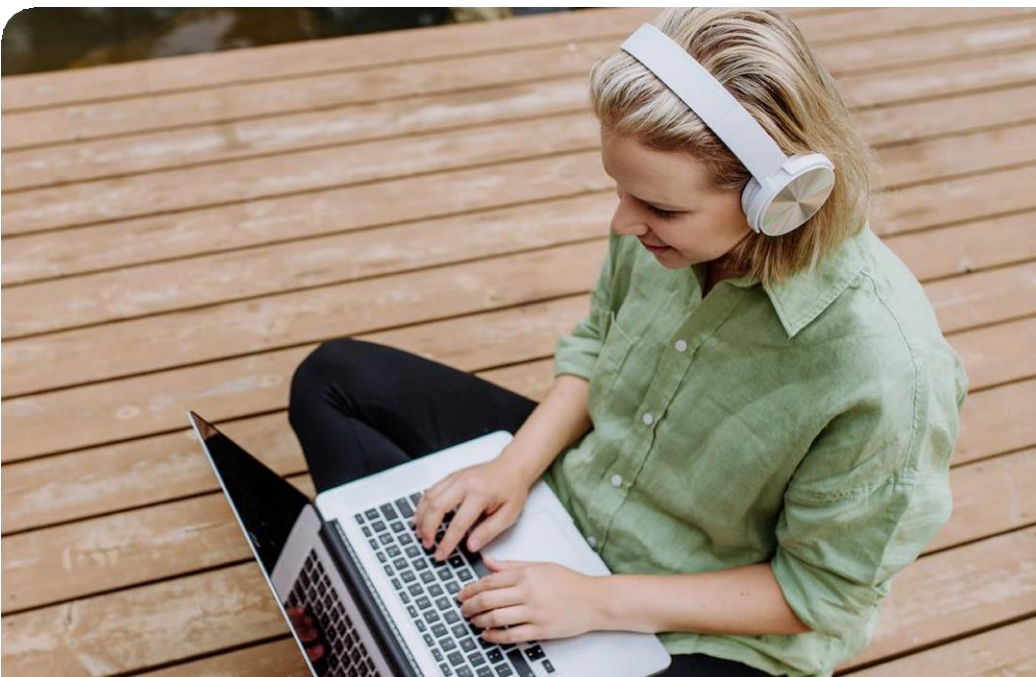
On completing this course, delegates will be able to recognize common solutions that exist in the market for data analysis and processing, choose the correct tools and techniques for practical analysis.

Target Audience

This course is intended for Any employee who is required to process, analyze, and view data on a large scale.

Prerequisites

This course is designed for people with a basic background in the sphere of data applications.



Program Structure

Module 1: Introduction to big data- 2 Hours

What is Big Data?

Why is Big Data important?

Challenges of big data Processing and Analysis

Examples of Big Data use cases

Module 2: Big Data components- 3 Hours

Hadoop ecosystem overview

NoSQL databases

Cloud computing services for Big Data

Module 3: Hadoop- 3 Hours

- Introduction to Hadoop

Hadoop components overview

Hadoop Data File System (HDFS) Distributed Data Processing with YARN, MapReduce, and Spark

Data Processing and Analysis with Spark

SQL

- Big Data Integration with Kafka

Module 4: NoSQL databases - 2 Hours

- What is NoSQL?
- When to use NoSQL databases
- NoSQL families
- Market leaders: MongoDB and Elasticsearch

Module 5: Big Data on the Cloud - 2 Hours

- Introduction to cloud computing
 - Market leaders in cloud computing
 - Big data services on the cloud
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Module 6: Data Management - 2 Hours

- Data storage options for Big Data
- Scalable relational databases
- Enterprise data warehouse
- Loading data into Big Data systems
- Storing query results

Module 7: Introduction to AI and ML - 2 Hours

- Concepts of Artificial Intelligence and Machine Learning
- Market trends in AI and ML

