



*Training Course:  
Data Science & Big Data Analytics*

*8 - 12 December 2024  
Manama (Bahrain)  
Fraser Suites*

## Training Course: Data Science & Big Data Analytics

Training Course code: SC235215 From: 8 - 12 December 2024 Venue: Manama (Bahrain) - Fraser Suites Training Course Fees: 4675 € Euro

### Introduction

In today's data-driven world, the ability to extract meaningful insights from vast amounts of data is a critical skill. Data Science and Big Data Analytics have become essential disciplines, empowering organizations to make informed decisions, optimize processes, and gain a competitive edge. This 5-day training program is designed to provide participants with a comprehensive introduction to the fundamental concepts and tools of Data Science and Big Data Analytics. Whether you're a professional looking to upskill or someone eager to explore the world of data, this program will equip you with the knowledge needed to navigate the data landscape effectively.

### Objectives

The primary objectives of this 5-day training program are as follows:

- **Introduction to Data Science:** Provide participants with a solid understanding of the Data Science workflow and its significance in various industries.
- **Data Analysis with Python:** Familiarize participants with Python, a powerful programming language for data analysis, and equip them with the skills to clean, preprocess, and visualize data.
- **Machine Learning Fundamentals:** Introduce participants to the core concepts of machine learning, including supervised and unsupervised learning, model evaluation, and cross-validation.
- **Advanced Machine Learning:** Dive deeper into advanced machine learning topics such as clustering, dimensionality reduction, and ensemble learning.
- **Big Data Technologies:** Explore the world of Big Data, including Hadoop and Apache Spark, and learn how to process and analyze large datasets efficiently.
- **Hands-on Experience:** Although not explicitly included in this program outline, participants are encouraged to practice what they learn through hands-on exercises and independent projects outside of the training hours.

### Target Audience

This training program is suitable for a diverse range of individuals, including:

- **Professionals:** Data analysts, business analysts, software developers, and IT professionals looking to transition into Data Science and Big Data roles or enhance their existing skills.
- **Students:** Undergraduates or postgraduates in computer science, data science, or related fields seeking a foundational understanding of Data Science and Big Data Analytics.
- **Entrepreneurs and Managers:** Business owners, entrepreneurs, and managers interested in leveraging data-driven insights to improve decision-making and business strategies.
- **Anyone Curious About Data:** Individuals with a general interest in data and analytics who want to explore the world of Data Science and Big Data Analytics.

## Training Program Outline

### Day 1: Introduction to Data Science and Python for Data Analysis

- Overview of Data Science
- Data Science Workflow
- Introduction to Python for Data Analysis
- Data Cleaning and Preprocessing
- Basic Data Visualization

### Day 2: Machine Learning Fundamentals

- Introduction to Machine Learning
- Supervised Learning: Linear Regression, Logistic Regression
- Supervised Learning: Decision Trees, Random Forests
- Model Evaluation and Cross-Validation

### Day 3: Advanced Machine Learning and Big Data

- Unsupervised Learning: Clustering K-Means, Hierarchical
- Dimensionality Reduction PCA
- Introduction to Big Data and Hadoop
- Introduction to Apache Spark

### Day 4: Big Data Analytics with Spark

- Spark Fundamentals and RDDs
- Spark DataFrames and Spark SQL
- Spark Machine Learning MLlib
- Data Analysis with Spark

### Day 5: Conclusion and Recap

- Review of Key Concepts
- Discussion on Real-World Applications
- Q&A and Discussion with Participants
- Graduation and Certificate Distribution

## Registration form on the Training Course: Data Science & Big Data Analytics

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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### Company Information

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### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
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### Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
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