€TRAINING

Big Data Analytics

19 - 23 May 2024
Istanbul (Turkey)
Sheraton Istanbul Levent

Big Data Analytics

REF: G1729 DATE: 19 - 23 May 2024 Venue: Istanbul (Turkey) - Sheraton Istanbul Levent Fee: 5850 Euro

Introduction:

In today's digital age, the volume and variety of data generated are unprecedented. Big data analytics enables organizations to extract valuable insights from this wealth of information, driving informed decision-making. By employing advanced analytics techniques, businesses can uncover hidden patterns and trends within their data. This transformative approach allows for improved efficiency, innovation, and competitive advantage across industries. Through this program, participants will explore the fundamental concepts and applications of big data analytics.

Program Objectives:

By the end of this program, participants will be able to:

- Understand the fundamental principles of big data, including its volume, velocity, variety, and veracity.

- Acquire proficiency in advanced analytical techniques such as data mining, machine learning, and predictive analytics.

- Gain practical experience in utilizing big data technologies and tools like Hadoop, Spark, and NoSQL databases for effective data processing and analysis.

- Apply analytical skills to address real-world challenges and opportunities, driving innovation and optimizing decision-making processes.

- Develop effective communication strategies to convey insights derived from big data analysis to stakeholders in a clear and impactful manner.

Targeted Audience:

- Data scientists and analysts.

- IT professionals specializing in data management and analysis.

- Business intelligence analysts.

- Software developers interested in big data technologies.

- Managers and decision-makers seeking to leverage data-driven insights for strategic planning.

Program Outlines:

Unit 1.

Introduction to Big Data Analytics:

- Overview of big data concepts and challenges.

- Introduction to big data analytics tools and technologies.

- Understanding the importance of big data in business decision-making.

- Exploring real-world applications of big data analytics.

- Discussing ethical considerations in big data analytics.

Unit 2.

Data Processing and Management:

- Understanding data ingestion and storage mechanisms.

- Exploring distributed file systems like HDFS.

- Learning data cleaning and preprocessing techniques.

- Implementing data transformation and normalization processes.

- Discussing data governance and security measures.

Unit 3.

Advanced Analytical Techniques:

- Introduction to data mining and pattern recognition.

- Exploring machine learning algorithms for big data analytics.

- Understanding predictive analytics and forecasting methods.

- Learning natural language processing NLP techniques.

- Implementing sentiment analysis and recommendation systems.

Unit 4.

Big Data Technologies and Tools:

- Overview of Apache Hadoop ecosystem.

- Introduction to Apache Spark for big data processing.

- Exploring NoSQL databases like MongoDB and Cassandra.

- Understanding stream processing frameworks like Apache Kafka.

- Learning cloud-based big data services offered by AWS, Azure, and Google Cloud Platform.

Unit 5.

Application and Deployment:

- Building end-to-end big data analytics pipelines.

- Deploying big data solutions in cloud and on-premises environments.

- Implementing batch and real-time data processing workflows.

- Monitoring and optimizing big data applications for performance.

- Discussing best practices for scaling and maintaining big data infrastructure.