€ TRAINING

Data Mining Essentials

24 - 28 November 2024
Sharm El-Sheikh (Egypt)
Sheraton Sharm Hotel,
Resort,

Data Mining Essentials

REF: G1593 DATE: 24 - 28 November 2024 Venue: Sharm El-Sheikh (Egypt) - Sheraton Sharm Hotel, Resort, Fee: 4095 Euro

Introduction:

In today's business and research landscape, data mining and analysis are pivotal for deriving actionable insights and facilitating informed decision-making. With vast data available, extracting valuable information becomes paramount. Data mining techniques unveil hidden patterns, trends, and correlations, empowering stakeholders to optimize processes, identify opportunities, and mitigate risks.

Program Objectives:

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

- Master fundamental data mining concepts and techniques.

- Develop proficiency in various data analysis methods and tools.

- Understand data preprocessing, transformation, and cleaning processes.

- Apply statistical techniques and machine learning algorithms for analysis.

- Gain expertise in interpreting and visualizing data mining results.

- Apply data mining techniques to real-world datasets and scenarios.

Targeted Audience:

- Data analysts and scientists.

- Business intelligence professionals.

- Researchers and academics.

- Industry professionals.

- Employees from various sectors.

Program Outlines:

Unit 1.

Introduction to Data Mining:

- Overview of data mining concepts and techniques.

- Explanation of data mining process steps.

- Introduction to data preprocessing and cleaning.

- Understanding different types of data mining algorithms.

- Practical examples of data mining applications.

Unit 2.

Data Preprocessing and Transformation:

- Exploring methods for data cleaning and handling missing values.

- Techniques for data transformation and normalization.

- Understanding feature engineering and selection.

- Exploring dimensionality reduction methods.

- Implementing preprocessing techniques using software tools.

Unit 3.

Statistical Analysis for Data Mining:

- Introduction to statistical concepts relevant to data mining.

- Exploring descriptive statistics and probability distributions.

- Understanding hypothesis testing and statistical inference.

- Learning regression analysis techniques.

- Applying statistical analysis methods to real-world datasets.

Unit 4.

Machine Learning Algorithms:

- Overview of machine learning concepts and algorithms.

- Understanding supervised, unsupervised, and semi-supervised learning.

- Exploring classification and regression algorithms.

- Learning clustering and association rule mining techniques.

- Practical examples of machine learning applications.

Unit 5.

Data Visualization and Interpretation:

- Importance of data visualization in data mining.

- Exploring different types of data visualization techniques.

- Understanding best practices for effective data visualization.

- Interpreting data mining results through visualization.

- Hands-on exercises in creating visualizations using software tools.