

Data Mining and Business Intelligence

Course Overview:

The Data Mining and Business Intelligence course is a vital component of modern-day business operations. It focuses on extracting valuable insights from large datasets and utilizing them to make informed business decisions. This course equips students with skills in data analysis, statistical modeling, and predictive analytics. By leveraging these techniques, businesses can uncover hidden patterns, trends, and customer preferences, leading to improved efficiency, targeted marketing strategies, and better overall decision-making.

Delivery Mode:

Face-to-face hands-on training using real-world datasets and scenarios.

Assessment Mode:

Practical exercises and case studies.

Course Objectives:

Upon completion of the course, participants will be able to:

1. Understand the fundamentals of data mining and business intelligence and their significance in modern business environments.
2. Learn techniques for data analysis, including data cleaning, transformation, and visualization.
3. Gain proficiency in statistical modeling and predictive analytics to extract meaningful insights from large datasets.
4. Develop skills to identify hidden patterns, trends, and relationships within data, enabling effective decision-making.
5. Apply data mining and business intelligence tools and methodologies to solve real-world problems and optimize business processes.

Target Audience:

The Data Mining and Business Intelligence course targets professionals and students across industries, interested in leveraging data for business success. It caters for business analysts, data scientists, managers, and aspiring professionals, enhancing their understanding of data-driven decision-making.

Learning Outcomes:

Upon completion of the training, participants will gain the following skills:

- 1) Proficiency in data analysis: Participants will develop a strong foundation in analyzing complex datasets and extracting meaningful insights.
- 2) Expertise in statistical modelling: Participants will learn how to apply statistical techniques to identify patterns, correlations, and trends in data.
- 3) Mastery of predictive analytics: Participants will acquire the ability to utilize predictive models to forecast future outcomes and make data-driven predictions.
- 4) Understanding of business intelligence tools: Participants will become familiar with various business intelligence tools and software, enabling them to effectively visualize and present data.

Fee: 900,000/= for the entire course.

Software: Tableau, Power BI and R Studio

Modules:

The main study modules in the Data Mining and Business Intelligence course include:

- 1) Introduction to Data Mining: An overview of data mining concepts, techniques, and processes.
- 2) Data Preparation and Cleaning: Techniques for preprocessing and transforming data to ensure its quality and usefulness.
- 3) Data Exploration and Visualization: Methods to explore and visualize data to identify patterns and trends effectively.
- 4) Statistical Modeling: Application of statistical techniques to analyze and interpret data for predictive modelling.
- 5) Text Mining and Sentiment Analysis: Analyzing unstructured textual data to extract valuable information, sentiment, and patterns for business intelligence purposes.
- 6) Big Data Analytics: Exploring the challenges and opportunities associated with analyzing and deriving insights from massive datasets using distributed computing frameworks.
- 7) Business Intelligence Tools and Applications: Utilizing popular business intelligence tools and software platforms to visualize data, create interactive dashboards, and support decision-making.
- 8) Predictive Analytics: Utilizing historical data to develop models and make predictions for future outcomes.
- 9) Business Intelligence Tools: Introduction to tools and technologies used for data mining and business intelligence, such as Tableau, Power BI, and SQL.

10) Case Studies and Applications: Practical application of data mining and business intelligence techniques in real-world scenarios.