SIMATS ENGINEERING

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Course Code: DSA0613   **Slot:** A

Course Name: DATA HANDLING AND VISUALIZATION FOR DATA ANALYTICS

Course Faculty: Dr. Kumaragurubaran T & Dr. Senthilvadivu S

Project Title: Smart Sales and Customer Analytics Using Data Visualization
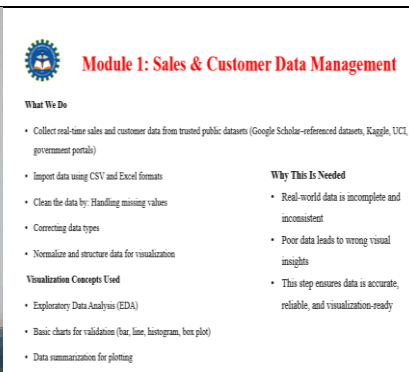
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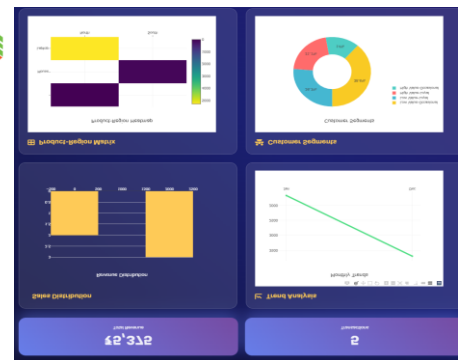

Fig 1:Photo	Fig 2: module 1	Fig 3: Output

Project Description:

Sales and customer data management plays a crucial role in smart business analytics by enabling models and visualization systems to learn meaningful patterns from large-scale transactional data. In this module, sales and customer datasets are processed and structured using data management and preprocessing techniques to support accurate analysis and visualization. This approach allows analytical systems to reuse existing data knowledge while adapting to business-specific patterns and trends.

The dataset includes attributes such as product details, sales volume, revenue, customer information, purchase frequency, and regional data. Data preprocessing techniques such as data cleaning, normalization, and transformation are applied to improve data quality and consistency. This strategy enhances data reliability and reduces noise and inconsistencies in real-world business datasets. Feature engineering techniques are applied to extract meaningful indicators such as total sales, average transaction value, customer value metrics, and regional performance measures.

As a result, systematic sales and customer data management provides a robust and scalable foundation for smart sales analytics and data visualization, enabling accurate interpretation of business performance and informed decision-making.

Student Signature   **Guide Signature**