This project delves into the analysis of e-commerce sales data using SQL for data extraction and Python for exploratory data analysis (EDA), providing insights into sales trends, customer preferences, and product performance.

Project Objectives

- **Data Extraction with SQL**: Utilize SQL queries to retrieve relevant data from relational databases, focusing on sales transactions, customer information, and product details.
- **Exploratory Data Analysis with Python**: Employ Python libraries such as Pandas, NumPy, Matplotlib, and Seaborn to perform EDA, uncovering patterns, trends, and anomalies within the dataset.

Tools and Technologies

- **SQL**: For querying and managing structured data within relational databases.
- **Python**: Utilized for data manipulation and visualization, leveraging libraries such as:
    - **Pandas**: Data manipulation and analysis.
    - **NumPy**: Numerical computing.
    - **Matplotlib & Seaborn**: Data visualization.

Expected Outcomes

By leveraging these query results and visualizations, we have build a comprehensive overview of e-commerce platform's customer base, seasonal trends, product performance, payment behaviour, and revenue drivers.

- **Comprehensive Sales Analysis**: Detailed understanding of sales performance across different time frames and product categories.
- **Customer Behaviour Insights**: Identification of purchasing patterns and customer segmentation.
- **Product Performance Evaluation**: Assessment of top-performing products and inventory turnover rates.