| **Project Title** | **ELECTRONIC PRODUCTS REVENUE ANALYSIS** |
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| **Skills take away From This Project** | **Data Cleaning and Preparation in Excel**  **Data Upload and Management in MySQL**  **SQL Querying for Data Analysis**  **Business Insights Derivation**  **Visualization and Reporting** |
| **Domain** | **Retail Sales** |

**DATASET LINK :** [**all\_data**](https://docs.google.com/spreadsheets/d/1178nqajl4ZqdVTrhfj1_VlOns9jhIJao5pcz-HX7vHA/edit?usp=sharing)

**Problem Statement:**

Analyze retail sales data to extract actionable business insights and provide recommendations based on the analysis.

**Business Use Cases:**

* Identifying the best-performing sales periods
* Understanding geographical sales distribution
* Optimizing advertisement timings for maximum impact
* Recognizing frequently bought together products for effective cross-selling
* Determining the best-selling products and understanding reasons for their performance

**Approach:**

**Data Cleaning in Excel**: Open the provided dataset in Excel, clean the data by handling missing values, correcting data types, and removing any duplicates.

**Data Upload to MySQL**: Import the cleaned data into MySQL database.

**Data Analysis using SQL**: Perform SQL queries to answer the business questions:

* Identify the best month for sales and the total earnings.
* Determine the city with the highest sales.
* Find the optimal time for displaying advertisements.
* Analyze products sold together.
* Identify the best-selling product and reason for its success.

**Report Generation**: Summarize the findings and create a report with recommendations.

**Results:**

By the end of the project, learners should be able to:

* Identify key sales trends and patterns.
* Generate insights for strategic decision-making in retail.
* Present findings in a clear, actionable format.

**Project Evaluation metrics:**

Accuracy and completeness of data cleaning

Correctness and efficiency of SQL queries

Quality of insights derived

Clarity and professionalism of the final report

Adherence to project guidelines and best practices

**Technical Tags:**

Excel

Data Cleaning

MySQL

SQL

Data Analysis

Business Intelligence

**Data Set:**

**Source**: Provided retail sales dataset

**Format**: CSV file containing the following columns:

* Order ID
* Product
* Quantity Ordered
* Price Each
* Order Date
* Purchase Address

**Data Set Explanation:**

The dataset includes retail sales transactions. Key variables include:

* **Order ID**: Unique identifier for each transaction
* **Product**: Name of the product sold
* **Quantity Ordered**: Number of units sold in the transaction
* **Price Each**: Price per unit of the product
* **Order Date**: Date and time of the transaction
* **Purchase Address**: Address where the product was delivered

**Preprocessing Steps**:

Handle missing values

Convert data types (e.g., Order Date to datetime)

Remove duplicates

Parse Purchase Address to extract city information

**Project Deliverables:**

Cleaned dataset in Excel

SQL scripts for data analysis

Final report summarizing the analysis and insights

Presentation slides (optional)

**Project Guidelines:**

Follow coding standards and best practices

Use version control (e.g., Git) for tracking changes

Document all steps and decisions made during the project

Ensure the final report is clear, concise, and well-structured

**PROJECT DOUBT CLARIFICATION SESSION ( PROJECT AND CLASS DOUBTS)**

**About Session:** The Project Doubt Clarification Session is a helpful resource for resolving questions and concerns about projects and class topics. It provides support in understanding project requirements, addressing code issues, and clarifying class concepts. The session aims to enhance comprehension and provide guidance to overcome challenges effectively.

**Note: Book the slot at least before 12:00 Pm on the same day**

**Timing: Saturday (5:00PM to 7:00PM)**

**Booking link :** [**https://forms.gle/NtkQ4UV9cBV7Ac3C8**](https://forms.gle/NtkQ4UV9cBV7Ac3C8)

**LIVE EVALUATION SESSION (CAPSTONE AND FINAL PROJECT)**

**About Session:** The Live Evaluation Session for Capstone and Final Projects allows participants to showcase their projects and receive real-time feedback for improvement. It assesses project quality and provides an opportunity for discussion and evaluation.

**Note: This form will Open on Saturday and Sunday Only on Every Week**

**Timing: Monday-Saturday (11:30PM to 12:30PM)**

**Booking link :** [**https://forms.gle/1m2Gsro41fLtZurRA**](https://forms.gle/1m2Gsro41fLtZurRA)