

# SQL PROJECT

## Basic Analysis

1. Find the total revenue (sum of Quantity \* UnitPrice) generated from all invoices.
2. Count the number of unique products (StockCode) sold.
3. Identify the total number of invoices in the dataset.
4. Find the total quantity of products sold for each StockCode and sort them in descending order.
5. Count the number of transactions (distinct InvoiceNo) per customer (CustomerID).

## Customer Analysis

1. Identify the top 5 customers who have generated the highest revenue.
2. Find the average number of products purchased per customer.
3. Retrieve all transactions made by the customer who has purchased the most products in total.
4. Identify the country with the highest number of unique customers.
5. Find the customer who made the maximum number of transactions.

## Product-Based Analysis

1. List the top 5 most frequently purchased products (based on total quantity sold).
2. Find the product that generated the highest revenue.
3. Identify products that have been sold in exactly 10 or more different invoices.
4. Count how many times each product has been sold and list those that have been purchased more than 5 times.
5. Retrieve all distinct product descriptions purchased by a specific customer (CustomerID = 17850).

## Time-Based Analysis

1. Find the total revenue generated per month.
  2. Identify the hour of the day when the highest number of transactions occurred.
  3. Count the number of invoices generated per day.
  4. Identify the date when the highest number of products were sold.
  5. Find the number of transactions that happened before 12 PM vs. after 12 PM.
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