



E-commerce Data Analysis SQL





Problem Statement

- **High order cancellations** – Many customers are abandoning their purchases, especially those choosing Cash on Delivery (COD). This is leading to revenue losses.
- **Frequent delivery delays** – Shipping inefficiencies are frustrating customers, causing returns and negative reviews.
- **Profitability concerns** – Some products generate high sales but low margins, affecting the overall bottom line.
- **Customer retention issues** – Many buyers make only one purchase and never return, highlighting the need for a better retention strategy.
- **Fraud risks** – Suspicious transactions, multiple failed payments, and high refund rates pose a security risk to the business.

Problem Solution SQL

General Business Performance

1. What is the total number of orders placed each year?
2. What is the earliest and latest order date recorded in the database?
3. What is the Average Order Value (AOV) per year?
4. What is the total revenue generated each year from sales?
5. Which product categories performed the best in terms of revenue in 2023 and 2024?

Customer Behavior & Trends

1. Who are the top 25 customers based on total spending?
2. What is the repeat customer rate for Othoba?
3. Which customers are making repeat purchases, and how frequently do they shop?

Order Fulfillment & Logistics

1. What is the average delivery time per shipping division?
2. Which shipping divisions have the most late deliveries?

Order Cancellations & Payment Issues

1. What is the cancellation rate per product category?
2. What are the top 5 reasons for order cancellations?
3. Which customers have multiple shipping addresses but the same phone number?

Fraud Detection & Risk Analysis

1. Which orders have been flagged as suspicious or high-risk transactions?