Case Study: Customer–Order–Shipping Analysis Using SQL

# 1. Dataset Overview

We have three relational tables: Customers, Orders, and Shippings.

## Customers

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| customer\_id | first\_name | last\_name | age | country |
| 1 | John | Doe | 31 | USA |
| 2 | Robert | Luna | 22 | USA |
| 3 | David | Robinson | 22 | UK |
| 4 | John | Reinhardt | 25 | UK |
| 5 | Betty | Doe | 28 | UAE |

## Orders

|  |  |  |  |
| --- | --- | --- | --- |
| order\_id | item | amount | customer\_id |
| 1 | Keyboard | 400 | 4 |
| 2 | Mouse | 300 | 4 |
| 3 | Monitor | 12000 | 3 |
| 4 | Keyboard | 400 | 1 |
| 5 | Mousepad | 250 | 2 |

## Shippings

|  |  |  |
| --- | --- | --- |
| shipping\_id | status | customer |
| 1 | Pending | 2 |
| 2 | Pending | 4 |
| 3 | Delivered | 3 |
| 4 | Pending | 5 |
| 5 | Delivered | 1 |

# 2. Analysis & SQL Queries

This section demonstrates SQL queries for retrieving and analyzing data, with expected outputs.

## Retrieve all customer records

SQL Query:

SELECT \* FROM Customers;

Expected Output:

Output: All 5 customer records

## Get details of customers from the UK

SQL Query:

SELECT \* FROM Customers WHERE country = 'UK';

Expected Output:

Output: David Robinson, John Reinhardt

## Get customers older than 25 and from USA or UK

SQL Query:

SELECT \* FROM Customers WHERE age > 25 AND country IN ('USA','UK');

Expected Output:

Output: John Doe (31, USA)

# 3. Key Insights

• Majority of customers are from USA & UK.

• Only 1 customer (David Robinson) made a high-value order above average.

• Customer 4 (John Reinhardt) is the most frequent buyer.

• About 40% of customers (2/5) still have pending shipments.

• The order distribution is highly skewed (Monitor = ₹12,000 vs others < ₹500).