**🛒 Day 65 – SQL Challenge: E-Commerce Order Analytics**

**Dataset Overview**

**1️⃣ Customers**

|  |  |  |  |
| --- | --- | --- | --- |
| **CustomerID** | **Name** | **Country** | **JoinDate** |
| 1 | Priya Nair | India | 2020-02-10 |
| 2 | David Smith | USA | 2021-03-12 |
| 3 | Aisha Khan | UAE | 2019-08-20 |
| 4 | Rohan Verma | India | 2022-01-18 |
| 5 | Maria Garcia | Spain | 2020-11-05 |

**2️⃣ Orders**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **OrderID** | **CustomerID** | **OrderDate** | **TotalAmount** | **PaymentMode** | **Status** |
| 101 | 1 | 2022-05-10 | 1500 | Card | Delivered |
| 102 | 2 | 2022-05-12 | 3200 | Wallet | Delivered |
| 103 | 3 | 2022-06-15 | 1800 | COD | Returned |
| 104 | 4 | 2022-06-20 | 5600 | Card | Delivered |
| 105 | 1 | 2022-07-10 | 2400 | UPI | Cancelled |
| 106 | 2 | 2022-07-15 | 3700 | UPI | Delivered |
| 107 | 5 | 2022-08-01 | 4200 | Wallet | Delivered |
| 108 | 1 | 2022-08-05 | 2900 | Card | Delivered |
| 109 | 3 | 2022-08-15 | 2300 | UPI | Delivered |
| 110 | 4 | 2022-09-01 | 1500 | Card | Returned |

3️⃣ **OrderItems**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ItemID** | **OrderID** | **ProductName** | **Category** | **Quantity** | **UnitPrice** |
| 1 | 101 | Shoes | Fashion | 2 | 750 |
| 2 | 102 | Laptop Bag | Accessories | 1 | 3200 |
| 3 | 103 | Headphones | Electronics | 1 | 1800 |
| 4 | 104 | Phone Case | Accessories | 2 | 2800 |
| 5 | 105 | Perfume | Lifestyle | 1 | 2400 |
| 6 | 106 | Jeans | Fashion | 2 | 1850 |
| 7 | 107 | Watch | Lifestyle | 1 | 4200 |
| 8 | 108 | T-shirt | Fashion | 2 | 1450 |
| 9 | 109 | Bluetooth | Electronics | 1 | 2300 |
| 10 | 110 | Charger | Electronics | 1 | 1500 |

**💡 Day 65 SQL Questions (Advanced + Real-World)**

1. **Join Practice**  
   Display each order with customer name, payment mode, and total amount.
2. **Aggregate Analysis**  
   Calculate total sales and total number of delivered orders for each country.
3. **Date & String Functions**  
   Display month-wise sales summary (MonthName + Total Sales).
4. **CASE + Conditional Aggregation**  
   Categorize each customer as “High Spender” (>5000), “Moderate” (3000–5000), or “Low Spender” (<3000) based on average order value.
5. **Subquery**  
   Find customers who have **never returned or cancelled** any order.
6. **Window Function (RANK)**  
   Rank customers based on total sales amount in descending order.
7. **Window Function (NTILE)**  
   Divide all customers into 3 spending tiers using NTILE(3) based on total purchase value.
8. **CTE with Aggregation**  
   Using a CTE, calculate each customer’s order frequency and average spend per order, then display only those with more than 2 orders.
9. **Analytical Query (LAG)**  
   For each customer, find the time gap (in days) between their consecutive orders.
10. **Advanced Filtering Query**  
    Identify categories where **average order value > 2000** and **more than 2 distinct customers** purchased items.
11. **Bonus Challenge 🚀 (Real Interview Simulation)**  
    Find the **top customer per country** by total order value, and also display what percentage of that country’s sales they contributed to (rounded to 2 decimals).