**📘 SQL 100 Days Challenge – Day 40**

**Dataset Theme**: E-commerce Orders & Customers (Advanced Interview Prep)

**Tables & Data**

**Customers**

|  |  |  |  |
| --- | --- | --- | --- |
| CustomerID | Name | Country | JoinDate |
| 1 | Alice Smith | USA | 2021-01-10 |
| 2 | Bob Johnson | UK | 2021-02-15 |
| 3 | Carol Davis | USA | 2021-03-05 |
| 4 | David Lee | Canada | 2021-03-20 |
| 5 | Eva Green | USA | 2021-04-12 |

**Orders**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| OrderID | CustomerID | OrderDate | Amount | Status |
| 101 | 1 | 2021-01-15 | 120.50 | Completed |
| 102 | 1 | 2021-02-20 | 80.00 | Completed |
| 103 | 2 | 2021-02-25 | 200.00 | Cancelled |
| 104 | 3 | 2021-03-10 | 150.75 | Completed |
| 105 | 4 | 2021-03-25 | 300.00 | Completed |
| 106 | 5 | 2021-04-15 | 50.00 | Completed |
| 107 | 5 | 2021-05-01 | 75.50 | Pending |
| 108 | 3 | 2021-05-05 | 180.00 | Completed |
| 109 | 1 | 2021-06-01 | 90.25 | Completed |
| 110 | 2 | 2021-06-10 | 220.00 | Completed |

Questions

1. Retrieve all customers who have placed at least one order.
2. Find total revenue from completed orders per customer.
3. Get customers who have more than 1 completed order.
4. Find the first and last order date for each customer.
5. List customers with their average order value, only considering completed orders.
6. Use a window function to rank customers by their total spending (completed orders only).
7. Find the month with the highest total revenue.
8. For each customer, calculate the difference between their first and last order amount.
9. Find customers who never had a cancelled order.
10. Complex Challenge: Write a query to return each customer's name, total completed orders, total revenue, and their rank based on revenue (highest first).

⚡ Bonus Challenge:  
Write a query that returns each customer’s order history in chronological order with a running total of their spending (only completed orders).