**📊 Day 64 – SQL Challenge**

**Dataset: BankingSystem**

**Table: Customers**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CustomerID** | **Name** | **Country** | **JoinDate** | **AccountType** |
| 1 | Rahul Mehta | India | 2019-05-20 | Savings |
| 2 | Sarah Johnson | USA | 2018-11-15 | Current |
| 3 | Aditi Sharma | India | 2020-02-12 | Savings |
| 4 | James Brown | UK | 2017-07-01 | Current |
| 5 | Arjun Nair | India | 2021-08-10 | Savings |

**Table: Accounts**

|  |  |  |  |
| --- | --- | --- | --- |
| AccountID | CustomerID | Balance | Status |
| 101 | 1 | 120000 | Active |
| 102 | 2 | 56000 | Active |
| 103 | 3 | 34000 | Dormant |
| 104 | 4 | 200000 | Active |
| 105 | 5 | 8000 | Active |

**Table: Transactions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TransactionID | AccountID | TransactionDate | Amount | Type |
| 5001 | 101 | 2022-01-10 | 20000 | Credit |
| 5002 | 101 | 2022-01-12 | 5000 | Debit |
| 5003 | 102 | 2022-02-05 | 30000 | Credit |
| 5004 | 103 | 2022-02-15 | 8000 | Debit |
| 5005 | 104 | 2022-03-01 | 75000 | Credit |
| 5006 | 105 | 2022-03-10 | 2000 | Debit |
| 5007 | 101 | 2022-04-05 | 40000 | Credit |
| 5008 | 102 | 2022-04-12 | 10000 | Debit |
| 5009 | 104 | 2022-05-15 | 90000 | Credit |

**❓ Day 64 SQL Questions**

1. **Basic Join – List all customers with their current account balance.**
2. **Aggregation – Find the total credited and debited amount for each account.**
3. **Filtering + Date Functions – Show all transactions made in March 2022.**
4. **CASE Statement – Categorize accounts as “High Balance” (>1,00,000) or “Low Balance”.**
5. **Subquery – Find the customer(s) who have the highest account balance.**
6. **Window Function (ROW\_NUMBER) – Retrieve the latest transaction per account.**
7. **Window Function (RANK) – Rank customers by their total credited amount.**
8. **CTE (Recursive) – Generate a running balance for AccountID = 101 based on transactions.**
9. **Advanced Aggregation – For each customer, calculate the average debit amount per transaction.**
10. **Fraud-style Query 🚨 – Identify accounts where more than 2 transactions above 50,000 occurred within 60 days.**
11. **Bonus Challenge 🚀 – Find the customer who contributed the highest share of total credits in the bank and display their percentage contribution.**