# Day 20 – SQL Practice: Telecom Customer Analytics

## 📡 Dataset Overview

This dataset simulates a telecom service provider’s customer analytics system. It covers customer demographics, call records, billing, and service plans. The questions reflect real-world analytical use cases such as churn prediction, revenue analysis, customer segmentation, and service usage trends — the type you'd face in a real job or interview.

## 📁 Tables and Sample Data

1. Customers

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CustomerID | Name | Age | Gender | City | JoinDate |
| 1 | Anita | 28 | Female | Delhi | 2022-03-15 |
| 2 | Ravi | 35 | Male | Mumbai | 2022-07-01 |
| 3 | Meena | 40 | Female | Chennai | 2021-11-23 |
| 4 | Kiran | 30 | Male | Hyderabad | 2023-01-10 |
| 5 | Sneha | 22 | Female | Bangalore | 2022-12-05 |

2. ServicePlans

|  |  |  |  |
| --- | --- | --- | --- |
| PlanID | PlanName | MonthlyFee | FreeMinutes |
| 101 | Silver | 299.00 | 300 |
| 102 | Gold | 499.00 | 600 |
| 103 | Platinum | 799.00 | 1200 |

3. Subscriptions

|  |  |  |  |
| --- | --- | --- | --- |
| SubscriptionID | PlanID | StartDate | EndDate |
| 1001 | 1 | 2022-03-15 | Null |
| 1002 | 2 | 2022-07-01 | 2023-07-01 |
| 1003 | 3 | 2021-11-23 | Null |
| 1004 | 4 | 2023-01-10 | Null |
| 1005 | 5 | 2022-12-05 | Null |

4. CallRecords

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CallID | CustomerID | CallDate | Duration | CallType |
| 1 | 1 | 2023-06-01 | 20 | Local |
| 2 | 1 | 2023-06-05 | 45 | International |
| 3 | 2 | 2023-06-10 | 300 | Local |
| 4 | 3 | 2023-06-15 | 500 | Local |
| 5 | 4 | 2023-06-18 | 15 | International |
| 6 | 5 | 2023-06-20 | 250 | Local |

## 🧠 Practice Questions

1) List all customers along with their current service plan and monthly fee.

2) Show total minutes used by each customer in June 2023.

3) Find customers who made more than 1 international call in June 2023.

4) Identify customers who exceeded their plan's free minutes in total calls.

5) Display city-wise average call duration for the month of June.

6) Find customers who have changed their plan (i.e., have multiple subscriptions).

7) Show total revenue generated from active subscriptions grouped by plan.

8) List customers whose subscriptions ended before June 2023.

9) Find the plan with the highest number of currently active subscribers.

10) Display the gender-wise average usage (total call minutes).

🎯 Bonus:

Identify customers who joined before 2023 and are still on the same plan since joining.