

SQL Data Analysis Questions - Telco Customer Churn Dataset

Basic Analysis

- 1. Find the total number of customers in the dataset.
- 2. List all unique contract types available.
- 3. Retrieve the details of customers who have churned.

Filtering & Aggregations (GROUP BY, HAVING)

- 4. Count the number of customers in each InternetService category.
- 5. Find the average MonthlyCharges for customers grouped by PaymentMethod.
- 6. Show the top 5 tenure ranges (e.g., 0–12 months, 13–24 months, etc.) with the highest churn count.
- 7. Find payment methods where the average TotalCharges is greater than 3000.

Unions

- 8. Write a query to list customers who are either on Month-to-Month contracts OR who have churned (use UNION).
- 9. Use UNION to combine customer lists of those who have PhoneService and those who have InternetService = Fiber optic.

Functions

- 10. Extract the first 3 letters of the PaymentMethod for all customers.
- 11. Display customer IDs along with the length of their names.
- 12. Round the MonthlyCharges to the nearest integer and display.
- 13. Show the customers with the highest and lowest TotalCharges using aggregate functions.

Views

- 14. Create a view that shows only customers who have churned with their tenure, monthly charges, and contract type.
- 15. Create a view to calculate the churn rate for each contract type.
- 16. Create a view that summarizes total revenue per InternetService.

Stored Procedures

- 17. Write a stored procedure that takes a ContractType as input and returns all customers with that contract.
- 18. Create a stored procedure that calculates the average MonthlyCharges for customers based on gender.
- 19. Write a stored procedure to display all customers who have churned within a given tenure range (e.g., 0–12 months).

Advanced Analysis

- 20. Find the top 10 customers who paid the most in TotalCharges.
- 21. Calculate churn percentage grouped by gender.
- 22. Find the average tenure of customers who use Fiber optic internet vs DSL.
- 23. Rank customers by MonthlyCharges using a window function (if allowed).
- 24. Compare the churn rate between customers who use Electronic check vs. other payment methods.