**SQL Analysis (Healthcare database management)**

1. Retrieve the names and genders of all patients.
2. List the unique diagnoses recorded in the medical records.
3. Count the total number of patients in the database.
4. Find the oldest patient in the database.
5. Display the address and phone number of the patient with ID 7.
6. Retrieve the names and specializations of all doctors.
7. Calculate the average length of hospital stay for all patients.
8. Count the number of male and female patients separately.
9. Find the doctor who treated the most patients.
10. List all patients whose names start with 'J'.
11. Retrieve the names of patients along with their admission and discharge dates.
12. Calculate the total number of medical records in the database.
13. List the patients who were diagnosed with hypertension or diabetes.
14. Find the average age of patients in the database.
15. Display the doctors who treated patients admitted in January 2023.
16. Calculate the total number of patients treated by each doctor.
17. List the patients who were treated by doctors specializing in Cardiology.
18. Find the patient with the longest hospital stay duration.
19. Display the top 5 most common diagnoses recorded in the medical records.
20. List the patients who were treated by doctors with names starting with 'Dr. S'.
21. Calculate the percentage of male and female patients in the database.
22. Find the patient with the highest number of medical records.
23. List the top 3 doctors who treated the most patients.
24. Calculate the average length of hospital stay for each diagnosis.
25. Rank patients based on the number of medical records they have, from highest to lowest.
26. Display the patient who spent the most time in the hospital.
27. Calculate the median length of hospital stay for all patients.
28. List the patients who were treated by doctors specializing in Cardiology or Pulmonology.
29. Find the doctor who treated the most patients diagnosed with Diabetes.
30. Calculate the total number of patients treated by each doctor, including those with no patients.
31. Identify patients who have been readmitted within 30 days of discharge.
32. Calculate the average length of hospital stay by month for the past year.
33. List patients who have been admitted to the hospital more than once in the past year.
34. Find patients whose total hospital charges exceed a certain threshold.
35. Calculate the percentage change in the number of patients admitted each month
36. compared to the previous month.
37. Count of Male vs. Female Patients.
38. Percentage of Male and Female Patients.
39. Top 5 Most Common Diagnoses.
40. Average Length of Hospital Stay.
41. Top 3 Doctors Treating the Most Patients.
42. Doctors Treating Patients with Diabetes.
43. Readmission rate within 30 days.