SQL Assignment Questions & Answers

1) **Total Number of Patients**

   - Write an SQL query to find the total number of patients across all hospitals.

   ➤ **SELECT** **COUNT**(*) **AS** Total_Patients
   FROM Hospital_data ;

Total_Patients
500

2) **Average Number of Doctors per Hospital**

   - Retrieve the average count of doctors available in each hospital.

   ➤ **SELECT** HospitalName,
   COUNT(DISTINCT DoctorName) **AS** Total_Doctors
   **FROM** Hospital_data **GROUP BY** HospitalName;

HospitalName	Total_Doctors
Apollo Hospital	6
Fortis Hospital	6
Max Hospital	6
Medanta	6

3) **Top 3 Departments with the Highest Number of Patients**

   - Find the top 3 hospital departments that have the highest number of patients

   ➤ **SELECT** Department, **COUNT**(*) **AS** Patient_Count
   FROM Hospital_data
   GROUP BY Department
   ORDER BY Patient_Count **DESC LIMIT** 3;

Department	Patient_Count
Orthopedics	89
Oncology	86
Cardiology	83

4) **Hospital with the Maximum Medical Expenses**

   - Identify the hospital that recorded the highest medical expenses.

   ➤ **SELECT** HospitalName, **SUM**(MedicalExpense) **AS** Total_Expense
   FROM Hospital_data
   GROUP BY HospitalName
   ORDER BY Total_Expense **DESC LIMIT** 1;

HospitalName	Total_Expense
Apollo Hospital	7437017.00

5) **Daily Average Medical Expenses**

   - Calculate the average medical expenses per day for each hospital.

   ➤ **SELECT** HospitalName, AdmissionDate,
   SUM(MedicalExpense) / **COUNT**(DISTINCT AdmissionDate) **AS** Avg_Daily_Expense
   FROM Hospital_data
   GROUP BY HospitalName;

HospitalName	Avg_Daily_Expense
Apollo Hospital	68229.513761
Fortis Hospital	59076.564815
Max Hospital	64186.932039
Medanta	65297.964706

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6) Longest Hospital Stay

- Find the patient with the longest stay by calculating the difference between Discharge Date and Admission Date.

➢ **SELECT** PatientName,
   DATEDIFF(DischargeDate, AdmissionDate) **AS** Stay_Days
FROM Hospital_data
ORDER BY Stay_Days **DESC LIMIT** 1;

	PatientName	Stay_Days
▶	Timothy Wilson	15

7) Total Patients Treated Per City

- Count the total number of patients treated in each city.

➢ **SELECT** City, COUNT(*) **AS** Total_Patients
FROM Hospital_data
GROUP BY City
ORDER BY Total_Patients **DESC**;

Result Grid		Filter Rows:
	City	Total_Patients
▶	Bangalore	93
	Gurgaon	93
	Mumbai	81
	Hyderabad	79
	Delhi	77
	Chennai	77

8) Average Length of Stay Per Department

- Calculate the average number of days patients spend in each department.

➢ **SELECT** Department,
   AVG(**DATEDIFF**(DischargeDate, AdmissionDate))
AS Avg_Stay_Days
FROM Hospital_data
GROUP BY Department;

	Department	Avg_Stay_Days
▶	General	8.3902
	Neurology	8.8293
	Oncology	8.9070
	Cardiology	8.1566
	Orthopedics	8.1124
	Gynecology	8.2949

9) Identify the Department with the Lowest Number of Patients

- Find the department with the least number of patients.

➢ **SELECT** Department, **COUNT**(*) **AS** Patient_Count
FROM Hospital_data
GROUP BY Department
ORDER BY Patient_Count **ASC LIMIT** 1;

	Department	Patient_Count
▶	Gynecology	78

10) Monthly Medical Expenses Report

- Group the data by month and calculate the total medical expenses for each month.

➢ **SELECT DATE_FORMAT**(AdmissionDate, '%Y-%m') **AS** Month,
   SUM(MedicalExpense) **AS** Total_Expense
FROM Hospital_data
GROUP BY Month
ORDER BY Month;

	Month	Total_Expense
▶	2024-01	1965251.00
	2024-02	2590567.00
	2024-03	2467771.00
	2024-04	2752597.00
	2024-05	1777378.00
	2024-06	2313826.00
	2024-07	2631886.00
	2024-08	2010358.00