30 Days SQL Micro Course Certificate Assignment

--1. Total Number of Patients
--o Write an SQL query to find the total number of patients across all hospitals.
A: select SUM(patients_count) as Total_patients from Hs

--2. Average Number of Doctors per Hospital
--o Retrieve the average count of doctors available in each hospital
A: select hospital_name,Round(AVG(doctors_count),2) as average_count_of_doctors
    from Hs GROUP BY hospital_name

--3. Top 3 Departments with the Highest Number of Patients
--o Find the top 3 hospital departments that have the highest number of patients.
A: select department,SUM(patients_count) as Total_patients from Hs
    GROUP BY department
    ORDER BY Total_patients DESC
    LIMIT 3

--4. Hospital with the Maximum Medical Expenses
--o Identify the hospital that recorded the highest medical expenses.
A: select hospital_name,
      SUM(medical_expenses) AS Total_Expenses from Hs
      GROUP BY hospital_name
      ORDER BY Total_Expenses DESC
      LIMIT 1

--5. Daily Average Medical Expenses
--o Calculate the average medical expenses per day for each hospital.
A: select hospital_name,
    Round(AVG(medical_expenses),2) as Avg_medical_expenses
    from Hs
    GROUP BY hospital_name

--6. Longest Hospital Stay
--o Find the patient with the longest stay by calculating the difference between
--Discharge Date and Admission Date.
A: select hospital_name,AGE(admission_date,discharge_date) as stay from Hs
    order by stay asc

--7. Total Patients Treated Per City
--o Count the total number of patients treated in each city.
A: select location as city,SUM(patients_count) as patients_treated
     from Hs
     GROUP BY location

--8. Average Length of Stay Per Department x
--o Calculate the average number of days patients spend in each department.
A: SELECT Department,
      AVG(AGE(admission_date,discharge_date)) AS Avg_Stay_Days
      FROM Hs
      GROUP BY Department;

--9. Identify the Department with the Lowest Number of Patients
--o Find the department with the least number of patients.
A: select department,SUM(patients_count) as Total from Hs
     GROUP BY department
     ORDER BY Total