30 days SQL Micro Course

DROP TABLE IF EXISTS Hospital;

CREATE TABLE Hospital (

    -- unique identifier for each hospital

   Hospital_Name VARCHAR(100) NOT NULL,

   Location VARCHAR(50),

   Department VARCHAR(20),

   Doctors_Count INT NOT NULL,

   Patients_Count INT NOT NULL,

   Admission_Date DATE NOT NULL,

   Discharge_Date DATE NOT NULL,

   Medical_Expenses NUMERIC(10,2)

);

SELECT * FROM Hospital;

1. Total Number of Patients

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

Answer:

SELECT SUM(patients_count) AS Total_patient

FROM Hospital;

2. Average Number of Doctors per Hospital

o **Retrieve the average count of doctors available in each hospital.**

 Answer:

SELECT AVG(doctors_count) AS Avg_doctors

FROM Hospital;

3. Top 3 Departments with the Highest Number of Patients

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

Answer:

SELECT department, SUM(patients_count)AS highest_patient

FROM Hospital

GROUP BY department

ORDER BY highest_patient DESC LIMIT 3;

4. Hospital with the Maximum Medical Expenses

o Identify the hospital that recorded the highest medical expenses.

Answer:

SELECT Hospital_name, medical_expenses

FROM Hospital

ORDER BY medical_expenses DESC LIMIT 1;

5. Daily Average Medical Expenses

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

Answer:

SELECT Hospital_name,medical_expenses,

((medical_expenses)/(discharge_date-admission_date+1)) AS daily_Avg_expenses

FROM Hospital;

6. Longest Hospital Stay

o Find the patient with the longest stay by calculating the difference between

Discharge Date and Admission Date.

Answer:

SELECT Hospital_name,

(discharge_date-admission_date) AS Longest_stay

FROM Hospital

ORDER BY Longest_stay DESC LIMIT 1;

7. Total Patients Treated Per City

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

Answer:

SELECT * FROM Hospital;

SELECT location AS city, SUM(patients_count) AS Patients_treated

FROM Hospital

GROUP BY location

ORDER BY Patients_treated DESC;

8. Average Length of Stay Per Department

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

Answer:

SELECT department ,AVG(discharge_date-admission_date+1) AS avg_stay_days

FROM Hospital

GROUP BY department

ORDER BY avg_stay_days DESC;

9. Identify the Department with the Lowest Number of Patients

o Find the department with the least number of patients.

Answer:

SELECT department,SUM(patients_count)AS Lowest_patients

FROM Hospital

GROUP BY department

ORDER BY Lowest_patients ASC LIMIT 1;

10. Monthly Medical Expenses Report

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

Answer:

SELECT

    EXTRACT(Month from admission_date) AS Month,

    SUM(medical_expenses) AS Total_medical_expenses

FROM Hospital

GROUP BY EXTRACT(Month from admission_date)

ORDER BY Month;