30 Day's SQL Course Assignment Answers

1. **Total Number of Patients**

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

   Ans:-

   SELECT hospital_name, SUM(patients_count) AS total_no_patients

   FROM hospital_data

   GROUP BY hospital_name;

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

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

   Ans:-

   SELECT hospital_name, AVG(doctors_count) AS avg_doctors_count

   FROM hospital_data

   GROUP BY hospital_name;

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

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

   Ans:-

   SELECT department, SUM(patients_count) highest_patients

   FROM hospital_data

   GROUP BY department

   ORDER BY highest_patients DESC LIMIT 3;

4. Hospital with the Maximum Medical Expenses

- Identify the hospital that recorded the highest medical expenses.

Ans:-

SELECT * FROM hospital_data

ORDER BY medical_expenses DESC LIMIT 1;

5. Daily Average Medical Expenses

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

Ans:-

SELECT hospital_name,

AVG(medical_expenses / COALESCE(NULLIF(DATE(discharge_date) - DATE(admission_date), 0), 1)) AS avg_medical_expenses

FROM hospital_data

GROUP BY hospital_name;

6. Longest Hospital Stay

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

 SELECT hospital_name, admission_date, discharge_date,

 discharge_date - admission_date AS day_of_stay

 FROM hospital_data

 ORDER BY day_of_stay DESC LIMIT 1;

7. Total Patients Treated Per City

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

Ans:-

SELECT location, SUM(patients_count) AS total_patients

FROM hospital_data

GROUP BY location;

8. Average Length of Stay Per Department

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

Ans:-

SELECT department, AVG(discharge_date-admission_date) AS avg_day_patients_stay

FROM hospital_data

GROUP BY department;

9. Identify the Department with the Lowest Number of Patients

- Find the department with the least number of patients.

Ans:-

SELECT department, SUM(patients_count) AS least_patients

FROM hospital_data

GROUP BY department

ORDER BY least_patients LIMIT 1;

10. Monthly Medical Expenses Report

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

Ans:-

SELECT

EXTRACT(MONTH FROM admission_date) AS month,

SUM(medical_expenses) AS total_medical_expenses

FROM hospital_data

GROUP BY month

ORDER BY month;