30 DAYS SQL MICRO COURSE ANSWER PDF

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)

   FROM hospital_data;

2. **Average Number of Doctors per Hospital**
   o Retrieve the average count of doctors available in each hospital.

   Answer:-

   Select Hospital_Name, AVG(Doctors_Count) AS AVG_Doctors

   FROM hospital_data

   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.

   Answer:-

   SELECT Department , MAX(Patients_Count) AS MAX_Patients

   FROM hospital_data

   Group by Department

   ORDER BY MAX_Patients DESC LIMIT 3;

4. **Hospital with the Maximum Medical Expenses**
   o Identify the hospital that recorded the highest medical expenses.

   Answer:-

   SELECT Hospital_Name,MAX(Medical_Expenses) AS MAX_Expenses

   FROM hospital_data

   GROUP BY Hospital_Name

   ORDER BY MAX_Expenses DESC LIMIT 10;

5. **Daily Average Medical Expenses**
   o Calculate the average medical expenses per day for each hospital.
   Answer:-
   SELECT Hospital_Name,AVG(Medical_Expenses) AS AVG_Medical_Expenses
   FROM hospital_data
   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.
   Answer:-
   SELECT Discharge_Date,Admission_Date,Department, (Discharge_date-Admission_Date)
   AS Duration_in_Days
   FROM hospital_data;

7. **Total Patients Treated Per City**
   o   Count the total number of patients treated in each city.
   Answer:-
   SELECT Location , SUM(Patients_Count)
   FROM hospital_data
   GROUP BY Location;

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) AS Duration_in_days
   FROM hospital_data
   GROUP BY Department;

9. **Identify the Department with the Lowest Number of Patients**
   o   Find the department with the least number of patients.
   Answer:-
   SELECT Department,MIN(Patients_Count) AS Least_Patients
   FROM hospital_data
   GROUP BY Department
   ORDER BY Least_Patients LIMIT 10;

10. **Monthly Medical Expenses Report**
    o   Group the data by month and calculate the total medical expenses for each month.
    Answer:-
    SELECT FORMAT(Admission_Date, 'MM') AS Admission_Month,
        FORMAT(Discharge_Date, 'MM') AS Discharge_Month,
        SUM(Medical_Expenses) AS Total_Medical_Expenses
    FROM hospital_data
    GROUP BY FORMAT(Admission_Date, 'MM'), FORMAT(Discharge_Date, 'MM') ;