Assignment (30 Days Challenge) SQL
Hospital Data
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1. **Total Number of Patients**
   Select * From hospital_data;
   SELECT SUM(patient_count) AS total_patients
   FROM hospital_data;
   Answer: 9347

2. **Average Number of Doctors per Hospital**
   SELECT hospital_name, AVG(doctors_count) AS average_doctors
   FROM hospital_data
   GROUP BY hospital_name;
   Answer:

"City Hospital"	24.70
"Healing Touch"	25.64
"Global Medicare"	28.72
"Fortis Care"	24.54
"Sunrise Medical"	28.62
"Green Valley Hospital"	28.87
"Heritage Hospital"	24.66
"Metro Hospital"	27.45
"Apollo Health"	23.36
"Wellness Clinic"	34.00

3. **Departments with the Highest Number of Patients**
   SELECT department, SUM(patient_count) AS total_patients
   FROM hospital_data
   GROUP BY department
   ORDER BY total_patients DESC LIMIT 3;
   Answer:

"Urology"	1766
"Neurology"	1229
"ENT"	1064

4. **Hospital with the Maximum Medical Expenses**
   SELECT hospital_name, SUM(medical_expense) AS total_expense
   FROM hospital_data
   GROUP BY hospital_name
   ORDER BY total_expense DESC
   LIMIT 1;
   Answer:
   "Healing Touch"   352178.06

5. **Daily Average Medical Expenses**
   SELECT
     hospital_name,
     SUM(medical_expense) / NULLIF(SUM(discharge_date - admission_date), 0) AS avg_expense_per_day
   FROM hospital_data
   GROUP BY hospital_name;
   Answer:

"City Hospital"	4296.15
"Healing Touch"	3486.91
"Global Medicare"	3507.86
"Fortis Care"	4385.42
"Sunrise Medical"	4315.75
"Green Valley Hospital"	2615.94
"Heritage Hospital"	2336.23
"Metro Hospital"	3245.21
"Apollo Health"	3187.75
"Wellness Clinic"	2830.12

6. **Longest Hospital Stay**
   SELECT *,
        (discharge_date - admission_date) AS stay_duration
   FROM hospital_data
   ORDER BY stay_duration DESC
   LIMIT 1;
   Answer:

"Apollo Health"   "Lucknow"   "ENT" 9   171   "2023-04-06" "2023-04-21" 21666.78   15

7. **Total Patients Treated Per City**
   SELECT location, SUM(patient_count) AS total_patients
   FROM hospital_data
   GROUP BY location;
   Answer:

"Bangalore"	955
"Jaipur"	1505
"Lucknow"	1264
"Mumbai"	483
"Kolkata"	596
"Delhi"	421
"Chennai"	840
"Pune"	555
"Hyderabad"	1261
"Ahmedabad"	1467

8. **Average Length of Stay Per Department**
   SELECT department,
        AVG(discharge_date - admission_date) AS avg_stay_duration
   FROM hospital_data
   GROUP BY department;
   Answer:

"Dermatology"	5.60
"Oncology"	8.11
"ENT"	8.08
"Neurology"	9.25
"Gynaecology"	7.66
"Paediatrics"	9.11
"Orthopaedics"	7.14
"Cardiology"	6.85
"Urology"	8.72
"General Medicine"	7.42

9. **Identify the Department with the Lowest Number of Patients**
   SELECT department, SUM(patient_count) AS total_patients
   FROM hospital_data
   GROUP BY department
   ORDER BY total_patients ASC
   LIMIT 1;
   Answer:

"Cardiology"	544

10. Monthly Medical Expenses Report

SELECT DATE_TRUNC ('month', admission_date) AS month,
    SUM(medical_expense) AS total_expense
FROM hospital_data
GROUP BY month
ORDER BY month;

Answer:

"2023-01-01 "	173971.54
"2023-02-01 "	301722.72
"2023-03-01 "	199247.42
"2023-04-01 "	88995.93
"2023-05-01"	222986.72
"2023-06-01 "	165926.36
"2023-07-01 "	211527.13
"2023-08-01 "	181039.55
"2023-09-01 "	341284.23
"2023-10-01 "	158450.68
"2023-11-01 "	334370.33
"2023-12-01 "	337788.45