

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

```
SELECT hospital_name, SUM(patients_count) AS Total_Patients FROM Hospital
GROUP BY hospital_name
ORDER BY Total_Patients ASC;
```

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

```
SELECT hospital_name, AVG(doctors_count) AS Average_Doctor_Count FROM Hospital
GROUP BY hospital_name
ORDER BY Average_Doctor_Count ASC;
```

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

```
SELECT department, SUM(patients_count) as Total_Patients FROM Hospital
GROUP BY department
ORDER BY Total_Patients DESC
LIMIT 3;
```

-- 4. Identify the hospital that recorded the highest medical expenses.

```
SELECT hospital_name, SUM(medical_expenses) as Total_Expense FROM Hospital
GROUP BY hospital_name
ORDER BY Total_Expense DESC
LIMIT 1;
```

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

```
SELECT Hospital_Name, AVG(Medical_Expenses / GREATEST(Discharge_Date - Admission_Date, 1))
AS Avg_Expense_Per_Day
FROM Hospital
GROUP BY Hospital_Name;
```

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

```
SELECT *, (Discharge_Date - Admission_Date) AS Stay_Duration
FROM Hospital
ORDER BY Stay_Duration DESC
LIMIT 1;
```

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

```
SELECT location, SUM(patients_count) as Total_Patients From Hospital
GROUP BY location
ORDER BY Total_Patients ASC;
```

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

```
SELECT department, AVG(Discharge_Date - Admission_Date) as Average_Days From Hospital
GROUP BY department
ORDER BY Average_Days ASC;
```

-- 9. Find the department with the least number of patients.

```
SELECT department, SUM(patients_count) as Total_Patients From Hospital
GROUP BY department
ORDER BY Total_Patients ASC
LIMIT 1;
```

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

```
SELECT TO_CHAR(Admission_Date, 'YYYY-MM') AS Month, SUM(Medical_Expenses) AS
Total_Medical_Expenses
FROM Hospital
GROUP BY TO_CHAR(Admission_Date, 'YYYY-MM')
ORDER BY Month;
```