HOSPITAL DATA ANALYSIS

```
CREATE TABLE Hospital(
        Hospital_Name VARCHAR(100),
        Location VARCHAR(50),
        Department VARCHAR(100),
        Doctors_Count INT,
        Patients_Count INT,
        Admission_Date DATE,
        Discharge_Date      DATE,
        Medical_Expenses NUMERIC(10,2)
);


SELECT * FROM Hospital;
```

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

```
SELECT DISTINCT hospital_name, SUM(patients_count) AS total_patients_count
FROM Hospital
GROUP BY hospital_name;
```

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

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

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

```
SELECT DISTINCT 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 highest_expenses
FROM Hospital
GROUP BY hospital_name
ORDER BY highest_expenses 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 longest_stay
FROM Hospital
ORDER BY longest_stay DESC LIMIT 1;
```

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

```
SELECT DISTINCT location,SUM(patients_count) AS total_number_of_patients
FROM  Hospital
GROUP BY location;
```

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

```
SELECT department, AVG(discharge_date - admission_date) AS avg_days
FROM Hospital
GROUP BY department;
```

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

```
SELECT department, SUM(patients_count) AS least_number_of_patients
FROM Hospital
GROUP BY department
ORDER BY SUM(patients_count) 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;
```