Hospital Data Analysis Queries

1. Total Number of Patients

```
SELECT SUM(patients_count) AS total_patients
FROM hospital_data;
```

2. Average Number of Doctors per Hospital

```
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

```
SELECT department, SUM(patients_count) AS total_patients
FROM hospital_data
GROUP BY department
ORDER BY total_patients DESC
LIMIT 3;
```

4. Hospital with the Maximum Medical Expenses

```
SELECT hospital_name, medical_expenses
FROM hospital_data
ORDER BY medical_expenses DESC
LIMIT 1;
```

5. Daily Average Medical Expenses

```
SELECT admission_date,
    AVG(medical_expenses) AS daily_avg_expenses
FROM hospital_data
GROUP BY admission_date
ORDER BY admission_date DESC;
```

6. Longest Hospital Stay

```
SELECT hospital_name,
    department,
```

```
    admission_date,
    discharge_date,
    (discharge_date - admission_date) AS stay_duration
FROM hospital_data
ORDER BY stay_duration DESC
LIMIT 1;
```

7. Total Patients Treated Per City

```
SELECT location,
    SUM(patients_count) AS total_patients
FROM hospital_data
GROUP BY location
ORDER BY total_patients DESC;
```

8. Average Length of Stay Per Department

```
SELECT department,
    AVG(discharge_date - admission_date) AS avg_stay_days
FROM hospital_data
GROUP BY department
ORDER BY avg_stay_days DESC;
```

9. Identify the Department with the Lowest Number of Patients

```
SELECT department,
    SUM(patients_count) AS total_patients
FROM hospital_data
GROUP BY department
ORDER BY total_patients ASC
LIMIT 1;
```

10. Monthly Medical Expenses Report

```
SELECT TO_CHAR(DATE_TRUNC('month', admission_date), 'Month YYYY') AS month,
    SUM(medical_expenses) AS total_medical_expenses,
    AVG(medical_expenses) AS avg_medical_expenses
FROM hospital_data
```

```
GROUP BY DATE_TRUNC('month', admission_date)
ORDER BY DATE_TRUNC('month', admission_date);
```