Hospital data assignment

1) Total Number of patients

Find the total number of patients across hospitals

SELECT SUM(patients_count) as total_patients

FROM hospital_data;

2) Average number of doctors per hospital

Retrieve the average count of doctors available in each 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

Find the top 3 hospital with the highest number of patients

SELECT hospital_name, sum(patients_count) as total_patients

FROM hospital_data

GROUP BY hospital_name

ORDER BY total_patients DESC

LIMIT 3;

4) Hospital with the maximum medical expenses

Identify the hospital that recorded the highest medical expenses

SELECT hospital_name, SUM(medical_expenses) as total_expenses

FROM hospital_data

GROUP BY hospital_name

ORDER BY total_expenses DESC

LIMIT 1;

5) Daily average medical expenses

Calculate the average medical expenses per day for each hospital

```
SELECT hospital_name,
    AVG(medical_expenses / (Greatest((discharge_date - admission_date) + 1))) as
avg_expenses_per_day
FROM hospital_data
GROUP BY hospital_name;
```

6) Longest hospital_stay

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_data
ORDER BY stay_duration DESC
LIMIT 1;
```

7) Total patients treated per city

Count the total number of patients treated in each city

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

8) Average length of stay per department

Calculate the average number of days patients spend in each 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

Find the department with the least 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

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

```
SELECT
    TO_CHAR(admission_date, 'MM') as month,
    SUM(medical_expenses) as total_medical_expenses
FROM hospital_data
GROUP BY TO_CHAR(admission_date, 'MM')
ORDER BY month;
```