SATISH SIR QUIZ CHALLENGE

```
CREATE TABLE hospitals (
   hospital_id SERIAL PRIMARY KEY,
   hospital_name VARCHAR(100) NOT NULL,
   location VARCHAR(50) NOT NULL,
   department VARCHAR(50) NOT NULL,
   doctors_count INT,
   patients_count INT,
   admission_date DATE,
   discharge_date DATE,
   medical_expenses NUMERIC(10,2)
);
SELECT * FROM hospitals;
```

--**Q1**) Write an SQL query to find the total number of patients across all hospitals.

ANS: SELECT SUM(patients_count) AS total_patients FROM hospitals;

--**Q2**) Retrieve the average count of doctors available in each hospital.

```
SELECT hospital_name, ROUND(avg(doctors_count),1) AS average_count
FROM hospitals
GROUP BY hospital_name;
```

--**Q3**) Find the top 3 hospital departments that have the highest number of patients.

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

--**Q4**) Identify the hospital that recorded the highest medical expenses.

```
SELECT hospital_name,
     SUM(medical_expenses) AS total_expenses
FROM hospitals
```

```
GROUP BY hospital_name

ORDER BY total_expenses DESC

LIMIT 1;

--Q5) Calculate the average medical expenses per day for each hospital.

SELECT hospital_name, ROUND(AVG(medical_expenses / (discharge_date - admission_date)),1) AS
average_expense_per_day

FROM hospitals

GROUP BY hospital_name

ORDER BY average_expense_per_day DESC;

--Q6) Find the patient with the longest stay by calculating the difference between the Discharge Date
and Admission Date.

SELECT hospital_name, discharge_date, admission_date, (discharge_date - admission_date) AS
stay_days

FROM hospitals

ORDER BY stay_days DESC

LIMIT 5;

--Q7)-Count the total number of patients treated in each city.

SELECT location, SUM(patients_count) AS total_number_of_patients

FROM hospitals

GROUP BY location;

--Q8)Calculate the average number of days patients spend in each department.

SELECT department, ROUND(AVG(discharge_date - admission_date),1) AS patients_spend_days

FROM hospitals

GROUP BY department;

--Q9)Find the department with the least number of patients.

SELECT department, SUM(patients_count) AS total_number_of_patients

FROM hospitals

GROUP BY department

ORDER BY total_number_of_patients ASC

LIMIT 1;
```

--**Q10**)Group the data by month and calculate the total medical expenses for each month.

```
SELECT
   DATE_TRUNC('month', admission_date) AS month,
   SUM(medical_expenses) AS total_medical_expenses
FROM hospitals
GROUP BY month
ORDER BY month;
```