

30 Days SQL Micro Course Certificate Assignment

```
CREATE TABLE Hospital_Data(  
    Hospital_Name VARCHAR(20) NOT NULL,  
    Location VARCHAR(100),  
    Department VARCHAR(50),  
    Doctors_Count INT,  
    Patient_Count INT,  
    Admission_Date DATE,  
    Discharge_Date DATE,  
    Medical_Expenses NUMERIC(10,2)  
);  
SELECT * FROM Hospital_Data;
```

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

```
SELECT SUM(Patient_count) AS Total_patient  
FROM Hospital_Data;
```

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

```
SELECT Hospital_Name, AVG(Doctors_Count) AS Average_Doctors  
FROM Hospital_Data  
GROUP BY Hospital_Name;
```

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

```
SELECT department , patient_count FROM Hospital_Data  
ORDER BY patient_count DESC LIMIT 3;
```

```
SELECT Department, SUM(Patient_Count) AS Total_Patients  
FROM Hospital_Data  
GROUP BY Department  
ORDER BY Total_Patients DESC  
LIMIT 3;
```

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

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

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

```
SELECT Hospital_name,  
medical_expenses/(Discharge_date-admission_date)  
AS avg_expenses FROM HOSPITAL_DATA  
WHERE Discharge_date>admission_date;
```

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

```
SELECT hospital_name,department ,(discharge_date-admission_date)  
AS stay_duration  
FROM Hospital_Data  
ORDER BY stay_duration DESC  
LIMIT 1;
```

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

```
SELECT location ,SUM(patient_count) AS toal_patient FROM  
Hospital_Data  
GROUP BY location;
```

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

```
SELECT department,AVG(discharge_date-admission_date) AS avg_stay  
FROM HOSPITAL_DATA  
GROUP BY DEPARTMENT;
```

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

```
SELECT department,SUM(patient_count) AS lowest_patient FROM  
Hospital_Data  
GROUP BY Department  
ORDER BY lowest_patient ASC LIMIT 1;
```

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

```
SELECT (Admission_date, 'YYYY-MM') AS month,  
SUM(Medical_expenses) AS total_expeense
```

```
FROM Hospital_data  
GROUP BY Month ORDER BY Month;
```