

SQL Micro Course Certificate Assignment

```
drop table if exists Hospital_data;

CREATE table Hospital_data (
Hospital_Name varchar(100),
Location varchar(100),
Department varchar(100),
Doctors_Count int,
Patients_Count int,
Admission_Date date,
Discharge_Date date,
Medical_Expenses int
);

ALTER TABLE Hospital_Data
ALTER COLUMN Medical_Expenses TYPE FLOAT;
```

```
select * from Hospital_data
```

```
COPY Hospital_Data(Hospital_Name, Location, Department, Doctors_Count,
Patients_Count, Admission_Date, Discharge_Date, Medical_Expenses)
FROM 'C:\Program Files\Hospital data\Hospital_Data.csv'
WITH (FORMAT csv, HEADER);
```

--1. Total Number of Patients

```
select sum(Patients_Count) as Total_no_of_patients
```

from Hospital_Data;

--2. Average Number of Doctors per Hospital

SELECT AVG(doctor_total) AS average_doctors_per_hospital

FROM (

 SELECT Hospital_Name, SUM(Doctors_Count) AS doctor_total

 FROM Hospital_data

 GROUP BY Hospital_Name

) AS hospital_doctors;

--3. Top 3 Departments with the Highest Number of Patients

select Department,sum(Patients_count) as Highest_count_Patients from
Hospital_data

group By Department

order by Highest_count_Patients DESC Limit 3;

--4. Hospital with the Maximum Medical Expenses

select Hospital_Name,sum(Medical_Expenses) as Maximum_Medical_Expenses
from Hospital_data

group by Hospital_Name

order by Maximum_Medical_Expenses;

--5. Daily Average Medical Expenses

select Hospital_name, AVG(Medical_Expenses::FLOAT / GREATEST(Discharge_Date
- Admission_Date, 1)) AS medical_expenses_per_day from Hospital_data

group by Hospital_Name

Order by medical_expenses_per_day;

--6. Longest Hospital Stay

SELECT *,

 GREATEST(Discharge_Date - Admission_Date, 1) AS stay_length

FROM Hospital_data

ORDER BY stay_length DESC

LIMIT 1;

--7. Total Patients Treated Per City

```
select Location, sum(Patients_Count) as total_number_of_patients
from Hospital_Data
group by Location;
```

--8. Average Length of Stay Per Department

```
SELECT Department,
      avg (GREATEST(Discharge_Date - Admission_Date, 1)) AS average_stay_length
FROM Hospital_data
group by Department
order by average_stay_length DESC;
```

--9. Identify the Department with the Lowest Number of Patients

```
select Department, sum(Patients_count) as Lowest_Number_of_Patients
from Hospital_data
group by Department
order by Lowest_Number_of_Patients ASC LIMIT 1;
```

--10. Monthly Medical Expenses Report

```
SELECT
      TO_CHAR(Admission_Date, 'YYYY-MM') AS month,
      SUM(Medical_Expenses) AS total_medical_expenses
FROM
      Hospital_Data
GROUP BY
      TO_CHAR(Admission_Date, 'YYYY-MM')
ORDER BY
      month;
```