```
--create database
        create database HospitalDB

 --switch to the database
        \c HospitalDB

--create tables
        create table Hospital(
        Hospital_Name varchar(50),
        Location        varchar(50),
        Department      varchar(50),
        Doctors_Count  int,
        Patients_Count  int,
        Admission_Date          date,
        Discharge_Date date,
        Medical_Expenses numeric (10,2)
        )

select * from hospital;

--import data into hospital table
        COPY hospital (Hospital_Name, Location, Department, Doctors_Count, Patients_Count,
Admission_Date, Discharge_Date, Medical_Expenses)
        FROM 'D:\SQL Exercise\Assignment\Hospital_Data1.csv'
        CSV HEADER ;

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

        select SUM(Patients_Count) AS  Total_Patients from hospital ;
```

--2.Average Number of Doctors per Hospital

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

```
select AVG(Doctors_Count) AS  Avg_Doctors from hospital ;
```

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

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

```
select hospital_name, department, patients_count
from hospital
order by patients_count desc
LIMIT 3;
```

--4.Hospital with the Maximum Medical Expenses

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

```
SELECT Hospital_Name, Medical_Expenses
FROM Hospital
ORDER BY Medical_Expenses DESC
LIMIT 1;
```

--5.Daily Average Medical Expenses

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

```
SELECT Hospital_Name, Round(Medical_Expenses/(discharge_date - admission_date), 2)  As Daily_Avg_Expenses
FROM Hospital;
```

--6.Longest Hospital Stay

--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 Longest_Stay
FROM Hospital
ORDER BY Longest_Stay DESC
LIMIT 1;
```

--7.Total Patients Treated Per City

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

```
SELECT Location, SUM(Patients_Count) AS Total_Patients
FROM Hospital
GROUP BY Location;
```

--8.Average Length of Stay Per Department

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

```
SELECT Department,
    ROUND(AVG(Discharge_Date - Admission_Date),2) AS Avg_Length_of_Stay
FROM Hospital
GROUP BY Department;
```

--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
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 DATE_PART('month', Admission_Date) AS Month,
        SUM(Medical_Expenses) AS Total_Medical_Expenses
    FROM Hospital
    GROUP BY DATE_PART('month', Admission_Date)
    ORDER BY Month;
```