

Hospital Data Analysis :-

Create the Table in the PostgreSQL

```
CREATE TABLE Hospital(  
  Hospital_Name VARCHAR(100) NOT NULL,  
  Location VARCHAR(100) NOT NULL,  
  Department VARCHAR(100) NOT NULL,  
  Doctors_Count INT,  
  Patients_Count INT,  
  Admission_Date DATE,  
  Discharge_Date DATE,  
  Medical_Expenses NUMERIC (10,2)  
);
```

```
SELECT * FROM Hospital;
```

Question 1 :-

Total Number of Patients

Query

```
SELECT SUM(Patients_Count) AS Total_Patient  
FROM Hospital;
```

Result

total_patient	
bigint	
	9347

Question 2 :-

Average Number of Doctors per Hospital

Query

```
SELECT ROUND(AVG(Doctors_Count), 0) AS Average_Doctors  
FROM Hospital;
```

Result

average_doctors	
numeric	
	26.71

Question 3 :-

Top 3 Departments with the Highest Number of Patients

Query

```
SELECT department , MAX(Patients_Count) as Highest_Patient_Count  
from Hospital  
group by department  
order by Highest_Patient_Count DESC  
limit 3;
```

Result

department	highest_patient_count
character varying (100)	integer
ENT	198
Neurology	194
Oncology	193

Question 4 :-

Hospital with the Maximum Medical Expenses

Query

```
SELECT Hospital_Name, sum(Medical_Expenses) as Highest_Expense
FROM Hospital
GROUP BY Hospital_Name
order by Highest_Expense DESC
limit 3;
```

Result

hospital_name	highest_expense
character varying (100)	numeric
Healing Touch	352178.06
City Hospital	347988.44
Fortis Care	337677.36

Question 5 :-

Daily Average Medical Expenses

Query

```
SELECT Hospital_Name , AVG(Medical_Expenses) AS AVERAGE_EXPENSE
FROM Hospital
group by Hospital_Name
order by AVERAGE_EXPENSE DESC;
```

Result

hospital_name	average_expense
character varying (100)	numeric
City Hospital	34798.84
Fortis Care	30697.94
Global Medicare	29976.31
Sunrise Medical	29131.37
Metro Hospital	28616.91
Apollo Health	25212.28
Healing Touch	25155.58
Wellness Clinic	25066.83
Heritage Hospital	20766.56
Green Valley Hospital	20273.60

Question 6 :- Longest Hospital Stay

Query

```
SELECT Hospital_Name , SUM(Discharge_Date - Admission_Date) AS LONGEST_STAY
from Hospital
GROUP BY Hospital_Name
ORDER BY LONGEST_STAY DESC;
```

Result

hospital_name character varying (100) 🔒	longest_stay bigint 🔒
Healing Touch	101
Metro Hospital	97
Global Medicare	94
Apollo Health	87
City Hospital	81
Heritage Hospital	80
Fortis Care	77
Wellness Clinic	62
Green Valley Hospital	62
Sunrise Medical	54

Question 7 :- Total Patients Treated Per City

Query

```
SELECT Location , SUM(Patients_Count) AS PATIENT_COUNT
from Hospital
GROUP BY Location
ORDER BY PATIENT_COUNT DESC;
```

Result

location character varying (100) 🔒	patient_count bigint 🔒
Jaipur	1505
Ahmedabad	1467
Lucknow	1264
Hyderabad	1261
Bangalore	955
Chennai	840
Kolkata	596
Pune	555
Mumbai	483
Delhi	421

Question 8 :- Average Length of Stay Per Department

Query

```
SELECT Department , AVG(Discharge_Date-Admission_Date) AS AVG LENGHT_STAY
FROM Hospital
group by Department
order by AVG_LENGHT_STAY desc;
```

Result

department character varying (100)	avg_lenght_stay numeric
Urology	9
Neurology	9
Pediatrics	9
Oncology	8
ENT	8
Gynecology	8
General Medicine	7
Orthopedics	7
Cardiology	7
Dermatology	6

Question 9 :- Identify the Department with the Lowest Number of Patients

Query

```
select department , sum(Patients_Count) as Minimum_patient
from hospital
group by Department
order by Minimum_patient ASC;
```

Result



department character varying (100)	minimum_patient bigint
Cardiology	544
General Medicine	563
Gynecology	678
Orthopedics	762
Oncology	770
Dermatology	978
Pediatrics	993
ENT	1064
Neurology	1229
Urology	1766

Question 10 :- Monthly Medical Expenses Report

Query

```
SELECT TRIM(TO_CHAR(Admission_Date, 'Month')) AS Month_Name,
       SUM(Medical_Expenses) AS Total_Exp
FROM Hospital
GROUP BY TO_CHAR(Admission_Date, 'Month'), EXTRACT(MONTH FROM Admission_Date)
ORDER BY EXTRACT(MONTH FROM Admission_Date);
```

Result

month_name 	total_exp 
text	numeric
January	173971.54
February	301722.72
March	199247.42
April	88995.93
May	222986.72
June	165926.36
July	211527.13
August	181039.55
September	341284.23
October	158450.68
November	334370.33
December	337788.45