

## Solution of given problems in assignment

### 1. Total Number of Patients

```
mysql> select sum(patients_Count) as total_patients from hospital;
+-----+
| total_patients |
+-----+
|      9347 |
+-----+
```

### 2. Average Number of Doctors per Hospital

```
mysql> select hospital_name,avg(Doctors_Count) from hospital group by hospital_name;
+-----+-----+
| hospital_name | avg(Doctors_Count) |
+-----+-----+
| Wellness Clinic |      34.0000 |
| Fortis Care |      24.5455 |
| Heritage Hospital | 24.6667 |
| City Hospital |      24.7000 |
| Global Medicare | 28.7273 |
| Apollo Health |      23.3636 |
| Green Valley Hospital | 28.8750 |
| Healing Touch |      25.6429 |
| Sunrise Medical | 28.6250 |
| Metro Hospital |      27.4545 |
+-----+-----+
```

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

```
mysql> select Department,sum(Patients_Count) as total_patients from hospital group by department order by total_Patients desc limit 3;
+-----+-----+
| Department | total_patients |
+-----+-----+
| Urology |      1766 |
| Neurology |      1229 |
| ENT |      1064 |
+-----+-----+
```

### 4. Hospital with the Maximum Medical Expenses

```
mysql> select hospital_name,max( Medical_Expenses) from hospital group by hospital_name order by max( Medical_Expenses) desc limit 1;
+-----+-----+
| hospital_name | max( Medical_Expenses) |
+-----+-----+
| Healing Touch |      49955.4 |
+-----+-----+
```

### 5. Daily Average Medical Expenses

```
mysql> select hospital_name,round(sum( Medical_Expenses)/sum(Discharge_Date-Admission_Date) + 1,2) as average from hospital group by hospital_name order by average desc;
+-----+-----+
| hospital_name | average |
+-----+-----+
| Apollo Health |    3188.76 |
| Healing Touch |    1468.41 |
| Green Valley Hospital | 1229.7 |
| Sunrise Medical | 1202.29 |
+-----+-----+
```

## **Solution of given problemsin assignment**

| City Hospital | 957.01 |

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Heritage Hospital   649.95
Fortis Care   38.75
Global Medicare   37.51
Wellness Clinic   20.35
Metro Hospital   18.58
-----+-----+

### 6. Longest Hospital Stay

```
mysql> select department,datediff(Discharge_Date,Admission_Date )+ 1 as  
longest_day_stay from hospital order by longest_day_stay desc limit 1;
```

+-----+-----+
department   longest_day_stay
+-----+-----+
ENT   16
+-----+-----+

### 7. Total Patients Treated Per City

```
mysql> select Location,count(Patients_Count) as total_patients from hospital group by  
location order by total_patients desc;
```

+-----+-----+
Location   total_patients
+-----+-----+
Ahmedabad   17
Jaipur   16
Hyderabad   11
Lucknow   11
Bangalore   11
Pune   9
Chennai   8
Kolkata   6
Delhi   6
Mumbai   5
+-----+-----+

### 8. Average Length of Stay Per Department

```
mysql> select department,AVG(DATEDIFF(Discharge_Date, Admission_Date) + 1) AS  
average_stay from hospital group by department order by average_stay;
```

+-----+-----+
department   average_stay
+-----+-----+
Dermatology   6.6000
Cardiology   7.8571
Orthopedics   8.1429
General Medicine   8.4286
Gynecology   8.6667
ENT   9.0833
Oncology   9.1111
Urology   9.7222
Pediatrics   10.1111
Neurology   10.2500
+-----+-----+

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

```
mysql> select department,min(Patients_Count) as minimum_patients from hospital group by department order by minimum_patients asc limit 1;
+-----+-----+
| department | minimum_patients |
+-----+-----+
| Gynecology |      20 |
+-----+-----+
```

### 10. Monthly Medical Expenses Report

```
mysql> select DATE_FORMAT(Discharge_Date, '%m') AS Month,round(sum(Medical_Expenses),2) as total_expenses from hospital group by month order by month asc;
+-----+-----+
| Month | total_expenses |
+-----+-----+
| 01   | 295397.24 |
| 02   | 317550.06 |
| 03   | 183909.86 |
| 04   | 141632.34 |
| 05   | 229987.55 |
| 06   | 71899.48  |
| 07   | 223866.77 |
| 08   | 262726.79 |
| 09   | 259287.02 |
| 10   | 235363.78 |
| 11   | 318388.85 |
| 12   | 177301.32 |
```