

# 30 DAYS SQL MICRO COURSE BY SATISH DHAWALE

## MICRO COURSE ASSIGNMENT ANSWERS FOR CERTIFICATE

---

1. Total Number of Patients

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

ANSWER: -

```
SELECT SUM(patients_count) AS total_patients  
FROM hospital_data;
```

2. Average Number of Doctors per Hospital

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

ANSWER: -

```
SELECT hospital_name, AVG(doctors_count) AS avg_doctors  
FROM hospital_data  
group by hospital_name;
```

3. Top 3 Departments with the Highest Number of Patients

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

ANSWER: -

```
SELECT department, SUM(patients_count) as total_patients  
FROM hospital_data  
GROUP BY department  
ORDER BY total_patients DESC  
LIMIT 3;
```

4. Hospital with the Maximum Medical Expenses

- Identify the hospital that recorded the highest medical expenses.

ANSWER: -

```
SELECT hospital_name, SUM(medical_expenses) AS total_expenses  
FROM hospital_data  
GROUP BY hospital_name  
ORDER BY total_expenses DESC LIMIT 1;
```

5. Daily Average Medical Expenses

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

ANSWER: -

```
SELECT hospital_name,  
SUM(medical_expenses) AS total_expenses,  
SUM((discharge_date - admission_date)+1) AS total_stay_duration,  
SUM(medical_expenses) / SUM((discharge_date - admission_date)+1) AS  
avg_expenses_per_day  
FROM hospital_data  
group by hospital_name;
```

6. Longest Hospital Stay

- Find the patient with the longest stay by calculating the difference between Discharge Date and Admission Date.

ANSWER: -

```
SELECT (discharge_date - admission_date) AS stay_duration  
FROM hospital_data  
ORDER BY stay_duration DESC  
LIMIT 1;
```

7. Total Patients Treated Per City

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

ANSWER: -

```
SELECT Location, SUM(Patients_Count) AS total_patients  
FROM hospital_data  
GROUP BY Location;
```

8. Average Length of Stay Per Department

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

ANSWER: -

```
SELECT department, avg((discharge_date - admission_date)+1) AS stay_duration
```

```
FROM hospital_data  
group by department;
```

9. Identify the Department with the Lowest Number of Patients

- Find the department with the least number of patients.

ANSWER: -

```
SELECT department, SUM(patients_count) AS total_patients  
FROM hospital_data  
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.

ANSWER: -

```
SELECT DATE_PART('MONTH', admission_date ) AS month,  
SUM(medical_expenses) AS total_expenses  
FROM hospital_data  
GROUP BY month  
ORDER BY month;
```