

## 30 DAYS SQL MICRO COURSE ANSWER PDF

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### 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;
```

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### 2. Average Number of Doctors per Hospital

Retrieve the average count of doctors available in each hospital.

**Answer: -**

```
SELECT HOSPITAL_NAME,
       ROUND(AVG(DOCTORS_COUNT), 0) AS AVERAGE_DOCTORS_IN_HOSPITAL
FROM HOSPITAL_DATA
GROUP BY HOSPITAL_NAME;
```

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### 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;
```

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### 4. Hospital with the Maximum Medical Expenses

Identify the hospital that recorded the highest medical expenses.

**Answers: -**

```
SELECT HOSPITAL_NAME,
       SUM(MEDICAL_EXPENSES) AS TOTAL_MEDICAL_EXPENSES
FROM HOSPITAL_DATA
GROUP BY HOSPITAL_NAME
```

ORDER BY TOTAL\_MEDICAL\_EXPENSES DESC

LIMIT 1;

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### 5. Daily Average Medical Expenses

Calculate the average medical expenses per day for each hospital.

**Answer: -**

```
SELECT HOSPITAL_NAME,
       ROUND(
           AVG(MEDICAL_EXPENSES / (DISCHARGE_DATE::DATE -
                                   ADMISSION_DATE::DATE)),2
       ) AS DAILY_AVG_MEDICAL_EXPENSES
FROM HOSPITAL_DATA
WHERE (DISCHARGE_DATE::DATE - ADMISSION_DATE::DATE) > 0
GROUP BY HOSPITAL_NAME
ORDER BY DAILY_AVG_MEDICAL_EXPENSES;
```

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### 6. Longest Hospital Stay

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

**Answer: -**

```
SELECT HOSPITAL_NAME,
       DEPARTMENT,
       ADMISSION_DATE,
       DISCHARGE_DATE,
       (DISCHARGE_DATE::DATE - ADMISSION_DATE::DATE) AS STAY_DURATION_DAYS
FROM HOSPITAL_DATA
ORDER BY STAY_DURATION_DAYS DESC
LIMIT 1;
```

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### 7. Total Patients Treated Per City

Count the total number of patients treated in each city.

**Answer: -**

```
SELECT LOCATION AS CITY,
       SUM(PATIENTS_COUNT) AS TOTAL_PATIENTS_TREATED
```

```
FROM HOSPITAL_DATA  
GROUP BY LOCATION  
ORDER BY TOTAL_PATIENTS_TREATED DESC;
```

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### 8. Average Length of Stay Per Department

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

**Answer: -**

```
SELECT DEPARTMENT,  
       ROUND(  
           AVG(DISCHARGE_DATE::DATE - ADMISSION_DATE::DATE),0  
       ) AS AVG_STAY_DAYS  
FROM HOSPITAL_DATA  
WHERE (DISCHARGE_DATE::DATE - ADMISSION_DATE::DATE) > 0  
GROUP BY DEPARTMENT  
ORDER BY AVG_STAY_DAYS DESC;
```

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### 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;
```

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### 10. Monthly Medical Expenses Report

Group the data by month and calculate the total medical expenses for each month.

**Answer: -**

```
SELECT TO_CHAR(  
       DATE_TRUNC('MONTH', DISCHARGE_DATE::DATE), 'MON-YYYY'  
       ) AS MONTH,
```

```
ROUND(SUM(MEDICAL_EXPENSES), 2) AS TOTAL_MEDICAL_EXPENSES
FROM
    HOSPITAL_DATA
GROUP BY
    DATE_TRUNC('MONTH', DISCHARGE_DATE::DATE)
ORDER BY
    DATE_TRUNC('MONTH', DISCHARGE_DATE::DATE);
```