

30 DAYS SQL MICRO COURSE ANSWER PDF

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,  
       ROUND(AVG(DOCTORS_COUNT), 0) AS AVERAGE_DOCTORS_IN_HOSPITAL  
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.

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;
```

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;
```

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;
```

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;
```

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;
```

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 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);
```