

-- Hospital Data Analysis using SQL--

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_records;
```

Output:

Data Output		Messages	Notifications
			Showing rows: 1 to 1
	total_patients bigint		
1	9347		

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 Total_Doctos
From hospital_records
Group By hospital_name;
```

Output:

Data Output		Messages	Notifications
			Showing rows: 1 to 10
	hospital_name character varying (100)	total_doctos numeric	
1	City Hospital	24.7000000000000000	
2	Healing Touch	25.6428571428571429	
3	Global Medicare	28.7272727272727273	
4	Fortis Care	24.5454545454545455	
5	Sunrise Medical	28.6250000000000000	

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 Highest_number_of_patients  
from hospital_records  
Group BY department  
Order by Highest_number_of_patients  
Desc limit 3;
```

Output:

Data Output Messages Notifications		
Showing rows: 1 to 3		
	department character varying (100)	highest_number_of_patients bigint
1	Urology	1766
2	Neurology	1229
3	ENT	1064

4. Hospital with the Maximum Medical Expenses

Identify the hospital that recorded the highest medical expenses.

Answer:

```
Select hospital_name,  
MAX(medical_expenses) AS MAX_medical_expenses  
From hospital_records  
Group by hospital_name  
order by MAX_medical_expenses DESC limit 1;
```

Output:

Data Output Messages Notifications		
Showing rows: 1 to 1		
	hospital_name character varying (100)	max_medical_expenses numeric
1	Healing Touch	49955.41

5. Daily Average Medical Expenses

Calculate the average medical expenses per day for each hospital.

Answer:

```
Select hospital_name, admission_date,  
Avg(medical_expenses) AS avg_daily_expenses  
From hospital_records  
Group by hospital_name, admission_date  
order by admission_date;
```

Output:

	hospital_name character varying (100)	admission_date date	avg_daily_expenses numeric
1	Apollo Health	2023-01-11	22456.610000000000
2	Global Medicare	2023-01-16	17999.480000000000000000
3	Metro Hospital	2023-01-18	35570.84000000000000
4	Global Medicare	2023-01-18	46741.91000000000000
5	Wellness Clinic	2023-01-20	26646.52000000000000

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,  
(discharge_date - admission_date) AS stay_days  
From hospital_records  
Order by stay_days  
Desc limit 1;
```

Output:

	hospital_name character varying (100)	stay_days integer
1	Apollo Health	15































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_records  
GROUP BY location;
```

Output:

Data Output			Messages	Notifications
			                            	Showing rows: 1 to 10 
	location character varying (100)	total_patients bigint		
1	Bangalore	955		
2	Jaipur	1505		
3	Lucknow	1264		
4	Mumbai	483		
5	Kolkata	596		































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) AS avg_stay_days  
FROM hospital_records  
GROUP BY department;
```

Output:

Data Output			Messages	Notifications
			                            	Showing rows: 1 to 10 
	department character varying (100)	avg_stay_days numeric		
1	Dermatology	5.6000000000000000		
2	Oncology	8.1111111111111111		
3	ENT	8.0833333333333333		
4	Neurology	9.2500000000000000		
5	Gynecology	7.6666666666666667		

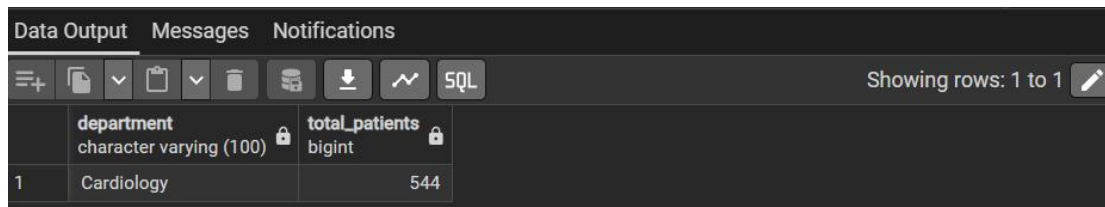
9. Identify the Department with the Lowest Number of Patients

Find the department with the least number of patients

Answer:

```
SELECT department,  
SUM(patients_count) AS total_patients  
FROM hospital_records  
GROUP BY department  
ORDER BY total_patients ASC  
LIMIT 1;
```

Output:



The screenshot shows a database interface with tabs for 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is active, displaying a table with two columns: 'department' (character varying (100)) and 'total_patients' (bigint). The table contains one row: 'Cardiology' with 544 patients. The interface includes a toolbar with icons for various actions and a status bar indicating 'Showing rows: 1 to 1'.

	department character varying (100)	total_patients bigint
1	Cardiology	544

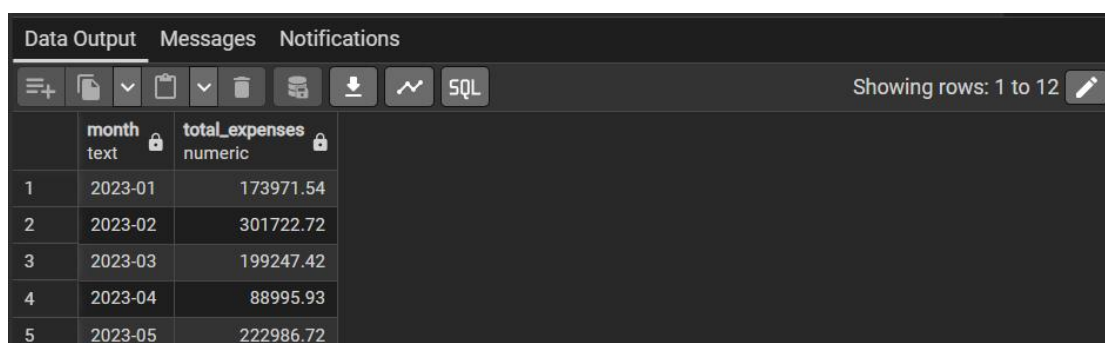
10. Monthly Medical Expenses Report

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

Answer:

```
SELECT TO_CHAR(admission_date, 'YYYY-MM') AS month,  
SUM(medical_expenses) AS total_expenses  
FROM hospital_records  
GROUP BY month  
ORDER BY month;
```

Output:



The screenshot shows a database interface with tabs for 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is active, displaying a table with two columns: 'month' (text) and 'total_expenses' (numeric). The table contains five rows of data for the months of 2023. The interface includes a toolbar with icons for various actions and a status bar indicating 'Showing rows: 1 to 12'.

	month text	total_expenses numeric
1	2023-01	173971.54
2	2023-02	301722.72
3	2023-03	199247.42
4	2023-04	88995.93
5	2023-05	222986.72