

Task : 3.2 Aggregate functions (Multi Row operation)

18/8/25.

Aim :

To study and implement aggregate function (COUNT(), SUM(), AVG(), MIN(), MAX()) on a sample database.

Procedure.

1. Create a table named students.
2. Insert sample records.
3. Write queries using aggregate function.
4. Observe and record the output.

COMMANDS WITH EXPLANATION:

Example Table: patients.

patient ID	patientname	Dept	Bill Amount
101	Arun	Cardiology	2000
102	Sneha	Nephrology	3500
103	Karan	Orthopedics	1500
104	Neena	Pediatrics	4000
105	Rohan	Dermatology	

- 1) Count the total number of patient.

SQL:

```
SELECT COUNT(*) AS Total_patients  
FROM patients;
```


output :

Total - patients .

5 .

2) Find the highest bill amount .

SQL :

```
SELECT MAX (Bill Amount) AS highest_Bill  
FROM patients ;
```

output :

Highest - Bill

4000

3) Find the average bill amount of patients

SQL :

```
SELECT AVG (Bill amount) AS Average - bill  
FROM patients .
```

output :

Average - Bill

2700

4) Find the minimum bill amount among patients in Neurology department .

SQL :

```
SELECT Min (Bill Amount) AS Min - neuro - Bill
```

output :

Min - neuro - Bill

3500

5. Find the total bill amount by each department.

SQL:

```
SELECT Department, SUM (Bill Amount) As  
Total - Bill
```

```
FROM patients.
```

```
GROUP BY Department ;
```

output :

Department	Total - Bill
cardiology	2000
neurology	3500
orthopedics	1500
pediatrics	4000
Dermatology	

6. Find the average bill per department, ordered by average descending.

SQL:

```
SELECT Department, Avg (Bill amount) As  
Avg Bill.
```

```
FROM patients
```

```
GROUP BY Department
```

```
ORDER BY Avg - Bill DESC ;
```


output :

Department	Avg-Bill
pediatrics	4000
neurology	3500
Dermatology	2500
orthopedics	1500
cardiology	2000

VEL TECH - CSE	
EX NO.	B.2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	4
RECORD (5)	-
TOTAL (20)	14
SIGN WITH DATE	

Result :

The implementation of Aggregate functions are executed successfully.

8/07/25