

# 8/8/25 Task 3 - Using clauses, operations and Functions In Queries

Title: Implementation of DML commands using clauses, operators and functions in queries.

- Insert Table
- Select Table
- Update Table
- Delete Table

Objectives:  
To understand the different issues involved in the design and implementation of a database system.

Theory:

Data Manipulation Language (DML):

The Data Manipulation language is used to retrieve, insert and modify database information. Let's take a brief look at the basic DML commands.

1. Insert
2. Update
3. Delete

Insert Into: This is used to add records into a relation. These are three types of Insert into Queries which are as:

Inserting a single word:

Syntax: ~~INSERT INTO < relation | tableName > (field-1, field-2... field-n) VALUES (data-1, data-2, data-n);~~

2. Update - set - where: This is used to update the content of a record in a relation.

Syntax: ~~SQL > update relation name SET field-name1 = data1, field-name2 = data2, where field-name = data.~~

3. Delete - From: This is used to delete all the records of a relation but it will retain the structure of that relation.

a) Delete - From: This is used to delete all the records of relation.

Syntax: ~~SQL > Delete From relation-name;~~

b) Delete - From - where: This is used to delete

Output	Available Tables	
shipping_id	status	customer
1	Pending	2
2	Pending	4
3	Delivered	3
4	Pending	5
5	Delivered	1

STUDENTS		
ROLLNO	Name	AGE
101	Rahul	

a selected record from a relation.

Syntax : SQL > Delete From relation-name  
WHERE condition;

ii. TRUNCATE : This command will remove the data permanently. But structure will not be removed

Syntax : TRUNCATE TABLE <Table Name>

Output

Total Employees

Employees with salary

54

Output

Highest salary

90000

Output

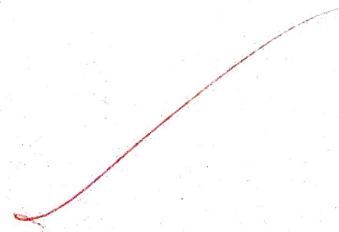
lowest salary

65000

Output

Avg salary

77500



## TASK 3.2 : AGGREGATE FUNCTIONS (MULTI ROW OPERATION)

Aim: TO Study and implement aggregate function COUNT(), SUM(), AVG(), MIN(), MAX() on a sample student database

Procedure :

1. Create a table named Students.
2. Insert sample records.
3. Write Queries using aggregate functions.
4. Observe and record the output.

Commands with Explanation :

1. Count the total number of STUDENTS  
Select COUNT(\*) AS Total - Students FROM Students;

Explanation:

- MAX(Marks) returns the max value in marks column.
  - AS Total - Students gives a user-friendly column name.
2. Find the highest marks obtained by a student  
Select MAX(Marks) AS Higher-Mark FROM Students;

Explanation:

- MAX(Marks) returns the max-value in the marks column.
  - This tells us the scorer's mark.
3. Find the average marks of students  
Select AVG(Marks) AS Avg-Mark FROM Students;

Explanations:

- AVG(Marks) calculates the mean (average) of all student marks.
4. Find the minimum marks among students in the ECE department.  
Select MIN(Marks) AS Min-ECE-Mark FROM Students  
where Department = "ECE";

Explanation:

- MIN(Marks) finds the lowest mark
- where Department = "ECE" restricts the calculation only to ECE students.

Output

Total payment = 310000

310000

investment after 2 years = 310000

5. Find the total marks scored by student in each department.  
Select Department, SUM(Marks) AS Avg\_Marks  
From students group By Department.

Explanation :

- SUM(Marks) adds up marks.
- Group By Development ensures that the total is calculated for each department separately.

~~Result: Thus the SQL commands executed successfully Management~~  
based on student Database system.

VEL TECH-CSE	
EX NO.	3
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	15
SIGN WITH DATE	A/2018