8/8/25

Task 3: Using Clauses, Operations and Functions in Queries.

Title: Implementation of DML Commands using the Clauses, Operations and functions in queries.

- Insert Table
- Select Table
- update Table
- Delete Table.

Objection: 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. Lets take a breif 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 type of insert into queries which are as:

Inserting a single word:

Syntax: INSERT INTO < relation / table Name > (field 1, field < - - - field-n) VALUES (data-1, data-2, data-n);

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

Output

Shipping_id	Status	Customer
1	Pending	2
2	Pending	4
3	Delivered	3
4	Delivered	5
5	Delivered	1

STUDENTS

RollNo	Name	AGE
101	Rahul	

Syntax: SQL > Update relation name SET Field_name 1 = data, field_name 2 = data, where field_name = data.

3 Delete_form: This is used to delete all the records of a relation but it will retain the structure of that relation

a) Delete_form; This is used to delete all the records of a relation. ~~but it~~

b) Delete_form_where; This is used to delete a selected record from a relation

Syntax: SQL > Delete from relation_name WHERE Condition;

4. TRUNCATE: This Command will remove the data Permanently. But Structure will not be removed.

Syntax: TRUNCATE TABLE < Table Name >

8 labs

Task 3.2:- Aggregate Functions (MULTI ROW Operations)

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;
```

2. Find the highest marks obtained by student

```
Select Max(Marks) As Higher_Mark From
Students;
```

3. Find the average marks of students

```
Select AVG(Marks) As Avg_Mark From Students;
```

4. Find the minimum marks among students in the ECE department.

```
Select Min(Marks) As Min_ECE_Mark From Students
where Department = "ECE";
```

output

Total Employees

Employees with Salary

54

output

highest Salary

90000

output

lowest Salary

65000

output

avg Salary

77500

Output

Total Pay

310000

5. Find the total marks scored by student in each department.

```
Select Department, SUM(Marks) As AVG_Marks
From students group by Department;
```

VEL TECH - CSE	
EX NO.	5
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (25)	10
SIGN WITH DATE	

Result:

Thus, the SQL Commands executed successfully based on students Database Managment System