

Task 3: DML commands using clauses, Operators & Functions in Queries

Aim: To DML commands using clauses, operators & functions in Queries

Data Manipulation Language (DML):- The DML is used to retrieve, insert and modify database information. These commands will be used by all database user during the routine operation of the database

DML Commands:

1) Insert into: This is used to add records into relation

Syntax: `INSERT INTO table_name (col1, col2, ...)
values (val1, val2, ...);`

Example:

SQL insert into customer values1, 'JohnDoe', '123-456-789',
'Newyork', 100.00);

SQL insert into customer values2, 'Smith', '987-654-321',
'Chicago', 200.00);

SQL insert into customer values3, 'Krish', '555-123-456',
'America', 50.00);

After inserting:

Cust ID	Cust_Name	Phone_NO	city	Amount Paid
1	JohnDoe	123-456-789	Newyork	100.00
2	Smith	987-654-321	Chicago	200.00
3	Krish	555-123-456	America	50.00

2) Update-set-where

This is used to update the constant of a record in a relation

Syntax: `SQL > update table_name
SET column = value
WHERE condition;`

Example:- `SQL > update customer
SET Cust_phoneNO = '999 888 776'
WHERE Cust-ID = 1;`

After updating:

Cust-ID	Cust-Name	Phone-NO	city	Amount-Paid
1	John Doe	9998887776	New York	100.000
2	Smith	987654321	Chicago	20000
3	Krish	555123456	America	50.00

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

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

Syntax: SQL > Delete from table name;

Example: SQL > Delete from customer;

After deleting:-

Cust-ID	Cust-Name	Phone-NO	city	Amount-Paid
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b) Delete From Where:- This is used to delete a records select of relation

Syntax: SQL > Delete from relation_name where condition;

Example: SQL > Delete from customer
WHERE Cust-ID = 2;

After deleting:

Cust-ID	Cust-Name	phone-NO	city	Amount-Paid
1	John Doe	9998887776	New York	100.000
3	Krish	555123456	America	50.00

5. Truncate: This command will remove the data permanently But structure will not be removed

Syntax: Truncate table <TableName>

Example: Truncate Table customer;

Cust-ID	Cust-Name	Phone-NO	city	Amount-Paid
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Distinct

Query: select Distinct cust-city

from customer;

Output:

Cust-city

New York

Chicago

America

Union:

Query: select cust-Name AS Name from Customer Union

select mobile-Name AS Name from mobile;

Output : Name

John

Alice

Ravi

Meena

VEL TECH	
EX NO.	3.1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	4
RECORD (5)	
TOTAL (20)	14
SIGN WITH DATE	

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Result: The implementation of DML commands using DCL operators and functions in queries executed successfully.

Task: 3.2 Aggregate Functions

Aim: To study and implement aggregate function (Count(), Sum(), Avg(), Min(), Max()) on a sample mobile phone database

Procedure:

1. create a table named mobilephone
2. Insert Sample records
3. write queries using aggregate functions
4. Observe and record output.

Commands with explanation

1) Count the total number of mobile phones

```
SELECT COUNT (*) AS Total mobile phones FROM mobile phone;
```

Output: Total mobile phones: 3

2) Find the highest purchase obtained by a mobile phone

```
SELECT Max (purchase) AS highest - purchase
```

```
FROM Mobile phone;
```

Output: Highest - purchase: 30000

3) Find the average amount of mobile phone

```
SELECT AVG (amount) AS Average - amount
```

```
FROM mobile phone;
```

Output: Average - amount: 15000

4) Find Minimum purchase among mobile phone in the brand

```
SELECT MIN (purchase) AS Min - Brand Purchase;
```

```
FROM Mobile phone
```

```
WHERE Mobile phone = 'Redmi';
```

5) Find the total amount in the mobile phone in each category Brand.

```
SELECT Brand, Sum (amount) AS total - amount in each
```

```
FROM purchase Mobile phone 'Brand';
```

Output:

<u>Brand</u>	<u>Total amount</u>
Realme	30,000
Redmi	15,000
VIVO	25,000

b) Find the average amount per brand ordered by average descending

SELECT Brand, avg(amount) as Avg-amount from mobile phones group by brands ordered by avg-amount desc;

Output:

<u>Brand</u>	<u>Avg-amount</u>
Vivo	25,000
Redmi	15,000
Realme	30,000

VEL TECH	
EX NO.	3.2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	4
RECORD (5)	
TOTAL (20)	14
SIGN WITH DATE	

Result: Thus, The implementation of Aggregate functions executed successfully.