

Task - No: 3.1 DML Commands using clauses, operators and Functions in Queries.

Aim: To Implement DML Commands using clauses, operators and functions in queries.

Data manipulating language (DML):

The DML is used to retrieve, insert and modify database information, these commands will be used by all database users during the routine operation of the database.

DML Commands:

1. Insert Into: This is used to add records into a relation.

syntax: Insert Into < table name > (field 1, field 2 - field n)

Values (data-1, data-2, ..., data-n);

Example: SQL > Insert Into customer Values (238, 'Ram', 'Chennai', '986264090');

SQL > Insert Into customer Values (409, 'Rocky', 'Vizag', '8441180892');

SQL > Insert Into customer Values (112, 'Vishat', 'Hyderabad', '704986929');

After Inserting:

customer ID	name	address	Ph-no.
238	Ram	Chennai.	986264090.
409	Rocky	Vizag	8441180892
112	Vishat	Hyderabad	704986929

2. Update - set - where.

This is used to update the content of a record in a relation.

syntax: SQL > update relation name set field_name 1 = data,
field_name 2 = data, where field_name = data;

Example: SQL > update customer set name = 'Kumar' where
customer-ID = 409.

After updating:

customer ID	name	address	Ph-no.
238	Ram	Chennai	980204090
409	Kumar	Vizag	844118092
112	Virat	Hyderabad	704986929.

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 customer;

After deleting:

customer ID	name	address	Ph-no

b) Delete - from - where: This is used to delete a selected record from a relation.

syntax: SQL > Delete from relation-name where condition;

Example: SQL > Delete from customer where name = 'Ram';

After Deleting:

customer ID	name	address	Ph-no.
409	Kumar	Vizag	844118092
112	Virat	Hyderabad	704986929.

5. Truncate

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

Syntax: `Truncate Table <Table name>`

Example: `Truncate Table customer;`

After Truncate:

customerID	name	address	ph-no

Queries

1. Retrieve a member name starts with letter 'V'.

Query: `select name from bank-account where name like 'V%';`

output:

<u>Name</u>
Vijay
Vikram
Virat.

2. List of Accounts where balance 10000 and 20000;

Query: `select * from bank-account where balance between 10000 and 20000;`

output:

Name	Account-number	Balance	category.
Vijay	2345	10000	Savings
Vikram	7890	20000	savings

3. Finding records who has minimum Balance.

Query: `select min(balance) from bank-account;`

Output: Min (Balance)
10000

4. Finding records who has Balance ≥ 20000 ;

Query: select * from bank-account where balance ≥ 20000 ;

output:

Name	Account-number	Balance	category
Vikram	7890	20000	savings
Virat	4549	35000	savings
akash	8987	50000	savings

5. Distinct

Query: select name from customer uni

Query: select distinct category from Bank-account;

output: category
savings.

6. Union

Query: select name from customer union select name from bank-account;

output:

Name
Rocky
Virat
Vikram
Akash.

VEL TECH	
EX NO.	3-1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	15
TOTAL (20)	26/8
SIGN WITH DATE	

Result: The Implementation of DML commands using clauses, operators and functions in queries executed successfully.

Aggregate Functions

Aim: To study and implement aggregate functions (count(), sum(), Avg(), min(), max()).

Procedure:

1. create a table named Bank-account.
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-amount from Bank-Account;

output: Total amount
4.

2. Find the highest amount in the account.

select max(balance) as Highest-amount from Bank-Account;

output: Highest-amount
50000

3. Find the average amount of Accounts

select Avg(balance) as Average-amount from Bank-Account;

output: Average-amount
28750.

4. Find minimum Amount of the Account

Query: select min(balance) as min-amount from Bank-account;

output: Min-account

10000

5. Find the total amount in the Bank Account in each category.

Query: select category, sum (balance) as total-amount
from bank-account group by category;

output:

<u>category</u>	<u>Total-amount</u>
Savings	30000
Savings salary	35000
Savings RD	50000.

6. Find the average Balance per category ordered by average Balance descending.

Query: select category, avg (balance) as avg-balance
from bank-account group by category order
by avg-balance desc;

output:

<u>category</u>	<u>Avg-Balance</u>
Savings RD	50000
Savings	35000
Savings	30000.

VEL TECH	
EX NO.	3.2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	15
TOTAL (20)	40
SIGN WITH DATE	26/8

Result: The implementation of Aggregate functions
executed successfully.