

19/08/25

### 3) DML commands using clauses, operation and functions in queries

Aim:- TO implement DML commands using clauses, operators and 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 using user during the routine operations 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 values,  
'John Doe', '123-456-789', 'New York',  
100.00);

SQL insert into customer values 2,

'Smith', '987-654-321', 'Chicago', 200.00

SQL insert into customer values 3, 'Krish',  
'555-123-456', 'America', 50.00);

AFTER inserting:

CUST-ID	CUST-NAME	PHONE-NO	CITY	AMOUNT PAID
1	John Doe	123-456-789	New York	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 content of a record in a relation

Syntax:- SQL> update table-name

SET column = value

WHERE condition;

Example:-

SQL> update customer

SET CUST-Phone no = 999888777

WHERE CUST-ID = 1;

AFTER UPDATING:

CUST-ID	CUST-NAME	PHONE-NUMBER	CITY	AMOUNT-Paid
1	JOHN DOE	9998887776	NEW YORK	100.00
2	SMITH	987654321	CHICAGO	200.00
3	KRISH	555123456	AMERICA	50.00

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 relation.

Syntax:- SQL> DELETE FROM table-name;

Ex:- SQL> DELETE FROM customer;

AFTER DELETING:-

CUST-ID	CUST-NAME	PHONE NO	CITY	AMOUNT PAID
1	JOHN DOE	9998887776	NEW YORK	100.00

b) Delete - From - Where:- This is used to delete a record s 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	9988877766	New York	100.00
2	Krish	555123456	America	50.00

### 5. TRUNCATE

This command will remove the data permanently but structure will not be removed

Syntax:- TRUNCATE TABLE <Table Name>

Example:- TRUNCATE TABLE customer;

CUST-ID	CUST-NAME	PHONE-NO	CITY	AMOUNT-PAID

Distinct:

Query: Select distinct cust-city  
from customer;

Output:

cost-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  
Raji  
Meena

VEL TECH	
EX NO.	3-1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	4
RECORD (5)	4
TOTAL (20)	14
PERCENTAGE	80
GRADE	A

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Result:- The implementation of DML

commands using clauses, operators  
and functions in queries executed  
successfully.

## 3.2 Aggregate Functions

Aim:- To study and implement aggregate functions (count(), sum(), avg(), min(), max()) on a sample mobile phone database.

### Procedure:-

- 1) Create a table named mobile phone
- 2) insert sample records
- 3) write queries using aggregate function
- 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  
FROM mobile Phone BY Brand;

Output:

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

6) 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 dec;

Output :

Brand

vivo

Redmi

Realme

Avg - amount

25,000

15,000

30,000

Result :- Thus , the implementation of aggregate functions executed successfully .

VEL TECH	
EX NO.	3-2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	4
RECORD (5)	4
TOTAL (20)	14
DATE	8/10/2023

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