

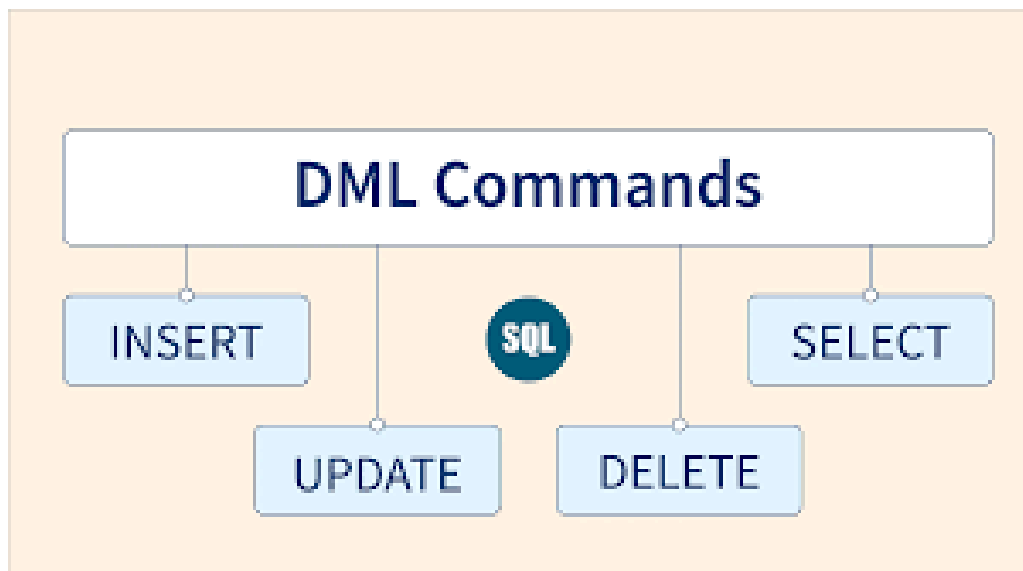
Database Management Systems Lab Experiment No: - 05
Aim: - Perform data manipulation operations on populated database

THEORY :

The SQL commands that deal with the manipulation of data present in the database belong to DML or Data Manipulation Language and this includes most of the SQL statements. It is the component of the SQL statement that controls access to data and to the database. Basically, DCL statements are grouped with DML statements.

List of DML commands:

- **SELECT** : This command is used to retrieve data from one or more tables in the database. We can use this command to filter and sort data based on specific criteria.
- **INSERT** : This command is used to add new data into a table in the database. We can insert one or more rows of data into a table at a time.
- **UPDATE** : This command is used to modify existing data in a table in the database. We can update one or more rows of data at a time.
- **DELETE** : This command is used to delete data from a table in the database. We can delete one or more rows of data at a time.
- **JOIN** : This command is used to combine data from two or more tables in the database. We can use various types of joins, such as INNER JOIN, LEFT JOIN, and RIGHT JOIN, to combine data based on specific criteria.



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CODE :

A. Table 1.

```
INSERT INTO Client_master VALUES('C00001','Ivan Bayross','Bombay','Maharashtra','400054',15000);
INSERT INTO Client_master VALUES('C00002','Vandana Saitwal','Madras','Tamil Nadu','780001',0);
INSERT INTO Client_master VALUES('C00003','Pramada Jaguste','Bombay','Maharashtra','400057',5000);
INSERT INTO Client_master VALUES('C00004','Basu Navindgi','Bombay','Maharashtra','4000546',0);
INSERT INTO Client_master VALUES('C00005','Ravi Sreedharan','Delhi','',100001,2000);
INSERT INTO Client_master VALUES('C00006','Rukmini','Bombay','Maharashtra','400050',0);
```

```
[mysql> select * from Client_master;
+-----+-----+-----+-----+-----+-----+
| Client_no | Name          | City   | State      | Pincode | Bal_due |
+-----+-----+-----+-----+-----+-----+
| C00001    | Ivan Bayross  | Bombay | Maharashtra | 400054  | 15000.00 |
| C00002    | Vandana Saitwal | Madras | Tamil Nadu  | 780001  | 0.00     |
| C00003    | Pramada Jaguste | Bombay | Maharashtra | 400057  | 5000.00  |
| C00005    | Ravi Sreedharan | Delhi  |              | 100001  | 2000.00  |
| C00006    | Rukmini       | Bombay | Maharashtra | 400050  | 0.00     |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

B. Table 2.

```
INSERT INTO Product_master VALUES('P00001','1.44 Floppies',5,'Piece',100,20,525,500);
INSERT INTO Product_master VALUES('P03453','Monitors',6,'Piece',10,3,12000,11280);
INSERT INTO Product_master VALUES('P06734','Mouse',5,'Piece',20,5,1050,1000);
INSERT INTO Product_master VALUES('P07865','1.22 Floppies',5,'Piece',100,20,525,500);
INSERT INTO Product_master VALUES('P07868','Keyboards',2,'Piece',10,3,3150,3050);
INSERT INTO Product_master VALUES('P07885','CD Drive',2.5,'Piece',10,3,5250,5100);
INSERT INTO Product_master VALUES('P07965','540 HDD',4,'Piece',10,3,8400,8000);
INSERT INTO Product_master VALUES('P07975','1.44 Drive',5,'Piece',10,3,1050,1000);
```

```
[mysql> select * from Product_master;
+-----+-----+-----+-----+-----+-----+-----+-----+
| Product_no | Description    | Profit_percent | Unit_measure | Qty_on_hand | Reorder_lvl | Sell_price | Cost_price |
+-----+-----+-----+-----+-----+-----+-----+-----+
| P00001     | 1.44 Floppies | 5.00           | Piece        | 100          | 20           | 525.00     | 500.00     |
| P03453     | Monitors       | 6.00           | Piece        | 10           | 3            | 12000.00    | 11280.00    |
| P06734     | Mouse          | 5.00           | Piece        | 20           | 5            | 1050.00     | 1000.00     |
| P07865     | 1.22 Floppies | 5.00           | Piece        | 100          | 20           | 525.00     | 500.00     |
| P07868     | Keyboards      | 2.00           | Piece        | 10           | 3            | 3150.00     | 3050.00     |
| P07885     | CD Drive       | 2.50           | Piece        | 10           | 3            | 5250.00     | 5100.00     |
| P07965     | 540 HDD        | 4.00           | Piece        | 10           | 3            | 8400.00     | 8000.00     |
| P07975     | 1.44 Drive     | 5.00           | Piece        | 10           | 3            | 1050.00     | 1000.00     |
+-----+-----+-----+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

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```
INSERT INTO Product_master VALUES('P07965','1.22 Drive',5,'Piece',2,3,1050,1000);
```

C. Table 3.

```
INSERT INTO Salesman_master VALUES('S00001','Kiran','A/14','Worli','Bombay','400002','MAH',3000,100,50,'Good');
INSERT INTO Salesman_master
VALUES('S00002','Manish','65','Nariman','Bombay','400001','MAH',3000,200,100,'Good');
INSERT INTO Salesman_master
VALUES('S00003','Ravi','P-7','Bandra','Bombay','400032','MAH',3000,200,100,'Good');
INSERT INTO Salesman_master VALUES('S00004','Ashish','A/5','Juhu','Bombay','400044','MAH',3000,200,150,'Good');
```

```
mysql> select * from Salesman_master;
```

Salesman_no	Salesman_name	Address1	Address2	City	Pincode	State	Sal_amt	Tgt_to_get	Ytd_sales	Remarks
S00001	Kiran	A/14	Worli	Bombay	400002	MAH	3000.00	100.00	50.00	Good
S00002	Manish	65	Nariman	Bombay	400001	MAH	3000.00	200.00	100.00	Good
S00003	Ravi	P-7	Bandra	Bombay	400032	MAH	3000.00	200.00	100.00	Good
S00004	Ashish	A/5	Juhu	Bombay	400044	MAH	3000.00	200.00	150.00	Good

4 rows in set (0.00 sec)

D. Table 4.

```
INSERT INTO Sales_order VALUES('O19001','1996-01-12','C00001','Bombay','S00001','F','N','1996-01-20','IN PROCESS');
INSERT INTO Sales_order
VALUES('O19002','1996-01-25','C00002','Madras','S00002','P','N','1996-01-27','CANCELLED');
INSERT INTO Sales_order
VALUES('O46865','1996-02-18','C00003','Bombay','S00003','F','Y','1996-02-20','FULFILLED');
INSERT INTO Sales_order
VALUES('O19003','1996-04-03','C00001','Bombay','S00001','F','Y','1996-04-07','FULFILLED');
INSERT INTO Sales_order
VALUES('O46866','1996-05-20','C00004','Bombay','S00002','P','N','1996-05-22','CANCELLED');
INSERT INTO Sales_order VALUES('O10008','1996-05-24','C00005','Delhi','S00004','F','N','1996-05-26','IN PROCESS');
```

```
mysql> select * from Sales_order;
```

S_order_no	S_order_date	Client_no	Dely_addr	Salesman_no	Dely_type	Billed_yn	Dely_date	Order_status
O10008	1996-05-24	C00005	Delhi	S00004	F	N	1996-05-26	IN PROCESS
O19001	1996-01-12	C00001	Bombay	S00001	F	N	1996-01-20	IN PROCESS
O19002	1996-01-25	C00002	Madras	S00002	P	N	1996-01-27	CANCELLED
O19003	1996-04-03	C00001	Bombay	S00001	F	Y	1996-04-07	FULFILLED
O46865	1996-02-18	C00003	Bombay	S00003	F	Y	1996-02-20	FULFILLED
O46866	1996-05-20	C00004	Bombay	S00002	P	N	1996-05-22	CANCELLED

6 rows in set (0.00 sec)

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E. Table 5.

```
INSERT INTO Sales_order_details VALUES('O19001','P00001',4,4,525);
INSERT INTO Sales_order_details VALUES('O19001','P07965',2,1,8400);
INSERT INTO Sales_order_details VALUES('O19001','P07885',2,1,5250);
INSERT INTO Sales_order_details VALUES('O19002','P00001',10,0,525);
INSERT INTO Sales_order_details VALUES('O46865','P07868',3,3,3150);
INSERT INTO Sales_order_details VALUES('O46865','P07885',3,1,5250);
INSERT INTO Sales_order_details VALUES('O46865','P00001',10,10,525);
INSERT INTO Sales_order_details VALUES('O46865','P03453',4,4,1050);
INSERT INTO Sales_order_details VALUES('O19003','P03453',2,2,1050);
INSERT INTO Sales_order_details VALUES('O19003','P06734',1,1,12000);
INSERT INTO Sales_order_details VALUES('O46866','P07965',1,0,525);
INSERT INTO Sales_order_details VALUES('O46866','P07975',1,0,8400);
INSERT INTO Sales_order_details VALUES('O10008','P00001',10,5,525);
INSERT INTO Sales_order_details VALUES('O10008','P07975',5,3,1050);
```

```
[mysql> select * from Sales_order_details
-> ;
```

S_order_no	Product_no	Qty_ordered	Qty_disp	Product_rate
010008	P00001	10	5	525.00
010008	P07975	5	3	1050.00
019001	P00001	4	4	525.00
019001	P07885	2	1	5250.00
019001	P07965	2	1	8400.00
019002	P00001	10	0	525.00
019003	P03453	2	2	1050.00
019003	P06734	1	1	12000.00
046865	P00001	10	10	525.00
046865	P03453	4	4	1050.00
046865	P07868	3	3	3150.00
046865	P07885	3	1	5250.00
046866	P07965	1	0	525.00
046866	P07975	1	0	8400.00

```
14 rows in set (0.00 sec)
```

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F. Table 6.

```
INSERT INTO Challan_Header VALUES('CH9001','O19001','1996-12-12','Y');
INSERT INTO Challan_Header VALUES('CH6865','O46865','1995-11-12','Y');
INSERT INTO Challan_Header VALUES('CH3965','O10008','1995-10-12','Y');
```

```
[mysql> select * from Challan_Header;
+-----+-----+-----+-----+
| Challan_no | S_order_no | Challan_date | Billed_yn |
+-----+-----+-----+-----+
| CH3965     | 010008     | 1995-10-12   | Y         |
| CH6865     | 046865     | 1995-11-12   | Y         |
| CH9001     | 019001     | 1996-12-12   | Y         |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

G. Table 7.

```
INSERT INTO Challan_Details VALUES('CH9001','P00001',4);
INSERT INTO Challan_Details VALUES('CH9001','P07965',1);
INSERT INTO Challan_Details VALUES('CH9001','P07885',1);
INSERT INTO Challan_Details VALUES('CH6865','P07868',3);
INSERT INTO Challan_Details VALUES('CH6865','P03453',4);
INSERT INTO Challan_Details VALUES('CH6865','P00001',10);
INSERT INTO Challan_Details VALUES('CH3965','P00001',5);
INSERT INTO Challan_Details VALUES('CH3965','P07975',2);
```

```
[mysql> select * from Challan_Details;
+-----+-----+-----+
| Challan_no | Product_no | Qty_disp |
+-----+-----+-----+
| CH3965     | P00001     | 5.00     |
| CH3965     | P07975     | 2.00     |
| CH6865     | P00001     | 10.00    |
| CH6865     | P03453     | 4.00     |
| CH6865     | P07868     | 3.00     |
| CH9001     | P00001     | 4.00     |
| CH9001     | P07885     | 1.00     |
| CH9001     | P07965     | 1.00     |
+-----+-----+-----+
8 rows in set (0.00 sec)
```

CONCLUSION - LO2 Mapped.