

### Experiment 4

**Aim:** Perform DML Commands for you're the specified System.

**Hardware and Software Requirement:** P-IV and above, Oracle

**Theory:**

**DML Commands :** Data Manipulation Language statements

-It is the area of SQL that allows changing data within the database.

**Examples:**

- **INSERT:** Insert data into a table.

Syntax:

INSERT INTO tablename VALUES (value list);

- **UPDATE:** Updates existing data within a table.

Syntax:

UPDATE tablename SET column\_name =value [ WHERE condition]

Example: update emp set sal=20000 where empno=7369;

- **DELETE:** Deletes all records from a table

Syntax:

DELETE FROM tablename WHERE condition

**DQL Commands:** Data Query Language

-It is the components of SQL stmts that allows getting data from database.

**Examples:**

- **SELECT:** Retrieve data from database.

SQL is based on set and relational operations with certain modifications and enhancements

A typical SQL query has the form:

**select**  $A_1, A_2, \dots, A_n$   
**from**  $r_1, r_2, \dots, r_m$   
**where**  $P$

$A_i$  represents an attribute

$R_i$  represents a relation

$P$  is a predicate.

SELECT \* FROM tablename

**Conclusion: We have Successfully used DML commands on our specified system using MYSQL Command Line.**

### DML command and Output:

```
MySQL 8.0 Command Line Client - Unicode
mysql> insert into clients(address,city,client_id,name,phone,state) values('Jamaal Nagar','Mumbai',01,'adnan','992-113-4556','MH');
Query OK, 1 row affected (0.00 sec)

mysql> insert into clients(address,city,client_id,name,phone,state) values('Nagpada','Mumbai',02,'shaam','992-123-4354','MH');
Query OK, 1 row affected (0.01 sec)

mysql> insert into clients(address,city,client_id,name,phone,state) values('Navi-mumbai','Mumbai',03,'Shubham','828-863-4354','MH');
Query OK, 1 row affected (0.01 sec)

mysql> select * from clients;
+-----+-----+-----+-----+-----+-----+
| client_id | name   | address | city   | state | phone   |
+-----+-----+-----+-----+-----+-----+
| 1         | adnan  | Jamaal Nagar | Mumbai | MH    | 992-113-4556 |
| 2         | shaam  | Nagpada    | Mumbai | MH    | 992-123-4354 |
| 3         | Shubham | Navi-mumbai | Mumbai | MH    | 828-863-4354 |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> insert into invoices(invoice_id,client_id,number,invoice_total) values(01,02,'992-123-4556',1568.9665);
ERROR 1364 (HY000): Field 'invoice_date' doesn't have a default value
mysql> insert into invoices(invoice_id,client_id,number,invoice_total,invoice_date) values(01,02,'992-123-4556',1568.9665,'2021-01-23');
Query OK, 1 row affected, 1 warning (0.00 sec)

mysql> insert into invoices(invoice_id,client_id,number,invoice_total,invoice_date) values(02,03,'828-863-4354',500.965,'2021-02-28');
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into invoices(invoice_id,client_id,number,invoice_total,invoice_date) values(03,01,'992-113-4556',2500.965,'2021-03-01');
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into invoices(invoice_id,client_id,number,invoice_total,invoice_date) values(04,01,'992-113-4556',5500.965,'2021-03-01');
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into invoices(invoice_id,client_id,number,invoice_total,invoice_date) values(05,03,'828-863-4354',600.4525,'2021-03-02');
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> select * from clients c join invoices i on c.client_id = i.client_id;
```

client_id	name	address	city	state	phone	invoice_id	number	client_id	invoice_total	payment_total	invoice_date
1	adnan	Jamal Nagar	Mumbai	MH	992-113-4556	3	992-113-4556	1	2500.97	0.00	2021-03-01
1	adnan	Jamal Nagar	Mumbai	MH	992-113-4556	4	992-113-4556	1	5500.97	0.00	2021-03-01
2	shaam	Nagpada	Mumbai	MH	992-123-4354	1	992-123-4556	2	1568.97	0.00	2021-01-23
3	Shubham	Navi-mumbai	Mumbai	MH	828-863-4354	2	828-863-4354	3	500.97	0.00	2021-02-28
3	Shubham	Navi-mumbai	Mumbai	MH	828-863-4354	5	828-863-4354	3	600.45	0.00	2021-03-02

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

```
mysql> update clients set address="Khargar",city="Navi-Mumbai" where client_id = 3;
```

```
Query OK, 1 row affected (0.00 sec)
```

```
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> delete from clients where client_id =2;
```

```
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails ('practical3`.`invoices`, CONSTRAINT `FK_client_id` FOREIGN KEY (`client_id`) REFERENCES `clients` (`client_id`) ON DELETE RESTRICT ON UPDATE CASCADE)
```

```
mysql> delete from invoices where client_id =2;
```

```
Query OK, 1 row affected (0.01 sec)
```

```
mysql> delete from clients where client_id =2;
```

```
Query OK, 1 row affected (0.01 sec)
```

```
mysql> selet * from clients;
```

```
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'sel
```

```
et * from clients' at line 1
```

```
mysql> select * from clients;
```

client_id	name	address	city	state	phone
1	adnan	Jamal Nagar	Mumbai	MH	992-113-4556
3	Shubham	Khargar	Navi-Mumbai	MH	828-863-4354

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

```
mysql> select * from invoices;
```

invoice_id	number	client_id	invoice_total	payment_total	invoice_date
2	828-863-4354	3	500.97	0.00	2021-02-28
3	992-113-4556	1	2500.97	0.00	2021-03-01
4	992-113-4556	1	5500.97	0.00	2021-03-01
5	828-863-4354	3	600.45	0.00	2021-03-02

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

```
mysql>
```

