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Munshi nagar, Andheri (W) ,Mumbai - 400058
DEPARTMENT OF MASTER OF COMPUTER APPLICATION

CLASS: F.Y. MCA

SEM: I

COURSE CODE: MC504

SUBJECT NAME: DATABASE MANAGEMENT SYSTEM LAB

ROLL NO. : 2022510034

BATCH: B

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EXPERIMENT NO: 03

EXPERIMENT TITLE: To study Data Definition Language and Data Manipulation Language statements

DDL commands

- CREATE Command.
- DROP Command.
- ALTER Command.
- TRUNCATE Command.
- RENAME Command.

DML Commands

- INSERT
- UPDATE
- DELETE

1. Create Command :-

The CREATE TABLE statement is used to create a new table in a database.

Syntax :

```
CREATE TABLE table_name (  
    column1 datatype,  
    column2 datatype,  
    column3 datatype,  
    ....  
);
```

2. Insert Command :-

The INSERT INTO statement is used to insert new records in a table.

Syntax :

```
INSERT INTO table_name  
VALUES (value1, value2, value3, ...);
```

3. Alter Command :-

The ALTER TABLE statement is used to add, delete, or modify columns in an existing table. It is also used to add and drop various constraints on an existing table.

Syntax :

```
ALTER TABLE table_name  
[ADD/DROP/MODIFY] column_name datatype;
```

4. Update Command :-

The UPDATE statement is used to modify the existing records in a table.

Syntax :

```
UPDATE table_name  
SET column1 = value1, column2 = value2, ...  
WHERE condition;
```

5. Delete Command :-

The DELETE statement is used to delete existing records in a table.

Syntax :

```
DELETE FROM table_name WHERE condition;
```

6. Truncate Command :-

The TRUNCATE statement is used to delete the data inside a table, but not the table itself.

Syntax :

```
TRUNCATE TABLE table_name;
```

7. Rename Command :-

The RENAME statement is used to rename the existing table in the database.

Syntax :

```
RENAME old_table TO new_table;
```

8. Drop Command :-

The DROP TABLE statement is used to drop an existing table in a database.

Syntax :

```
DROP TABLE table_name;
```

Command Outputs :-

1. Create table command

```
c:\wamp64\bin\mysql\mysql8.0.31\bin\mysql.exe
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.31 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use railway_management
Database changed
mysql> create table trainStatus(
  -> trn_no int not null,
  -> PNR bigint not null,
  -> avail_seat int not null,
  -> wait_seat int not null,
  -> booked_seat int not null,
  -> foreign key(trn_no) references train(trn_no),
  -> foreign key(PNR) references ticket(PNR));
Query OK, 0 rows affected (0.04 sec)

mysql>
```

2. Insert into table command

```
c:\wamp64\bin\mysql\mysql8.0.31\bin\mysql.exe
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 8.0.31 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use railway_management
Database changed
mysql> insert into trainStatus values
  -> (12105,1000000001,50,0,1135),
  -> (12123,1000000003,0,60,1250),
  -> (11071,1000000002,12,0,2532);
Query OK, 3 rows affected (0.01 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql> select * from trainStatus1
  -> ;
ERROR 1146 (42S02): Table 'railway_management.trainStatus1' doesn't exist
mysql> select * from trainStatus;
+-----+-----+-----+-----+-----+
| trn_no | PNR      | avail_seat | wait_seat | booked_seat |
+-----+-----+-----+-----+-----+
| 12105 | 1000000001 | 50 | 0 | 1135 |
| 12123 | 1000000003 | 0 | 60 | 1250 |
| 11071 | 1000000002 | 12 | 0 | 2532 |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

3. Alter Table command

```
c:\wamp64\bin\mysql\mysql8.0.31\bin\mysql.exe
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 70
Server version: 8.0.31 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use railway_management
Database changed
mysql>
mysql> alter table trainStatus add total_passengers int after booked_seat;
Query OK, 3 rows affected (0.04 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> select * from total_passengers;
ERROR 1146 (42S02): Table 'railway_management.total_passengers' doesn't exist
mysql> select * from trainStatus;
+-----+-----+-----+-----+-----+-----+
| trn_no | PNR      | avail_seat | wait_seat | booked_seat | total_passengers |
+-----+-----+-----+-----+-----+-----+
| 12105 | 1000000001 | 50         | 0         | 1135        | NULL             |
| 12123 | 1000000003 | 0          | 60        | 1250        | NULL             |
| 11071 | 1000000002 | 12         | 0         | 2532        | NULL             |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

4. Update Command

```
c:\wamp64\bin\mysql\mysql8.0.31\bin\mysql.exe
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 71
Server version: 8.0.31 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use railway_management
Database changed
mysql> update trainStatus set total_passengers = 1135 where trn_no = 12105;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> update trainStatus set total_passengers = 1310 where trn_no = 12123;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> update trainStatus set total_passengers = 2532 where trn_no = 11071;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from trainStatus;
ERROR 1146 (42S02): Table 'railway_management.trianstatus' doesn't exist
mysql> select * from trainStatus;
+-----+-----+-----+-----+-----+-----+
| trn_no | PNR      | avail_seat | wait_seat | booked_seat | total_passengers |
+-----+-----+-----+-----+-----+-----+
| 12105 | 1000000001 | 50         | 0         | 1135        | 1135             |
| 12123 | 1000000003 | 0          | 60        | 1250        | 1310             |
| 11071 | 1000000002 | 12         | 0         | 2532        | 2532             |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

5. Delete Command

```
c:\wamp64\bin\mysql\mysql8.0.31\bin\mysql.exe
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 96
Server version: 8.0.31 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use railway_management
Database changed
mysql> delete from trainStatus where trn_no = 11071
-> ;
Query OK, 1 row affected (0.00 sec)

mysql> select * from trainStatus;
+-----+-----+-----+-----+-----+-----+
| trn_no | PNR      | avail_seat | wait_seat | booked_seat | total_passengers |
+-----+-----+-----+-----+-----+-----+
| 12105 | 1000000001 | 50        | 0         | 1135        | 1135             |
| 12123 | 1000000003 | 0         | 60        | 1250        | 1310             |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

6. Truncate table command

```
c:\wamp64\bin\mysql\mysql8.0.31\bin\mysql.exe
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 109
Server version: 8.0.31 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use railway_management
Database changed
mysql> truncate table trainStatus;
Query OK, 0 rows affected (0.01 sec)

mysql> select * from trainStatus;
Empty set (0.00 sec)

mysql>
```

7. Rename Command

```
c:\wamp64\bin\mysql\mysql8.0.31\bin\mysql.exe
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 110
Server version: 8.0.31 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use railway_management
Database changed
mysql> rename table trainStatus to train_status;
Query OK, 0 rows affected (0.02 sec)

mysql> show tables;
+-----+
| Tables_in_railway_management |
+-----+
| passenger                    |
| payment                     |
| station                     |
| ticket                      |
| train                       |
| train_status                 |
+-----+
6 rows in set (0.00 sec)

mysql> _
```

8. Drop table command

```
c:\wamp64\bin\mysql\mysql8.0.31\bin\mysql.exe
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 111
Server version: 8.0.31 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
mysql> use railway_management;
Database changed
mysql> drop table train_status;
Query OK, 0 rows affected (0.02 sec)

mysql> show tables;
+-----+
| Tables_in_railway_management |
+-----+
| passenger                    |
| payment                     |
| station                     |
| ticket                      |
| train                       |
+-----+
5 rows in set (0.00 sec)

mysql>
```