ASSIGNMENT 6

Aim : Design and Develop SQL DDL statements which demonstrate the use of SQL objects such Table, View, Index, Sequence, Synonym

1)Create Table Customers with Schema(cust_id,cust_name,product, quantity, total_price)

```
MariaDB [Coditas]> create table Customers
    -> ( cust_id int NOT NULL AUTO_INCREMENT,
    -> cust_name varchar(233),
    -> product varchar(233),
    -> quantity int,
    -> total_price int,
    -> primary key(cust_id));
Query OK, 0 rows affected (1.373 sec)
```

Create table Customers with attribute cust_id , cust_name, product, quantity, total_price

2) Use Sequence/auto-increment for incrementing customer ID and insert 5 record to the table Customers

```
MariaDB [Coditas]> alter table Customers AUTO_INCREMENT=5
    -> ;
Query OK, 0 rows affected (0.138 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [Coditas]> insert into Customers(cust_name,product,quantity,total_price) values('Anuj','Pipe',2,1200);
Query OK, 1 row affected (0.149 sec)

MariaDB [Coditas]> insert into Customers(cust_name,product,quantity,total_price) values('Akash','Tap',3,500);
Query OK, 1 row affected (0.093 sec)

MariaDB [Coditas]> insert into Customers(cust_name,product,quantity,total_price) values('Rejul','Knife',5,500);
Query OK, 1 row affected (0.037 sec)

MariaDB [Coditas]> insert into Customers(cust_name,product,quantity,total_price) values('Akash','Bag',5,800);
Query OK, 1 row affected (0.187 sec)

MariaDB [Coditas]> insert into Customers(cust_name,product,quantity,total_price) values('Ayushi','Bottle',5,1000);
Query OK, 1 row affected (0.158 sec)

MariaDB [Coditas]> select *from Customers;
+---------+-----------+---------+----------+-------------+
| cust_id | cust_name | product | quantity | total_price |
+---------+-----------+---------+----------+-------------+
|       5 | Anuj      | Pipe    |        2 |        1200 |
|       6 | Akash     | Tap     |        3 |         500 |
|       7 | Rejul     | Knife   |        5 |         500 |
|       8 | Akash     | Bag     |        5 |         800 |
|       9 | Ayushi    | Bottle  |        5 |        1000 |
+---------+-----------+---------+----------+-------------+
5 rows in set (0.076 sec)
```

Auto increment is automatically increase the primary key value one by one

3) Alter table Customers by adding one column 'price_per_qnty'

```
MariaDB [Coditas]> alter table Customers add price_per_qnty int;
Query OK, 0 rows affected (0.470 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [Coditas]> desc Customers;
+----------------+--------------+------+-----+---------+----------------+
| Field          | Type         | Null | Key | Default | Extra          |
+----------------+--------------+------+-----+---------+----------------+
| cust_id        | int(11)      | NO   | PRI | NULL    | auto_increment |
| cust_name      | varchar(233) | YES  |     | NULL    |                |
| product        | varchar(233) | YES  |     | NULL    |                |
| quantity       | int(11)      | YES  |     | NULL    |                |
| total_price    | int(11)      | YES  |     | NULL    |                |
| price_per_qnty | int(11)      | YES  |     | NULL    |                |
+----------------+--------------+------+-----+---------+----------------+
6 rows in set (1.098 sec)
```

Alter table is used to add column in a table after creating table if we want to add one more column in table

4)Create view 'Cust_View' on Customers displaying Cust_id, cust_name

```
MariaDB [Coditas]> create view Cust_View as select cust_id,cust_name from Customers;
Query OK, 0 rows affected (0.257 sec)

MariaDB [Coditas]> select *from view;
ERROR 1146 (42S02): Table 'coditas.view' doesn't exist
MariaDB [Coditas]> select *from Cust_view;
+---------+-----------+
| cust_id | cust_name |
+---------+-----------+
|       5 | Anuj      |
|       6 | Akash     |
|       7 | Rejul     |
|       8 | Akash     |
|       9 | Ayushi    |
+---------+-----------+
5 rows in set (0.103 sec)
```

A view is a virtual table based on the result set of an SQL statement

5)Update the view 'Cust_View' to display Customer_id, product,total_price

```
MariaDB [Coditas]> create or replace view Cust_view as select cust_id,product,total_price;
ERROR 1054 (42S22): Unknown column 'cust_id' in 'field list'
MariaDB [Coditas]> create or replace view Cust_view as select cust_id,product,total_price from Customers;
Query OK, 0 rows affected (0.064 sec)

MariaDB [Coditas]> select *from Cust_view;
+---------+---------+-------------+
| cust_id | product | total_price |
+---------+---------+-------------+
|       5 | Pipe    |        1200 |
|       6 | Tap     |         500 |
|       7 | Knife   |         500 |
|       8 | Bag     |         800 |
|       9 | Bottle  |        1000 |
+---------+---------+-------------+
5 rows in set (0.002 sec)
```

We can update or change the attribute of view with the command create or replace view viewname as select * from Customers

6) Drop the view Cust_view

```
MariaDB [Coditas]> Drop view Cust_view;
Query OK, 0 rows affected (0.002 sec)

MariaDB [Coditas]> select *from Cust_view;
ERROR 1146 (42S02): Table 'coditas.cust_view' doesn't exist
MariaDB [Coditas]>
```

Drop View Command is used to delete the view permenatly from database

7) Create Index Cust_index on Customer_name

```
MariaDB [Coditas]> create index Cust_index on Customers(cust_name);
Query OK, 0 rows affected (0.730 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

Index are used to retrieve data from the database more quickly than otherwise.User cannot see the indexes, they are just used to speed up searches/queries

8) Drop index Cust_index

```
MariaDB [Coditas]> drop index Cust_index on Customers;
Query OK, 0 rows affected (0.173 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

Drop index statement is used to dekete an index in a table

9)Use the name alias for table Customers(rename the table in query)

```
MariaDB [Coditas]> select cust_name as CustomerName from Customers;
+--------------+
| CustomerName |
+--------------+
| Anuj         |
| Akash        |
| Rejul        |
| Akash        |
| Ayushi       |
+--------------+
5 rows in set (0.000 sec)
```

Alias are often used to make column names more readable.An Alias only exists for the duration of that query

10)Drop the table Customer

```
MariaDB [Coditas]> Desc Customers;
+----------------+--------------+------+-----+---------+----------------+
| Field          | Type         | Null | Key | Default | Extra          |
+----------------+--------------+------+-----+---------+----------------+
| cust_id        | int(11)      | NO   | PRI | NULL    | auto_increment |
| cust_name      | varchar(233) | YES  |     | NULL    |                |
| product        | varchar(233) | YES  |     | NULL    |                |
| quantity       | int(11)      | YES  |     | NULL    |                |
| total_price    | int(11)      | YES  |     | NULL    |                |
| price_per_qnty | int(11)      | YES  |     | NULL    |                |
+----------------+--------------+------+-----+---------+----------------+
6 rows in set (0.021 sec)

MariaDB [Coditas]> drop table Customers;
Query OK, 0 rows affected (0.299 sec)

MariaDB [Coditas]> Desc Customers;
ERROR 1146 (42S02): Table 'coditas.customers' doesn't exist
MariaDB [Coditas]>
```

Drop command is used to Delete the table from database permenantly