ASSIGNMENT-3

Problem Statement: There can be multiple customers, who can place multiple orders on the site. Now a sales person can handle these orders will distribute into multiple sales persons (One order will be assign to one salesperson only). So a sales person can have multiple orders of multiple customers

1. Create databases

```
mysql> create database sale;
Query OK, 1 row affected (0.00 sec)

mysql>
```

2. Design Schema

```
mysql> desc customer;
+-------+-------------+------+-----+---------+----------------+
| Field | Type        | Null | Key | Default | Extra          |
+-------+-------------+------+-----+---------+----------------+
| cid   | int(11)     | NO   | PRI | NULL    | auto_increment |
| cname | varchar(20) | YES  |     | NULL    |                |
+-------+-------------+------+-----+---------+----------------+
2 rows in set (0.00 sec)

mysql> desc salesper;
+-------+-------------+------+-----+---------+----------------+
| Field | Type        | Null | Key | Default | Extra          |
+-------+-------------+------+-----+---------+----------------+
| sid   | int(11)     | NO   | PRI | NULL    | auto_increment |
| sname | varchar(20) | YES  |     | NULL    |                |
+-------+-------------+------+-----+---------+----------------+
2 rows in set (0.00 sec)

mysql> desc orders;
+-------+-------------+------+-----+---------+----------------+
| Field | Type        | Null | Key | Default | Extra          |
+-------+-------------+------+-----+---------+----------------+
| oid   | int(11)     | NO   | PRI | NULL    | auto_increment |
| otype | varchar(20) | YES  |     | NULL    |                |
| cu_id | int(11)     | YES  | MUL | NULL    |                |
| sa_id | int(11)     | YES  | MUL | NULL    |                |
+-------+-------------+------+-----+---------+----------------+
4 rows in set (0.00 sec)

mysql>
```

3. Create table

```
mysql> create table customer (cid int primary key AUTO_INCREMENT,cname varchar(20));
Query OK, 0 rows affected (0.05 sec)

mysql> create table salesper (sid int primary key AUTO_INCREMENT,sname varchar(20));
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> create table orders(oid int primary key auto_increment, otype  varchar(20),cu_id int, foreign key(cu_id) references customer(cid),sa_id
 int, foreign key(sa_id) references salesper(sid));
Query OK, 0 rows affected (0.05 sec)

mysql>
```

4. Insert sample data

```
mysql> insert into customer (cname) values('tom');
Query OK, 1 row affected (0.03 sec)

mysql> insert into customer (cname) values('mike');
Query OK, 1 row affected (0.04 sec)

mysql> insert into customer (cname) values('robert');
Query OK, 1 row affected (0.03 sec)

mysql> insert into salesper (sname) values('tim');
Query OK, 1 row affected (0.04 sec)

mysql> insert into salesper (sname) values('matt');
Query OK, 1 row affected (0.03 sec)

mysql> insert into salesper (sname) values('stefan');
Query OK, 1 row affected (0.03 sec)

mysql> insert into orders (odesc,cu_id,sa_id) values('moblie',1,2);
ERROR 1054 (42S22): Unknown column 'odesc' in 'field list'
mysql> insert into orders (otype,cu_id,sa_id) values('moblie',1,2);
Query OK, 1 row affected (0.03 sec)

mysql> insert into orders (otype,cu_id,sa_id) values('dress',3,2);
Query OK, 1 row affected (0.03 sec)

mysql> insert into orders (otype,cu_id,sa_id) values('dress',2,1);
Query OK, 1 row affected (0.04 sec)
```

5. Find the sales person have multiple orders.

```
mysql> select sname,oid from salesper join orders on salesper.sid=orders.sa_id and 1<(select COUNT(*)from orders where salesper.sid=orders.sa_
id);
+-------+-----+
| sname | oid |
+-------+-----+
| matt  |   1 |
| matt  |   2 |
+-------+-----+
2 rows in set (0.00 sec)

mysql>
```

6.Find the all sales person details along with order details

```
mysql> select sid,sname,oid,otype from salesper inner join orders on salesper.sid=orders.sa_id;
+-----+-------+-----+--------+
| sid | sname | oid | otype  |
+-----+-------+-----+--------+
|   2 | matt  |   1 | moblie |
|   2 | matt  |   2 | dress  |
|   1 | tim   |   3 | dress  |
+-----+-------+-----+--------+
3 rows in set (0.00 sec)

mysql>
```

7. Create index

```
mysql> create index index_cus on customer(cname);
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql>
```

8. How to show index on a table

```
mysql> show index from customer;
+----------+------------+-----------+--------------+-------------+-----------+-------------+----------+--------+------+------------+---------+---------------+
| Table    | Non_unique | Key_name  | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type | Comment | Index_comment |
+----------+------------+-----------+--------------+-------------+-----------+-------------+----------+--------+------+------------+---------+---------------+
| customer |          0 | PRIMARY   |            1 | cid         | A         |           2 |     NULL | NULL   |      | BTREE      |         |               |
| customer |          1 | index_cus |            1 | cname       | A         |           3 |     NULL | NULL   | YES  | BTREE      |         |               |
+----------+------------+-----------+--------------+-------------+-----------+-------------+----------+--------+------+------------+---------+---------------+
2 rows in set (0.00 sec)

mysql>
```

9. Find the order number, sale person name, along with the customer to whom that order belongs to.

```
mysql> select oid,sname,cname from orders,salesper,customer where customer.cid=orders.cu_id and salesper.sid=orders.sa_id;
+-----+-------+--------+
| oid | sname | cname  |
+-----+-------+--------+
|   1 | matt  | tom    |
|   2 | matt  | robert |
|   3 | tim   | mike   |
+-----+-------+--------+
3 rows in set (0.00 sec)
```