Database Exercise

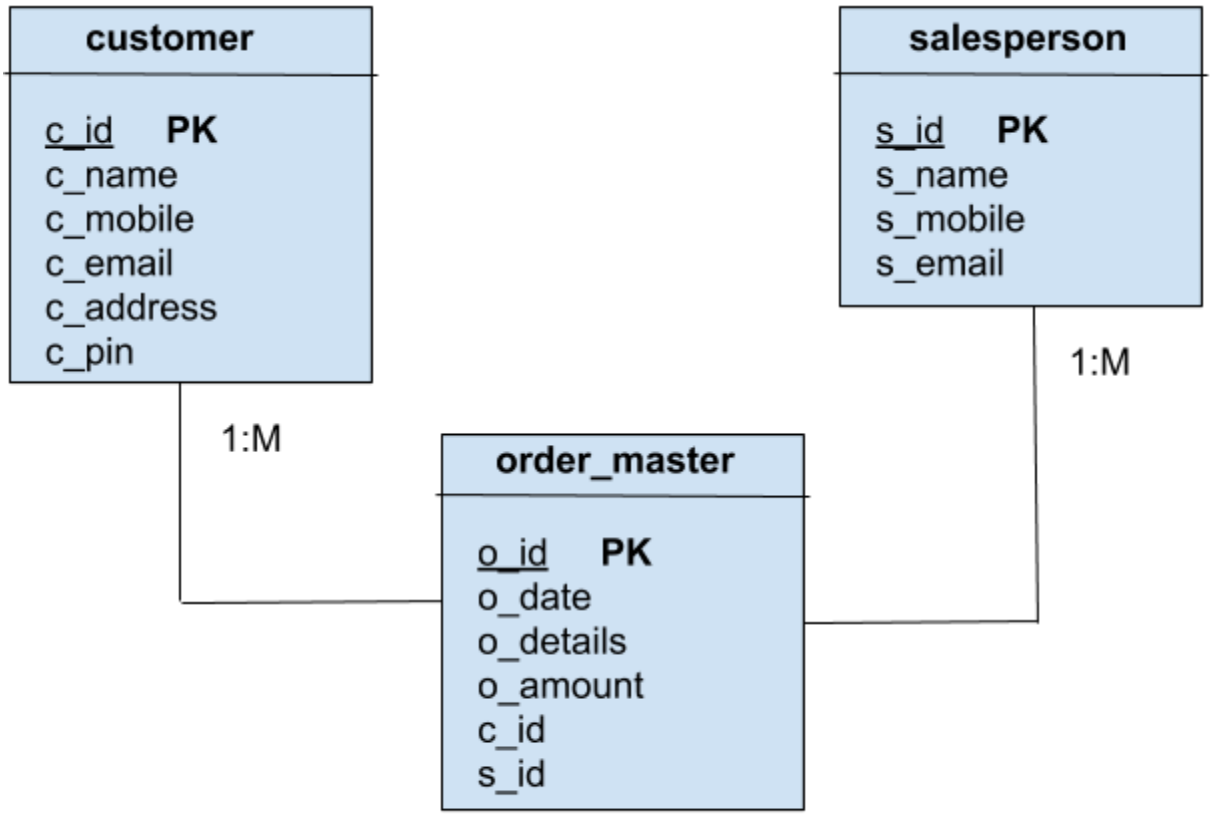
Problem Statement: There can be multiple customers, who can place multiple orders on the site. Now a sales person can handle these orders will distribute into multiple sales persons (One order will be assign to one salesperson only). So a sales person can have multiple orders of multiple customers.

Q1. Create Database.

```
mysql> CREATE DATABASE SITE_DB;
Query OK, 1 row affected (0.06 sec)

mysql> USE SITE_DB
Database changed
mysql>
```

Q2. Design Schema.



Q3. Create tables.

Table Name: **customer**

```
mysql> CREATE TABLE customer ( c_id int, c_name varchar(100) NOT NULL, c_mobile
char(10) NOT NULL, c_email varchar(250), c_address varchar(250) NOT NULL, c_pin
char(6) NOT NULL, PRIMARY KEY(c_id) );
Query OK, 0 rows affected (0.32 sec)
```

Table Name: **salesperson**

```
mysql> CREATE TABLE salesperson ( s_id int, s_name varchar(100) NOT NULL, o_mobile cha
r(10) NOT NULL, o_email varchar(250), PRIMARY KEY(s_id) );
Query OK, 0 rows affected (0.31 sec)
```

Table Name: **order_master**

```
mysql> CREATE TABLE order_master ( o_id int, o_date date NOT NULL, o_details varchar(1
00) NOT NULL, o_amount int NOT NULL, c_id int NOT NULL, s_id int NOT NULL, PRIMARY KEY
(o_id), FOREIGN KEY(c_id) REFERENCES customer(c_id), FOREIGN KEY(s_id) REFERENCES sale
sperson(s_id) );
Query OK, 0 rows affected (0.52 sec)
```

Q4. Insert sample data.

Sample Data Insert (**customer**):

```
mysql> INSERT INTO customer VALUES
    -> (1001,'Shubham','7171717171','s@example.com','Noida','111111'),
    -> (1002,'Kunal','7272727272','k@example.com','Noida','222222'),
    -> (1003,'Vivek','7373737373','v@example.com','Noida','333333'),
    -> (1004,'Abhil','7474747474','a@example.com','Noida','444444');
Query OK, 4 rows affected (0.07 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

Sample Data Insert (**salesperson**):

```
mysql> INSERT INTO salesperson VALUES ('9001','Suresh','5151515151','ssp@examp
le.com'), ('9002','Vishwas','5252525252','vsp@example.com'), ('9003','Santosh'
,'5353535353','shsp@example.com');
Query OK, 3 rows affected (0.08 sec)
Records: 3  Duplicates: 0  Warnings: 0
```

Sample Data Insert (**order_master**):

```
mysql> INSERT INTO order_master VALUES
    -> (111,'2019-02-05','HP Laptop',25000,1001,9002),
    -> (112,'2019-02-04','LG Washing Machine',14253,1003,9002),
    -> (113,'2019-02-04','Samsung Mobile',15698,1002,9001),
    -> (114,'2019-02-04','Mi Power Bank',1568,1003,9002),
    -> (115,'2019-02-03','Book',145,1002,9003),
    -> (116,'2019-02-02','Stationary',14585,1001,9001);
Query OK, 6 rows affected (0.07 sec)
Records: 6  Duplicates: 0  Warnings: 0
```

Q5. Find the sales person have multiple orders.

```
mysql> SELECT s.s_id,s.s_name,COUNT(o.o_id) AS OC FROM order_master
 o,salesperson s WHERE o.s_id=s.s_id GROUP BY s.s_id HAVING OC>1;
+------+---------+----+
| s_id | s_name  | OC |
+------+---------+----+
| 9001 | Suresh  |  2 |
| 9002 | Vishwas |  3 |
+------+---------+----+
2 rows in set (0.00 sec)
```

Q6. Find the all sales person details along with order details.

```
mysql> SELECT s.s_id, s.s_name,o.o_id,o_date,o.o_amount FROM order_
master o, salesperson s WHERE o.s_id=s.s_id;
+------+---------+------+------------+----------+
| s_id | s_name  | o_id | o_date     | o_amount |
+------+---------+------+------------+----------+
| 9001 | Suresh  |  113 | 2019-02-04 |    15698 |
| 9001 | Suresh  |  116 | 2019-02-02 |    14585 |
| 9002 | Vishwas |  111 | 2019-02-05 |    25000 |
| 9002 | Vishwas |  112 | 2019-02-04 |    14253 |
| 9002 | Vishwas |  114 | 2019-02-04 |     1568 |
| 9003 | Santosh |  115 | 2019-02-03 |      145 |
+------+---------+------+------------+----------+
6 rows in set (0.00 sec)
```

Q7. Create index.

```
mysql> CREATE INDEX custIndex ON order_master(o_id);
Query OK, 0 rows affected (0.39 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

Q8. How to show index on a table.

Query: SHOW INDEX FROM order_master;

```
mysql> SHOW INDEX FROM order_master;
+--------------+------------+------------+--------------+-------------+-----------+-------------+----------+--------+------+------------
-+---------+---------------+
| Table        | Non_unique | Key_name   | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type
 | Comment | Index_comment |
+--------------+------------+------------+--------------+-------------+-----------+-------------+----------+--------+------+------------
-+---------+---------------+
| order_master |          0 | PRIMARY    |            1 | o_id        | A         |           5 |     NULL | NULL   |      | BTREE
 |         |               |
| order_master |          1 | c_id       |            1 | c_id        | A         |           3 |     NULL | NULL   |      | BTREE
 |         |               |
| order_master |          1 | s_id       |            1 | s_id        | A         |           3 |     NULL | NULL   |      | BTREE
 |         |               |
| order_master |          1 | orderIndex |            1 | o_id        | A         |           6 |     NULL | NULL   |      | BTREE
 |         |               |
+--------------+------------+------------+--------------+-------------+-----------+-------------+----------+--------+------+------------
-+---------+---------------+
4 rows in set (0.00 sec)
```

Q9. Find the order number, salesperson name, along with the customer to whom that order belongs to.

```
mysql> SELECT o.o_id,s.s_name,c.c_name FROM order_master o,salesperson s,customer c WHERE
 o.c_id=c.c_id AND o.s_id=s.s_id GROUP BY o.o_id;
+------+---------+---------+
| o_id | s_name  | c_name  |
+------+---------+---------+
|  111 | Vishwas | Shubham |
|  112 | Vishwas | Vivek   |
|  113 | Suresh  | Kunal   |
|  114 | Vishwas | Vivek   |
|  115 | Santosh | Kunal   |
|  116 | Suresh  | Shubham |
+------+---------+---------+
6 rows in set (0.00 sec)
```