Excercise 3 (Database)

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 Database

2. Design Schema

3. Create tables

```
2 rows in set (0.00 sec)

mysql> drop table order_t;
Query OK, 0 rows affected (0.04 sec)

mysql> create table salesPerson(sid bigint not null auto_increment, sname varchar(255) not null, primary key(sid));
Query OK, 0 rows affected (0.04 sec)

mysql> create table order(order_id bigint not null auto_increment, cus_id int, sid bigint, foreign key(cus_id) references customer(cus_id), fo
reign key(sid) references salesPerson(sid));
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 'order(order_id bigint not null auto_increment, cus_id int, sid bigint, foreign k' at line 1
mysql> create table `order`(order_id bigint not null auto_increment, cus_id int, sid bigint, foreign key(cus_id) references customer(cus_id),
foreign key(sid) references salesPerson(sid));
ERROR 1075 (42000): Incorrect table definition; there can be only one auto column and it must be defined as a key
mysql> create table `order`(order_id bigint not null auto_increment, cus_id int, sid bigint, foreign key(cus_id) references customer(cus_id),
mysql> create table order(order_id bigint not null auto_increment, cus_id int, sid bigint, foreign key(cus_id) references customer(cus_id), fo
reign key(sid) references salesPerson(sid));
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mysql> create table `order`(order_id bigint not null auto_increment, cus_id int, sid bigint, foreign key(cus_id) references customer(cus_id),
foreign key(sid) references salesPerson(sid));
ERROR 1075 (42000): Incorrect table definition; there can be only one auto column and it must be defined as a key
mysql> create table `order`(order_id bigint not null auto_increment primary key, cus_id int, sid bigint, foreign key(cus_id) references custom
er(cus_id), foreign key(sid) references salesPerson(sid));
Query OK, 0 rows affected (0.05 sec)

mysql> show tables;
+---------------------+
| Tables_in_excercise |
+---------------------+
| customer            |
| order               |
| salesPerson         |
+---------------------+
3 rows in set (0.00 sec)

mysql> desc
```

4. Insert sample data

```
mysql> insert into customer (cus_id, cus_name, cus_mobile) values (1, 'Ramesh',
999999999);
Query OK, 1 row affected (0.03 sec)

mysql> insert into customer (cus_id, cus_name, cus_mobile) values (2, 'Ram', 999
999949);
Query OK, 1 row affected (0.04 sec)

mysql> insert into customer (cus_id, cus_name, cus_mobile) values (3, 'Meera', 9
99992
Query OK, 1 row affected (0.03 sec)

mysql> insert into customer (cus_id, cus_name, cus_mobile) values (1, 'person1')
;
ERROR 1136 (21S01): Column count doesn't match value count at row 1
mysql> insert into salesPerson (sid, sname) values (1, 'person1');
Query OK, 1 row affected (0.03 sec)

mysql> insert into salesPerson (sid, sname) values (2, 'person2');
Query OK, 1 row affected (0.03 sec)

mysql> insert into salesPerson (sid, sname) values (3, 'person3');
Query OK, 1 row affected (0.04 sec)
```

5. Find the sales person have multiple orders.

```
PT mysql> select * from salesPerson where sid in (select sid from `order` group by
   sid having count(*)>1);
   +-----+---------+
   | sid | sname   |
rol+-----+---------+
ers|   1 | person1 |
   +-----+---------+
1.1 row in set (0.00 sec)
2.
3.mysql>
```

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

```
5.mysql> select * from salesPerson join `order` on salesPerson.sid = `order`.sid;
7.+-----+---------+----------+--------+------+
3.| sid | sname   | order_id | cus_id | sid  |
  +-----+---------+----------+--------+------+
T|   1 | person1 |        1 |      1 |    1 |
 |   1 | person1 |        4 |      1 |    1 |
 |   1 | person1 |        5 |      3 |    1 |
 |   1 | person1 |        6 |      1 |    1 |
ob|   2 | person2 |        2 |      1 |    2 |
rs|   3 | person3 |        3 |      2 |    3 |
  +-----+---------+----------+--------+------+
1.6 rows in set (0.01 sec)
2.
3 mysql>
```

7. Create index

```
mysql> alter table `order` add index sid(sid);
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql>
```

8. How to show index on a table

```
mysql> show index from `order`;
+-------+------------+----------+--------------+-------------+-----------+----------+------
      -+----------+--------+------+------------+---------+---------------+
| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardi
nality | Sub_part | Packed | Null | Index_type | Comment | Index_comment |
+-------+------------+----------+--------------+-------------+-----------+------
     --+----------+--------+------+------------+---------+---------------+
| order |          0 | PRIMARY  |            1 | order_id    | A
    6  |     NULL | NULL   |      | BTREE      |         |               |
| order |          1 | cus_id   |            1 | cus_id      | A
    3  |     NULL | NULL   | YES  | BTREE      |         |               |
| order |          1 | sid      |            1 | sid         | A
    3  |     NULL | NULL   | YES  | BTREE      |         |               |
+-------+------------+----------+--------------+-------------+-----------+------
     --+----------+--------+------+------------+---------+---------------+
3 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

```
ERROR 1054 (42S22): Unknown column 'c.std' in 'on clause'
mysql> select order_id, sname, cus_name from salesPerson s join `order` o on s.s
id = o.sid join customer c on c.cus_id = o.cus_id;
+----------+---------+----------+
| order_id | sname   | cus_name |
+----------+---------+----------+
|        1 | person1 | Ramesh   |
|        2 | person2 | Ramesh   |
|        3 | person3 | Ram      |
|        4 | person1 | Ramesh   |
|        5 | person1 | Meera    |
|        6 | person1 | Ramesh   |
+----------+---------+----------+
6 rows in set (0.00 sec)

mysql>
```