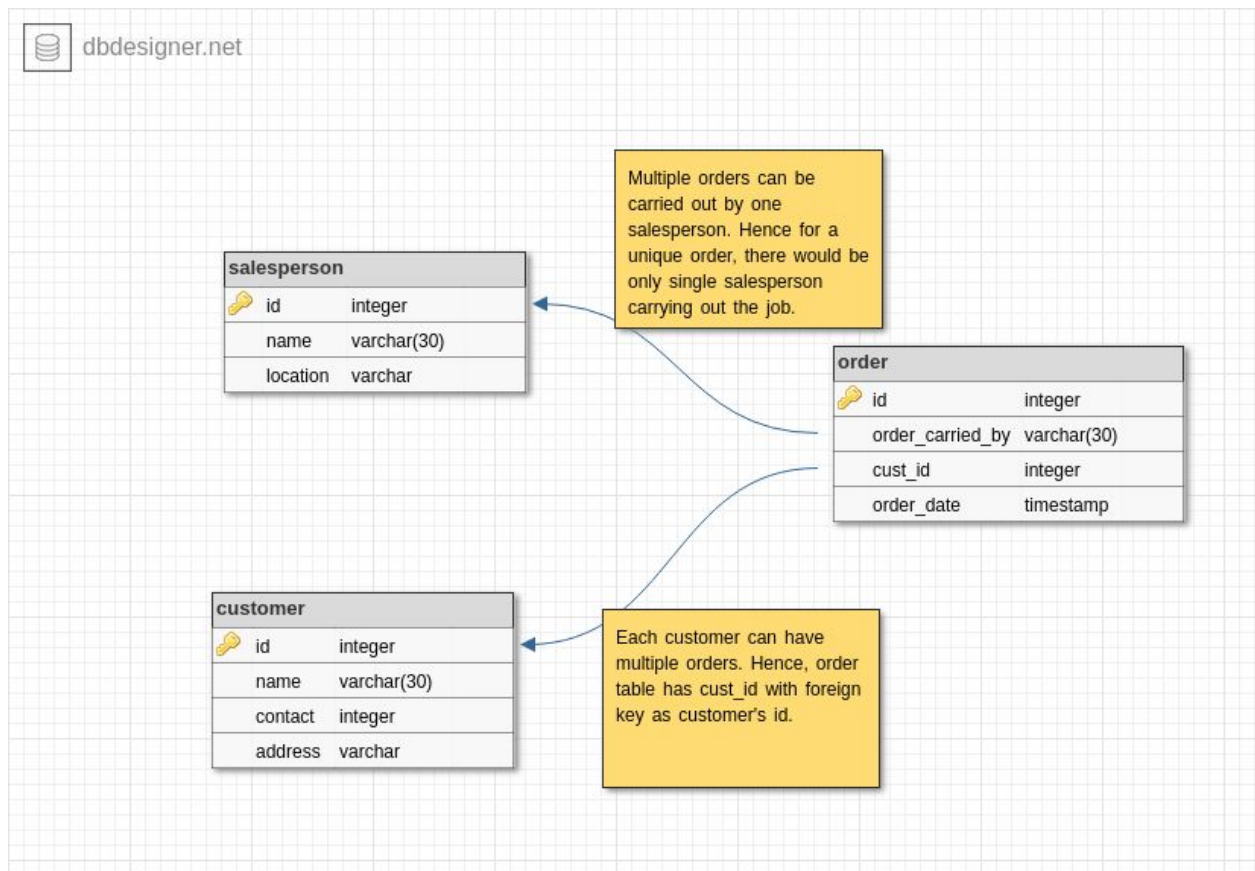# 1. Create Database

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

mysql> use sales;
Database changed
```

2. Design Schema

3. Create tables

File Edit View Search Terminal Help

```
mysql> create table salesperson(id int auto_increment, name varchar(30), location varchar(30), primary key(id));
Query OK, 0 rows affected (0.25 sec)

mysql> create table customer(id int auto_increment, name varchar(30), contact bigint, addr
Query OK, 0 rows affected (0.32 sec)

mysql> desc customer;
+---------+--------------+------+-----+---------+----------------+
| Field   | Type         | Null | Key | Default | Extra          |
+---------+--------------+------+-----+---------+----------------+
| id      | int(11)      | NO   | PRI | NULL    | auto_increment |
| name    | varchar(30)  | YES  |     | NULL    |                |
| contact | bigint(20)   | YES  |     | NULL    |                |
| address | varchar(100) | YES  |     | NULL    |                |
+---------+--------------+------+-----+---------+----------------+
4 rows in set (0.01 sec)

mysql> create table orders(id int auto_increment, order_carried_by int, cust_id int, order_date timestamp, primary key(id
), foreign key (order_carried_by) references salesperson(id), foreign key (cust_id) references customer(id));
Query OK, 0 rows affected (0.35 sec)
```

4. Insert sample data

File Edit View Search Terminal Help

```
mysql> insert into salesperson(name, location) values ("sagar", "meerut");
Query OK, 1 row affected (0.03 sec)

mysql> insert into salesperson(name, location) values ("manish", "faridabad");
Query OK, 1 row affected (0.04 sec)

mysql> insert into salesperson(name, location) values ("mansi", "hyderabad");
Query OK, 1 row affected (0.03 sec)

mysql> insert into salesperson(name, location) values ("tamal", "mumbai");
Query OK, 1 row affected (0.04 sec)

mysql> insert into salesperson(name, location) values ("vikram", "kolkata");
Query OK, 1 row affected (0.05 sec)

mysql> insert into customer(name, contact, address) values ("vibhuti", 3434439853,"bhopal");
Query OK, 1 row affected (0.04 sec)

mysql> insert into customer(name, contact, address) values ("neeraj", 7346393434,"jaipur");
Query OK, 1 row affected (0.05 sec)

mysql> insert into customer(name, contact, address) values ("sargam", 7082443493,"delhi");
Query OK, 1 row affected (0.03 sec)
```

5. Find the sales person have multiple orders.

```
mysql> insert into orders(order_carried_by, cust_id) values(2, 3);
Query OK, 1 row affected (0.04 sec)

mysql> insert into orders(order_carried_by, cust_id) values(5, 1);
Query OK, 1 row affected (0.04 sec)

mysql> insert into orders(order_carried_by, cust_id) values(4, 3);
Query OK, 1 row affected (0.04 sec)

mysql> insert into orders(order_carried_by, cust_id) values(1, 2);
Query OK, 1 row affected (0.06 sec)

mysql> insert into orders(order_carried_by, cust_id) values(3, 1);
Query OK, 1 row affected (0.04 sec)

mysql> insert into orders(order_carried_by, cust_id) values(3, 2);
Query OK, 1 row affected (0.05 sec)
```

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

```
mysql> select * from ((salesperson s join orders o on s.id = o.order_carried_by) join customer c on  c.id = o.cust_id);
+----+--------+----------+----+-----------------+---------+---------------------+----+--------+------------+---------+
| id | name   | location | id | order_carried_by | cust_id | order_date          | id | name   | contact    | address |
+----+--------+----------+----+-----------------+---------+---------------------+----+--------+------------+---------+
|  5 | vikram | kolkata  |  2 |               5 |       1 | 2019-02-06 16:56:06 |  1 | vibhuti | 3434439853 | bhopal  |
|  3 | mansi  | hyderabad|  5 |               3 |       1 | 2019-02-06 16:57:19 |  1 | vibhuti | 3434439853 | bhopal  |
|  1 | sagar  | meerut   |  4 |               1 |       2 | 2019-02-06 16:57:07 |  2 | neeraj  | 7346393434 | jaipur  |
|  3 | mansi  | hyderabad|  6 |               3 |       2 | 2019-02-06 17:00:33 |  2 | neeraj  | 7346393434 | jaipur  |
|  2 | manish | faridabad|  1 |               2 |       3 | 2019-02-06 16:55:49 |  3 | sargam  | 7082443493 | delhi   |
|  4 | tamal  | mumbai   |  3 |               4 |       3 | 2019-02-06 16:56:17 |  3 | sargam  | 7082443493 | delhi   |
+----+--------+----------+----+-----------------+---------+---------------------+----+--------+------------+---------+
```

7. Create index

```
mysql> create index name_index on user(name);
ERROR 1146 (42S02): Table 'sales.user' doesn't exist
mysql> create index sales_index on salesperson(name);
Query OK, 0 rows affected (0.27 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

8. How to show index on a table

```
mysql> show index from salesperson;
+-------------+------------+-------------+--------------+-------------+-----------+-------------+----------+--------+------+
| Table       | Non_unique | Key_name    | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type | Comment | Index_comment |
+-------------+------------+-------------+--------------+-------------+-----------+-------------+----------+--------+------+
| salesperson |          0 | PRIMARY     |            1 | id          | A         |           4 | NULL     | NULL   |      | BTREE      |         |               |
| salesperson |          1 | sales_index |            1 | name        | A         |           5 | NULL     | NULL   | YES  | BTREE      |         |               |
+-------------+------------+-------------+--------------+-------------+-----------+-------------+----------+--------+------+
2 rows in set (0.00 sec)
```

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


```
mysql> select o.id as ORDER_ID, s.name as SALESPERSON, c.name as CUSTOMER from ((salesperson s join orders o on s.id = o.order_carri
+----------+-------------+----------+
| ORDER_ID | SALESPERSON | CUSTOMER |
+----------+-------------+----------+
|        2 | vikram      | vibhuti  |
|        5 | mansi       | vibhuti  |
|        4 | sagar       | neeraj   |
|        6 | mansi       | neeraj   |
|        1 | manish      | sargam   |
|        3 | tamal       | sargam   |
+----------+-------------+----------+
6 rows in set (0.00 sec)
```