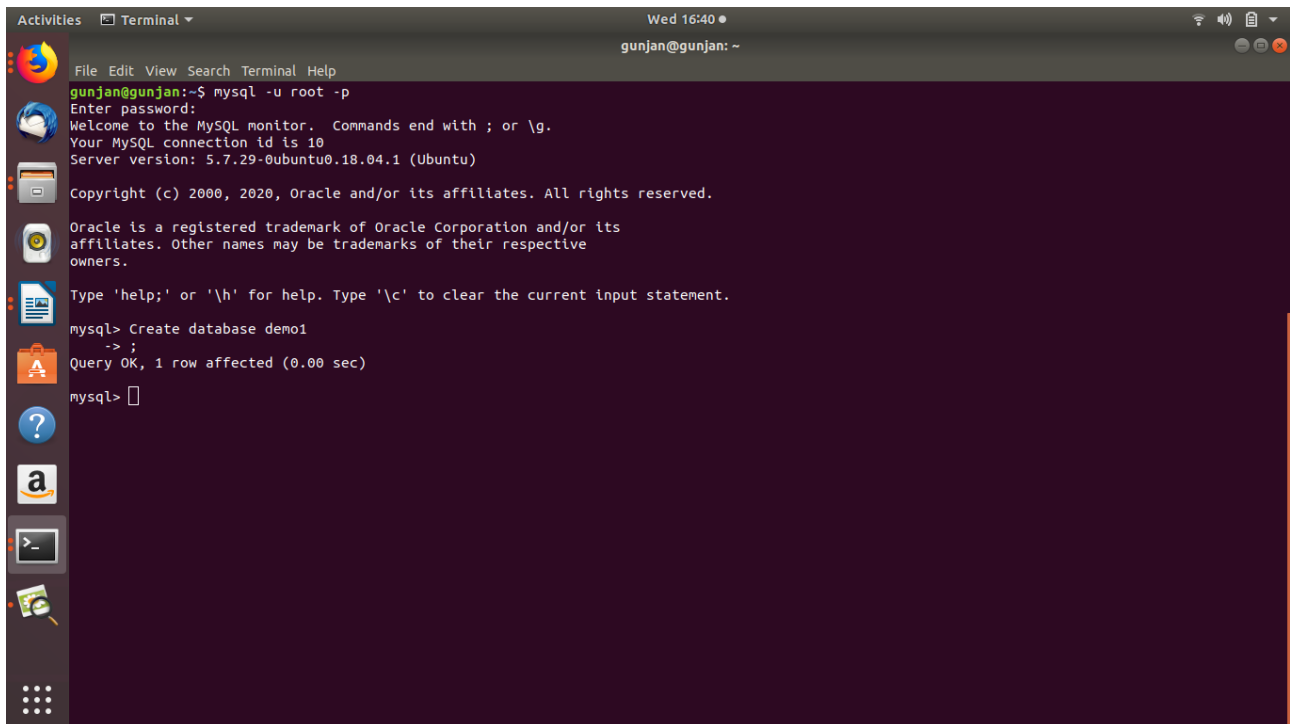


## Database Assignment

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



```
gunjan@gunjan:~$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 5.7.29-0ubuntu0.18.04.1 (Ubuntu)

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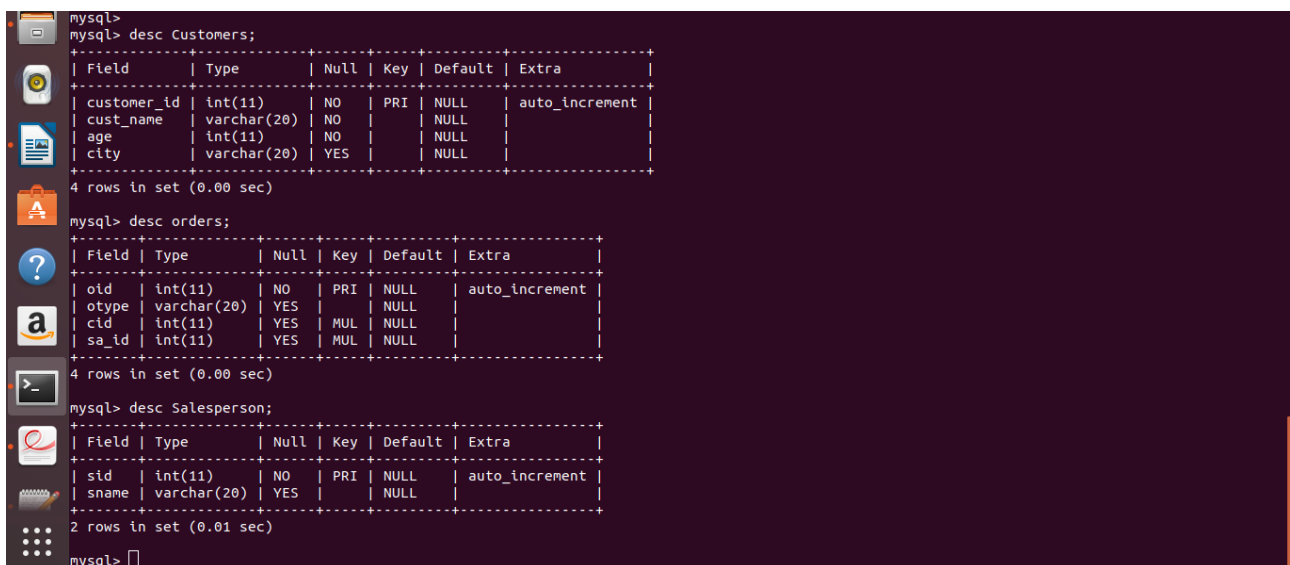
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> Create database demo1
-> ;
Query OK, 1 row affected (0.00 sec)

mysql>
```

### 2. Design Schema



```
mysql>
mysql> desc Customers;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customer_id | int(11) | NO | PRI | NULL | auto_increment |
| cust_name | varchar(20) | NO | | NULL | |
| age | int(11) | NO | | NULL | |
| city | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 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 | |
| cid | int(11) | YES | MUL | NULL | |
| sa_id | int(11) | YES | MUL | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> desc Salesperson;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| sid | int(11) | NO | PRI | NULL | auto_increment |
| sname | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)

mysql>
```

### 3. Create tables

```
mysql> Create table Customers (  
-> customer_id INT NOT NULL Auto_Increment,  
-> cust_name varchar(20) not null,  
-> age int not null,  
-> city varchar(20),  
-> Primary key(customer_id)  
-> );  
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> Create table Salesperson (  
-> sid int primary key auto_increment,  
-> sname varchar(20)  
-> );  
Query OK, 0 rows affected (0.05 sec)  
mysql>
```

```
mysql> ^MCreate table orders (  
-> oid int primary key auto_increment,  
-> otype varchar(20),  
-> cid int,  
-> foreign key(cid) references Customers(customer_id),  
-> sa_id int,  
-> foreign key(sa_id) references Salesperson(sid)  
-> );  
Query OK, 0 rows affected (0.05 sec)  
mysql>
```

### 4. Insert sample data

```
mysql> insert into Customers (customer_id,cust_name,age,city) values (1,"gunjan",24,"delhi");  
Query OK, 1 row affected (0.04 sec)  
mysql> insert into Customers (customer_id,cust_name,age,city) values (2,"gaurav",25,"Banglore");  
Query OK, 1 row affected (0.04 sec)
```

```
mysql> insert into Customers (1,"gunjan",24,"delhi");  
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 '1,"gunjan",24,"delhi"' at line 1  
mysql> insert into Customers (customer_id,cust_name,age,city) values (1,"gunjan",24,"delhi");  
Query OK, 1 row affected (0.04 sec)  
mysql> insert into Customers (customer_id,cust_name,age,city) values (2,"gaurav",25,"Banglore");  
Query OK, 1 row affected (0.04 sec)  
mysql> insert into Customers (customer_id,cust_name,age,city) values (3,"harsh",28,"Mumbai");  
Query OK, 1 row affected (0.04 sec)  
mysql> insert into Customers (customer_id,cust_name,age,city) values (4,"Ayush",21,"banaras");  
Query OK, 1 row affected (0.04 sec)
```

```
mysql>  
mysql>  
mysql> insert into Salesperson (sid,sname) values (1,"Rahul");  
Query OK, 1 row affected (0.03 sec)  
mysql> insert into Salesperson (sid,sname) values (2,"Rohit");  
Query OK, 1 row affected (0.04 sec)  
mysql> insert into Salesperson (sid,sname) values (3,"Pulkit");  
Query OK, 1 row affected (0.01 sec)  
mysql>
```

```
mysql>  
mysql> insert into orders (oid,otype,cid,sa_id) values (1,"Mobile",2,1);  
Query OK, 1 row affected (0.04 sec)  
mysql> insert into orders (oid,otype,cid,sa_id) values (1,"microwave",1,3);  
ERROR 1062 (23000): Duplicate entry '1' for key 'PRIMARY'  
mysql> insert into orders (oid,otype,cid,sa_id) values (2,"microwave",1,3);  
Query OK, 1 row affected (0.03 sec)  
mysql> insert into orders (oid,otype,cid,sa_id) values (3,"microwave",4,2);  
Query OK, 1 row affected (0.04 sec)  
mysql> insert into orders (oid,otype,cid,sa_id) values (4,"microwave",3,1);  
Query OK, 1 row affected (0.01 sec)  
mysql>
```

5. Find the sales person have multiple orders.

```
mysql> insert into orders (oid,otype,cid,sa_id) values (4,"microwave",3,1);
Query OK, 1 row affected (0.01 sec)

mysql> select sname,oid from Salesperson join orders on Salesperson.sid=orders.sa_id and 1<(Select count(*) from orders where Salesperson.sid=orders.sa_id);
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 '' at line 1

mysql> mysql> select sname,oid from Salesperson join orders on Salesperson.sid=orders.sa_id and 1<(Select count(*) from orders where Salespersorders.sa_id);
+-----+
| sname | oid |
+-----+
| Rahul | 1 |
| Rahul | 4 |
+-----+
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 Salesperson inner join orders on Salesperson.sid=orders.sa_id;
```

sid	sname	oid	otype
1	Rahul	1	Mobile
3	Pulkit	2	Microwave
2	Rohit	3	Microwave
1	Rahul	4	Microwave

4 rows in set (0.00 sec)

```
mysql>
```

## 7. Create index

```
mysql>
mysql> Create index index_cus on Customers(cust_name);
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql>
```

## 8. How to show index on a table.

[illegible]

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

```
mysql>
mysql>
mysql>
mysql> select oid,sname,cust_name from orders,Salesperson,Customers where Customers.customer_id = orders.cid and Salesperson.sid=orders.sa_id;
```

oid	sname	cust_name
1	Rahul	gaurav
2	Pulkit	gunjan
3	Rohit	Ayush
4	Rahul	harsh

```
4 rows in set (0.00 sec)

mysql>
```