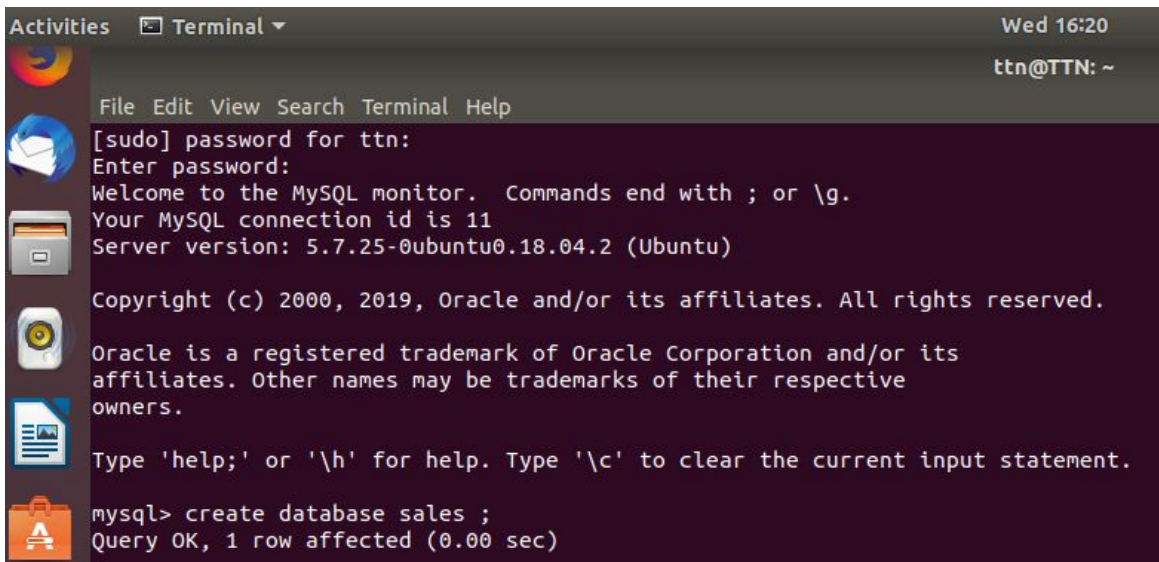


Assessment - 3

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 Database



```
Activities Terminal Wed 16:20
ttn@TTN: ~
File Edit View Search Terminal Help
[sudo] password for ttn:
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 5.7.25-0ubuntu0.18.04.2 (Ubuntu)

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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 sales ;
Query OK, 1 row affected (0.00 sec)
```

2. Design Schema

Orders

| | |
|--------|---------------------------|
| O_id | Primary key |
| o_name | Order details |
| c_id | Customer id (foreign key) |
| S_id | Sales id(foreign key) |

Customer

| | |
|--------|------------------|
| c_id | Primary key |
| c_name | customer details |

Salesperson

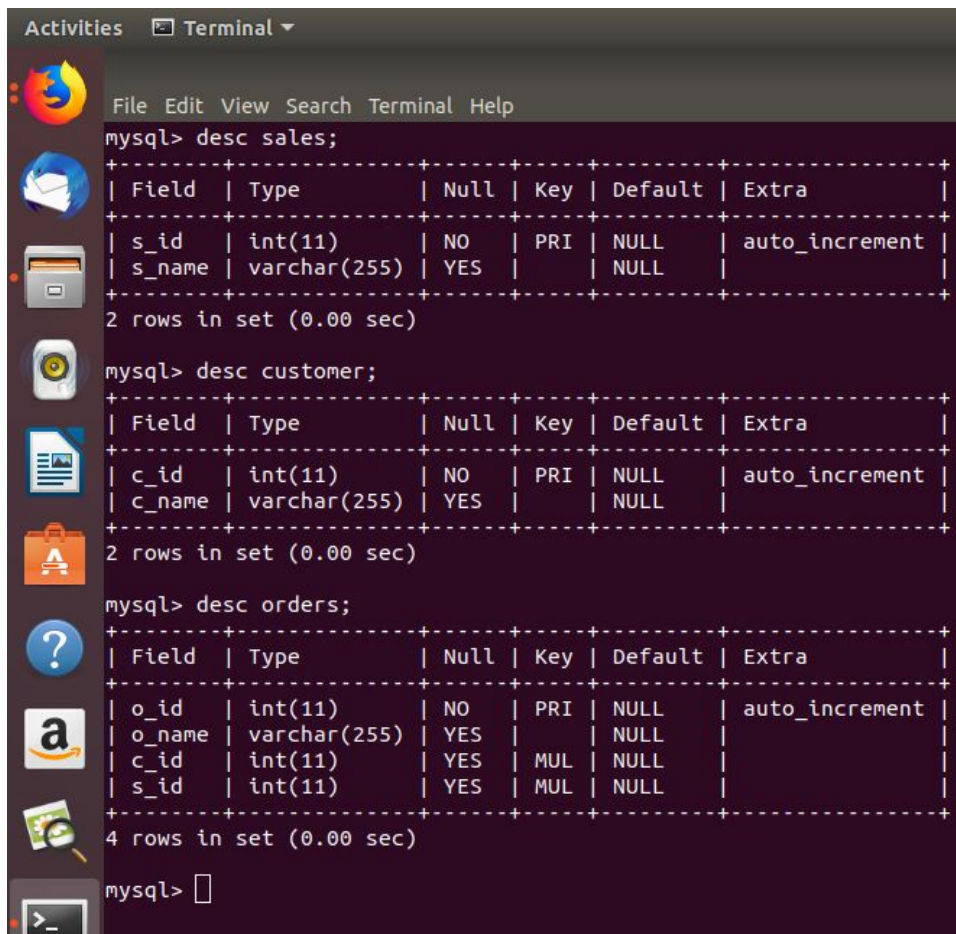
| | |
|--------|---------------------|
| s_id | Primary key |
| s_name | salesperson details |

3. Create tables

Order table - create table orders(o_id int auto_increment, o_name varchar(255), c_id int , s_id int , primary key(o_id), FOREIGN KEY (c_id) REFERENCES customer(c_id), FOREIGN KEY (s_id) REFERENCES sales(s_id));

Customer table - create table customer(c_id int auto_increment,c_name varchar(255), primary key(c_id));

Sales table - create table sales(s_id int auto_increment, s_name varchar(255), primary key(s_id));



```
Activities Terminal
File Edit View Search Terminal Help
mysql> desc sales;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| s_id  | int(11)       | NO   | PRI | NULL    | auto_increment |
| s_name | varchar(255)  | YES  |     | NULL    |                |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> desc customer;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| c_id  | int(11)       | NO   | PRI | NULL    | auto_increment |
| c_name | varchar(255)  | YES  |     | NULL    |                |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> desc orders;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| o_id  | int(11)       | NO   | PRI | NULL    | auto_increment |
| o_name | varchar(255)  | YES  |     | NULL    |                |
| c_id  | int(11)       | YES  | MUL | NULL    |                |
| s_id  | int(11)       | YES  | MUL | NULL    |                |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>
```

4. Insert sample data

```
mysql> insert into orders(o_id,o_name,c_id,s_id) values(1,'apple',2,1);
Query OK, 1 row affected (0.07 sec)

mysql> insert into orders(o_id,o_name,c_id,s_id) values(2,'mango',3,2);
Query OK, 1 row affected (0.05 sec)

mysql> insert into orders(o_id,o_name,c_id,s_id) values(3,'mango',1,2);
Query OK, 1 row affected (0.07 sec)

mysql> insert into orders(o_id,o_name,c_id,s_id) values(4,'apple',1,1);
Query OK, 1 row affected (0.07 sec)

mysql> select * from orders;
+-----+
| o_id | o_name | c_id | s_id |
+-----+
| 1    | apple  | 2    | 1    |
| 2    | mango  | 3    | 2    |
| 3    | mango  | 1    | 2    |
| 4    | apple  | 1    | 1    |
+-----+
4 rows in set (0.00 sec)

mysql>
```

Activities Terminal Wed 17:11 ttn@TTN: ~

```
File Edit View Search Terminal Help

mysql> insert into customer(c_id,c_name) values(1,'vanshika');
Query OK, 1 row affected (0.07 sec)

mysql> insert into customer(c_id,c_name) values(2,'vartika');
Query OK, 1 row affected (0.06 sec)

mysql> insert into customer(c_id,c_name) values(3,'hanu');
Query OK, 1 row affected (0.10 sec)

mysql> select * from customer;
+-----+
| c_id | c_name |
+-----+
| 1    | vanshika |
| 2    | vartika |
| 3    | hanu    |
+-----+
3 rows in set (0.00 sec)

mysql>
```

```
mysql> insert into sales(s_id,s_name) values(2,'vijay');
ERROR 1046 (3D000): No database selected
mysql> use sales;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> insert into sales(s_id,s_name) values(2,'vijay');
Query OK, 1 row affected (0.10 sec)

mysql> select * from sales;
+-----+
| s_id | s_name |
+-----+
| 1    | rajiv  |
| 2    | vijay  |
+-----+
2 rows in set (0.00 sec)

mysql>
```

5. Find the sales person have multiple orders. -

```
Database changed
mysql> select sales.* from sales join orders on order.s_id=sales.s_id group by orders.s_id having count(orders.s_id)>1;
ERROR 1054 (42S22): Unknown column 'order.s_id' in 'on clause'
mysql> select sales.* from sales join orders on orders.s_id=sales.s_id group by orders.s_id having count(orders.s_id)>1;
+-----+-----+
| s_id | s_name |
+-----+-----+
| 1    | rajiv  |
| 2    | vijay  |
+-----+-----+
2 rows in set (0.03 sec)

mysql>
```

```
select sales.* from sales join orders on orders.s_id=sales.s_id group by orders.s_id
having count(orders.s_id)>1;
```

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

```
Activities Terminal Thu 09:57 ttn@TTN: ~
File Edit View Search Terminal Help
mysql> select sales.s_id,sales.s_name,orders.o_id,orders.o_name from sales join orders on sales.s_id=orders.s_id ;
+-----+-----+-----+-----+
| s_id | s_name | o_id | o_name |
+-----+-----+-----+-----+
| 1    | rajiv  | 1    | apple  |
| 2    | vijay  | 2    | mango  |
| 2    | vijay  | 3    | mango  |
| 1    | rajiv  | 4    | apple  |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>
```

7. Create index

```
mysql> alter table customer_detail add index INDEX1 (cust_ID);
ERROR 1146 (42S02): Table 'sales.customer_detail' doesn't exist
mysql> alter table customer add index INDEX1 (c_id);
Query OK, 0 rows affected (0.50 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql>
```

```
alter table customer add index INDEX1 (c_id);
```

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 |
|----------|------------|----------|--------------|-------------|-----------|-------------|----------|--------|------|------------|---------|
| customer | 0 | PRIMARY | 1 | c_id | A | 2 | | NULL | NULL | BTREE | |
| customer | 1 | INDEX1 | 1 | c_id | A | 2 | | NULL | NULL | BTREE | |

```
2 rows in set (0.00 sec)
```

```
mysql>
```

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

```
mysql> select orders.o_id,sales.s_name,customer.c_name from orders join sales on orders.s_id=sales.s_id join customer on customer.c_id=orders.c_id;
```

| o_id | s_name | c_name |
|------|--------|----------|
| 1 | rajiv | vartika |
| 2 | vijay | hanu |
| 3 | vijay | vanshika |
| 4 | rajiv | vanshika |

```
4 rows in set (0.00 sec)
```

```
mysql>
```