

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 multile customers

1. Create Database

```
himanshi@himanshi-gupta: ~  
himanshi@himanshi-gupta:~$ sudo mysql -uroot  
[sudo] password for himanshi:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 5  
Server version: 5.7.21-0ubuntu0.16.04.1 (Ubuntu)  
  
Copyright (c) 2000, 2018, Oracle and/or its affiliates. All rights reserved.  
  
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 flipkart;  
Query OK, 1 row affected (0.09 sec)  
  
mysql> use flipkart;  
Database changed  
mysql>
```

2. Design Schema

```
himanshi@himanshi-gupta: ~  
[sudo] password for himanshi:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 6  
Server version: 5.7.21-0ubuntu0.16.04.1 (Ubuntu)  
  
Copyright (c) 2000, 2018, Oracle and/or its affiliates. All rights reserved.  
  
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> use flipkart;  
Database changed  
mysql> create table customer(c_id bigint(20) not null auto_increment, c_name varchar(255), c_contact bigint(10), primary key(c_id));  
Query OK, 0 rows affected (0.61 sec)  
  
mysql> create table sales(sales_id bigint(20) not null auto_increment, sales_name varchar(255), sales_contact bigint(10), primary key(sales_id), foreign key(c_id) references customer(c_id));  
ERROR 1072 (42000): Key column 'c_id' doesn't exist in table  
mysql> select * from customer;  
Empty set (0.07 sec)  
  
mysql> desc customer;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| c_id  | bigint(20) | NO | PRI | NULL | auto_increment |  
| c_name | varchar(255) | YES | | NULL | |  
| c_contact | bigint(10) | YES | | NULL | |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.04 sec)  
  
mysql> create table sales(sales_id bigint(20) not null auto_increment, sales_name varchar(255), sales_contact bigint(10), c_id bigint(10), primary key(sales_id), foreign key(c_id) references customer(c_id));  
Query OK, 0 rows affected (0.74 sec)  
  
mysql> create table orders(order_no bigint(20) not null auto_increment, order_name varchar(255), price bigint(20), c_id bigint(10), sales_id bigint(10), primary key(order_no), foreign key(c_id) references customer(c_id), foreign key(sales_id) references sales(sales_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 'bigint(20), c_id bigint(10), sales_id bigint(10), primary key(order_no), foreign k' at line 1  
mysql> create table orders(order_no bigint(20) not null auto_increment, order_name varchar(255), price bigint(20), c_id bigint(10), sales_id bigint(10), primary key(order_no), foreign key(c_id) references customer(c_id), foreign key(sales_id) references sales(sales_id));
```

3. Create tables

```
himanshi@himanshi-gupta: ~  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> use flipkart;  
Database changed  
mysql> create table customer(c_id bigint(20) not null auto_increment, c_name varchar(255), c_contact bigint(10), primary key(c_id));  
Query OK, 0 rows affected (0.61 sec)  
  
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, foreign key(c_id) references customer(c_id));  
ERROR 1072 (42000): Key column 'c_id' doesn't exist in table  
mysql> select * from customer;  
Empty set (0.07 sec)  
  
mysql> desc customer;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| c_id | bigint(20) | NO | PRI | NULL | auto_increment |  
| c_name | varchar(255) | YES | | NULL | |  
| c_contact | bigint(10) | YES | | NULL | |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.04 sec)  
  
mysql> create table sales(sales_id bigint(20) not null auto_increment, sales_name varchar(255), sales_contact bigint(10), c_id bigint(10), primary  
key(sales_id), foreign key(c_id) references customer(c_id));  
Query OK, 0 rows affected (0.74 sec)  
  
mysql> create table orders(order_no bigint(20) not null auto_increment, order_name varchar(255), price bigint(920), c_id bigint(10), slaes_id bigin  
t(10), primary key(order_no), foreign key(c_id) references customer(c_id), foreign key(sales_id) references sales(sales_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 t  
o use near 'bigint(920), c_id bigint(10), slaes_id bigint(10), primary key(order_no), foreign k' at line 1  
mysql> create table orders(order_no bigint(20) not null auto_increment, order_name varchar(255), price bigint(920), c_id bigint(10), slaes_id bigin  
t(10), primary key(order_no), foreign key(c_id) references customer(c_id), foreign key (sales_id) references sales(sales_id));  
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(10), primary key(order_no), foreign key(c_id) references customer(c_id), foreign key (sales_id) references sales(sales_id));  
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ERROR 1072 (42000): Key column 'sales_id' doesn't exist in table
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```
himanshi@himanshi-gupta: ~  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> use flipkart;  
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mysql> create table sales(sales_id bigint(20) not null auto_increment, sales_name varchar(255), sales_contact bigint(10), primary key(sales_id)  
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Empty set (0.07 sec)  
  
mysql> desc customer;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| c_id | bigint(20) | NO | PRI | NULL | auto_increment |  
| c_name | varchar(255) | YES | | NULL | |  
| c_contact | bigint(10) | YES | | NULL | |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.04 sec)  
  
mysql> create table sales(sales_id bigint(20) not null auto_increment, sales_name varchar(255), sales_contact bigint(10), c_id bigint(10), prima  
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Query OK, 0 rows affected (0.74 sec)  
  
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ERROR 1072 (42000): Key column 'sales_id' doesn't exist in table
```

```
himanshi@himanshi-gupta: ~
mysql> create table customer(c_id bigint(20) not null auto_increment, c_name varchar(255), c_contact bigint(10), primary key(c_id));
Query OK, 0 rows affected (0.61 sec)

mysql> create table sales(sales_id bigint(20) not null auto_increment, sales_name varchar(255), sales_contact bigint(10), primary key(sales_id), foreign key(c_id) references customer(c_id));
ERROR 1072 (42000): Key column 'c_id' doesn't exist in table
mysql> select * from customer;
Empty set (0.07 sec)

mysql> desc customer;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| c_id | bigint(20) | NO | PRI | NULL | auto_increment |
| c_name | varchar(255) | YES | | NULL | |
| c_contact | bigint(10) | YES | | NULL | |
+-----+
3 rows in set (0.04 sec)

mysql> create table sales(sales_id bigint(20) not null auto_increment, sales_name varchar(255), sales_contact bigint(10), c_id bigint(10), primary key(sales_id), foreign key(c_id) references customer(c_id));
Query OK, 0 rows affected (0.74 sec)

mysql> create table orders(order_no bigint(20) not null auto_increment, order_name varchar(255), price bigint(20), c_id bigint(10), sales_id bigint(10), primary key(order_no), foreign key(c_id) references customer(c_id), foreign key(sales_id) references sales(sales_id));
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mysql> create table orders(order_no bigint(20) not null auto_increment, order_name varchar(255), price bigint(20), c_id bigint(10), sales_id bigint(10), primary key(order_no), foreign key(c_id) references customer(c_id), foreign key(sales_id) references sales(sales_id));
Query OK, 0 rows affected (0.40 sec)

mysql>
```

4. Insert sample data

```
himanshi@himanshi-gupta: ~
ERROR 1072 (42000): Key column 'sales_id' doesn't exist in table
mysql> create table orders(order_no bigint(20) not null auto_increment, order_name varchar(255), price bigint(20), c_id bigint(10), sales_id bigint(10), primary key(order_no), foreign key(c_id) references customer(c_id), foreign key(sales_id) references sales(sales_id));
Query OK, 0 rows affected (0.40 sec)

mysql>
mysql>
mysql>
mysql> desc customer;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| c_id | bigint(20) | NO | PRI | NULL | auto_increment |
| c_name | varchar(255) | YES | | NULL | |
| c_contact | bigint(10) | YES | | NULL | |
+-----+
3 rows in set (0.01 sec)

mysql> desc sales;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| sales_id | bigint(20) | NO | PRI | NULL | auto_increment |
| sales_name | varchar(255) | YES | | NULL | |
| sales_contact | bigint(10) | YES | | NULL | |
| c_id | bigint(10) | YES | MUL | NULL | |
+-----+
4 rows in set (0.01 sec)

mysql> desc orders;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| order_no | bigint(20) | NO | PRI | NULL | auto_increment |
| order_name | varchar(255) | YES | | NULL | |
| price | bigint(20) | YES | | NULL | |
| c_id | bigint(10) | YES | MUL | NULL | |
| sales_id | bigint(10) | YES | MUL | NULL | |
+-----+
5 rows in set (0.00 sec)

mysql>
```

```
himanshi@himanshi-gupta: ~  
+-----+  
| sales_id | bigint(20) | NO | PRI | NULL | auto_increment |  
| sales_name | varchar(255) | YES | | NULL | |  
| sales_contact | bigint(10) | YES | | NULL | |  
| c_id | bigint(10) | YES | MUL | NULL | |  
+-----+  
4 rows in set (0.01 sec)  
  
mysql> desc orders;  
+-----+  
| Field | Type | Null | Key | Default | Extra |  
+-----+  
| order_no | bigint(20) | NO | PRI | NULL | auto_increment |  
| order_name | varchar(255) | YES | | NULL | |  
| price | bigint(20) | YES | | NULL | |  
| c_id | bigint(10) | YES | MUL | NULL | |  
| sales_id | bigint(10) | YES | MUL | NULL | |  
+-----+  
5 rows in set (0.00 sec)  
  
mysql> insert into table customer(c_id, c_name, c_contact) values(1,"himanshi", 8448773557);  
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 t  
o use near 'table customer(c_id, c_name, c_contact) values(1,"himanshi", 8448773557)' at line 1  
mysql> insert into customer(c_id,c_name,c_contact) values(1,"himanshi", 8448773557);  
Query OK, 1 row affected (0.10 sec)  
  
mysql> insert into customer(c_id,c_name,c_contact) values(2,"niharika", 8447973557);  
Query OK, 1 row affected (0.10 sec)  
  
mysql> insert into customer(c_id,c_name,c_contact) values(3,"neha", 8448893557);  
Query OK, 1 row affected (0.09 sec)  
  
mysql> select * from customer;  
+-----+  
| c_id | c_name | c_contact |  
+-----+  
| 1 | himanshi | 8448773557 |  
| 2 | niharika | 8447973557 |  
| 3 | neha | 8448893557 |  
+-----+  
3 rows in set (0.00 sec)  
  
mysql> 
```

```
himanshi@himanshi-gupta: ~
mysql> insert into table customer(c_id, c_name, c_contact) values(1,"himanshi", 8448773557);
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 t
o use near 'table customer(c_id, c_name, c_contact) values(1,"himanshi", 8448773557)' at line 1
mysql> insert into customer(c_id,c_name,c_contact) values(1,"himanshi", 8448773557);
Query OK, 1 row affected (0.10 sec)

mysql> insert into customer(c_id,c_name,c_contact) values(2,"niharika", 8447973557);
Query OK, 1 row affected (0.10 sec)

mysql> insert into customer(c_id,c_name,c_contact) values(3,"neha", 8448893557);
Query OK, 1 row affected (0.09 sec)

mysql> select * from customer;
+-----+-----+-----+
| c_id | c_name | c_contact |
+-----+-----+-----+
| 1    | himanshi | 8448773557 |
| 2    | niharika | 8447973557 |
| 3    | neha    | 8448893557 |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> insert into sales(sales_id,sales_name,sales_contact) values(1,"paras", 8449422557);
Query OK, 1 row affected (0.07 sec)

mysql> insert into sales(sales_id,sales_name,sales_contact) values(2,"sweets", 8449477857);
Query OK, 1 row affected (0.10 sec)

mysql> insert into sales(sales_id,sales_name,sales_contact) values(3,"gulab", 8445537857);
Query OK, 1 row affected (0.08 sec)

mysql> select * from sales;
+-----+-----+-----+-----+
| sales_id | sales_name | sales_contact | c_id |
+-----+-----+-----+-----+
| 1        | paras      | 8449422557    | NULL |
| 2        | sweets     | 8449477857    | NULL |
| 3        | gulab      | 8445537857    | NULL |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

```
himanshi@himanshi-gupta: ~
mysql> select * from sales;
+-----+-----+-----+-----+
| sales_id | sales_name | sales_contact | c_id |
+-----+-----+-----+-----+
| 1        | paras      | 8449422557    | NULL |
| 2        | sweets     | 8449477857    | NULL |
| 3        | gulab      | 8445537857    | NULL |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> insert into order(order_no,order_name,sales_contact) values(3,"gulab", 8445537857);
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 t
o use near 'order(order_no,order_name,sales_contact) values(3,"gulab", 8445537857)' at line 1
mysql> insert into order(order_no,order_name,price,c_id) values(1,"dress",2000,1);
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 t
o use near 'order(order_no,order_name,price,c_id) values(1,"dress",2000,1)' at line 1
mysql> insert into order(order_no,order_name,sales_contact) values(3,"gulab", 8445537857);
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 t
o use near 'order(order_no,order_name,sales_contact) values(3,"gulab", 8445537857)' at line 1
mysql> insert into orders(order_no,order_name,price,c_id) values(1,"dress",2000,1);
Query OK, 1 row affected (0.06 sec)

mysql> insert into orders(order_no,order_name,price,c_id) values(2,"lipstick",2000,1);
Query OK, 1 row affected (0.05 sec)

mysql> insert into orders(order_no,order_name,price,c_id) values(3,"dryer",2001,2);
Query OK, 1 row affected (0.11 sec)

mysql> insert into orders(order_no,order_name,price,c_id) values(4,"fruits",2089,3);
Query OK, 1 row affected (0.04 sec)

mysql> select * from orders;
+-----+-----+-----+-----+
| order_no | order_name | price | c_id | sales_id |
+-----+-----+-----+-----+
| 1        | dress      | 2000  | 1    | NULL     |
| 2        | lipstick   | 2000  | 1    | NULL     |
| 3        | dryer      | 2001  | 2    | NULL     |
| 4        | fruits     | 2089  | 3    | NULL     |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>
```

5. Find the sales person have multiple orders.

```
himanshi@himanshi-gupta: ~
Query OK, 1 row affected (0.04 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update sales set sales_name= "pantaloons" where sales_id=1;
Query OK, 1 row affected (0.04 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from sales;
+-----+-----+-----+-----+
| sales_id | sales_name | sales_contact | c_id |
+-----+-----+-----+-----+
| 1 | pantaloons | 8449422557 | 1 |
| 2 | jockey | 8449477857 | 2 |
| 3 | reebok | 8445537857 | 3 |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select * from orders;
+-----+-----+-----+-----+-----+
| order_no | order_name | price | c_id | sales_id |
+-----+-----+-----+-----+-----+
| 1 | dress | 2000 | 1 | 1 |
| 2 | lipstick | 2000 | 1 | 2 |
| 3 | dryer | 2001 | 2 | 3 |
| 4 | fruits | 2089 | 3 | 2 |
| 5 | dry fruits | 5000 | 2 | 3 |
| 6 | keys | 50 | 3 | 2 |
| 7 | phone | 20000 | 1 | 1 |
| 8 | tv | 20000 | 2 | 2 |
| 9 | tv | 50000 | 2 | 3 |
+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)

mysql> select orders.sales_id sid, sales.sales_name sname, count(orders.order_no) total_orders from sales inner join orders on sales.sales_id=orders.sales_id group by sid having count(orders.order_no)>1;
+-----+-----+-----+
| sid | sname | total_orders |
+-----+-----+-----+
| 1 | pantaloons | 2 |
| 2 | jockey | 4 |
| 3 | reebok | 3 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

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


```
himanshi@himanshi-gupta: ~
mysql> select sales_id,sales_name,sales_contact from sales where c_id=any(select c_id from orders o where 1<any(select count(*) from orders whe
re o.c_id=c_id));
+-----+
| sales_id | sales_name | sales_contact |
+-----+
| 1 | paras | 8449422557 |
+-----+
1 row in set (0.02 sec)

mysql> select * from orders;
+-----+
| order_no | order_name | price | c_id | sales_id |
+-----+
| 1 | dress | 2000 | 1 | 1 |
| 2 | lipstick | 2000 | 1 | 2 |
| 3 | dryer | 2001 | 2 | 3 |
| 4 | fruits | 2089 | 3 | NULL |
+-----+
4 rows in set (0.00 sec)

mysql> select * from sales;
+-----+
| sales_id | sales_name | sales_contact | c_id |
+-----+
| 1 | paras | 8449422557 | 1 |
| 2 | sweets | 8449477857 | 2 |
| 3 | gulab | 8445537857 | 3 |
+-----+
3 rows in set (0.00 sec)

mysql> select * from sales sal left join orders ord on sal.c_id=ord.c_id;
+-----+
| sales_id | sales_name | sales_contact | c_id | order_no | order_name | price | c_id | sales_id |
+-----+
| 1 | paras | 8449422557 | 1 | 1 | dress | 2000 | 1 | 1 |
| 1 | paras | 8449422557 | 1 | 2 | lipstick | 2000 | 1 | 2 |
| 2 | sweets | 8449477857 | 2 | 3 | dryer | 2001 | 2 | 3 |
| 3 | gulab | 8445537857 | 3 | 4 | fruits | 2089 | 3 | NULL |
+-----+
4 rows in set (0.00 sec)
```

7. Create index


```
himanshi@himanshi-gupta: ~  
mysql> select * from sales;  
+-----+-----+-----+-----+  
| sales_id | sales_name | sales_contact | c_id |  
+-----+-----+-----+-----+  
| 1 | paras | 8449422557 | 1 |  
| 2 | sweets | 8449477857 | 2 |  
| 3 | gulab | 8445537857 | 3 |  
+-----+-----+-----+-----+  
3 rows in set (0.00 sec)  
  
mysql> select * from sales sal left join orders ord on sal.c_id=ord.c_id;  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| sales_id | sales_name | sales_contact | c_id | order_no | order_name | price | c_id | sales_id |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| 1 | paras | 8449422557 | 1 | 1 | dress | 2000 | 1 | 1 |  
| 1 | paras | 8449422557 | 1 | 2 | lipstick | 2000 | 1 | 2 |  
| 2 | sweets | 8449477857 | 2 | 3 | dryer | 2001 | 2 | 3 |  
| 3 | gulab | 8445537857 | 3 | 4 | fruits | 2089 | 3 | NULL |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.00 sec)  
  
mysql> alter table orders add index abc(c_id);  
Query OK, 0 rows affected (0.60 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> select * from orders where c_id=1;  
+-----+-----+-----+-----+-----+  
| order_no | order_name | price | c_id | sales_id |  
+-----+-----+-----+-----+-----+  
| 1 | dress | 2000 | 1 | 1 |  
| 2 | lipstick | 2000 | 1 | 2 |  
+-----+-----+-----+-----+-----+  
2 rows in set (0.00 sec)  
  
mysql> describe select * from orders where c_id=1;  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| id | select_type | table | partitions | type | possible_keys | key | key_len | ref | rows | filtered | Extra |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| 1 | SIMPLE | orders | NULL | ref | abc | abc | 9 | const | 2 | 100.00 | NULL |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
1 row in set, 1 warning (0.00 sec)  
  
mysql>
```

8. How to show index on a table

```
himanshi@himanshi-gupta: ~  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| 3 | gulab | 8445537857 | 3 | 4 | fruits | 2089 | 3 | NULL |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.00 sec)  
  
mysql> alter table orders add index abc(c_id);  
Query OK, 0 rows affected (0.60 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> select * from orders where c_id=1;  
+-----+-----+-----+-----+-----+  
| order_no | order_name | price | c_id | sales_id |  
+-----+-----+-----+-----+-----+  
| 1 | dress | 2000 | 1 | 1 |  
| 2 | lipstick | 2000 | 1 | 2 |  
+-----+-----+-----+-----+-----+  
2 rows in set (0.00 sec)  
  
mysql> describe select * from orders where c_id=1;  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| id | select_type | table | partitions | type | possible_keys | key | key_len | ref | rows | filtered | Extra |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| 1 | SIMPLE | orders | NULL | ref | abc | abc | 9 | const | 2 | 100.00 | NULL |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
1 row in set, 1 warning (0.00 sec)  
  
mysql> show index from orders;  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type | Comment | Index_comment |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| orders | 0 | PRIMARY | 1 | order_no | A | 4 | NULL | NULL | YES | BTREE | | |  
| orders | 1 | sales_id | 1 | sales_id | A | 3 | NULL | NULL | YES | BTREE | | |  
| orders | 1 | abc | 1 | c_id | A | 3 | NULL | NULL | YES | BTREE | | |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.00 sec)  
  
mysql>
```

- Find the largest order amount for each salesperson and the associated order number, along with the customer to whom that order belongs to

```
himanshi@himanshi-gupta: ~  
+-----+  
| 1 | himanshi | 8448773557 |  
| 2 | niharika | 8447973557 |  
| 3 | neha | 8448893557 |  
+-----+  
3 rows in set (0.00 sec)  
  
mysql> select * from sales;  
+-----+  
| sales_id | sales_name | sales_contact | c_id |  
+-----+  
| 1 | pantaloons | 8449422557 | 1 |  
| 2 | jockey | 8449477857 | 2 |  
| 3 | reebok | 8445537857 | 3 |  
+-----+  
3 rows in set (0.00 sec)  
  
mysql> select * from orders;  
+-----+  
| order_no | order_name | price | c_id | sales_id |  
+-----+  
| 1 | dress | 2000 | 1 | 1 |  
| 2 | lipstick | 2000 | 1 | 2 |  
| 3 | dryer | 2001 | 2 | 3 |  
| 4 | fruits | 2089 | 3 | 2 |  
| 5 | dry fruits | 5000 | 2 | 3 |  
| 6 | keys | 50 | 3 | 2 |  
| 7 | phone | 20000 | 1 | 1 |  
| 8 | tv | 20000 | 2 | 2 |  
| 9 | tv | 50000 | 2 | 3 |  
+-----+  
9 rows in set (0.00 sec)  
  
mysql> select s.sales_id salesID, o.order_no orderID, s.sales_name salesPerson, c.c_name customerName, o.price amount from orders o join sales  
s on o.sales_id=s.sales_id join customer c on o.c_id=c.c_id where o.price= any(select max(price) from orders group by sales_id having max(price  
));  
+-----+  
| salesID | orderID | salesPerson | customerName | amount |  
+-----+  
| 1 | 7 | pantaloons | himanshi | 20000 |  
| 2 | 8 | jockey | niharika | 20000 |  
| 3 | 9 | reebok | niharika | 50000 |  
+-----+  
3 rows in set (0.00 sec)
```