

1. Create Database

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

[mysql> use project;
Database changed
```

2. Design Schema

```
mysql> desc salesman;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id             | int           | YES  |     | NULL    |       |
| salesman_name  | varchar(25)   | YES  |     | NULL    |       |
| order_id       | int           | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

mysql> desc customer;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id             | int           | YES  |     | NULL    |       |
| customer_name  | varchar(25)   | YES  |     | NULL    |       |
| order_id       | int           | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> desc order_table;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id             | int           | NO   | PRI | NULL    | auto_increment |
| order_name     | varchar(25)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

3. Create tables

```
Database changed
mysql> create table order_table(id int primary key auto_increment,order_name varchar(25));
Query OK, 0 rows affected (0.04 sec)

mysql> create table customer(id int,customer_name varchar(25),order_id int,foreign key(order_id)references order_table(id));
Query OK, 0 rows affected (0.02 sec)

mysql> create table salesman(id int,salesman_name varchar(25),order_id int,foreign key(order_id)references order_table(id));
Query OK, 0 rows affected (0.02 sec)
```

4. Insert sample data

```
[mysql> insert into salesman values(1,'sm1',2),(2,'sm2',3),(3,'sm3',2),(4,'sm4',4);
Query OK, 4 rows affected (0.00 sec)
Records: 4 Duplicates: 0 Warnings: 0

mysql>
```

```
[mysql> insert into customer values (1,'shishir',2),(2,'raj',3),(3,'jai',2),(4,'aman',4),(1,'shishir',3);
Query OK, 5 rows affected (0.00 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql>
```

5. Find the sales person have multiple orders.

```
mysql> select salesman_name from salesman group by salesman_name having count(*)>1;
+-----+
| salesman_name |
+-----+
| sm1           |
+-----+
1 row in set (0.00 sec)
```

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

```
mysql> select s.salesman_name,o.order_name from salesman s,order_table o where o.id=s.order_id;
+-----+-----+
| salesman_name | order_name |
+-----+-----+
| sm1           | paper     |
| sm3           | paper     |
| sm2           | laptop    |
| sm1           | laptop    |
| sm4           | mobile    |
+-----+-----+
5 rows in set (0.00 sec)
```

7. Create index

```
mysql> create index order_id_index on salesman(order_id);
Query OK, 0 rows affected (0.05 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

8. How to show index on a table

```
mysql> show index from salesman
-> ;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Express
salesman	1	order_id_index	1	order_id	A	3	NULL	NULL	YES	BTREE			YES	NULL

```
1 row in set (0.01 sec)

mysql> show index from salesman;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Express
salesman	1	order_id_index	1	order_id	A	3	NULL	NULL	YES	BTREE			YES	NULL

```
1 row in set (0.01 sec)
```

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

```
mysql> select s.order_id,s.salesman_name,c.customer_name from salesman s,customer c where s.order_id=c.order_id;
```

order_id	salesman_name	customer_name
2	sm1	raj
2	sm1	shishir
2	sm1	jai
3	sm2	raj
3	sm2	shishir
2	sm3	raj
2	sm3	shishir
2	sm3	jai
4	sm4	shishir
4	sm4	aman
4	sm4	aman
3	sm1	raj
3	sm1	shishir

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