1.Create Database

Ans. create database management(database created)

   Use management(switched to management)

```
ishrat@ishrat:~ $ sudo mysql
[sudo] password for ishrat:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 5.7.29-0ubuntu0.18.04.1 (Ubuntu)

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owners.

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

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

mysql> use management
Database changed
mysql>
```
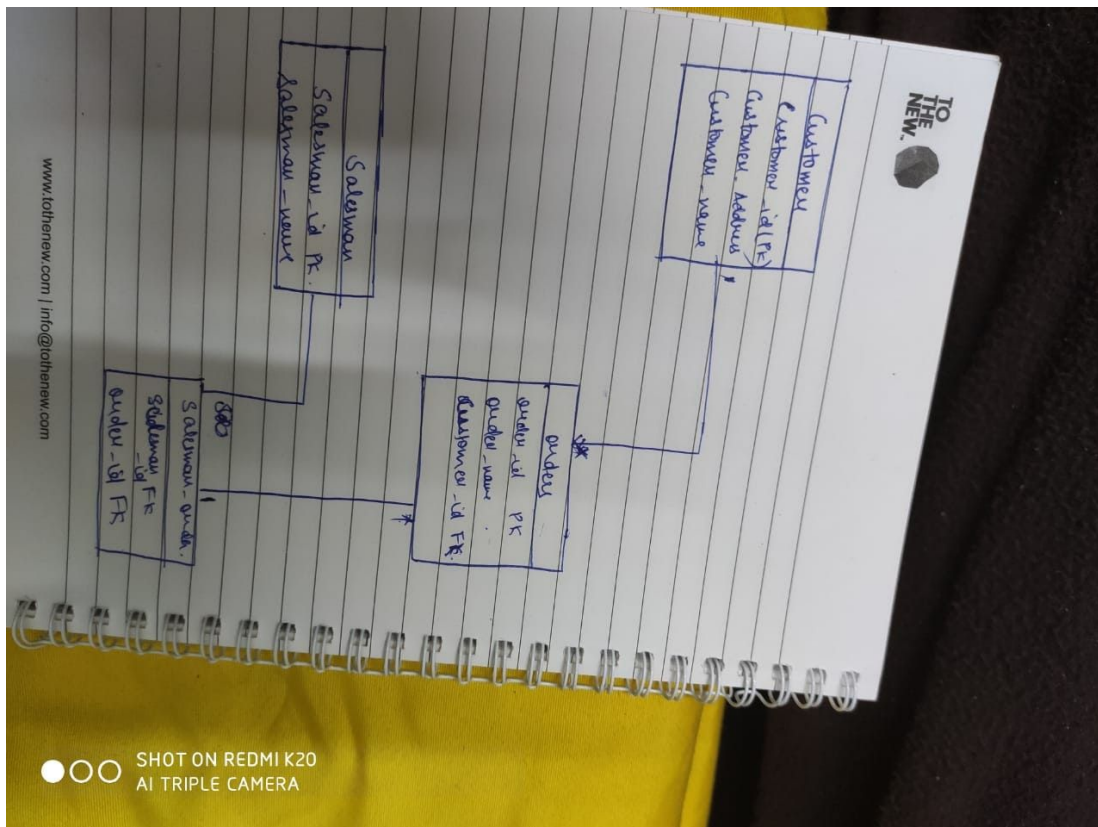
2.create schema

Ans.

3.Create tables

Ans. Commands used: create table table_name;

Show tables;

```
mysql> create table customer ( customer_id varchar(255), Customer_name varchar(2
55), address varchar(255), primary key(customer_id) );
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> create table orders( order_id varchar(255) primary key , order_name varch
ar(255),customer_id varchar(255), foreign key (customer_id) references customer(
customer_id) );;
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> create table salesman(
    -> salesman_id varchar(255),
    -> salesman_name varchar(255),
    -> primary key(salesman_id)
    -> );
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> create table salesman_order( salesman_id varchar(255),
    -> order_id varchar(255),
    -> foreign key (salesman_id) references salesman(salesman_id),
    -> foreign key (order_id) references orders(order_id)
    -> );
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> show tables;
+----------------------+
| Tables_in_management |
+----------------------+
| customer             |
| orders               |
| salesman             |
| salesman_order       |
+----------------------+
4 rows in set (0.00 sec)
```

4.Insert sample data.

Ans.Inserting into customer

```
mysql> insert into customer values("c1","Ashish","134-NewStreet");
Query OK, 1 row affected (0.02 sec)

mysql> insert into customer values("c2","ben","139-bakerStreet");
Query OK, 1 row affected (0.01 sec)
```

```
mysql> select * from customer;
+-------------+---------------+-----------------+
| customer_id | Customer_name | address         |
+-------------+---------------+-----------------+
| c1          | Ashish        | 134-NewStreet   |
| c2          | ben           | 139-bakerStreet |
| c3          | carol         | 139-pigsStreet  |
+-------------+---------------+-----------------+
3 rows in set (0.00 sec)
```

Inserting into orders

```
mysql> insert into orders values("O1","Prod1","c1");
Query OK, 1 row affected (0.01 sec)

mysql> insert into orders values("O2","Prod2","c2");
Query OK, 1 row affected (0.01 sec)

mysql> insert into orders values("O3","Prod3","c2");
Query OK, 1 row affected (0.02 sec)

mysql> insert into orders values("O4","Prod4","c3");
Query OK, 1 row affected (0.01 sec)

mysql> select * from orders;
+----------+------------+-------------+
| order_id | order_name | customer_id |
+----------+------------+-------------+
| O1       | Prod1      | c1          |
| O2       | Prod2      | c2          |
| O3       | Prod3      | c2          |
| O4       | Prod4      | c3          |
+----------+------------+-------------+
4 rows in set (0.00 sec)
```

Inserting into salesman

```
mysql> insert into salesman values("s1","xanther");
Query OK, 1 row affected (0.01 sec)

mysql> insert into salesman values("s2","yohan");
Query OK, 1 row affected (0.01 sec)

mysql> select * from salesman;
+-------------+---------------+
| salesman_id | salesman_name |
+-------------+---------------+
| s1          | xanther       |
| s2          | yohan         |
+-------------+---------------+
2 rows in set (0.00 sec)
```

Inserting into salesman_order

```
mysql> insert into salesman_order values("s1","O1");
Query OK, 1 row affected (0.01 sec)

mysql> insert into salesman_order values("s1","O2");
Query OK, 1 row affected (0.01 sec)

mysql> insert into salesman_order values("s2","O3");
Query OK, 1 row affected (0.00 sec)

mysql> insert into salesman_order values("s2","O4");
Query OK, 1 row affected (0.01 sec)

mysql> select * from salesman_order;
+-------------+----------+
| salesman_id | order_id |
+-------------+----------+
| s1          | O1       |
| s1          | O2       |
| s2          | O3       |
| s2          | O4       |
+-------------+----------+
4 rows in set (0.00 sec)
```

5.Find the sales person have multiple orders.
Ans..

```
mysql> select count(*) as count, salesman_id from salesman_order group by salesm
an_id having count>1;
+-------+-------------+
| count | salesman_id |
+-------+-------------+
|     2 | s1          |
|     2 | s2          |
+-------+-------------+
2 rows in set (0.00 sec)
```

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

```
mysql> select salesman.salesman_id , salesman.salesman_name , salesman_order.ord
er_id from salesman,salesman_order where salesman.salesman_id = salesman_order.s
alesman_id;
+-------------+---------------+----------+
| salesman_id | salesman_name | order_id |
+-------------+---------------+----------+
| s1          | xanther       | 01       |
| s1          | xanther       | 02       |
| s2          | yohan         | 03       |
| s2          | yohan         | 04       |
+-------------+---------------+----------+
4 rows in set (0.01 sec)
```

7.Create index.
Ans. create index i on customer(customer_id);

```
mysql> create index i on customer(customer_id);
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

8.How to show index on a table.
Ans. show indexes from customer;

```
mysql> show indexes from customer;
+----------+------------+----------+--------------+-------------+-----------+-------------+----------+--------+------+------------+---------+---------------+
| Table    | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type | Comment | Index_comment |
+----------+------------+----------+--------------+-------------+-----------+-------------+----------+--------+------+------------+---------+---------------+
| customer |          0 | PRIMARY  |            1 | customer_id | A         |           2 |     NULL | NULL   |      | BTREE      |         |               |
| customer |          1 | i        |            1 | customer_id | A         |           3 |     NULL | NULL   |      | 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.
Ans.

```
mysql> SELECT orders.order_id, orders.customer_id, salesman.salesman_name
    -> FROM orders
    -> INNER JOIN salesman_order ON orders.order_id = salesman_order.order_id
    -> INNER JOIN salesman ON salesman_order.salesman_id = salesman.salesman_id;
+----------+-------------+---------------+
| order_id | customer_id | salesman_name |
+----------+-------------+---------------+
| 01       | c1          | xanther       |
| 02       | c2          | xanther       |
| 03       | c2          | yohan         |
| 04       | c3          | yohan         |
+----------+-------------+---------------+
4 rows in set (0.01 sec)
```