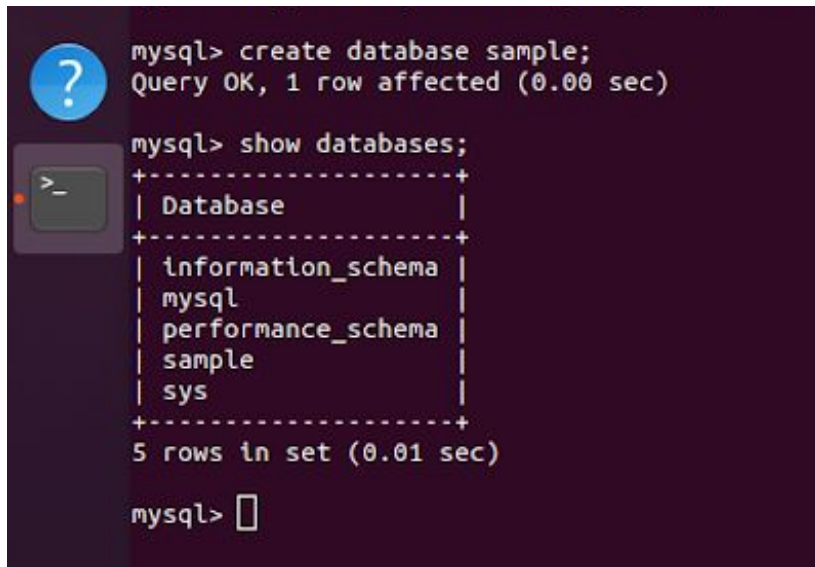


1. Create Database

Create database sample;

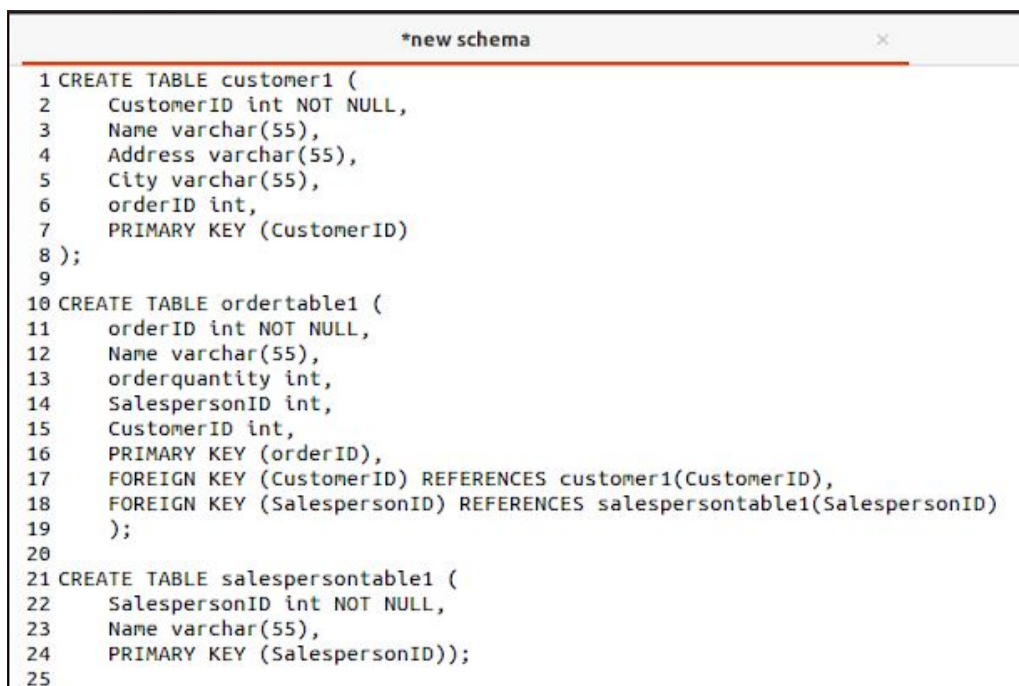


```
mysql> create database sample;
Query OK, 1 row affected (0.00 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sample |
| sys |
+-----+
5 rows in set (0.01 sec)

mysql> 
```

2. Design Schema



```
*new schema
1 CREATE TABLE customer1 (
2     CustomerID int NOT NULL,
3     Name varchar(55),
4     Address varchar(55),
5     City varchar(55),
6     orderID int,
7     PRIMARY KEY (CustomerID)
8 );
9
10 CREATE TABLE ordertable1 (
11     orderID int NOT NULL,
12     Name varchar(55),
13     orderquantity int,
14     SalespersonID int,
15     CustomerID int,
16     PRIMARY KEY (orderID),
17     FOREIGN KEY (CustomerID) REFERENCES customer1(CustomerID),
18     FOREIGN KEY (SalespersonID) REFERENCES salespersontable1(SalespersonID)
19 );
20
21 CREATE TABLE salespersontable1 (
22     SalespersonID int NOT NULL,
23     Name varchar(55),
24     PRIMARY KEY (SalespersonID));
25
```

3. Create tables

```
CREATE TABLE customer1 (  
    CustomerID int NOT NULL, Name varchar(55),  
    Address varchar(55), City varchar(55),  
    orderID int, PRIMARY KEY (CustomerID));
```

```
CREATE TABLE ordertable1 (  
    orderID int NOT NULL, Name varchar(55),  
    orderquantity int, SalespersonID int,  
    CustomerID int, PRIMARY KEY (orderID),  
    FOREIGN KEY (CustomerID) REFERENCES customer1(CustomerID),  
    FOREIGN KEY (SalespersonID) REFERENCES  
salespersontable1(SalespersonID));
```

```
CREATE TABLE salespersontable1 (  
    SalespersonID int NOT NULL, Name varchar(55),  
    PRIMARY KEY (SalespersonID));
```

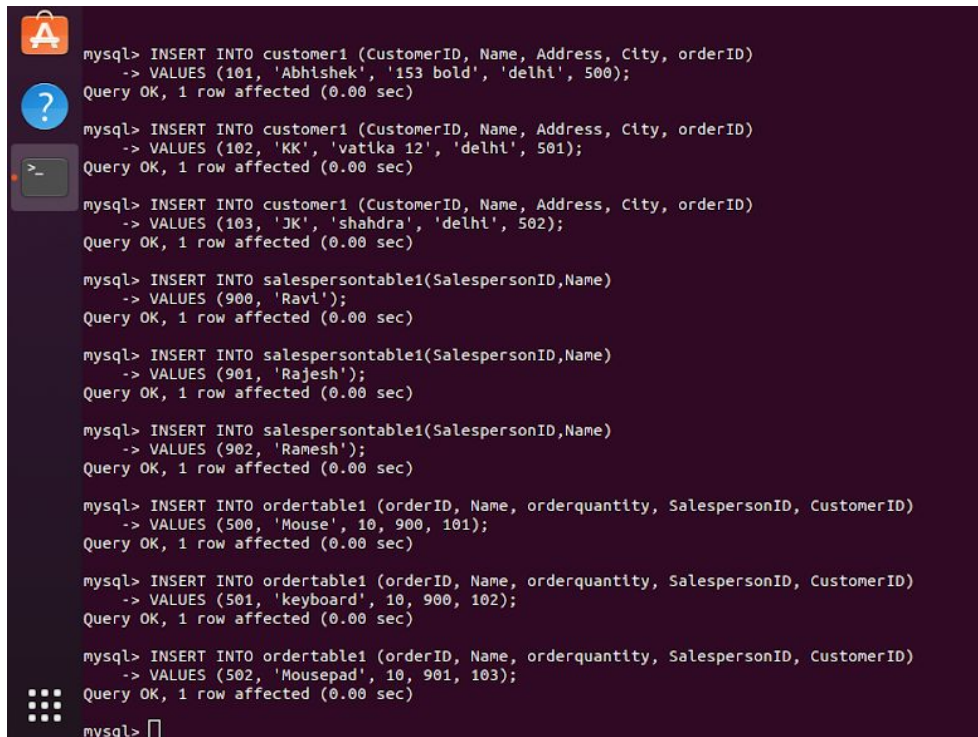
```
mysql> CREATE TABLE salespersontable1 (  
->     SalespersonID int NOT NULL,  
->     Name varchar(55),  
->     PRIMARY KEY (SalespersonID));  
Query OK, 0 rows affected (0.01 sec)  
  
mysql> CREATE TABLE customer1 (  
->     CustomerID int NOT NULL,  
->     Name varchar(55),  
->     Address varchar(55),  
->     City varchar(55),  
->     orderID int,  
->     PRIMARY KEY (CustomerID)  
-> );  
Query OK, 0 rows affected (0.01 sec)  
  
mysql> CREATE TABLE ordertable1 (  
->     orderID int NOT NULL,  
->     Name varchar(55),  
->     orderquantity int,  
->     SalespersonID int,  
->     CustomerID int,  
->     PRIMARY KEY (orderID),  
->     FOREIGN KEY (CustomerID) REFERENCES customer1(CustomerID),  
->     FOREIGN KEY (SalespersonID) REFERENCES salespersontable1(SalespersonID)  
-> );  
Query OK, 0 rows affected (0.02 sec)  
  
mysql> 
```

4. Insert sample data

```
INSERT INTO customer1 (CustomerID, Name, Address, City, orderID)
VALUES (101, 'Abhishek', '153 bold', 'delhi', 500);
```

```
INSERT INTO salespersontable1(SalespersonID,Name)
VALUES (902, 'Ramesh');
```

```
INSERT INTO ordertable1 (orderID, Name, orderquantity, SalespersonID, CustomerID)
VALUES (502, 'Mousepad', 10, 901, 103);
```



```
mysql> INSERT INTO customer1 (CustomerID, Name, Address, City, orderID)
-> VALUES (101, 'Abhishek', '153 bold', 'delhi', 500);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO customer1 (CustomerID, Name, Address, City, orderID)
-> VALUES (102, 'KK', 'vatika 12', 'delhi', 501);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO customer1 (CustomerID, Name, Address, City, orderID)
-> VALUES (103, 'JK', 'shahdra', 'delhi', 502);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO salespersontable1(SalespersonID,Name)
-> VALUES (900, 'Ravi');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO salespersontable1(SalespersonID,Name)
-> VALUES (901, 'Rajesh');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO salespersontable1(SalespersonID,Name)
-> VALUES (902, 'Ramesh');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO ordertable1 (orderID, Name, orderquantity, SalespersonID, CustomerID)
-> VALUES (500, 'Mouse', 10, 900, 101);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO ordertable1 (orderID, Name, orderquantity, SalespersonID, CustomerID)
-> VALUES (501, 'keyboard', 10, 900, 102);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO ordertable1 (orderID, Name, orderquantity, SalespersonID, CustomerID)
-> VALUES (502, 'Mousepad', 10, 901, 103);
Query OK, 1 row affected (0.00 sec)

mysql>
```

5. Find the sales person have multiple order.

```
SELECT s.Name
FROM ordertable1 o, salespersontable1 s
WHERE o.SalespersonID = s.SalespersonID
GROUP BY s.Name, s.SalespersonID
HAVING COUNT( s.SalespersonID ) >1;
```

```
mysql> SELECT s.Name
-> FROM ordertable1 o, salespersontable1 s
-> WHERE o.SalespersonID = s.SalespersonID
-> GROUP BY s.Name, s.SalespersonID
-> HAVING COUNT( s.SalespersonID ) >1;
+-----+
| Name |
+-----+
| Ravi |
+-----+
1 row in set (0.00 sec)

mysql> 
```

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

```
SELECT s.SalespersonID,s.Name,o.orderID,o.Name,o.orderquantity,  
o.CustomerID,c.Name,c.Address  
FROM ordertable1 o, salespersontable1 s,customer1 c  
WHERE o.SalespersonID = s.SalespersonID AND c.CustomerID=o.CustomerID;
```

```
mysql> SELECT s.SalespersonID,s.Name,o.orderID,o.Name,o.orderquantity,o.CustomerID,c.Name,c.Address  
-> FROM ordertable1 o, salespersontable1 s,customer1 c  
-> WHERE o.SalespersonID = s.SalespersonID AND c.CustomerID=o.CustomerID;  
+-----+-----+-----+-----+-----+-----+-----+-----+  
| SalespersonID | Name | orderID | Name | orderquantity | CustomerID | Name | Address |  
+-----+-----+-----+-----+-----+-----+-----+-----+  
| 900 | Ravi | 500 | Mouse | 10 | 101 | Abhishek | 153 bold |  
| 900 | Ravi | 501 | keyboard | 10 | 102 | KK | vatika 12 |  
| 901 | Rajesh | 502 | Mousepad | 10 | 103 | JK | shahdra |  
+-----+-----+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.00 sec)  
  
mysql> 
```

7. Create index

```
CREATE INDEX id_on  
ON customer1 (CustomerID);
```

```
mysql> CREATE INDEX id_on  
-> ON customer1 (CustomerID);  
Query OK, 0 rows affected (0.02 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> 
```

8. How to show index on a table

```
SHOW INDEXES FROM customer1;
```

```
mysql> SHOW INDEXES FROM customer1;  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type | Comment | Index_comment | Visible | Expression |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
| customer1 | 0 | PRIMARY | 1 | CustomerID | A | 2 | NULL | NULL | | BTREE | | | YES | NULL |  
| customer1 | 1 | id_on | 1 | CustomerID | A | 3 | NULL | NULL | | BTREE | | | YES | NULL |  
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
2 rows in set (0.01 sec)  
  
mysql> 
```


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

```
SELECT c.CustomerID,c.Name,c.Address, c.City, o.orderID,  
o.Name, o.orderquantity, s.SalespersonID, s.Name  
FROM ordertable1 o INNER JOIN salespersontable1 s ON  
o.SalespersonID = s.SalespersonID  
INNER JOIN customer1 c ON o.CustomerID = c.CustomerID ;
```

```
mysql> SELECT c.CustomerID,c.Name,c.Address, c.City, o.orderID,  
-> o.Name, o.orderquantity, s.SalespersonID, s.Name  
-> FROM ordertable1 o INNER JOIN salespersontable1 s ON  
-> o.SalespersonID = s.SalespersonID  
-> INNER JOIN customer1 c ON o.CustomerID = c.CustomerID ;
```

CustomerID	Name	Address	City	orderID	Name	orderquantity	SalespersonID	Name
101	Abhishek	153 bold	delhi	500	Mouse	10	900	Ravi
102	KK	vatika 12	delhi	501	keyboard	10	900	Ravi
103	JK	shahdra	delhi	502	Mousepad	10	901	Rajesh

```
3 rows in set (0.00 sec)  
  
mysql> █
```