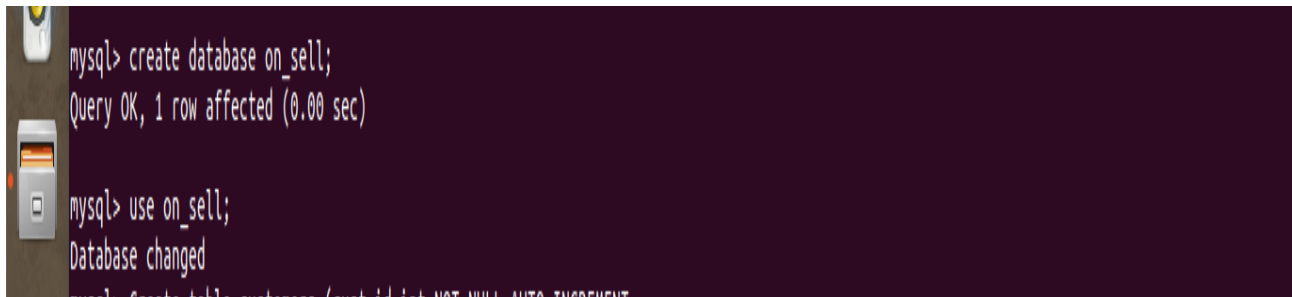


Problem Statement: There can be multiple customers, who can place multiple orders on the site. Now a sales person can handle these orders will distribute into multiple sales persons (One order will be assign to one salesperson only). So a sales person can have multiple orders of multiple customers

1. Create Database

Command – create database on_sell;

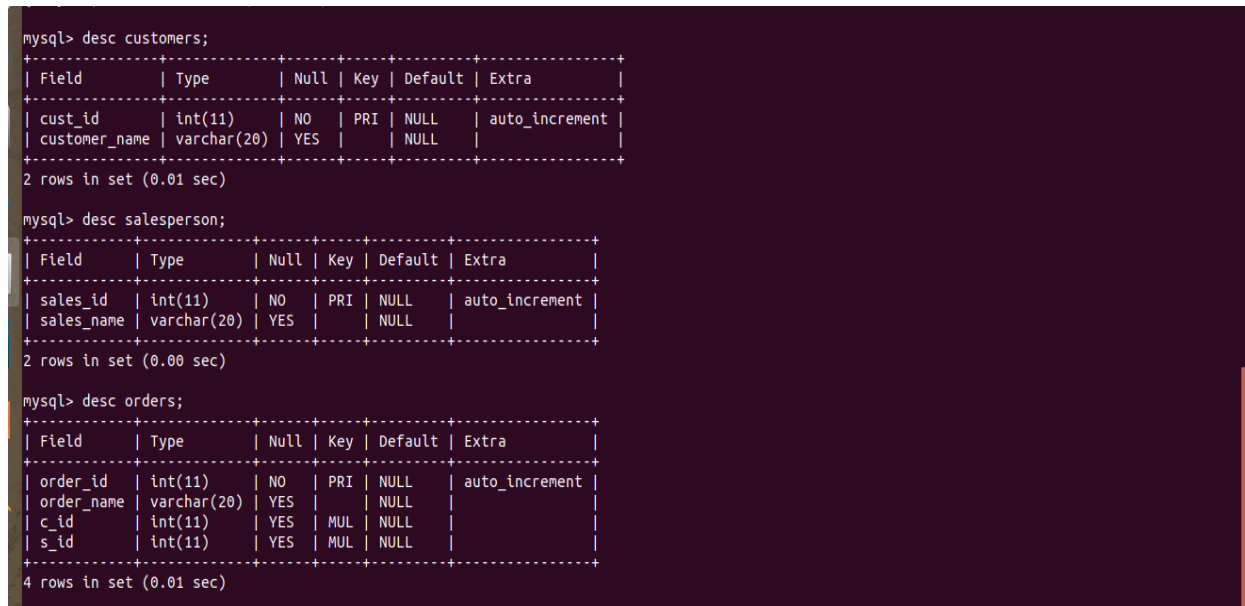


```
mysql> create database on_sell;
Query OK, 1 row affected (0.00 sec)

mysql> use on_sell;
Database changed
```

2. Design Schema

Schema is the logical structure of the database.

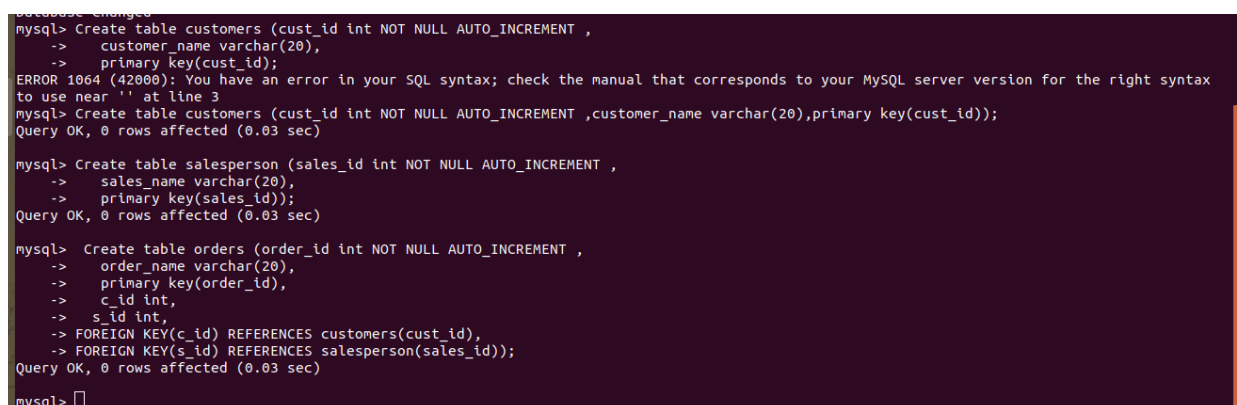


```
mysql> desc customers;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| cust_id    | int(11)   | NO   | PRI | NULL    | auto_increment |
| customer_name | varchar(20) | YES  |     | NULL    |               |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)

mysql> desc salesperson;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| sales_id   | int(11)   | NO   | PRI | NULL    | auto_increment |
| sales_name | varchar(20) | YES  |     | NULL    |               |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> desc orders;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| order_id   | int(11)   | NO   | PRI | NULL    | auto_increment |
| order_name | varchar(20) | YES  |     | NULL    |               |
| c_id       | int(11)   | YES  | MUL | NULL    |               |
| s_id       | int(11)   | YES  | MUL | NULL    |               |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)
```

3. Create Tables



```
mysql> Create table customers (cust_id int NOT NULL AUTO_INCREMENT ,
-> customer_name varchar(20),
-> primary key(cust_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 '' at line 3
mysql> Create table customers (cust_id int NOT NULL AUTO_INCREMENT ,customer_name varchar(20),primary key(cust_id));
Query OK, 0 rows affected (0.03 sec)

mysql> Create table salesperson (sales_id int NOT NULL AUTO_INCREMENT ,
-> sales_name varchar(20),
-> primary key(sales_id));
Query OK, 0 rows affected (0.03 sec)

mysql> Create table orders (order_id int NOT NULL AUTO_INCREMENT ,
-> order_name varchar(20),
-> primary key(order_id),
-> c_id int,
-> s_id int,
-> FOREIGN KEY(c_id) REFERENCES customers(cust_id),
-> FOREIGN KEY(s_id) REFERENCES salesperson(sales_id));
Query OK, 0 rows affected (0.03 sec)

mysql>
```

4. Find the sales person have multiple orders.

select sales_name,order_id from salesperson JOIN orders ON salesperson.sales_id=orders.s_id and 1<(select count(*) from orders where salesperson.sales_id=orders.s_id);

```
mysql> select sales_name,order_id from salesperson JOIN orders ON salesperson.sales_id=orders.s_id and 1<(select count(*) from orders where salesperson.sales_id=orders.s_id);
```

sales_name	order_id
Sunit	2
Sunit	7
Sarvesh	1
Sarvesh	6
Sarvesh	10

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

mysql>

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

select s.sales_id,s.sales_name,o.order_id from salesperson s , orders o where s.sales_id=o.s_id;

```
mysql> select s.sales_id,s.sales_name,o.order_id from salesperson s , orders o where s.sales_id=o.s_id;
```

sales_id	sales_name	order_id
1	Rahul	4
2	Vishwas	8
3	Harshit	5
4	Sunit	2
4	Sunit	7
5	Sarvesh	1
5	Sarvesh	6
5	Sarvesh	10
6	Bindeshwar	3
7	Raj	9

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

6. Create index.

Create index order_id_index on salesperson(sales_id);

```
mysql> create index order_id_index on salesperson(sales_id);
```

Query OK, 0 rows affected (0.05 sec)

Records: 0 Duplicates: 0 Warnings: 0

7. How to show index on a table

```
mysql> show index from salesperson;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Table      | Non_unique | Key_name      | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type | Comment |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| salesperson | 0          | PRIMARY       | 1            | sales_id    | A         | 7           | NULL     | NULL   |      | BTREE      |          |
| salesperson | 1          | order_id_index | 1            | sales_id    | A         | 7           | NULL     | NULL   |      | BTREE      |          |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

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

Select o.order_id,s.sales_name,c.customer_name from orders o,salesperson s,customers c where o.c_id=c.cust_id AND o.s_id=s.sales_id;

```
mysql> select o.order_id,s.sales_name,c.customer_name from orders o,salesperson s, customers c where o.c_id=c.cust_id AND o.s_id=s.sales_id;
+-----+-----+-----+
| order_id | sales_name | customer_name |
+-----+-----+-----+
| 4        | Rahul      | Sonia         |
| 8        | Vishwas    | Gargi         |
| 5        | Harshit    | Devesh        |
| 2        | Sumit      | Sonia         |
| 7        | Sumit      | Devesh        |
| 1        | Sarvesh    | Anamika       |
| 6        | Sarvesh    | Vishal        |
| 10       | Sarvesh    | Sonia         |
| 3        | Bindeshwar | Kshittija     |
| 9        | Raj        | Disha         |
+-----+-----+-----+
10 rows in set (0.00 sec)
```