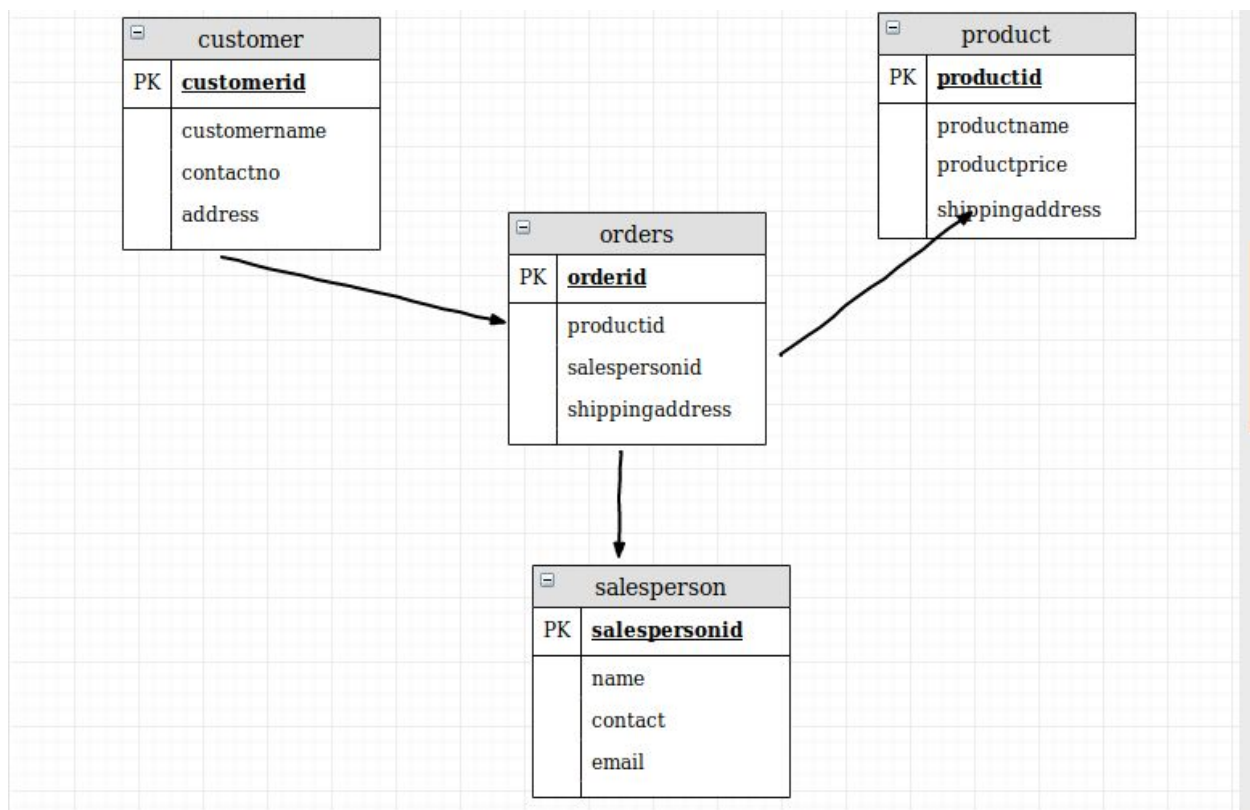**Database**
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1.Create Database

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

mysql>
```

2.Draw the schema

	customer
PK	**customerid**
	customername
	contactno
	address

	product
PK	**productid**
	productname
	productprice
	shippingaddress

	orders
PK	**orderid**
	productid
	salespersonid
	shippingaddress

	salesperson
PK	**salespersonid**
	name
	contact
	email

3.Create tables
Create table customer
create table customer(customerid int(10) NOT NULL AUTO_INCREMENT,customername
varchar(20),contactno int(10),address varchar(30),primary key(customerid));

```
mysql> desc customer;
+--------------+-------------+------+-----+---------+----------------+
| Field        | Type        | Null | Key | Default | Extra          |
+--------------+-------------+------+-----+---------+----------------+
| customerid   | int(10)     | NO   | PRI | NULL    | auto_increment |
| customername | varchar(20) | YES  |     | NULL    |                |
| contactno    | int(10)     | YES  |     | NULL    |                |
| address      | varchar(30) | YES  |     | NULL    |                |
+--------------+-------------+------+-----+---------+----------------+
4 rows in set (0.00 sec)
```

Create table salesperson

create table salesperson(salespersonid int(10) NOT NULL AUTO_INCREMENT,name
varchar(20),contactno int(10),email varchar(30),primary key(salespersonid));

```
mysql> desc salesperson;
+---------------+-------------+------+-----+---------+----------------+
| Field         | Type        | Null | Key | Default | Extra          |
+---------------+-------------+------+-----+---------+----------------+
| salespersonid | int(10)     | NO   | PRI | NULL    | auto_increment |
| name          | varchar(20) | YES  |     | NULL    |                |
| contactno     | int(10)     | YES  |     | NULL    |                |
| email         | varchar(30) | YES  |     | NULL    |                |
+---------------+-------------+------+-----+---------+----------------+
4 rows in set (0.00 sec)
```

Create table product
create table salesperson(salespersonid int(10) NOT NULL AUTO_INCREMENT,name varchar(20),contactno int(10),email varchar(30),primary key(salespersonid));

```
mysql> desc product;
+--------------+-------------+------+-----+---------+----------------+
| Field        | Type        | Null | Key | Default | Extra          |
+--------------+-------------+------+-----+---------+----------------+
| productid    | int(10)     | NO   | PRI | NULL    | auto_increment |
| productname  | varchar(20) | YES  |     | NULL    |                |
| productprice | int(30)     | YES  |     | NULL    |                |
+--------------+-------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)
```

Create table orders
create table orders(orderid int(10) not null auto_increment,productid int(10),customerid int(10),salespersonid int(10),shippingaddress varchar(30),primary key(orderid));

```
mysql> create table orders(orderid int(10) not null auto_increment,productid int(10),customerid int(10),salespersonid int(10),shippingaddress
varchar(30),primary key(orderid));
Query OK, 0 rows affected (1.72 sec)

mysql> show tables;
+----------------------+
| Tables_in_assignment |
+----------------------+
| customer             |
| orders               |
| product              |
| salesperson          |
+----------------------+
4 rows in set (0.00 sec)
```

4.Insert sample data
insert into customer values(1,'anita',784009276,'aaaa');
insert into product values(1,'fruit',6567765);
insert into salesperson values(1,'rahul',849484948,'anc@ttn.com');
insert into orders values(2,2,2,2,'kanpur');

```
mysql> select * from customer;
+------------+--------------+-----------+---------+
| customerid | customername | contactno | address |
+------------+--------------+-----------+---------+
|          1 | anita        | 784009276 | aaaa    |
|          2 | namrata      | 897890320 | bbbbb   |
|          3 | vidhi        | 867890320 | ccc     |
+------------+--------------+-----------+---------+
3 rows in set (0.00 sec)

mysql> select * from orders;
+---------+-----------+------------+--------------+----------------+
| orderid | productid | customerid | salespersonid | shippingaddress |
+---------+-----------+------------+--------------+----------------+
|       1 |         1 |          1 |            1 | lucknow         |
|       2 |         2 |          2 |            2 | kanpur          |
|       3 |         3 |          3 |            3 | gzb             |
+---------+-----------+------------+--------------+----------------+
3 rows in set (0.00 sec)

mysql> select * from product;
+-----------+-------------+--------------+
| productid | productname | productprice |
+-----------+-------------+--------------+
|         1 | fruit       |      6567765 |
|         2 | coco        |      6547765 |
+-----------+-------------+--------------+
2 rows in set (0.00 sec)

mysql> select * from salesperson;
+--------------+-------+-----------+-------------+
| salespersonid | name  | contactno | email       |
+--------------+-------+-----------+-------------+
|            1 | rahul | 849484948 | anc@ttn.com  |
|            2 | rohit | 849484448 | abnc@ttn.com |
+--------------+-------+-----------+-------------+
2 rows in set (0.00 sec)
```

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

 select s.salespersonid,s.name,s.contactno,s.email,o.orderid,o.productid,p.productname from salesperson s join orders o join product p on s.salespersonid=o.salespersonid=p.productid;

```
mysql> select s.salespersonid,s.name,s.contactno,s.email,o.orderid,o.productid,p.productname from salesperson s join orders o join product p o
n s.salespersonid=o.salespersonid=p.productid;
+--------------+-------+-----------+-------------+---------+-----------+-------------+
| salespersonid | name  | contactno | email       | orderid | productid | productname |
+--------------+-------+-----------+-------------+---------+-----------+-------------+
|            1 | rahul | 849484948 | anc@ttn.com  |       1 |         1 | fruit       |
|            2 | rohit | 849484448 | abnc@ttn.com |       2 |         2 | fruit       |
+--------------+-------+-----------+-------------+---------+-----------+-------------+
2 rows in set (0.00 sec)

mysql>
```

7.Create index

create unique index customerindex on customer(customerid,customername,contactno,address);

```
mysql> create unique index customerindex on customer(customerid,customername,contactno,address);
Query OK, 0 rows affected (0.43 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

8. How to show index on a table

```
mysql> show index 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 | customerid  | A         |           2 |     NULL | NULL   |      | BTREE      |         |
| customer |          0 | customerindex |            1 | customerid  | A         |           3 |     NULL | NULL   |      | BTREE      |         |
| customer |          0 | customerindex |            2 | customername| A         |           3 |     NULL | NULL   | YES  | BTREE      |         |
| customer |          0 | customerindex |            3 | contactno   | A         |           3 |     NULL | NULL   | YES  | BTREE      |         |
| customer |          0 | customerindex |            4 | address     | A         |           3 |     NULL | NULL   | YES  | BTREE      |         |
```

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

select s.name,c.customername,o.orderid from salesperson s join orders o join customer c on s.salespersonid=o.salespersonid and c.customerid=o.customerid;

```
mysql> select s.salespersonname,c.customername,o.orderid from salesperson s join orders o join customer c on s.salespersonid=o.salespersonid a
nd c.customerid=o.customerid;
ERROR 1054 (42S22): Unknown column 's.salespersonname' in 'field list'
mysql> select s.name,c.customername,o.orderid from salesperson s join orders o join customer c on s.salespersonid=o.salespersonid and c.custom
erid=o.customerid;
+-------+--------------+---------+
| name  | customername | orderid |
+-------+--------------+---------+
| rahul | anita        |       1 |
| rohit | namrata      |       2 |
+-------+--------------+---------+
2 rows in set (0.00 sec)
```