DATABASE ASSIGNMENT

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GROUP 5

1. Create Database

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

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| assign             |
| assignment         |
| db                 |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
7 rows in set (0.04 sec)

mysql>
```
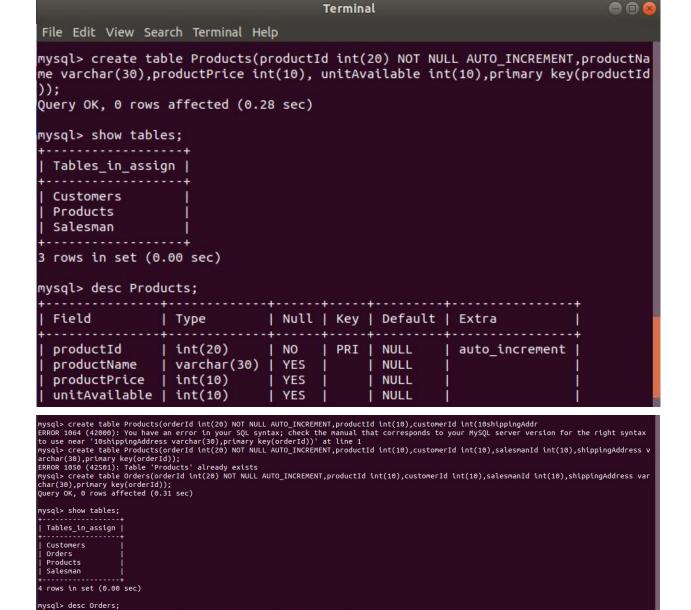
2. Design Schema

https://drive.google.com/drive/my-drive

3. Create tables

```
Terminal                                                          ⊖ ⊡ ⊗

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mysql> create table Customers(customerId int(20) NOT NULL AUTO_INCREMENT, custom
erName varchar(3),customerAddress varchar(30),customerPostalCode varchar(10), cu
stomerPhone int(10),primary key(customerId));
Query OK, 0 rows affected (0.39 sec)

mysql> show tables;
+------------------+
| Tables_in_assign |
+------------------+
| Customers        |
+------------------+
1 row in set (0.00 sec)

mysql> desc customers;
ERROR 1146 (42S02): Table 'assign.customers' doesn't exist
mysql> desc Customers;
+--------------------+-------------+------+-----+---------+----------------+
| Field              | Type        | Null | Key | Default | Extra          |
+--------------------+-------------+------+-----+---------+----------------+
| customerId         | int(20)     | NO   | PRI | NULL    | auto_increment |
| customerName       | varchar(3)  | YES  |     | NULL    |                |
| customerAddress    | varchar(30) | YES  |     | NULL    |                |
| customerPostalCode | varchar(10) | YES  |     | NULL    |                |
| customerPhone      | int(10)     | YES  |     | NULL    |                |
```

```
mysql> create table Salesman(salesmanId int(20) NOT NULL AUTO_INCREMENT, salesma
nName varchar(3),salesmanCity varchar(30),salesmanEmail varchar(30), salesmanPho
ne int(10),primary key(salesmanId));
Query OK, 0 rows affected (0.31 sec)

mysql> desc Salesman;
+--------------+-------------+------+-----+---------+----------------+
| Field        | Type        | Null | Key | Default | Extra          |
+--------------+-------------+------+-----+---------+----------------+
| salesmanId   | int(20)     | NO   | PRI | NULL    | auto_increment |
| salesmanName | varchar(3)  | YES  |     | NULL    |                |
| salesmanCity | varchar(30) | YES  |     | NULL    |                |
| salesmanEmail| varchar(30) | YES  |     | NULL    |                |
| salesmanPhone| int(10)     | YES  |     | NULL    |                |
+--------------+-------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)

mysql>
```

```
mysql> create table Products(productId int(20) NOT NULL AUTO_INCREMENT,productNa
me varchar(30),productPrice int(10), unitAvailable int(10),primary key(productId
));
Query OK, 0 rows affected (0.28 sec)

mysql> show tables;
+------------------+
| Tables_in_assign |
+------------------+
| Customers        |
| Products         |
| Salesman         |
+------------------+
3 rows in set (0.00 sec)

mysql> desc Products;
+--------------+-------------+------+-----+---------+----------------+
| Field        | Type        | Null | Key | Default | Extra          |
+--------------+-------------+------+-----+---------+----------------+
| productId    | int(20)     | NO   | PRI | NULL    | auto_increment |
| productName  | varchar(30) | YES  |     | NULL    |                |
| productPrice | int(10)     | YES  |     | NULL    |                |
| unitAvailable| int(10)     | YES  |     | NULL    |                |
```

```
mysql> create table Products(orderId int(20) NOT NULL AUTO_INCREMENT,productId int(10),customerId int(10shippingAddr
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 '10shippingAddress varchar(30),primary key(orderId))' at line 1
mysql> create table Products(orderId int(20) NOT NULL AUTO_INCREMENT,productId int(10),customerId int(10),salesmanId int(10),shippingAddress v
archar(30),primary key(orderId));
ERROR 1050 (42S01): Table 'Products' already exists
mysql> create table Orders(orderId int(20) NOT NULL AUTO_INCREMENT,productId int(10),customerId int(10),salesmanId int(10),shippingAddress var
char(30),primary key(orderId));
Query OK, 0 rows affected (0.31 sec)

mysql> show tables;
+------------------+
| Tables_in_assign |
+------------------+
| Customers        |
| Orders           |
| Products         |
| Salesman         |
+------------------+
4 rows in set (0.00 sec)

mysql> desc Orders;
+----------------+-------------+------+-----+---------+----------------+
| Field          | Type        | Null | Key | Default | Extra          |
+----------------+-------------+------+-----+---------+----------------+
| orderId        | int(20)     | NO   | PRI | NULL    | auto_increment |
| productId      | int(10)     | YES  |     | NULL    |                |
| customerId     | int(10)     | YES  |     | NULL    |                |
| salesmanId     | int(10)     | YES  |     | NULL    |                |
| shippingAddress| varchar(30) | YES  |     | NULL    |                |
+----------------+-------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)

mysql>
```

4. Insert sample data

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```
mysql> select * from Customers;
+------------+--------------+-----------------+--------------------+---------------+
| customerId | customerName | customerAddress | customerPostalCode | customerPhone |
+------------+--------------+-----------------+--------------------+---------------+
|          1 | Nam          | Gorakhpur       | 274001             |       7065586 |
|          2 | Anita        | Lucknow         | 201001             |       7065586 |
|          3 | xyz          | Delhi           | 205001             |       8065586 |
+------------+--------------+-----------------+--------------------+---------------+
3 rows in set (0.00 sec)

mysql> select * from Salesman;
+------------+--------------+--------------+---------------+---------------+
| salesmanId | salesmanName | salesmanCity | salesmanEmail | salesmanPhone |
+------------+--------------+--------------+---------------+---------------+
|          1 | Adish        | Delhi        | a@gmail.com   |       8065586 |
|          2 | Rohit        | Delhi        | R@gmail.com   |        875586 |
|          3 | Mohit        | Lucknow      | M@gmail.com   |        879886 |
+------------+--------------+--------------+---------------+---------------+
3 rows in set (0.00 sec)

mysql> select * from Products;
+-----------+-------------+--------------+---------------+
| productId | productName | productPrice | unitAvailable |
+-----------+-------------+--------------+---------------+
|         1 | Shirt       |          700 |            30 |
|         2 | Cap         |          100 |           500 |
|         3 | mouse       |          300 |            80 |
+-----------+-------------+--------------+---------------+
3 rows in set (0.01 sec)

mysql> select * from Orders;
+---------+-----------+------------+------------+-----------------+
| orderId | productId | customerId | salesmanId | shippingAddress |
+---------+-----------+------------+------------+-----------------+
|       1 |         2 |          1 |          1 | Gorakhpur       |
|       2 |         3 |          1 |          1 | Gorakhpur       |
|       3 |         3 |          2 |          1 | Gorakhpur       |
|       4 |         1 |          2 |          2 | Lucknow         |
```

```
mysql> insert into Customers values(1,'Nam','Gorakhpur','274001',7065586);
Query OK, 1 row affected (0.04 sec)

mysql> insert into Customers values(2,'Anita','Lucknow','201001',7065586);
Query OK, 1 row affected (0.05 sec)

mysql> insert into Customers values(3,'xyz','Delhi','205001',8065586);
Query OK, 1 row affected (0.04 sec)

mysql> select * from Customers;
+------------+--------------+-----------------+--------------------+------------
---+
| customerId | customerName | customerAddress | customerPostalCode | customerPho
ne |
+------------+--------------+-----------------+--------------------+------------
---+
|          1 | Nam          | Gorakhpur       | 274001             |       70655
86 |
|          2 | Anita        | Lucknow         | 201001             |       70655
86 |
|          3 | xyz          | Delhi           | 205001             |       80655
86 |
+------------+--------------+-----------------+--------------------+------------
---+
```

5. Find the sales person have multiple orders.

```
mysql> select s.salesmanId,s.salesmanName,count(o.orderId) as TotalCount from Sa
lesman s join  Orders o on s.salesmanId=o.salesmanId group by salesmanId order b
y count(orderId);
+------------+--------------+------------+
| salesmanId | salesmanName | TotalCount |
+------------+--------------+------------+
|          3 | Mohit        |          1 |
|          2 | Rohit        |          1 |
|          1 | Adish        |          3 |
+------------+--------------+------------+
3 rows in set (0.29 sec)

mysql>
```

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

```
mysql> select s.salesmanName,s.salesmanEmail,o.orderId,o.productId,p.productName
 from Salesman s join Orders o join Products p on s.salesmanId=o.salesmanId and
p.productId=o.productId;
+--------------+---------------+---------+-----------+-------------+
| salesmanName | salesmanEmail | orderId | productId | productName |
+--------------+---------------+---------+-----------+-------------+
| Adish        | a@gmail.com   |       1 |         2 | Cap         |
| Adish        | a@gmail.com   |       2 |         3 | mouse       |
| Adish        | a@gmail.com   |       3 |         3 | mouse       |
| Rohit        | R@gmail.com   |       4 |         1 | Shirt       |
| Mohit        | M@gmail.com   |       5 |         1 | Shirt       |
+--------------+---------------+---------+-----------+-------------+
5 rows in set (0.00 sec)

mysql>
```

7. Create index

```
mysql> create unique index customeraddress on Customers(customerId,customerName,
customerAddress,customerPostalCode,customerPhone);
Query OK, 0 rows affected (0.35 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql>
```

8. How to show index on a table

```
| salesmanName | salesmanEmail | orderId | productId | productName |
+--------------+---------------+---------+-----------+-------------+
| Adish        | a@gmail.com   |    1 |        2 | Cap        |
| Adish        | a@gmail.com   |    2 |        3 | mouse      |
| Adish        | a@gmail.com   |    3 |        3 | mouse      |
| Rohit        | R@gmail.com   |    4 |        1 | Shirt      |
| Mohit        | M@gmail.com   |    5 |        1 | Shirt      |
+--------------+---------------+---------+-----------+-------------+
5 rows in set (0.00 sec)

mysql> create unique index customeraddress on Customers(customerId,customerName,customerAddress,customerPostalCode,customerPhone);
Query OK, 0 rows affected (0.35 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> show index from Customers;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment
Customers	0	PRIMARY	1	customerId	A	2	NULL	NULL		BTREE		
Customers	0	customeraddress	1	customerId	A	3	NULL	NULL		BTREE		
Customers	0	customeraddress	2	customerName	A	3	NULL	NULL	YES	BTREE		
Customers	0	customeraddress	3	customerAddress	A	3	NULL	NULL	YES	BTREE		
Customers	0	customeraddress	4	customerPostalCode	A	3	NULL	NULL	YES	BTREE		
Customers	0	customeraddress	5	customerPhone	A	3	NULL	NULL	YES	BTREE		

```
6 rows in set (0.00 sec)

mysql>
```

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

```
mysql> select s.salesmanName,c.customerName,o.orderId from Salesman s join Order
s o join Customers c on s.salesmanId=o.salesmanId and c.customerId=o.customerId;

+--------------+--------------+---------+
| salesmanName | customerName | orderId |
+--------------+--------------+---------+
| Adish        | Nam          |    1 |
| Adish        | Nam          |    2 |
| Adish        | Anita        |    3 |
| Rohit        | Anita        |    4 |
| Mohit        | xyz          |    5 |
+--------------+--------------+---------+
5 rows in set (0.03 sec)

mysql>
```