Assignment 3 (Intro to Database)

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
Screenshot

```
mysql> CREATE DATABASE Assignment
    -> ;
Query OK, 1 row affected (0.00 sec)
```

2. Design Schema
Screenshot

```
mysql> show tables;
+----------------------+
| Tables_in_Assignment |
+----------------------+
| customer             |
| orders               |
| sales                |
+----------------------+
3 rows in set (0.00 sec)

mysql> desc customer;
+---------+-------------+------+-----+---------+----------------+
| Field   | Type        | Null | Key | Default | Extra          |
+---------+-------------+------+-----+---------+----------------+
| cust_id | int(5)      | NO   | PRI | NULL    | auto_increment |
| Name    | varchar(10) | NO   |     | NULL    |                |
| phone   | varchar(10) | NO   |     | NULL    |                |
+---------+-------------+------+-----+---------+----------------+
3 rows in set (0.01 sec)

mysql> desc orders;
+-----------+-------------+------+-----+---------+----------------+
| Field     | Type        | Null | Key | Default | Extra          |
+-----------+-------------+------+-----+---------+----------------+
| orders_id | int(5)      | NO   | PRI | NULL    | auto_increment |
| Price     | varchar(10) | NO   |     | NULL    |                |
| cust_id   | int(11)     | YES  | MUL | NULL    |                |
| sales_id  | int(11)     | YES  | MUL | NULL    |                |
+-----------+-------------+------+-----+---------+----------------+
4 rows in set (0.00 sec)

mysql> desc sales;
+-----------------+-------------+------+-----+---------+----------------+
| Field           | Type        | Null | Key | Default | Extra          |
+-----------------+-------------+------+-----+---------+----------------+
| sales_id        | int(5)      | NO   | PRI | NULL    | auto_increment |
| SalesPersonName | varchar(10) | NO   |     | NULL    |                |
+-----------------+-------------+------+-----+---------+----------------+
```

3. Create tables

Screenshot

```
mysql> create table customer(cust_id int(5) auto_increment Primary Key,Name varchar(10) not null, phone varchar(10) not null);
Query OK, 0 rows affected (0.27 sec)

mysql> create table sales(sales_id int(5) auto_increment Primary Key,SalesPersonName varchar(10) not null);
Query OK, 0 rows affected (0.32 sec)

mysql> create table orders(orders_id int(5) auto_increment Primary Key,Price varchar(10) not null,cust_id int, sales_id int, FOREIGN KEY(cust_
id) Refrences customer(cust_id),FOREIGN KEY(sales_id) References sales (sales_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 'Refrences customer(cust_id),FOREIGN KEY(sales_id) References sales (sales_id))' at line 1
mysql> mysql> createorders(orders_id int(5) auto_increment Primary Key,Price varchar(10) not null, cust_id int, sales_id int, FOREIGN KEY(cust
_id) References customer(cust_id), FOREIGN KEY(sales_id) References sales (sales_id));
Query OK, 0 rows affected (0.40 sec)
```

4. Insert sample data

Screenshot

```
mysql> insert into customer (Name, phone) values('Sachin',99897);
Query OK, 1 row affected (0.09 sec)

mysql> insert into customer (Name, phone) values('Mahesh',99554);
Query OK, 1 row affected (0.06 sec)

mysql> mysql> insert into customer (Name, phone) values('Mahesh',99554h',    mysql>
mysql> select * from customer;
+---------+--------+-------+
| cust_id | Name   | phone |
+---------+--------+-------+
|       1 | Sachin | 99897 |
|       2 | Mahesh | 99554 |
+---------+--------+-------+
```

```
mysql> insert into sales (SalesPersonName) values('Inder');
Query OK, 1 row affected (0.06 sec)

mysql> insert into sales (SalesPersonName) values('Ram');
Query OK, 1 row affected (0.06 sec)

mysql> select * from sales;
+----------+-----------------+
| sales_id | SalesPersonName |
+----------+-----------------+
|        1 | Inder           |
|        2 | Ram             |
+----------+-----------------+
```

```
mysql> insert into orders (Price,cust_id,sales_id) values(120, 1, 1 );
Query OK, 1 row affected (0.05 sec)

mysql> insert into orders (Price,cust_id,sales_id) values(200, 1, 2 );
Query OK, 1 row affected (0.06 sec)

mysql> insert into orders (Price,cust_id,sales_id) values(500, 1, 1 );
Query OK, 1 row affected (0.04 sec)

mysql> insert into orders (Price,cust_id,sales_id) values(1000, 2, 2 );
Query OK, 1 row affected (0.06 sec)

mysql> insert into orders (Price,cust_id,sales_id) values(1800, 2, 1 );
Query OK, 1 row affected (0.06 sec)

mysql> select * from orders;
+----------+-------+---------+----------+
| orders_id | Price | cust_id | sales_id |
+----------+-------+---------+----------+
|         1 | 120   |       1 |        1 |
|         2 | 200   |       1 |        2 |
|         3 | 500   |       1 |        1 |
|         4 | 1000  |       2 |        2 |
|         5 | 1800  |       2 |        1 |
+----------+-------+---------+----------+
```

5. Find the sales person have multiple orders.

Screenshot

```
mysql> select sales.SalesPersonName,orders.sales_id,count(*) from sale
s,orders where sales.sales_id = orders.sales_id group by orders.sales_
id having count(*)>1;
+------------------+----------+----------+
| SalesPersonName | sales_id | count(*) |
+------------------+----------+----------+
| Inder            |        1 |        3 |
| Ram              |        2 |        2 |
+------------------+----------+----------+
2 rows in set (0.00 sec)
```

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

Screenshot

```
mysql> select sales.sales_id,sales.SalesPersonName, orders.orders_id,orders.Price,orders.cust_id,orders.sales_id from sales, orders where sale
s.sales_id = orders.sales_id;
+----------+-----------------+-----------+-------+---------+----------+
| sales_id | SalesPersonName | orders_id | Price | cust_id | sales_id |
+----------+-----------------+-----------+-------+---------+----------+
|        1 | Inder           |         1 | 120   |       1 |        1 |
|        1 | Inder           |         3 | 500   |       1 |        1 |
|        1 | Inder           |         5 | 1800  |       2 |        1 |
|        2 | Ram             |         2 | 200   |       1 |        2 |
|        2 | Ram             |         4 | 1000  |       2 |        2 |
+----------+-----------------+-----------+-------+---------+----------+
5 rows in set (0.00 sec)
```

7. Create index

Screenshot

```
mysql> create index Name_index on customer(Name);
Query OK, 0 rows affected (0.44 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

8.How to show index on a table

Screenshot

```
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 | cust_id     | A         |           2 |     NULL | NULL   |      | BTREE      |
|               |
| customer |          1 | Name_index |            1 | Name        | A         |           2 |     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

Screenshot

```
mysql> select orders.orders_id,sales.SalesPersonName,customer.cust_id,customer.Name from customer,orders,sales where sales.sales_id = orders.s
ales_id && orders.cust_id = customer.cust_id;
+-----------+-----------------+---------+--------+
| orders_id | SalesPersonName | cust_id | Name   |
+-----------+-----------------+---------+--------+
|         5 | Inder           |       2 | Mahesh |
|         1 | Inder           |       1 | Sachin |
|         3 | Inder           |       1 | Sachin |
|         4 | Ram             |       2 | Mahesh |
|         2 | Ram             |       1 | Sachin |
+-----------+-----------------+---------+--------+
5 rows in set (0.06 sec)
```