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Database Assignment

1. Create Database

```
mysql> create database salesdb;  
Query OK, 1 row affected (0.01 sec)
```

2. Design Schema

```
mysql> desc customer_details;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| cId   | varchar(20)   | NO   | PRI | NULL    |       |
| cName | varchar(20)   | YES  |     | NULL    |       |
| cEmail| varchar(20)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

mysql> desc order__details;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| oId   | varchar(20)   | NO   | PRI | NULL    |       |
| cId   | varchar(20)   | YES  |     | NULL    |       |
| sId   | varchar(20)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> desc sales_details;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| sId   | varchar(20)   | NO   | PRI | NULL    |       |
| sName | varchar(20)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)

mysql> █
```

3. Create tables

```
mysql> create table customer_details (cId varchar(20), cName varchar(20), cEmail varchar(20));
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> describe customer_details;
```

Field	Type	Null	Key	Default	Extra
cId	varchar(20)	YES		NULL	
cName	varchar(20)	YES		NULL	
cEmail	varchar(20)	YES		NULL	

3 rows in set (0.01 sec)

```
mysql> █
```

```
mysql> create table sales_details (sId varchar(20) primary key, sName varchar(20));
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> desc sales_details;
```

Field	Type	Null	Key	Default	Extra
sId	varchar(20)	NO	PRI	NULL	
sName	varchar(20)	YES		NULL	

2 rows in set (0.01 sec)

```
mysql> █
```

```
mysql> create table order_details (oId varchar(20) primary key, cId varchar(20) references customer_details(cId), sId varchar(20) references sales_details(sId));
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> desc order_details;
ERROR 1146 (42S02): Table 'assignment.order_details' doesn't exist
```

```
mysql> desc order__details;
```

Field	Type	Null	Key	Default	Extra
oId	varchar(20)	NO	PRI	NULL	
cId	varchar(20)	YES		NULL	
sId	varchar(20)	YES		NULL	

3 rows in set (0.00 sec)

```
mysql> █
```

4. Insert sample data

```
mysql> insert into order__details values("o002", "c002","s001");
Query OK, 1 row affected (0.01 sec)

mysql> insert into order__details values("o001", "c001","s001");
Query OK, 1 row affected (0.01 sec)

mysql> insert into order__details values("o002", "c003","s002");
ERROR 1062 (23000): Duplicate entry 'o002' for key 'order__details.PRIMARY'
mysql> insert into order__details values("o003", "c003","s002");
Query OK, 1 row affected (0.01 sec)

mysql> █
```

```
mysql> insert into customer_details values("c001", "vineet", "vineet@gmail.com");
Query OK, 1 row affected (0.01 sec)

mysql> insert into customer_details values("c002", "nitin", "nitin@gmail.com");
Query OK, 1 row affected (0.02 sec)

mysql> insert into customer_details values("c003", "lalit", "lalit@gmail.com");
Query OK, 1 row affected (0.01 sec)

mysql> insert into sales_details values("s001", "chotu");
Query OK, 1 row affected (0.02 sec)

mysql> insert into sales_details values("s002", "kartik");
Query OK, 1 row affected (0.02 sec)
```

5. Find the sales person have multiple orders.

```
mysql> select s.sName from sales_details s join order__details o on s.sId = o.
sId where o.sId = (select sId from order__details group by sId having count(*)
> 1) limit 1;
+-----+
| sName |
+-----+
| chotu |
+-----+
1 row in set (0.00 sec)

mysql> █
```

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

```
mysql> select s.sId, s.sName, o.oId from sales_details s join order__details
on s.sId = o.sId;
+-----+-----+-----+
| sId  | sName | oId  |
+-----+-----+-----+
| s001 | chotu | o001 |
| s001 | chotu | o002 |
| s002 | kartik | o003 |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

7. Create index

```
mysql> create index idx on order__details(oId);
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql>
```

8. How to show index on a table

```
mysql> show indexes from order__details;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type | Comment | In
dex_comment | Visible | Expression |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| order__details | 0 | PRIMARY | 1 | oId | A | 2 | NULL | NULL | NULL | BTREE | | |
| order__details | YES | NULL | | | | | | | | | | |
| order__details | 1 | idx | 1 | oId | A | 3 | NULL | NULL | NULL | BTREE | |
| order__details | YES | NULL | | | | | | | | | | |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.02 sec)

mysql>
```

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

```
mysql> select c.cName, o.oId, o.sId from customer_details c join order__details o on c.cId = o.cId;
+-----+-----+-----+
| cName | oId  | sId  |
+-----+-----+-----+
| vineet | o001 | s001 |
| nitin  | o002 | s001 |
| lalit  | o003 | s002 |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

