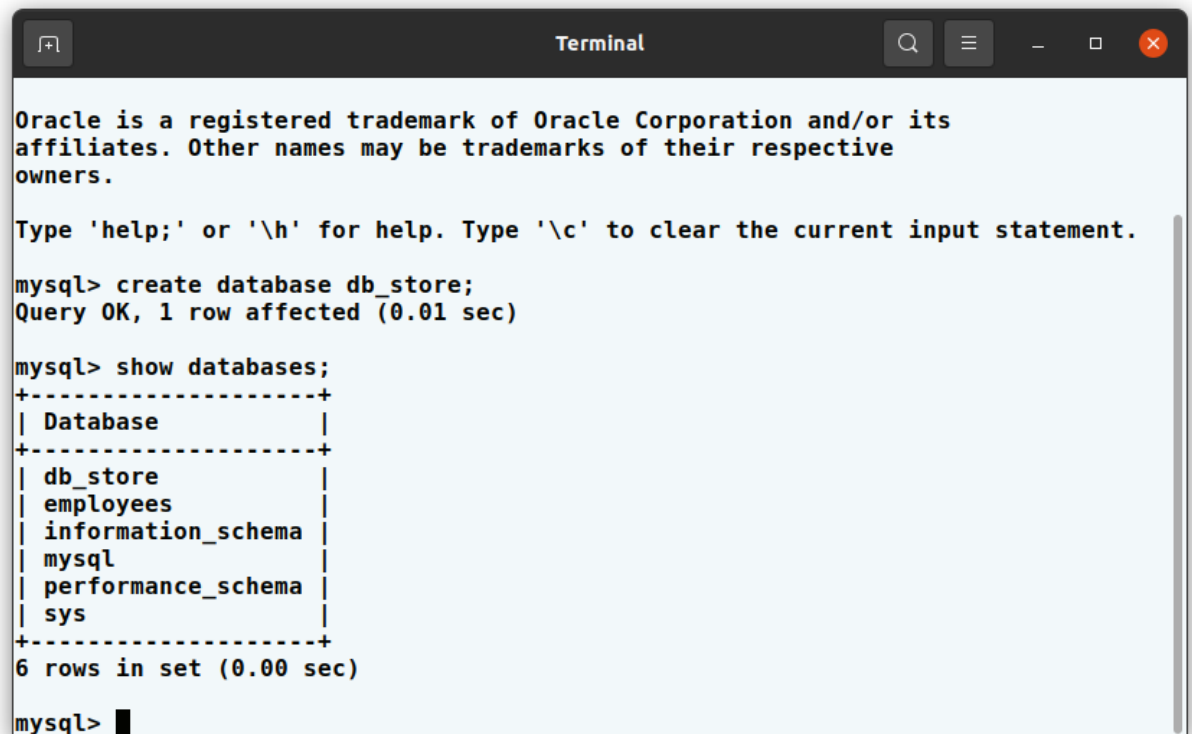


Intro to Databases assignment solutions

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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 assigned to one salesperson only). So a sales person can have multiple orders of multiple customers

1. Create Database



```
Terminal

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owners.

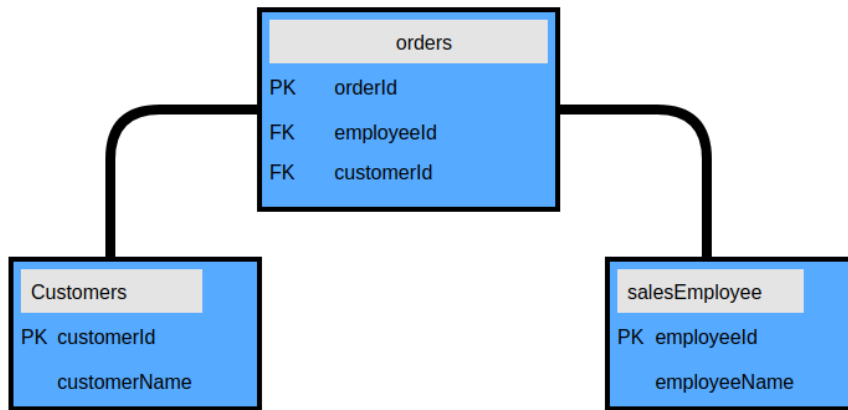
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

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

mysql> show databases;
+-----+
| Database |
+-----+
| db_store |
| employees |
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
6 rows in set (0.00 sec)

mysql> 
```

2. Design Schema



3. Create tables

```
| Database |
+-----+
| db_store |
| employees |
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
6 rows in set (0.00 sec)

mysql> use db_store;
Database changed
mysql> create table customers (
    -> customerId integer,
    -> customerName varchar(100));
Query OK, 0 rows affected (0.04 sec)

mysql> create table salesEmployee (
    -> employeeId integer,
    -> employeeName varchar(100));
Query OK, 0 rows affected (0.06 sec)
```

```
Terminal
ayushharna@ttnpl-ayushsharma:~$ sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 16
Server version: 8.0.30-0ubuntu0.20.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use db_store;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> create table orders ( orderId integer primary key, customerId integer, employeeId integer);
Query OK, 0 rows affected (0.07 sec)

mysql> describe orders;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| orderId | int | NO | PRI | NULL | |
| customerId | int | YES | | NULL | |
| employeeId | int | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> █
```

```
Terminal
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use db_store;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> describe customers;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerId | int | YES | | NULL | |
| customerName | varchar(100) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> describe salesEmployee;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| employeeId | int | YES | | NULL | |
| employeeName | varchar(100) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> describe orders;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| orderId | int | NO | PRI | NULL | |
| customerId | int | YES | | NULL | |
| employeeId | int | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> 
```

4. Insert sample data

```
mysql> describe customers;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerId | int | YES | | NULL | |
| customerName | varchar(100) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> Insert into customers values (110022, "Ayushsharma");
Query OK, 1 row affected (0.03 sec)

mysql> Insert into customers values (110023, "shikha");
Query OK, 1 row affected (0.01 sec)

mysql> Insert into customers values (110024, "Akshay");
Query OK, 1 row affected (0.04 sec)

mysql> Insert into customers values (120025, "vaishali gupta");
Query OK, 1 row affected (0.00 sec)

mysql> Insert into customers values (120026, "vivek aggrawal");
Query OK, 1 row affected (0.03 sec)

mysql> Insert into customers values (120027, "shubham sharma");
Query OK, 1 row affected (0.01 sec)

mysql> Insert into customers values (120029, "manu ");
Query OK, 1 row affected (0.03 sec)
```

```
mysql> select * from customers;
```

customerId	customerName
110022	Ayushsharma
110023	shikha
110024	Akshay
120025	vaishali gupta
120026	vivek aggrawal
120027	shubham sharma
120029	manu
120030	nandani

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

```
mysql> use db_store
Leading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> insert into salesEmployee values (4007 , "Jyoti"), (4006 , "Nitin"), (4001 , "Daksh"), (4010 , "akash"), (4011 , "Anushka"), (4012 , "Riya");
Query OK, 6 rows affected (0.04 sec)
Records: 6 Duplicates: 0 Warnings: 0

mysql>
```

```
mysql> use db_store
Leading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> select * from salesEmployee;
```

employeeId	employeeName
4007	Jyoti
4006	Nitin
4001	Daksh
4010	akash
4011	Anushka
4012	Riya

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

```
mysql> insert into orders values
-> (11, 110022, 4007),
-> (12, 110023, 4006),
-> (13, 110022, 4011),
-> (14, 110024, 4010),
-> (15, 120029, 4001),
-> (16, 120025, 4011);
Query OK, 6 rows affected (0.00 sec)
Records: 6  Duplicates: 0  Warnings: 0
```

```
mysql> select * from orders;
+-----+-----+-----+
| orderId | customerId | employeeId |
+-----+-----+-----+
|      11 |      110022 |         4007 |
|      12 |      110023 |         4006 |
|      13 |      110022 |         4011 |
|      14 |      110024 |         4010 |
|      15 |      120029 |         4001 |
|      16 |      120025 |         4011 |
+-----+-----+-----+
6 rows in set (0.00 sec)
```

5. Find the sales person have multiple orders.

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

```
mysql> use db_store;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A
```

Database changed

```
mysql> select salesEmployee.*,o.orderId,o.customerId
-> from salesEmployee
-> join orders o
-> on salesEmployee.employeeId = o.employeeId;
```

employeeId	employeeName	orderId	customerId
4007	Jyoti	11	110022
4006	Nitin	12	110023
4011	Anushka	13	110022
4010	akash	14	110024
4001	Daksh	15	120029
4011	Anushka	16	120025

6 rows in set (0.00 sec)

7. Create index

```
mysql> create index customerName_idx on customers(customerName);
Query OK, 0 rows affected (0.10 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> █
```

8. How to show index on a table

```
mysql> show index from customers;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| customers | 1 | customerName_idx | 1 | customerName | A | 8 | NULL | NULL | YES | BTREE |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.03 sec)
```

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

```
mysql> select orders.orderId,e.employeeName,customers.customerName,customers.customerId from orders inner join salesEmployee e inner join customers
on orders.employeeId = e.employeeId and orders.customerId = customers.customerId;
```

orderId	employeeName	customerName	customerId
13	Anushka	Ayushsharma	110022
11	Jyoti	Ayushsharma	110022
12	Nitin	shikha	110023
14	akash	Akshay	110024
16	Anushka	vaishali gupta	120025
15	Daksh	manu	120029

```
6 rows in set (0.01 sec)

mysql> █
```