

## Exercise 3 on Database Management

By ANINDYA GUHA

### 1. Create Database

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

mysql> use db_orders;
```

### 2. Design Schema

```
mysql> create table order1(oid bigint(20) NOT NULL AUTO_INCREMENT,cust_id bigint(20) NOT NULL,cust_name varchar(30),sp_id bigint(20),primary key(oid));
Query OK, 0 rows affected (0.03 sec)

mysql> create table sales(sp_id bigint(20) NOT NULL ,cust_id bigint(20) NOT NULL ,sp_name varchar(30),primary key(sp_id));
Query OK, 0 rows affected (0.02 sec)

mysql>
```

### 3. Create tables

```
mysql> create table order1(oid bigint(20) NOT NULL AUTO_INCREMENT,cust_id bigint(20) NOT NULL,cust_name varchar(30),sp_id bigint(20),primary key(oid));
Query OK, 0 rows affected (0.03 sec)

mysql> create table sales(sp_id bigint(20) NOT NULL ,cust_id bigint(20) NOT NULL ,sp_name varchar(30),primary key(sp_id));
Query OK, 0 rows affected (0.02 sec)

mysql>
```

### 4. Insert sample data

```
mysql> select * from order1;
+-----+-----+-----+-----+
| oid | cust_id | cust_name | sp_id |
+-----+-----+-----+-----+
| 3 | 1 | bshg | 1 |
| 4 | 1 | ani | 1 |
| 5 | 2 | sab | 2 |
| 6 | 3 | dip | 2 |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from sales;
+-----+-----+-----+
| sp_id | cust_id | sp_name |
+-----+-----+-----+
| 1 | 1 | wdwd |
| 1 | 1 | wdwd |
| 2 | 2 | gdgd |
| 2 | 3 | gdgd |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

5. Find the sales person have multiple orders.

```
mysql> select sp_name from sales group by sp_name having count(sp_name)>1;
+-----+
| sp_name |
+-----+
| gdgd |
| wdwd |
+-----+
2 rows in set (0.00 sec)

mysql> 
```

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

```
mysql> select * from order1 left join sales on order1.sp_id=sales.sp_id union
-> select * from order1 right join sales on order1.sp_id=sales.sp_id ;
+-----+-----+-----+-----+-----+-----+-----+
| oid | cust_id | cust_name | sp_id | sp_id | cust_id | sp_name |
+-----+-----+-----+-----+-----+-----+-----+
| 3 | 1 | bshg | 1 | 1 | 1 | wdwd |
| 4 | 1 | ani | 1 | 1 | 1 | wdwd |
| 5 | 2 | sab | 2 | 2 | 2 | gdgd |
| 6 | 3 | dip | 2 | 2 | 2 | gdgd |
| 5 | 2 | sab | 2 | 2 | 3 | gdgd |
| 6 | 3 | dip | 2 | 2 | 3 | gdgd |
+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> 
```

## 7. Create index

```
mysql> create index index1 on order1 (cust_name, cust_id);
Query OK, 0 rows affected (0.03 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

## 8. How to show index on a table

```
mysql> show index from order1;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type | Comment | Index_comment |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| order1 | 0 | PRIMARY | 1 | oid | A | 4 | NULL | NULL | | BTREE | | |
| order1 | 1 | index1 | 1 | cust_name | A | 4 | NULL | NULL | YES | BTREE | | |
| order1 | 1 | index1 | 2 | cust_id | A | 4 | NULL | NULL | | BTREE | | |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

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

```
mysql> select order1.oid, order1.cust_name, sales.sp_name from order1 left join
sales on order1.sp_id=sales.sp_id union select order1.oid, order1.cust_name, sa
les.sp_name from order1 right join sales on order1.sp_id=sales.sp_id;
+-----+-----+-----+
| oid | cust_name | sp_name |
+-----+-----+-----+
| 3 | bshg | wdwd |
| 4 | ani | wdwd |
| 5 | sab | gdgd |
| 6 | dip | gdgd |
+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> 
```