```
mysql> create table Dept(dept_id int not null primary key,dept_name
varchar(20));
Query OK, 0 rows affected (1.61 sec)

mysql> desc Dept;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| dept_id   | int(11)     | NO   | PRI | NULL    |       |
| dept_name | varchar(20) | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
2 rows in set (0.11 sec)

mysql> insert into Dept values(1,'Finance');
Query OK, 1 row affected (0.25 sec)

mysql> insert into Dept values(1,'Training');
ERROR 1062 (23000): Duplicate entry '1' for key 'PRIMARY'
mysql> insert into Dept values(2,'Training');
Query OK, 1 row affected (0.14 sec)

mysql> insert into Dept values(3,'Marketing');
Query OK, 1 row affected (0.15 sec)

mysql> select * from Dept;
+---------+-----------+
| dept_id | dept_name |
+---------+-----------+
|       1 | Finance   |
|       2 | Training  |
|       3 | Marketing |
+---------+-----------+
3 rows in set (0.00 sec)

mysql> create table employee(emp_id int,emp_name varchar(50) not
null,dept_id int,salary int(20),manager int,primary key(emp_id),foreign
key(dept_id) references department(dept_id));
Query OK, 0 rows affected (1.11 sec)

mysql> insert into employee values(1,'Arun',1,8000,4);
Query OK, 1 row affected (0.40 sec)

mysql> insert into employee values(2,'kiran',1,7000,1);
Query OK, 1 row affected (0.12 sec)

mysql> insert into employee values(3,'scott',1,3000,1);
Query OK, 1 row affected (0.17 sec)

mysql> insert into employee values(4,'max',2,9000,null);
Query OK, 1 row affected (0.15 sec)

mysql> insert into employee values(5,'jack',2,8000,4);
Query OK, 1 row affected (0.19 sec)

mysql> insert into employee values(6,'king',null,6000,1);
Query OK, 1 row affected (0.11 sec)

mysql> select * from employee;
+--------+----------+---------+--------+---------+
| emp_id | emp_name | dept_id | salary | manager |
```

```
+--------+---------+---------+--------+---------+
|      1 | Arun    |       1 |   8000 |       4 |
|      2 | kiran   |       1 |   7000 |       1 |
|      3 | scott   |       1 |   3000 |       1 |
|      4 | max     |       2 |   9000 |    NULL |
|      5 | jack    |       2 |   8000 |       4 |
|      6 | king    |    NULL |   6000 |       1 |
+--------+---------+---------+--------+---------+
6 rows in set (0.00 sec)

mysql> select count(emp_id),emp_name from employee group by emp_name;
+--------------+----------+
| count(emp_id) | emp_name |
+--------------+----------+
|            1 | Arun     |
|            1 | kiran    |
|            1 | scott    |
|            1 | max      |
|            1 | jack     |
|            1 | king     |
+--------------+----------+
6 rows in set (0.08 sec)

mysql> select * from Dept order by dept_name;
+---------+-----------+
| dept_id | dept_name |
+---------+-----------+
|       1 | Finance   |
|       3 | Marketing |
|       2 | Training  |
+---------+-----------+
3 rows in set (0.00 sec)

mysql> select dept_id, sum(salary) from employee group by dept_id;
+---------+-------------+
| dept_id | sum(salary) |
+---------+-------------+
|    NULL |        6000 |
|       1 |       18000 |
|       2 |       17000 |
+---------+-------------+
3 rows in set (0.07 sec)

mysql> select dept_id from employee where salary>17000 group by dept_id;
Empty set (0.00 sec)

mysql> select dept_id,sum(salary) from employee group by dept_id having
sum(salary)>18000;
Empty set (0.05 sec)

mysql> select dept_id,sum(salary) from employee group by dept_id having
sum(salary)>17000;
+---------+-------------+
| dept_id | sum(salary) |
+---------+-------------+
|       1 |       18000 |
+---------+-------------+
1 row in set (0.00 sec)
```

```
mysql> select dept_id,sum(salary) from employee group by dept_id having
sum(salary)<20000;
+---------+-------------+
| dept_id | sum(salary) |
+---------+-------------+
|    NULL |        6000 |
|       1 |       18000 |
|       2 |       17000 |
+---------+-------------+
3 rows in set (0.04 sec)
```