SQL Assignments

Item Table:

```
mysql> create table item(itemcode varchar(20) primary key, itemname varchar(200) not null, manufacturername varchar(200), unitprice numeric(10, 2) check(unitprice > 0),
 manufacturingyear date, itemcategory varchar(20));
Query OK, 0 rows affected (0.02 sec)

mysql> desc item;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| itemcode        | varchar(20)  | NO   | PRI | NULL    |       |
| itemname        | varchar(200) | NO   |     | NULL    |       |
| manufacturername| varchar(200) | YES  |     | NULL    |       |
| unitprice       | decimal(10,2)| YES  |     | NULL    |       |
| manufacturingyear| date        | YES  |     | NULL    |       |
| itemcategory    | varchar(20)  | YES  |     | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
6 rows in set (0.01 sec)
```

Customer Table:

```
mysql> create table customer(customerid numeric primary key, customername varchar(200) not null, address varchar(300), phonenumber varchar(10), customermailid varchar(2
0));
Query OK, 0 rows affected (0.03 sec)

mysql> desc customer;
+---------------+--------------+------+-----+---------+-------+
| Field         | Type         | Null | Key | Default | Extra |
+---------------+--------------+------+-----+---------+-------+
| customerid    | decimal(10,0)| NO   | PRI | NULL    |       |
| customername  | varchar(200) | NO   |     | NULL    |       |
| address       | varchar(300) | YES  |     | NULL    |       |
| phonenumber   | varchar(10)  | YES  |     | NULL    |       |
| customermailid| varchar(20)  | YES  |     | NULL    |       |
+---------------+--------------+------+-----+---------+-------+
5 rows in set (0.02 sec)
```

Ordermaster Table:

```
mysql> create table ordermaster(orderid numeric primary key, orderdate date not null, totalorderamount numeric(10,2) not null check(totalorderamount > 0), customerid nu
meric not null, constraint fk1 foreign key(customerid) references customer(customerid));
Query OK, 0 rows affected (0.03 sec)

mysql> desc ordermaster;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| orderid         | decimal(10,0)| NO   | PRI | NULL    |       |
| orderdate       | date         | NO   |     | NULL    |       |
| totalorderamount| decimal(10,2)| NO   |     | NULL    |       |
| customerid      | decimal(10,0)| NO   | MUL | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
4 rows in set (0.01 sec)
```

Ordertransaction Table:

```
mysql> create table ordertransaction(orderid numeric, itemcode varchar(10), qtyordered numeric(2) check(qtyordered > 0), constraint ordertransaction_pk primary key(orde
rid, itemcode), constraint ordertransaction_fk1 foreign key(orderid) references ordermaster(orderid), constraint ordertransaction_fk2 foreign key(itemcode) references i
tem(itemcode));
Query OK, 0 rows affected (0.03 sec)

mysql> desc ordertransaction;
+------------+--------------+------+-----+---------+-------+
| Field      | Type         | Null | Key | Default | Extra |
+------------+--------------+------+-----+---------+-------+
| orderid    | decimal(10,0)| NO   | PRI | 0       |       |
| itemcode   | varchar(10)  | NO   | PRI |         |       |
| qtyordered | decimal(2,0) | YES  |     | NULL    |       |
+------------+--------------+------+-----+---------+-------+
3 rows in set (0.02 sec)
```

Item Table after Insertion:

```
mysql> select * from item;
+----------+-------------------+-----------------+-----------+-------------------+-----------------+
| itemcode | itemname          | manufacturername | unitprice | manufacturingyear | itemcategory    |
+----------+-------------------+-----------------+-----------+-------------------+-----------------+
| IT101    | LED32 Inch        | Samsung         |  15000.00 | 2015-11-14        | Television      |
| IT102    | Galaxy S5         | Samsung         |  13000.00 | 2016-04-16        | Mobile          |
| IT103    | Front Load        | Samsung         |  20000.00 | 2016-05-23        | Washing Machine |
| IT104    | Dual Door         | Samsung         |  12000.00 | 2015-11-20        | Refrigerator    |
| IT106    | Pencil            | Natraj          |      2.00 | 2016-01-11        | Stationery      |
| IT107    | LG G5 Silver      | LG              |  19000.00 | 2016-01-01        | Television      |
| IT108    | Top Load          | LG              |  25000.00 | 2016-04-18        | Washing Machine |
| IT109    | Four Door         | LG              |  18000.00 | 2016-05-18        | Refrigerator    |
| IT110    | Eraser            | Camlin          |      5.00 | 2016-01-15        | Stationery      |
| IT111    | LED 32 Inch       | Sony            |  22000.00 | 2016-05-14        | Television      |
| IT112    | Sony Xperia Z5    | Sony            |   9000.00 | 2015-12-14        | Mobile          |
| IT113    | Fully Automatic   | Sony            |  22000.00 | 2015-12-13        | Washing Machine |
| IT114    | Three Door Normal | Sony            |  19000.00 | 2016-06-14        | Refrigerator    |
| IT115    | Pen               | Faber Castell   |     10.00 | 2016-01-19        | Stationery      |
| IT116    | LED 32 Inch       | Onida           |  20000.00 | 2016-02-19        | Television      |
| IT117    | Onida i505        | Onida           |  10000.00 | 2016-04-23        | Mobile          |
| IT118    | Semi Automatic    | Onida           |  11000.00 | 2015-12-31        | Washing Machine |
| IT119    | Three DoorLux     | Onida           |  18000.00 | 2016-06-19        | Refrigerator    |
| IT120    | Sharpener         | Apsara          |      5.00 | 2016-01-21        | Stationery      |
| IT121    | LED 50 Inch       | Onida           |  48000.00 | 2021-12-15        | Television      |
| IT122    | Three Door        | Thomson         |  21000.00 | 2021-12-15        | Refrigerator    |
| IT123    | LED 50 Inch       | LG              |  38000.00 | 2021-12-15        | Television      |
| IT124    | Three Door        | Samsung         |  22000.00 | 2021-12-15        | Refrigerator    |
| IT125    | Four Door         | Samsung         |  21000.00 | 2021-12-15        | Refrigerator    |
+----------+-------------------+-----------------+-----------+-------------------+-----------------+
24 rows in set (0.00 sec)
```

Customer Table after Insertion:

```
mysql> select * from customer;
+------------+--------------+-----------------------------------------+-------------+----------------+
| customerid | customername | address                                 | phonenumber | customermailid |
+------------+--------------+-----------------------------------------+-------------+----------------+
|       1001 | Mario        | Street: 1, Cross: 2, Town: 3, Pin: 1231 | 1234567890  | mario@xyz.com  |
|       1002 | Megan        | Street: 1, Cross: 2, Town: 3, Pin: 1231 | 1234567891  | megan@xyz.com  |
|       1003 | Amy          | Street: 1, Cross: 2, Town: 3, Pin: 1231 | 1234567892  | amy@xyz.com    |
|       1004 | Stuart       | Street: 1, Cross: 2, Town: 3, Pin: 1231 | 1234567893  | stuart@xyz.com |
|       1005 | Phil         | Street: 2, Cross: 4, Town: 5, Pin: 1232 | 1234567894  | phil@xyz.com   |
|       1006 | Jacob        | Street: 2, Cross: 4, Town: 5, Pin: 1232 | 1234567895  | jacob@xyz.com  |
|       1007 | James        | Street: 2, Cross: 4, Town: 5, Pin: 1232 | 1234567896  | james@xyz.com  |
|       1008 | Dan          | Street: 2, Cross: 4, Town: 5, Pin: 1232 | 1234567897  | dan@xyz.com    |
|       1009 | Henry        | Street: 12, Cross: 4, Town: 15, Pin: 1235 | 1234567898  | henry@xyz.com  |
|       1010 | Eric         | Street: 12, Cross: 4, Town: 15, Pin: 1235 | 1234567899  | eric@xyz.com   |
|       1011 | Ken          | Street: 12, Cross: 4, Town: 15, Pin: 1235 | 1234567901  | ken@xyz.com    |
|       1012 | Mecon        | Street: 12, Cross: 4, Town: 15, Pin: 1235 | 1234567902  | mecon@xyz.com  |
|       1013 | Merlin       | Street: 12, Cross: 4, Town: 15, Pin: 1235 | 1234567903  | merlin@xyz.com |
|       1014 | Morgan       | Street: 12, Cross: 4, Town: 15, Pin: 1235 | 1234567904  | morgan@xyz.com |
+------------+--------------+-----------------------------------------+-------------+----------------+
14 rows in set (0.00 sec)
```

Ordermaster Table after Insertion:

```
mysql> select * from ordermaster;
+---------+------------+-------------------+------------+
| orderid | orderdate  | totalorderamount  | customerid |
+---------+------------+-------------------+------------+
|   70001 | 2016-07-07 |          49000.00 |       1001 |
|   70002 | 2016-06-27 |          82000.00 |       1006 |
|   70003 | 2016-07-09 |            200.00 |       1005 |
|   70004 | 2016-07-10 |          46000.00 |       1006 |
|   70005 | 2016-06-20 |          48000.00 |       1005 |
|   70006 | 2016-07-20 |            200.00 |       1006 |
|   70007 | 2016-07-20 |          49000.00 |       1005 |
+---------+------------+-------------------+------------+
7 rows in set (0.00 sec)
```

Ordertransaction Table after Insertion:

```
mysql> select * from ordertransaction;
+---------+----------+------------+
| orderid | itemcode | qtyordered |
+---------+----------+------------+
|   70001 | IT101    |          2 |
|   70001 | IT114    |          1 |
|   70002 | IT103    |          1 |
|   70002 | IT109    |          1 |
|   70002 | IT111    |          2 |
|   70003 | IT115    |         20 |
|   70004 | IT102    |          2 |
|   70004 | IT117    |          2 |
|   70005 | IT121    |          1 |
|   70006 | IT115    |         20 |
|   70007 | IT101    |          2 |
|   70007 | IT114    |          1 |
+---------+----------+------------+
12 rows in set (0.00 sec)
```

1. Display ItemCode, ItemName and ItemCategory of items whose UnitPrice is less than INR 500.

```
mysql> select itemcode, itemname, itemcategory from item where unitprice < 500;
+----------+-----------+--------------+
| itemcode | itemname  | itemcategory |
+----------+-----------+--------------+
| IT106    | Pencil    | Stationery   |
| IT110    | Eraser    | Stationery   |
| IT115    | Pen       | Stationery   |
| IT120    | Sharpener | Stationery   |
+----------+-----------+--------------+
4 rows in set (0.00 sec)
```

2. Display ItemCode, ItemName and ItemCategory of items whose UnitPrice is in the range INR 10,000 to INR 20,000 (both inclusive).

```
mysql> select itemcode, itemname, itemcategory from item where unitprice between 10000 and 20000;
+----------+-------------------+-----------------+
| itemcode | itemname          | itemcategory    |
+----------+-------------------+-----------------+
| IT101    | LED32 Inch        | Television      |
| IT102    | Galaxy S5         | Mobile          |
| IT103    | Front Load        | Washing Machine |
| IT104    | Dual Door         | Refrigerator    |
| IT107    | LG G5 Silver      | Television      |
| IT109    | Four Door         | Refrigerator    |
| IT114    | Three Door Normal | Refrigerator    |
| IT116    | LED 32 Inch       | Television      |
| IT117    | Onida i505        | Mobile          |
| IT118    | Semi Automatic    | Washing Machine |
| IT119    | Three DoorLux     | Refrigerator    |
+----------+-------------------+-----------------+
11 rows in set (0.00 sec)
```

3. Display ItemCode and ManufacturerName of Televisions that are costing more than INR 15,000.

```
mysql> select itemcode, manufacturername from item where itemcategory = 'Television' and unitprice > 15000;
+----------+------------------+
| itemcode | manufacturername |
+----------+------------------+
| IT107    | LG               |
| IT111    | Sony             |
| IT116    | Onida            |
| IT121    | Onida            |
| IT123    | LG               |
+----------+------------------+
5 rows in set (0.00 sec)
```

4. Display ItemName, ManufacturerName and UnitPrice of "Televisions, Mobiles and Washing Machines".

```
mysql> select itemname, manufacturername, unitprice from item where itemcategory = 'Television' or  itemcategory = 'Mobile' or  itemcategory = 'Washing Machine';
+----------------+------------------+----------+
| itemname       | manufacturername | unitprice |
+----------------+------------------+----------+
| LED32 Inch     | Samsung          |  15000.00 |
| Galaxy S5      | Samsung          |  13000.00 |
| Front Load     | Samsung          |  20000.00 |
| LG G5 Silver   | LG               |  19000.00 |
| Top Load       | LG               |  25000.00 |
| LED 32 Inch    | Sony             |  22000.00 |
| Sony Xperia Z5 | Sony             |   9000.00 |
| Fully Automatic | Sony            |  22000.00 |
| LED 32 Inch    | Onida            |  20000.00 |
| Onida i505     | Onida            |  10000.00 |
| Semi Automatic | Onida            |  11000.00 |
| LED 50 Inch    | Onida            |  48000.00 |
| LED 50 Inch    | LG               |  38000.00 |
+----------------+------------------+----------+
13 rows in set (0.00 sec)
```

5. Display ItemCode, ItemName and ManufacturerName of items which were manufactured in the year 2015

```
mysql> select itemcode, itemname, manufacturername from item where manufacturingyear like '2015%';
+----------+-----------------+------------------+
| itemcode | itemname        | manufacturername |
+----------+-----------------+------------------+
| IT101    | LED32 Inch      | Samsung          |
| IT104    | Dual Door       | Samsung          |
| IT112    | Sony Xperia Z5  | Sony             |
| IT113    | Fully Automatic | Sony             |
| IT118    | Semi Automatic  | Onida            |
+----------+-----------------+------------------+
5 rows in set, 1 warning (0.00 sec)
```

6. Display ItemCode, ItemName and ManufacturerName of Televisions which are more than 2 years old

```
mysql> select itemcode, itemname, manufacturername, manufacturingyear from item where itemcategory = 'Television' and timestampdiff(year, manufacturingyear, sysdate())
> 2;
+----------+-------------+------------------+------------------+
| itemcode | itemname    | manufacturername | manufacturingyear |
+----------+-------------+------------------+------------------+
| IT101    | LED32 Inch  | Samsung          | 2015-11-14       |
| IT107    | LG G5 Silver | LG              | 2016-01-01       |
| IT111    | LED 32 Inch | Sony             | 2016-05-14       |
| IT116    | LED 32 Inch | Onida            | 2016-02-19       |
+----------+-------------+------------------+------------------+
4 rows in set (0.00 sec)
```

7. Display ItemCode, ItemName, UnitPrice, UnitPrice+VAT for all "Refrigerators" (VAT to be computed as 2% of unitprice of the item).

```
mysql> select itemcode, itemname, unitprice, unitprice + (0.02 * unitprice) as 'unitprice + VAT' from item;
+----------+------------------+-----------+-----------------+
| itemcode | itemname         | unitprice | unitprice + VAT |
+----------+------------------+-----------+-----------------+
| IT101    | LED32 Inch       |  15000.00 |      15300.0000 |
| IT102    | Galaxy S5        |  13000.00 |      13260.0000 |
| IT103    | Front Load       |  20000.00 |      20400.0000 |
| IT104    | Dual Door        |  12000.00 |      12240.0000 |
| IT106    | Pencil           |      2.00 |          2.0400 |
| IT107    | LG G5 Silver     |  19000.00 |      19380.0000 |
| IT108    | Top Load         |  25000.00 |      25500.0000 |
| IT109    | Four Door        |  18000.00 |      18360.0000 |
| IT110    | Eraser           |      5.00 |          5.1000 |
| IT111    | LED 32 Inch      |  22000.00 |      22440.0000 |
| IT112    | Sony Xperia Z5   |   9000.00 |       9180.0000 |
| IT113    | Fully Automatic  |  22000.00 |      22440.0000 |
| IT114    | Three Door Normal |  19000.00 |      19380.0000 |
| IT115    | Pen              |     10.00 |         10.2000 |
| IT116    | LED 32 Inch      |  20000.00 |      20400.0000 |
| IT117    | Onida i505       |  10000.00 |      10200.0000 |
| IT118    | Semi Automatic   |  11000.00 |      11220.0000 |
| IT119    | Three DoorLux    |  18000.00 |      18360.0000 |
| IT120    | Sharpener        |      5.00 |          5.1000 |
| IT121    | LED 50 Inch      |  48000.00 |      48960.0000 |
| IT122    | Three Door       |  21000.00 |      21420.0000 |
| IT123    | LED 50 Inch      |  38000.00 |      38760.0000 |
| IT124    | Three Door       |  22000.00 |      22440.0000 |
| IT125    | Four Door        |  21000.00 |      21420.0000 |
+----------+------------------+-----------+-----------------+
24 rows in set (0.00 sec)
```

8. Display CustomerName and PhoneNumber of Customers whose name starts with 'J'.

```
mysql> select customername, phonenumber from customer where customername like 'J%';
+--------------+-------------+
| customername | phonenumber |
+--------------+-------------+
| Jacob        | 1234567895  |
| James        | 1234567896  |
+--------------+-------------+
2 rows in set (0.00 sec)
```

9. Display CustomerName and Phone of Customers whose name ends with 'an'.

```
mysql> select customername, phonenumber from customer where customername like '%an';
+--------------+-------------+
| customername | phonenumber |
+--------------+-------------+
| Megan        | 1234567891  |
| Dan          | 1234567897  |
| Morgan       | 1234567904  |
+--------------+-------------+
3 rows in set (0.00 sec)
```

10. Display CustomerName and Phone of Customers whose name starts with 'M' and ends with 'n'.

```
mysql> select customername, phonenumber from customer where customername like 'M%n';
+--------------+-------------+
| customername | phonenumber |
+--------------+-------------+
| Megan        | 1234567891  |
| Mecon        | 1234567902  |
| Merlin       | 1234567903  |
| Morgan       | 1234567904  |
+--------------+-------------+
4 rows in set (0.00 sec)
```

11. Display CustomerName and Phone of Customers whose name contains only three letters.

```
mysql> select customername, phonenumber from customer where customername like '___';
+--------------+-------------+
| customername | phonenumber |
+--------------+-------------+
| Amy          | 1234567892  |
| Dan          | 1234567897  |
| Ken          | 1234567901  |
+--------------+-------------+
3 rows in set (0.00 sec)
```

12. Display CustomerName and Phone of Customers whose name contains 'a' as the second letter.

```
mysql> select customername, phonenumber from customer where customername like '_a%';
+--------------+-------------+
| customername | phonenumber |
+--------------+-------------+
| Mario        | 1234567890  |
| Jacob        | 1234567895  |
| James        | 1234567896  |
| Dan          | 1234567897  |
+--------------+-------------+
4 rows in set (0.00 sec)
```

13. Display ItemCode, ItemName, ManufacturerName and UnitPrice of ALL items in the descending order of UnitPrice.

```
mysql> select itemcode, itemname, manufacturername, unitprice from item order by unitprice desc;
+----------+------------------+------------------+-----------+
| itemcode | itemname         | manufacturername | unitprice |
+----------+------------------+------------------+-----------+
| IT121    | LED 50 Inch      | Onida            |  48000.00 |
| IT123    | LED 50 Inch      | LG               |  38000.00 |
| IT108    | Top Load         | LG               |  25000.00 |
| IT111    | LED 32 Inch      | Sony             |  22000.00 |
| IT113    | Fully Automatic  | Sony             |  22000.00 |
| IT124    | Three Door       | Samsung          |  22000.00 |
| IT122    | Three Door       | Thomson          |  21000.00 |
| IT125    | Four Door        | Samsung          |  21000.00 |
| IT103    | Front Load       | Samsung          |  20000.00 |
| IT116    | LED 32 Inch      | Onida            |  20000.00 |
| IT114    | Three Door Normal | Sony             |  19000.00 |
| IT107    | LG G5 Silver     | LG               |  19000.00 |
| IT119    | Three DoorLux    | Onida            |  18000.00 |
| IT109    | Four Door        | LG               |  18000.00 |
| IT101    | LED32 Inch       | Samsung          |  15000.00 |
| IT102    | Galaxy S5        | Samsung          |  13000.00 |
| IT104    | Dual Door        | Samsung          |  12000.00 |
| IT118    | Semi Automatic   | Onida            |  11000.00 |
| IT117    | Onida i505       | Onida            |  10000.00 |
| IT112    | Sony Xperia Z5   | Sony             |   9000.00 |
| IT115    | Pen              | Faber Castell    |     10.00 |
| IT120    | Sharpener        | Apsara           |      5.00 |
| IT110    | Eraser           | Camlin           |      5.00 |
| IT106    | Pencil           | Natraj           |      2.00 |
+----------+------------------+------------------+-----------+
24 rows in set (0.00 sec)
```

14. Display CustomerName and Address of customers in the alphabetical order (A to Z) of CustomerName.

```
mysql> select customername, address from customer order by customername;
+--------------+-------------------------------------------+
| customername | address                                   |
+--------------+-------------------------------------------+
| Amy          | Street: 1, Cross: 2, Town: 3, Pin: 1231   |
| Dan          | Street: 2, Cross: 4, Town: 5, Pin: 1232   |
| Eric         | Street: 12, Cross: 4, Town: 15, Pin: 1235 |
| Henry        | Street: 12, Cross: 4, Town: 15, Pin: 1235 |
| Jacob        | Street: 2, Cross: 4, Town: 5, Pin: 1232   |
| James        | Street: 2, Cross: 4, Town: 5, Pin: 1232   |
| Ken          | Street: 12, Cross: 4, Town: 15, Pin: 1235 |
| Mario        | Street: 1, Cross: 2, Town: 3, Pin: 1231   |
| Mecon        | Street: 12, Cross: 4, Town: 15, Pin: 1235 |
| Megan        | Street: 1, Cross: 2, Town: 3, Pin: 1231   |
| Merlin       | Street: 12, Cross: 4, Town: 15, Pin: 1235 |
| Morgan       | Street: 12, Cross: 4, Town: 15, Pin: 1235 |
| Phil         | Street: 2, Cross: 4, Town: 5, Pin: 1232   |
| Stuart       | Street: 1, Cross: 2, Town: 3, Pin: 1231   |
+--------------+-------------------------------------------+
14 rows in set (0.00 sec)
```

15. Display ItemCode, ItemName, ManufacturerName and UnitPrice of all items in the ascending order of UnitPrice and in the descending order of ManufacturerName (if UnitPrice is same).

```
mysql> select itemcode, itemname, manufacturername, unitprice from item order by unitprice, manufacturername desc;
+----------+------------------+------------------+-----------+
| itemcode | itemname         | manufacturername | unitprice |
+----------+------------------+------------------+-----------+
| IT106    | Pencil           | Natraj           |      2.00 |
| IT110    | Eraser           | Camlin           |      5.00 |
| IT120    | Sharpener        | Apsara           |      5.00 |
| IT115    | Pen              | Faber Castell    |     10.00 |
| IT112    | Sony Xperia Z5   | Sony             |   9000.00 |
| IT117    | Onida i505       | Onida            |  10000.00 |
| IT118    | Semi Automatic   | Onida            |  11000.00 |
| IT104    | Dual Door        | Samsung          |  12000.00 |
| IT102    | Galaxy S5        | Samsung          |  13000.00 |
| IT101    | LED32 Inch       | Samsung          |  15000.00 |
| IT119    | Three DoorLux    | Onida            |  18000.00 |
| IT109    | Four Door        | LG               |  18000.00 |
| IT114    | Three Door Normal | Sony             |  19000.00 |
| IT107    | LG G5 Silver     | LG               |  19000.00 |
| IT103    | Front Load       | Samsung          |  20000.00 |
| IT116    | LED 32 Inch      | Onida            |  20000.00 |
| IT122    | Three Door       | Thomson          |  21000.00 |
| IT125    | Four Door        | Samsung          |  21000.00 |
| IT111    | LED 32 Inch      | Sony             |  22000.00 |
| IT113    | Fully Automatic  | Sony             |  22000.00 |
| IT124    | Three Door       | Samsung          |  22000.00 |
| IT108    | Top Load         | LG               |  25000.00 |
| IT123    | LED 50 Inch      | LG               |  38000.00 |
| IT121    | LED 50 Inch      | Onida            |  48000.00 |
+----------+------------------+------------------+-----------+
24 rows in set (0.00 sec)
```

Department Table:

```
mysql> create table department1(departmentcode varchar(10) primary key, departmentname varchar(50));
Query OK, 0 rows affected (0.04 sec)

mysql> desc department1;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| departmentcode | varchar(10) | NO   | PRI | NULL    |       |
| departmentname | varchar(50) | YES  |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
2 rows in set (0.02 sec)
```

Project Table:

```
mysql> create table project(projectid varchar(10) primary key, projectname varchar(50));
Query OK, 0 rows affected (0.03 sec)

mysql> desc project;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| projectid   | varchar(10) | NO   | PRI | NULL    |       |
| projectname | varchar(50) | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
2 rows in set (0.01 sec)
```

Employee Table:

```
mysql> create table employee(
    -> employeenumber numeric(10) primary key,
    -> employeename varchar(50),
    -> dob date,
    -> doj date,
    -> designation varchar(5) check (designation = 'CEO' or designation = 'MD' or designation = 'SM' or designation = 'M' or designation = 'TL' or designation = 'SSE' o
r designation = 'SE'),
    -> salary numeric(10,2) check(salary > 0 or salary <> null),
    -> managerEmployeeNumber numeric(10),
    -> departmentcode varchar(10),
    -> constraint employee_fk1 foreign key(departmentcode) references department1(departmentcode));
Query OK, 0 rows affected (0.03 sec)

mysql> desc employee;
+----------------------+--------------+------+-----+---------+-------+
| Field                | Type         | Null | Key | Default | Extra |
+----------------------+--------------+------+-----+---------+-------+
| employeenumber       | decimal(10,0) | NO   | PRI | NULL    |       |
| employeename         | varchar(50)  | YES  |     | NULL    |       |
| dob                  | date         | YES  |     | NULL    |       |
| doj                  | date         | YES  |     | NULL    |       |
| designation          | varchar(5)   | YES  |     | NULL    |       |
| salary               | decimal(10,2) | YES  |     | NULL    |       |
| managerEmployeeNumber | decimal(10,0) | YES  |     | NULL    |       |
| departmentcode       | varchar(10)  | YES  | MUL | NULL    |       |
+----------------------+--------------+------+-----+---------+-------+
8 rows in set (0.02 sec)
```

Alter Employee Table:

```
mysql> alter table employee add constraint employee_fk2 foreign key(managerEmployeeNumber) references employee(employeenumber);
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc employee;
+----------------------+---------------+------+-----+---------+-------+
| Field                | Type          | Null | Key | Default | Extra |
+----------------------+---------------+------+-----+---------+-------+
| employeenumber       | decimal(10,0) | NO   | PRI | NULL    |       |
| employeename         | varchar(50)   | YES  |     | NULL    |       |
| dob                  | date          | YES  |     | NULL    |       |
| doj                  | date          | YES  |     | NULL    |       |
| designation          | varchar(5)    | YES  |     | NULL    |       |
| salary               | decimal(10,2) | YES  |     | NULL    |       |
| managerEmployeeNumber | decimal(10,0) | YES  | MUL | NULL    |       |
| departmentcode       | varchar(10)   | YES  | MUL | NULL    |       |
+----------------------+---------------+------+-----+---------+-------+
8 rows in set (0.00 sec)
```

EmployeeProjects Table:

```
mysql> create table employeeProjects(
    -> employeenumber numeric(10) not null,
    -> projectid varchar(10) not null,
    -> startdate date,
    -> enddate date,
    -> constraint employeeProjects_pk primary key(employeenumber, projectid)
    -> );
Query OK, 0 rows affected (0.03 sec)

mysql> desc employeeprojects;
+----------------+---------------+------+-----+---------+-------+
| Field          | Type          | Null | Key | Default | Extra |
+----------------+---------------+------+-----+---------+-------+
| employeenumber | decimal(10,0) | NO   | PRI | NULL    |       |
| projectid      | varchar(10)   | NO   | PRI | NULL    |       |
| startdate      | date          | YES  |     | NULL    |       |
| enddate        | date          | YES  |     | NULL    |       |
+----------------+---------------+------+-----+---------+-------+
4 rows in set (0.01 sec)
```

Alter EmployeeProjects Table:

```
mysql> alter table employeeProjects add constraint employeeProjects_fk1 foreign key(employeenumber) references employee(employeenumber);
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

```
mysql> alter table employeeProjects add constraint employeeProjects_fk2 foreign key(projectid) references project(projectid);
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

Department Table after Insertion:

```
mysql> select * from department1;
+----------------+-----------------------------------+
| departmentcode | departmentname                    |
+----------------+-----------------------------------+
| .NETCap        | Dotnet Capability                 |
| JavaCap        | Java Capability                   |
| LKM            | Learning and Knowledge Management |
+----------------+-----------------------------------+
3 rows in set (0.00 sec)
```

Project Table after Insertion:

```
mysql> select * from project;
+-----------+------------------+
| projectid | projectname      |
+-----------+------------------+
| P1        | Retail           |
| P2        | Insurance        |
| P3        | Resources        |
| P4        | Banking          |
| P5        | Internal Project |
+-----------+------------------+
5 rows in set (0.00 sec)
```

Employee Table after Insertion:

```
mysql> select * from employee;
+----------------+--------------+------------+------------+-------------+----------+----------------------+----------------+
| employeenumber | employeename | dob        | doj        | designation | salary   | managerEmployeeNumber | departmentcode |
+----------------+--------------+------------+------------+-------------+----------+----------------------+----------------+
|           7001 | Cynthya      | 1975-05-12 | 1997-02-14 | CEO         | 800000.00 |                 7001 | NULL           |
|           7002 | Mario        | 1976-02-14 | 1998-04-16 | MD          | 500000.00 |                 7001 | JavaCap        |
|           7003 | Jacob        | 1976-05-16 | 1998-05-16 | MD          | 400000.00 |                 7001 | .NETCap        |
|           7004 | Lucy         | 1978-05-15 | 2000-07-15 | MD          | 420000.00 |                 7001 | LKM            |
|           7005 | Amy          | 1978-09-16 | 2000-11-16 | SM          | 240000.00 |                 7002 | JavaCap        |
|           7006 | Frank        | 1978-09-17 | 2000-09-19 | SM          | 220000.00 |                 7003 | .NETCap        |
|           7007 | Phil         | 1974-12-11 | 2000-09-12 | SM          | 220000.00 |                 7004 | LKM            |
|           7008 | Arnold       | 1984-03-13 | 2000-04-01 | TL          |  80000.00 |                 7005 | JavaCap        |
|           7009 | Jack         | 1984-09-23 | 2000-06-23 | TL          |  88000.00 |                 7006 | .NETCap        |
|           7010 | Justin       | 1984-11-07 | 2000-02-09 | TL          |  86000.00 |                 7007 | LKM            |
|           7011 | Megan        | 1984-07-21 | 2002-09-19 | TL          |  87000.00 |                 7007 | LKM            |
|           7012 | Stuart       | 1980-05-23 | 2016-05-22 | SSE         |  35000.00 |                 7008 | JavaCap        |
|           7013 | Clarke       | 1994-02-24 | 2016-05-22 | SSE         |  32000.00 |                 7008 | JavaCap        |
|           7014 | Darwin       | 1992-05-03 | 2016-05-22 | SE          |  30000.00 |                 7009 | .NETCap        |
|           7015 | Chelsea      | 1994-01-19 | 2016-05-22 | SSE         |  38000.00 |                 7010 | LKM            |
|           7016 | Dan          | 1991-05-27 | 2016-07-07 | SE          |  30000.00 |                 7009 | .NETCap        |
|           7017 | Jimmy        | 1993-08-11 | 2016-07-07 | SE          |  32000.00 |                 7010 | LKM            |
|           7018 | James        | 1993-12-19 | 2016-07-07 | SE          |  35000.00 |                 NULL | .NETCap        |
|           7019 | Joseph       | 1992-12-31 | 2016-07-07 | SE          |  30000.00 |                 NULL | .NETCap        |
+----------------+--------------+------------+------------+-------------+----------+----------------------+----------------+
19 rows in set (0.00 sec)
```

EmployeeProjects Table after Insertion:

```
mysql> select * from employeeProjects
    -> ;
+----------------+-----------+------------+------------+
| employeenumber | projectid | startdate  | enddate    |
+----------------+-----------+------------+------------+
|           7004 | P2        | 2014-07-16 | 2015-05-11 |
|           7005 | P1        | 2014-07-01 | NULL       |
|           7006 | P1        | 2016-06-01 | NULL       |
|           7007 | P3        | 2015-05-11 | NULL       |
|           7012 | P1        | 2015-04-01 | NULL       |
|           7012 | P2        | 2016-06-01 | 2015-02-28 |
|           7013 | P2        | 2014-07-01 | 2014-11-11 |
|           7013 | P3        | 2015-02-28 | NULL       |
|           7014 | P3        | 2014-11-11 | NULL       |
|           7016 | P2        | 2014-07-16 | NULL       |
+----------------+-----------+------------+------------+
10 rows in set (0.00 sec)
```

1.Increase the salary of ALL employees by 5%. Save the changes done to the database table

```
mysql> update employee set salary = (salary * 0.05) + salary;
Query OK, 19 rows affected (0.01 sec)
Rows matched: 19  Changed: 19  Warnings: 0

mysql> select * from employee;
+---------------+--------------+------------+------------+-------------+-----------+-----------------------+----------------+
| employeenumber | employeename | dob        | doj        | designation | salary    | managerEmployeeNumber | departmentcode |
+---------------+--------------+------------+------------+-------------+-----------+-----------------------+----------------+
|          7001 | Cynthya      | 1975-05-12 | 1997-02-14 | CEO         | 840000.00 |                  7001 | NULL           |
|          7002 | Mario        | 1976-02-14 | 1998-04-16 | MD          | 525000.00 |                  7001 | JavaCap        |
|          7003 | Jacob        | 1976-05-16 | 1998-05-16 | MD          | 420000.00 |                  7001 | .NETCap        |
|          7004 | Lucy         | 1978-05-15 | 2000-07-15 | MD          | 441000.00 |                  7001 | LKM            |
|          7005 | Amy          | 1978-09-16 | 2000-11-16 | SM          | 252000.00 |                  7002 | JavaCap        |
|          7006 | Frank        | 1978-09-17 | 2000-09-19 | SM          | 231000.00 |                  7003 | .NETCap        |
|          7007 | Phil         | 1974-12-11 | 2000-09-12 | SM          | 231000.00 |                  7004 | LKM            |
|          7008 | Arnold       | 1984-03-13 | 2000-04-01 | TL          |  84000.00 |                  7005 | JavaCap        |
|          7009 | Jack         | 1984-09-23 | 2000-06-23 | TL          |  92400.00 |                  7006 | .NETCap        |
|          7010 | Justin       | 1984-11-07 | 2000-02-09 | TL          |  90300.00 |                  7007 | LKM            |
|          7011 | Megan        | 1984-07-21 | 2002-09-19 | TL          |  91350.00 |                  7007 | LKM            |
|          7012 | Stuart       | 1980-05-23 | 2016-05-22 | SSE         |  36750.00 |                  7008 | JavaCap        |
|          7013 | Clarke       | 1994-02-24 | 2016-05-22 | SSE         |  33600.00 |                  7008 | JavaCap        |
|          7014 | Darwin       | 1992-05-03 | 2016-05-22 | SE          |  31500.00 |                  7009 | .NETCap        |
|          7015 | Chelsea      | 1994-01-19 | 2016-05-22 | SSE         |  39900.00 |                  7010 | LKM            |
|          7016 | Dan          | 1991-05-27 | 2016-07-07 | SE          |  31500.00 |                  7009 | .NETCap        |
|          7017 | Jimmy        | 1993-08-11 | 2016-07-07 | SE          |  33600.00 |                  7010 | LKM            |
|          7018 | James        | 1993-12-19 | 2016-07-07 | SE          |  36750.00 |                  NULL | .NETCap        |
|          7019 | Joseph       | 1992-12-31 | 2016-07-07 | SE          |  31500.00 |                  NULL | .NETCap        |
+---------------+--------------+------------+------------+-------------+-----------+-----------------------+----------------+
19 rows in set (0.00 sec)
```

2.Increase the salary of SSEs by 5% in addition to increase done in the previous statement. Save the changes done to the database table

```
mysql> update employee set salary = (salary * 0.05) + salary where designation = 'SSE';
Query OK, 3 rows affected (0.01 sec)
Rows matched: 3  Changed: 3  Warnings: 0

mysql> select * from employee;
+----------------+--------------+------------+------------+-------------+-----------+----------------------+----------------+
| employeenumber | employeename | dob        | doj        | designation | salary    | managerEmployeeNumber | departmentcode |
+----------------+--------------+------------+------------+-------------+-----------+----------------------+----------------+
|           7001 | Cynthya      | 1975-05-12 | 1997-02-14 | CEO         | 840000.00 |                 7001 | NULL           |
|           7002 | Mario        | 1976-02-14 | 1998-04-16 | MD          | 525000.00 |                 7001 | JavaCap        |
|           7003 | Jacob        | 1976-05-16 | 1998-05-16 | MD          | 420000.00 |                 7001 | .NETCap        |
|           7004 | Lucy         | 1978-05-15 | 2000-07-15 | MD          | 441000.00 |                 7001 | LKM            |
|           7005 | Amy          | 1978-09-16 | 2000-11-16 | SM          | 252000.00 |                 7002 | JavaCap        |
|           7006 | Frank        | 1978-09-17 | 2000-09-19 | SM          | 231000.00 |                 7003 | .NETCap        |
|           7007 | Phil         | 1974-12-11 | 2000-09-12 | SM          | 231000.00 |                 7004 | LKM            |
|           7008 | Arnold       | 1984-03-13 | 2000-04-01 | TL          |  84000.00 |                 7005 | JavaCap        |
|           7009 | Jack         | 1984-09-23 | 2000-06-23 | TL          |  92400.00 |                 7006 | .NETCap        |
|           7010 | Justin       | 1984-11-07 | 2000-02-09 | TL          |  90300.00 |                 7007 | LKM            |
|           7011 | Megan        | 1984-07-21 | 2002-09-19 | TL          |  91350.00 |                 7007 | LKM            |
|           7012 | Stuart       | 1980-05-23 | 2016-05-22 | SSE         |  38587.50 |                 7008 | JavaCap        |
|           7013 | Clarke       | 1994-02-24 | 2016-05-22 | SSE         |  35280.00 |                 7008 | JavaCap        |
|           7014 | Darwin       | 1992-05-03 | 2016-05-22 | SE          |  31500.00 |                 7009 | .NETCap        |
|           7015 | Chelsea      | 1994-01-19 | 2016-05-22 | SSE         |  41895.00 |                 7010 | LKM            |
|           7016 | Dan          | 1991-05-27 | 2016-07-07 | SE          |  31500.00 |                 7009 | .NETCap        |
|           7017 | Jimmy        | 1993-08-11 | 2016-07-07 | SE          |  33600.00 |                 7010 | LKM            |
|           7018 | James        | 1993-12-19 | 2016-07-07 | SE          |  36750.00 |                 NULL | .NETCap        |
|           7019 | Joseph       | 1992-12-31 | 2016-07-07 | SE          |  31500.00 |                 NULL | .NETCap        |
+----------------+--------------+------------+------------+-------------+-----------+----------------------+----------------+
19 rows in set (0.00 sec)
```

3.Delete ALL rows from "EmployeeProject" table. Undo the changes done to the database table

```
mysql> savepoint s1;
Query OK, 0 rows affected (0.00 sec)

mysql> select * from employeeProjects;
+----------------+-----------+------------+------------+
| employeenumber | projectid | startdate  | enddate    |
+----------------+-----------+------------+------------+
|           7004 | P2        | 2014-07-16 | 2015-05-11 |
|           7005 | P1        | 2014-07-01 | NULL       |
|           7006 | P1        | 2016-06-01 | NULL       |
|           7007 | P3        | 2015-05-11 | NULL       |
|           7012 | P1        | 2015-04-01 | NULL       |
|           7012 | P2        | 2016-06-01 | 2015-02-28 |
|           7013 | P2        | 2014-07-01 | 2014-11-11 |
|           7013 | P3        | 2015-02-28 | NULL       |
|           7014 | P3        | 2014-11-11 | NULL       |
|           7016 | P2        | 2014-07-16 | NULL       |
+----------------+-----------+------------+------------+
10 rows in set (0.00 sec)

mysql> delete from employeeProjects;
Query OK, 10 rows affected (0.00 sec)

mysql> select * from employeeProjects;
Empty set (0.00 sec)

mysql> rollback to s1;
Query OK, 0 rows affected (0.00 sec)

mysql> select * from employeeProjects;
+----------------+-----------+------------+------------+
| employeenumber | projectid | startdate  | enddate    |
+----------------+-----------+------------+------------+
|           7004 | P2        | 2014-07-16 | 2015-05-11 |
|           7005 | P1        | 2014-07-01 | NULL       |
|           7006 | P1        | 2016-06-01 | NULL       |
|           7007 | P3        | 2015-05-11 | NULL       |
|           7012 | P1        | 2015-04-01 | NULL       |
|           7012 | P2        | 2016-06-01 | 2015-02-28 |
|           7013 | P2        | 2014-07-01 | 2014-11-11 |
|           7013 | P3        | 2015-02-28 | NULL       |
|           7014 | P3        | 2014-11-11 | NULL       |
|           7016 | P2        | 2014-07-16 | NULL       |
+----------------+-----------+------------+------------+
10 rows in set (0.02 sec)
```

4.Delete rows from "EmployeProject" table if the employee is working for project 'P1'. Undo the changes done to the database table

```
mysql> savepoint s2;
Query OK, 0 rows affected (0.00 sec)

mysql> delete from employeeProjects where projectid = 'p1';
Query OK, 3 rows affected (0.00 sec)

mysql> select * from employeeProjects;
+----------------+-----------+------------+------------+
| employeenumber | projectid | startdate  | enddate    |
+----------------+-----------+------------+------------+
|           7004 | P2        | 2014-07-16 | 2015-05-11 |
|           7007 | P3        | 2015-05-11 | NULL       |
|           7012 | P2        | 2016-06-01 | 2015-02-28 |
|           7013 | P2        | 2014-07-01 | 2014-11-11 |
|           7013 | P3        | 2015-02-28 | NULL       |
|           7014 | P3        | 2014-11-11 | NULL       |
|           7016 | P2        | 2014-07-16 | NULL       |
+----------------+-----------+------------+------------+
7 rows in set (0.00 sec)

mysql> rollback to s2;
Query OK, 0 rows affected (0.00 sec)

mysql> select * from employeeProjects;
+----------------+-----------+------------+------------+
| employeenumber | projectid | startdate  | enddate    |
+----------------+-----------+------------+------------+
|           7004 | P2        | 2014-07-16 | 2015-05-11 |
|           7005 | P1        | 2014-07-01 | NULL       |
|           7006 | P1        | 2016-06-01 | NULL       |
|           7007 | P3        | 2015-05-11 | NULL       |
|           7012 | P1        | 2015-04-01 | NULL       |
|           7012 | P2        | 2016-06-01 | 2015-02-28 |
|           7013 | P2        | 2014-07-01 | 2014-11-11 |
|           7013 | P3        | 2015-02-28 | NULL       |
|           7014 | P3        | 2014-11-11 | NULL       |
|           7016 | P2        | 2014-07-16 | NULL       |
+----------------+-----------+------------+------------+
10 rows in set (0.00 sec)
```

1.Display EmployeeName, Designation and Salary for ALL the employees

```
mysql> select employeename, designation, salary from employee;
+--------------+-------------+-----------+
| employeename | designation | salary    |
+--------------+-------------+-----------+
| Cynthya      | CEO         | 840000.00 |
| Mario        | MD          | 525000.00 |
| Jacob        | MD          | 420000.00 |
| Lucy         | MD          | 441000.00 |
| Amy          | SM          | 252000.00 |
| Frank        | SM          | 231000.00 |
| Phil         | SM          | 231000.00 |
| Arnold       | TL          |  84000.00 |
| Jack         | TL          |  92400.00 |
| Justin       | TL          |  90300.00 |
| Megan        | TL          |  91350.00 |
| Stuart       | SSE         |  38587.50 |
| Clarke       | SSE         |  35280.00 |
| Darwin       | SE          |  31500.00 |
| Chelsea      | SSE         |  41895.00 |
| Dan          | SE          |  31500.00 |
| Jimmy        | SE          |  33600.00 |
| James        | SE          |  36750.00 |
| Joseph       | SE          |  31500.00 |
+--------------+-------------+-----------+
19 rows in set (0.00 sec)
```

2.Display different designations in the company (Each designation should be displayed only once)

```
mysql> select distinct designation from employee;
+-------------+
| designation |
+-------------+
| CEO         |
| MD          |
| SM          |
| TL          |
| SSE         |
| SE          |
+-------------+
6 rows in set (0.00 sec)
```

3.Display EmployeeName and Salary of SSEs whose salary is more than 35000

```
mysql> select employeename, salary from employee where designation = 'SSE' and salary > 35000;
+--------------+----------+
| employeename | salary   |
+--------------+----------+
| Stuart       | 38587.50 |
| Clarke       | 35280.00 |
| Chelsea      | 41895.00 |
+--------------+----------+
3 rows in set (0.00 sec)
```

4.Display EmployeeName, Designation and Salary of SM, SSE and SE

```
mysql> select employeename, designation, salary from employee where designation = 'SM' or designation = 'SSE' or designation = 'SE';
+--------------+-------------+-----------+
| employeename | designation | salary    |
+--------------+-------------+-----------+
| Amy          | SM          | 252000.00 |
| Frank        | SM          | 231000.00 |
| Phil         | SM          | 231000.00 |
| Stuart       | SSE         |  38587.50 |
| Clarke       | SSE         |  35280.00 |
| Darwin       | SE          |  31500.00 |
| Chelsea      | SSE         |  41895.00 |
| Dan          | SE          |  31500.00 |
| Jimmy        | SE          |  33600.00 |
| James        | SE          |  36750.00 |
| Joseph       | SE          |  31500.00 |
+--------------+-------------+-----------+
11 rows in set (0.00 sec)
```

5.Display EmployeeName and DateOfJoining of employees who have joined in the year 2000

```
mysql> select employeename, doj from employee where doj like '2000%';
+--------------+------------+
| employeename | doj        |
+--------------+------------+
| Lucy         | 2000-07-15 |
| Amy          | 2000-11-16 |
| Frank        | 2000-09-19 |
| Phil         | 2000-09-12 |
| Arnold       | 2000-04-01 |
| Jack         | 2000-06-23 |
| Justin       | 2000-02-09 |
+--------------+------------+
7 rows in set, 1 warning (0.00 sec)
```

6.Display EmployeeName, DateofBirth and Age of ALL employees (Age is not a database column. Needs to be computed. In Oracle, SYSDATE contains the current date)

```
mysql> select employeename, dob, timestampdiff(year, dob, sysdate()) as age from employee;
+--------------+------------+------+
| employeename | dob        | age  |
+--------------+------------+------+
| Cynthya      | 1975-05-12 |   46 |
| Mario        | 1976-02-14 |   46 |
| Jacob        | 1976-05-16 |   45 |
| Lucy         | 1978-05-15 |   43 |
| Amy          | 1978-09-16 |   43 |
| Frank        | 1978-09-17 |   43 |
| Phil         | 1974-12-11 |   47 |
| Arnold       | 1984-03-13 |   37 |
| Jack         | 1984-09-23 |   37 |
| Justin       | 1984-11-07 |   37 |
| Megan        | 1984-07-21 |   37 |
| Stuart       | 1980-05-23 |   41 |
| Clarke       | 1994-02-24 |   27 |
| Darwin       | 1992-05-03 |   29 |
| Chelsea      | 1994-01-19 |   28 |
| Dan          | 1991-05-27 |   30 |
| Jimmy        | 1993-08-11 |   28 |
| James        | 1993-12-19 |   28 |
| Joseph       | 1992-12-31 |   29 |
+--------------+------------+------+
19 rows in set (0.00 sec)
```

7.Display EmployeeName and Salary of employees whose salary is in the range INR 50,000 to INR 100,000

```
mysql> select employeename, salary from employee where salary between 50000 and 100000;
+--------------+----------+
| employeename | salary   |
+--------------+----------+
| Arnold       | 84000.00 |
| Jack         | 92400.00 |
| Justin       | 90300.00 |
| Megan        | 91350.00 |
+--------------+----------+
4 rows in set (0.00 sec)
```

8.Display EmployeeName of employees whose name starts with ‘J’

```
mysql> select employeename from employee where employeename like 'J%';
+--------------+
| employeename |
+--------------+
| Jacob        |
| Jack         |
| Justin       |
| Jimmy        |
| James        |
| Joseph       |
+--------------+
6 rows in set (0.01 sec)
```

9.Display EmployeeName of employees whose name ends with ‘k’

```
mysql> select employeename from employee where employeename like '%k';
+--------------+
| employeename |
+--------------+
| Frank        |
| Jack         |
+--------------+
2 rows in set (0.00 sec)
```

10.Display EmployeeName of employees whose names contains ‘a’ as the second letter

```
mysql> select employeename from employee where employeename like '_a%';
+--------------+
| employeename |
+--------------+
| Mario        |
| Jacob        |
| Jack         |
| Darwin       |
| Dan          |
| James        |
+--------------+
6 rows in set (0.00 sec)
```

11.Display EmployeeName of employees whose names contains only three letters

```
mysql> select employeename from employee where employeename like '___';
+--------------+
| employeename |
+--------------+
| Amy          |
| Dan          |
+--------------+
2 rows in set (0.00 sec)
```

12.Display EmployeeName and Designation of MDs whose name starts with ‘M’

```
mysql> select employeename, designation from employee where designation = 'MD' and employeename like 'M%';
+--------------+-------------+
| employeename | designation |
+--------------+-------------+
| Mario        | MD          |
+--------------+-------------+
1 row in set (0.00 sec)
```

13.Display EmployeeName and DateOfJoining of employees who have joined in the month of 'MAY'

```
mysql> select employeename, doj from employee where doj like '_____05%';
+--------------+------------+
| employeename | doj        |
+--------------+------------+
| Jacob        | 1998-05-16 |
| Stuart       | 2016-05-22 |
| Clarke       | 2016-05-22 |
| Darwin       | 2016-05-22 |
| Chelsea      | 2016-05-22 |
+--------------+------------+
5 rows in set, 1 warning (0.00 sec)
```

1.Display EmployeeName and Salary of ALL employees in the alphabetical order ('A' to 'z') of EmployeeName

```
mysql> select employeename, salary from employee order by employeename;
+--------------+-----------+
| employeename | salary    |
+--------------+-----------+
| Amy          | 252000.00 |
| Arnold       |  84000.00 |
| Chelsea      |  41895.00 |
| Clarke       |  35280.00 |
| Cynthya      | 840000.00 |
| Dan          |  31500.00 |
| Darwin       |  31500.00 |
| Frank        | 231000.00 |
| Jack         |  92400.00 |
| Jacob        | 420000.00 |
| James        |  36750.00 |
| Jimmy        |  33600.00 |
| Joseph       |  31500.00 |
| Justin       |  90300.00 |
| Lucy         | 441000.00 |
| Mario        | 525000.00 |
| Megan        |  91350.00 |
| Phil         | 231000.00 |
| Stuart       |  38587.50 |
+--------------+-----------+
19 rows in set (0.00 sec)
```

2.Display EmployeeName and DateOfBirth of ALL employees in the order of eldest to youngest

```
mysql> select employeename, dob from employee order by dob;
+--------------+------------+
| employeename | dob        |
+--------------+------------+
| Phil         | 1974-12-11 |
| Cynthya      | 1975-05-12 |
| Mario        | 1976-02-14 |
| Jacob        | 1976-05-16 |
| Lucy         | 1978-05-15 |
| Amy          | 1978-09-16 |
| Frank        | 1978-09-17 |
| Stuart       | 1980-05-23 |
| Arnold       | 1984-03-13 |
| Megan        | 1984-07-21 |
| Jack         | 1984-09-23 |
| Justin       | 1984-11-07 |
| Dan          | 1991-05-27 |
| Darwin       | 1992-05-03 |
| Joseph       | 1992-12-31 |
| Jimmy        | 1993-08-11 |
| James        | 1993-12-19 |
| Chelsea      | 1994-01-19 |
| Clarke       | 1994-02-24 |
+--------------+------------+
19 rows in set (0.00 sec)
```

3.Display EmployeeName and Salary of ALL employees in the decreasing order of Salary

```
mysql> select employeename, salary from employee order by salary desc;
+--------------+-----------+
| employeename | salary    |
+--------------+-----------+
| Cynthya      | 840000.00 |
| Mario        | 525000.00 |
| Lucy         | 441000.00 |
| Jacob        | 420000.00 |
| Amy          | 252000.00 |
| Frank        | 231000.00 |
| Phil         | 231000.00 |
| Jack         |  92400.00 |
| Megan        |  91350.00 |
| Justin       |  90300.00 |
| Arnold       |  84000.00 |
| Chelsea      |  41895.00 |
| Stuart       |  38587.50 |
| James        |  36750.00 |
| Clarke       |  35280.00 |
| Jimmy        |  33600.00 |
| Darwin       |  31500.00 |
| Dan          |  31500.00 |
| Joseph       |  31500.00 |
+--------------+-----------+
19 rows in set (0.00 sec)
```

4.Display EmployeeName and Salary of ALL employees in the decreasing order of Salary and in the alphabetical order of ('A' to 'z') EmployeeName if the salary is same

```
mysql> select employeename, salary from employee order by salary desc, employeename;
+--------------+-----------+
| employeename | salary    |
+--------------+-----------+
| Cynthya      | 840000.00 |
| Mario        | 525000.00 |
| Lucy         | 441000.00 |
| Jacob        | 420000.00 |
| Amy          | 252000.00 |
| Frank        | 231000.00 |
| Phil         | 231000.00 |
| Jack         |  92400.00 |
| Megan        |  91350.00 |
| Justin       |  90300.00 |
| Arnold       |  84000.00 |
| Chelsea      |  41895.00 |
| Stuart       |  38587.50 |
| James        |  36750.00 |
| Clarke       |  35280.00 |
| Jimmy        |  33600.00 |
| Dan          |  31500.00 |
| Darwin       |  31500.00 |
| Joseph       |  31500.00 |
+--------------+-----------+
19 rows in set (0.00 sec)
```

5.Display EmployeeName,Designation and Salary of TLs in the decreasing order of Salary

```
mysql> select employeename, designation, salary from employee where designation = 'TL' order by salary desc;
+--------------+-------------+----------+
| employeename | designation | salary   |
+--------------+-------------+----------+
| Jack         | TL          | 92400.00 |
| Megan        | TL          | 91350.00 |
| Justin       | TL          | 90300.00 |
| Arnold       | TL          | 84000.00 |
+--------------+-------------+----------+
4 rows in set (0.00 sec)
```