MYSQL ASSIGNMENT

```
CREATE TABLE ITEM
(
 ITEMCODE VARCHAR(10)  PRIMARY KEY
, ITEMNAME VARCHAR(200) NOT NULL
, MANUFACTURERNAME VARCHAR(200)
, UNITPRICE NUMERIC(10,2) CHECK(UNITPRICE>0)
, MANUFACTURINGYEAR DATE
, ITEMCATEGORY VARCHAR(20)
);

INSERT INTO ITEM VALUES ('IT101', 'LED32Inch' , 'Samsung' , 15000 , '2015-11-14' , 'Television');

INSERT INTO ITEM VALUES ('IT102', 'GlaxyS5' , 'Samsung' , 13000 , '2016-04-16' , 'Mobile');

INSERT INTO ITEM VALUES ('IT103', 'FrontLoad' , 'Samsung' , 20000 , '2016-05-23' ,
'WashingMachine');

INSERT INTO ITEM VALUES ('IT104', 'DualDoor' , 'Samsung' , 12000, '2015-11-20' , 'Refrigerator');

INSERT INTO ITEM VALUES ('IT105', 'Pencils' , 'Natraj' , 2, '2016-01-11' , 'Stationery');

INSERT INTO ITEM VALUES ('IT106', 'LED32Inch' , 'LG' , 19000 , '2016-01-01' , 'Television');

INSERT INTO ITEM VALUES ('IT107', 'LG G5 Sliver' , 'LG' , 11000 , '2015-11-20' , 'Mobile');

INSERT INTO ITEM VALUES ('IT108', 'TopLoad' , 'LG' , 25000, '2016-04-18' , 'WashingMachine');

INSERT INTO ITEM VALUES ('IT109', 'FourDoor' , 'LG' ,18000, '2016-05-18' , 'Refrigerator');

INSERT INTO ITEM VALUES ('IT110', 'Erasers' , 'Camlin' , 5 , '2016-01-15' , 'Stationery');

INSERT INTO ITEM VALUES ('IT111', 'LED32Inch' , 'Sony' , 22000 , '2016-03-14' , 'Television');

INSERT INTO ITEM VALUES ('IT112', 'Sony Xperia Z5' , 'Sony' , 9000, '2015-12-14' , 'Mobile');

INSERT INTO ITEM VALUES ('IT113', 'FullyAutomatic' , 'Sony' , 22000 , '2015-12-13' ,
'WashingMachine');

 INSERT INTO ITEM VALUES ('IT114', 'ThreeDoorNormal' , 'Sony' , 19000 , '2016-06-14' ,
'Refrigerator');

INSERT INTO ITEM VALUES ('IT115', 'Pens' , 'Faber Castell' , 10 , '2016-01-11' , 'Stationery');
```

INSERT INTO ITEM VALUES ('IT116', 'LED32Inch' , 'Onida' , 20000, '2016-02-19' , 'Television');

INSERT INTO ITEM VALUES ('IT117', 'Onida i505' , 'Onida' , 10000, '2016-04-23' , 'Mobile');

INSERT INTO ITEM VALUES ('IT118', 'SemiAutoMatic' , 'Onida' , 11000 , '2015-12-13' , 'WashingMachine');

INSERT INTO ITEM VALUES ('IT119', 'ThreeDoorLux' , 'Onida' ,18000, '2016-06-19' , 'Refrigerator');

INSERT INTO ITEM VALUES ('IT120', 'Sharpner' , 'Apsara' , 5, '2016-01-21' , 'Stationery');

INSERT INTO ITEM VALUES ('IT121', 'LED50Inch' , 'Onida' , 48000 , '2015-03-25' , 'Television');
INSERT INTO ITEM VALUES ('IT122', 'ThreeDoor' , 'Thomson' , 21000 , '2017-05-25', 'Refrigerator');

INSERT INTO ITEM VALUES ('IT123', 'LED50Inch' , 'LG' , '38000' , '2019-07-28', 'Television');

INSERT INTO ITEM VALUES ('IT124', 'ThreeDoor' , 'Samsung' , 22000 , '2022-03-25', 'Refrigerator');

INSERT INTO ITEM VALUES ('IT125', 'FourDoor' , 'Samsung' , 21000 , '2010-06-10', 'Refrigerator');

commit;

```
mysql> select * from Item;
+----------+-----------------+------------------+-----------+------------------+----------------+
| ITEMCODE | ITEMNAME        | MANUFACTURERNAME | UNITPRICE | MANUFACTURINGYEAR | ITEMCATEGORY   |
+----------+-----------------+------------------+-----------+------------------+----------------+
| IT101    | LED32Inch       | Samsung          |  15000.00 | 2015-11-14        | Television     |
| IT102    | GlaxyS5         | Samsung          |  13000.00 | 2016-04-16        | Mobile         |
| IT103    | FrontLoad       | Samsung          |  20000.00 | 2016-05-23        | WashingMachine |
| IT104    | DualDoor        | Samsung          |  12000.00 | 2015-11-20        | Refrigerator   |
| IT105    | Pencils         | Natraj           |      2.00 | 2016-01-11        | Stationery     |
| IT106    | LED32Inch       | LG               |  19000.00 | 2016-01-01        | Television     |
| IT107    | LG G5 Sliver    | LG               |  11000.00 | 2015-11-20        | Mobile         |
| IT108    | TopLoad         | LG               |  25000.00 | 2016-04-18        | WashingMachine |
| IT109    | FourDoor        | LG               |  18000.00 | 2016-05-18        | Refrigerator   |
| IT110    | Erasers         | Camlin           |      5.00 | 2016-01-15        | Stationery     |
| IT111    | LED32Inch       | Sony             |  22000.00 | 2016-03-14        | Television     |
| IT112    | Sony Xperia Z5  | Sony             |   9000.00 | 2015-12-14        | Mobile         |
| IT113    | FullyAutomatic  | Sony             |  22000.00 | 2015-12-13        | WashingMachine |
| IT114    | ThreeDoorNormal | Sony             |  19000.00 | 2016-06-14        | Refrigerator   |
| IT115    | Pens            | Faber Castell    |     10.00 | 2016-01-11        | Stationery     |
| IT116    | LED32Inch       | Onida            |  20000.00 | 2016-02-19        | Television     |
| IT117    | Onida i505      | Onida            |  10000.00 | 2016-04-23        | Mobile         |
| IT118    | SemiAutoMatic   | Onida            |  11000.00 | 2015-12-13        | WashingMachine |
| IT119    | ThreeDoorLux    | Onida            |  18000.00 | 2016-06-19        | Refrigerator   |
| IT120    | Sharpner        | Apsara           |      5.00 | 2016-01-21        | Stationery     |
| IT121    | LED50Inch       | Onida            |  48000.00 | 2015-03-25        | Television     |
| IT122    | ThreeDoor       | Thomson          |  21000.00 | 2017-05-25        | Refrigerator   |
| IT123    | LED50Inch       | LG               |  38000.00 | 2019-07-28        | Television     |
| IT124    | ThreeDoor       | Samsung          |  22000.00 | 2022-03-25        | Refrigerator   |
| IT125    | FourDoor        | Samsung          |  21000.00 | 2010-06-10        | Refrigerator   |
+----------+-----------------+------------------+-----------+------------------+----------------+
25 rows in set (0.00 sec)
```

CREATE TABLE CUSTOMER

(

```
CUSTOMERID NUMERIC  PRIMARY KEY
, CUSTOMERNAME VARCHAR(200)  NOT NULL
, ADDRESS VARCHAR(300)
, PHONENUMBER VARCHAR(10)
, CUSTOMERMAILID VARCHAR(20)
);

INSERT INTO CUSTOMER VALUES ('1001', 'Mario' , 'Street: 1, Cross: 2, Town: 3, Pin: 1231' , '1234567890' , 'Mario@xyz.com');
INSERT INTO CUSTOMER VALUES ('1002', 'Megan' , 'Street: 1, Cross: 2, Town: 3, Pin: 1231' , '1234567891' , 'Megan@xyz.com');
INSERT INTO CUSTOMER VALUES ('1003', 'Amy' , 'Street: 1, Cross: 2, Town: 3, Pin: 1231' , '1234567892' , 'Amy@xyz.com');
INSERT INTO CUSTOMER VALUES ('1004', 'Stuart' , 'Street: 1, Cross: 2, Town: 3, Pin: 1231' , '1234567893' , 'Stuart@xyz.com');
INSERT INTO CUSTOMER VALUES ('1005', 'Phil' , 'Street: 2, Cross: 4, Town: 5, Pin: 1232' , '1234567894' , 'Phil@xyz.com');
INSERT INTO CUSTOMER VALUES ('1006', 'Jacob' , 'Street: 2, Cross: 4, Town: 5, Pin: 1232' , '1234567895' , 'Jacob@xyz.com');
INSERT INTO CUSTOMER VALUES ('1007', 'James' , 'Street: 2, Cross: 4, Town: 5, Pin: 1232' , '1234567896' , 'James@xyz.com');
INSERT INTO CUSTOMER VALUES ('1008', 'Dan' , 'Street: 2, Cross: 4, Town: 5, Pin: 1232' , '1234567897' , 'Dan@xyz.com');
INSERT INTO CUSTOMER VALUES ('1009', 'Henry' , 'Street: 12, Cross: 4, Town: 15, Pin: 1235' , '1234567898' , 'Henry@xyz.com');
INSERT INTO CUSTOMER VALUES ('1010', 'Eric' , 'Street: 12, Cross: 4, Town: 15, Pin: 1235' , '1234567899' , 'Eric@xyz.com');
INSERT INTO CUSTOMER VALUES ('1011', 'Ken' , 'Street: 12, Cross: 4, Town: 15, Pin: 1235' , '1234567900' , 'Ken@xyz.com');
INSERT INTO CUSTOMER VALUES ('1012', 'Mecon' , 'Street: 14, Cross: 6, Town: 16, Pin: 1236' , '1234567901' , 'Mecon@xyz.com');
INSERT INTO CUSTOMER VALUES ('1013', 'Merlin' , 'Street: 14, Cross: 5, Town: 16, Pin: 1236' , '1234567902' , 'Merlin@xyz.com');
INSERT INTO CUSTOMER VALUES ('1014', 'Morgan' , 'Street: 14, Cross: 5, Town: 16, Pin: 1236' , '1234567903' , 'Morgan@xyz.com');
commit;
```

```
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 | 1234567900  | Ken@xyz.com    |
|       1012 | Mecon        | Street: 14, Cross: 6, Town: 16, Pin: 1236 | 1234567901  | Mecon@xyz.com  |
|       1013 | Merlin       | Street: 14, Cross: 5, Town: 16, Pin: 1236 | 1234567902  | Merlin@xyz.com |
|       1014 | Morgan       | Street: 14, Cross: 5, Town: 16, Pin: 1236 | 1234567903  | Morgan@xyz.com |
+------------+--------------+-----------------------------------------+-------------+----------------+
14 rows in set (0.00 sec)
```

```
CREATE TABLE ORDERMASTER
(
 ORDERID NUMERIC PRIMARY KEY
, ORDERDATE DATE  NOT NULL
, TOTALORDERAMOUNT NUMERIC(10,2)  NOT NULL
, CUSTOMERID NUMERIC NOT NULL

, CONSTRAINT ORDERMASTER_CHK1 CHECK(TOTALORDERAMOUNT>0)

, CONSTRAINT ORDER_MASTER_CUST_FK1 FOREIGN KEY (CUSTOMERID) REFERENCES
CUSTOMER(CUSTOMERID)
);

INSERT INTO ORDERMASTER VALUES ('70001', '2016-07-07', '49000', '1001');

INSERT INTO ORDERMASTER VALUES ('70002', '2016-06-27', '82000', '1006');

INSERT INTO ORDERMASTER VALUES ('70003', '2016-07-09', '200', '1005');

INSERT INTO ORDERMASTER VALUES ('70004', '2016-07-10', '46000', '1006');

INSERT INTO ORDERMASTER VALUES ('70005', '2016-06-20', '48000', '1005');

INSERT INTO ORDERMASTER VALUES ('70006', '2016-07-10', '200', '1006');

INSERT INTO ORDERMASTER VALUES ('70007', '2016-07-20', '49000', '1005');

commit;
```

```
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 | 2016-07-10 |           200.00 |       1006 |
|   70007 | 2016-07-20 |         49000.00 |       1005 |
+---------+-----------+-----------------+------------+
7 rows in set (0.00 sec)
```

```
CREATE TABLE ORDERTRANSACTION
(
ORDERID NUMERIC REFERENCES ORDERMASTER(ORDERID)
, ITEMCODE VARCHAR(10) REFERENCES ITEM(ITEMCODE)
, QTYORDERED NUMERIC(2) CHECK(QTYORDERED>0)
, CONSTRAINT ORDERTRANSACTION_PK PRIMARY KEY (ORDERID, ITEMCODE)
);

INSERT INTO ORDERTRANSACTION VALUES ('70001', 'IT101', '2');
INSERT INTO ORDERTRANSACTION VALUES ('70001', 'IT114', '1');
INSERT INTO ORDERTRANSACTION VALUES ('70002', 'IT111', '2');
INSERT INTO ORDERTRANSACTION VALUES ('70002', 'IT103', '1');
INSERT INTO ORDERTRANSACTION VALUES ('70002', 'IT109', '1');
INSERT INTO ORDERTRANSACTION VALUES ('70003', 'IT115', '20');
INSERT INTO ORDERTRANSACTION          ('70004', 'IT117', '2');
INSERT INTO ORDERTRANSACTION VALUES ('70004', 'IT102', '2');
INSERT INTO ORDERTRANSACTION VALUES ('70005', 'IT121', '1');
INSERT INTO ORDERTRANSACTION VALUES ('70006', 'IT115', '20');
INSERT INTO ORDERTRANSACTION VALUES ('70007', 'IT101', '2');
INSERT INTO ORDERTRANSACTION VALUES ('70007', 'IT114', '1');
Commit;
```

```
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 (0.04 sec)
```

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

   SELECT ItemCode, ItemName, ItemCategory from Item where UnitPrice<500;

```
mysql> SELECT  ItemCode, ItemName, ItemCategory from Item where  UnitPrice<500;
+----------+----------+--------------+
| ItemCode | ItemName | ItemCategory |
+----------+----------+--------------+
| IT105    | Pencils  | Stationery   |
| IT110    | Erasers  | Stationery   |
| IT115    | Pens     | Stationery   |
| IT120    | Sharpner | 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).**

   SELECT ItemCode, ItemName, ItemCategory from Item where UnitPrice Between 10000 AND 20000;

```
mysql> SELECT  ItemCode, ItemName, ItemCategory from Item where  UnitPrice Between 10000 AND 20000;
+----------+----------------+----------------+
| ItemCode | ItemName       | ItemCategory   |
+----------+----------------+----------------+
| IT101    | LED32Inch      | Television     |
| IT102    | GlaxyS5        | Mobile         |
| IT103    | FrontLoad      | WashingMachine |
| IT104    | DualDoor       | Refrigerator   |
| IT106    | LED32Inch      | Television     |
| IT107    | LG G5 Sliver   | Mobile         |
| IT109    | FourDoor       | Refrigerator   |
| IT114    | ThreeDoorNormal | Refrigerator   |
| IT116    | LED32Inch      | Television     |
| IT117    | Onida i505     | Mobile         |
| IT118    | SemiAutoMatic  | WashingMachine |
| IT119    | ThreeDoorLux   | Refrigerator   |
+----------+----------------+----------------+
12 rows in set (0.00 sec)
```

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

   Select ItemCode , ManufacturerName from Item where ItemCategory = 'Television'and UnitPrice >15000;

```
mysql> Select ItemCode , ManufacturerName from Item where ItemCategory = 'Television' and UnitPrice >15000;
+----------+------------------+
| ItemCode | ManufacturerName |
+----------+------------------+
| IT106    | 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".**

   Select ItemName,ManufacturerName,UnitPrice from Item where ItemCategory IN('Television','Mobile','WashingMachine');

```
mysql> Select ItemName,ManufacturerName,UnitPrice from Item where ItemCategory IN('Television','Mobile','WashingMachine');
+---------------+------------------+-----------+
| ItemName      | ManufacturerName | UnitPrice |
+---------------+------------------+-----------+
| LED32Inch     | Samsung          |  15000.00 |
| GlaxyS5       | Samsung          |  13000.00 |
| FrontLoad     | Samsung          |  20000.00 |
| LED32Inch     | LG               |  19000.00 |
| LG G5 Sliver  | LG               |  11000.00 |
| TopLoad       | LG               |  25000.00 |
| LED32Inch     | Sony             |  22000.00 |
| Sony Xperia Z5| Sony             |   9000.00 |
| FullyAutomatic| Sony             |  22000.00 |
| LED32Inch     | Onida            |  20000.00 |
| Onida i505    | Onida            |  10000.00 |
| SemiAutoMatic | Onida            |  11000.00 |
| LED50Inch     | Onida            |  48000.00 |
| LED50Inch     | LG               |  38000.00 |
+---------------+------------------+-----------+
14 rows in set (0.00 sec)
```

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

   Select ItemCode, ItemName, ManufacturerName from item where MANUFACTURINGYEAR Like '2015%';

```
mysql> Select ItemCode, ItemName, ManufacturerName from item where MANUFACTURINGYEAR Like  '2015%';
+----------+---------------+------------------+
| ItemCode | ItemName      | ManufacturerName |
+----------+---------------+------------------+
| IT101    | LED32Inch     | Samsung          |
| IT104    | DualDoor      | Samsung          |
| IT107    | LG G5 Sliver  | LG               |
| IT112    | Sony Xperia Z5| Sony             |
| IT113    | FullyAutomatic| Sony             |
| IT118    | SemiAutoMatic | Onida            |
| IT121    | LED50Inch     | Onida            |
+----------+---------------+------------------+
7 rows in set, 1 warning (0.00 sec)
```

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

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

Select ItemCode, ItemName, UnitPrice, UnitPrice+(2.0/100)*UnitPrice As VAT_UNITPRICE from item where ItemCategory = 'Refrigerator';

```
mysql> Select  ItemCode, ItemName, UnitPrice, UnitPrice+(2/100)*UnitPrice As VAT_UNITPRICE from item where ItemCategory = 'Refrigerator';
+----------+---------------+-----------+--------------+
| ItemCode | ItemName      | UnitPrice | VAT_UNITPRICE |
+----------+---------------+-----------+--------------+
| IT104    | DualDoor      |  12000.00 |  12240.000000 |
| IT109    | FourDoor      |  18000.00 |  18360.000000 |
| IT114    | ThreeDoorNormal|  19000.00 |  19380.000000 |
| IT119    | ThreeDoorLux  |  18000.00 |  18360.000000 |
| IT122    | ThreeDoor     |  21000.00 |  21420.000000 |
| IT124    | ThreeDoor     |  22000.00 |  22440.000000 |
| IT125    | FourDoor      |  21000.00 |  21420.000000 |
+----------+---------------+-----------+--------------+
7 rows in set (0.00 sec)
```

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

Select CustomerName , PhoneNumber from customer where CustomerName Like 'J%';

```
mysql> Select CustomerName , PhoneNumber  from customer where  CustomerName Like 'J%';
+--------------+-------------+
| CustomerName | PhoneNumber |
+--------------+-------------+
| Jacob        | 1234567895  |
| James        | 1234567896  |
+--------------+-------------+
2 rows in set (0.04 sec)
```

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

Select CustomerName , PhoneNumber from customer where CustomerName Like '%an';

```
mysql> Select CustomerName , PhoneNumber  from customer where  CustomerName Like '%an';
+--------------+-------------+
| CustomerName | PhoneNumber |
+--------------+-------------+
| Megan        | 1234567891  |
| Dan          | 1234567897  |
| Morgan       | 1234567903  |
+--------------+-------------+
3 rows in set (0.00 sec)
```

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

Select CustomerName , PhoneNumber from customer where CustomerName Like 'M%n';

```
mysql> Select CustomerName , PhoneNumber  from customer where  CustomerName Like 'M%n';
+--------------+-------------+
| CustomerName | PhoneNumber |
+--------------+-------------+
| Megan        | 1234567891  |
| Mecon        | 1234567901  |
| Merlin       | 1234567902  |
| Morgan       | 1234567903  |
+--------------+-------------+
4 rows in set (0.00 sec)
```

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

Select CustomerName , PhoneNumber from customer where CustomerName Like '___';

```
mysql> Select CustomerName , PhoneNumber  from customer where  CustomerName Like '___';
+--------------+-------------+
| CustomerName | PhoneNumber |
+--------------+-------------+
| Amy          | 1234567892  |
| Dan          | 1234567897  |
| Ken          | 1234567900  |
+--------------+-------------+
3 rows in set (0.00 sec)
```

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

Select CustomerName , PhoneNumber from customer where CustomerName Like

'_a%';

```
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    | LED50Inch      | Onida            |  48000.00 |
| IT123    | LED50Inch      | LG               |  38000.00 |
| IT108    | TopLoad        | LG               |  25000.00 |
| IT113    | FullyAutomatic | Sony             |  22000.00 |
| IT124    | ThreeDoor      | Samsung          |  22000.00 |
| IT111    | LED32Inch      | Sony             |  22000.00 |
| IT122    | ThreeDoor      | Thomson          |  21000.00 |
| IT125    | FourDoor       | Samsung          |  21000.00 |
| IT103    | FrontLoad      | Samsung          |  20000.00 |
| IT116    | LED32Inch      | Onida            |  20000.00 |
| IT106    | LED32Inch      | LG               |  19000.00 |
| IT114    | ThreeDoorNormal | Sony            |  19000.00 |
| IT109    | FourDoor       | LG               |  18000.00 |
| IT119    | ThreeDoorLux   | Onida            |  18000.00 |
| IT101    | LED32Inch      | Samsung          |  15000.00 |
| IT102    | GlaxyS5        | Samsung          |  13000.00 |
| IT104    | DualDoor       | Samsung          |  12000.00 |
| IT118    | SemiAutoMatic  | Onida            |  11000.00 |
| IT107    | LG G5 Sliver   | LG               |  11000.00 |
| IT117    | Onida i505     | Onida            |  10000.00 |
| IT112    | Sony Xperia Z5 | Sony             |   9000.00 |
| IT115    | Pens           | Faber Castell    |     10.00 |
| IT110    | Erasers        | Camlin           |      5.00 |
| IT120    | Sharpner       | Apsara           |      5.00 |
| IT105    | Pencils        | Natraj           |      2.00 |
+----------+----------------+------------------+-----------+
25 rows in set (0.00 sec)
```

14. **Display CustomerName and Address of customers in the alphabetical order (A to Z) of CustomerName. select CustomerName, Address from customer order by 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: 14, Cross: 6, Town: 16, Pin: 1236 |
| Megan        | Street: 1, Cross: 2, Town: 3, Pin: 1231 |
| Merlin       | Street: 14, Cross: 5, Town: 16, Pin: 1236 |
| Morgan       | Street: 14, Cross: 5, Town: 16, Pin: 1236 |
| 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).**

Select ItemCode, ItemName, ManufacturerName ,UnitPrice from Item Order By UnitPrice ASC ,ManufacturerName DESC;

```
mysql> select ItemCode, ItemName, ManufacturerName ,UnitPrice from Item Order By UnitPrice ASC ,ManufacturerName DESC;
+----------+----------------+------------------+-----------+
| ItemCode | ItemName       | ManufacturerName | UnitPrice |
+----------+----------------+------------------+-----------+
| IT105    | Pencils        | Natraj           |      2.00 |
| IT110    | Erasers        | Camlin           |      5.00 |
| IT120    | Sharpner       | Apsara           |      5.00 |
| IT115    | Pens           | Faber Castell    |     10.00 |
| IT112    | Sony Xperia Z5 | Sony             |   9000.00 |
| IT117    | Onida i505     | Onida            |  10000.00 |
| IT118    | SemiAutoMatic  | Onida            |  11000.00 |
| IT107    | LG G5 Sliver   | LG               |  11000.00 |
| IT104    | DualDoor       | Samsung          |  12000.00 |
| IT102    | GlaxyS5        | Samsung          |  13000.00 |
| IT101    | LED32Inch      | Samsung          |  15000.00 |
| IT119    | ThreeDoorLux   | Onida            |  18000.00 |
| IT109    | FourDoor       | LG               |  18000.00 |
| IT114    | ThreeDoorNormal| Sony             |  19000.00 |
| IT106    | LED32Inch      | LG               |  19000.00 |
| IT103    | FrontLoad      | Samsung          |  20000.00 |
| IT116    | LED32Inch      | Onida            |  20000.00 |
| IT122    | ThreeDoor      | Thomson          |  21000.00 |
| IT125    | FourDoor       | Samsung          |  21000.00 |
| IT111    | LED32Inch      | Sony             |  22000.00 |
| IT113    | FullyAutomatic | Sony             |  22000.00 |
| IT124    | ThreeDoor      | Samsung          |  22000.00 |
| IT108    | TopLoad        | LG               |  25000.00 |
| IT123    | LED50Inch      | LG               |  38000.00 |
| IT121    | LED50Inch      | Onida            |  48000.00 |
+----------+----------------+------------------+-----------+
25 rows in set (0.00 sec)
```

```
CREATE TABLE DEPARTMENT
(
DEPARTMENTCODE VARCHAR(10)
, DEPARTMENTNAME VARCHAR(50)
    , CONSTRAINT DEPARTMENT_Pkey PRIMARY KEY(DEPARTMENTCODE)
    );
```

```
INSERT INTO DEPARTMENT VALUES ('LKM', 'Learning and Knowledge Management');
INSERT INTO DEPARTMENT VALUES ('JavaCap', 'Java Capability');
INSERT INTO DEPARTMENT VALUES ('.NETCap', 'Dotnet Capability');
commit;
```

```
mysql> SELECT * FROM DEPARTMENT;
+----------------+-----------------------------------+
| DEPARTMENTCODE | DEPARTMENTNAME                    |
+----------------+-----------------------------------+
| .NETCap        | Dotnet Capability                 |
| JavaCap        | Java Capability                   |
| LKM            | Learning and Knowledge Management |
+----------------+-----------------------------------+
3 rows in set (0.00 sec)
```

```
CREATE TABLE PROJECT
(
PROJECTID VARCHAR(10)
, PROJECTNAME VARCHAR(50)
, CONSTRAINT PROJECT_PK PRIMARY KEY(PROJECTID)
);

INSERT INTO PROJECT VALUES ('P1', 'Retail');
INSERT INTO PROJECT VALUES ('P2', 'Insurance');
INSERT INTO PROJECT VALUES ('P3', 'Resources');
INSERT INTO PROJECT VALUES ('P4', 'Banking');
INSERT INTO PROJECT VALUES ('P5', 'Internal
Project'); commit;
```

```
mysql> SELECT * FROM PROJECT;
+-----------+------------------+
| PROJECTID | PROJECTNAME      |
+-----------+------------------+
| P1        | Retail           |
| P2        | Insurance        |
| P3        | Resources        |
| P4        | Banking          |
| P5        | Internal Project |
+-----------+------------------+
5 rows in set (0.02 sec)
```

```
CREATE TABLE EMPLOYEE(

EMPLOYEENUMBER NUMERIC(10) PRIMARY KEY,

EMPLOYEENAME VARCHAR(50),

DATEOFBIRTH DATE,

DATEOFJOINING DATE,
```

```
DESIGNATION VARCHAR(5) CHECK (DESIGNATION ='CEO' or DESIGNATION ='MD' or
DESIGNATION ='SM' or DESIGNATION ='M' or DESIGNATION ='TL'or DESIGNATION
='SSE' or DESIGNATION ='SE'),

SALARY NUMERIC(10,2)  CHECK(SALARY>0 or SALARY <> null),

ManagerEmployeeNumber NUMERIC(10),

DEPARTMENTCODE VARCHAR(10)  REFERENCES DEPARTMENT(DEPARTMENTCODE)

);
```

```
INSERT INTO EMPLOYEE VALUES (7001, 'Cynthya' , '1975-05-12' , '1997-02-14' , 'CEO' ,
800000.00 , 7001, NULL);
INSERT INTO EMPLOYEE VALUES (7002, 'Mario' , '1976-02-14' , '1998-04-16' , 'MD' ,
500000.00 , 7001, 'JavaCap');
INSERT INTO EMPLOYEE VALUES (7003, 'Jacob' , '1976-05-16' , '1998-05-16' , 'MD' ,
400000.00 , 7001, '.NETCap');
INSERT INTO EMPLOYEE VALUES (7004, 'Lucy' , '1978-05-15' , '2000-07-15' , 'MD' ,
420000.00 , 7001, 'LKM');
INSERT INTO EMPLOYEE VALUES (7005, 'Amy' , '1978-09-16' , '2000-11-16' , 'SM' ,
240000.00 , 7002, 'JavaCap');
INSERT INTO EMPLOYEE VALUES (7006, 'Frank' , '1978-09-17' , '2000-09-19' , 'SM' ,
220000.00 , '7003', '.NETCap');
INSERT INTO EMPLOYEE VALUES (7007, 'Phil' , '1974-12-11' , '2000-11-12' , 'SM' ,
220000.00 , '7004', 'LKM');
INSERT INTO EMPLOYEE VALUES (7008, 'Arnold' , '1984-03-13' , '2000-04-01' , 'TL' ,
80000.00 , '7005', 'JavaCap');
INSERT INTO EMPLOYEE VALUES (7009, 'Jack' , '1984-09-23' , '2000-06-23' , 'TL' , 88000.00 ,
'7006', '.NETCap');
INSERT INTO EMPLOYEE VALUES (7010, 'Justin' , '1984-11-07' , '2000-02-09' , 'TL' ,
86000.00 , '7007', 'LKM');
INSERT INTO EMPLOYEE VALUES (7011, 'Megan' , '1984-07-21' , '2002-09-19' , 'TL' ,
87000.00 , '7007', 'LKM');
INSERT INTO EMPLOYEE VALUES (7012, 'Stuart' , '1980-05-23' , '2016-05-22', 'SSE' ,
35000.00 , '7008', 'JavaCap');
INSERT INTO EMPLOYEE VALUES (7013, 'Clarke' , '1994-02-24' , '2016-05-22' , 'SSE' ,
32000.00 , '7008', 'JavaCap');
INSERT INTO EMPLOYEE VALUES (7014, 'Darwin' , '1992-05-03' , '2016-05-22' , 'SE' ,
'30000.00' , '7009', '.NETCap');
```

INSERT INTO EMPLOYEE VALUES (7015, 'Chelsea' , '1994-01-19' , '2016-05-22' , 'SSE' , 38000.00 , '7010', 'LKM');
INSERT INTO EMPLOYEE VALUES (7016, 'Dan' , '1991-05-27' , '2016-07-07', 'SE' , 30000.00 , '7009', '.NETCap');
INSERT INTO EMPLOYEE VALUES (7017, 'Jimmy' , '1993-08-11' , '2016-07-07' , 'SE' , 32000.00 , '7010', 'LKM');
INSERT INTO EMPLOYEE VALUES (7018, 'James' , '1993-12-19' , '2016-07-07' , 'SE' , 35000.00 , NULL, '.NETCap');
INSERT INTO EMPLOYEE VALUES (7019, 'Joseph' , '1992-12-13' , '2016-07-07' , 'SE' , 30000.00 , NULL, '.NETCap');
commit;

```
mysql> select * from employee;
+---------------+--------------+-------------+--------------+-------------+----------+----------------------+----------------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | 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  | 2000-11-12   | 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       | 1992-12-13  | 2016-07-07   | SE          |  30000.00 |                NULL | .NETCap        |
+---------------+--------------+-------------+--------------+-------------+----------+----------------------+----------------+
19 rows in set (0.00 sec)
```

CREATE TABLE EMPLOYEEPROJECTS

(

EMPLOYEENUMBER NUMERIC(10) NOT NULL

, PROJECTID VARCHAR(10) NOT NULL

, STARTDATE DATE

, ENDDATE DATE

, PRIMARY KEY (EMPLOYEENUMBER, PROJECTID)

);

INSERT INTO EMPLOYEEPROJECTS VALUES (7005, 'P1', '2014-07-01', null);

INSERT INTO EMPLOYEEPROJECTS VALUES (7006, 'P1', '2016-06-01', null);

INSERT INTO EMPLOYEEPROJECTS VALUES (7004, 'P2', '2014-07-16', '2015-05-11');

INSERT INTO EMPLOYEEPROJECTS VALUES (7013, 'P2', '2014-07-01', '2014-11-11');

INSERT INTO EMPLOYEEPROJECTS VALUES (7012, 'P2', '2016-06-01', '2015-02-28');

INSERT INTO EMPLOYEEPROJECTS VALUES (7007, 'P3', '2015-05-11', null);

INSERT INTO EMPLOYEEPROJECTS VALUES (7014, 'P3', '2014-11-11', null);

INSERT INTO EMPLOYEEPROJECTS VALUES (7013, 'P3', '2015-02-28', null);

INSERT INTO EMPLOYEEPROJECTS VALUES (7016, 'P2', '2014-07-16', null);
INSERT INTO EMPLOYEEPROJECTS VALUES (7012, 'P1', '2015-03-01', null);

Commit;

```
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        | 2015-03-01 | 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

select EMPLOYEENAME, DESIGNATION, SALARY FROM EMPLOYEE;

```
mysql> select EMPLOYEENAME, DESIGNATION, SALARY FROM EMPLOYEE;
+--------------+-------------+-----------+
| EMPLOYEENAME | DESIGNATION | SALARY    |
+--------------+-------------+-----------+
| Cynthya      | CEO         | 800000.00 |
| Mario        | MD          | 500000.00 |
| Jacob        | MD          | 400000.00 |
| Lucy         | MD          | 420000.00 |
| Amy          | SM          | 240000.00 |
| Frank        | SM          | 220000.00 |
| Phil         | SM          | 220000.00 |
| Arnold       | TL          |  80000.00 |
| Jack         | TL          |  88000.00 |
| Justin       | TL          |  86000.00 |
| Megan        | TL          |  87000.00 |
| Stuart       | SSE         |  35000.00 |
| Clarke       | SSE         |  32000.00 |
| Darwin       | SE          |  30000.00 |
| Chelsea      | SSE         |  38000.00 |
| Dan          | SE          |  30000.00 |
| Jimmy        | SE          |  32000.00 |
| James        | SE          |  35000.00 |
| Joseph       | SE          |  30000.00 |
+--------------+-------------+-----------+
19 rows in set (0.00 sec)
```

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

Select DISTINCT DESIGNATION FROM EMPLOYEE;

```
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

Select EmployeeName, Salary from employee where salary >35000 and Designation ='SSE';

```
mysql> Select EmployeeName, Salary from employee where salary >35000 and Designation ='SSE';
+-------------+----------+
| EmployeeName | Salary   |
+-------------+----------+
| Chelsea      | 38000.00 |
+-------------+----------+
1 row in set (0.00 sec)
```

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

Select EmployeeName, Designation , Salary from employee where Designation IN('SM','SSE' ,'SE');

```
mysql> Select EmployeeName, Designation , Salary from employee where Designation  IN( 'SM','SSE' ,'SE');
+--------------+-------------+-----------+
| EmployeeName | Designation | Salary    |
+--------------+-------------+-----------+
| Amy          | SM          | 240000.00 |
| Frank        | SM          | 220000.00 |
| Phil         | SM          | 220000.00 |
| Stuart       | SSE         |  35000.00 |
| Clarke       | SSE         |  32000.00 |
| Darwin       | SE          |  30000.00 |
| Chelsea      | SSE         |  38000.00 |
| Dan          | SE          |  30000.00 |
| Jimmy        | SE          |  32000.00 |
| James        | SE          |  35000.00 |
| Joseph       | SE          |  30000.00 |
+--------------+-------------+-----------+
11 rows in set (0.00 sec)
```

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

Select EmployeeName, DateofJoining from employee where DateofJoining Like '2000%';

```
mysql> Select EmployeeName, DateofJoining from employee where DateofJoining Like '2000%';
+--------------+---------------+
| EmployeeName | DateofJoining |
+--------------+---------------+
| Lucy         | 2000-07-15    |
| Amy          | 2000-11-16    |
| Frank        | 2000-09-19    |
| Phil         | 2000-11-12    |
| 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)

Select employeename, dateofBirth, year(sysdate())-year(dateofbirth) as age from employee;

```
mysql> Select employeename, dateofBirth, year(sysdate())-year(dateofbirth) as age from employee;
+--------------+-------------+------+
| employeename | dateofBirth | age  |
+--------------+-------------+------+
| Cynthya      | 1975-05-12  |   47 |
| Mario        | 1976-02-14  |   46 |
| Jacob        | 1976-05-16  |   46 |
| Lucy         | 1978-05-15  |   44 |
| Amy          | 1978-09-16  |   44 |
| Frank        | 1978-09-17  |   44 |
| Phil         | 1974-12-11  |   48 |
| Arnold       | 1984-03-13  |   38 |
| Jack         | 1984-09-23  |   38 |
| Justin       | 1984-11-07  |   38 |
| Megan        | 1984-07-21  |   38 |
| Stuart       | 1980-05-23  |   42 |
| Clarke       | 1994-02-24  |   28 |
| Darwin       | 1992-05-03  |   30 |
| Chelsea      | 1994-01-19  |   28 |
| Dan          | 1991-05-27  |   31 |
| Jimmy        | 1993-08-11  |   29 |
| James        | 1993-12-19  |   29 |
| Joseph       | 1992-12-13  |   30 |
+--------------+-------------+------+
19 rows in set (0.04 sec)
```

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

Select EmployeeName, Salary from employee where salary Between 50000 and 100000;

```
mysql> Select EmployeeName, Salary from employee where salary Between  50000 and 100000;
+--------------+----------+
| EmployeeName | Salary   |
+--------------+----------+
| Arnold       | 80000.00 |
| Jack         | 88000.00 |
| Justin       | 86000.00 |
| Megan        | 87000.00 |
+--------------+----------+
4 rows in set (0.00 sec)
```

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

Select EmployeeName from Employee where EmployeeName Like 'J%';

```
mysql> Select EmployeeName from Employee where EmployeeName Like 'J%';
+--------------+
| EmployeeName |
+--------------+
| Jacob        |
| Jack         |
| Justin       |
| Jimmy        |
| James        |
| Joseph       |
+--------------+
6 rows in set (0.00 sec)
```

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

Select EmployeeName from Employee where EmployeeName Like '%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

Select EmployeeName from Employee where EmployeeName Like '_a%';

```
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

Select EmployeeName from Employee where EmployeeName Like '___';

```
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'

Select EmployeeName, Designation from employee where Designation= 'MD' and EmployeeName Like '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'

Select EmployeeName, DateofJoining from employee where DateofJoining Like '%05%';

```
mysql> Select EmployeeName, DateofJoining from employee where DateofJoining Like '%05%';
+--------------+---------------+
| EmployeeName | DateofJoining |
+--------------+---------------+
| 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 select EmployeeName, Salary from employee order by EmployeeName;

```
mysql> select EmployeeName, Salary from employee order by EmployeeName;
+--------------+-----------+
| EmployeeName | Salary    |
+--------------+-----------+
| Amy          | 240000.00 |
| Arnold       |  80000.00 |
| Chelsea      |  38000.00 |
| Clarke       |  32000.00 |
| Cynthya      | 800000.00 |
| Dan          |  30000.00 |
| Darwin       |  30000.00 |
| Frank        | 220000.00 |
| Jack         |  88000.00 |
| Jacob        | 400000.00 |
| James        |  35000.00 |
| Jimmy        |  32000.00 |
| Joseph       |  30000.00 |
| Justin       |  86000.00 |
| Lucy         | 420000.00 |
| Mario        | 500000.00 |
| Megan        |  87000.00 |
| Phil         | 220000.00 |
| Stuart       |  35000.00 |
+--------------+-----------+
19 rows in set (0.00 sec)
```

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

SELECT employeeName, DATEOFBIRTH FROM EMPLOYEE ORDER BY DATEOFBIRTH DESC;

```
mysql> SELECT  employeeName, DATEOFBIRTH FROM EMPLOYEE ORDER BY DATEOFBIRTH DESC;
+--------------+-------------+
| employeeName | DATEOFBIRTH |
+--------------+-------------+
| Clarke       | 1994-02-24  |
| Chelsea      | 1994-01-19  |
| James        | 1993-12-19  |
| Jimmy        | 1993-08-11  |
| Joseph       | 1992-12-13  |
| Darwin       | 1992-05-03  |
| Dan          | 1991-05-27  |
| Justin       | 1984-11-07  |
| Jack         | 1984-09-23  |
| Megan        | 1984-07-21  |
| Arnold       | 1984-03-13  |
| Stuart       | 1980-05-23  |
| Frank        | 1978-09-17  |
| Amy          | 1978-09-16  |
| Lucy         | 1978-05-15  |
| Jacob        | 1976-05-16  |
| Mario        | 1976-02-14  |
| Cynthya      | 1975-05-12  |
| Phil         | 1974-12-11  |
+--------------+-------------+
19 rows in set (0.00 sec)
```

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

Select EmployeeName, Salary from Employee ORDER BY Salary DESC;

```
mysql> Select EmployeeName, Salary from Employee ORDER BY Salary DESC;
+--------------+-----------+
| EmployeeName | Salary    |
+--------------+-----------+
| Cynthya      | 800000.00 |
| Mario        | 500000.00 |
| Lucy         | 420000.00 |
| Jacob        | 400000.00 |
| Amy          | 240000.00 |
| Frank        | 220000.00 |
| Phil         | 220000.00 |
| Jack         |  88000.00 |
| Megan        |  87000.00 |
| Justin       |  86000.00 |
| Arnold       |  80000.00 |
| Chelsea      |  38000.00 |
| Stuart       |  35000.00 |
| James        |  35000.00 |
| Clarke       |  32000.00 |
| Jimmy        |  32000.00 |
| Darwin       |  30000.00 |
| Dan          |  30000.00 |
| Joseph       |  30000.00 |
+--------------+-----------+
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 ASC;
+--------------+-----------+
| EmployeeName | Salary    |
+--------------+-----------+
| Cynthya      | 800000.00 |
| Mario        | 500000.00 |
| Lucy         | 420000.00 |
| Jacob        | 400000.00 |
| Amy          | 240000.00 |
| Frank        | 220000.00 |
| Phil         | 220000.00 |
| Jack         |  88000.00 |
| Megan        |  87000.00 |
| Justin       |  86000.00 |
| Arnold       |  80000.00 |
| Chelsea      |  38000.00 |
| James        |  35000.00 |
| Stuart       |  35000.00 |
| Clarke       |  32000.00 |
| Jimmy        |  32000.00 |
| Dan          |  30000.00 |
| Darwin       |  30000.00 |
| Joseph       |  30000.00 |
+--------------+-----------+
19 rows in set (0.00 sec)
```

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

Select EmployeeName ,Designation, Salary from employee where Designation = 'TL' ORDER BY Salary desc;

```
mysql> Select EmployeeName ,Designation, Salary from employee where Designation = 'TL' ORDER BY Salary desc;
+--------------+-------------+----------+
| EmployeeName | Designation | Salary   |
+--------------+-------------+----------+
| Jack         | TL          | 88000.00 |
| Megan        | TL          | 87000.00 |
| Justin       | TL          | 86000.00 |
| Arnold       | TL          | 80000.00 |
+--------------+-------------+----------+
4 rows in set (0.00 sec)
```

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

table Update employee Set salary = salary + (5/100)*salary; select * from employee;

```
mysql> Update employee Set salary = salary + (5/100)*salary;
Query OK, 19 rows affected (0.04 sec)
Rows matched: 19  Changed: 19  Warnings: 0

mysql> select * from employee;
+----------------+--------------+-------------+---------------+-------------+----------+----------------------+----------------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | 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  | 2000-11-12    | 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       | 1992-12-13  | 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

Update Employee set Salary = Salary+ (5/100)*Salary where Designation = 'SSE';

```
mysql> Update Employee set Salary = Salary+ (5/100)*Salary  where Designation = 'SSE';
Query OK, 3 rows affected (0.04 sec)
Rows matched: 3  Changed: 3  Warnings: 0

mysql> Select * from employee;
+----------------+--------------+-------------+---------------+-------------+----------+----------------------+----------------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | 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  | 2000-11-12    | 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       | 1992-12-13  | 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

Set autocommit =0;

Delete from EmployeeProjects;

ROLLBACK;

```
mysql> Set autocommit =0;
Query OK, 0 rows affected (0.00 sec)

mysql> Delete from EmployeeProjects;
Query OK, 10 rows affected (0.00 sec)

mysql> ROLLBACK;
Query OK, 0 rows affected (0.04 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        | 2015-03-01 | 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>
```

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

Set autocommit =0;

Delete from EmployeeProjects where ProjectId = 'P1';

ROLLBACK;

```
mysql> Set autocommit =0;
Query OK, 0 rows affected (0.00 sec)

mysql> Delete from EmployeeProjects where ProjectId = 'P1';
Query OK, 3 rows affected (0.00 sec)

mysql> ROLLBACK;
Query OK, 0 rows affected (0.04 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        | 2015-03-01 | 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)
```

5.Delete ALL rows from "Department" table.

Delete from Department;

```
mysql> Delete from Department;
Query OK, 3 rows affected (0.04 sec)

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