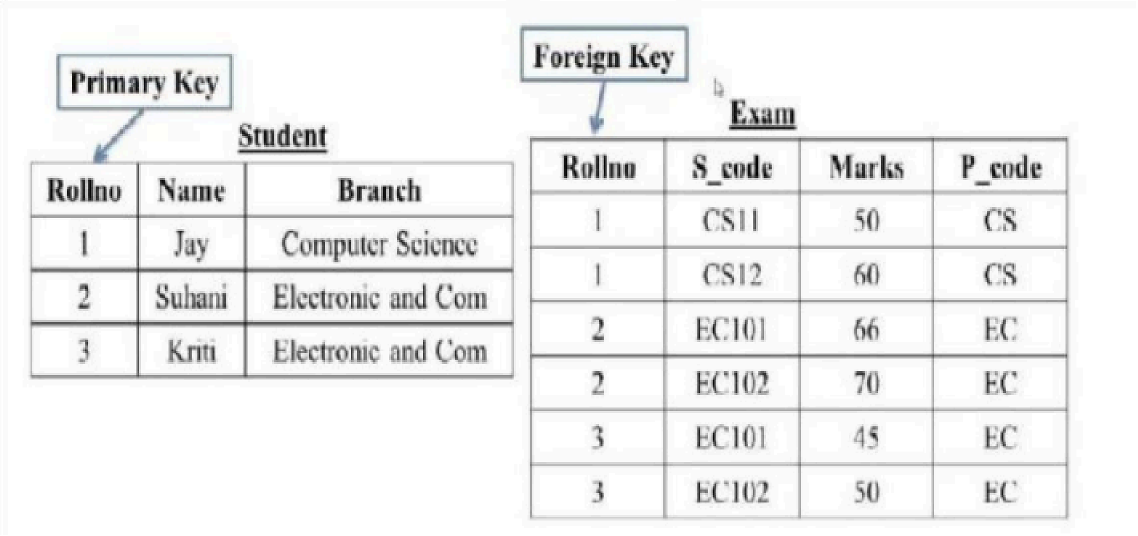
1. Create Table Name : Student and Exam



Primary Key
Foreign Key

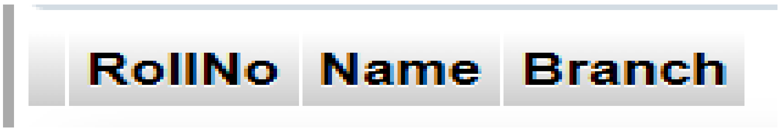
Student

Rollno	Name	Branch
1	Jay	Computer Science
2	Suhani	Electronic and Com
3	Kriti	Electronic and Com

Exam

Rollno	S_code	Marks	P_code
1	CS11	50	CS
1	CS12	60	CS
2	EC101	66	EC
2	EC102	70	EC
3	EC101	45	EC
3	EC102	50	EC

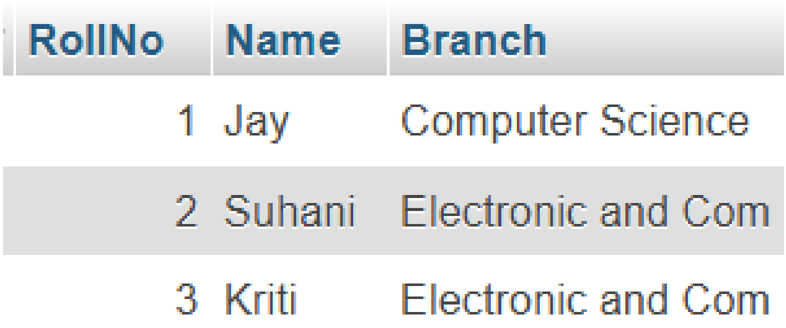
```
i.  CREATE TABLE Student (
     RollNo INT PRIMARY KEY,
     Name VARCHAR(100),
     Branch VARCHAR(50)
  );
```



RollNo	Name	Branch

ii.

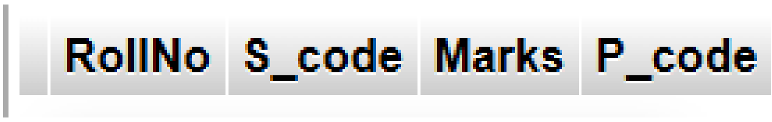
```
INSERT INTO Student (RollNo, Name,
Branch) VALUES
(1,"Jay","Computer Science"),
(2,"Suhani","Electronic and Com"),
(3,"Kriti","Electronic and Com");
```



RollNo	Name	Branch
1	Jay	Computer Science
2	Suhani	Electronic and Com
3	Kriti	Electronic and Com

iii.

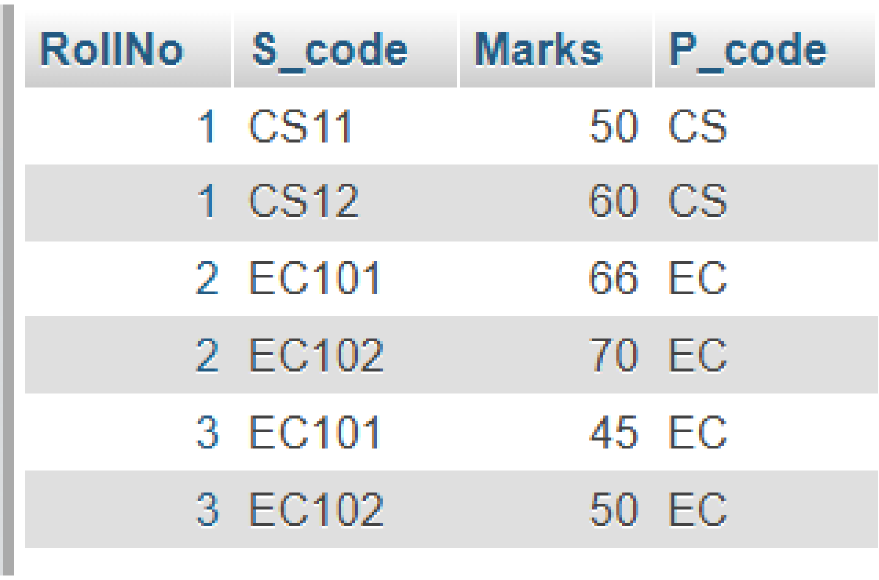
```
CREATE TABLE Exam (
RollNo INT,
S_code VARCHAR(10),
Marks INT,
P_code VARCHAR(10),
FOREIGN KEY (RollNo) REFERENCES
Student(RollNo)
);
```



RollNo	S_code	Marks	P_code

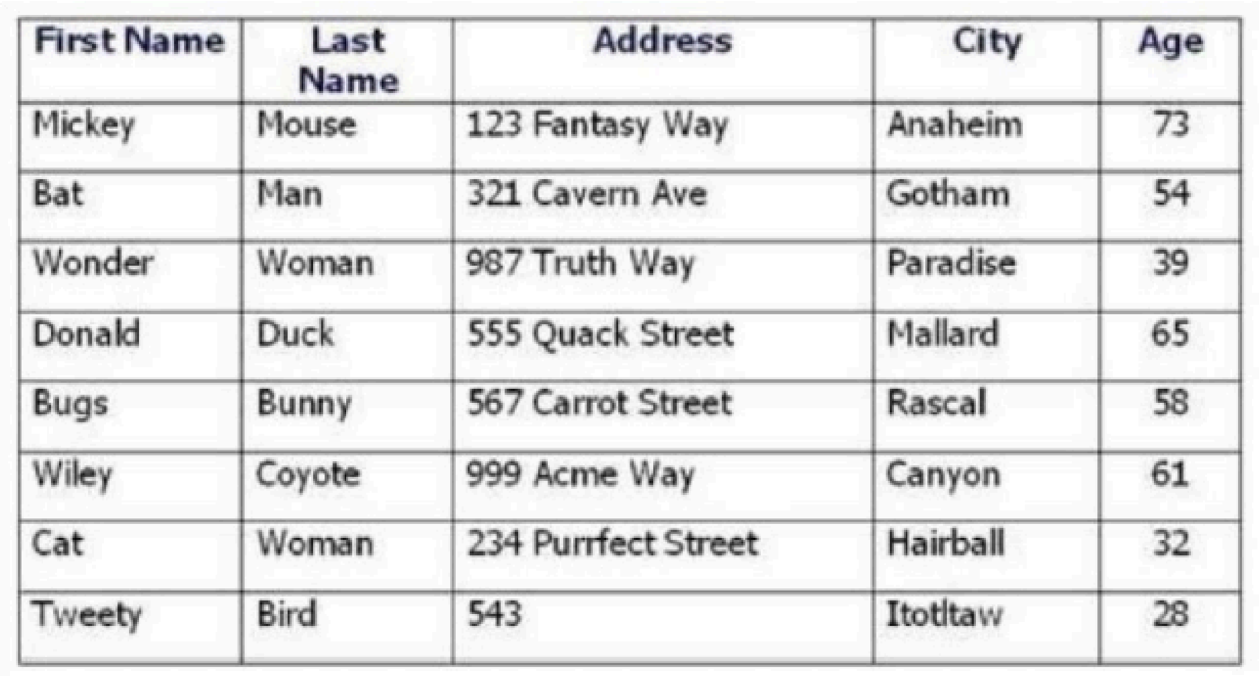
iv.

```
INSERT INTO Exam (RollNo, S_code,
Marks, P_code) VALUES
 (1,"CS11",50,"CS"),
 (1,"CS12",60,"CS"),
 (2,"EC101",66,"EC"),
 (2,"EC102",70,"EC"),
 (3,"EC101",45,"EC"),
 (3,"EC102",50,"EC");
```



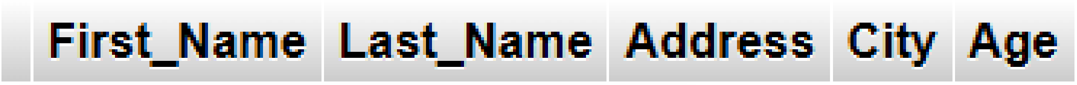
RollNo	S_code	Marks	P_code
1	CS11	50	CS
1	CS12	60	CS
2	EC101	66	EC
2	EC102	70	EC
3	EC101	45	EC
3	EC102	50	EC

2. Create table given below



First Name	Last Name	Address	City	Age
Mickey	Mouse	123 Fantasy Way	Anaheim	73
Bat	Man	321 Cavern Ave	Gotham	54
Wonder	Woman	987 Truth Way	Paradise	39
Donald	Duck	555 Quack Street	Mallard	65
Bugs	Bunny	567 Carrot Street	Rascal	58
Wiley	Coyote	999 Acme Way	Canyon	61
Cat	Woman	234 Purrfect Street	Hairball	32
Tweety	Bird	543	Itotltaw	28

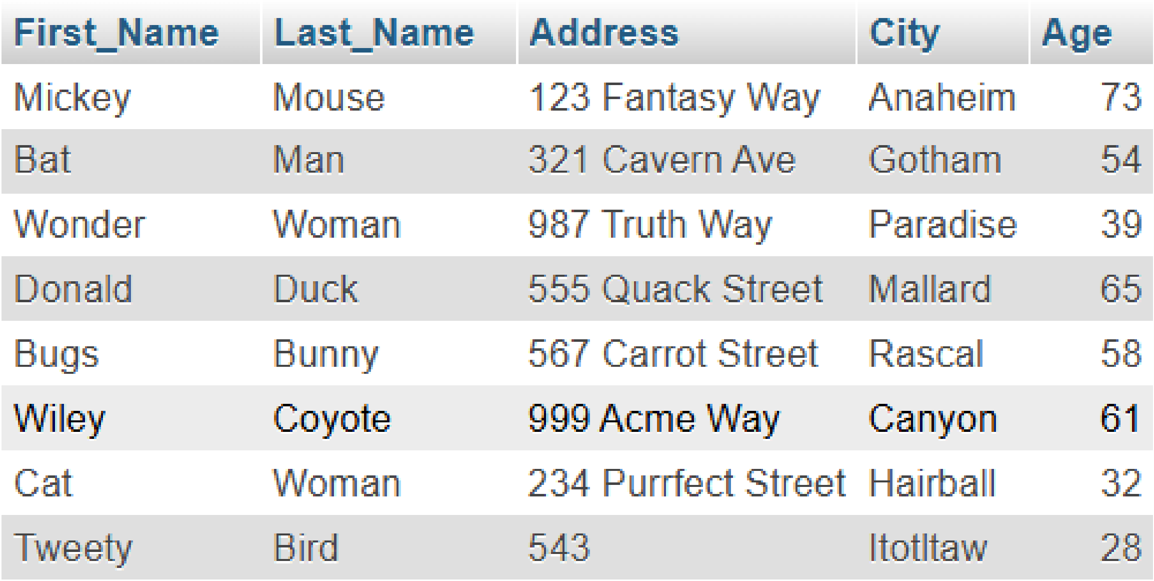
```
I.   CREATE TABLE Person (
        First_Name VARCHAR(50),
        Last_Name VARCHAR(50),
        Address VARCHAR(100),
        City VARCHAR(50),
        Age INT
      );
```



First_Name	Last_Name	Address	City	Age

```
II.  INSERT INTO Person (First_Name,
     Last_Name, Address, City, Age) VALUES
```

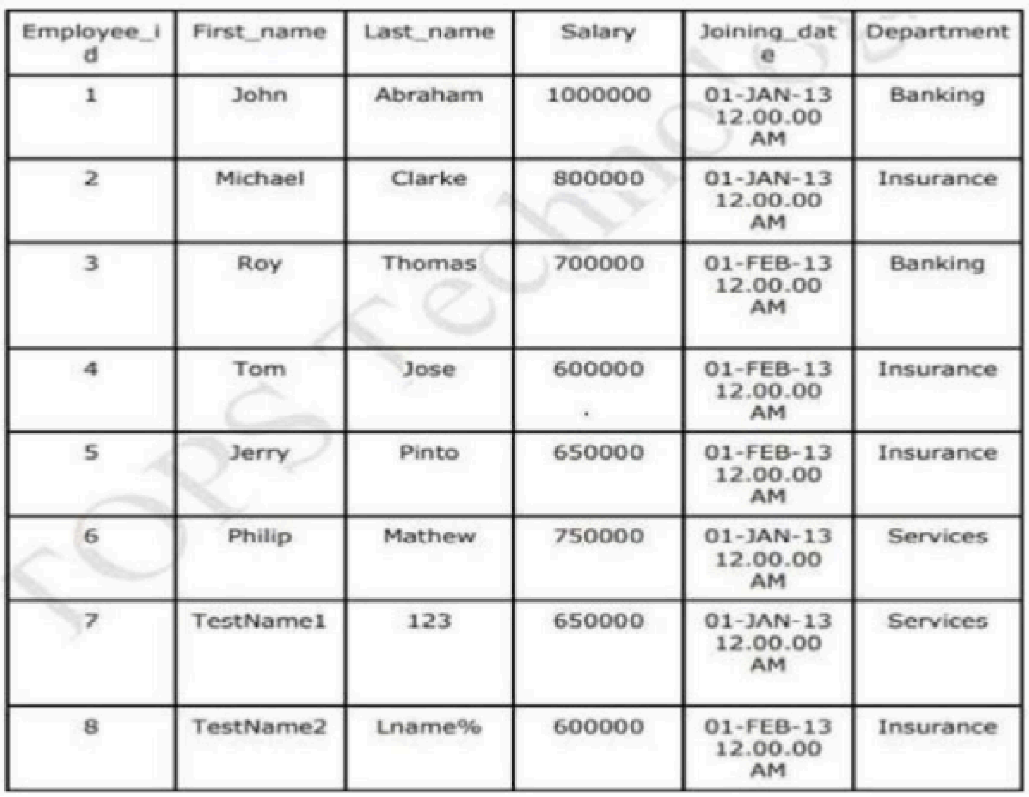
```
("Mickey", "Mouse", "123 Fantasy Way",
"Anaheim", 73),
("Bat", "Man", "321 Cavern Ave",
"Gotham", 54),
("Wonder", "Woman", "987 Truth Way",
"Paradise", 39),
("Donald", "Duck", "555 Quack Street",
"Mallard", 65),
("Bugs", "Bunny", "567 Carrot Street",
"Rascal", 58),
("Wiley", "Coyote", "999 Acme Way",
"Canyon", 61),
("Cat", "Woman", "234 Purrfect
Street", "Hairball", 32),
("Tweety", "Bird", "543", "Itotltaw",
28);
```



First_Name	Last_Name	Address	City	Age
Mickey	Mouse	123 Fantasy Way	Anaheim	73
Bat	Man	321 Cavern Ave	Gotham	54
Wonder	Woman	987 Truth Way	Paradise	39
Donald	Duck	555 Quack Street	Mallard	65
Bugs	Bunny	567 Carrot Street	Rascal	58
Wiley	Coyote	999 Acme Way	Canyon	61
Cat	Woman	234 Purrfect Street	Hairball	32
Tweety	Bird	543	Itotltaw	28

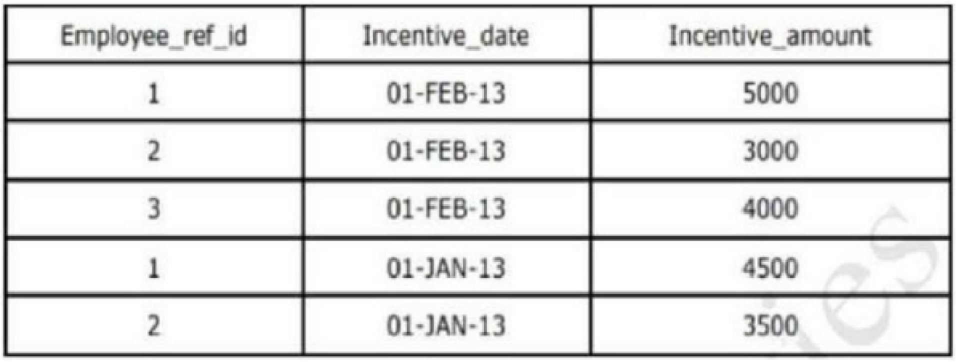
3. Create table given below: Employee and Incentive

Table Name: Employee



Employee_id	First_name	Last_name	Salary	Joining_date	Department
1	John	Abraham	1000000	01-JAN-13 12.00.00 AM	Banking
2	Michael	Clarke	800000	01-JAN-13 12.00.00 AM	Insurance
3	Roy	Thomas	700000	01-FEB-13 12.00.00 AM	Banking
4	Tom	Jose	600000 .	01-FEB-13 12.00.00 AM	Insurance
5	Jerry	Pinto	650000	01-FEB-13 12.00.00 AM	Insurance
6	Philip	Mathew	750000	01-JAN-13 12.00.00 AM	Services
7	TestName1	123	650000	01-JAN-13 12.00.00 AM	Services
8	TestName2	Lname%	600000	01-FEB-13 12.00.00 AM	Insurance

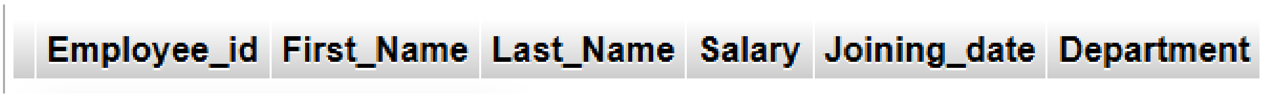
TABLE NAME: INCENTIVE



Employee_ref_id	Incentive_date	Incentive_amount
1	01-FEB-13	5000
2	01-FEB-13	3000
3	01-FEB-13	4000
1	01-JAN-13	4500
2	01-JAN-13	3500

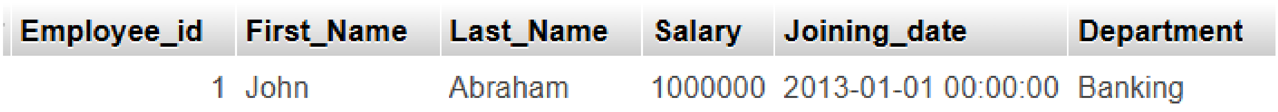
Employee table :

```
□ CREATE TABLE Employee (
   Employee_id INT PRIMARY KEY
  AUTO_INCREMENT,
   First_Name VARCHAR(30),
   Last_Name VARCHAR(30),
   Salary INT,
   Joining_date DATETIME,
   Department VARCHAR(30)
);
```



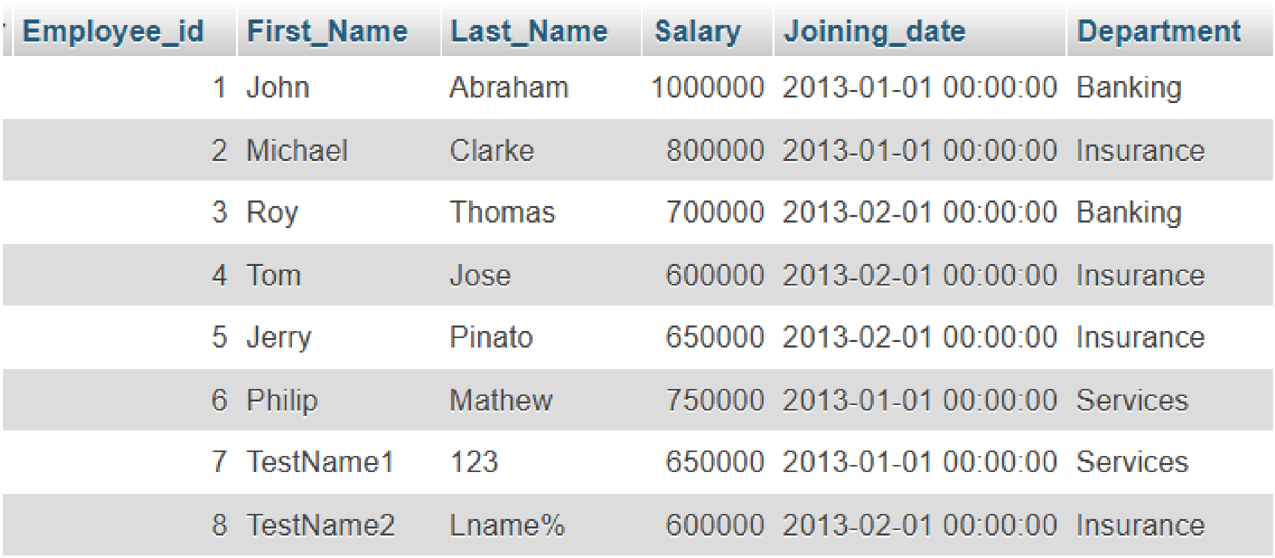
Employee_id	First_Name	Last_Name	Salary	Joining_date	Department

```
□ INSERT INTO Employee (Employee_id,
  First_Name, Last_Name, Salary,
  Joining_date, Department) VALUES
  (1, "John", "Abraham ", 1000000,
  "2013-01-01", "Banking");
```



Employee_id	First_Name	Last_Name	Salary	Joining_date	Department
1	John	Abraham	1000000	2013-01-01 00:00:00	Banking

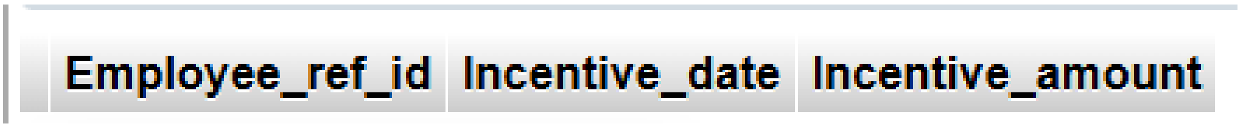
```
□ INSERT INTO Employee (First_Name,
  Last_Name, Salary, Joining_date,
  Department) VALUES
  ("Michael", "Clarke", 800000,
  "2013-01-01", "Insurance"),
  ("Roy", "Thomas", 700000,
  "2013-02-01", "Banking"),
  ("Tom", "Jose", 600000, "2013-02-01",
  "Insurance"),
  ("Jerry", "Pinato", 650000,
  "2013-02-01", "Insurance"),
  ("Philip", "Mathew", 750000,
  "2013-01-01", "Services"),
  ("TestName1", "123", 650000,
  "2013-01-01", "Services"),
  ("TestName2", "Lname%", 600000,
  "2013-02-01", "Insurance");
```



Employee_id	First_Name	Last_Name	Salary	Joining_date	Department
1	John	Abraham	1000000	2013-01-01 00:00:00	Banking
2	Michael	Clarke	800000	2013-01-01 00:00:00	Insurance
3	Roy	Thomas	700000	2013-02-01 00:00:00	Banking
4	Tom	Jose	600000	2013-02-01 00:00:00	Insurance
5	Jerry	Pinato	650000	2013-02-01 00:00:00	Insurance
6	Philip	Mathew	750000	2013-01-01 00:00:00	Services
7	TestName1	123	650000	2013-01-01 00:00:00	Services
8	TestName2	Lname%	600000	2013-02-01 00:00:00	Insurance

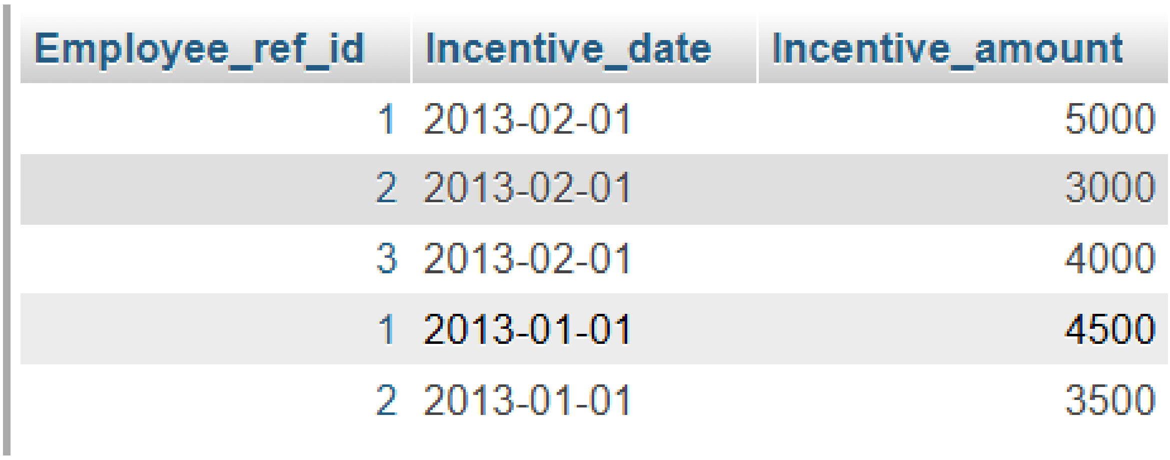
Incentive table :

-
  ```
  CREATE TABLE Incentive(
  Employee_ref_id INT,
  Incentive_date DATE,
  Incentive_amount INT,
  FOREIGN KEY (Employee_ref_id)
  REFERENCES employee(Employee_id));
  ```



Employee_ref_id	Incentive_date	Incentive_amount

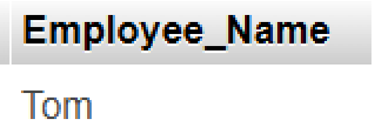
-
  ```
  INSERT INTO incentive
  (Employee_ref_id, Incentive_date,
  Incentive_amount) VALUES
  (1, "2013-02-01", 5000),
  (2, "2013-02-01", 3000),
  (3, "2013-02-01", 4000),
  (1, "2013-01-01", 4500),
  (2, "2013-01-01", 3500);
  ```



Employee_ref_id	Incentive_date	Incentive_amount
1	2013-02-01	5000
2	2013-02-01	3000
3	2013-02-01	4000
1	2013-01-01	4500
2	2013-01-01	3500

a) Get First_Name from employee table using Tom name "Employee Name".

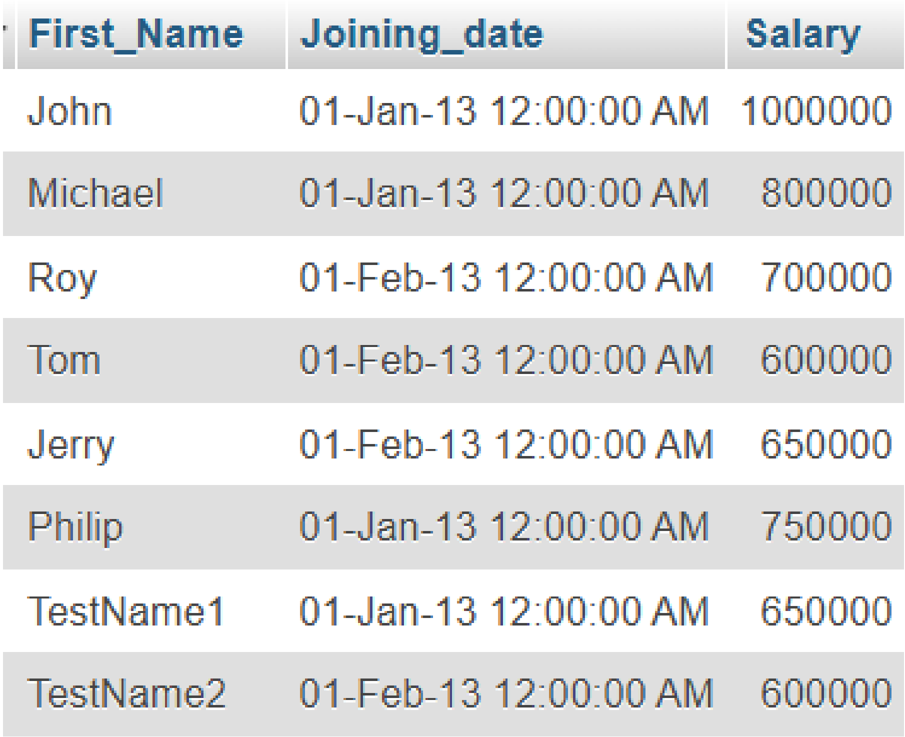
```
□ SELECT First_Name AS Employee_Name
  FROM Employee
  WHERE First_Name = "Tom";
```



Employee_Name
Tom

b) Get FIRST_NAME, Joining Date, and Salary from employee table.

```
□ SELECT First_Name,
      DATE_FORMAT(Joining_date, '%d-%b-%y
  %h:%i:%s %p') AS Joining_date,
      Salary
  FROM Employee;
```

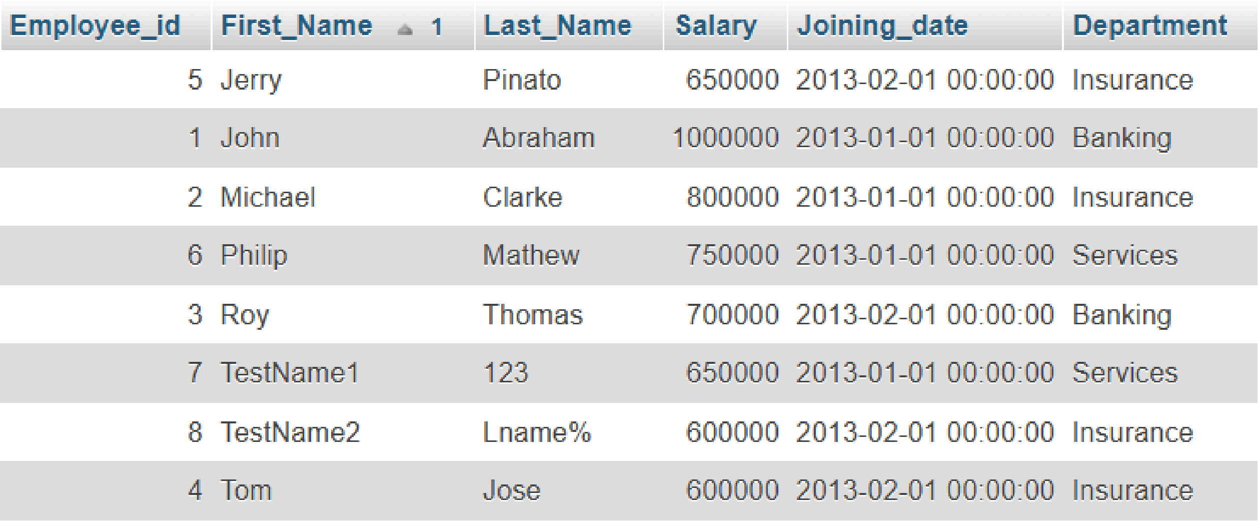


First_Name	Joining_date	Salary
John	01-Jan-13 12:00:00 AM	1000000
Michael	01-Jan-13 12:00:00 AM	800000
Roy	01-Feb-13 12:00:00 AM	700000
Tom	01-Feb-13 12:00:00 AM	600000
Jerry	01-Feb-13 12:00:00 AM	650000
Philip	01-Jan-13 12:00:00 AM	750000
TestName1	01-Jan-13 12:00:00 AM	650000
TestName2	01-Feb-13 12:00:00 AM	600000

c) Get all employee details from the employee table order by First_Name Ascending and Salary descending?

First Name Ascending :

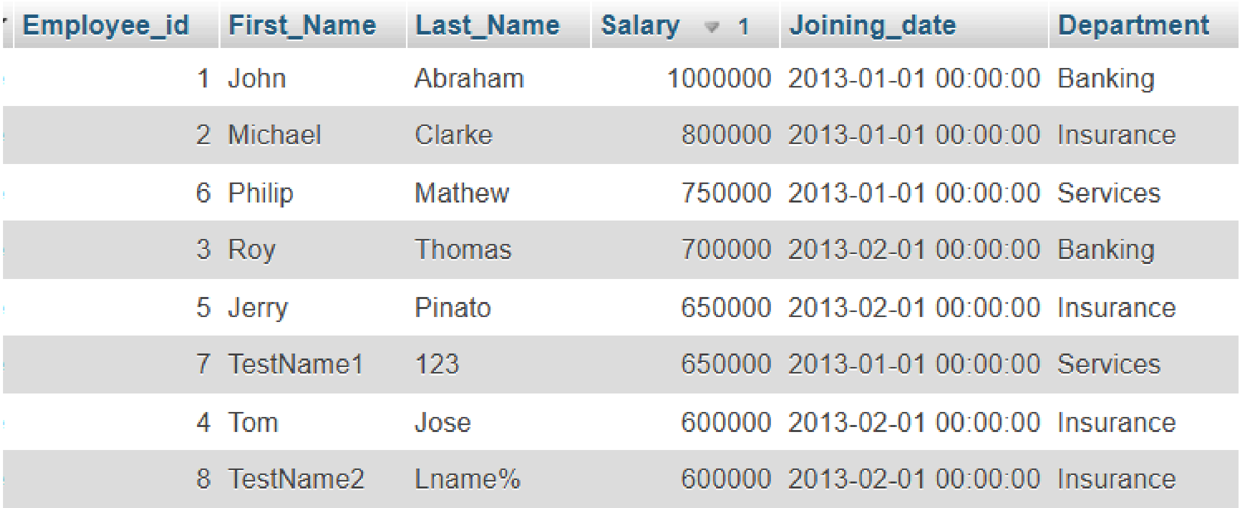
```
SELECT * FROM Employee
ORDER BY First_Name ASC;
```



Employee_id	First_Name ▲ 1	Last_Name	Salary	Joining_date	Department
5	Jerry	Pinato	650000	2013-02-01 00:00:00	Insurance
1	John	Abraham	1000000	2013-01-01 00:00:00	Banking
2	Michael	Clarke	800000	2013-01-01 00:00:00	Insurance
6	Philip	Mathew	750000	2013-01-01 00:00:00	Services
3	Roy	Thomas	700000	2013-02-01 00:00:00	Banking
7	TestName1	123	650000	2013-01-01 00:00:00	Services
8	TestName2	Lname%	600000	2013-02-01 00:00:00	Insurance
4	Tom	Jose	600000	2013-02-01 00:00:00	Insurance

Salary Descending :

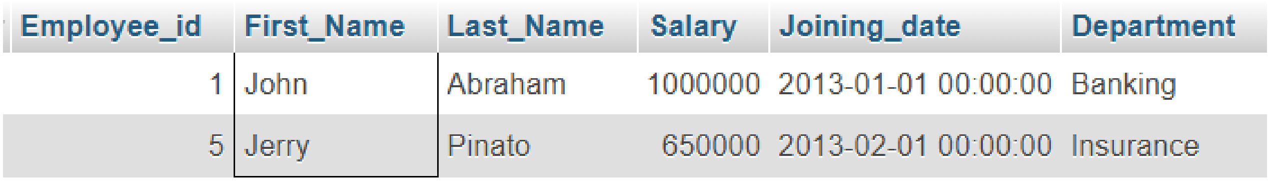
```
□ SELECT * FROM Employee
  ORDER BY Salary DESC;
```



Employee_id	First_Name	Last_Name	Salary ▼ 1	Joining_date	Department
1	John	Abraham	1000000	2013-01-01 00:00:00	Banking
2	Michael	Clarke	800000	2013-01-01 00:00:00	Insurance
6	Philip	Mathew	750000	2013-01-01 00:00:00	Services
3	Roy	Thomas	700000	2013-02-01 00:00:00	Banking
5	Jerry	Pinato	650000	2013-02-01 00:00:00	Insurance
7	TestName1	123	650000	2013-01-01 00:00:00	Services
4	Tom	Jose	600000	2013-02-01 00:00:00	Insurance
8	TestName2	Lname%	600000	2013-02-01 00:00:00	Insurance

d) Get employee details from employee table whose first name contains ‘J’.

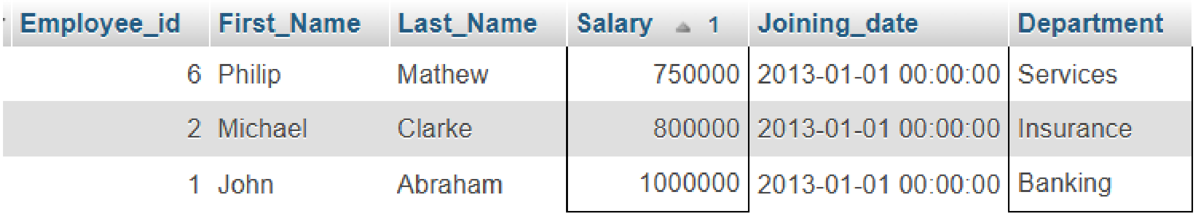
```
□ SELECT * FROM employee
  WHERE First_Name LIKE '%J%';
```



Employee_id	First_Name	Last_Name	Salary	Joining_date	Department
1	John	Abraham	1000000	2013-01-01 00:00:00	Banking
5	Jerry	Pinato	650000	2013-02-01 00:00:00	Insurance

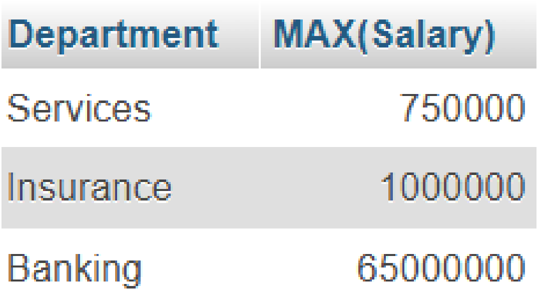
e) Get department wise maximum salary from employee table order by salary ascending?

```
□ SELECT * FROM Employee
  WHERE (Department, Salary)
  IN (SELECT Department, MAX(Salary)
  FROM Employee GROUP BY Department)
  ORDER BY Salary ASC;
```



Employee_id	First_Name	Last_Name	Salary ▲ 1	Joining_date	Department
6	Philip	Mathew	750000	2013-01-01 00:00:00	Services
2	Michael	Clarke	800000	2013-01-01 00:00:00	Insurance
1	John	Abraham	1000000	2013-01-01 00:00:00	Banking

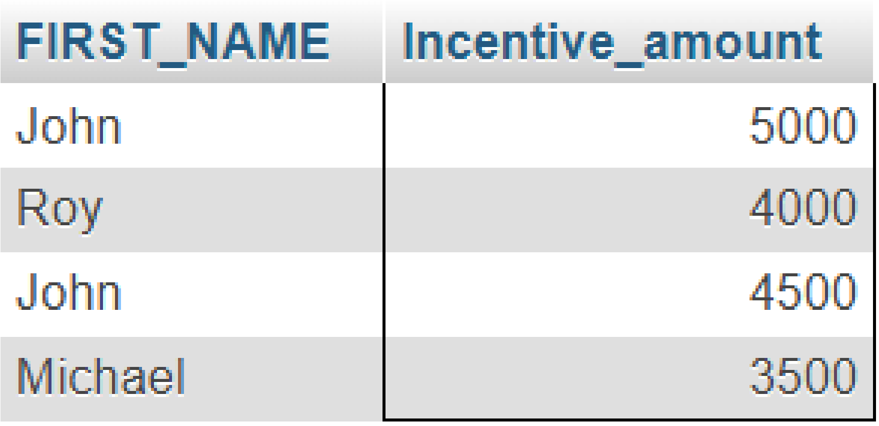
```
□ SELECT Department, MAX(Salary)
  FROM employee
  GROUP BY Department
  ORDER BY Salary ASC;
```



Department	MAX(Salary)
Services	750000
Insurance	1000000
Banking	65000000

f) Select first_name, incentive amount from employee and incentives table for those employees who have incentives and incentive amount greater than 3000.

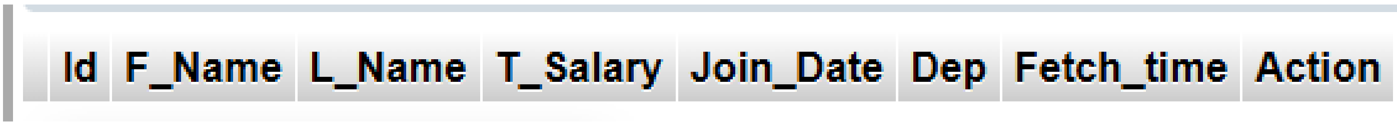
```
□ SELECT Employee.FIRST_NAME,
  Incentive.Incentive_amount
  FROM Employee
  INNER JOIN Incentive ON
  Employee.Employee_id =
  Incentive.Employee_ref_id
  WHERE Incentive.Incentive_amount >
  3000;
```



FIRST_NAME	Incentive_amount
John	5000
Roy	4000
John	4500
Michael	3500

g) Create After Insert trigger on Employee table which insert records in view table.

```
CREATE TABLE Employee_Trigger (
        Id INT,
        F_Name VARCHAR(20),
        L_Name VARCHAR(20),
        T_Salary INT,
        Join_Date DATETIME,
        Dep VARCHAR(20),
        Fetch_time TIMESTAMP,
        Action VARCHAR(20)
);
```



Id	F_Name	L_Name	T_Salary	Join_Date	Dep	Fetch_time	Action

Trigger Creation :

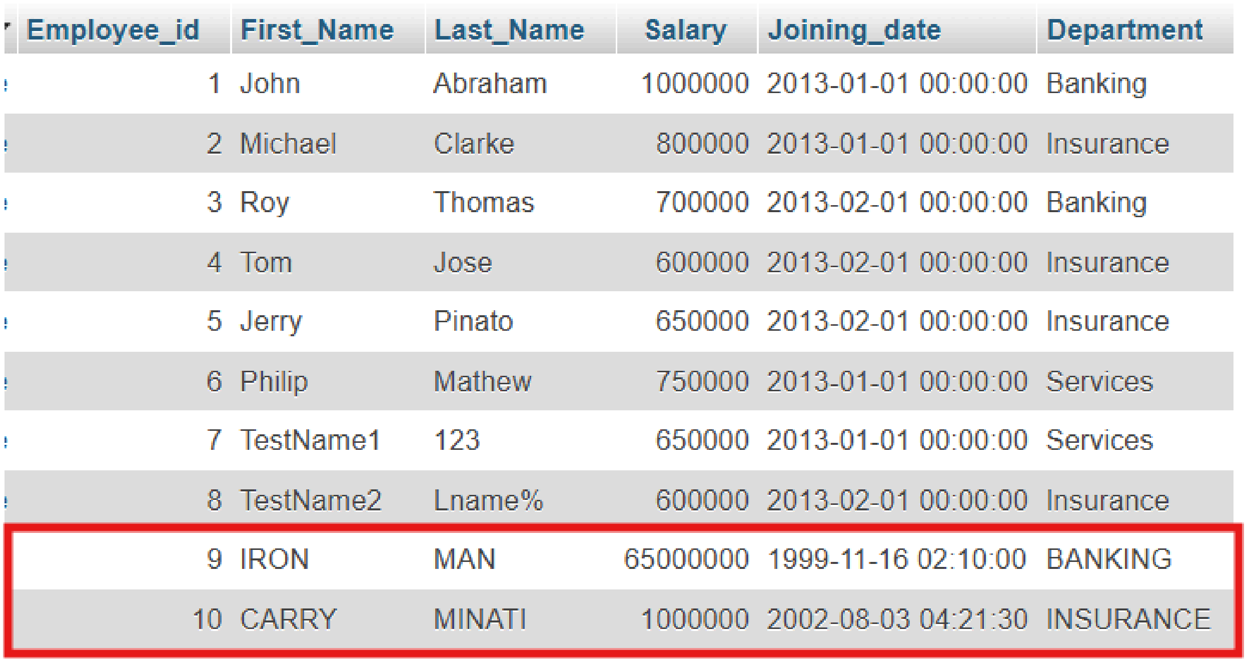
```
□ CREATE TRIGGER Trigger_INS
  AFTER INSERT ON Employee
  FOR EACH ROW

  INSERT INTO Employee_Trigger
  (Id, F_Name, L_Name, T_Salary,
  Join_Date, Dep, Action)
  VALUES(NEW.Employee_id,
  NEW.First_Name, NEW.Last_Name,
  NEW.Salary, NEW.Joining_date,
  NEW.Department,"Data Insert !!");
```

NOW LET WE PERFROM SOME INSERT OPERATIONS AMD SEE WHAT HAPPEN :

```
□ INSERT INTO Employee(First_Name,
  Last_Name, Salary, Joining_date,
  Department) VALUES
  ("IRON", "MAN", 65000000, "1999-11-16
  02.10.00", "BANKING");
```

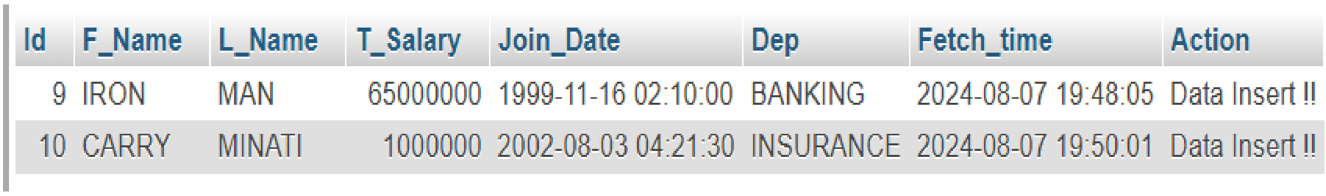
```
□ INSERT INTO Employee(First_Name,
  Last_Name, Salary, Joining_date,
  Department) VALUES
  (CARRY", "MINATI", 1000000,
  "2002-08-03 04.21.30", "INSURANCE");
```

Employee table :



Employee_id	First_Name	Last_Name	Salary	Joining_date	Department
1	John	Abraham	1000000	2013-01-01 00:00:00	Banking
2	Michael	Clarke	800000	2013-01-01 00:00:00	Insurance
3	Roy	Thomas	700000	2013-02-01 00:00:00	Banking
4	Tom	Jose	600000	2013-02-01 00:00:00	Insurance
5	Jerry	Pinato	650000	2013-02-01 00:00:00	Insurance
6	Philip	Mathew	750000	2013-01-01 00:00:00	Services
7	TestName1	123	650000	2013-01-01 00:00:00	Services
8	TestName2	Lname%	600000	2013-02-01 00:00:00	Insurance
9	IRON	MAN	65000000	1999-11-16 02:10:00	BANKING
10	CARRY	MINATI	1000000	2002-08-03 04:21:30	INSURANCE

Trigger table :



Id	F_Name	L_Name	T_Salary	Join_Date	Dep	Fetch_time	Action
9	IRON	MAN	65000000	1999-11-16 02:10:00	BANKING	2024-08-07 19:48:05	Data Insert !!
10	CARRY	MINATI	1000000	2002-08-03 04:21:30	INSURANCE	2024-08-07 19:50:01	Data Insert !!

4. Create table given below: Salesperson and Customer.

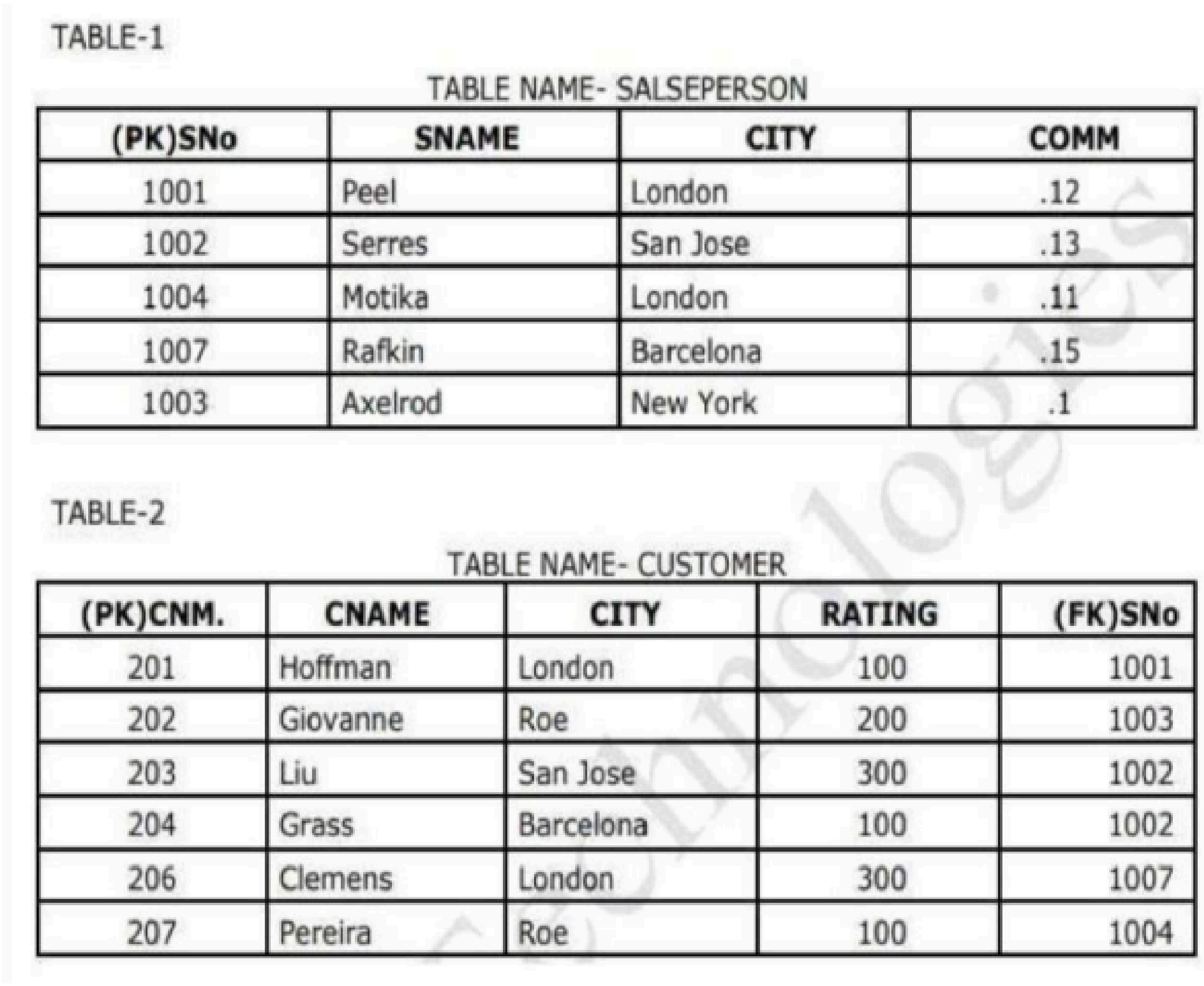


TABLE-1

TABLE NAME- SALSEPERSON

(PK)SNo	SNAME	CITY	COMM
1001	Peel	London	.12
1002	Serres	San Jose	.13
1004	Motika	London	.11
1007	Rafkin	Barcelona	.15
1003	Axelrod	New York	.1

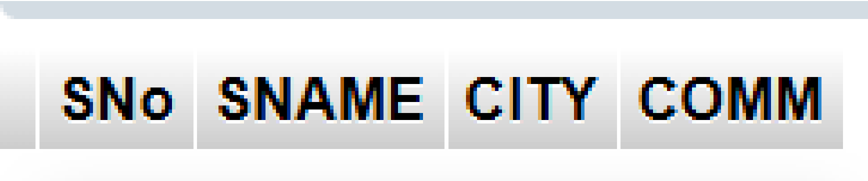
TABLE-2

TABLE NAME- CUSTOMER

(PK)CNM.	CNAME	CITY	RATING	(FK)SNo
201	Hoffman	London	100	1001
202	Giovanne	Roe	200	1003
203	Liu	San Jose	300	1002
204	Grass	Barcelona	100	1002
206	Clemens	London	300	1007
207	Pereira	Roe	100	1004

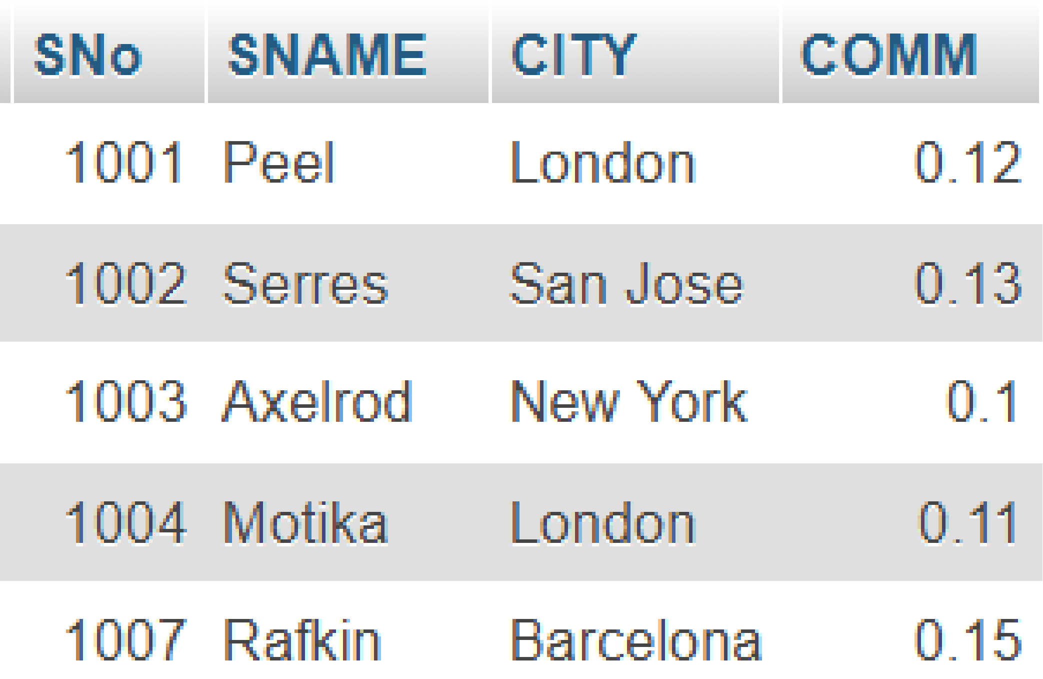
TABLE 1 : SALESPERSON

```
□ CREATE TABLE SALESPERSON (
      SNo INT PRIMARY KEY NOT NULL,
      SNAME VARCHAR(10),
      CITY VARCHAR(10),
      COMM FLOAT(2)
  );
```



SNo	SNAME	CITY	COMM

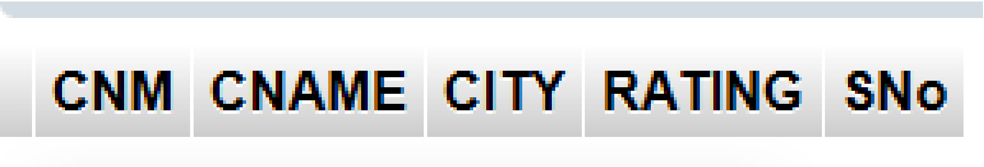
```
□ INSERT INTO SALESPERSON (SNo, SNAME,
  CITY, COMM) VALUES
  (1001, "Peel", "London", .12),
  (1002, "Serres", "San Jose", .13),
  (1004, "Motika", "London", .11),
  (1007, "Rafkin", "Barcelona", .15),
  (1003, "Axelrod", "New York", .1);
```



SNo	SNAME	CITY	COMM
1001	Peel	London	0.12
1002	Serres	San Jose	0.13
1003	Axelrod	New York	0.1
1004	Motika	London	0.11
1007	Rafkin	Barcelona	0.15

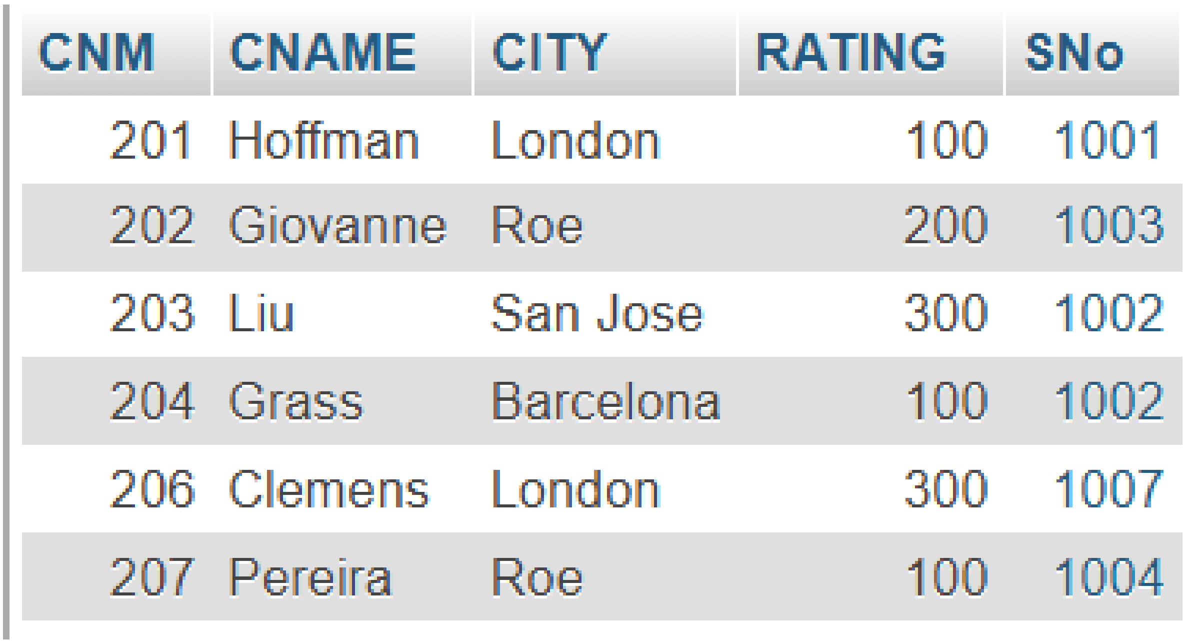
TABLE 2 : CUSTOMER

```
□ CREATE TABLE CUSTOMER (
        CNM INT,
        CNAME VARCHAR(10),
        CITY VARCHAR(10),
        RATING INT,
        SNo INT,
        FOREIGN KEY (SNo) REFERENCES
  SALESPERSON(SNo)
  );
```



CNM	CNAME	CITY	RATING	SNo

```
□ INSERT INTO CUSTOMER (CNM, CNAME,
  CITY, RATING, SNo) VALUES
  (201, "Hoffman", "London", 100, 1001),
  (202, "Giovanne", "Roe", 200, 1003),
  (203, "Liu", "San Jose", 300, 1002),
  (204, "Grass", "Barcelona", 100,1002),
  (206, "Clemens", "London", 300, 1007),
  (207, "Pereira", "Roe", 100, 1004);
```

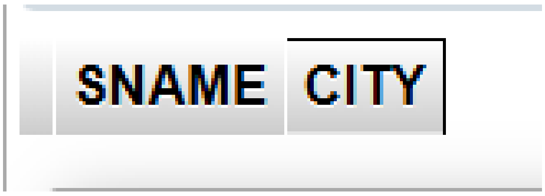


CNM	CNAME	CITY	RATING	SNo
201	Hoffman	London	100	1001
202	Giovanne	Roe	200	1003
203	Liu	San Jose	300	1002
204	Grass	Barcelona	100	1002
206	Clemens	London	300	1007
207	Pereira	Roe	100	1004

Retrieve the below data from above table

b) Names and cities of all salespeople in London with commission above 0.12

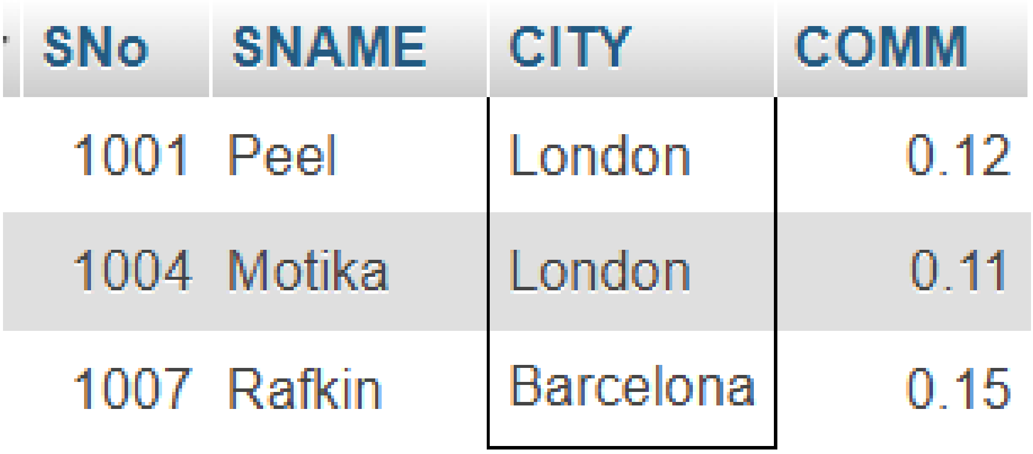
```
□ SELECT SNAME, CITY
  FROM SALESPERSON
  WHERE CITY = "London"
  AND COMM > 0.12;
```



SNAME	CITY

c) All salespeople either in Barcelona or in London

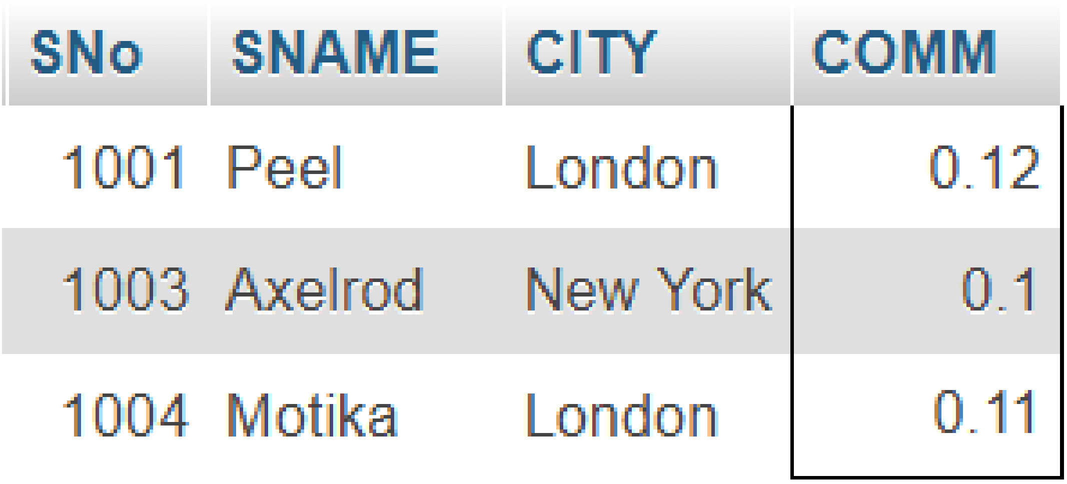
```
□ SELECT * FROM SALESPERSON
  WHERE CITY = "London"
  OR CITY = "Barcelona";
```



SNo	SNAME	CITY	COMM
1001	Peel	London	0.12
1004	Motika	London	0.11
1007	Rafkin	Barcelona	0.15

d) All salespeople with commission between 0.10 and 0.12. (Boundary values should be excluded).

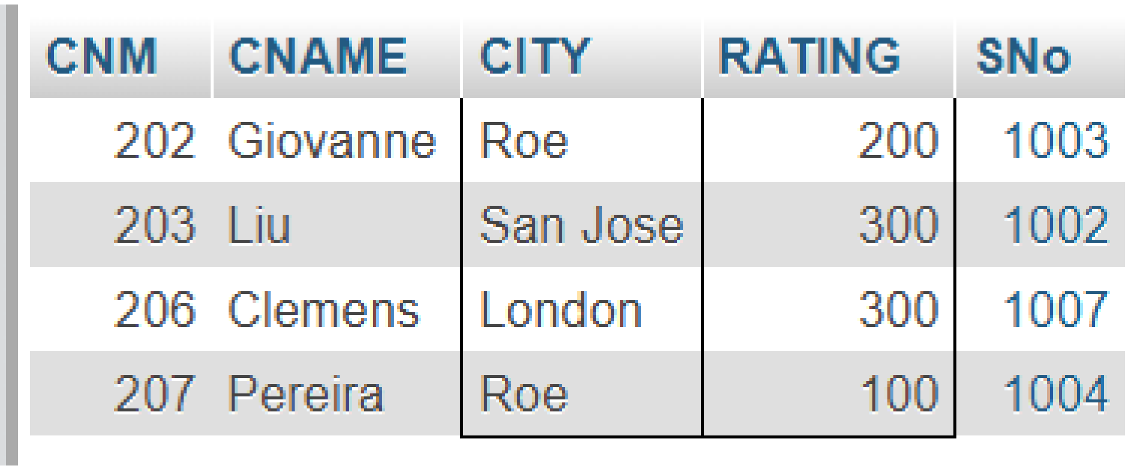
```
□ SELECT * FROM SALESPERSON
  WHERE COMM > 0.10 AND COMM < 0.12;
```



SNo	SNAME	CITY	COMM
1001	Peel	London	0.12
1003	Axelrod	New York	0.1
1004	Motika	London	0.11

e) All customers excluding those with rating <= 100 unless they are located in Roe.

□
```
SELECT * FROM Customer
WHERE (RATING > 100 AND CITY != “Roe”)
OR CITY = “Roe”;
```



CNM	CNAME	CITY	RATING	SNo
202	Giovanne	Roe	200	1003
203	Liu	San Jose	300	1002
206	Clemens	London	300	1007
207	Pereira	Roe	100	1004