MYSQL Assignment No:3

Consider the following table structure for this assignment:

- mysql> CREATE DATABASE Adarsh;
  Query OK, 1 row affected (0.02 sec)

- mysql> USE Adarsh;
  Database changed

- mysql> CREATE TABLE CUSTOMER(Cust_id INT PRIMARY KEY,C_name VARCHAR(15),City VARCHAR(20));
  Query OK, 0 rows affected (0.06 sec)

- mysql> INSERT INTO CUSTOMER(Cust_id, C_name, City) VALUES(1,"Adarsh","Kozhikode"),(2,"Abhishek","Truvandrum"),(3,"Akshay","Palakkad"),(4,"Sooraj","Truvandrum"),(5,"Sanjay","Malappuram"),(6,"Fazil","Kozhikode"),(7,"Arjun","Kozhikode"),(8,"Anil","Idukki"),(9,"Ragesh","Eranakulam"),(10,"Reno","Eranakulam");
  Query OK, 10 rows affected (0.01 sec)
  Records: 10 Duplicates: 0 Warnings: 0

- mysql> CREATE TABLE BRANCH(Branch_id INT PRIMARY KEY,B_name VARCHAR(25),City VARCHAR(20));
  Query OK, 0 rows affected (0.07 sec)

- mysql> INSERT INTO BRANCH(Branch_id, B_name, City) VALUES(1,"Alappuza","Kochi"),(2,"Punjab National Bank","Punjab"),(4,"Bank of Baroda","Bangal"),(7,"Canara Bank","Kadalundi"),(6,"Union Bank of India","Odisha"),(5,"Bank of India","Karnadaka"),(14,"Aroor","Vaikom"),(12,"Cherthala","Pallipuram"),(8,"UCO Bank","Kollam"),(9,"Indian Bank","Kerala");
  Query OK, 10 rows affected (0.02 sec)
  Records: 10 Duplicates: 0 Warnings: 0

- mysql> CREATE TABLE DEPOSIT(Acc_no VARCHAR(15), Cust_id INT, Amount INT, Branch_id INT, Open_date DATE, FOREIGN KEY (Cust_id) REFERENCES CUSTOMER (Cust_id), FOREIGN KEY (Branch_id) REFERENCES BRANCH (Branch_id));
  Query OK, 0 rows affected (0.10 sec)

- mysql> INSERT INTO DEPOSIT (Acc_no, Cust_id, Amount, Branch_id, Open_date)
  -> VALUES
  -> ('0732108020299', 1, 40500, 1, '2018-01-21'),
  -> ('0732108020292', 5, 31000, 6, '2009-07-12'),
  -> ('0732108020293', 4, 50000, 5, '2010-03-23'),
  -> ('0732108020294', 2, 60000, 2, '2005-08-20'),
  -> ('0732108020295', 9, 8000, 12, '2000-05-25'),
  -> ('0732108020296', 7, 6300, 8, '2007-06-26'),
  -> ('0732108020297', 10, 900, 14,'2008-07-27'),
  -> ('0732108020298', 8, 56600, 9, '2009-08-28'),
  -> ('0732108020291', 3, 10000, 4, '2010-09-29'),
  -> ('0732108020210', 6, 400, 7, '2011-10-30');
  Query OK, 10 rows affected (0.02 sec)
  Records: 10 Duplicates: 0 Warnings: 0

- mysql> CREATE TABLE BORROW(Loan_no INT, Cust_id INT, Branch_id INT, Amount INT, FOREIGN KEY (Cust_id) REFERENCES CUSTOMER (Cust_id), FOREIGN KEY (Branch_id) REFERENCES BRANCH (Branch_id));
  Query OK, 0 rows affected (0.10 sec)

- mysql> INSERT INTO BORROW(Loan_no, Cust_id, Branch_id, Amount) VALUES(109,10,14,900),(205,1,1,40500),(34,5,6,31000),(22,6,7,400),(12,3,4,10000),(2,8,9,56600),(67,7,8,6300),(5,9,12,8000),(78,2,2,60000),(44,8,9,56600);
  Query OK, 10 rows affected (0.02 sec)
  Records: 10 Duplicates: 0 Warnings: 0

- mysql> SELECT * FROM CUSTOMER;

```
+---------+----------+------------+
| Cust_id | C_name   | City       |
+---------+----------+------------+
|       1 | Adarsh   | Kozhikode  |
|       2 | Abhishek | Truvandrum |
|       3 | Akshay   | Palakkad   |
|       4 | Sooraj   | Truvandrum |
|       5 | Sanjay   | Malappuram |
|       6 | Fazil    | Kozhikode  |
|       7 | Arjun    | Kozhikode  |
|       8 | Anil     | Idukki     |
|       9 | Ragesh   | Eranakulam |
|      10 | Reno     | Eranakulam |
+---------+----------+------------+
10 rows in set (0.00 sec)
```

- mysql> SELECT * FROM BRANCH;

```
+-----------+----------------------+------------+
| Branch_id | B_name               | City       |
+-----------+----------------------+------------+
|         1 | Alappuza             | Kochi      |
|         2 | Punjab National Bank | Punjab     |
|         4 | Bank of Baroda       | Bangal     |
|         5 | Bank of India        | Karnadaka  |
|         6 | Union Bank of India  | Odisha     |
|         7 | Canara Bank          | Kadalundi  |
|         8 | UCO Bank             | Kollam     |
|         9 | Indian Bank          | Kerala     |
|        12 | Cherthala            | Pallipuram |
|        14 | Aroor                | Vaikom     |
+-----------+----------------------+------------+
10 rows in set (0.00 sec)
```

- mysql> SELECT * FROM DEPOSIT;

```
+---------------+---------+--------+-----------+------------+
| Acc_no        | Cust_id | Amount | Branch_id | Open_date  |
+---------------+---------+--------+-----------+------------+
| 0732108020299 |       1 |  40500 |         1 | 2018-01-21 |
| 0732108020292 |       5 |  31000 |         6 | 2009-07-12 |
| 0732108020293 |       4 |  50000 |         5 | 2010-03-23 |
| 0732108020294 |       2 |  60000 |         2 | 2005-08-20 |
| 0732108020295 |       9 |   8000 |        12 | 2000-05-25 |
| 0732108020296 |       7 |   6300 |         8 | 2007-06-26 |
| 0732108020297 |      10 |    900 |        14 | 2008-07-27 |
| 0732108020298 |       8 |  56600 |         9 | 2009-08-28 |
| 0732108020291 |       3 |  10000 |         4 | 2010-09-29 |
| 0732108020210 |       6 |    400 |         7 | 2011-10-30 |
+---------------+---------+--------+-----------+------------+
10 rows in set (0.00 sec)
```

- mysql> SELECT * FROM BORROW;

```
+---------+---------+-----------+--------+
| Loan_no | Cust_id | Branch_id | Amount |
+---------+---------+-----------+--------+
|     109 |      10 |        14 |    900 |
|     205 |       1 |         1 |  40500 |
|      34 |       5 |         6 |  31000 |
|      22 |       6 |         7 |    400 |
|      12 |       3 |         4 |  10000 |
|       2 |       8 |         9 |  56600 |
|      67 |       7 |         8 |   6300 |
|       5 |       9 |        12 |   8000 |
|      78 |       2 |         2 |  60000 |
|      44 |       8 |         9 |  56600 |
+---------+---------+-----------+--------+
10 rows in set (0.00 sec)
```

1) List total loan

```
mysql> SELECT SUM(Amount) AS TotalLoan FROM BORROW;
+-----------+
| TotalLoan |
+-----------+
|    270300 |
+-----------+
1 row in set (0.01 sec)
```

2) List total deposit

- ```
  mysql> SELECT SUM(Amount) AS TotalDeposit FROM DEPOSIT;
  +--------------+
  | TotalDeposit |
  +--------------+
  |       263700 |
  +--------------+
  1 row in set (0.00 sec)
  ```

3) List maximum deposit of customers living in Ernakulam

- ```
  mysql> SELECT MAX(Amount) AS MaxDeposit FROM DEPOSIT WHERE Cust_id IN (SELECT
  Cust_id FROM CUSTOMER WHERE City = 'Eranakulam');
  +------------+
  | MaxDeposit |
  +------------+
  |       8000 |
  +------------+
  1 row in set (0.01 sec)
  ```

4) Count total number of branch cities

- ```
  mysql> SELECT COUNT(DISTINCT City) AS TotalBranchCities FROM BRANCH;
  +-------------------+
  | TotalBranchCities |
  +-------------------+
  |                10 |
  +-------------------+
  1 row in set (0.00 sec)
  ```

5) List branch_id and branch wise deposit

- ```
  mysql> SELECT Branch_id, SUM(Amount) AS TotalDeposit FROM DEPOSIT GROUP BY
  Branch_id;
  +-----------+--------------+
  | Branch_id | TotalDeposit |
  +-----------+--------------+
  |         1 |        40500 |
  |         2 |        60000 |
  |         4 |        10000 |
  |         5 |        50000 |
  |         6 |        31000 |
  |         7 |          400 |
  |         8 |         6300 |
  |         9 |        56600 |
  |        12 |         8000 |
  |        14 |          900 |
  +-----------+--------------+
  10 rows in set (0.01 sec)
  ```

6) How many customers have opened deposit after ’01-01-2016’

- ```
  mysql> SELECT COUNT(DISTINCT Cust_id) AS CustomersCount FROM DEPOSIT WHERE
  Open_date > '2016-01-01';
  +----------------+
  | CustomersCount |
  +----------------+
  |              1 |
  +----------------+
  1 row in set (0.00 sec)
  ```
  ```

7) List the branches having sum of deposit more than 4000

- mysql> SELECT Branch_id, SUM(Amount) AS TotalDeposit FROM DEPOSIT GROUP BY Branch_id HAVING SUM(Amount) > 4000;

```
+-----------+--------------+
| Branch_id | TotalDeposit |
+-----------+--------------+
|         1 |        40500 |
|         2 |        60000 |
|         4 |        10000 |
|         5 |        50000 |
|         6 |        31000 |
|         8 |         6300 |
|         9 |        56600 |
|        12 |         8000 |
+-----------+--------------+
8 rows in set (0.01 sec)
```

8) List the names of customers having minimum deposit

- mysql> SELECT C_name FROM CUSTOMER WHERE Cust_id IN (SELECT Cust_id FROM DEPOSIT GROUP BY Cust_id HAVING MIN(Amount) = (SELECT MIN(Amount) FROM DEPOSIT));

```
+--------+
| C_name |
+--------+
| Fazil  |
+--------+
1 row in set (0.01 sec)
```

9) Count the number of depositors living in ‘Kozhikode’

- mysql> SELECT COUNT(DISTINCT Cust_id) AS DepositorsCount FROM DEPOSIT WHERE Cust_id IN (SELECT Cust_id FROM CUSTOMER WHERE City = 'Kozhikode');

```
+-----------------+
| DepositorsCount |
+-----------------+
|               3 |
+-----------------+
1 row in set (0.00 sec)
```

10) Find the maximum deposit of the Kerala branch

- mysql>SELECT MAX(Amount) AS MaxDeposit FROM DEPOSIT WHERE Branch_id IN (SELECT Branch_id FROM BRANCH WHERE City = 'Kerala');

```
+------------+
| MaxDeposit |
+------------+
|      56600 |
+------------+
1 row in set (0.00 sec)
```

11) Find out number of customers living in Ernakulam

- mysql> SELECT COUNT(*) AS CustomerCount FROM CUSTOMER WHERE City = 'Eranakulam';

```
+---------------+
| CustomerCount |
+---------------+
|             2 |
+---------------+
1 row in set (0.00 sec)
```

12) Find out the customers who are not living in Ernakulam or Alappuzha

- ```
  mysql> SELECT * FROM CUSTOMER WHERE City NOT IN ('Eranakulam', 'Alappuza');
  +---------+----------+------------+
  | Cust_id | C_name   | City       |
  +---------+----------+------------+
  |       1 | Adarsh   | Kozhikode  |
  |       2 | Abhishek | Truvandrum |
  |       3 | Akshay   | Palakkad   |
  |       4 | Sooraj   | Truvandrum |
  |       5 | Sanjay   | Malappuram |
  |       6 | Fazil    | Kozhikode  |
  |       7 | Arjun    | Kozhikode  |
  |       8 | Anil     | Idukki     |
  +---------+----------+------------+
  8 rows in set (0.00 sec)
  ```

13) List out Cust_id and C_name in descending order of their C_name

- ```
  mysql> SELECT Cust_id, C_name FROM CUSTOMER ORDER BY C_name DESC;
  +---------+----------+
  | Cust_id | C_name   |
  +---------+----------+
  |       4 | Sooraj   |
  |       5 | Sanjay   |
  |      10 | Reno     |
  |       9 | Ragesh   |
  |       6 | Fazil    |
  |       7 | Arjun    |
  |       8 | Anil     |
  |       3 | Akshay   |
  |       1 | Adarsh   |
  |       2 | Abhishek |
  +---------+----------+
  10 rows in set (0.00 sec)
  ```

14) Display the number of depositors in branch wise

- ```
  mysql> SELECT Branch_id, COUNT(DISTINCT Cust_id) AS DepositorsCount FROM DEPOSIT
  GROUP BY Branch_id;
  +-----------+-----------------+
  | Branch_id | DepositorsCount |
  +-----------+-----------------+
  |         1 |               1 |
  |         2 |               1 |
  |         4 |               1 |
  |         5 |               1 |
  |         6 |               1 |
  |         7 |               1 |
  |         8 |               1 |
  |         9 |               1 |
  |        12 |               1 |
  |        14 |               1 |
  +-----------+-----------------+
  10 rows in set (0.00 sec)
  ```

15) Find out the branch which has not borrowers

- ```
  mysql> SELECT * FROM BRANCH WHERE Branch_id NOT IN (SELECT DISTINCT Branch_id FROM
  BORROW);
  +-----------+---------------+-----------+
  | Branch_id | B_name        | City      |
  +-----------+---------------+-----------+
  |         5 | Bank of India | Karnadaka |
  +-----------+---------------+-----------+
  1 row in set (0.01 sec)
  ```