Database Lab

Date: 1st Aug 2019 Assignment 1
Submission Filename: assign1.txt Due Date: 1st Aug 2019 17:00

1 Assignment Overview

The learning objective of this assignment is to get familiar with `mysql` system. The students will gain experience on writing various queries for database design using `mysql`.

2 Task 1

Open a terminal in the Ubuntu system. Then connect to `mysql` using the following command-

```
$> mysql -u root -p
```

Once you entered the password correctly, then you will be connected to `mysql` server

Then create a user with your username and password. So if you use 'scot' as *username* and 'tiger' as *password* then use the following command-

```
mysql> create user 'scot'@'localhost' identified by 'tiger';
```

Now create a database name 'dblab'. Use the following command.

```
mysql> create database dblab;
```

Now give "all privileges" on this `dblab` database to this new user.

```
mysql> grant all privileges on dblab.* to 'scot'@'localhost';
```

Now login as this new user.

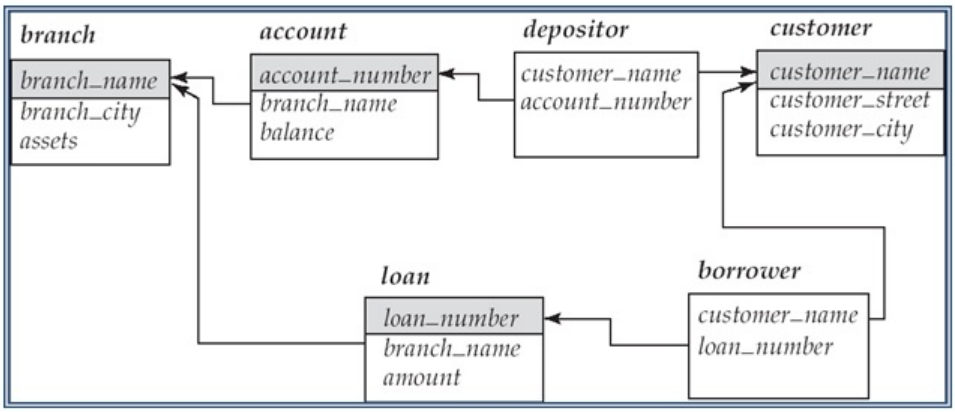
```
$> mysql -u scot -p
```

Enter the correct password and then use the *dblab* database.

```
mysql> use database dblab;
```

3 Task2

Now, consider the following figure. Each rectangular box indicates a table with the attributes mentioned in them. The shaded attributes denote primary key attribute in respective tables. Arrows indicate foreign key attribute.



The schema of each of the tables are given as below

- *branch* <*branch_name* varchar(20), *branch_city* varchar(20), *assets* float(10,2)>

- *customer* <*customer_name* varchar(20), *customer_street* varchar(20), *customer_city* varchar(20)>
- *account* <*account_no* int(10), *branch_name* varchar(20), *balance* float(10,2)>
- *loan* <*loan_no* int(10), *branch_name* varchar(20), *amount* float(10,2)>
- *depositor* <*customer_name* varchar(20), *account_no* int(10)>
- *borrower* <*customer_name* varchar(20), *loan_no* int(10)>

For each of the above tables, define the primary key, foreign key constraints appropriately. Write all the required queries in a text file (assign1.txt)

Also, insert 10 relevant records for each of the table. Write the required commands in the text file. Mention some records that cannot be entered due to violation of aforementioned constraints. Write them also in assign1.txt.

4 Submission

Write all the relevant `mysql` queries that you have used to perform *Task 2*. Submit the queries using a assign1.txt file. While writing the queries, please ensure that you use the table names and attributes as given in the above specification.

Submit the files using the following submission link-

`http://172.16.1.252/~samrat/CS355/submission/`