Database Lab

Date: 5th Nov 2020 Assignment 9
Submission Filename: CS355_assign9.txt Due Date: 6th Nov 2020 3:00 pm

Assignment Overview

The basic objective of this assignment is to get familiar with *trigger* utility of MySQL. In MySQL, a *trigger* is a set of SQL statements that is invoked automatically when a change is made to the data on the associated table. A trigger can be defined to be invoked either before or after the data is changed by INSERT, UPDATE or DELETE statement.

1 Task 1

For this assignment, initially create the following tables.

- *account* <anum number(5),bname varchar(20),balance int> /**anum* is the primary key*/
- *custAcc*<anum number(5),cname varchar(20)> /**anum* and *cname* combination is the primary key. */

2 Task 2

Now perform the followings-

1. Create a procedure [name procAccDummyData] which takes one integer value (N) as input parameter and insert N dummy records in account table. The dummy records must satisfy the constraints used to define the table.
2. Create a withdraw function [name funWithdraw] which takes *anum* and *amount* as input parameters and check whether sufficient balance is there (from *account* relation) or not and accordingly it subtracts amount from the balance and update the balance. If the amount can be deducted then withdraw function returns the final balance otherwise it returns -1.
3. Now create a trigger (use the standard naming convention i.e. [activation time]_[table name]_[trigger event],) to perform each of the followings

   a Before insertion operation into *custAcc* table, check whether the *anum* value exists in the *account* relation. If *anum* exists in account table then insert it into the *custAcc* table otherwise print an appropriate error message

   b For each update operation on *balance* attribute of *account* relation, store the corresponding old balance value in a separate table already created as

   - *accBalanceUpdate* <anum number(5), balance number(6), dou date(date of update), tou timestamp > /**dou* is date of update and *tou* is time of update*/

   Now, run the funWithdraw for several examples and show how they impact on the *accBalanceUpdate* table.

Submission

You need to submit a detailed report (CS355_assign9.txt) describing the steps for performing Task 1 and Task 2.