University Management System V1.0

How it works

Name: Group #10

Lab Section: CSCE 608

Workstation: Java + Windows build

Date: 11/15/2014

Contents

1 Introduction.

1.1 Document Overview

This file illustrates the page switching of the University Management System. Examples are clearly shown in the figures and could be helpful to the user

1.2 System Evolution Description

Version	Author(s)	Description of version	Date Completed
1.0	Group #10		11/15/2014

2 Human Interface Design

To provide a friendly interface to the user, we choose the GUI design which provides simplicity by just several clicks and variety of input SQL commands. This is much better than a whole black command line console window.

The whole GUI consists of five parts: (1) Main Menu; (2) Login Page; (3) Update Page; (4) Query Page and (5) Quit. The detailed info is as follow:
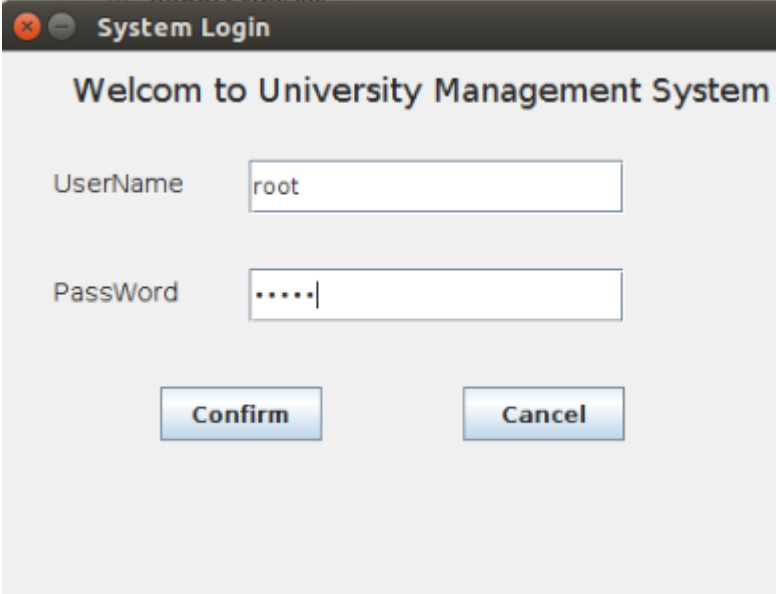
2.1 Main Menu
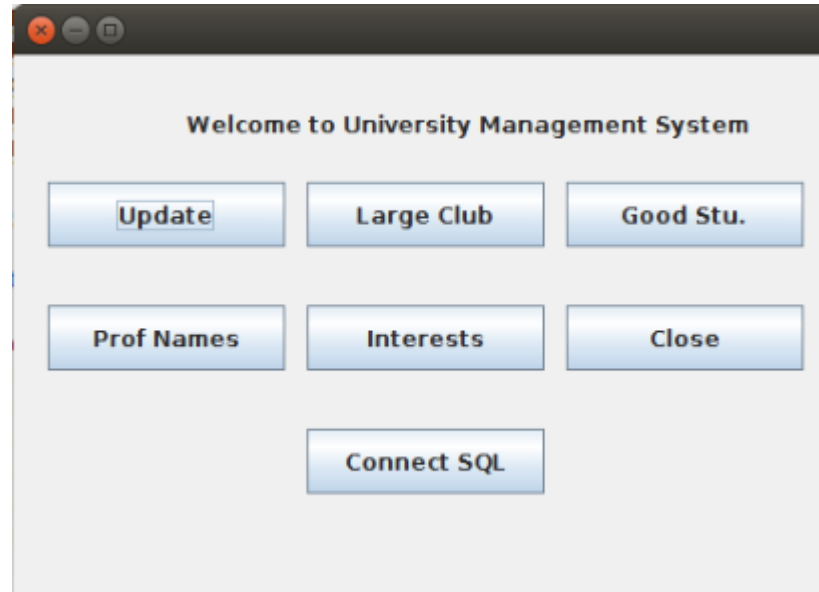
Whenever you open the database software or finish the current Update/Query operation, you will stay at this page and waiting for input. Possible jumping from this page will lead to:

1. Click "Connect SQL" will go to 2.2 Login Page;
2. Click "Update" will go to 2.3 Update Page;
3. Click "Large Club", "Good Stu.", "Prof Names" and "Interests" will go to 2.4 Query Page and;
4. Click "Close" will go to 2.5 Quit;

2.2 Login Page

This page asks the user to provide their "Username" and "Password" before accessing the MySQL database server.

"Database connection established" will be printed out on the console window after both "Username" and "Password" are typed in and accepted while invalid access could be stopped.

The other operations, e.g. Login, Update, Query are all based on the successful SQL connection above and the window will be switch back to 2.1 Main Menu after successful confirmation.

2.3 Update Page

In this page, an empty typing blank is given to make the user input as flexible as the SQL language. We could apply INSERT, UPDATE, and DELETE etc. operations to MySQL database.

Furthermore, an output block is large enough to show the result of Update operations. And "Close" provides user the opportunity to return back to Main Menu or keep on Updating based on whether or not the button is clicked or not.

2.3.1 Update Success
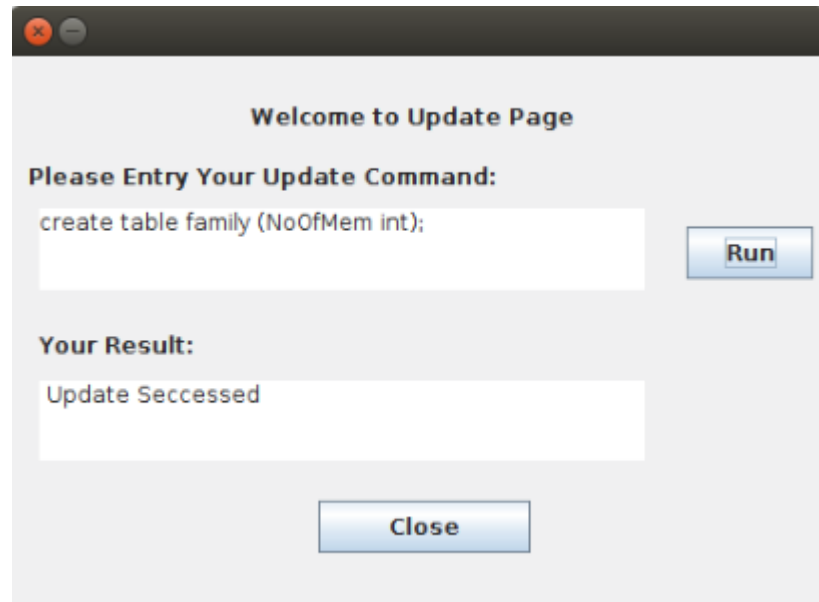
To show a successful SQL update to the database, sentence of "Update Successes" is shown up in the output block after click "Run".

2.3.2 Update Failed
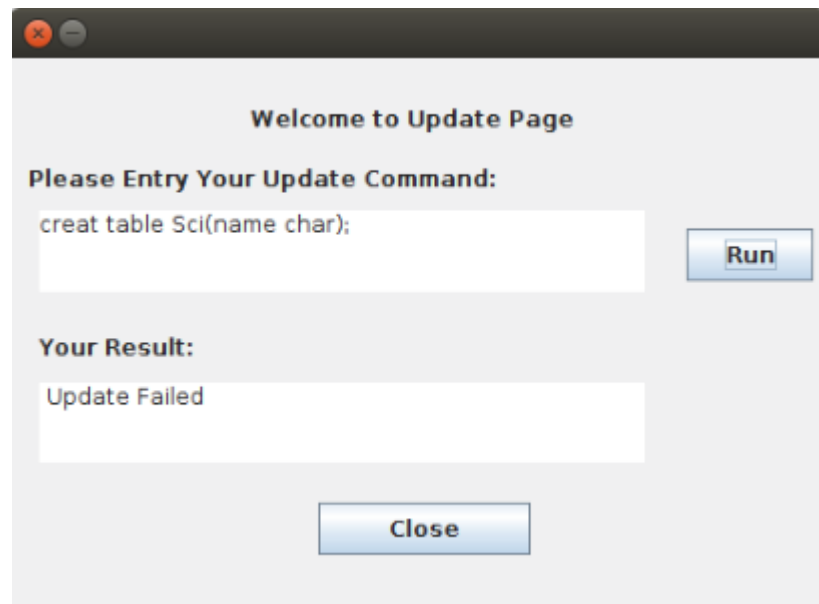
Since there is no efficient way to show the Update SQL failure in MySQL, we simply judge the failure based on whether an error

signal is thrown out and captured by the system and then print "Update Failed".

For example, the above create table SQL is failed since the key word "creat" should be "create".

2.4 Query Page

Currently, we fix four main types of SQL queries. They are namely "Largest Club", "Good Student", "Professor Name" and "Research Areas".
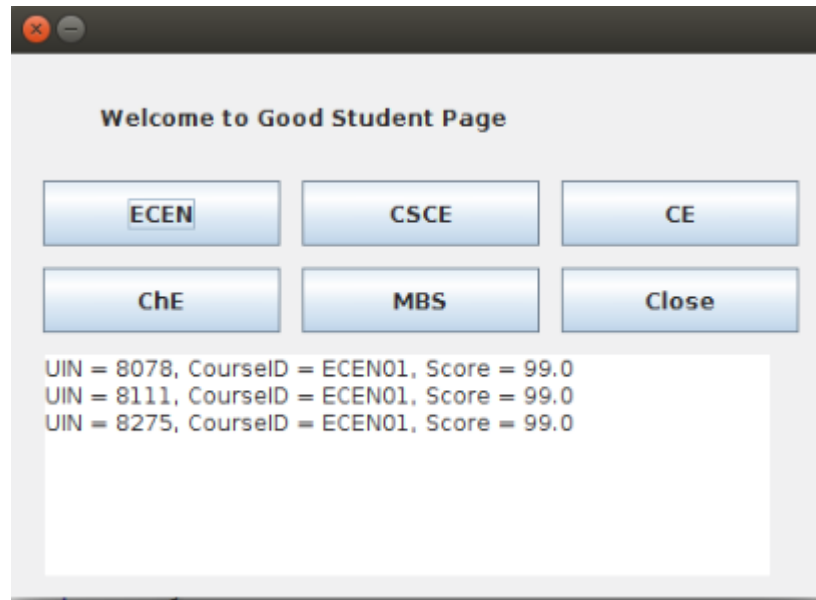
As for the 2nd to 4th Query, six different departments are listed for giving more query flexibility to the users while the 1st Query is used to search through the whole university so no department info is necessary.
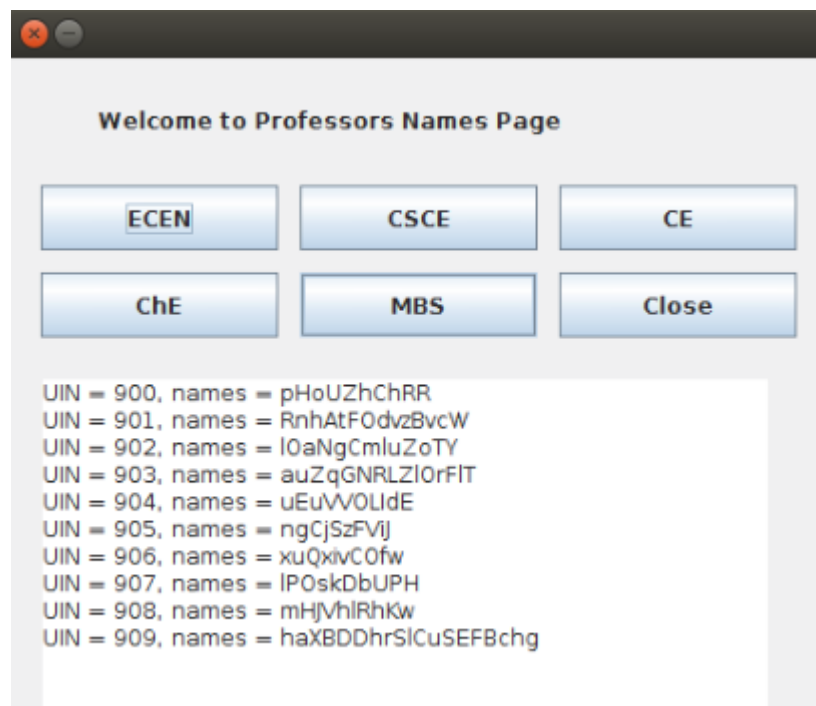
2.4.1 Largest Club
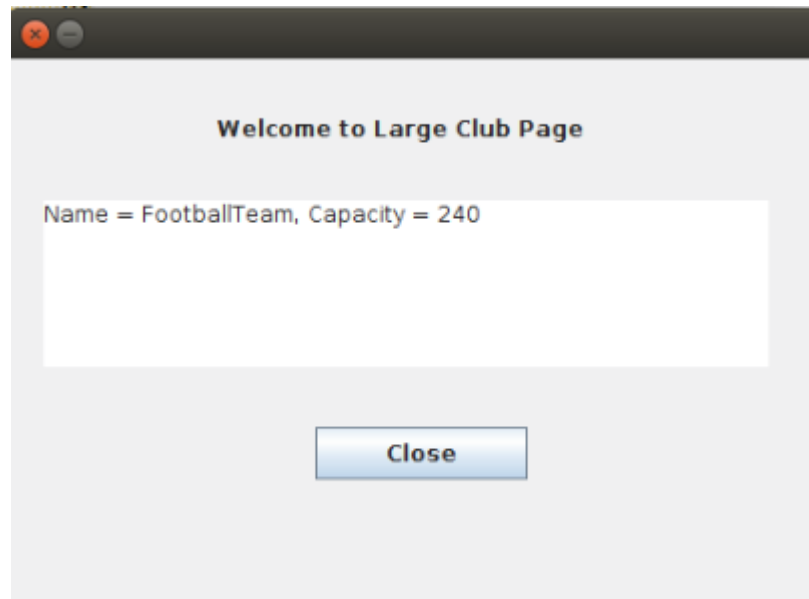
In this page, the student club with the largest number of students will be searched out with club Name and the # of club members.

2.4.2 Good Student

```
Welcome to Good Student Page

   ECEN          CSCE           CE

   ChE           MBS          Close

UIN = 8078, CourseID = ECEN01, Score = 99.0
UIN = 8111, CourseID = ECEN01, Score = 99.0
UIN = 8275, CourseID = ECEN01, Score = 99.0
```
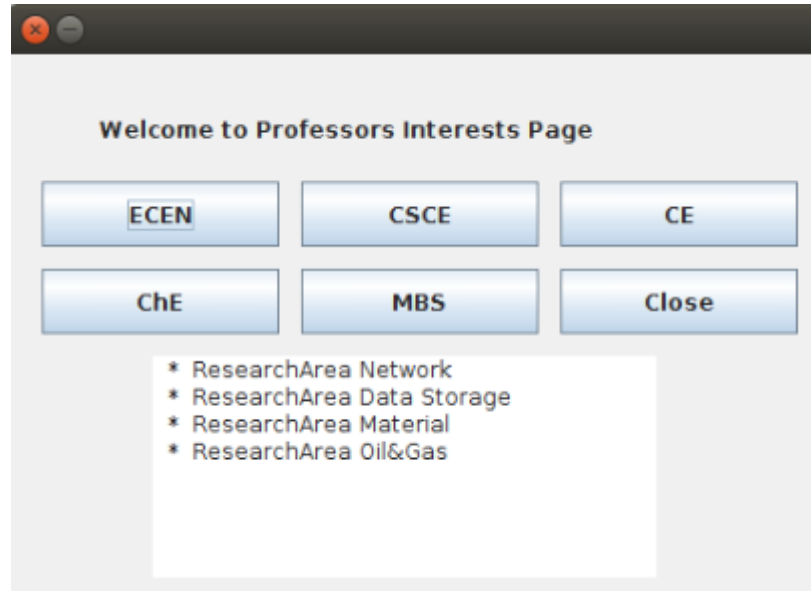
In this page, after choosing a certain department's name from "ECEN", "CSCE", "CE", "ChE", "MBS", the top 5 students with the highest score in that department will be listed including "UIN" "CourseID" and "Score".

2.4.3 Professor Name

```
Welcome to Professors Names Page

   ECEN          CSCE           CE

   ChE           MBS          Close

UIN = 900, names = pHoUZhChRR
UIN = 901, names = RnhAtFOdvzBvcW
UIN = 902, names = l0aNgCmluZoTY
UIN = 903, names = auZqGNRLZIOrFIT
UIN = 904, names = uEuVVOLIdE
UIN = 905, names = ngCjSzFViJ
UIN = 906, names = xuQxivCOfw
UIN = 907, names = lPOskDbUPH
UIN = 908, names = mHJVhlRhKw
UIN = 909, names = haXBDDhrSlCuSEFBchg
```

In this page, after choosing a certain department's name from "ECEN", "CSCE", "CE", "ChE", "MBS", the professors' name as well as their UIN will be listed including "UIN" and "Names".

2.4.4 Research Area

In this page, after choosing a certain department's name from "ECEN", "CSCE", "CE", "ChE", "MBS", a research area set is created to record all the professors' research interest and then printed out all the areas without duplications.

2.5 Quit Page

A "Close" option in the main menu makes it easy to quit the database with safe and grace instead of killing the software legally to get rid of the dead loop. The picture is as follow.

3 APPENDICES

Appendices may be included, either directly or by reference, to provide supporting details that could aid in the understanding of the Software Design.