CPSC 315 – Programming Studio

Individual Assignment 1 : **Reading, Storing, and Presenting Information**

Due February 3, 2009 5:00 p.m.

This assignment counts for 10% of your overall grade. The assignment is to be implemented in JAVA.

Description:

You will be given an input file that lists information about people engaging in activities as part of a particular online community. The community allows people to play a variety of games, and each time a person completes a game, they get points to spend in the community's virtual world. Each line of the file indicates either that a person has joined the community, or that a person has completed one of the games.

You are to read in the input file, and produce a set of HTML profiles for each player and each game with an index page (index.html) linking to each profile. The profiles for each user should include (at a minimum):
- the user's name,
- when the user joined,
- what games the user has completed, and
- how many points the user has.

The profiles for each game should include (at a minimum):
- the game's name,
- how many points a community member earns for completing it, and
- who has completed the game.

In addition to the HTML profiles you must create a separate application with a simple graphical user interface to allow a user to query information about the games. Examples of these queries would be:
- Given a user's name, give a user "report" including things like a list of the games that person has completed, the person's join date, how many points the person has accumulated, etc.
- Given a game, find all users who have completed the game
- List all users/games
- Get overall statistics regarding number of users, number of games completed, etc. Anything else you can think of (try to add one or two other simple things)

Since the application will gather similar information from the log file for the HTML profiles and queries remember to write your code with reusability in mind.

The input file itself will contain lines with one of the two formats:
<username> <date> <action>
<points> <game name>

For the first type of input line, the username will be a unique name of no more than 8 alphanumeric characters, starting with a letter. The date will be of the form MM/DD/YYYY. Action will be either the string JOIN if it is the date the person joins the community, or else will be the name of a game (game names may be up to 40 characters long).

For the second type of input line, information about a game is given, including the number of points the game is worth (a positive integer) and the name of the game.

The file will end with a line: 0 END

Lines may be in any order. Only players who have joined will have ever completed games. An example input file would be:

```
Keyser 01/01/1994 JOIN
JimBob 03/13/2004 Super Fun Game
JimBob 10/12/2000 JOIN
Keyser 05/05/2005 Not So Fun Game
Keyser 07/07/2007 Super Fun Game
10 Not So Fun Game
40 Super Fun Game
0 END
```

Your grade will be determined primarily by how well you follow good naming, layout, and commenting practices. Specifically, 40% of the grade will be determined based on whether the program works, while 60% of the grade will be based on how well you "communicate" with the code.

Deliverables:
1. HTML index page and profiles
2. Querying application w/GUI (Graphical User Interface)