Project 4B: User Information II

Assigned: September 21, 2010
Due: Sunday, September 25, 2010 by 11:59 PM

Deliverables:

The following project files must be uploaded to Web-CAT by the due date and time specified above (see the Lab Guidelines for information on submitting project files).

- OnlineUserID.java
- OnlineUsersDemo.java

Specifications:

OnlineUserID.java

- **Requirements**: You have been requested to extend the functionality of the user ID program that you wrote last week to include the user's home website, whether they are online, and their e-mail address. It should also keep a count of how many times the user has logged on.

  The user's email address is obtained by concatenating their ID and the address of their website. The website address can start with either www or http//www.

  Example:

User ID	Website	Resulting e-mail
andken134	www.auburn.edu	andken134@auburn.edu
wilbri159	http://www.java.sun.com	wilbri159@java.sun.com
porjus048	http://www.weather.gov	porjus048@weather.gov
willand064	www.weather.gov	willand064@weather.gov

- **Design**: Your OnlineUserID class must inlcude all of the functionality of the UserID class in Project 4A. When an OnlineUserID object is created, the user's email and their e-mail website should be set to "Not specified". Their online status should default to offline and their number of logins should start at 0. The class must also contain **two public constants** int of type int: OFFLINE & ONLINE.

  The OnlineUserID class must also contain the following methods:

  - `setWebsite`: accepts a String parameter respresenting the name of the website. Returns true and sets the website if the String parameter contains "www". Otherwise the website should not be set and the method should return false.
  - `getWebsite`: returns the website ("Not specified" if setWebsite has not been invoked).
  - `getEmail`: returns the user's email ("Not specified" if setWebsite has not been invoked).
  - `setStatus`: takes an int parameter (one of the two public constants). Sets the user's online status to online if the parameter is equal to OnlineUserID.ONLINE and offline otherwise.

- `isOnline`: returns true if the user is online and false otherwise. Takes no parameters.
- `getLoginCount`: returns an int representing how many times the user has logged in (i.e. how many times `setStatus` was invoked with the value of OnlineUserID.ONLINE).
- `toString`: Your toString should be modified as follows.

```
Name: Bob Smith
User ID: smibob143
Password: 386425
Website: http://www.auburn.edu
E-mail: smibob143@auburn.edu
Status: Offline
```

- **Code**: Think about where you will increment the number of times that the user has logged in. Remember that the number keeps track of how many times `setOnlineStatus` has been called with the parameter input OnlineUserID.ONLINE. You will also need to determine how to set the user's email if their website starts with the www versus the http://www prefix. If you compare two String objects in your code, always use the .equals method of the String class. Consider the following example with String variables str1 and str2:

Bad: `if (str1 == str2)`

Good: `if (str1.equals(str2))`

- **Test**: Test your class by instantiating objects in the interactions pane. Example:

```
OnlineUserID testId = new OnlineUserID("Bob", "Smith");
testId.setStatus(OnlineUserID.ONLINE);
testId.setStatus(OnlineUserID.OFFLINE);
testId.setStatus(OnlineUserID.ONLINE);
testId.setStatus(OnlineUserID.ONLINE);
testId.setStatus(OnlineUserID.OFFLINE);
testId.getLoginCount()
3
testId.getWebsite()
Not specified
testId.getEmail()
Not specified
testId.setWebsite("http://www.auburn.edu");
testId.getWebsite()
 http://www.auburn.edu
testId.getEmail()
 smibob143@auburn.edu
```

OnlineUsersDemo.java

- **Requirements**: The OnlineUsersDemo program is only meant to demonstrate some of the functionality of your OnlineUserID class. In other words, the primary deliverable is the OnlineUserID class; the OnlineUsersDemo driver program is only meant to demonstrate how OnlineUserID will work.

- **Design**: Your OnlineUsersDemo class is a driver program, meaning that the class should contain a main method. Follow the output of the example below. Replace everything in italics with your own words; orange text is example user input.

Line #	Program output
1	*Prompt for first user's first and last name:* Jane Lane
2	*Prompt for first user's website:* www.auburn.edu
3	*Is first user online (y - yes, n - no)?* n
4	
5	
6	*Prompt for second user's first and last name:* Bob Smith
7	*Prompt for second user's website:* http://www.auburn.edu
8	*Is second user online (y - yes, n - no)?* y
9	
10	*-----*-----*-----*-----*-----*-----*-----*-----*
11	User # 1:
12	Name: Jane Lane
13	User ID: lanjan062
14	Password: 346734
15	Website: www.auburn.edu
16	E-mail: lanjan062@auburn.edu
17	Status: Offline
18	*-----*-----*-----*-----*-----*-----*-----*-----*
19	User # 2:
20	Name: Bob Smith
21	User ID: smibob143
	Password: 386425
	Website: http://www.auburn.edu
	E-mail: smibob143@auburn.edu
	Status: Online
	----------*-----*-----*-----*-----*-----*-----*

- **Code & Test**: You will need to create 2 OnlineUserID objects, as the driver program will display 2 users. The prompt for whether the user is online should accept Y and y for yes and n and N for no.