

Program 8: A Logon GUI

CS 617 Winter 2013

1 Goals.

1. To finish the GUI controller and viewer for the Logon application.
2. Use more complex Swing features.
3. To implement a Model that is separate from the Controller.

2 Using the Window Building

This program will use the code you wrote for P7, plus more from P5. In addition, you will add a simple application.

Instructions. Re-implement the rest of P5 using a Swing interface.

- Move the parts of the model from your P7 Admin class to the P8 AdminModel class. This includes the ArrayList, current user pointer, and current UID. You may use package visibility for these data members. If you need any functions to operate on this data, put them here also.
- Move the rest of the code from P7 Admin to P8 Admin. Include all the functions from P5 that deal with files, password validation, and encryption. Use object files, not text files.
- In Admin, design your own screen layout, within a single JFrame window, using a tabbed layout, into which you will insert 4 tabs.
- In Admin, create a card-panel (tab 0) for logging in. Use a JPasswordField for input. You do not need a panel for logging out.
- In Admin, create a card-panel (tab 1) for Administrative actions (new user, logout). Use the elements and the code you created for P7.
- Create a User card-panel (tab 2). Use the same idea as for the Admin panel, with the logout button on the left, and an area on the right that lets the user input a number (JTextField) and outputs whether or not that number is prime. Use a table of prime numbers up to 1000 and limit your inputs to numbers less than a million. Put some sort of simple decoration (shapes or colors) in this area, in addition to the text elements.
- Create a card-panel for changing a password (tab 3). Use the same panel for the administrator and ordinary users, but your logic will need to do different things depending on who is logged in. If the admin is logged in, use an added dialog box to let him enter the name of the user whose password is being changed.
- Most of the logic behind this application is already debugged. You need one new technique, however. When nobody is logged in, only the login tab is active, or enabled. When the administrator is logged in, his own tab and the change-password tab are active. When an ordinary user is logged in, the User and change-password tabs are active. To set this property, use the `setEnabledAt(x, false)` function of the `JTabbedPane` to disable tab `x`, or `setEnabledAt(x, true)` to make it active.

3 Due: March 29

Hand in a zipped project, including your code, some screen shots and your output file.