



48024

Applications Programming

Assignment 2 Guide

Aim:

This assignment focuses on building a graphical user interface to the logic from assignment 1.

Suggested Work Plan:

First note that the internal structures of the TMS model have been adjusted a little to make GUI building a little easier, so use the code skeleton given as a starting point, rather than trying to adapt your own assignment. If you do this, you can complete the assignment without modifying this part of the code at all, leaving only the GUI components to complete.

This assignment is also less linear from the perspective of which bit of the code to work on - there are several groups of classes and FXML objects that usefully developed "in parallel". There is, however, a sensible meta-level order in which to approach the assignment:

1. Build the three main windows (Main, Login and Admin): these are the foundation for the rest of the windows.
2. Build empty or partial windows for everything else: so, when you click a button in the main window, something appears, even if it's a rudimentary or empty window.
3. Add the close buttons.
4. Add the components that don't require lists or tables. You should be able to complete the Main window and Login windows entirely at this point.
5. Once you have a good idea about how to handle lists and tables (Lab 10 and Lab 11), complete the Slip and Report windows. You can also partially complete many of the other windows without worrying about disabling and enabling the buttons at this point.
6. About this time, you should also know how to select an item in a list or a table, this will allow you to complete the Admin window, the filter by name and filter by email, except for enabling and disabling buttons.
7. By week 11, you will have seen all the components necessary to complete the assignment. In particular you should now be able to implement at least two table-based windows (SLIP and



Report), and you should now be able to implement the error message window.

8. In the last week, polish off the last few touches remaining on the other windows (setting the properties to allow buttons to be enabled and disabled).

Implementation:

There are a few windows to implement, by approaching the assignment in terms of GUI functionality across windows, you actually only have a limited number of tasks.

- A. The Session menu window.
- B. The Login Dialogue is done and verifies login credentials.
- C. The Administration Window shows all Students.
- D. The Administration Window can filter Students.
- E. The Add/Update Student window (new Student is updated same time in the administration window).
- F. The SLIP window and the Report window.
- G. The Error window is done and verify fields in ADD/Update Student window.

If you break it down this way, you then only have about 7-8 things to develop (depending on your precise classification), along with some careful renaming.

Wrapping up:

The final piece of advice is, again, to pay attention to the study modules and the labs, they have everything you need in them. Some things are obvious, some require some effort to uncover, but it's all there.