CSCI/CSIS 602 Lab 3 (50 points)
Change Request Practice
Due Friday 27 September 2013 (20% penalty per day late)

Overview

The purpose of this lab is to practice the change request procedure learned in the lectures. It involves making a software modification to a small, open source software project and documenting the process using the given report template (Report_Format.doc). This is an individual lab – no collaboration is allowed. You may help each other get the starter source code downloaded and imported into Eclipse, but not on anything else.

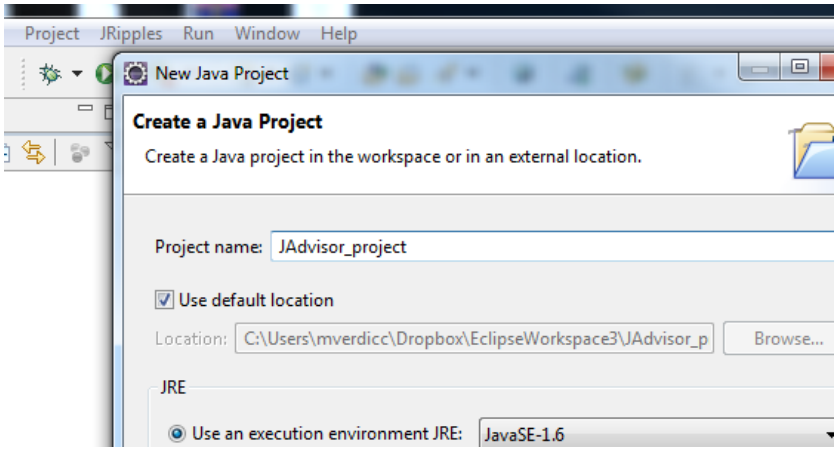
JAdvisor

JAdvisor is a class scheduler, course planner, and course search program. It also allows college students to view their schedules graphically and create an optimal schedule. Adapters are used to customize JAdvisor for a particular school. This software has not been in active development for a long time. The limited size and complexity of the project, however, make it ideal for learning our change request process. *You should follow the download and build instructions in this document exactly.*

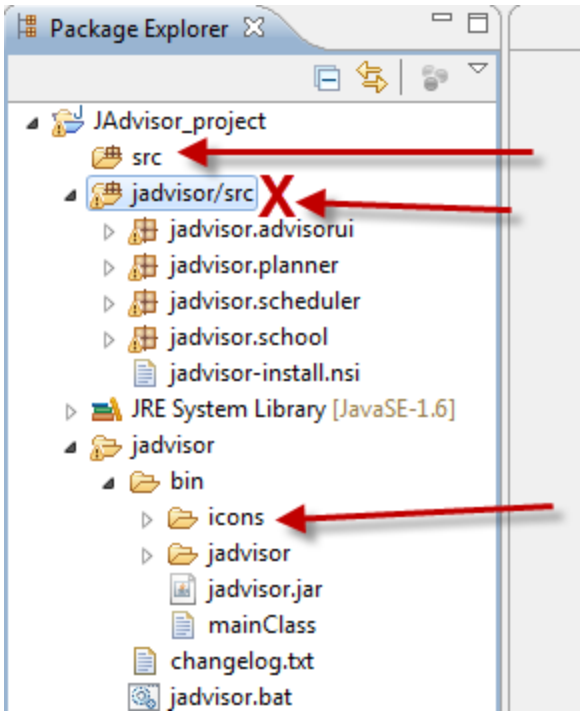
JAdvisor is available for users and developers at: http://sourceforge.net/projects/jadvisor/. Since we are developers we are going to download the source code and not any executable install files. JAdvisor has 34 source code files grouped in 4 folders, the project has 104 classes. On the Sourceforge site the activity of the project is low.

How to Build JAdvisor

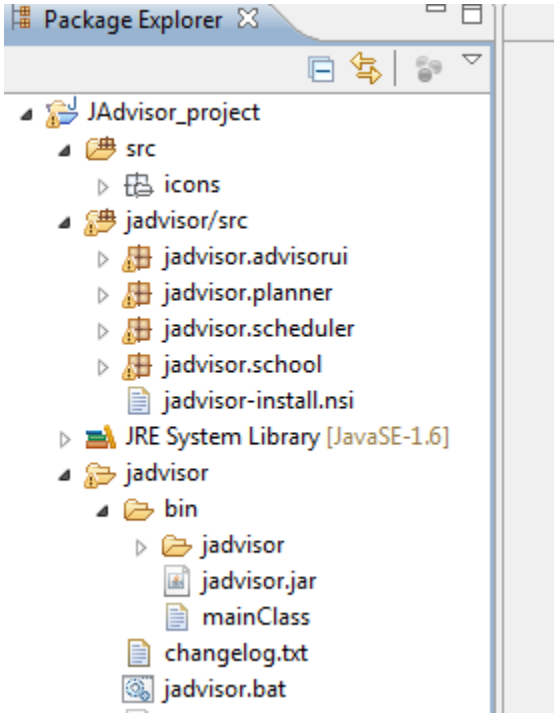
1. Download **jadvisor-0.4.6.tar.gz** from http://sourceforge.net/projects/jadvisor/files/
2. Using Eclipse, open a workspace and create a standard, empty Java project. Let's name the project "JAdvisor_project".



3. Import the downloaded archive into the Eclipse project by right-clicking the project folder and selecting "Import", then "Archive File". Browse and select the archive and hit Finish button.
4. Inside JAdvisor_project, right click on JAdvisor_project/jadvisor/src folder, and select "Build Path"->"Use as Source Folder". At this point the project compiles, but it throws a null pointer exception if you run it, because the default icons and images are not found. You can ignore any warnings (usually in yellow). It should then look like this:



5. Note the distinction between the default src folder that eclipse created and the jadvisor/src folder you just made into a build path src folder. Now, using drag and drop feature in Eclipse, move the icons folder (bottom arrow) into the top, eclipse-generated src folder, (NOT the jadvisor/src folder). It should now look like this:



6. Run JAdvisor as a Java application: Right click on JAdvisor_project, and select "Run As -> Java Application".

What to do for the lab

Your task is to implement a change request for this project. You may choose either of the two requests below. The design decisions you make are up to you.

1. **Permutation Request**: Generate the various permutations of a schedule that exist from a set of selected courses. The user will just enter the courses that they want to take and the program should create the various schedules and present them to the user in an organized way.
2. **School Adapter**: Research the creation of a school adapter like the ones included with the program. This school adapter should download the appropriate school schedule for The College of Charleston or The Citadel, if possible. If not possible we should implement a school adapter for any other South Carolina school. Once you understand the creation of a school adapter from existing code and finding the appropriate online scheduling resources, implement the adapter. (Since there are examples of adapters already, this task isn't as hard as it seems.) If you cannot get the software to read the schedule information off the website, you can read a text file with the some or all of the same information instead. E.g. http://www.citadel.edu/courses/fall-2013-graduate-full-term-course-offerings.php

To implement your selected change request you will follow the procedures we discussed in the class. The following deliverables are required:

1. You are required to submit an electronic copy of the report describing how you used the incremental change process to implement the change request, in the format defined by **Report_Format.doc**. You are to follow all instructions in that starter document and fill in its sections.
2. The project MUST compile and run for you to receive credit. If it does not compile or run, you must comment out code that does not work and/or enable the code to fail gracefully. Add helpful output and inline documentation to explain anything that is not working. You are required to submit an archive file of the entire modified JAdvisor project. To do this browse on your computer to your Eclipse workspace and create a ZIP or RAR file out of the top level project folder.
3. Combine the document from step 1 and the archive from step 2 into a submission archive titled: CSIS602-LAB3-Lastname.zip (or .rar). Submit this one file to http://dropitto.me/verdicchio (password is *fall13*) on Friday 27 September 2013. Late submissions will be penalized at 20% per day late.

Note: I care more that you follow the process in the report file precisely than I do about your code working. A working solution without the requisite documentation will be penalized much more severely than a nonworking solution with complete documentation. Full credit can only be earned with a working solution.