Software Methods and Tools

Spring 2018

Assignment 4

Due on 11:59PM, Monday, March 12, 2018

This assignment is about Eclipse plug-ins, and the extension and extension point mechanism. We will give you the source code of a Java application. Your task in this assignment is to change it to an Eclipse plug-in based application. Specifically, your final outcome must meet the following requirements.

1. Your final product must be Eclipse plug-ins, and can be deployed as Eclipse plug-ins.
2. There must be at least three Eclipse plug-ins created in your system, and they are integrated through Eclipse extension points and extensions.
3. At least one plug-in extension point should be created in your system.
4. At least two extensions should be made to the extension point that you created.
5. The user interface of the original application was built using Java AWT and SWING. Since we are going to make it an Eclipse-based application, it is highly recommended that you use Eclipse's own Standard Widget Toolkit (SWT) to implement the user interface. As we discussed in class, Eclipse's workbench is just based on SWT. Note that this is optional, and you will get 5 extra points if you use SWT.

The application we will give you is a Tetris application. Its source code can be downloaded from the link below.

https://github.com/PSNB92/Tetris.

After you finish, add all your JAR files into a zip file and submit it to the Blackboard system before the deadline. Please make sure that your

submission is runnable and bug free, and meets all the requirements. Your submitted code counts for 50% of your grade.

You also need to give a demo of your application at a session that will be announced later. Your demo counts for 30%.

Hint:

1. Try to decompose the Tetris application into modules or components first. As we discussed in class, Eclipse plug-ins or bundles are essentially just modules.

2. SampleHandler.java in Lab 4 is a good reference for you, especially about how to use plug-in related APIs.