

Exercises: Java Setup

These exercises are mostly to verify that Java and Eclipse are installed properly, and that you know how to run applications and applets.

1. Open Eclipse and go to the “intro” project. Expand the entry that says “(default package)”. Open the HelloWorld application by double clicking on it. Run it (R-click, Run As --> Java Application) and make sure you can see the output in the Console window. Once in a while you accidentally close the Console window and there is then no “Console” tab at the bottom. To get it back in that rare case, do Window --> Show View --> Console.

Also, if you are on your own PC, remember that you can download all of the Eclipse projects from the Java Programming tutorial at coreservlets.com. The Web site has instructions on how to import into Eclipse. There are projects with the source code from the lectures as well as projects containing the solutions to the exercises.

2. Copy HelloWorld and rename it to Test (R-click, Copy, R-click, Paste. Or, to rename without keeping the old class name, R-click, Refactor --> Rename). Run Test.
3. Run the HelloWWW applet. Do so by dragging HelloWWW.html from the Eclipse interface onto the browser of your choice. You can also execute the applet by navigating to the intro folder on the file system and double clicking on HelloWWW.html (or dragging it onto your browser of choice). In some versions of Internet Explorer, you will need to click on the warning bar at the top and select “allow blocked content”. You can also R-click in the applet’s Java code and do Run As --> Java Applet. In that case, Eclipse makes a temporary HTML file, guesses on the WIDTH and HEIGHT, and then runs it in a mini-browser called appletviewer. All those options are useful to know about, but the most common approach is the first: drag the HTML file from the Eclipse interface onto Firefox, Chrome, or IE.
4. Make a new Eclipse project (File --> New --> Project --> Java --> Java Project. In some versions of Eclipse Kepler, the *very* first time, you must R-click in the Project Explorer on the left side to get this menu. Make sure you select the radio button that says “Use project folder as root for sources and class files”). Copy HelloWorld into it and make sure you can run it there. One way to copy is to R-click on HelloWorld.java in the old project, do Copy, then R-click on the new project name and do Paste. Control-c and Control-v also work for copying and pasting.
5. Make sure you have the Java API (<http://docs.oracle.com/javase/7/docs/api/>) bookmarked in whatever browser you prefer to use. Look in that API for the String class. Find the replaceAll method. Which comes first: the regular expression being searched for, or the replacement string? Now look up the Math class. What is the default base of the log method: 10 or e?