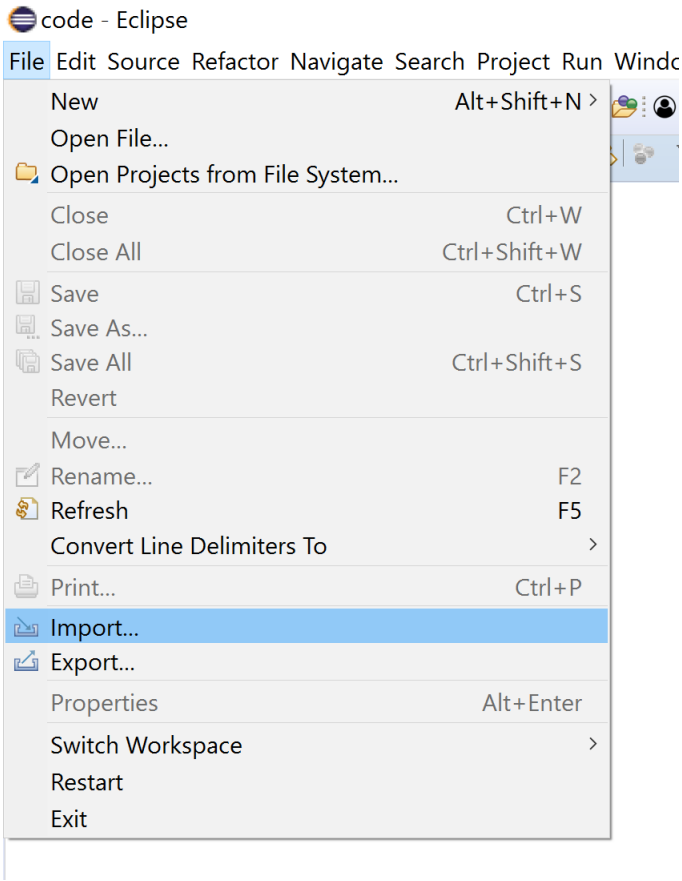
Getting Started with Assignment 1b

COMP 550.001 Fall 2017

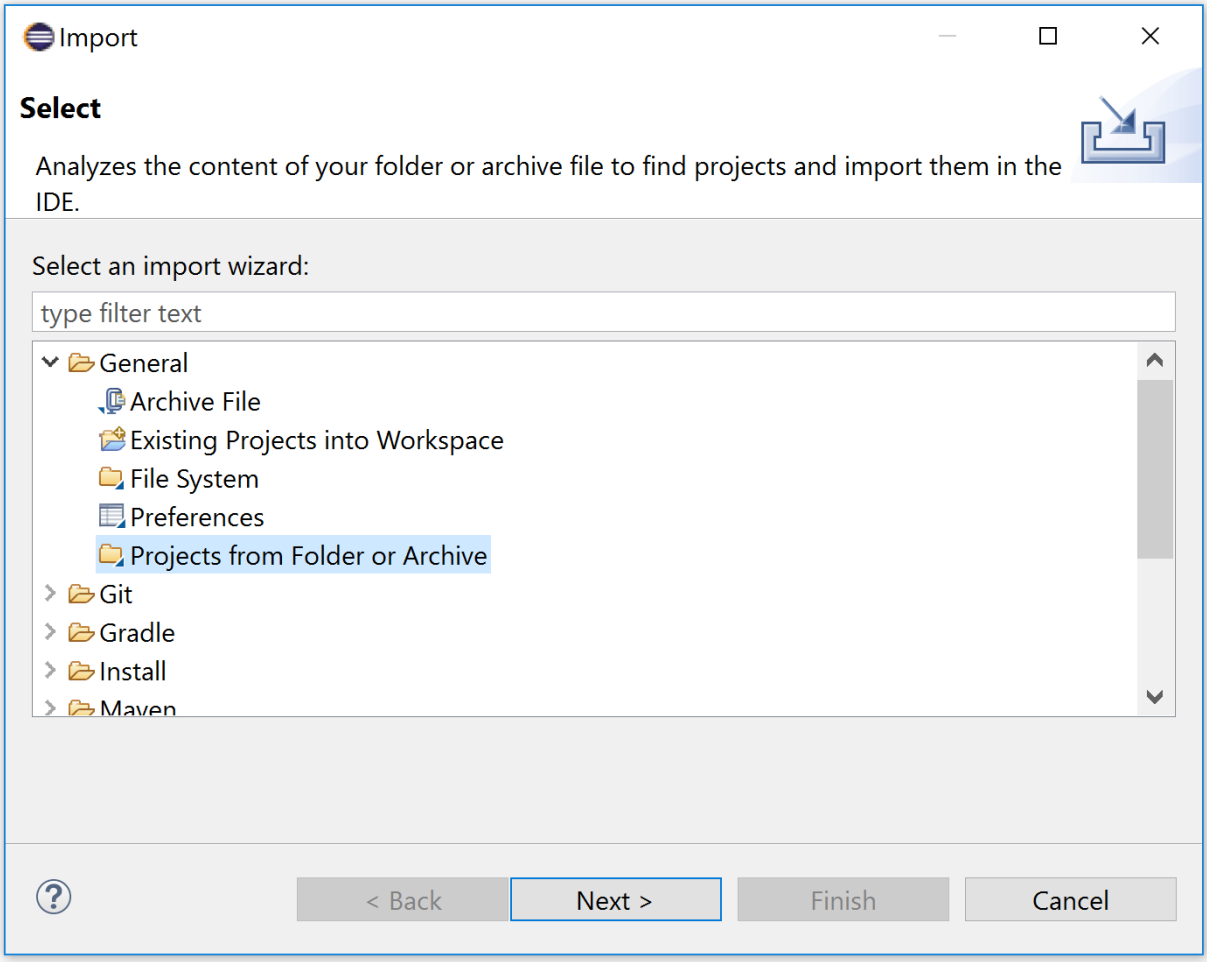
First, download the .zip file from http://cs.unc.edu/~tamert/comp550-f17/hw1.zip. This tutorial will use the Eclipse editor to import and run the starter code.

Import the .zip file as an Eclipse project

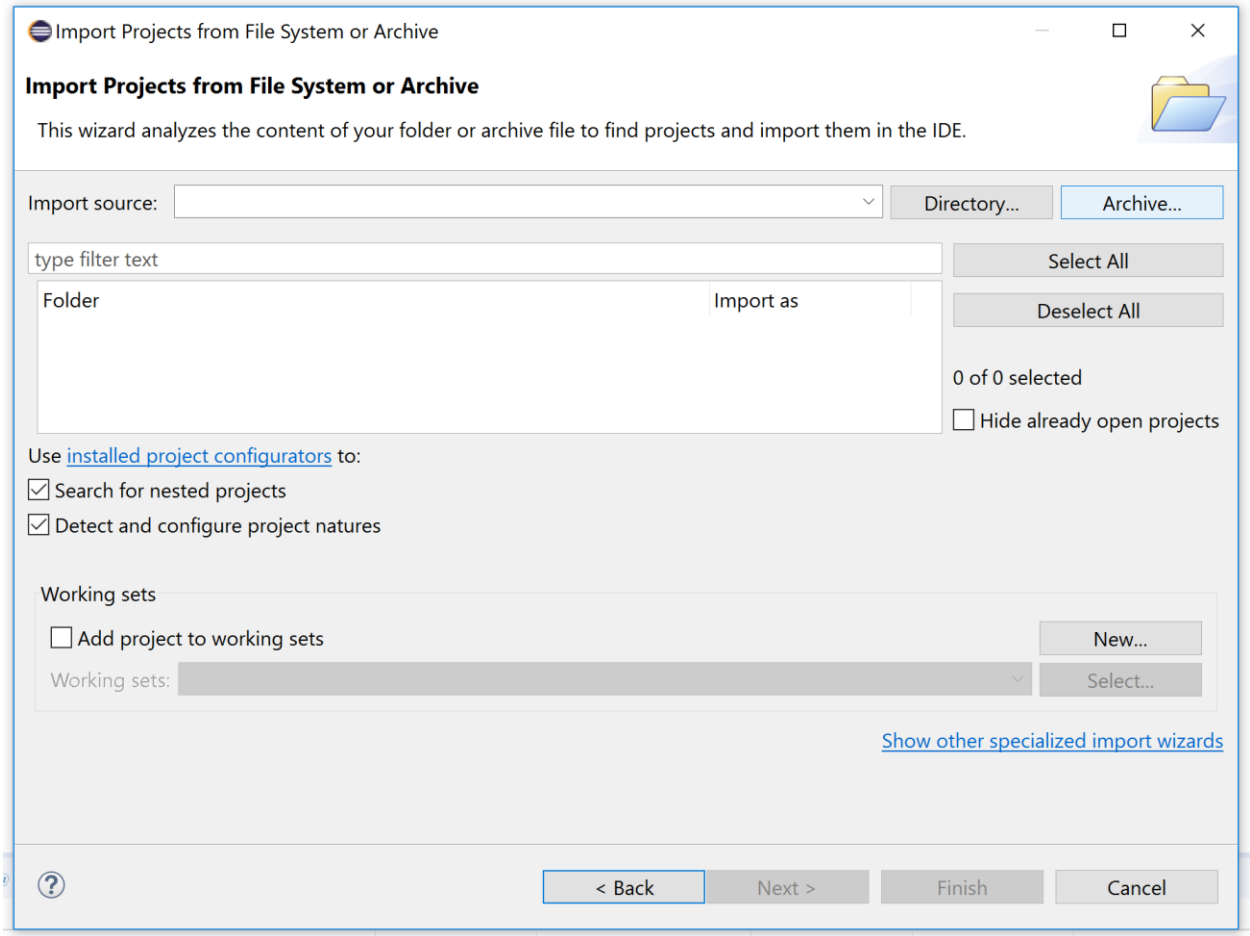
First, go to “File”->“Import”.



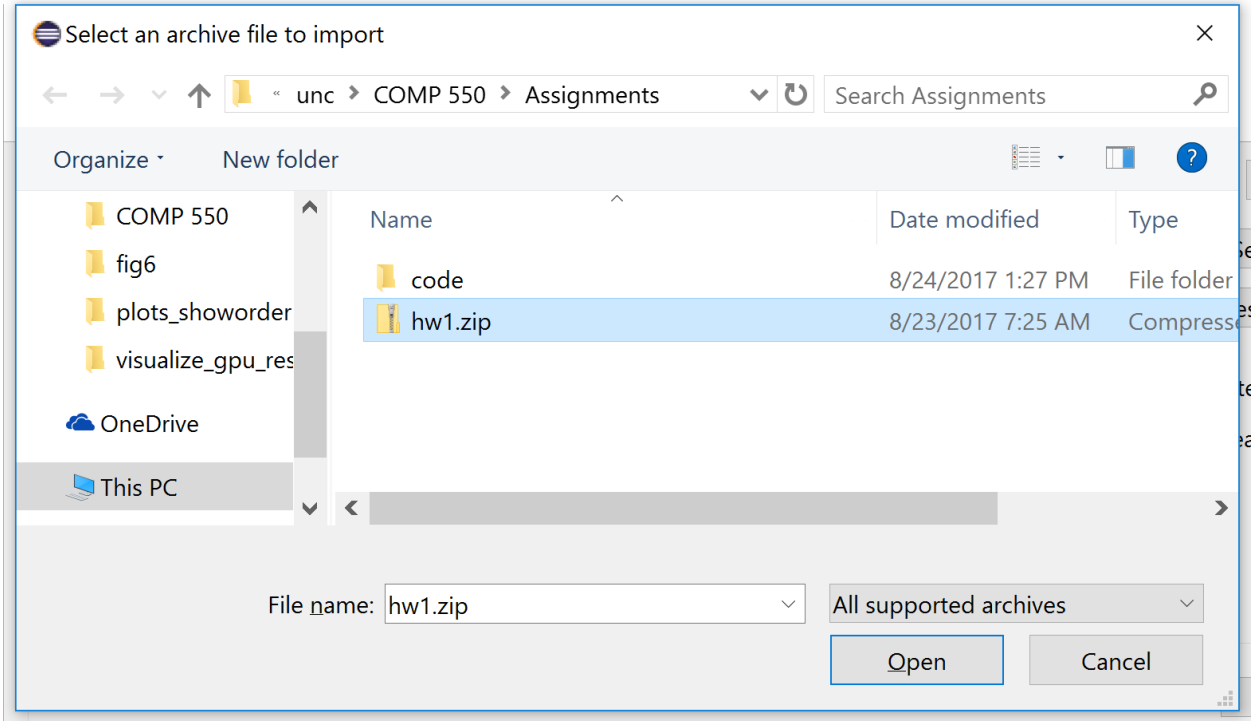
In the Import dialog, select “General”->“Projects from Folder or Archive” and click “Next >”.



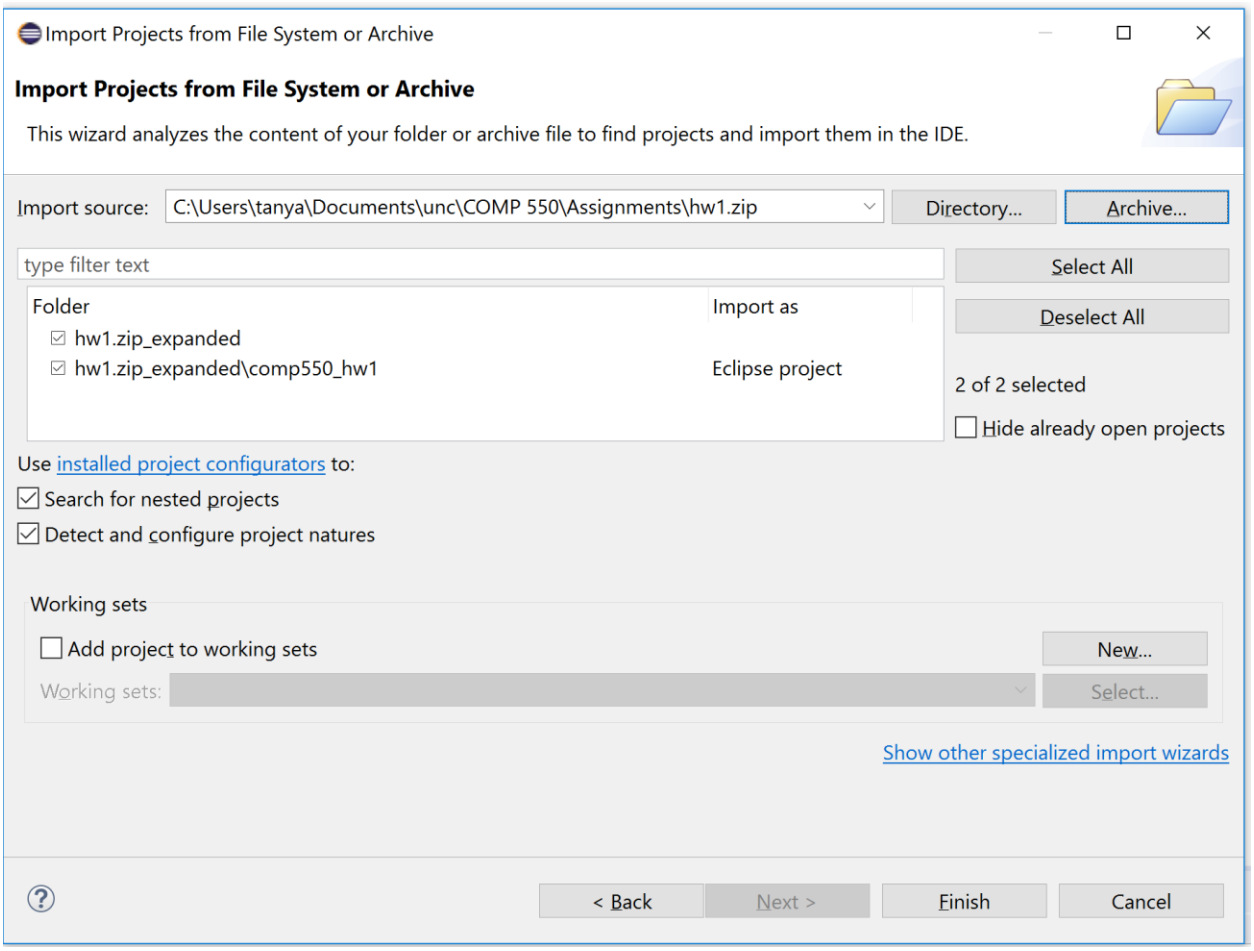
Next, select the “Archive…” button.



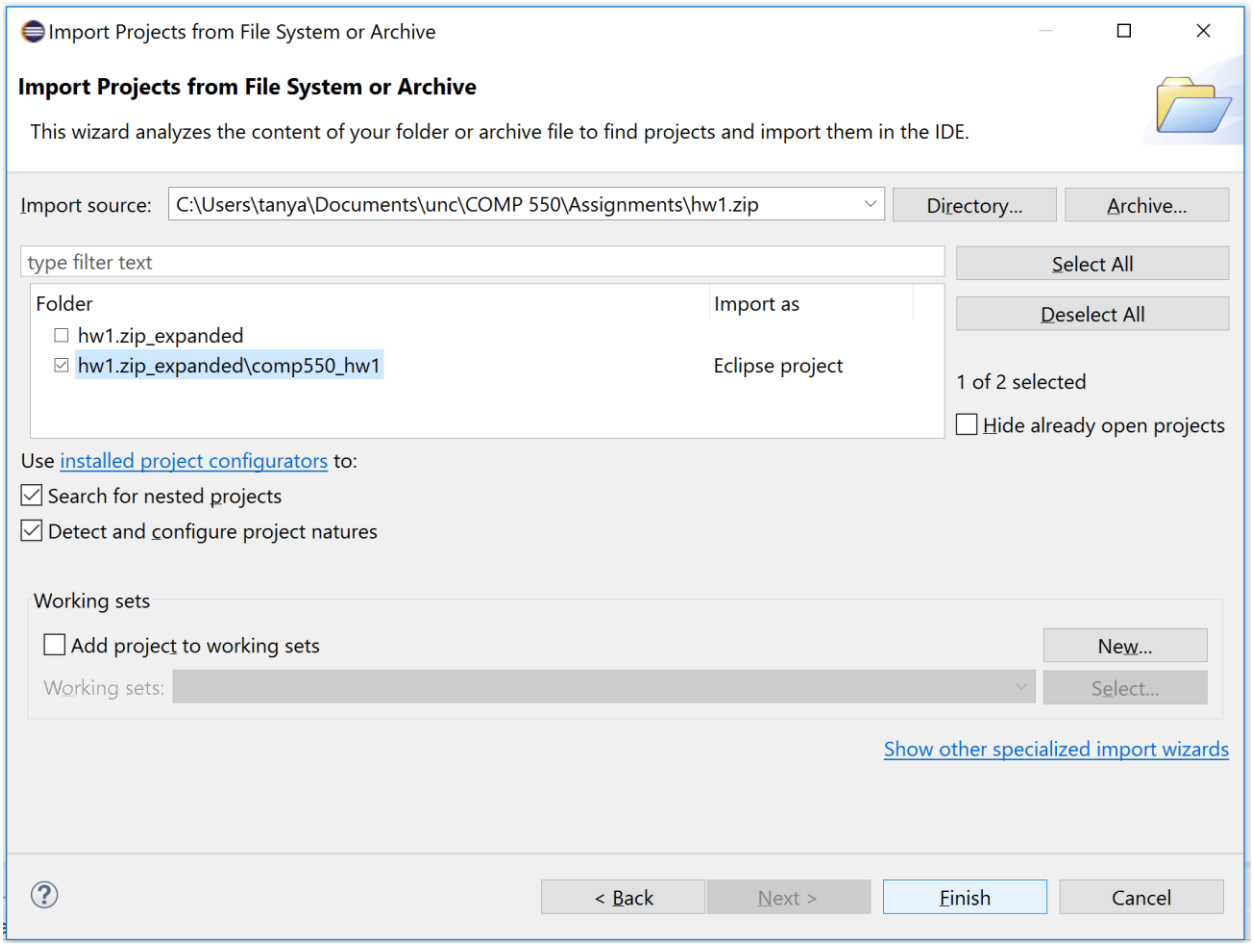
Navigate to where you saved the hw1.zip file, select the file, and click “Open”.



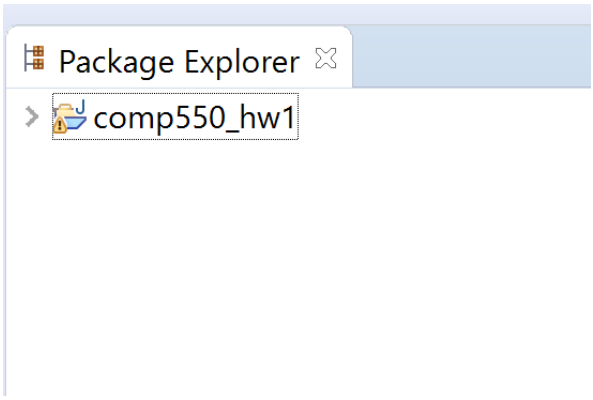
The Import dialog should now look like the following:



You only need the Eclipse project, so uncheck “hw1.zip_expanded” and click “Finish”.



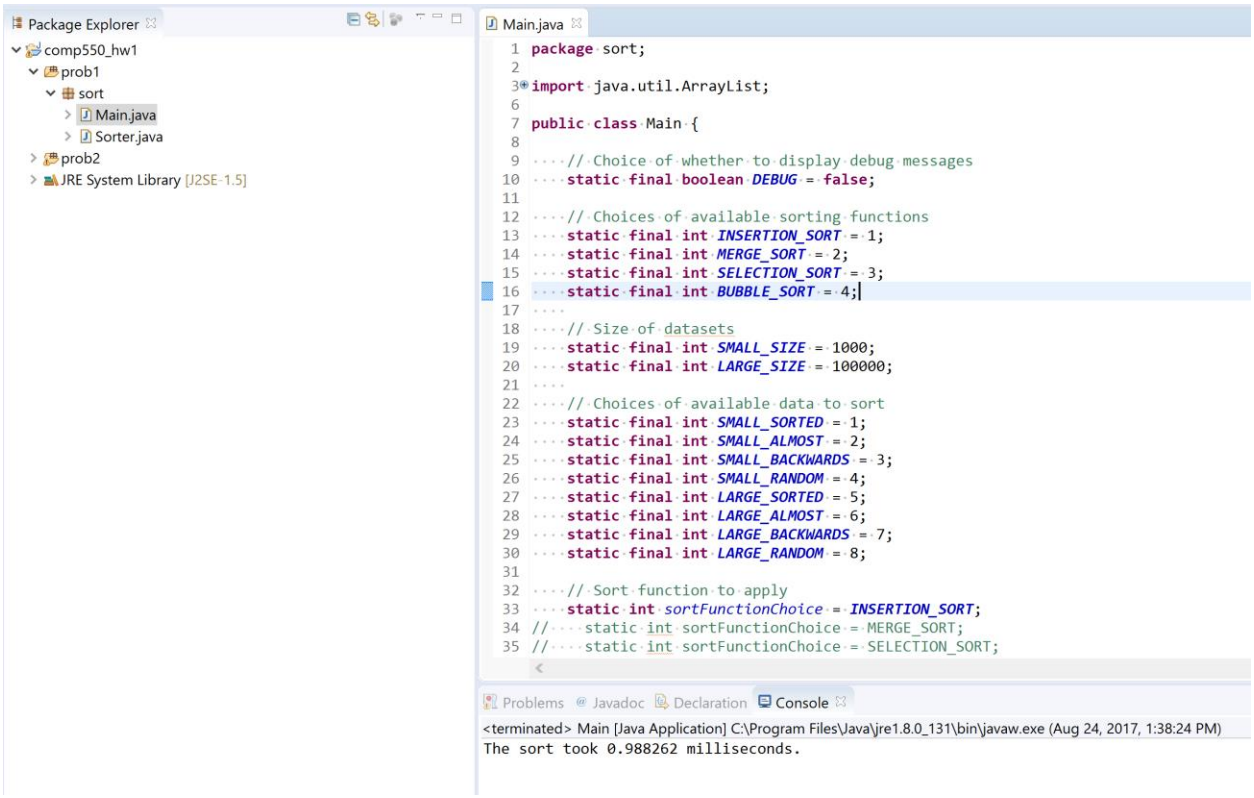
The project comp550_hw1 should now be listed in the Package Explorer.



Run the starter code

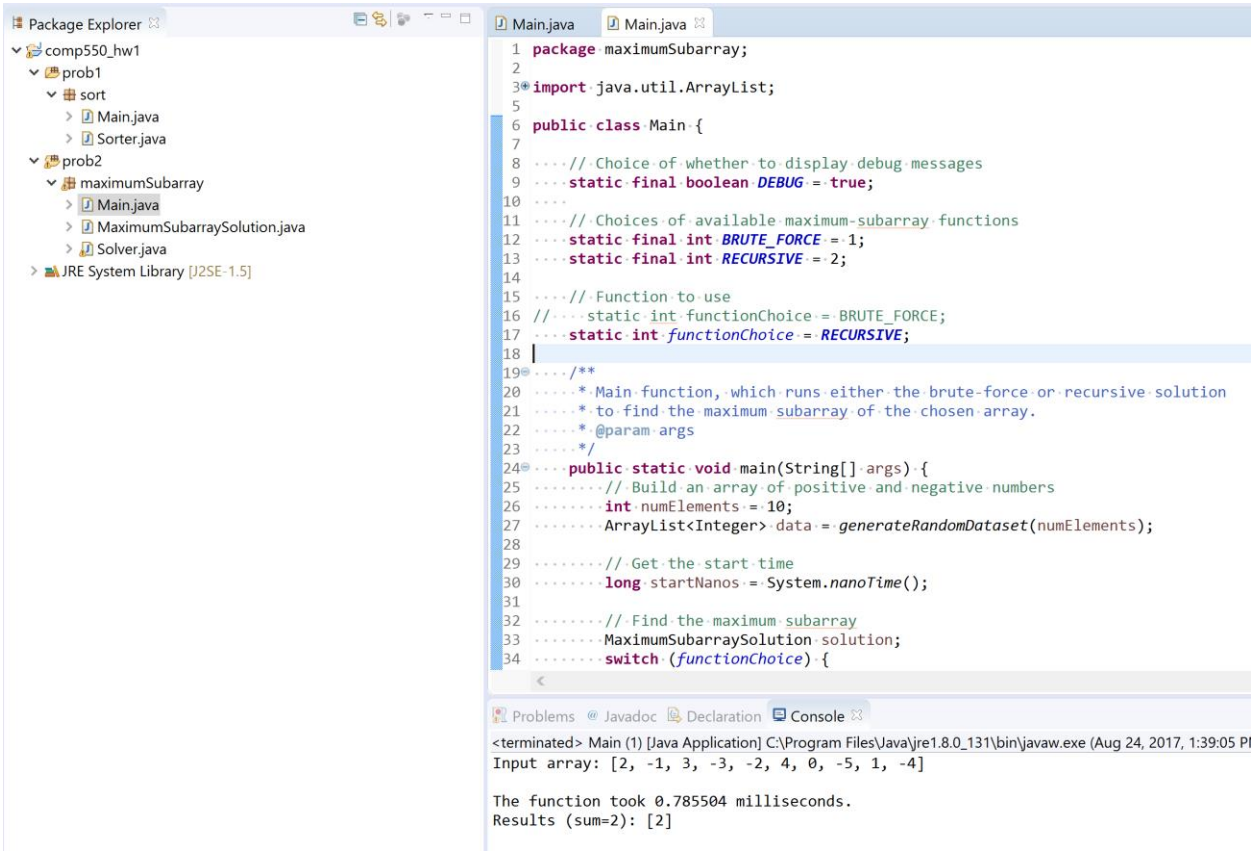
First, open `prob1/sort/Main.java` and run it. On success, it prints a message of the form:

"`The sort took x.xxxxxx milliseconds.`"



Then, open `prob2/maximumSubarray/Main.java` and run it. On success, it prints out debug messages and a message of the form:

"`The function took x.xxxxxx milliseconds.`"



Starter code structure

The starter code is broken into two separate folders and packages, one for each problem. You should read through the existing code to see how it works. Each `Main.java` file has a boolean `DEBUG` at the top that you can set to true to view additional output. In addition, both files select the algorithms to use via `static int`s defined before the `main()` function: `sortFunctionChoice` and `datasetChoice` for problem 1, and `functionChoice` for problem 2.

For problem 1, you should run each function-dataset combination to generate a table of timing results. You are welcome to modify existing code, but it should not be necessary.

For problem 2, you will have to fill in the function definitions of `findMaximumSubarrayBruteForce()` and `findMaximumSubarrayRecursive()` in `Solver.java`, and then run both with a range of input data sizes (`numElements` in `main()`) to generate a table of timing data.