Code Compilation and Execution

Chase Carroll, CPSC4900, Assignment 1: SimpleCalculator Java

Program Recommendations

It is possible to compile and run the calculator program itself, but to use the unit testing file it is required that you have Eclipse IDE 2020-03 or a more modern version installed. Earlier versions of Eclipse will likely work as well, but there is no guarantee that they will.

Additionally, you will need Java™ SE Development Kit 14 (64-bit) edition or a more modern version in order to compile and run Java code. It is unlikely that this code would not run in earlier versions, but no guarantees are made that it will function properly without JDK 14+.

Acquiring the Project Files

The project files uploaded to Canvas will not work in a standalone fashion. There are package dependencies and other requirements for them that prevent the .java files from being compiled when outside their expected path. In order to compile and run the code, you must download them from the Github repository linked below. It contains the directory structure and resources needed by the calculator to compile and run. The repository also contains the documentation that you are reading right now.

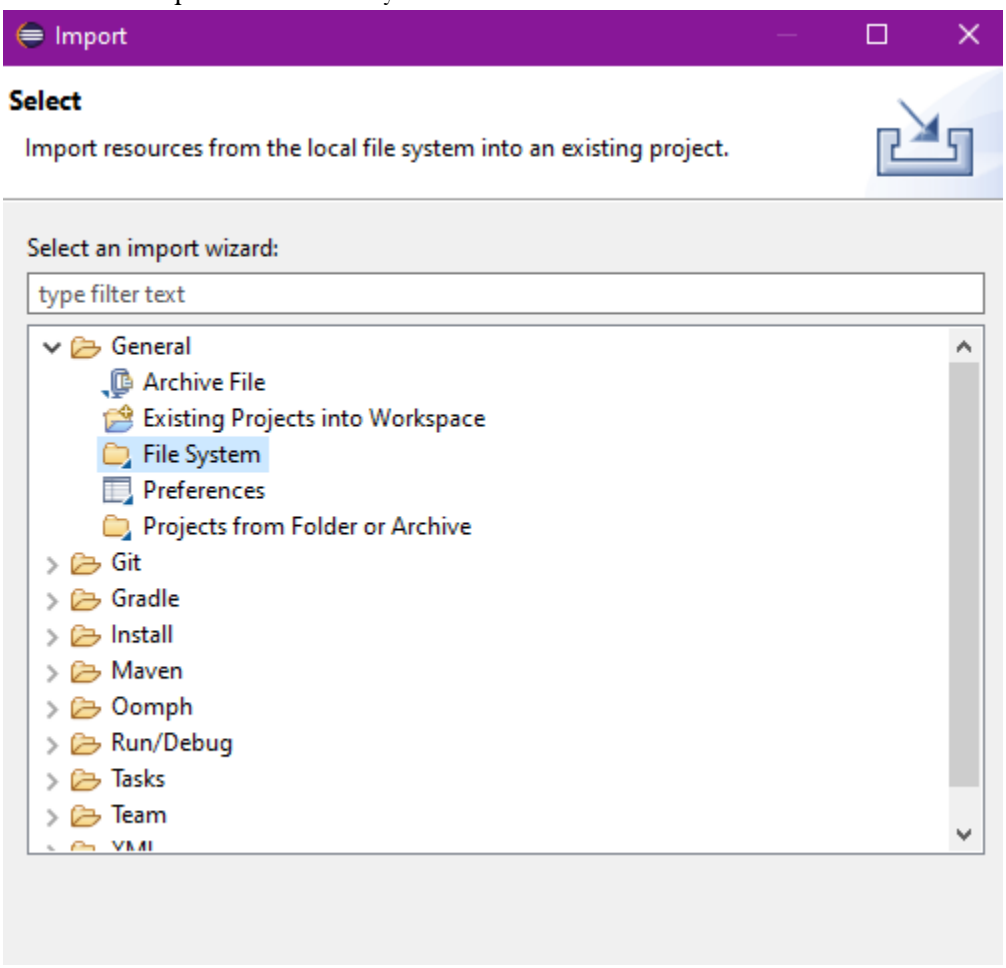
Github repository for SimpleCalculator

Clone the repository onto your local machine to receive your own copy of its contents, or alternatively download the .zip file from the repository page and unzip its contents. Once that is done, proceed with the steps ahead to compile and run SimpleCalculator.

Compiling and Running with Eclipse IDE

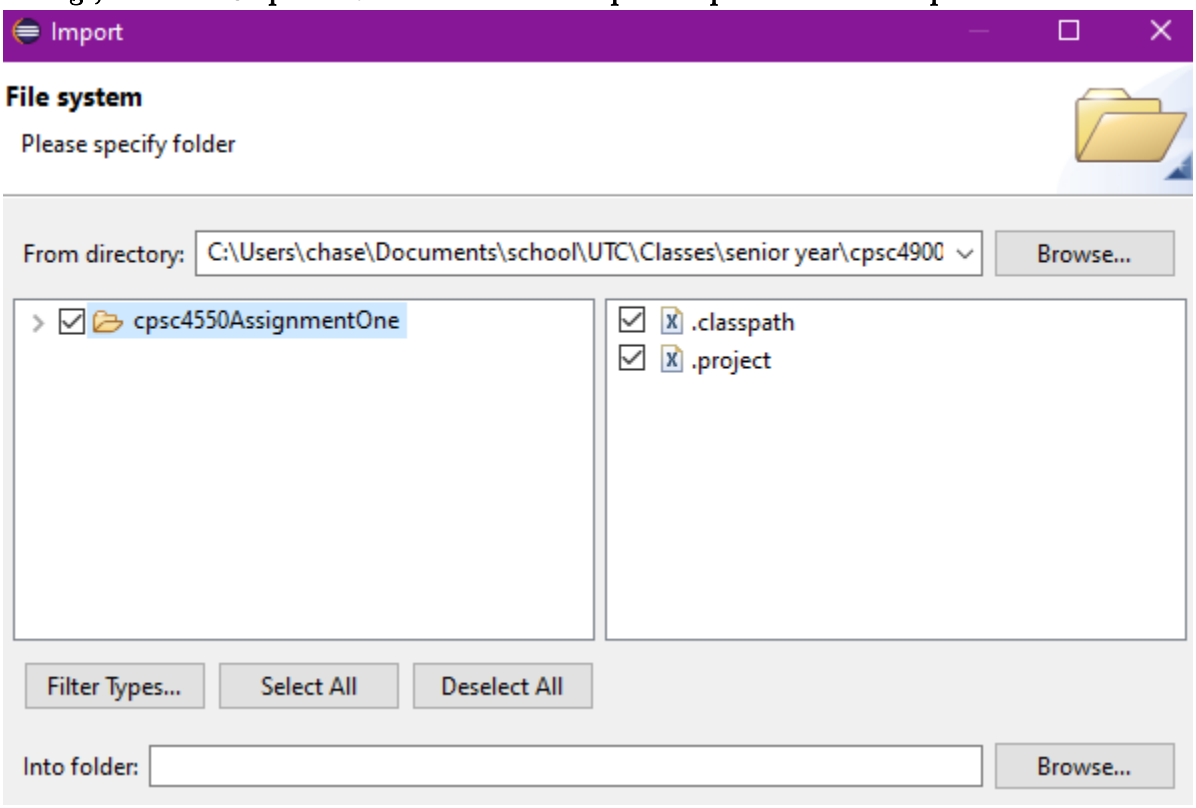
1) Clone the repository above onto your local machine, or alternatively download the .zip file from the repository page and unzip it into a directory of your choosing.
2) Start Eclipse IDE.
3) After selecting your workspace and creating a new project (unless you already have one that you've opened), go to the file menu in the top left, open it, and select import.

4) Choose to import via the file system.



5) Navigate to the directory of the project file and select it, then select the available project in the left pane below. After that's done, use the browse button below the white panes to select your current project folder to import into. When prompted to overwrite the classpath, hit Yes to All. **If you are worried about overwriting your current classpath**

settings, return to Step 2 and create a new workspace to perform these steps in.



6) Now the files are available to you. To run the program, double click SimpleCalculator.java and then hit the green run button on the top bar of the screen. The terminal below the code window will be where you interact with the calculator.

Testing with Eclipse IDE

Assuming you have followed the steps in the previous section to make the project and its files available to you in Eclipse, you can run the unit tests as easy as you can the main class. Simply double click the SimpleCalculatorTester.java class, then hit the green run button on the top bar. You will see a new window appear on the left side where your file hierarchy used to be. This window will show you information about the test, namely whether it succeeded or failed.

Compiling and Running in the Terminal

If you are unable or unwilling to install Eclipse, then it is possible for you to compile and run the calculator from the terminal. If you are using Windows, Powershell is the recommended terminal, but the Command Prompt will do fine. To get started, open your preferred terminal and navigate to the src folder above the folder where the .java files are located. **Do not go into the next folder**, as the compilation utility won't function if you're not in the package's root directory (src).

1) Once you're in place, run this command:
   javac .\cpsc4550AssignmentOne\SimpleCalculator.java
2) You should now have the .class files needed to run the calculator. Use the command below to do so:
   java cpsc4550AssignmentOne.SimpleCalculator
3) Enjoy the calculator, and then perhaps go back to your operating system's built-in one.