

Using NetBeans IDE

This is the environment you'll use in CS1110. An integrated development environments (IDE) like NetBeans incorporates many tools to facilitate creating, managing and running a program, including things like a graphical user interface (GUI) for development, a fancy text editor (color-coding, auto-indenting, code-completion, highlighting of matching { }, etc.), an output window, links in compilation errors connecting back to the problematic code line, buttons to compile and run the program, an interactive debugger, +/- icons to collapse/expand sections of a program, buttons to comment & uncomment selected chunks of code during debugging, etc..

1) Download HelloWorld.zip & UnZip it

- right-click it, do Save Link As, then Save it to your Desktop
- right-click it, choose 7-Zip (or...), do Extract Here
[NOTE: Programs created in an IDE put the Java program code file along with other related files and subfolders into a single project folder. Hence they have to be zipped together into a single file to upload and download the project].

2) Open NetBeans & Open HelloWorld

- open NetBeans
- open project: File/Open Project.../ select HelloWorld from Desktop, click Open Project
- load Java program into Editor Window: in Projects window (top left) expand project tree:
HelloWorld / Source Packages / <default package>
- double click HelloWorld.java program

3) "Compile" & Run the Program

- click hammer & broom icon at top to "compile" code (*actually, it "builds" a byteCode file vs. a true "compile to machine language"*) - you'll see a BUILD SUCCESSFUL message in output window
- click green arrow icon at top to run the program - you'll see Hello World message in Output window

4) Change the Program & ReRun it

- change the program so it prints 4 lines: your name, major, Western and Kalamazoo using "cut & paste"
[USE: select a line, CTRL-C to copy it, CTRL-V to paste it]
- mess up the alignment a little, put 2 lines of code on 1 line, put some spaces in front of the }'s
- fix this by doing: Source / Format from the top drop-down menu
- just running the program (green arrow) automatically does a "build"
- normally you'd save the changes by choosing File / Save ALL
but it's already automatically saved when you run it (note that File / Save All is grayed out)

5) Explore the Project's files in the IDE and on your Desktop

- in the IDE: in top-left window select Files instead of Projects tab - expand the folders to find:
 - o the source file: HelloWorld.java in HelloWorld / src
 - o the byteCode file: HelloWorld.class in HelloWorld / build / classes
- on your Desktop, drill down to: find HelloWorld.java in HelloWorld / src
and similarly for HelloWorld.class in HelloWorld / build / classes
 - o view the HelloWorld.java source code file:
 - right-click the file, do open with, choose WordPad
 - right-click the file, do open with, choose NotePad (*the IDE editor left off linefeeds*)

6) Close the Project & NetBeans and Send the File to Yourself

- do File / Close Project (*otherwise it'll still be there when you next open NetBeans*) and close NetBeans
- zip the HelloWorld folder: right-click folder, choose 7-zip / Add to Archive, use Zip format & save it
- email the zipped file to yourself as an attachment