



Java Puzzle Ball MOOC

Lab 0: Setting up Java

Part 1: Download the Oracle JDK and NetBeans IDE

Overview

These instructions outline the simplest solution to setup your system to run the game and edit code. Get Oracle JDK8 and NetBeans IDE 8.2. Oracle will continue offering Java 8 for personal and educational use until at least the end of December 2020.

Alternatively, you could setup for JDK11 or later. This option is for corporate users or those who want the latest and greatest. It's a bit more complicated for two reasons. First, because Oracle has given the care of NetBeans to the Apache Foundation. NetBeans binaries are available for download from Apache, but no installer is provided at this time. Second, because JDK11 is "modularized". The JavaFX modules necessary to run the game and certain lab are no longer included with the modules in Oracle's standard Java SE download. An additional download for OpenJFX is now required. You'll need to download and setup Oracle JDK11+, OpenJFX, and NetBeans 9+.

Tasks (Setup for JDK 8)

1. Navigate to the Java Download page: <https://java.com/en/download/>
2. Accept the License Agreement and download Java Version 8. This should download an installer.
3. Run the installer.
4. Navigate to the NetBeans Downloads page: <https://netbeans.org/downloads/>
5. You'll see many variants of NetBeans 8.2 available. The simplest variant is good enough. Click the Download button under the Java SE column, about 95MB. You should be taken to a page where an installer auto-downloads.
6. Run the installer. If you need help during the installation, a link to instructions are available on the auto-download page.

Tasks (Setup for JDK 11+)

1. Navigate to the Java SE Downloads page:
<https://www.oracle.com/technetwork/java/javase/downloads/index.html>
2. Accept the License Agreement and download the JDK. This should download an installer.
3. Run the installer.
4. Install the JavaFX SDK: <https://openjfx.io/openjfx-docs/#install-java>
5. Navigate to the Apache NetBeans Downloads page:
<https://netbeans.apache.org/download/nb90/nb90.html>
6. Download and unzip the Binaries. It is essential that you [verify the integrity](#) of the download.
7. Consult the "JavaFX and NetBeans" section of this page to setup JavaFX projects:
<https://openjfx.io/openjfx-docs/>

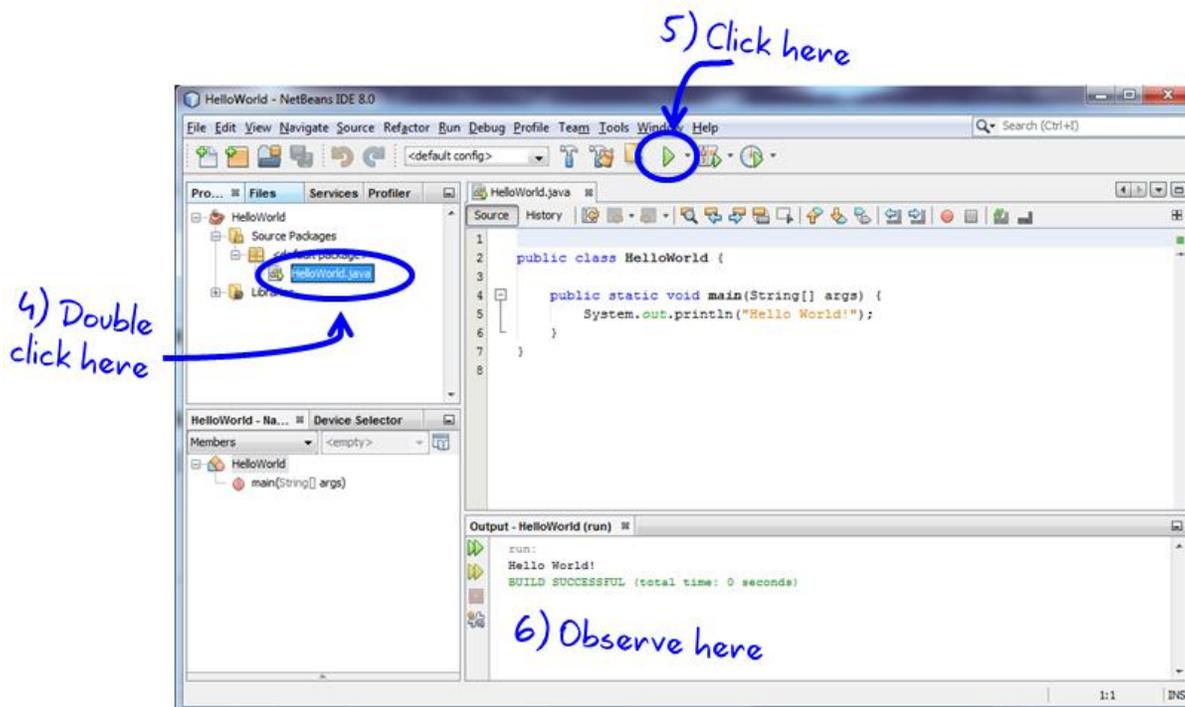
Part 2: Testing NetBeans

Overview

Test NetBeans to verify your installation was successful.

Tasks

1. Download and unzip HelloWorld.zip from the Lesson 0 page of the MOOC. This zip contains the HelloWorld NetBeans Project.
2. Launch NetBeans.
3. Go to *File>Open Project* and select the HelloWorld project.
4. Expand the project and open HelloWorld.java.
5. Compile and run the project.
6. Observe the output



7. Edit the code so that it prints a message other than "Hello World!".
 - Compile and run your code to verify your changes work.
8. Change the 's' in "System" to lower-case and try to compile.
 - Is Java syntax case-sensitive?
9. Remove the semicolon (;) and try to compile.
 - Is the semicolon important to Java syntax?