

# CSCI 1011 – Lab 1

## Learning Outcomes

- Write, compile, and run a simple Java program using Netbeans.

## Required Reading

Savitch - 1.1-1.3

## Instructions

1. Start NetBeans.
2. Create a new project:
  - (a) In the **File** menu select **New Project...**
  - (b) A form should appear called **Choose Project**.
  - (c) Under **Categories:** make sure that **Java with Maven** is selected.
  - (d) Under **Projects:** make sure that **Java Application** is selected.
  - (e) Click **Next >**.
  - (f) If you get an error at this point about additional modules, mark all of the check boxes, click **Download and Activate..**, and follow the instructions to install the missing modules.
  - (g) A new form should appear called **Name and Location**.
  - (h) For **Project Name:** type Lab1
  - (i) For **Project Location:** click **Browse...** and select a location on your computer where you want to store your lab assignments. Remember this location! You will need it later when you upload your source file.
  - (j) For **Group ID** type csci1011
  - (k) Click **Finish**.

3. Modify the Java Main Class template:

- (a) In the **Tools** menu, select **Templates**.
- (b) In the dialog box that comes up, open the **Java** folder, select **Java Main Class** and click the **Open in Editor** button.
- (c) A new file should open up containing the following text:

```
<#assign licenseFirst = "/*">
<#assign licensePrefix = " * ">
<#assign licenseLast = " */">
<#include "${project.licensePath}">

<#if package?? && package != "">
package ${package};

</#if>
/**
 *
 * @author ${user}
 */
public class ${name} {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        // TODO code application logic here
    }

}
```

- (d) Delete the first four lines and after @author replace the text \${user} with your first and last name. For the remainder of this lab, we will assume your name is Mary Shelley, but please use your actual name in its place (unless of course your name is Mary Shelley.) The file should now look like this:

```
<#if package?? && package != "">
package ${package};

</#if>
/**
 *
 * @author Mary Shelley
 */
public class ${name} {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        // TODO code application logic here
    }

}
```

- (e) In the **File** menu select **Save**. You can also click on the **Save All** icon to save your files.
  - (f) Close the **Java Main Class** file by clicking the X on the tab.
4. Create a Java main class file:
- (a) In the **File** menu select **New File...**
  - (b) Under **Categories:** make sure that **Java** is selected.
  - (c) Under **File Types:** make sure that **Java Main Class** is selected.
  - (d) click **Next >**.
  - (e) For **Class Name:** type your name without spaces followed by Lab1
  - (f) For **Package:** select `csci1011.lab1`
  - (g) click **Finish**
  - (h) A text editor window should pop up with the following source code.

```
package csci1011.lab1;

/**
 *
 * @author Mary Shelley
 */
public class MaryShelleyLab1 {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        // TODO code application logic here
    }

}
```

5. Write a program that displays Hello World!:
- (a) Modify the source code in the text editor to add `CSCI 1011 Lab 1` after the `*` in the line before the `@author` line.
  - (b) Replace the line  
`// TODO code application logic here`  
with the line  
`System.out.println("Hello World!");`

6. Build and debug the program:

- (a) Compile and run your program by clicking on the green triangle icon.
- (b) If a window pops up titled **Select Main Class for Execution**, select the package starting with `csci1011.lab1` and click **Select Main Class**.
- (c) If you typed in the program correctly, it should display something like the following in the **Output-Run (Lab1)** pane of the window:

```
--- exec-maven-plugin:1.5.0:exec (default-cli) @ Lab1 ---  
Hello World!  
-----  
BUILD SUCCESS  
-----  
Total time: 2.776 s  
Finished at: 2020-08-25T11:15:21-05:00  
-----
```

This pane is also known as the **console**.

- (d) Delete the semicolon (;) character, and click on the green triangle again.
  - (e) The line you modified now has a red squiggly line under it. This means that there is an error in your program and it will not compile. If you hover over the line with the error it should give you a message saying ';' expected.
  - (f) Add the semicolon back in and the line should go away.
  - (g) Save your source file.
7. Hand in the source file:
- (a) In the D2L page for this course, under **Tasks** click on **Assignments**.
  - (b) Click on the assignment labeled **Lab Assignment 1** to upload your source file.
  - (c) To find the source file, go to the location that you used to create your project in step 2.
  - (d) Open the **Lab 1** folder, then the **src** folder, then the **main** folder, then the **java** folder, then the **csci1011** folder, then the **lab1** folder.
  - (e) There should be a file in this folder called `MaryShelleyLab1.java`.
  - (f) Upload this file to the dropbox. **DO NOT UPLOAD ANY OTHER FILES!**