

SUPPLEMENT 1 - INSTALLING JAVA ON YOUR COMPUTER

This section will provide a guide on how to install the Java Development Kit (JDK) on your own computer. Only basic instructions have been provided and you are encouraged to look for more detailed information online. These instructions will not be the same for all systems (only basic Windows instructions are provided) so you may need to look elsewhere in addition to this guide. Please ensure you have the latest security updates for your system, a virus scanner and a firewall for any step that involves downloading or being online. We take no responsibility for problems that may occur.

1. Install JDK

- 1) Download the latest JDK from the following website:
<http://www.oracle.com/technetwork/java/javase/downloads/index.html>
- 2) Run the installer (e.g., jdk-8u51-windows-x64.exe) and follow the installation prompt. You can install it into **C:\Program Files\Java**
- 3) **Start→Control Panel→System→Advanced→Environment Variables→System variables→path→Edit→go to the end of the line and add:
; C:\Program Files\Java\jdk1.8.0_51\bin;**
- 4) Click **OK** or **Apply** until every window is closed. The next command line window you open will use the new PATH.

You can obtain more detailed installation instructions on the following website:

http://docs.oracle.com/javase/8/docs/technotes/guides/install/install_overview.html

2. Restart computer

SUPPLEMENT 2 – ECLIPSE TUTORIAL (1)

This tutorial will help you to become familiar with Eclipse. Specifically, you will learn how to create projects and programs, and how to compile and run the programs.

Eclipse can run on any platform with a Java Virtual Machine (JVM). You can download Eclipse from:

<http://www.eclipse.org/>

Install Eclipse on Your Own Computer

You must install JDK before installing Eclipse.

- 1) Make a new folder named **eclipse**
- 2) Unzip the file of eclipse-java-mars-R-win32-x86_64.zip to the folder of **eclipse**
- 3) Double-click the executive file eclipse.exe to run the eclipse programming platform

1. Getting Started with Eclipse

- (a) Double-click eclipse icon to start Eclipse
- (b) The Workspace Launcher window (Figure 1), which allow you to choose your workspace folder to store your work, appears

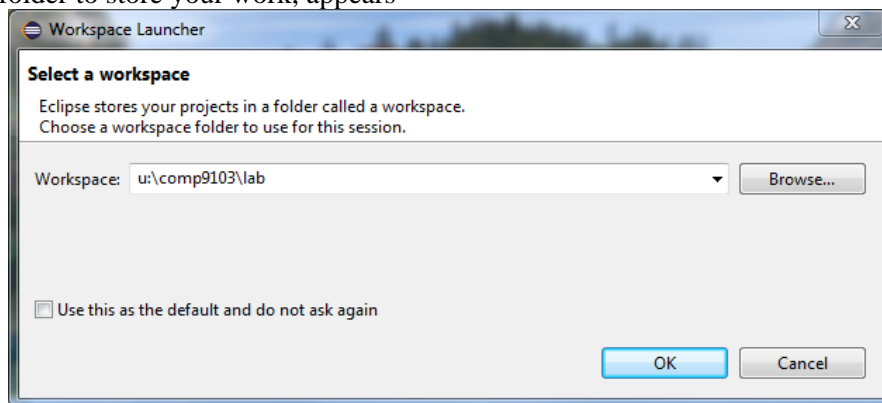


Figure 1: workspace Launcher

- (c) Change the Workspace field by typing e.g., u : \comp9103 \lab, and then OK to display the Eclipse UI (Figure 2)



Figure 2: Eclipse UI

(d) [Optional]Close the welcome window tab by clicking the “x”

2. Creating a Project

To create a project:

(a) **File**→**New**→**Java Project** (Figure 3)

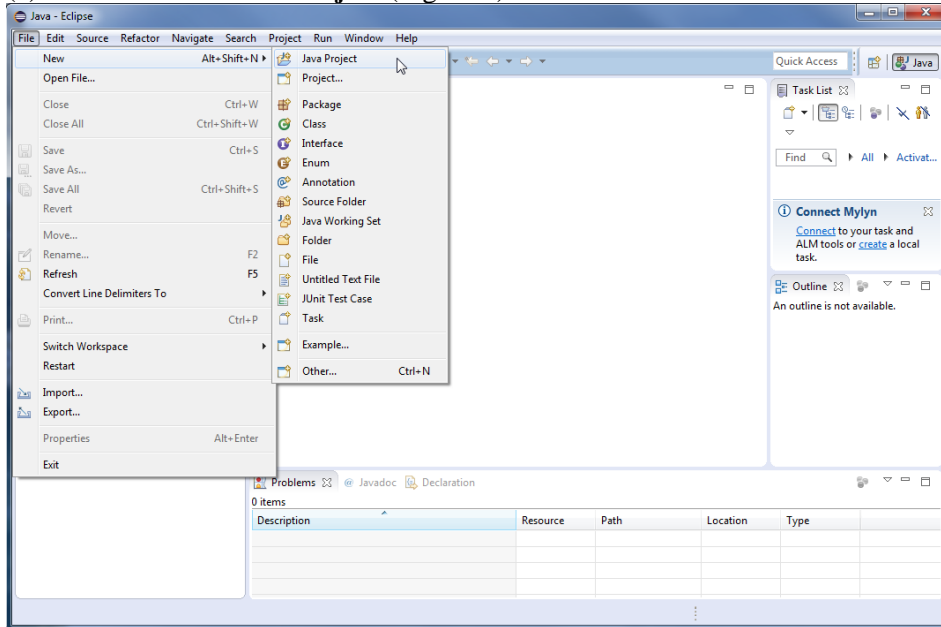


Figure 3: Create a Java Project

(b) In the box of “**Project name**”, type **lab**, and leave the other options to default value and click “**Next**”->“**Finish**” (Figure 4)

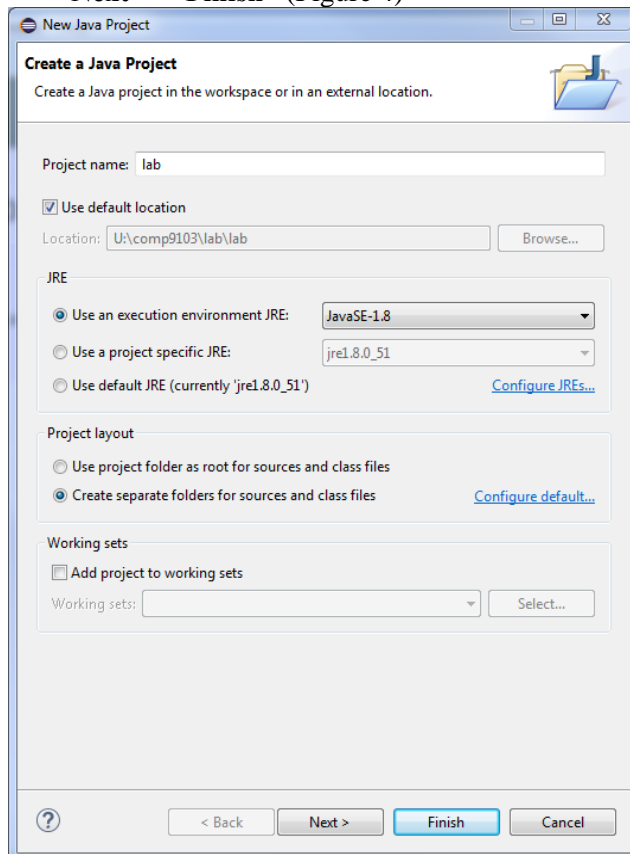


Figure 4: Input the name of Java Project

3. Creating a Source File (Class File)

You can create programs in the defined project by:

- (a) **File**→**New**→**Class** to display the New Java Class wizard
- (b) In the “Name” box, type **HelloWorld**
- (c) Select the option “**public static void main(String [] args)**” (Figure 5)
- (d) Click “**Finish**” to generate the template for the Java source code (Figure 6)

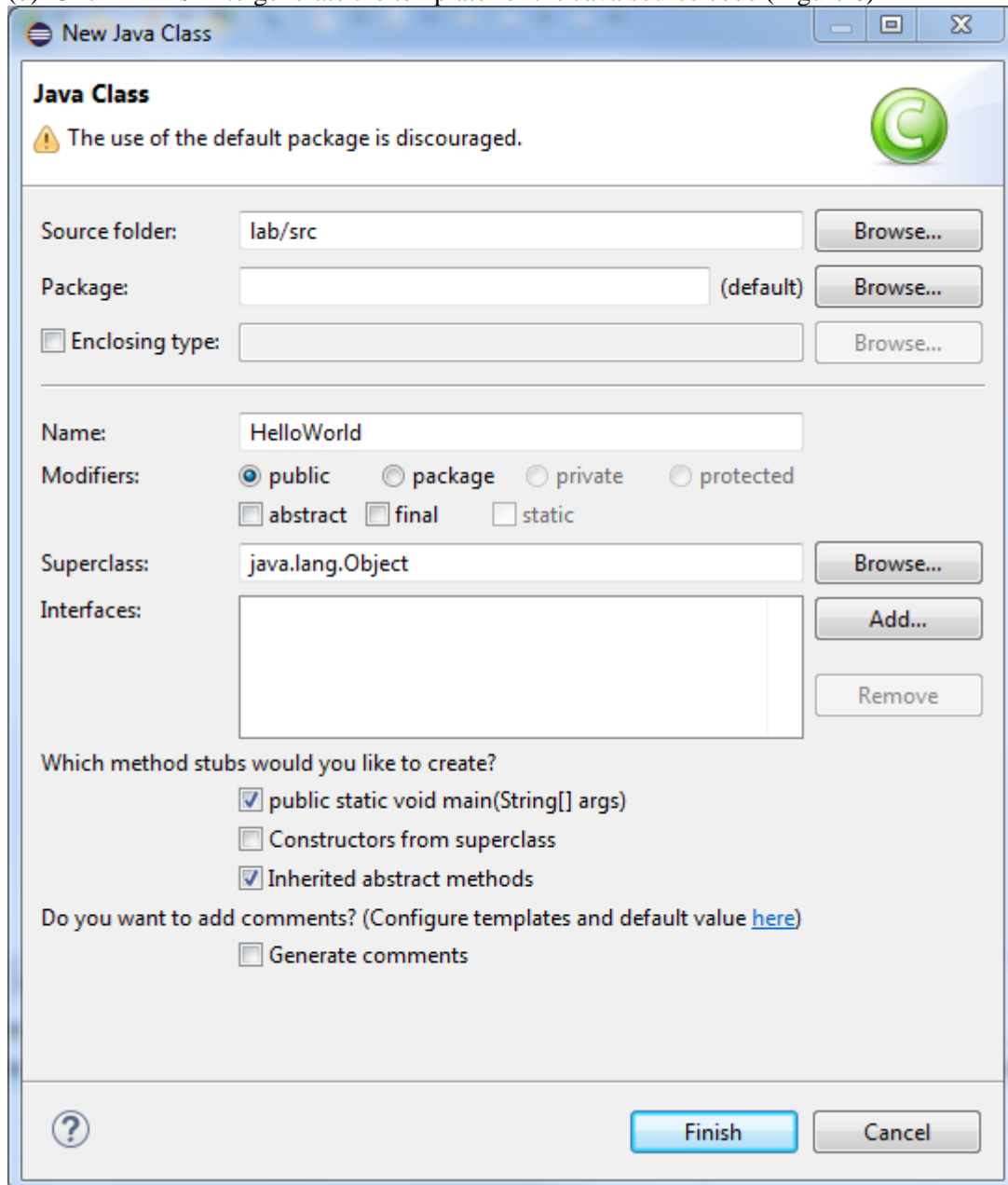


Figure 5: Create a new java program

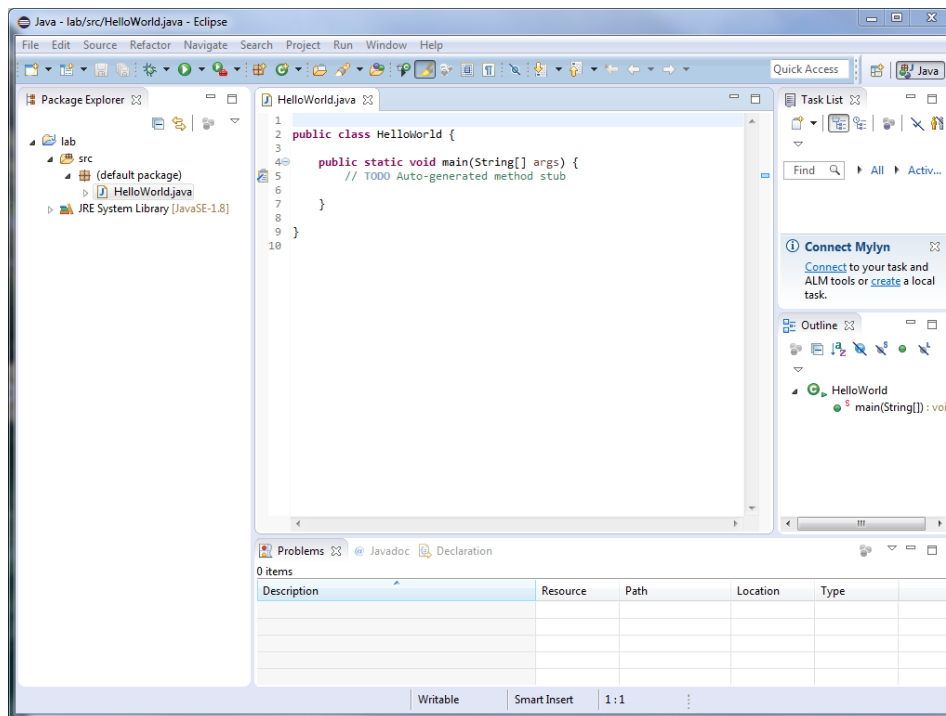


Figure 6: Source code template of a new java program

(e) Type `System.out.println("Hello, World!");` in the `main()` method

NOTE: as you type, the smart insert automatically comes up suggestions to assist you to code (Figure 7).

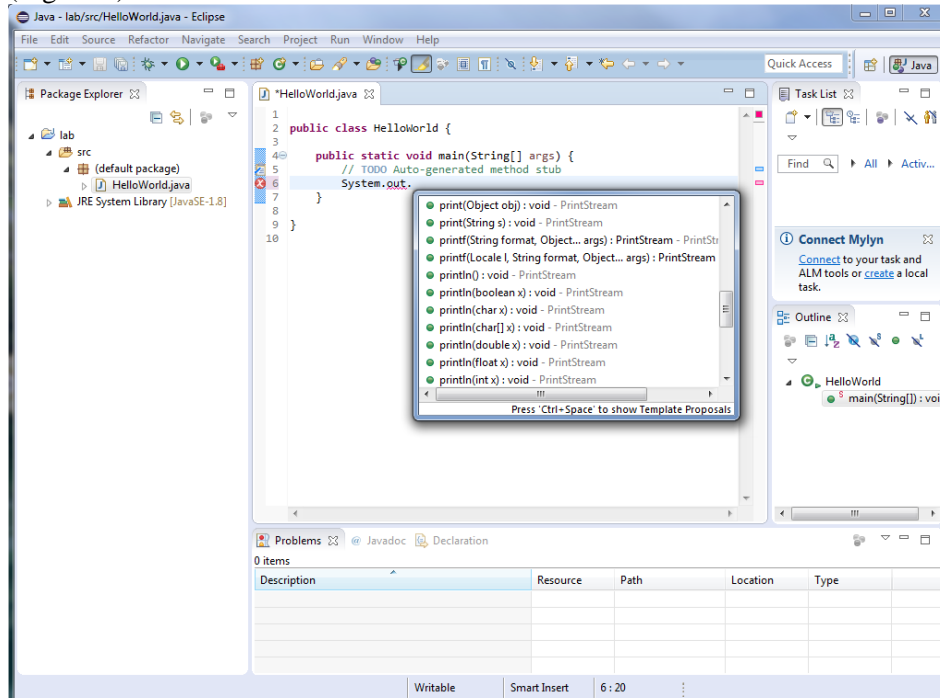


Figure 7

4. Compiling and Running a Program

- Right-click the class **"HelloWorld.java"** in the project to display a context menu
- In the menu, select **"Run As->java application"** (Figure 8).
- The output is displayed in the console pane (Figure 9).

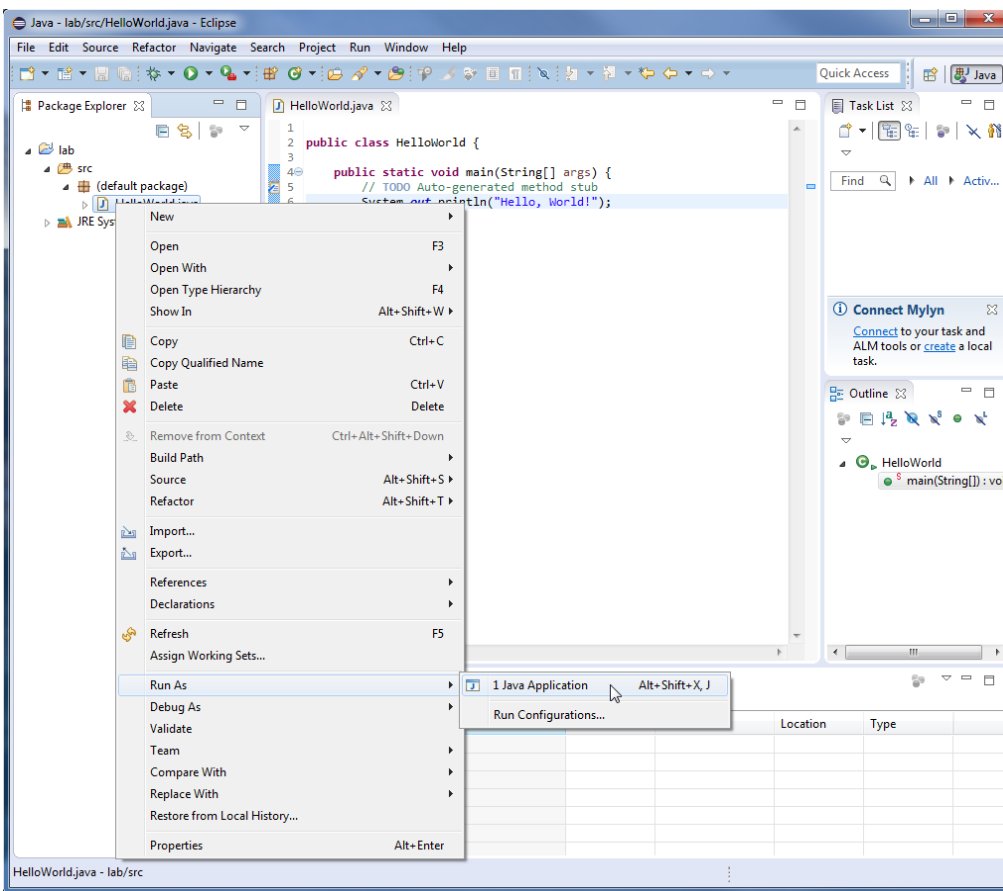


Figure 8

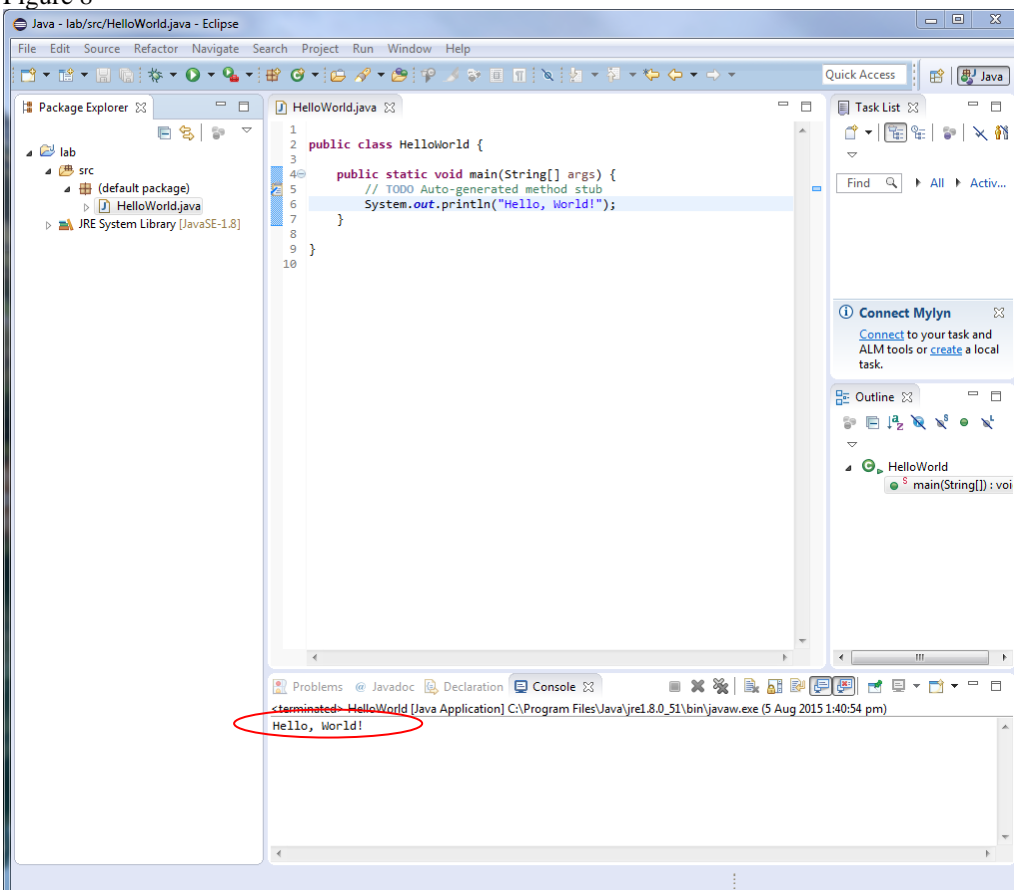


Figure 9

5. Running a Program with an Input Argument

- Similarly, Right-click the class “HelloSomeone.java” to choose the program as in 4.(a) above.
- Select “Run→Run As→ Run Configurations” (Figure 10)

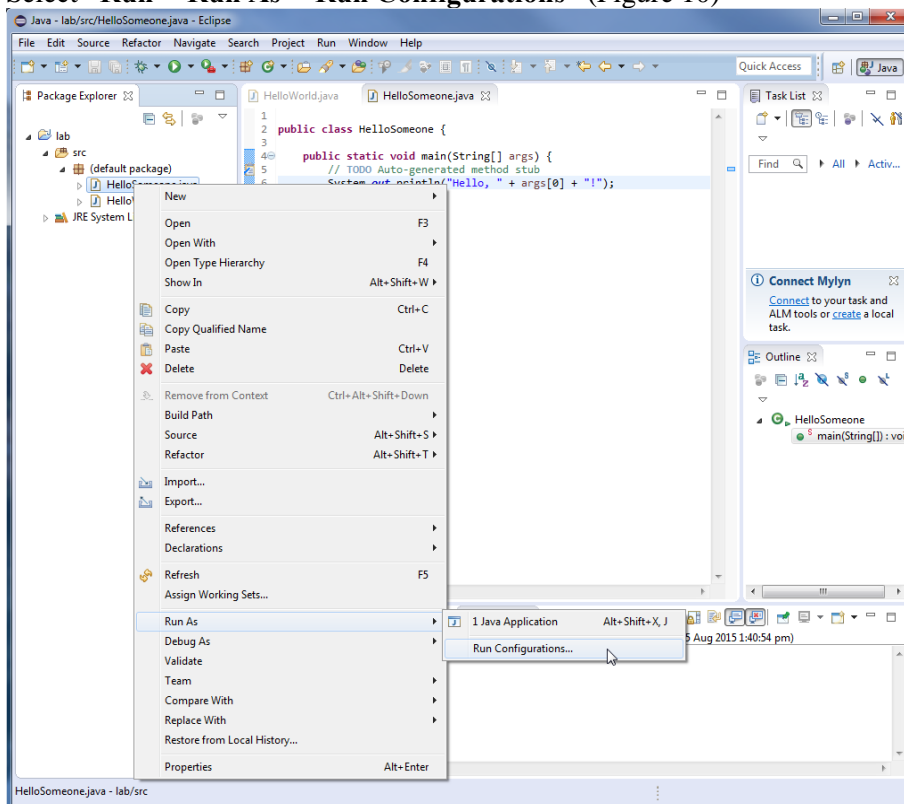


Figure 10

- Choose “Arguments” tab; inside the “Program arguments” box, type **Tom**; finally, press the “Run” button on the bottom right corner of the dialog, see Figure 11

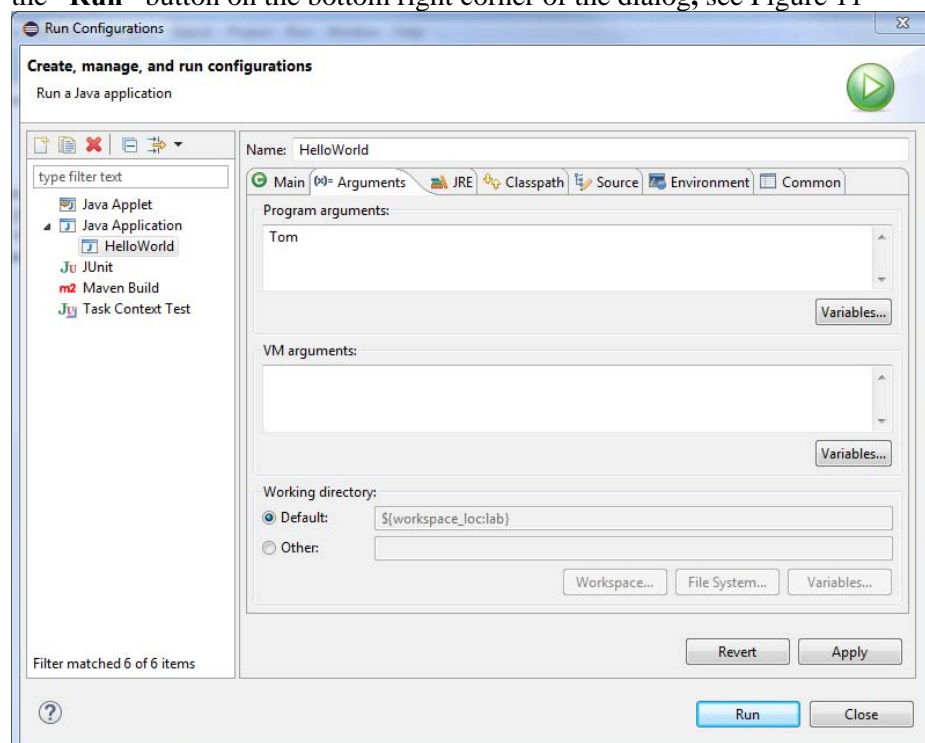


Figure 11: Use of input argument