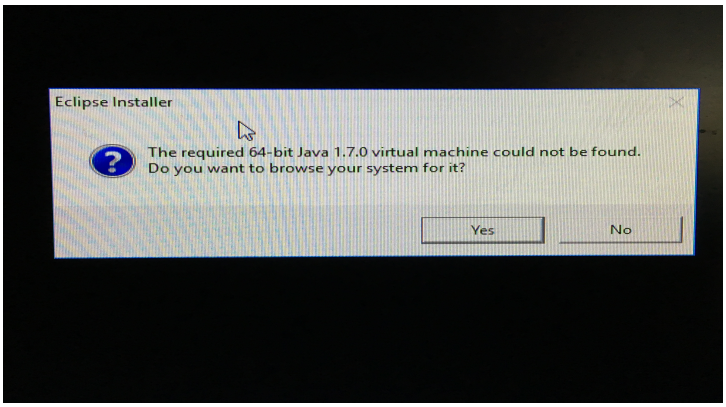
CSC 210: Installing and running Java programs using Eclipse

Downloading Eclipse

1. Download Eclipse Oxygen from https://eclipse.org/downloads/ by clicking on the appropriate link.
2. When prompted, select to install the **Eclipse IDE for Java Developers**
3. Note that in order to run Eclipse, your computer has to have a Java Virtual Machine (JVM) installed. If you do not have a JVM installed (which is likely) and you try to install Eclipse, you will get an error message similar to the one below.



If this is the case, select 'No' and then install the JVM by installing the appropriate Java Standard Edition (SE) Development Kit (JDK) from the first table from this website: http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html

Once you install the JDK, then reinstall Eclipse, and Eclipse should work.

Opening Eclipse

1. Double click the Eclipse icon to open Eclipse. You will be prompted to select a directory as a workspace. This directory will store preference and other information and is the location where Eclipse looks for your Playground project. In your personal computer, the default workspace location should be used. From a classroom computer, we will put the workspace in Z:/CSC210, and will select this workspace whenever opening Eclipse.

Creating a Project

1. Select File→New→Java Project. Name the project 'Playground' and click finish. We will use the Playground project for all programs in class, unless specified otherwise. This Playground project will be created in the current workspace.

Adding and removing a single program (i.e., a single *.java file)

1. Right click on the Source Folder (e.g., *src*) in the Package Explorer tab and select New File
2. Click on Advanced and click on 'Link to file in the file system'
3. Click 'Browse' to select the file to add, then click on 'Finish'
4. To remove a program from Eclipse, right click on the program to remove, and select Delete. **Note**: you should get a message indicating that only the workspace link will be deleted. If this is the case, click OK to remove the program from your project. If this is NOT the case, then removing the program may delete the file from your computer. See me if this happens.

Adding and removing a folder with <u>multiple</u> programs

Note: in this class, we will assume that all programs to be added are in the same folder, and not in one or more subfolders. Adding a folder containing subfolders of programs can be done in Eclipse, but the process is a little more complicated.

1. If you have a folder containing one or more programs, you can add the folder by right clicking on the Project under the Package Explorer (we have named the project Playground), then clicking on Build Path → Link Source and selecting the relevant folder.
2. To remove folders that have been added following the directions above, right click on the folder that has been added, and select Delete. A message should come up indicating that only workspace links will be deleted. Be aware that if you do not receive this message, you will be deleting the actual files rather than simply removing them from your project (which you probably don't want to do – see me if this is the case). Click on OK to complete the process.

Creating and running a program (we will not do this until much later in the semester)

1. Create a Project in the current workspace if you do not have one already.
2. Select File→New→Class
3. Give your class a name, such as HelloWorld. This will create the file HelloWorld.java in your Project folder. **Note:** if you create a program in this manner, removing the program from your Project folder can cause problems.
4. Under 'Which method stubs would you like to create?' check 'public static void main (String[] args)'
5. Click 'Finish'

For a first program, modify the HelloWorld.java program within Eclipse to read as follows:

```
public class HelloWorld {

	public static void main(String[] args) {
		System.out.println("Hello World");
	}
}
```

6. To run a program, click on the green play icon. Program output appears at the bottom of the screen.