Lab Exercise #2
Debugging with Eclipse
CS 2334, Spring 2012
Due by: Friday, January 26, 2011, 11:30 am CST

Name: _____

Learning Objectives (Milestones):

1. Install Eclipse and import an existing project to it.
2. Successfully compile and debug a sample Java program and generate Javadoc documentation for the program using Eclipse.

Instructions:

This lab exercise *requires a laptop with an Internet connection*. Once you have completed the exercises in this document, you will submit it for grading. You should legibly write your name at the top of this lab handout.

1. Download and install Eclipse. Instructions are in the "Eclipse_install_instructions" slides in the Lab 2 directory.

2. Download and save the sample "`Lab1-eclipse.zip`" source archive from the class website. Import the archive into Eclipse using the instructions given in the "Basic Eclipse Tutorial" slides. This is the first part of the slide set labeled "Lab2-slides" in the Lab 2 directory. Once the archive has been imported, you may delete "`Lab1-eclipse.zip`" from your computer.

3. Add the following code to the main method of `Lab1.java` using Eclipse.

```
Lab1 lab1Program;

lab1Program = new Lab1( "This is the second lab exercise for CS 2334." );
```

4. Eclipse should highlight several errors that you need to correct in the source code. List these errors in the space provided below with a short explanation of how you fixed them. Be sure to list the line number that the actual error occurred on in the `Lab1.java` file. Once you have removed all of these errors, the file should not contain any errors or warnings.

5. Now, try to run the program by right-clicking on "`Lab1.java`" and select "Run as". Notice that the option to run as "Java Application" is not present. In order to run the program the source file must contain a `main()` method. Fix this error in the program source code and verify that the program works by trying to run it again.

6. Generate Javadoc documentation for the `Lab1` program using the instructions given in the "Basic Eclipse Tutorial" slides. (Again, this is the first part of "Lab2-slides.") This will create a new sub-folder named "docs" and place several files in the folder including an `index.html` file. Next, open the `index.html` file using a web browser and inspect it's contents. Describe the contents of the `index.html` file. **(At least 5 sentences to get full credit.)**

7. Download the `Lab2.zip` file from the class website. Import them into Eclipse as a project.

8. Run the project by using Eclipse. List the error (or errors) found and give a short explanation of it (them).

9. Fix the error by changing ONLY the `work()` method in `Lab2.java.` Write down the modified `work()` method.

10. Using Eclipse debugger, what is the value of `myArray[4]` after `work()` is done?