

Object-Oriented Analysis, Design and Programming

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Exercise 01

Installing and configuring Java and Eclipse

In this course, you will learn how to build object-oriented software using the Java programming language (<http://www.oracle.com/technetwork/java/index.html>).

One of the best available integrated development environments (IDEs) for Java is Eclipse (<http://www.eclipse.org>). Eclipse is widely used by professional developers both in industry and academia. Like Java itself, Eclipse is also cross-platform – it works on Windows, Mac OS X and Linux.

Your task in this exercise is to install Java and Eclipse and write and run your first Java program.

Installing Java

How you install Java depends on what operating system you are using. If you are not installing Java on Mac OS X, then you need to go here

<http://www.oracle.com/technetwork/java/javase/downloads/index-jsp-138363.html>

NB: You need the “Java SE 6 Update 23” JDK (not just the JRE!). You do **not** need any extra things like Java EE, Java FX etc.

More information on installing Java is available here:

<http://www.oracle.com/technetwork/java/javase/index-137561.html>

If you are using Mac OS X, then you just perform a system software update to make sure the most recent version of Java is installed. This should be version 1.6.0_22. You can check this by running the command “java -version” in a terminal window.

Installing Eclipse

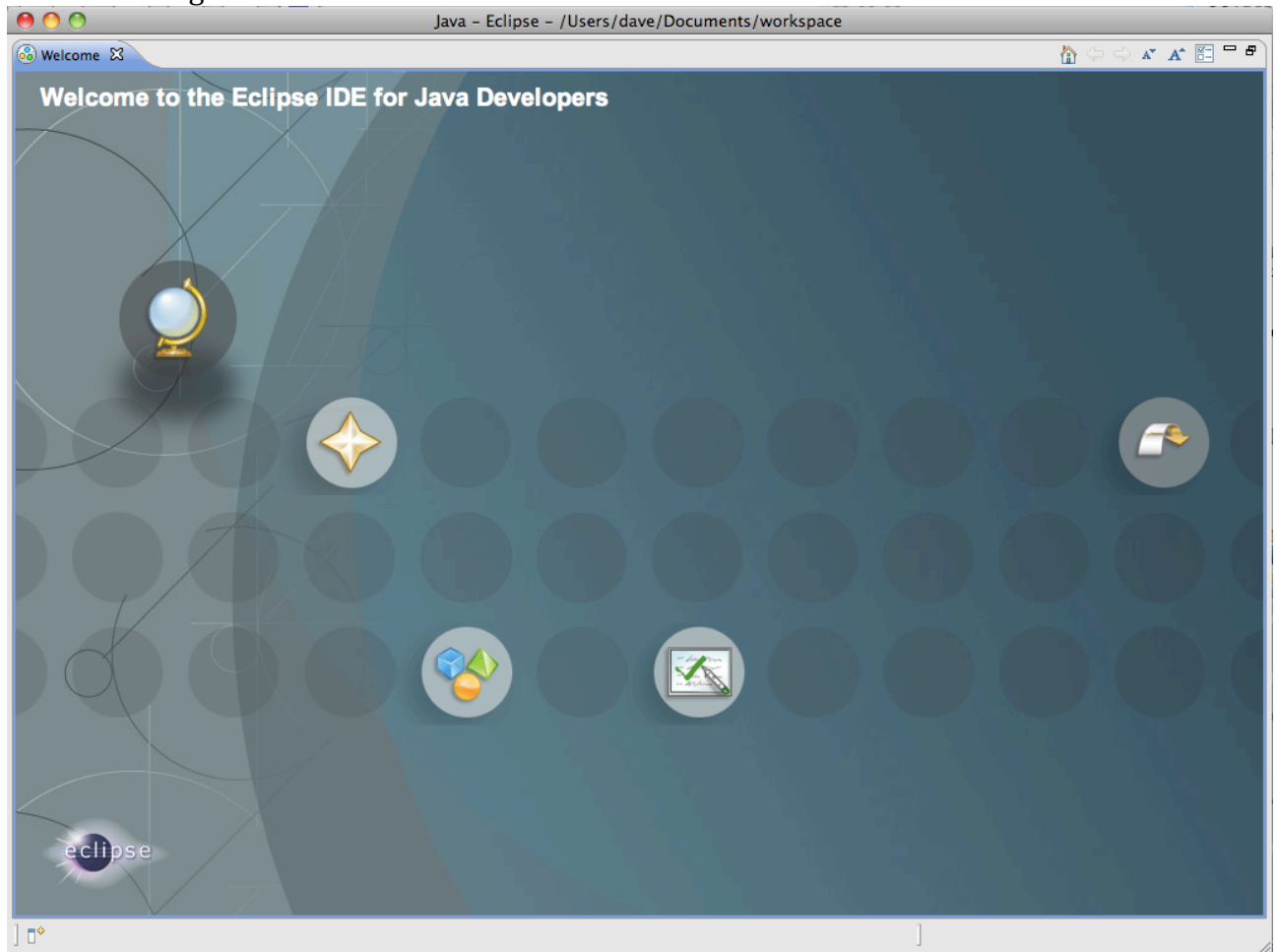
Go to

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

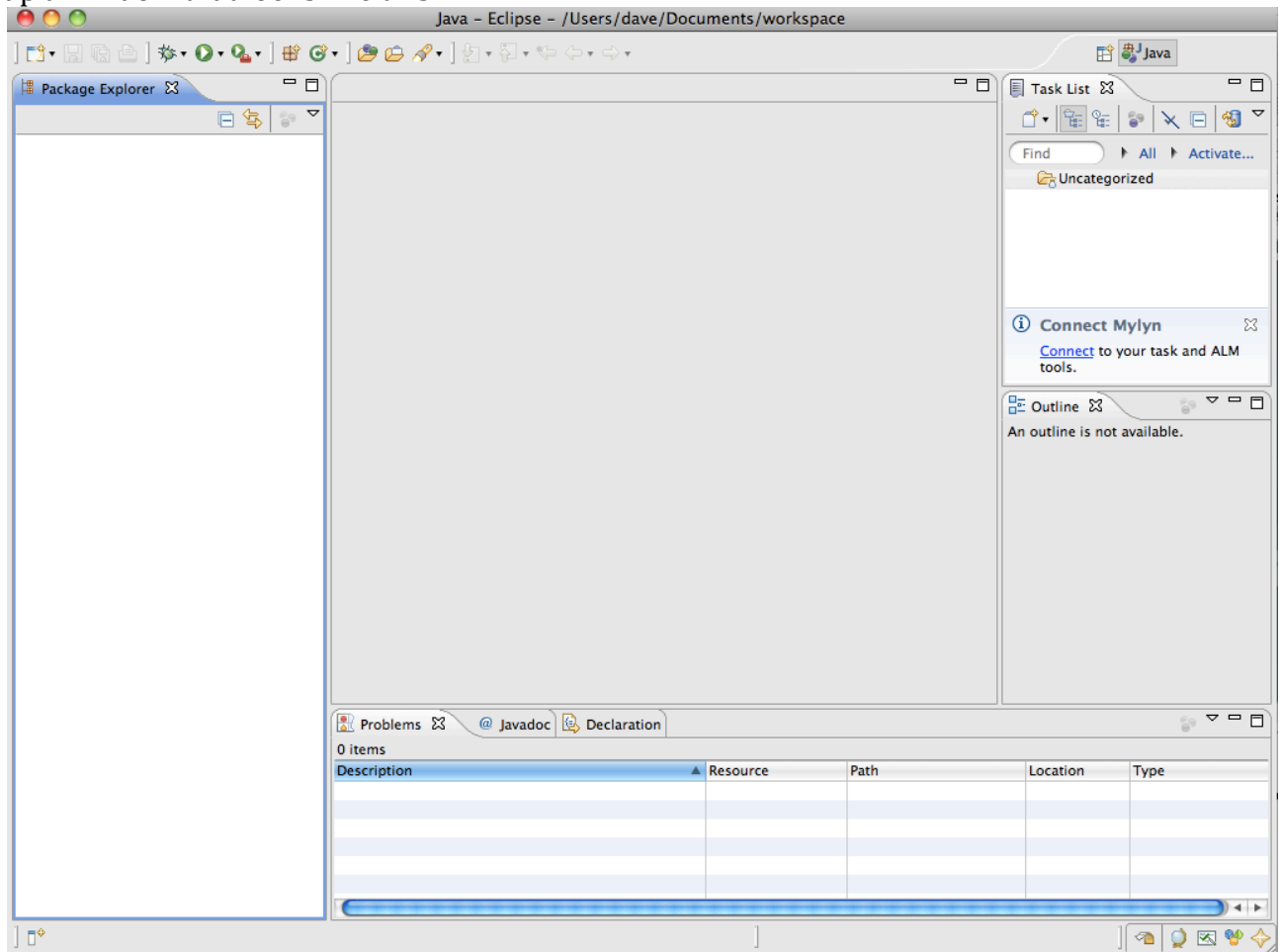
and download “Eclipse IDE for Java Developers”. Make sure you choose the version for your operating system!

Writing and running your first Java program

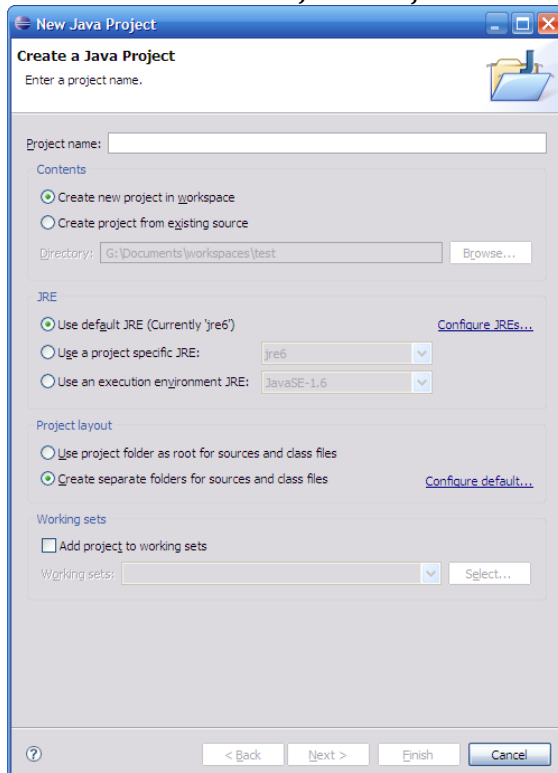
1. Launch Eclipse and select a workspace folder where you will store all the code for this course. You'll get a window that looks like this



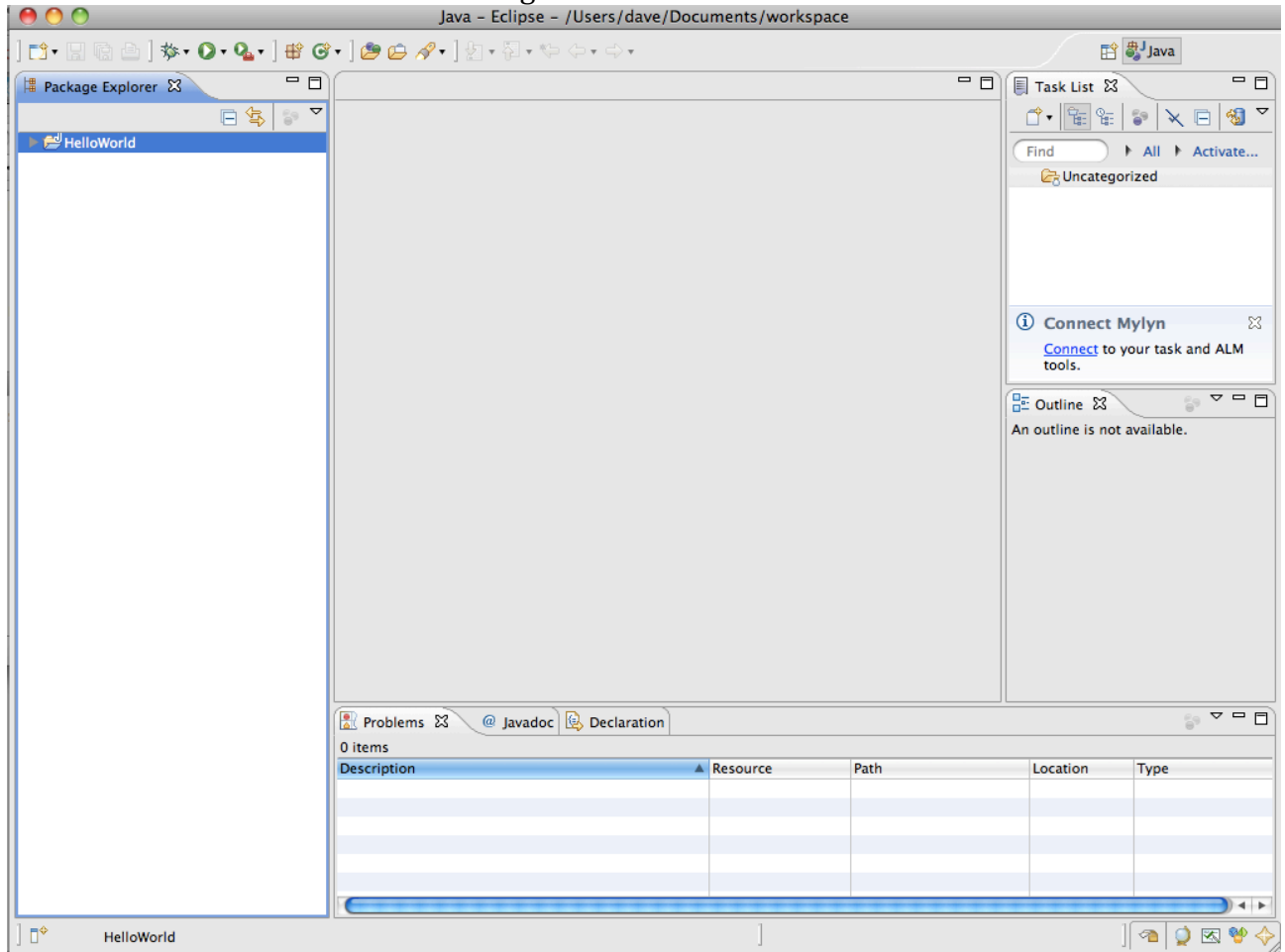
2. Click on the curly arrow icon on the right hand side in the diagram above. This brings up a window that looks like this



3. Right-click in the column on the left of the workbench, headed "Package Explorer".
4. Select New and then "Java Project". This will bring up the following dialogue box:

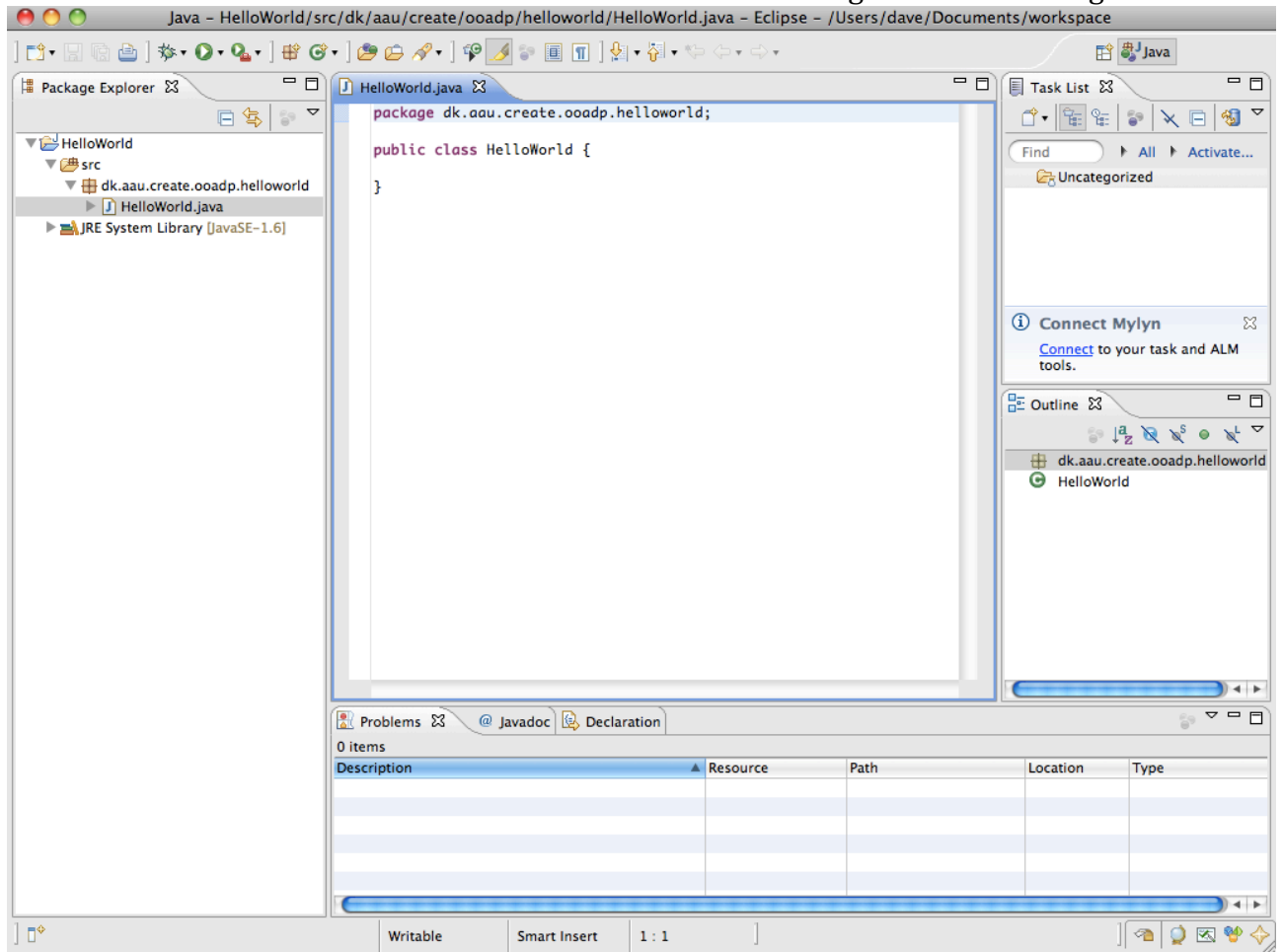


- In the “Project name:” text box, type “HelloWorld”. Then click “Finish”. Your Eclipse workbench should now look something like this.

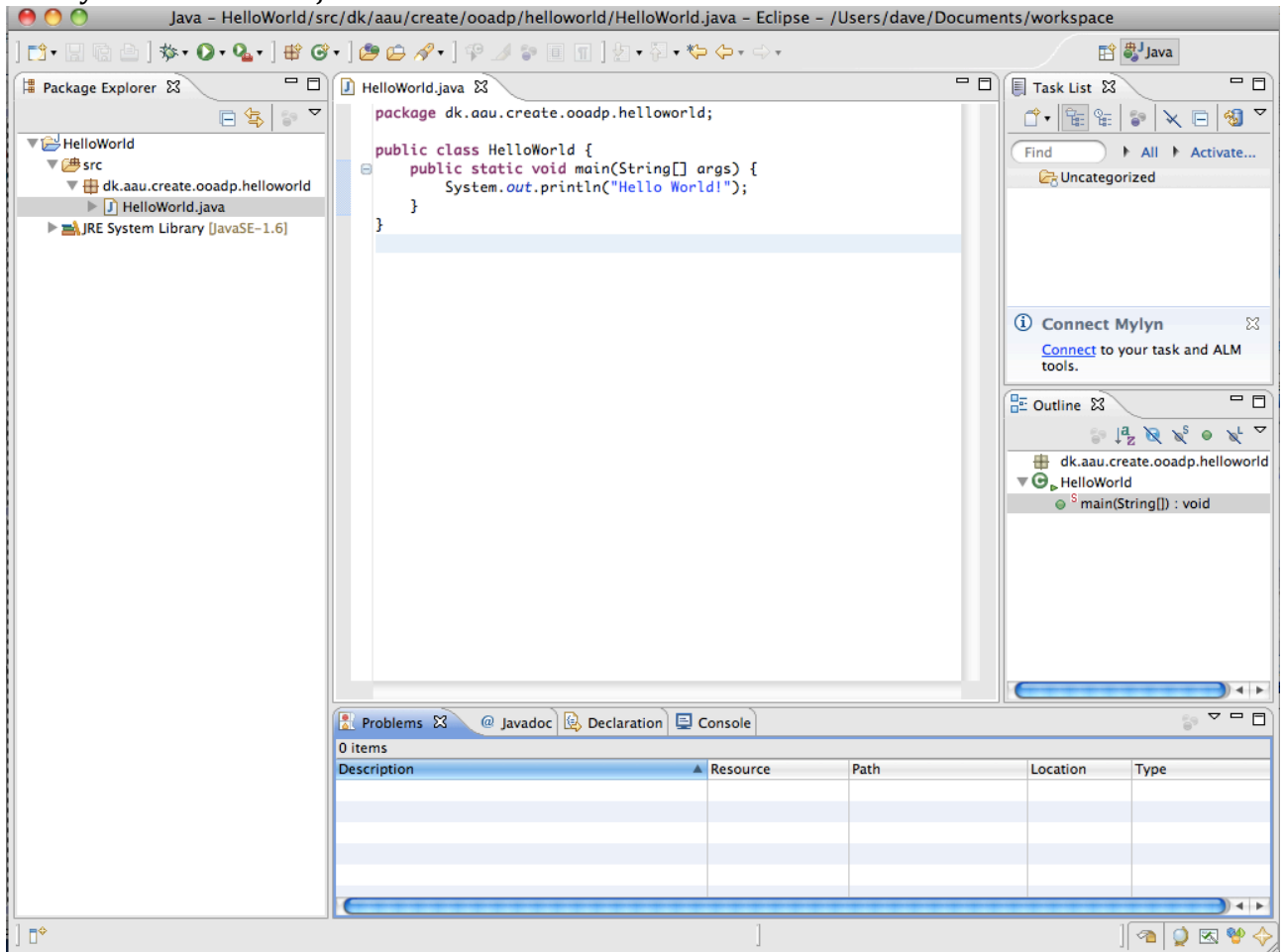


- Expand the folder called “HelloWorld” to reveal two subfolders called “src” and “JRE System Library...”.
- Right-click on the src folder and select “New” then “Package”.
- A dialogue box appears. In the “Name” box, type “dk.aau.create.ooadp.helloworld”. Then click on Finish.
- Right-click on the package you just made and select “New”, then “Class”.
- In the dialogue box that appears, type “HelloWorld” in the “Name” box and click on “Finish”. A new file should appear in the dk.aau.imi.ooadp.helloworld package called HelloWorld.java and the contents of this file should be displayed in the middle window

on the workbench. Your workbench should now look something like the following:

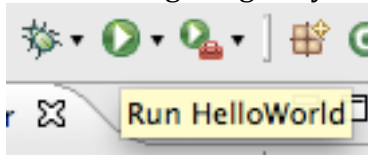


11. Modify the HelloWorld.java file so that it looks as follows:



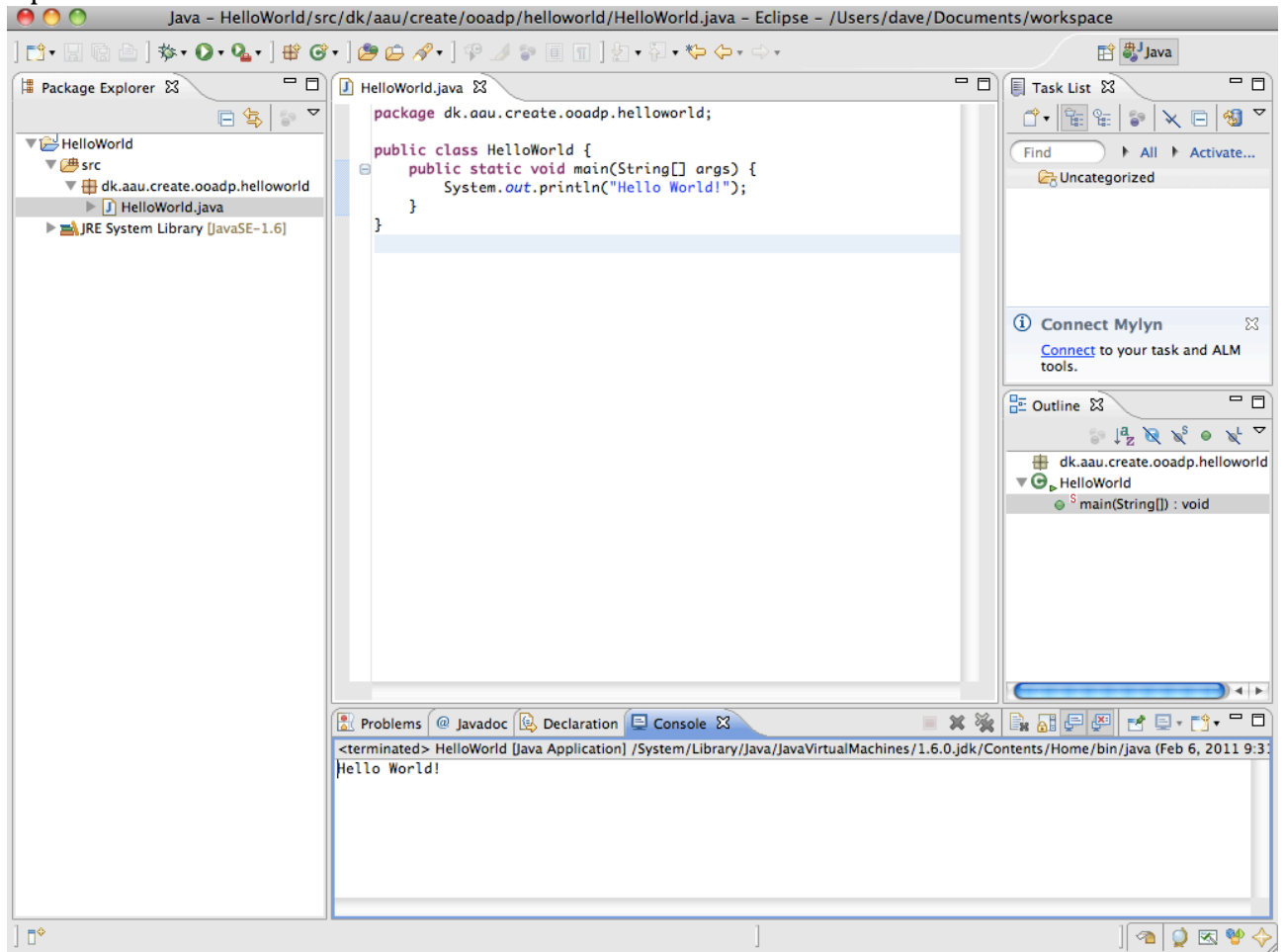
12. With the HelloWorld.java file current, select Save from the File menu.

13. Click on the Green button with the white arrow on the button bar, just left of centre in the following image. If you hover over it, you should get a tool tip as shown.



A new "Console" window should appear with the words "Hello World" written in the

top left hand corner as follows:



14. Congratulations! You have just written and run your first Java program!