

# Eclipse Integrated Development Environment (IDE)

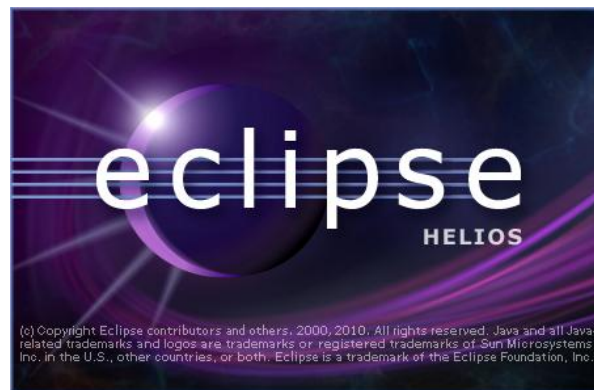


Figure 1 Eclipse Splash Screen

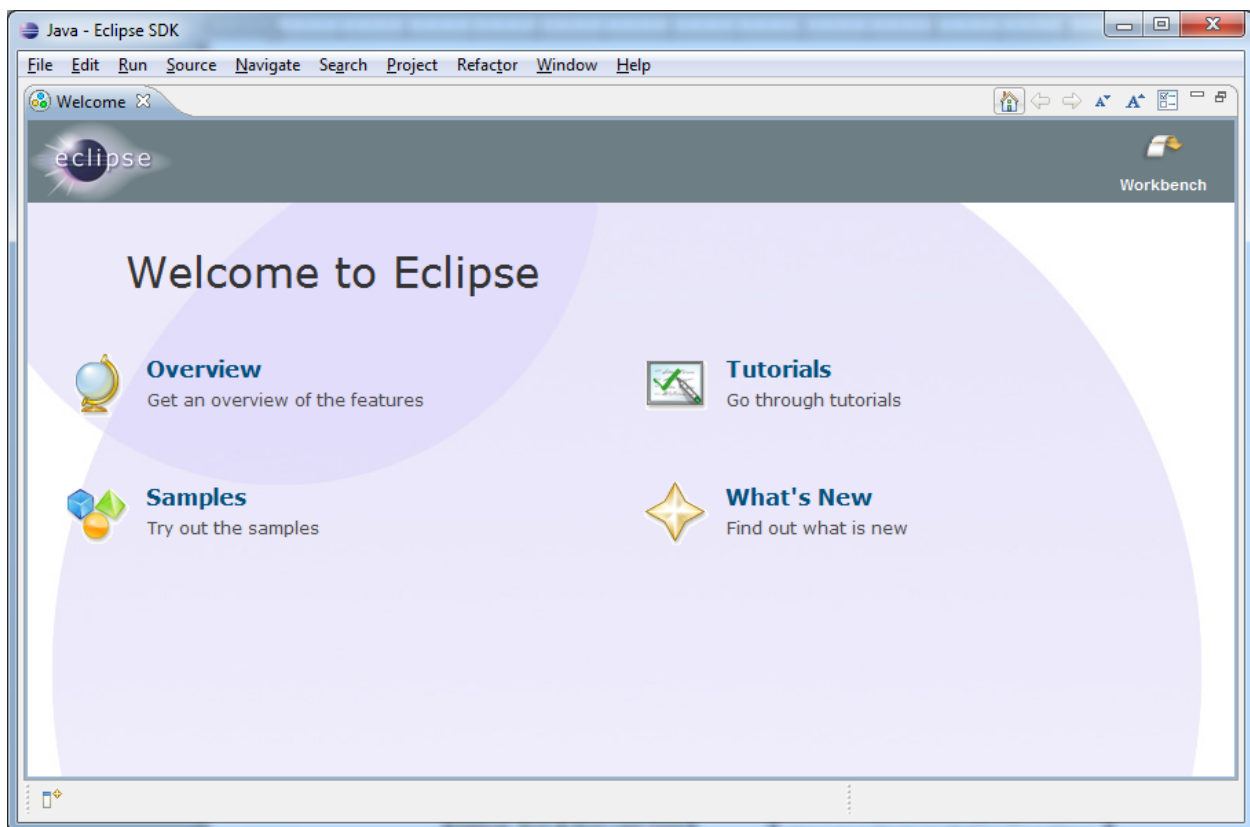
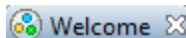


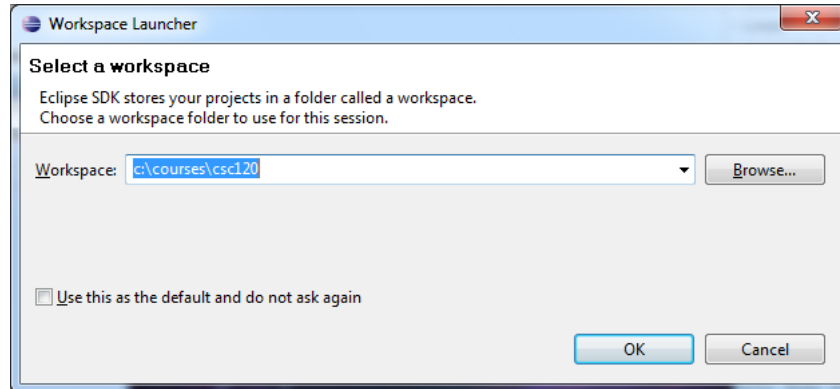
Figure 2 Eclipse Welcome Screen

The Welcome screen is available the first time Eclipse is used and can be displayed by selecting **Help > Welcome**. The white X on the tab closes the window.

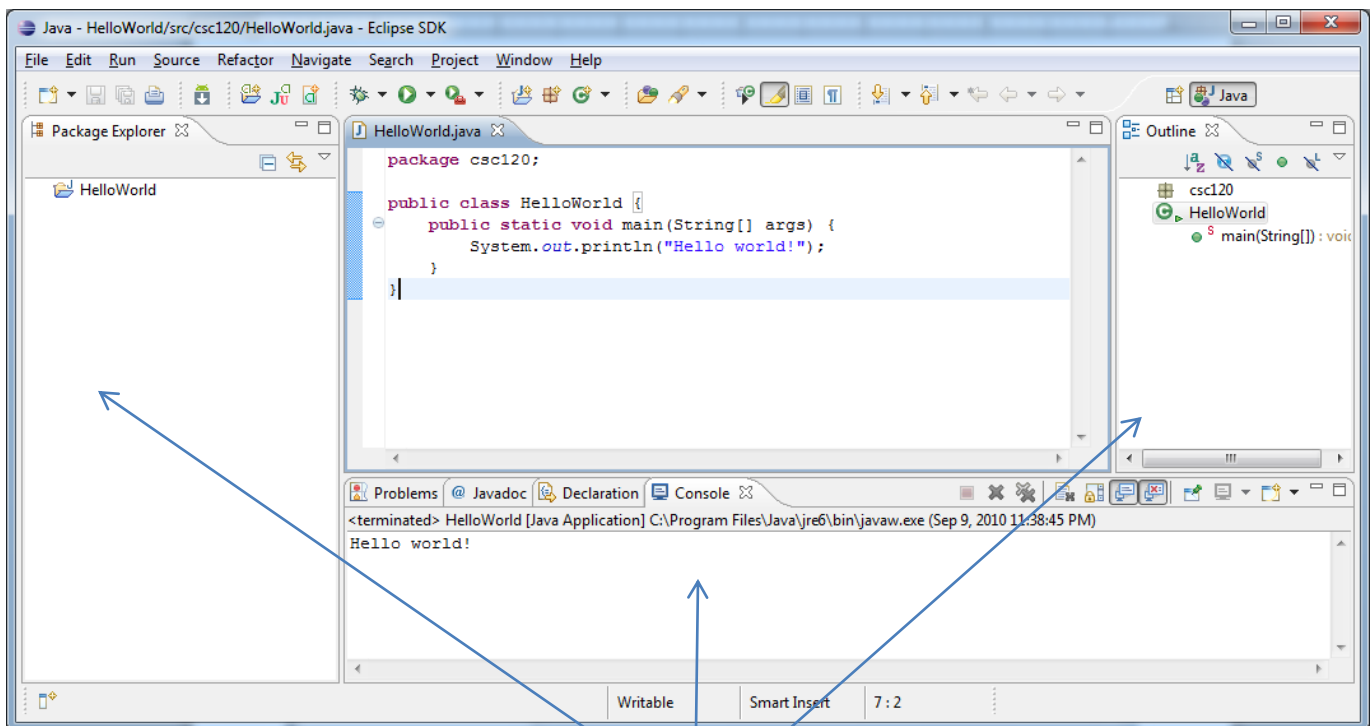


There are 4 main components within the Eclipse development environment:

1. **Workspace** - The primary unit of organization in Eclipse. A workspace contains all of your projects. After the splash screen appears, you will be prompted to enter the path for the workspace in the Workspace Launcher. If you check the ***Use this as the default and do not ask again*** checkbox, the Workspace Launcher will not appear.



2. **Projects** - Contain source code and other related files needed to build Java applications.
3. **Perspectives** - A perspective is a way of looking at each project; it is a layout of predefined views.
4. **Views** - one or more views are within a perspective. Views are dockable and can be moved around within the Java perspective by clicking on the name on the tab and dragging the view to a new location. In the graphic below, ***Package Explorer, Outline, Problems, Javadoc, Declaration, Console*** and the ***Editor*** (program source code area) are examples of views. To show a closed view, select **Window > Show View > name of the view**.

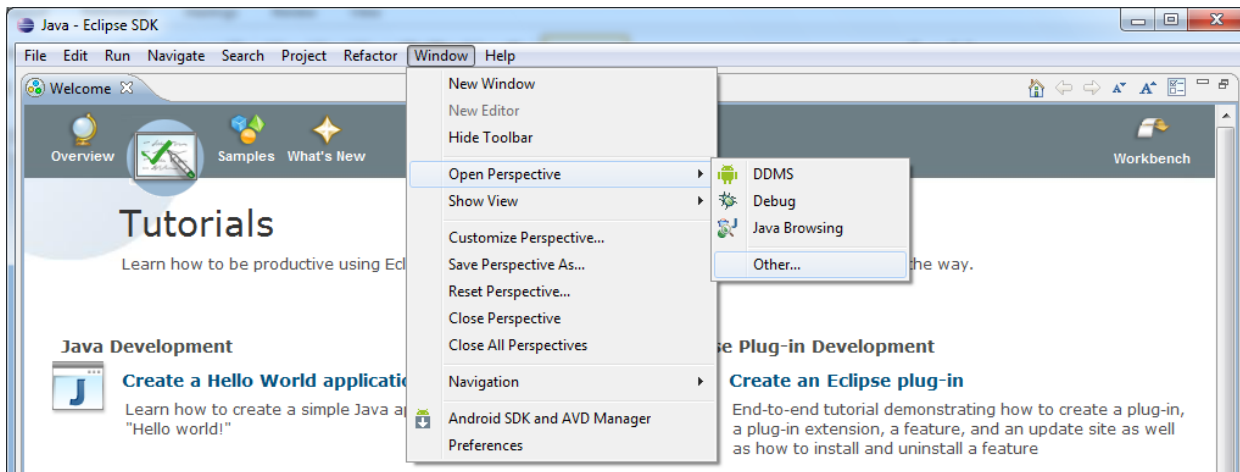


**Views**

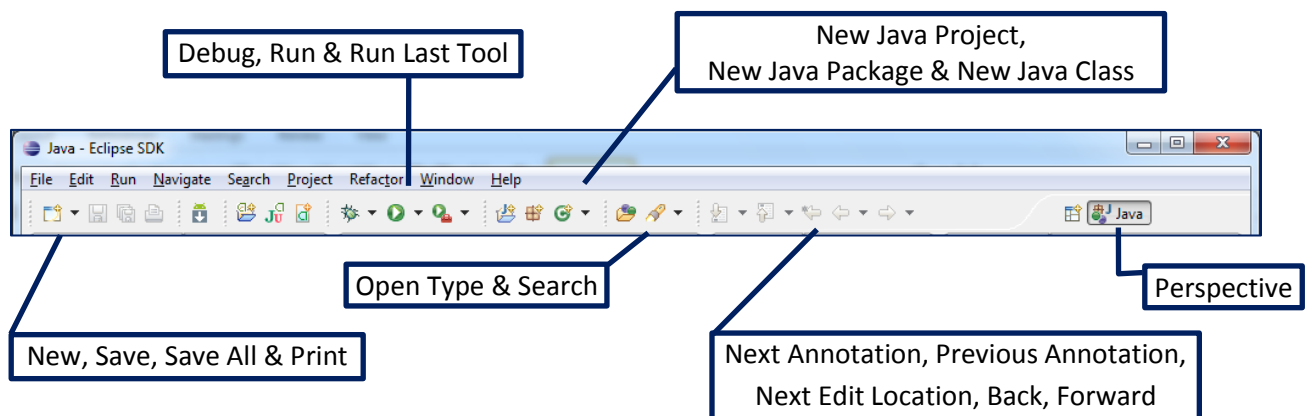
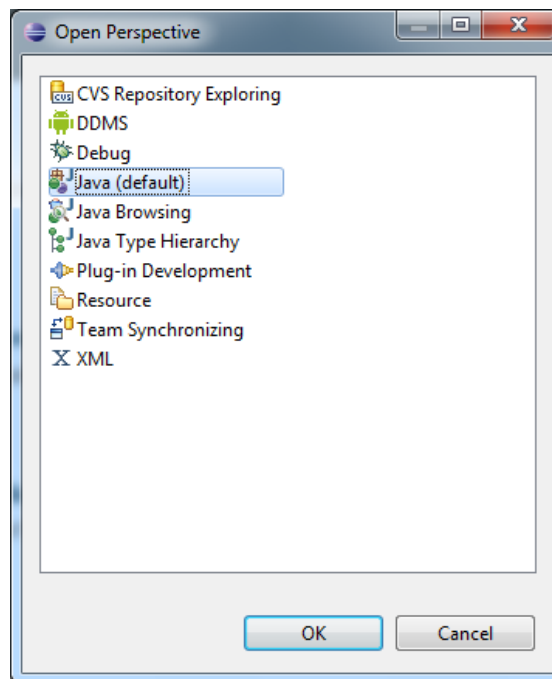
## Setting the Perspective to Java

If you're not already in the Java perspective, in the main menu select **Window > Open Perspective > Java**

If Java is not listed, select **Other...**



Then select Java (default) and click the Ok button



## Creating a Java Project

Before creating a class, we need a project in which to place the class. In the main toolbar, click on the New Java Project button, or click on **File > New > Java Project**. Enter the project name (example **HelloWorld**), then click Finish.

The screenshot shows the 'New Java Project' dialog box in an IDE. It has a title bar 'New Java Project' and a close button. The main area is titled 'Create a Java Project' with a subtitle 'Create a Java project in the workspace or in an external location.' and a folder icon. The 'Project name' field contains 'HelloWorld'. The 'Use default location' checkbox is checked, and the 'Location' field shows 'C:\Courses\CSC120\HelloWorld' with a 'Browse...' button. The 'JRE' section has three radio buttons: 'Use an execution environment JRE:' (selected), 'Use a project specific JRE:', and 'Use default JRE (currently 'jre6')'. The first option has a dropdown menu showing 'JavaSE-1.6'. The second option has a dropdown menu showing 'jre6'. There is a 'Configure JREs...' link. The 'Project layout' section has two radio buttons: 'Use project folder as root for sources and class files' and 'Create separate folders for sources and class files' (selected). There is a 'Configure default...' link. The 'Working sets' section has a checkbox 'Add project to working sets' and a 'Working sets:' dropdown menu with a 'Select...' button. At the bottom are buttons for '?', '< Back', 'Next >', 'Finish', and 'Cancel'. Four blue callout boxes with arrows point to specific fields: 'Enter the name of the project here' points to the 'Project name' field; 'Specify the location for the project. By default, the project will be placed in the workspace folder.' points to the 'Location' field; 'Specify the version of Java for the project from the dropdown list.. Example 1.5 or 1.6' points to the 'JavaSE-1.6' dropdown; and 'Specify where the source and class files will be placed' points to the 'Create separate folders for sources and class files' radio button.

**Create a Java Project**  
Create a Java project in the workspace or in an external location.

Project name: HelloWorld

☒ Use default location  
Location: C:\Courses\CSC120\HelloWorld [Browse...](#)

JRE

☒ Use an execution environment JRE: JavaSE-1.6 [Configure JREs...](#)

☐ Use a project specific JRE: jre6

☐ Use default JRE (currently 'jre6')

Project layout

☐ Use project folder as root for sources and class files

☒ Create separate folders for sources and class files [Configure default...](#)

Working sets

☐ Add project to working sets

Working sets: [Select...](#)

? < Back Next > Finish Cancel

Enter the name of the project here

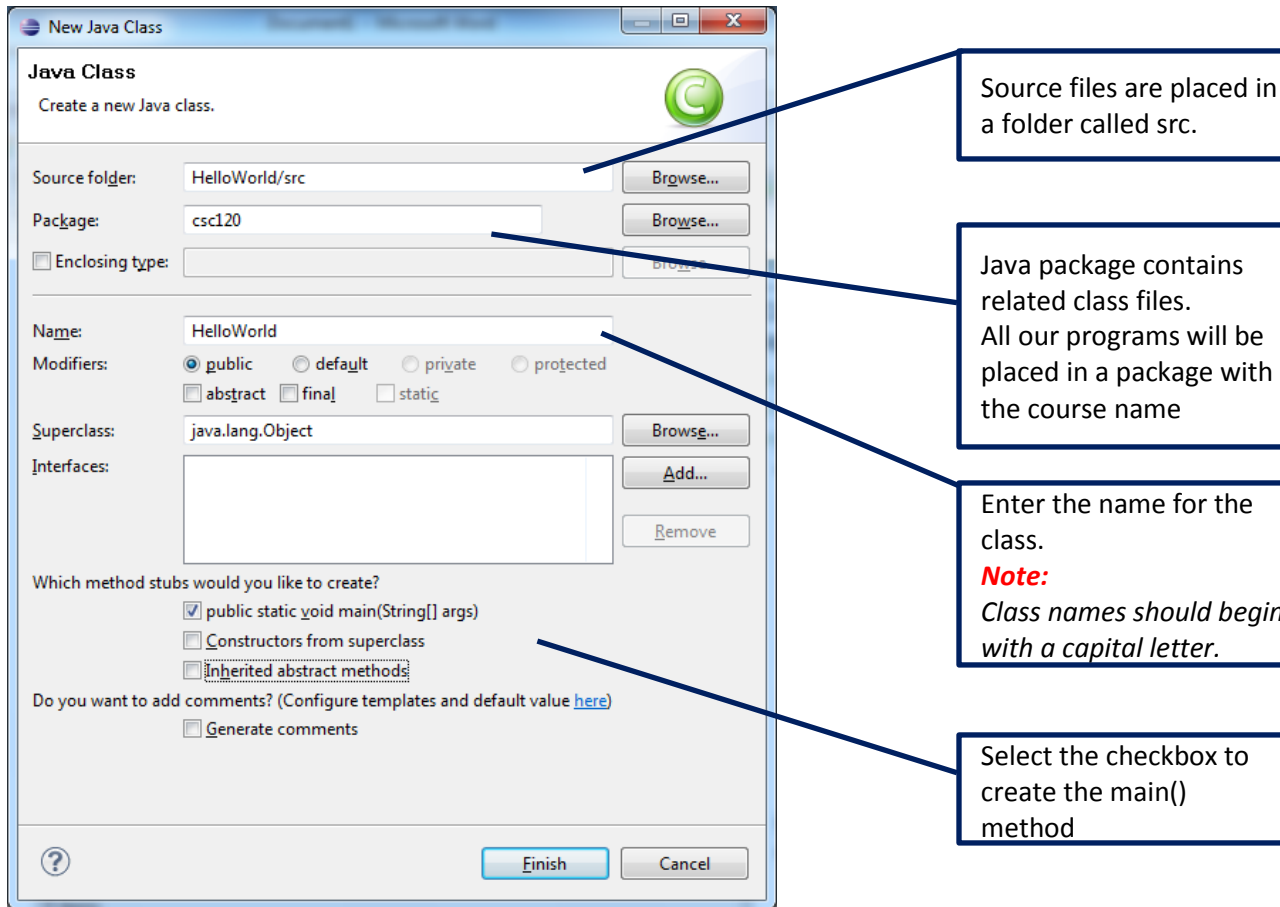
Specify the location for the project.  
By default, the project will be placed in the workspace folder.

Specify the version of Java for the project from the dropdown list.. Example 1.5 or 1.6

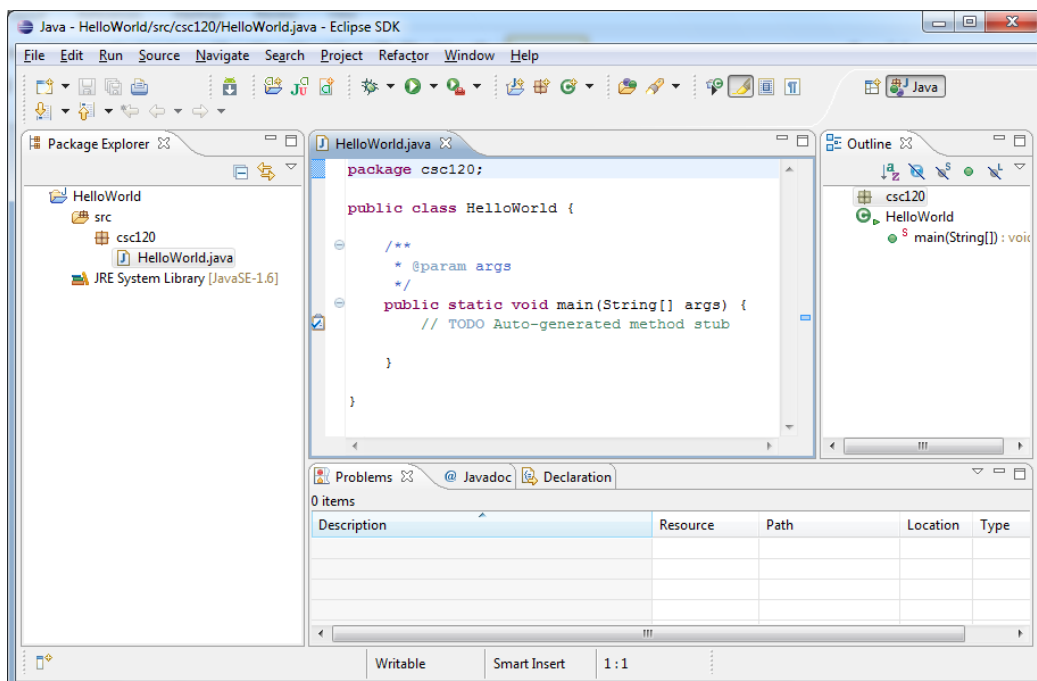
Specify where the source and class files will be placed

## Create the Java Class

Click the New Java Class button. If not already specified, select **HelloWorld/src** as the source folder. Enter **HelloWorld** for the class name, select the checkbox to create the **main()** method, then click the Finish button.

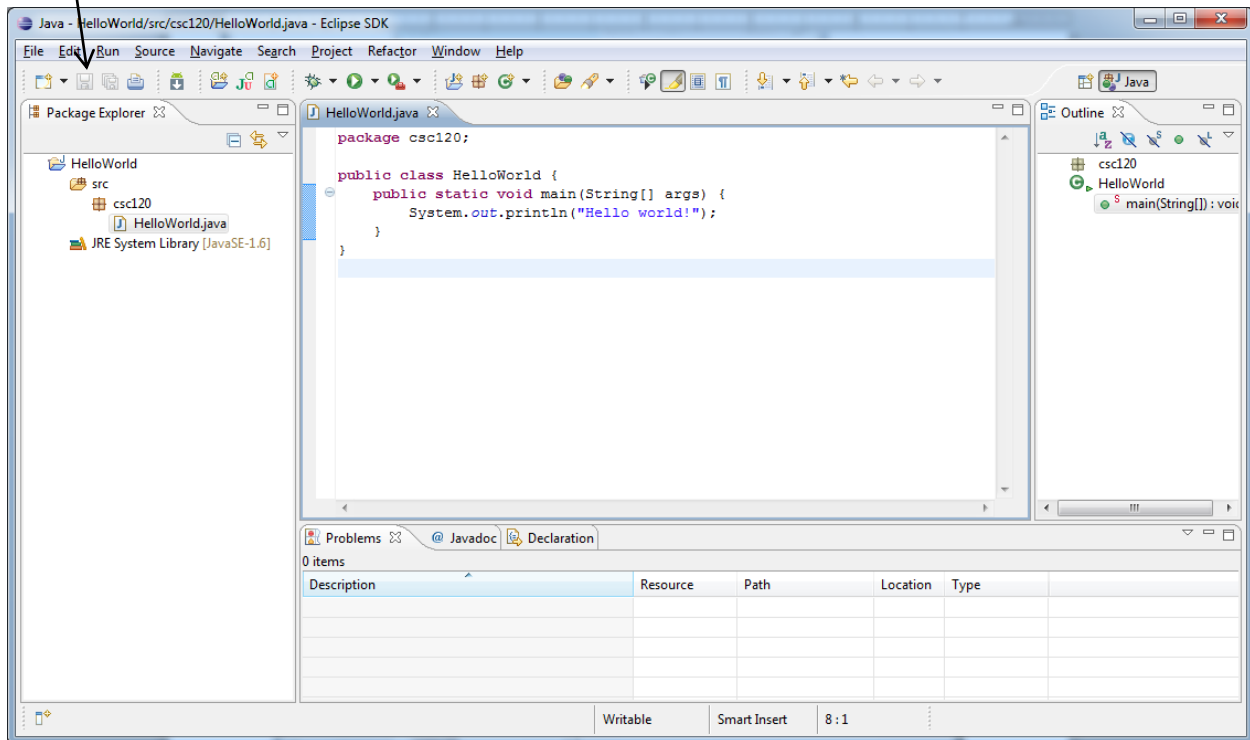


The Java editor will automatically open showing your new class. You can now type the code for the class.

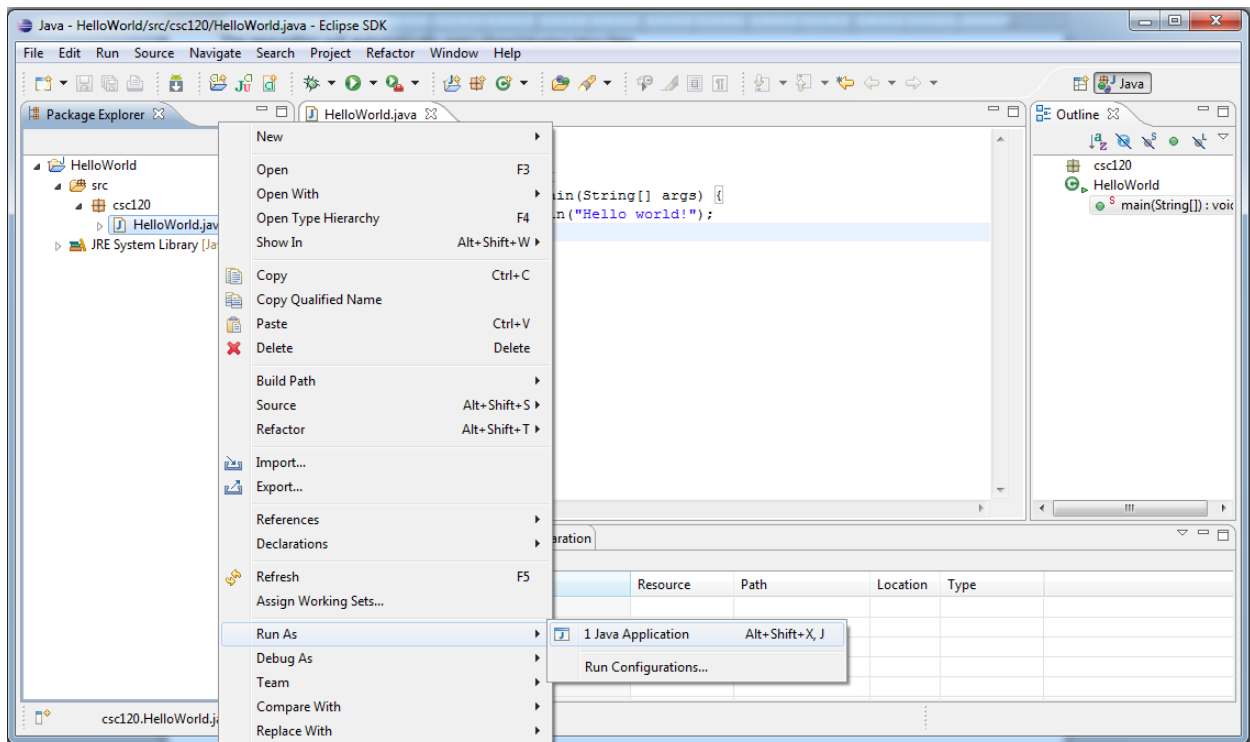


## Saving and Running the Program

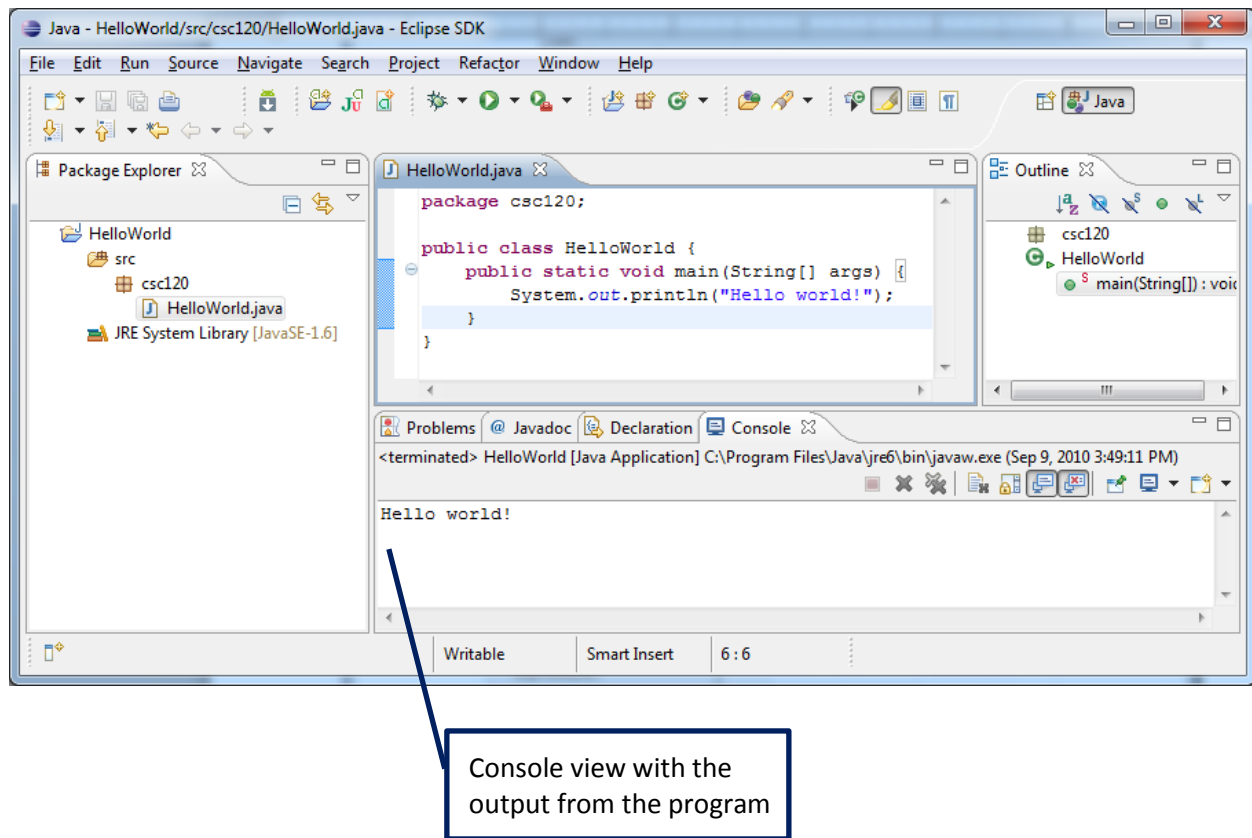
Click the save button  to save changes to the program; the class will automatically compile.



To run your application, right-click on your class in the **Package Explorer** and select **Run As > Java Application** or click the Run button. 



The Console view should appear at the bottom and display the "Hello, world!" output.



## Resources on the Internet:

|                       |                                                                                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Java Tutorials        | <a href="http://download.oracle.com/javase/tutorial/">http://download.oracle.com/javase/tutorial/</a>                                               |
| JDK 6                 | <a href="http://www.oracle.com/technetwork/java/javase/downloads/index.html">http://www.oracle.com/technetwork/java/javase/downloads/index.html</a> |
| Java Documentation    | <a href="http://download.oracle.com/javase/6/docs/api/index.html">http://download.oracle.com/javase/6/docs/api/index.html</a>                       |
| Eclipse               | <a href="http://www.eclipse.org/downloads/">http://www.eclipse.org/downloads/</a>                                                                   |
| Eclipse/Java Tutorial | <a href="http://eclipsetutorial.sourceforge.net/totalbeginner.html">http://eclipsetutorial.sourceforge.net/totalbeginner.html</a>                   |
| Eclipse Resources     | <a href="http://www.eclipse.org/resources/">http://www.eclipse.org/resources/</a>                                                                   |
| JCreator LE           | <a href="http://www.jcreator.org/download.htm">http://www.jcreator.org/download.htm</a>                                                             |