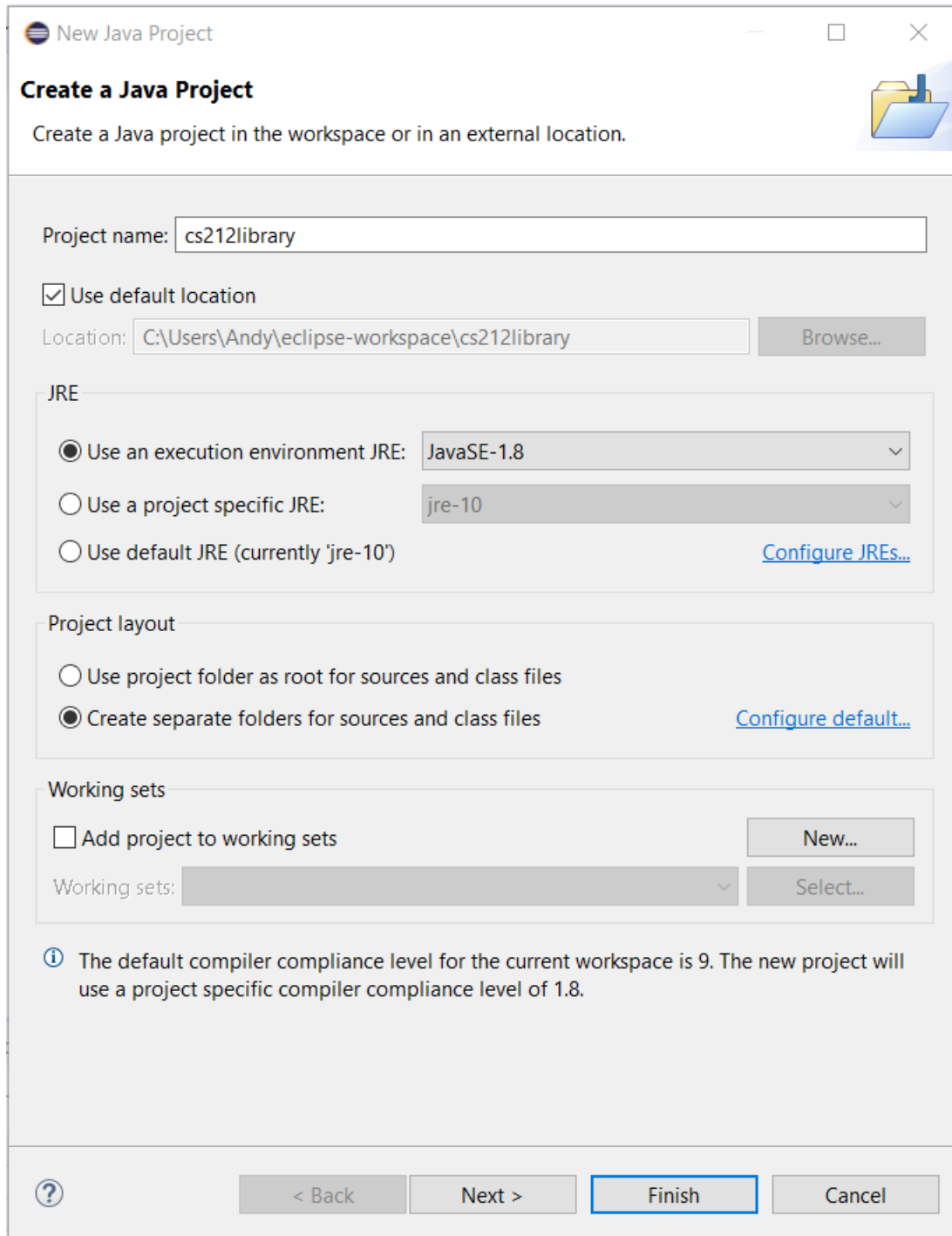


## Creating a Library for Your Stack and Queue Classes

Create a new Java project called cs212library.



The screenshot shows the 'New Java Project' dialog box in the Eclipse IDE. The title bar reads 'New Java Project'. The main heading is 'Create a Java Project', followed by the instruction 'Create a Java project in the workspace or in an external location.'.

The 'Project name' field contains 'cs212library'. The 'Use default location' checkbox is checked. The 'Location' field shows 'C:\Users\Andy\eclipse-workspace\cs212library', with a 'Browse...' button to its right.

The 'JRE' section has three radio buttons: 'Use an execution environment JRE:' (selected), 'Use a project specific JRE:', and 'Use default JRE (currently 'jre-10')'. The selected option has a dropdown menu showing 'JavaSE-1.8'. The other two options have dropdown menus showing 'jre-10'. A 'Configure JREs...' link is at the bottom right of this section.

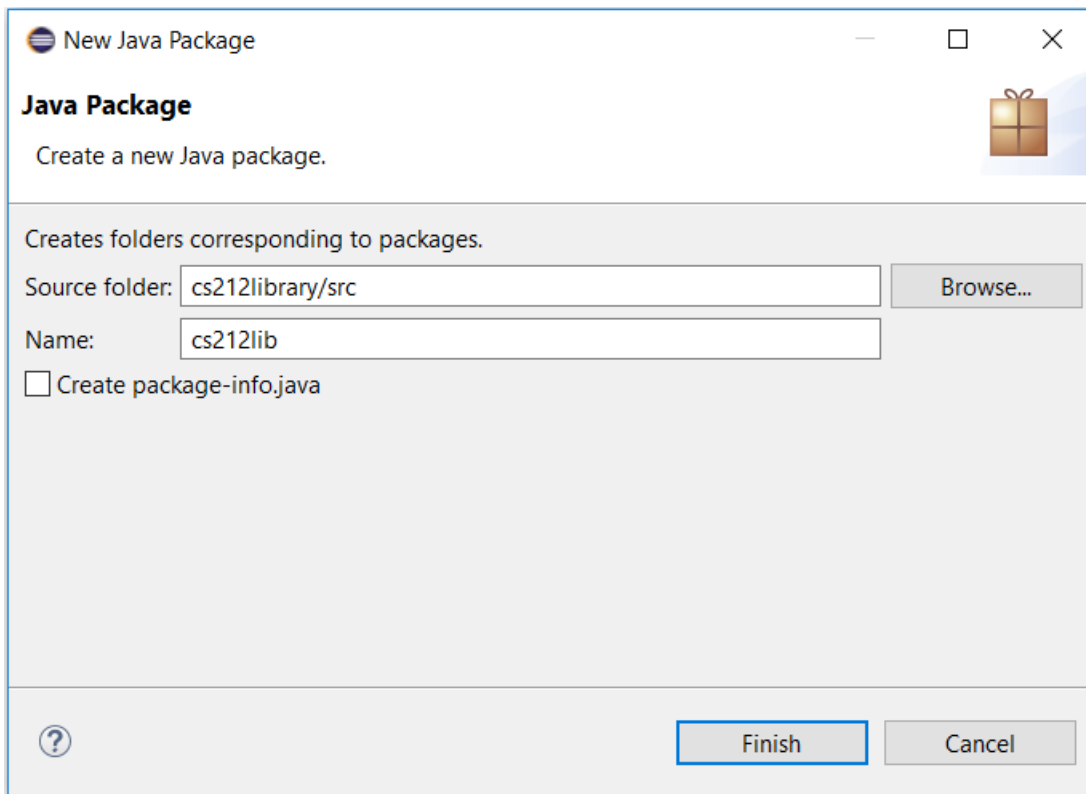
The 'Project layout' section has two radio buttons: 'Use project folder as root for sources and class files' and 'Create separate folders for sources and class files' (selected). A 'Configure default...' link is at the bottom right.

The 'Working sets' section has a checkbox 'Add project to working sets' (unchecked) and a 'New...' button. Below it, the 'Working sets:' label is followed by a dropdown menu and a 'Select...' button.

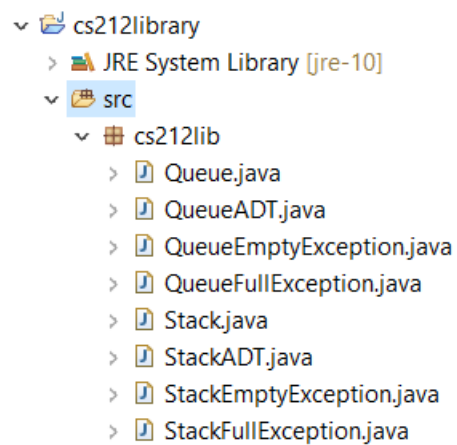
A note at the bottom states: 'The default compiler compliance level for the current workspace is 9. The new project will use a project specific compiler compliance level of 1.8.'

The bottom of the dialog features a row of buttons: a help icon (?), '< Back', 'Next >', 'Finish' (highlighted with a blue border), and 'Cancel'.

Create a new Java package called cs212lib.



Move or copy the classes for the Stack and Queue into the package.

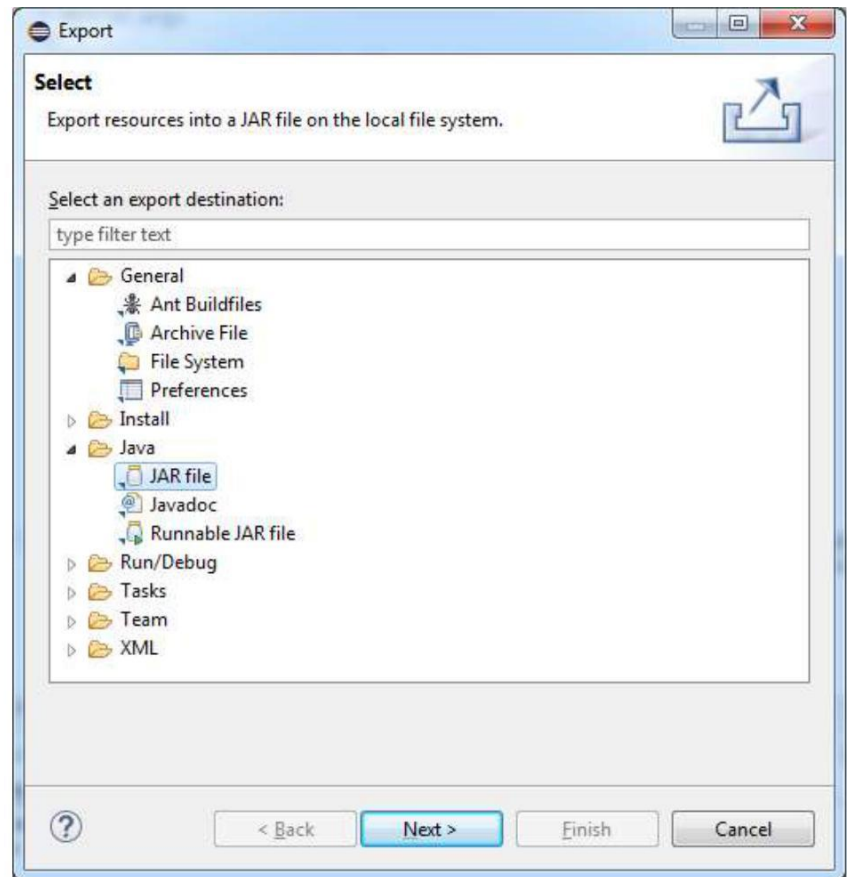
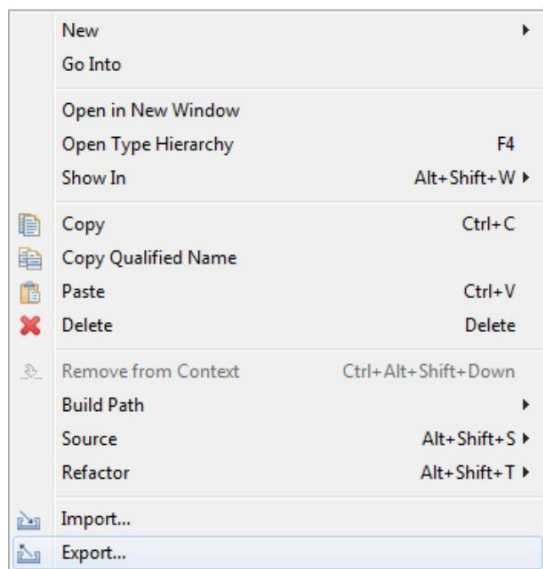


## Export the project as a JAR file:

Select the project name, right-click and choose **Export...**

Expand Java in the **Export** dialog box.

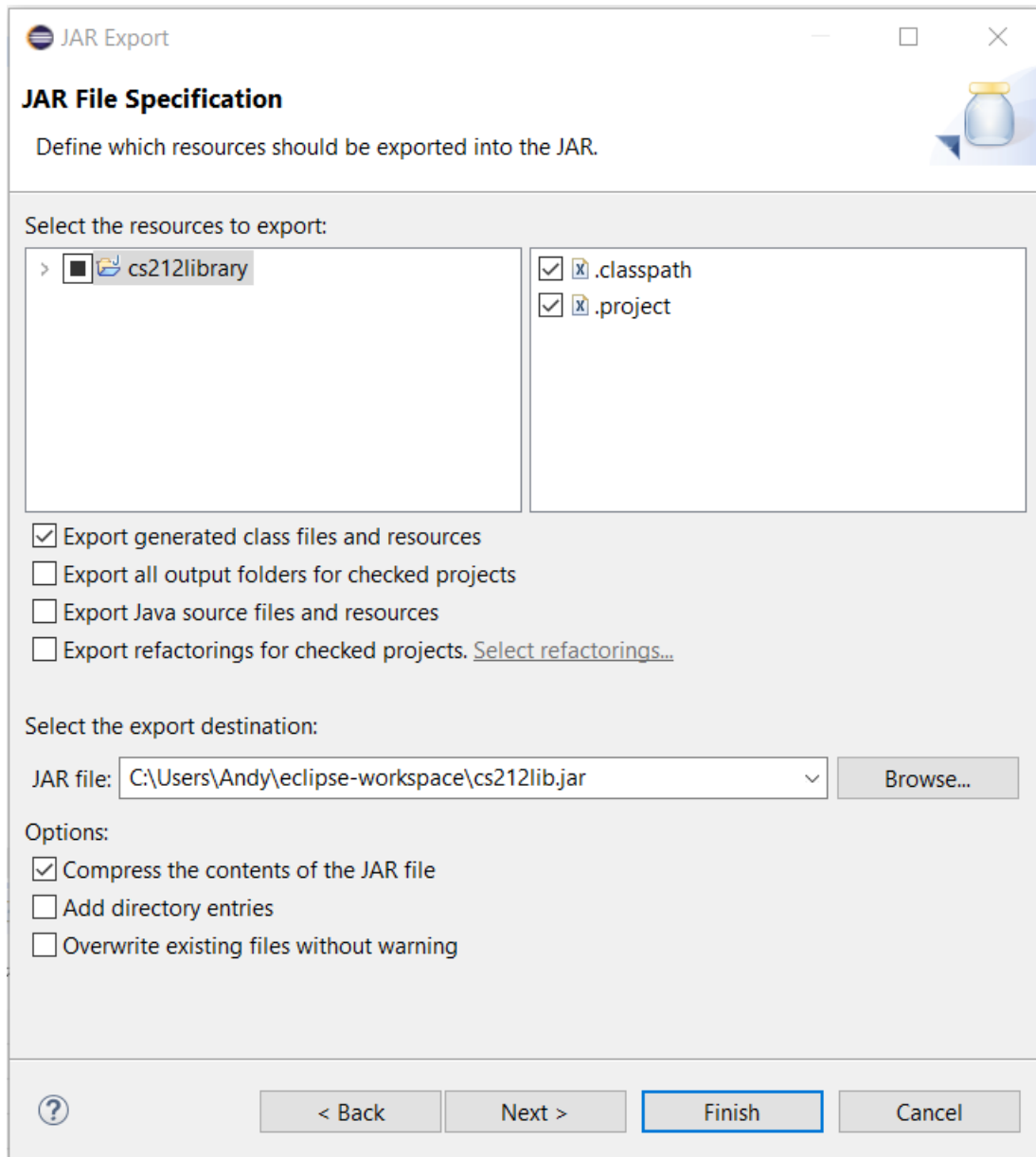
Select JAR file, and click the **Next>** button.



Specify the export destination for the JAR file, in the JAR Export dialog box.

(I suggest that you use the workspace folder)

Click the **Finish** button.



## Adding the JAR File to Programs That Require the Library

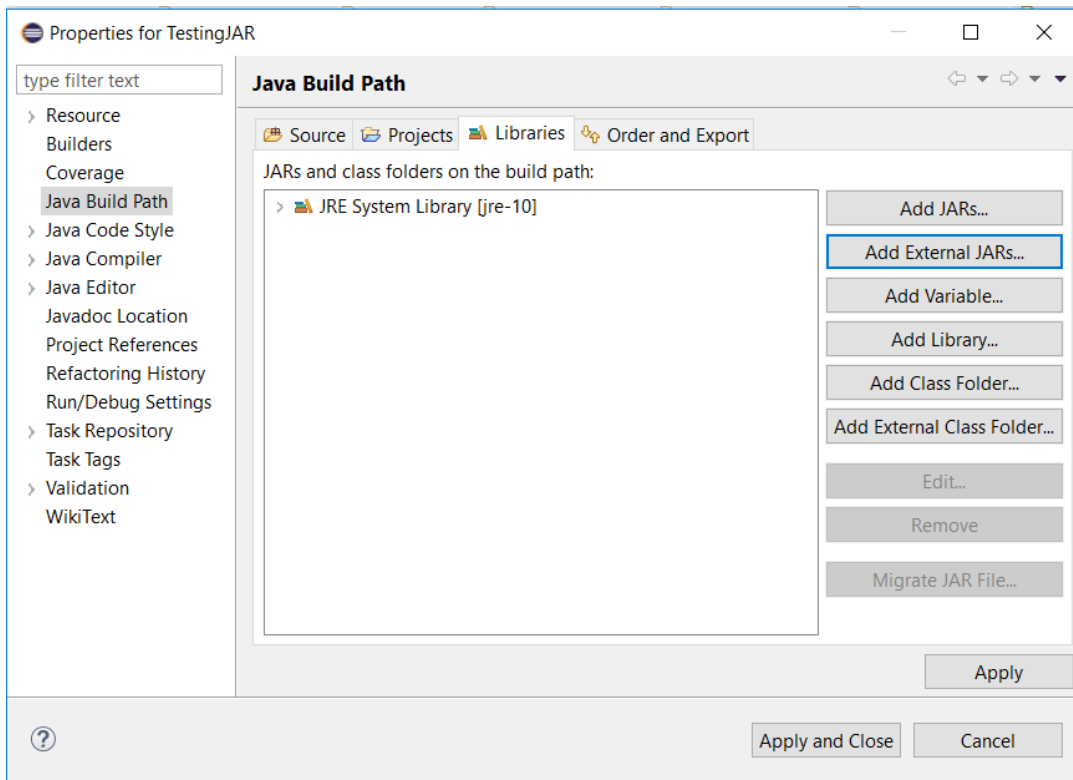
Right-click on the project that requires the JAR file

Select **Properties**

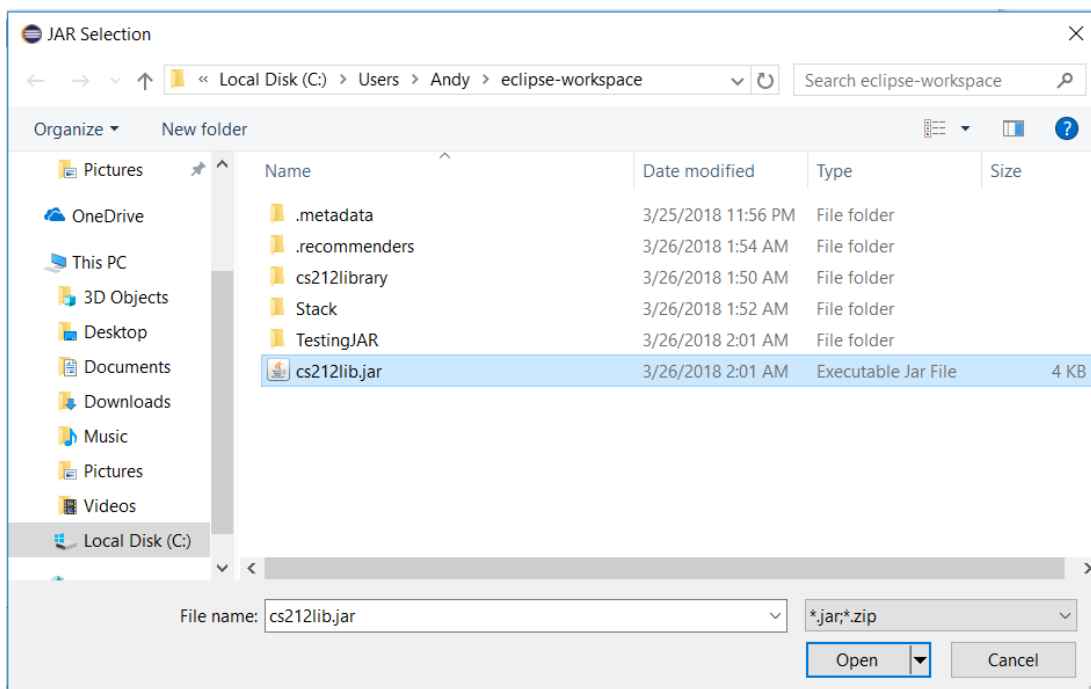
Select **JAVA Build Path** from the list of properties

Click the **Libraries** tab

Click the **Add External JARs...** button

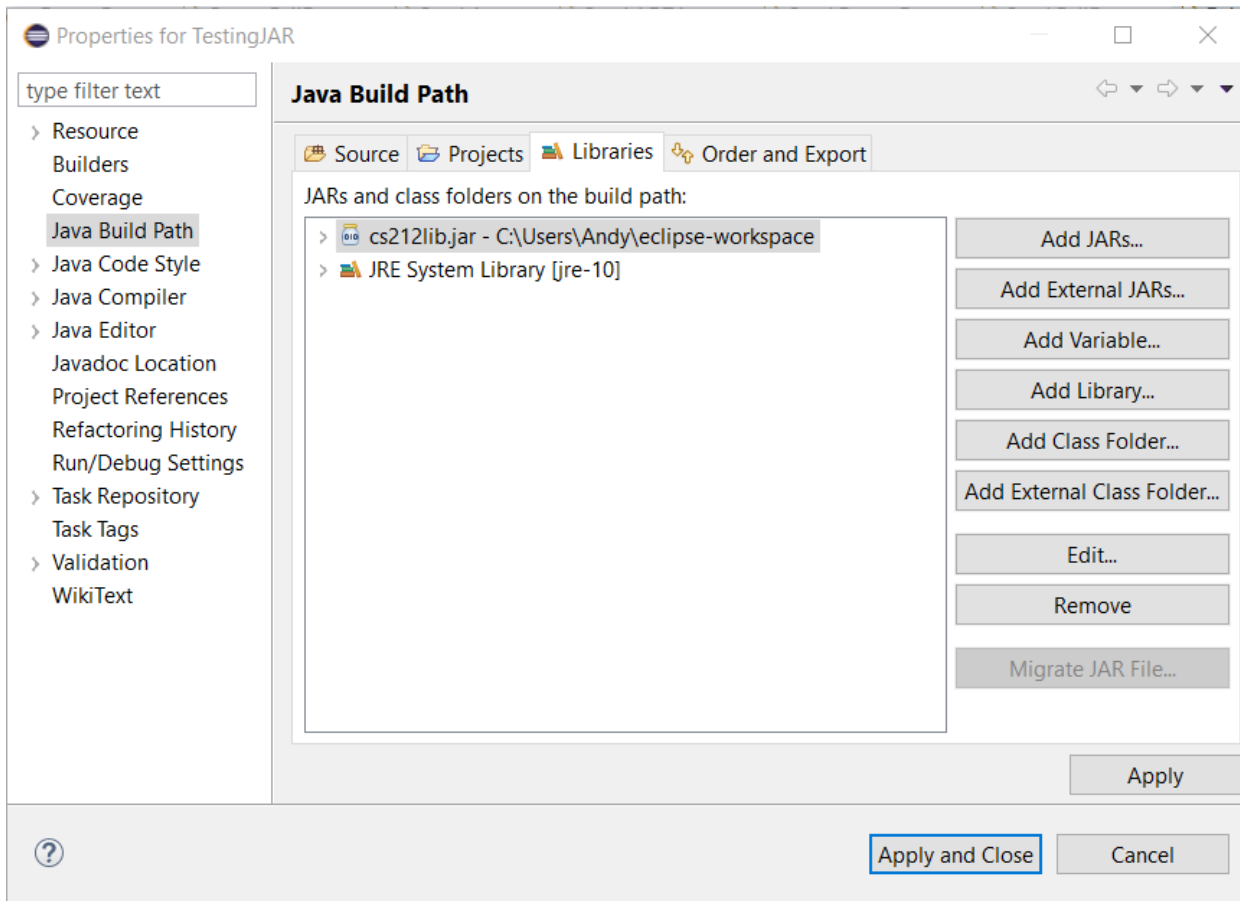


Browse to the location of the JAR file



Click on the name of the file

Click the **Open** button, and click the **Apply and Close** button to close the Properties dialog box



Add the import statement(s) to your source code, as necessary.

Example:

```
import cs212lib.Stack;  
import cs212lib.StackEmptyException;  
import cs212lib.StackFullException;
```