

## Using JavaFX with Eclipse

Our goal is to make the following program compile and run using eclipse.

<http://cs.gettysburg.edu/~cpresser/cs112/examples/MyJavaFX.java>

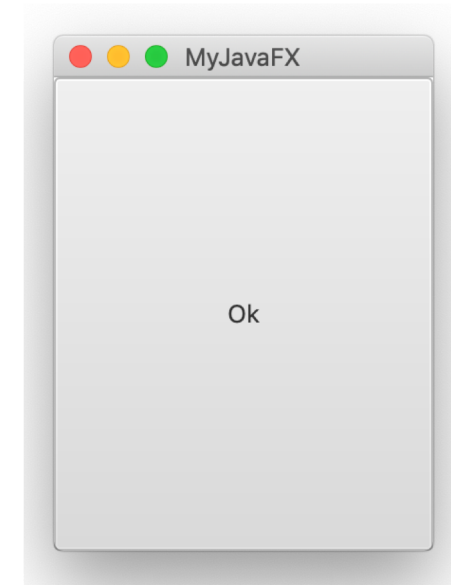
```
import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.stage.Stage;

public class MyJavaFX extends Application{

    public void start(Stage primaryStage) {
        Button btOK = new Button("Ok");
        Scene scene = new Scene(btOK, 200, 250);

        primaryStage.setTitle("MyJavaFX");
        primaryStage.setScene(scene);
        primaryStage.show();
    }

    public static void main(String[] args) {
        Application.launch(args);
    }
}
```



Step 1: Make a project and put this class in it. If it compiles and runs showing a window with a large Ok button, it worked, and there is nothing left to do. If it didn't work, keep reading.

If step 1 did not work, you are probably looking at a bunch of compile errors. Eclipse can't find JavaFX.

Download JavaFX from <https://openjfx.io/>

**JavaFX**

JavaFX is an open source, next generation client application platform for desktop, mobile and embedded systems built on Java. It is a collaborative effort by many individuals and companies with the goal of producing a modern, efficient, and fully featured toolkit for developing rich client applications.

**Download**

JavaFX runtime is available as a platform-specific SDK, as a number of jmods, and as a set of artifacts in Maven Central.

**Develop**

JavaFX, also known as OpenJFX, is free software; licensed under the the class path exception, just like the OpenJDK.

Find the version that best suits your system.

## Downloads

JavaFX version: 17.0.0.1 [LTS] | Operating System: macOS | Architecture: x64 | Type: SDK

Include older versions

OS	Version	Architecture	Type	Download
macOS	17.0.0.1	x64	SDK	<a href="#">Download</a> [SHA256]

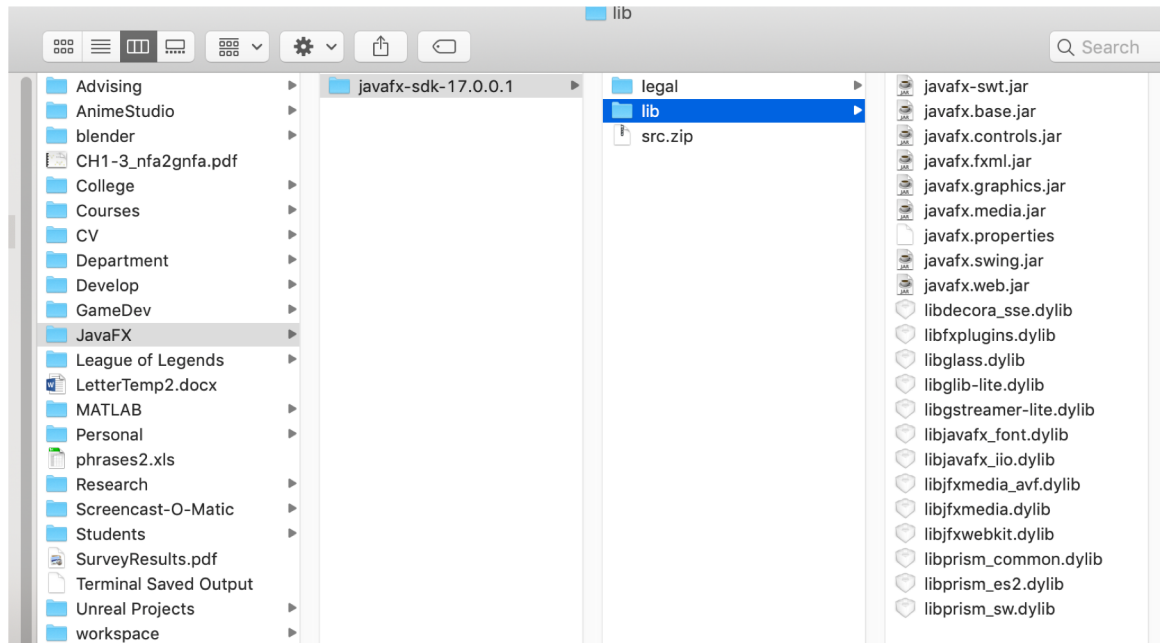
Unzip the resulting file somewhere, or extract it and move it. For this example, I'll put it in Documents/JavaFX.

Full Paths to jar files (note your username and version might be different than mine).

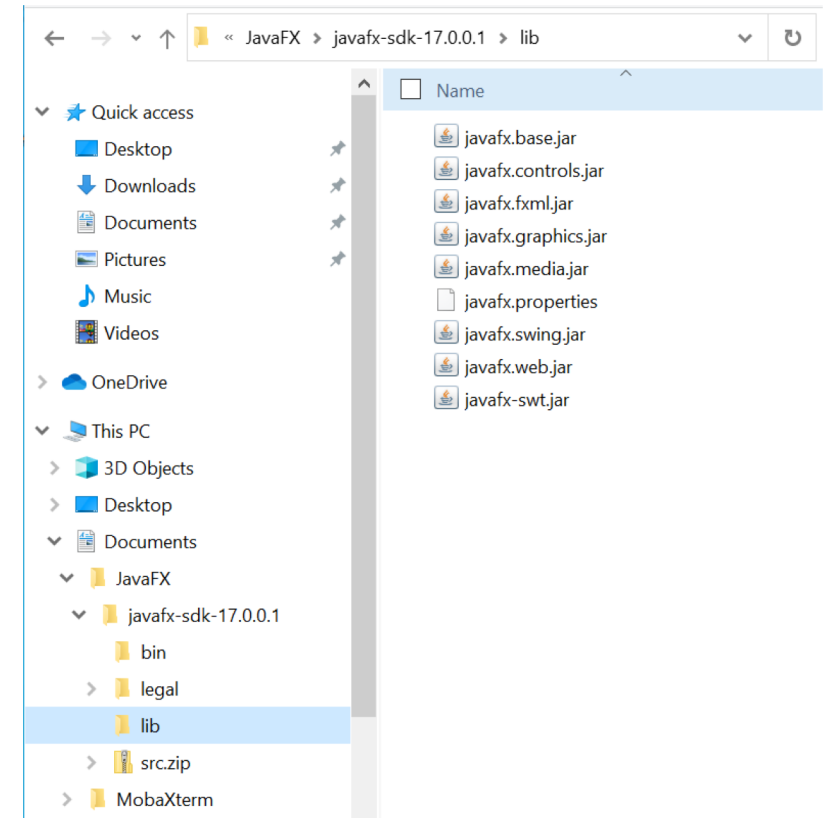
**Mac:** /Users/cpresser/Documents/JavaFX/javafx-sdk-17.0.0.1/lib

**Windows:** C:\Users\cpresser\Documents\JavaFX\javafx-sdk-17.0.0.1\lib

Mac:



Windows:



Set up your workspace. You only need to do this part once per workspace.

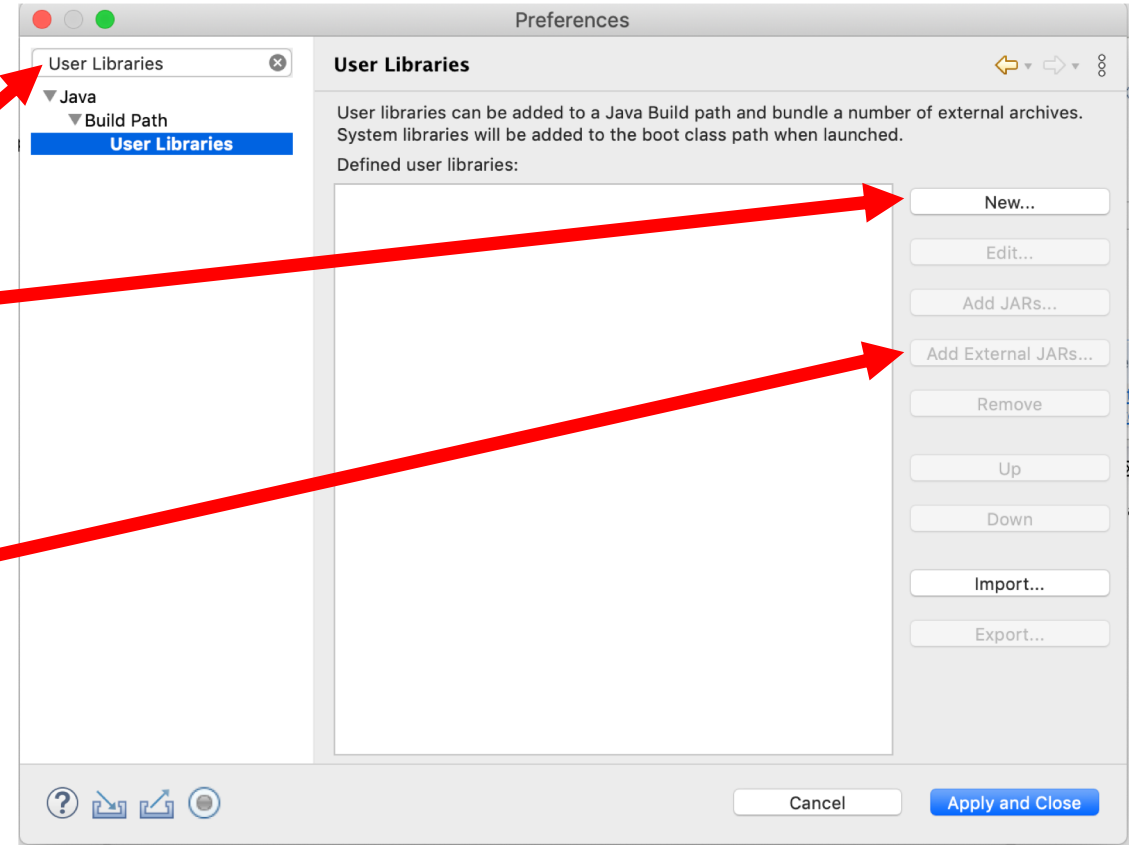
1. Open up Eclipse's Preferences using the menus:  
Mac: Eclipse->Preferences...  
Windows: Window->Preferences...

2. Type "User Libraries" in the text box at the top left.

3. Click "New..."

4. Type "JavaFX" in the dialog that appears, and click OK.

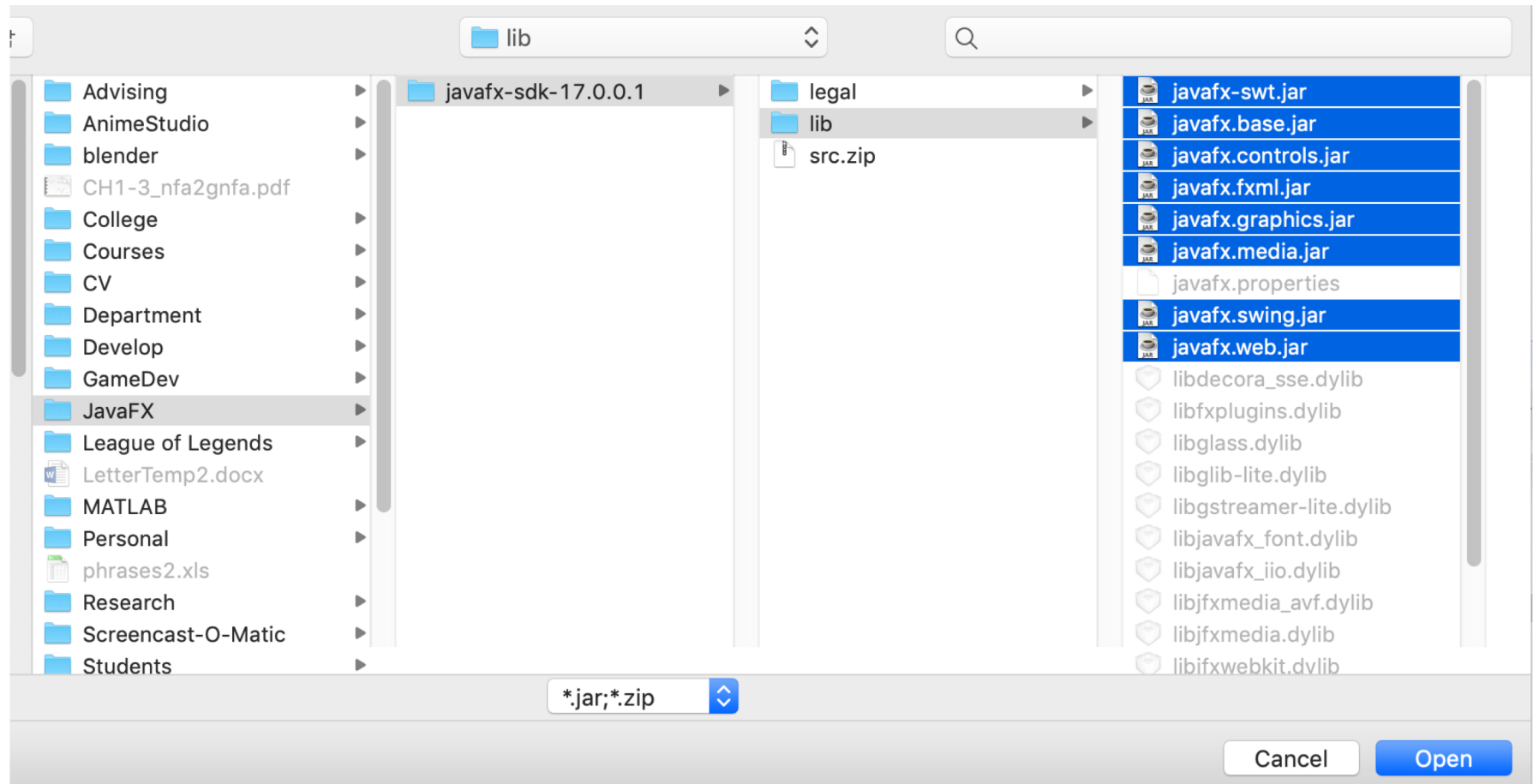
5. With JavaFX selected, click "Add External Jars..."



Workspace setup continued.

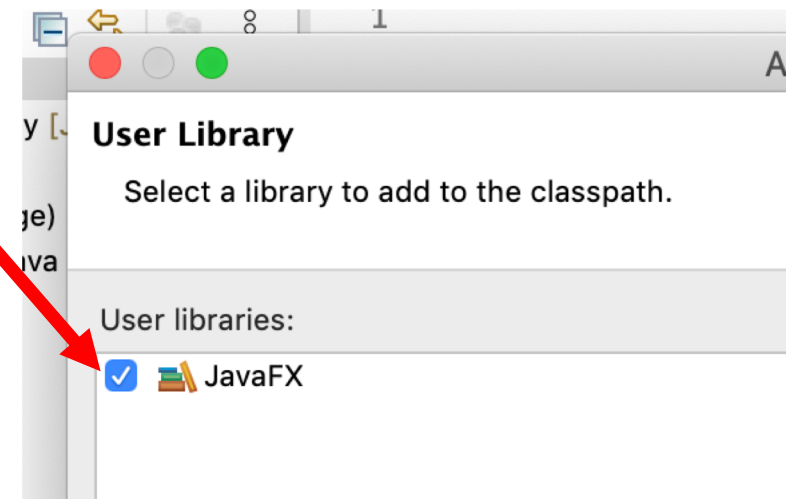
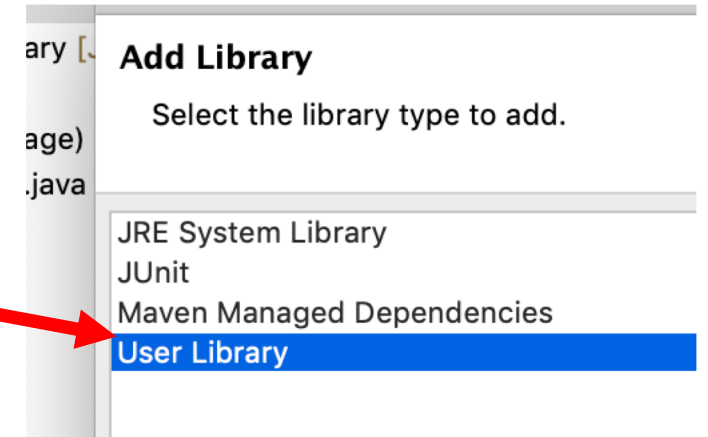
6. Navigate to your JavaFX folder down to lib and select all of the jar files.

7. Click Open



Set up your project. Once per project, but you can duplicate them as needed.

1. Right click on the project name.
2. Select Build Path->Add Libraries...
3. Select User Library
4. Click Next
5. Check JavaFX.
6. Click Finish

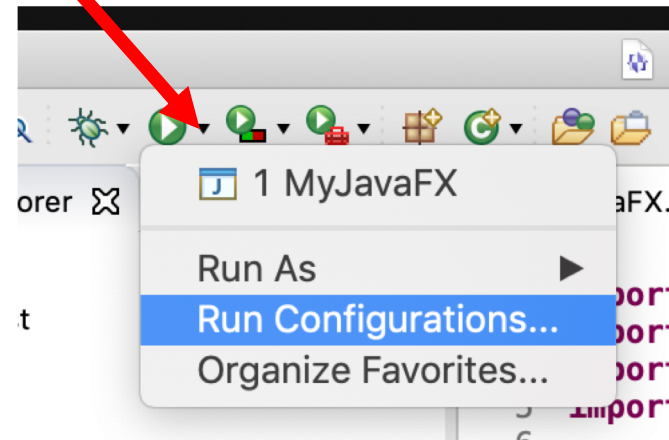


The compile errors should go away

Set up your Run Configuration. Once for each “main” program.

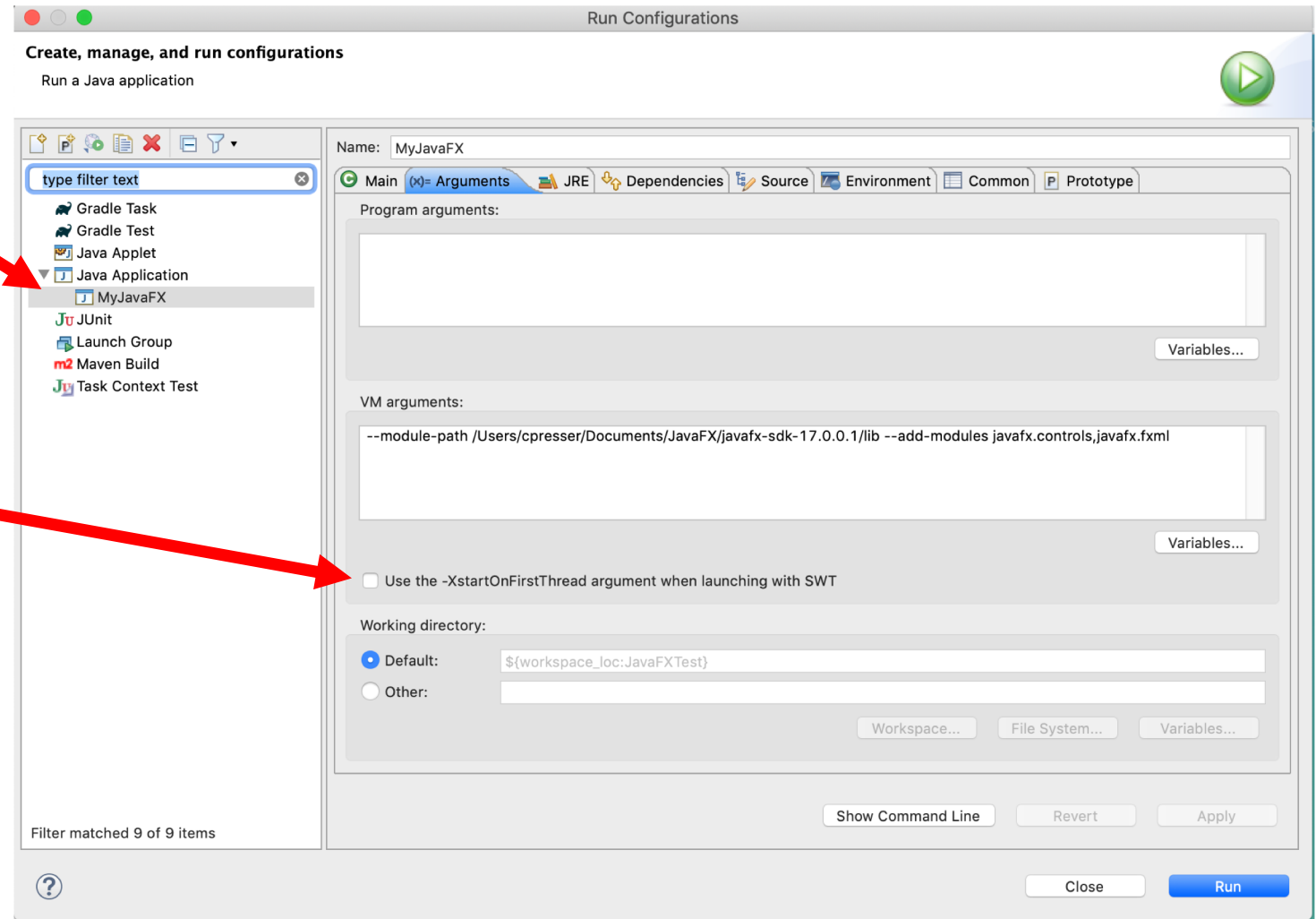
1. Run your program. It should result in an error, but don't skip this step.
2. Select the down arrow to the right of the run button.
3. Select Run Configurations...

Error: JavaFX runtime components are missing, and are required to run this application



## Run Configuration Continued...

1. Make sure your class is selected.
2. Select the Arguments tab.
3. In the VM arguments box, add the text at the bottom of the page based on your platform. Note your module path will be different from mine, so make sure you use yours.
4. Uncheck Use the -XstartOnFirstThread... box. This may not be in your version.
5. Click Apply.
6. Click Run.



MAC:

```
--module-path /Users/cpresser/Documents/JavaFX/javafx-sdk-17.0.0.1/lib --add-modules javafx.controls,javafx.fxml
```

Windows:

```
--module-path C:\Users\cpresser\Documents\JavaFX\javafx-sdk-17.0.0.1\lib --add-modules javafx.controls,javafx.fxml
```



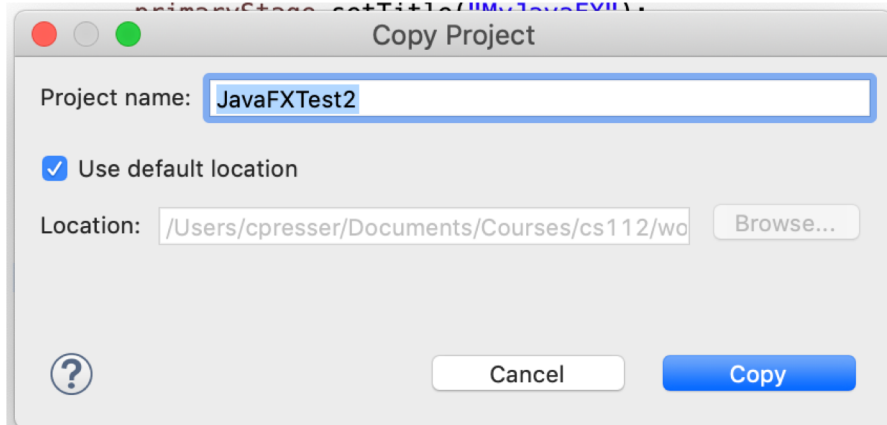
The program should run and display the window below.

If you get an error of some sort, check to make sure your path is correct from the previous slide.



Want to copy a project and Run configuration? Keep reading.

To duplicate a project, just copy and paste it and give it a new name.



Now, duplicate and edit the run configuration.

1. Open the Run Configurations like you did before.
2. Right click the original run configuration and select Duplicate.
3. Edit the project name of the new configuration.
4. If you make a new main class, edit that too.

