**CMSC203**

**Assignment 0 Part 5– JavaFX Setup**



**Installing JavaFX, Create, and run Eclipse JavaFX example**

* Install JavaFX
* Create Eclipse JavaFX example
* Compile and Run Java FX Example

**Step 1 – Java FX Installation**

**Use the following link to install JavaFX:** [**https://openjfx.io/openjfx-docs/#gradle**](https://openjfx.io/openjfx-docs/#gradle)

## JavaFX and Eclipse

This section explains how to create a JavaFX application in Eclipse. JavaFX 17 and Eclipse 2021 were used for the IDE screenshots.

Download an appropriate JDK for your operating system and set JAVA\_HOME to the JDK directory. Refer to [Install Java](https://openjfx.io/openjfx-docs/#install-java) section for more information.

Include the new JDK as Installed JREs in Eclipse -> Preferences -> Java -> Installed JREs -> Add.

You can create a JavaFX modular or non-modular project and use the IDE tools, Maven or Gradle build tools.

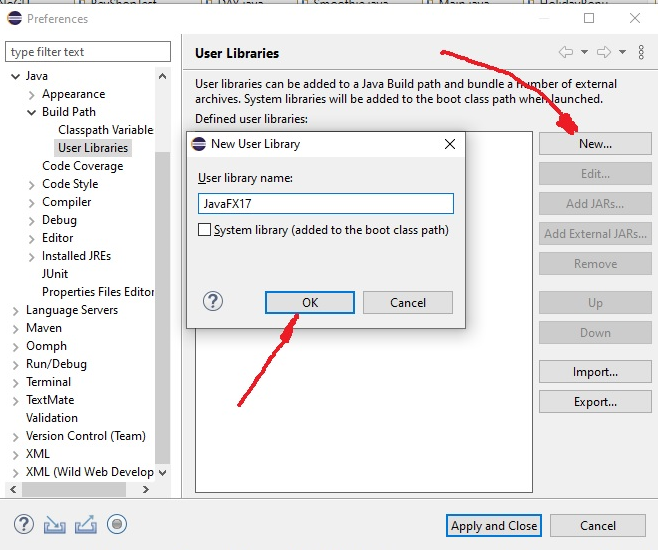
### **Non-modular projects**

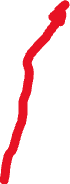
#### **IDE**

Follow these steps to create a JavaFX non-modular project and use the IDE tools to build it and run it. Alternatively, you can download a similar project from [here](https://github.com/openjfx/samples/blob/master/IDE/Eclipse/Non-Modular/Java).

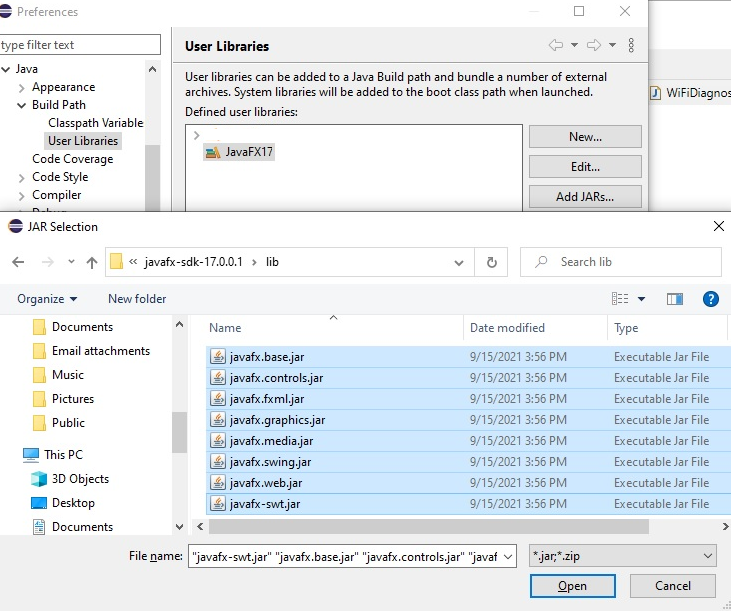
Download the appropriate [JavaFX SDK](https://gluonhq.com/products/javafx/) for your operating system and unzip it to a desired location, for instance /Users/your-user/Downloads/javafx-sdk-17

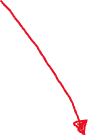
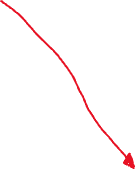
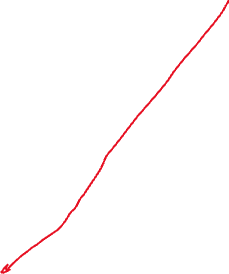
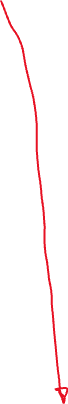
Create a new User Library under Eclipse -> Window -> Preferences -> Java -> Build Path -> User Libraries -> New.

 Name it JavaFX17 and click OK button.



then Select JavaFX17, and click a button “Add External JARs” and include the jars under the lib folder from JavaFX 17 unzipped folder click Open





##### 



Click a button “Apply and Close”

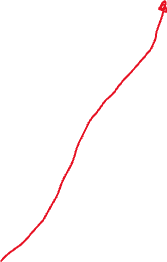
##### **1. Create a Java project**

Select File -> New -> Java Project, and provide a name to the project, like HelloFX, and a location.



Graphical user interface, text, application, email

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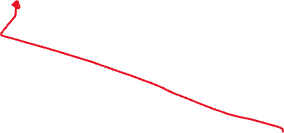


Make sure JDK 14 or greater is selected. Click a button “Next”.

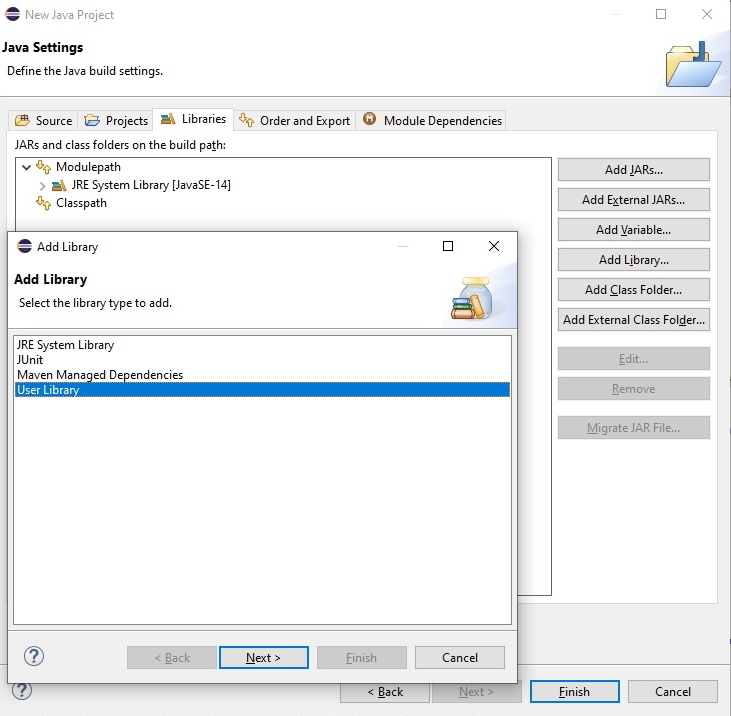


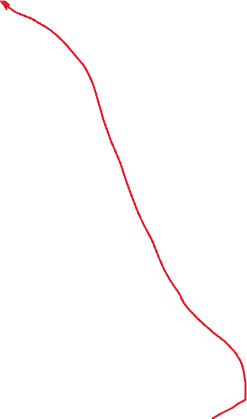
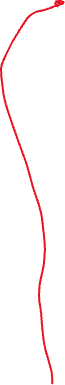
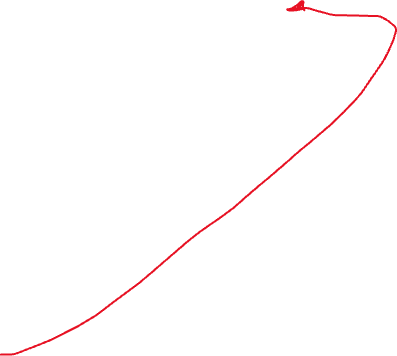
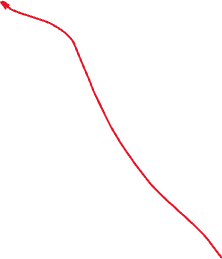
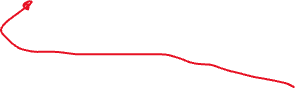
Graphical user interface, text, application, email

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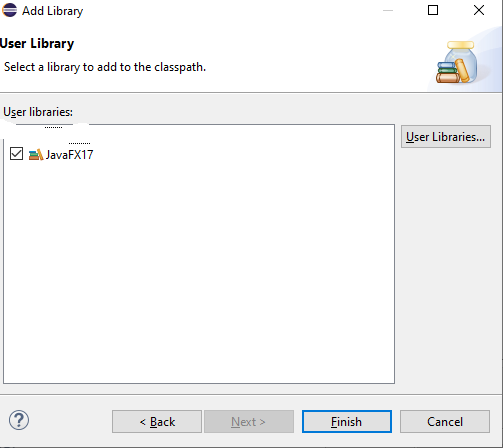


You don't need to add a module-info.java file, so uncheck a box “Create module-info.java file”





You can include the JavaFX17 library into the classpath, click a tab “Libraries”, then click “Classpath”, click a button “Add Library”, select User Library, and click a button “Next””





Select JavaFX17 and clicl Finish



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Click a buttom “Finish”

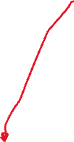


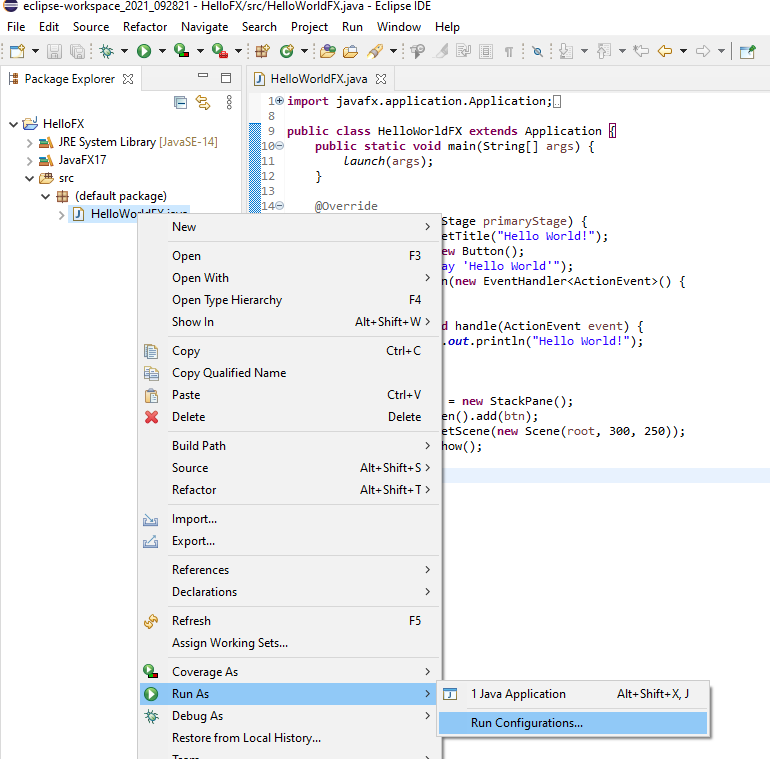
An empty project will be opened. Then copy the attached file HelloWorldFX.java, right click “src” folder and paste it to the Project HelloFX.



Graphical user interface, application, Word

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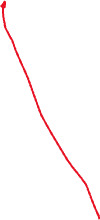
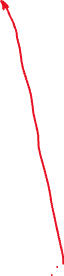
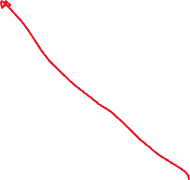




Then right click HelloWorldFX.java and click “Run As”, Run Configuration

Graphical user interface, text, application, email

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Select Java Application “HelloWorldFX”, click a tab “ (x)= Arguments”, add these VM arguments:

Linux/Mac:

--module-path /path/to/javafx-sdk-17.0.0.1/lib --add-modules javafx.controls,javafx.fxml

Windows:

--module-path \path\to\javafx-sdk-17.0.0.1\lib --add-modules=javafx.controls

Example:

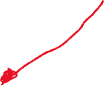
--module-path C:\Users\JavaFX\_17\javafx-sdk-17.0.0.1\lib --add-modules=javafx.controls

You need to substitute \path\to\javafx with your path to favafx lib folder:



Graphical user interface, application, table, Excel

Description automatically generated



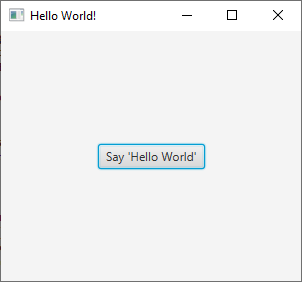
**Warning:**Make sure the checkbox **"Use the -XstartOnFirstThread argument when launching with SWT"** is not checked.

Click apply and close the dialog.



##### **2. Run the project**

Click Run -> Run As -> Java Application -> to run the project.



**Deliverables**

Upload the word document containing the screen shots to Blackboard.

**Submit:**

Screenshots showing:

JavaFX

* 1. Project screenshot
  2. Running example screenshot
  3. Java Source Code File

**References**

<https://openjfx.io/openjfx-docs/#gradle>

<https://www.javatpoint.com/javafx-with-eclipse>