JavaFX Guide for Installation

Setting up and running from command line

1. Download JavaFX from website: https://gluonhq.com/products/javafx/
    1. Scroll to the section of the website labeled “Downloads”
    2. Check the box that says “Include older downloads”
    3. Then set the “JavaFX version” to be “11.0.2” (**not** “11.0.2 [LTS])
    4. Then download the SDK (not jmods) for your platform (MacOS, Windows, Linux)
2. A .zip file will be downloaded
3. Where should we save it?
    1. Can copy it into each project folder
    2. Can copy it into one folder instead -- you have to make sure you correctly point to it depending on where your JavaFX project is
4. Extract the folder inside into the same directory that you saved the sample app in.
5. If you are on a mac you may have to take an extra step to allow it to be run. If you see an error while running that says something like “libprism_es2.dylib cannot be opened because the developer cannot be verified” then take **either** of the following steps:
    1. Navigate to the `javafx-sdk-11.0.2/lib` directory and then control click each dylib file and click open. This should allow you to give it permission to run
    2. We have also provided a simple bash script that will do this from the command line. It is called `FixJFX.sh` and you can download it from Canvas under modules. Once downloaded do the following:
        i. Save it in any directory that you can easily access from your command line
        ii. Navigate to this directory
        iii. Run the command `chmod +x FixJFX.sh` -This will make the script runnable on your machine.
        iv. Run the script with `./FixJFX.sh /path/to/your/javafx-sdk-11.0.2` -Where `/path/to/your/javafx-sdk-11.0.2` is replaced with the path to your javafx installation.
6. Download a sample app to use to test your JavaFX setup. You can find one in Canvas under Files.
7. Move the .java file into a directory. You’ll compile and run the program there
8. On your command line, navigate to the folder where you saved the app.
9. Then, run this command to compile a JavaFX program:

```
javac --module-path javafx-sdk-11.0.2/lib/ --add-
modules=javafx.controls <name of source file>
```

10. The module path is the location of the libraries we downloaded and will depend on where you saved them

11. Run this command to run a JavaFX program:

```
java --module-path javafx-sdk-11.0.2/lib/ --add-
modules=javafx.controls <name of program>
```

12. You should see a graphical app pop up. If you see this, you've successfully compiled and run a JavaFX app.
13. Note that the path specified in the --module-path flag should point to an installation of the JavaFX libraries. It doesn't necessarily have to be copied into the same directory of your source files each time, as long as the path specified points to the library files, wherever they may be on your system. You can copy it each time if it's easier that way.

Setting up and running from jGRASP

1. Download JavaFX from website: https://gluonhq.com/products/javafx/
    a. There's a Windows version and a Mac version so make sure you download the correct version
    b. Make sure to download the SDK for your respective system (not the jmods)
2. A .zip file will be downloaded
3. Where should we save it?
    a. For jGRASP, it's much easier to copy it into one central folder -- you don't have to copy it into each project folder that you want to use JavaFX with like you might when running a JavaFX app via command line
4. Extract the folder inside into a folder that makes sense -- for example if you have a folder for the entire CS 1331 course.
5. Download a sample app to use to test your JavaFX setup. You can find one in Canvas under Files.
6. Move the .java file into a directory. You'll compile and run the program there
7. Open jGRASP
8. On the left panel, browse to where you saved the sample app and open it.
9. At the top of the screen, click Settings > Compiler Settings > Workspace to configure JavaFX for this workspace
10. Click the JavaFX tab
11. There's a filled in box next to the "JavaFX Home" field. Click it to uncheck it and specify your own path. Click "Browse"
12. Browse to where you saved the JavaFX SDK
    a. Note that we are specifying the path to the JavaFX home. This is the entire file you extracted, you don't need to go inside of it
13. Press OK
14. At the top of the screen, click Build > Run
15. The program should pop up if you set it up correctly
16. Since we set it up for the workspace, you don't need to repeat this for any new JavaFX files you want to run.

Setting up and running from IntelliJ

1) First, download the javafx-sdk zip file.
2) Then unzip it and know where you unzipped it.
3) Find Run in the top menu bar and select Edit Configurations.
4) In Edit Configurations, add a new Application.
5) In the VM options tab, pass in the following line but with the location of the javafx-sdk-11.0.2 (this should match what you use on the command line):

```
--module-path /<InsertAbsolutePathHere>/javafx-sdk-11.0.2/lib --add-modules=javafx.controls
```

6) Make sure your working directory is navigated in all the way till src.
7) Then press apply.
8) Go to File and select Project Structure -> Project, and set Project SDK and Project Language Level to 11.
9) Again, go to File and select Project Structure and Libraries and add a new Java Library.
10) When browsing for the folder, select javafx-sdk-11.0.2/lib. You should now have a library called lib.
11) Then press apply.
12) And run the class! It should compile and run with the new configuration.