**CSARCH2 Cache Simulation Installation Guide**

For the installation and usage of this program, you will need the IntelliJ IDE Community Edition. This will also only be done on Windows. If you have IntelliJ, skip these steps. If you don't, here's how to install it:

INSTALLING INTELLIJ COMMUNITY EDITION

Go to the IntelliJ downloads here:

https://www.jetbrains.com/idea/download/?section=windows

Make sure you **scroll down** to get the Community Edition instead of the Ultimate Edition, since the Ultimate Edition is behind a paywall.
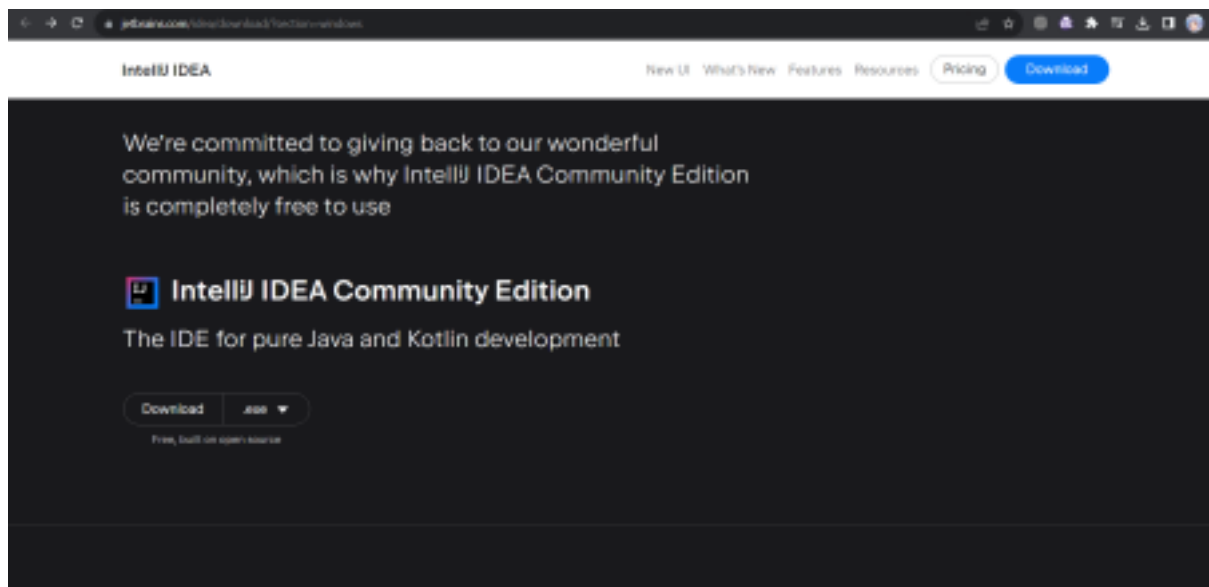
Once downloading the installation wizard, open up the wizard. Click next to everything, and wait for it to finish installing on your computer. Once done installing, close the wizard by clicking finish and open up IntelliJ (you can also click the Run IntelliJ IDEA Community Edition to make things quicker). Once open, there will be an End User License Agreement that you must agree upon before using it. After this, IntelliJ is now up and running.

JAVAFX

This program utilizes the JavaFX library, thus we will be needing to download the libraries needed to run the program. If you have JavaFX installed, skip this part. If you don't have JavaFX, follow these steps:

Go to this website here to download the library: https://gluonhq.com/products/javafx/

Scroll down until you see options for Linux, macOS and Windows. Click the download for Windows and SDK

After downloading the zip file, unzip the zip file. For now, just keep it in the downloads folder. We will be using it for later.
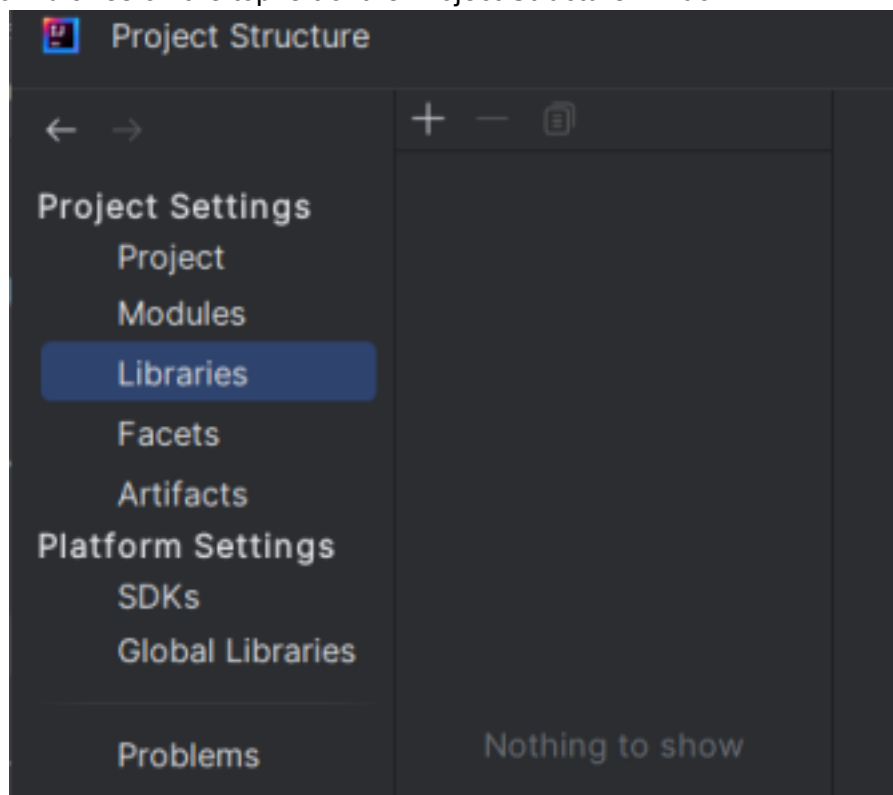
RUNNING THE PROGRAM

To run the program, open the project folder using IntelliJ
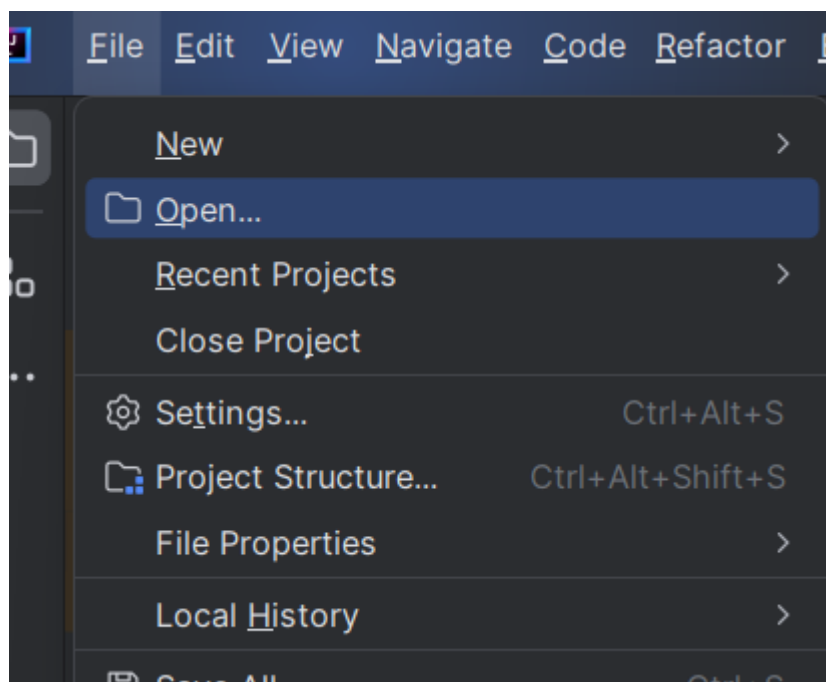
After opening the folder, we now need to install JavaFX into our program. To do this, we will need to add JavaFX as a referenced library. Go to File > Project Structure

Then, go to Libraries on the top left of the Project Structure window:

Click the "+" sign under "Name" then find the unzipped folder for JavaFX we installed earlier (wherever you decided to put in your system) and click, then choose **lib**
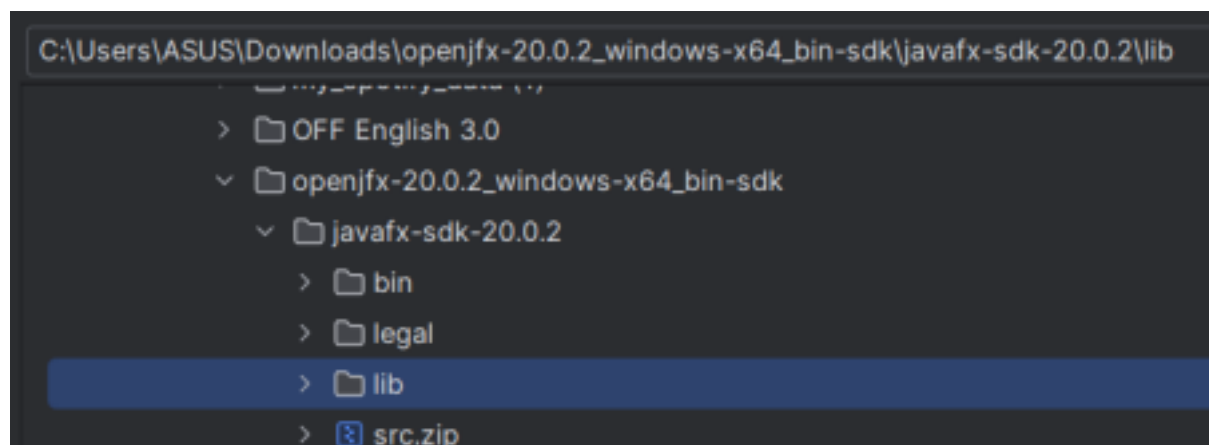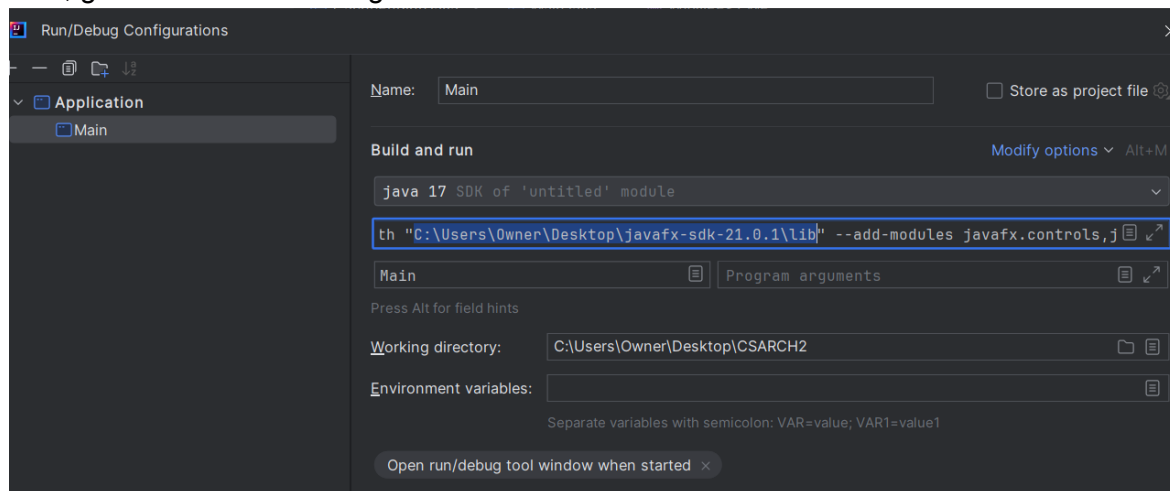

Click OK, then OK again. After this, click Apply at the bottom right then OK. After you do all this, all the red errors should now be gone. We can't run it yet however, there is one more thing we need to do.

Now, go first to your file explorer and find the lib folder in the unzipped folder. After doing so, copy the address
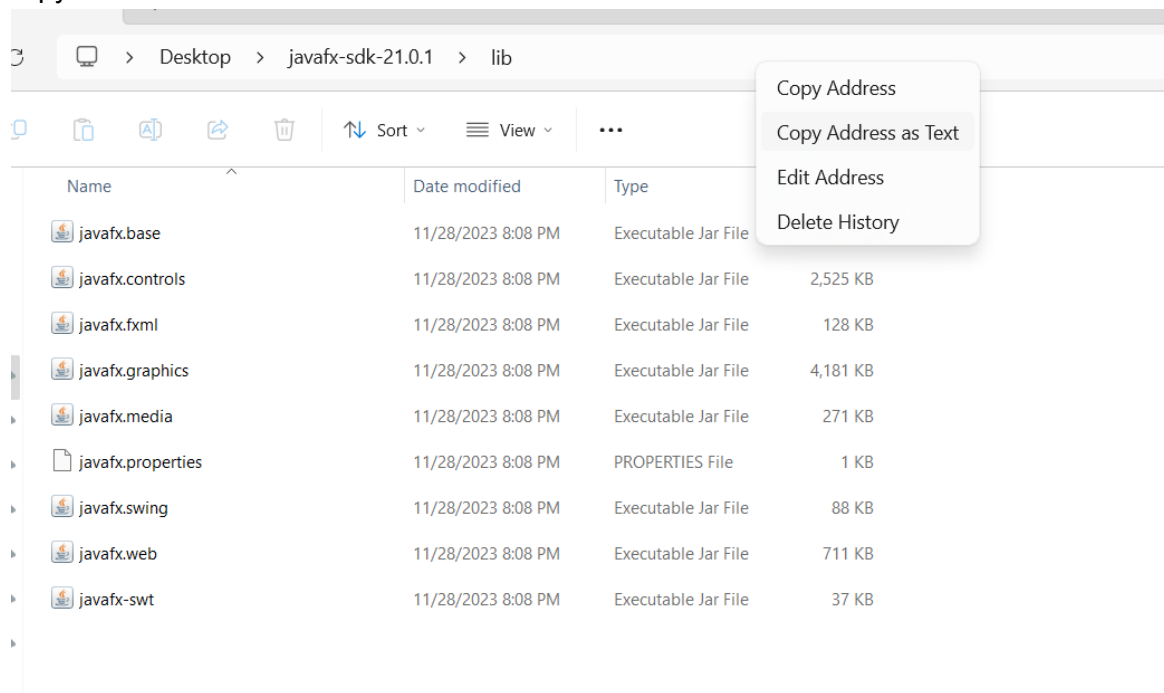
Now, go to Run > Edit Configurations.

Now, in the VM options text box, replace the highlighted text in the quotation marks and paste the address you just copied in file explorer.

If you have done everything correctly, You can now run the application by clicking the Run button (it should be a play button) and the application will pop up.

You may watch the video walkthrough of the cache simulation to gain a better understanding on how to use the program.