Step 1: Install Visual Studio Code

1.1 Install Flutter and Dart extensions

Step 2: Download this zip file:
https://storage.googleapis.com/flutter_infra_release/releases/stable/windows/flutter_windows_3.7.3-stable.zip

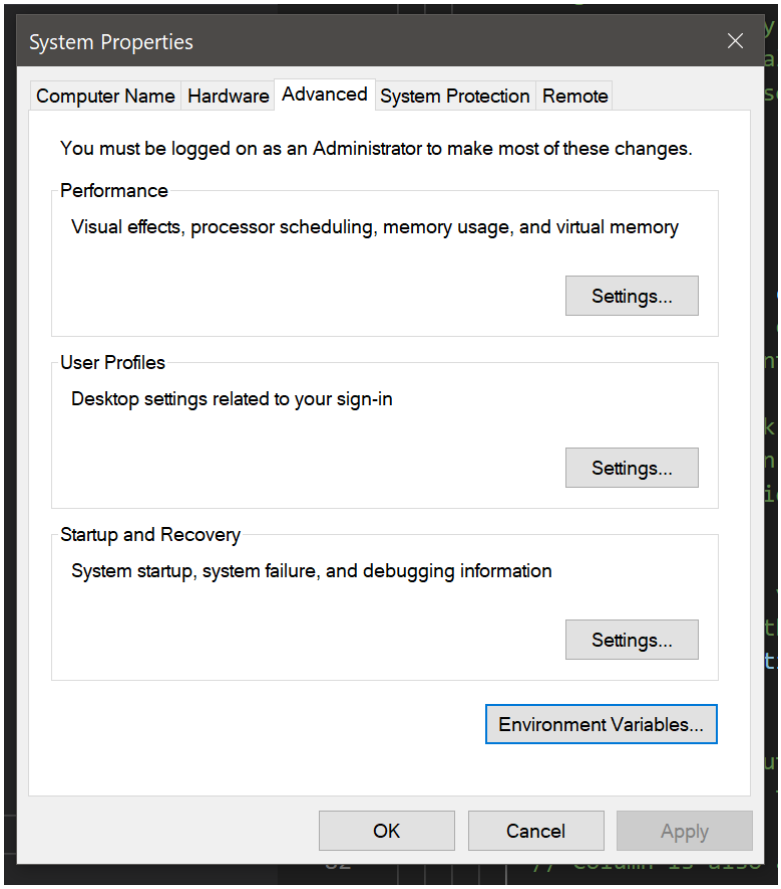
Extract the file somewhere, and remember where you saved it, you will need to reference it.

Step 3: Install Java 11:
https://www.oracle.com/java/technologies/javase/jdk11-archive-downloads.html

Remember where you saved this one too.

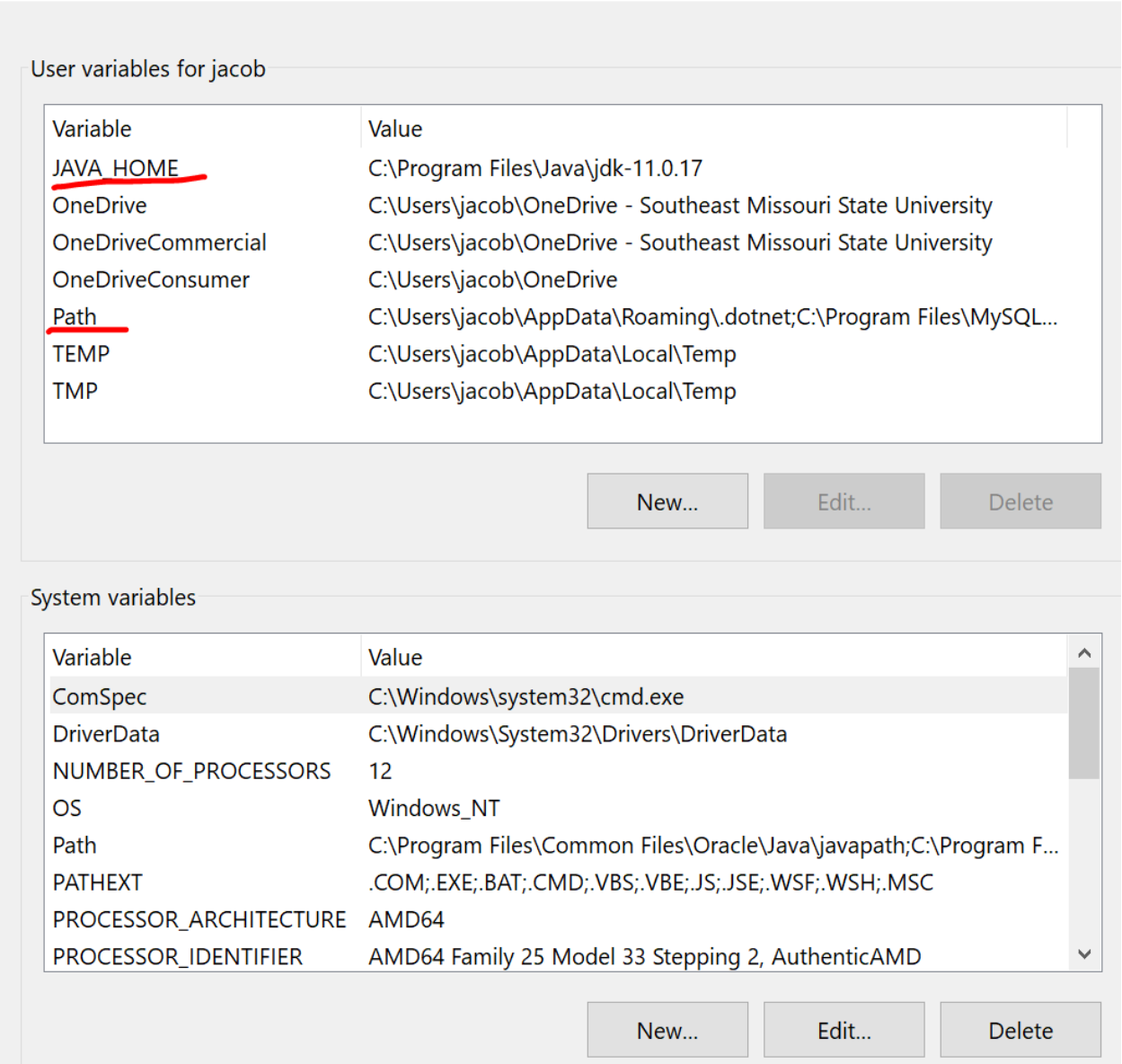
Step 4: Install Chrome: https://www.google.com/chrome/?brand=CHBD&gclsrc=ds&gclsrc=ds

Step 5: Search in windows for environment variables. It should open a window like this:



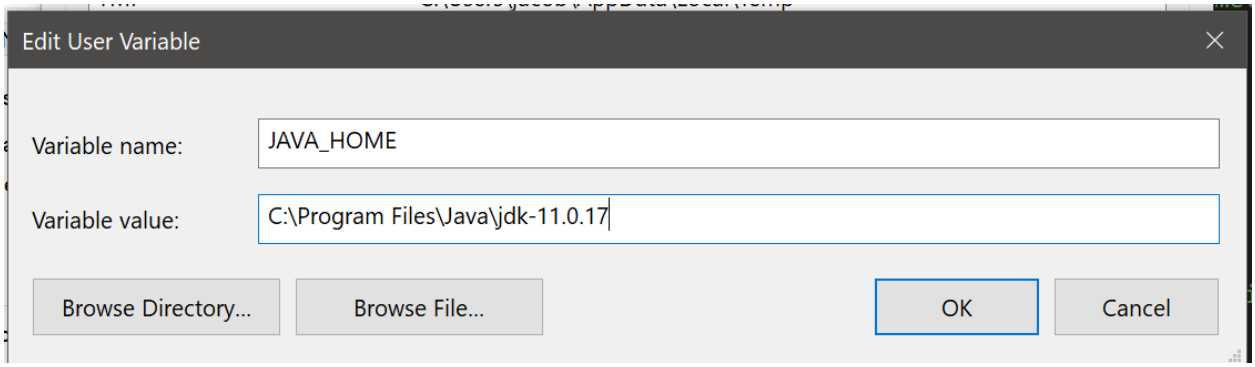
Step 6: Select ‘Environment Variables’

6.1: You should see a screen like this:



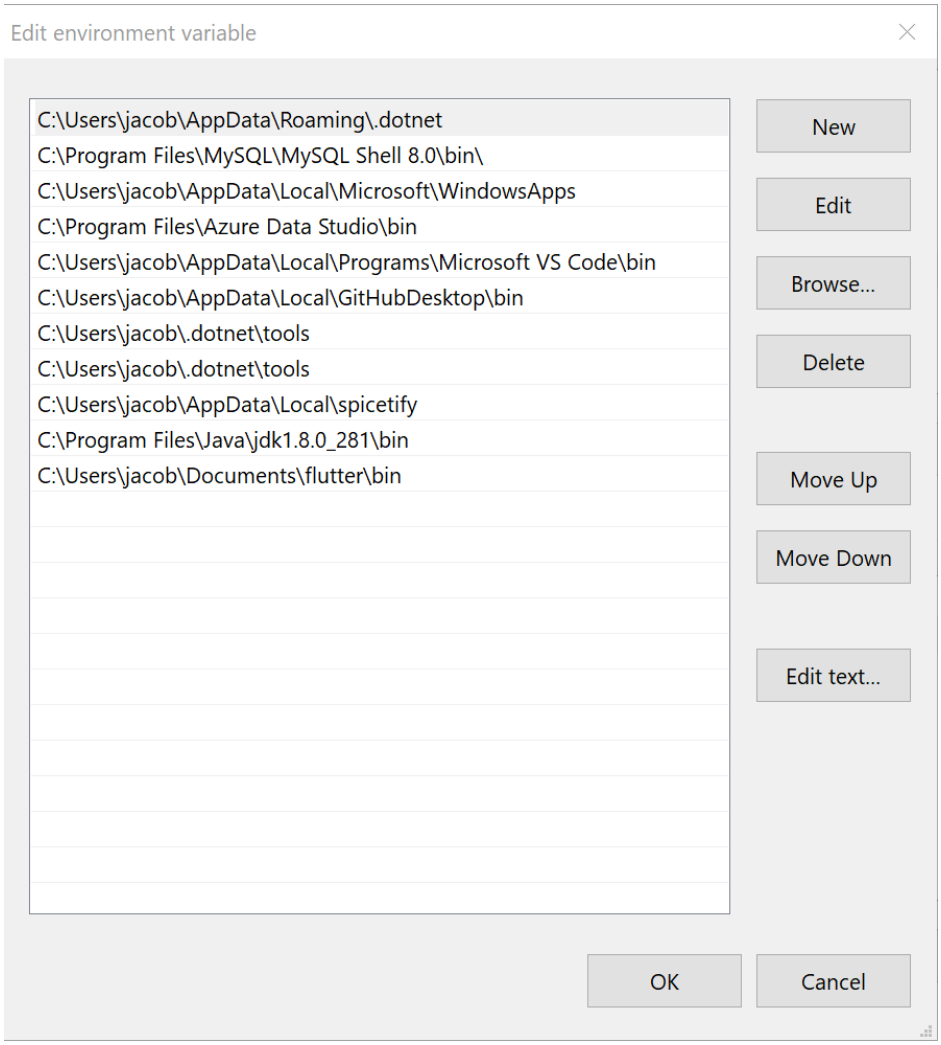
6.2: Ignoring system variables, if your user variables don’t have JAVA_HOME and ‘Path Variables, then you will need to add a new one instead of edit.

6.3: click ‘edit’ and you should see a menu like this:



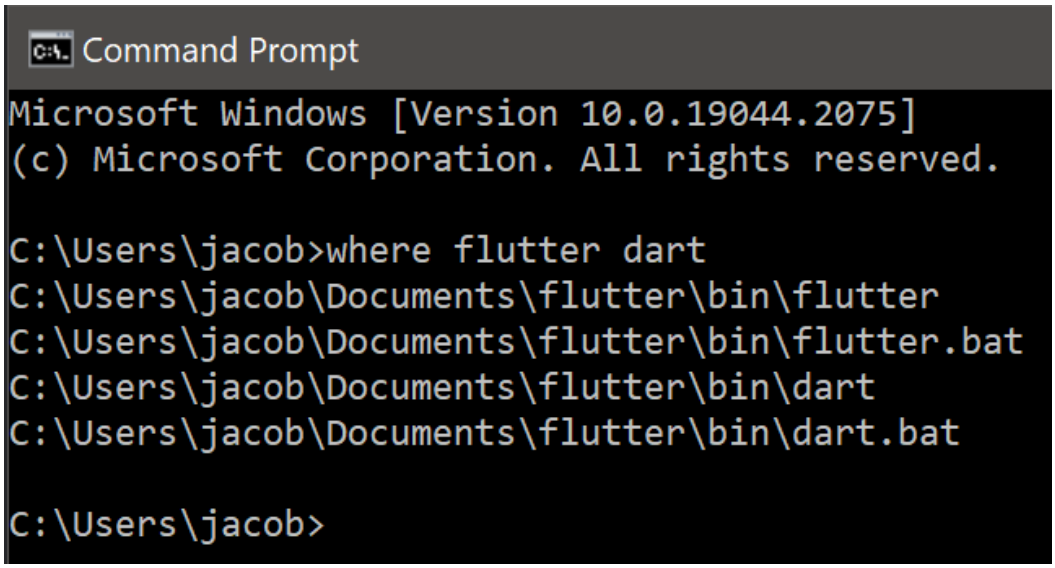
- You can browse your folders and find the jdk 11 that you installed in step 3
- If you have an existing variable there, add a semi-colon, then enter the second value

Step 7: Go back to the screen from 5.1, and edit the path environment variable. You should see a screen like this:



7.1: ignore everything else except the last line, ‘C:\Users\jacob\Documents\flutter\bin’. Find where you saved that flutter file earlier in step 2. Make sure that it says ‘...\flutter\bin’. You can close out the rest of those.

Step 8: Check if flutter is installed. Open command prompt, type ‘where flutter dart’:



Hopefully you see that.

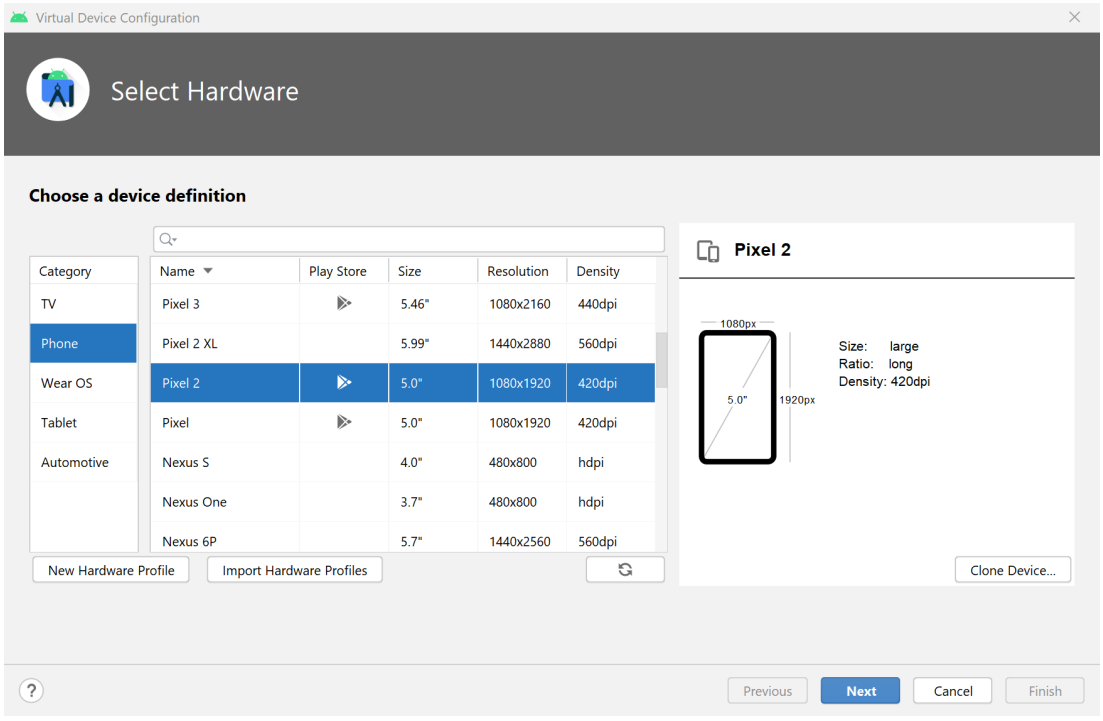
Step 9: Install Visual Studio:
https://visualstudio.microsoft.com/thank-you-downloading-visual-studio/?sku=Community&channel=Release&version=VS2022&source=VSLandingPage&cid=2030&passive=false

9.1 And when the installer pops up, select ‘Desktop development with C++’ option.

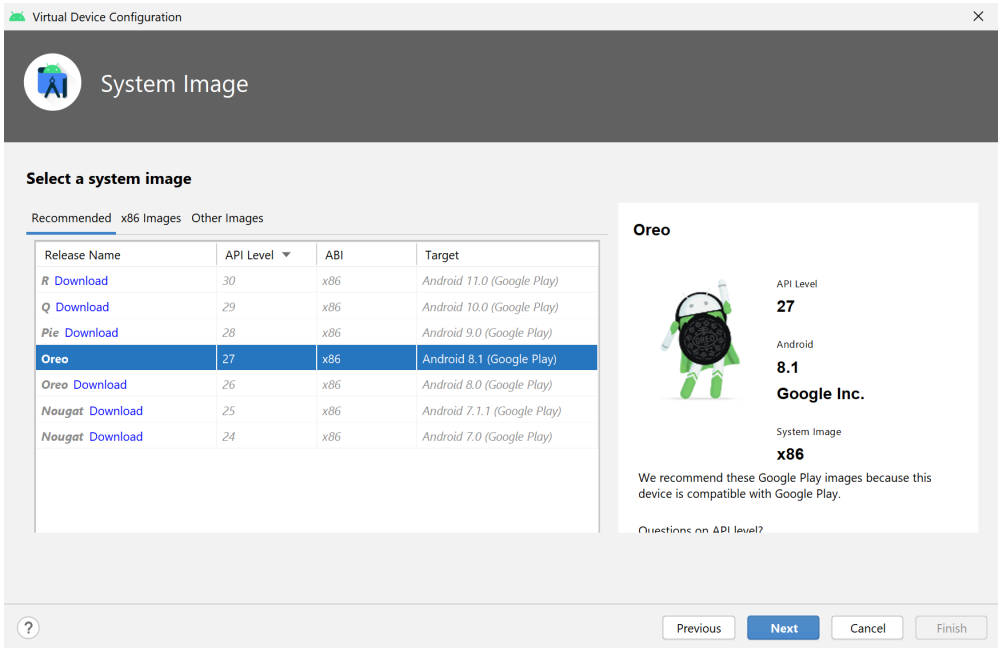
- This step will take a while.

Step 10: Install the latest version of Android Studio:
https://developer.android.com/studio?gclsrc=ds&gclsrc=ds

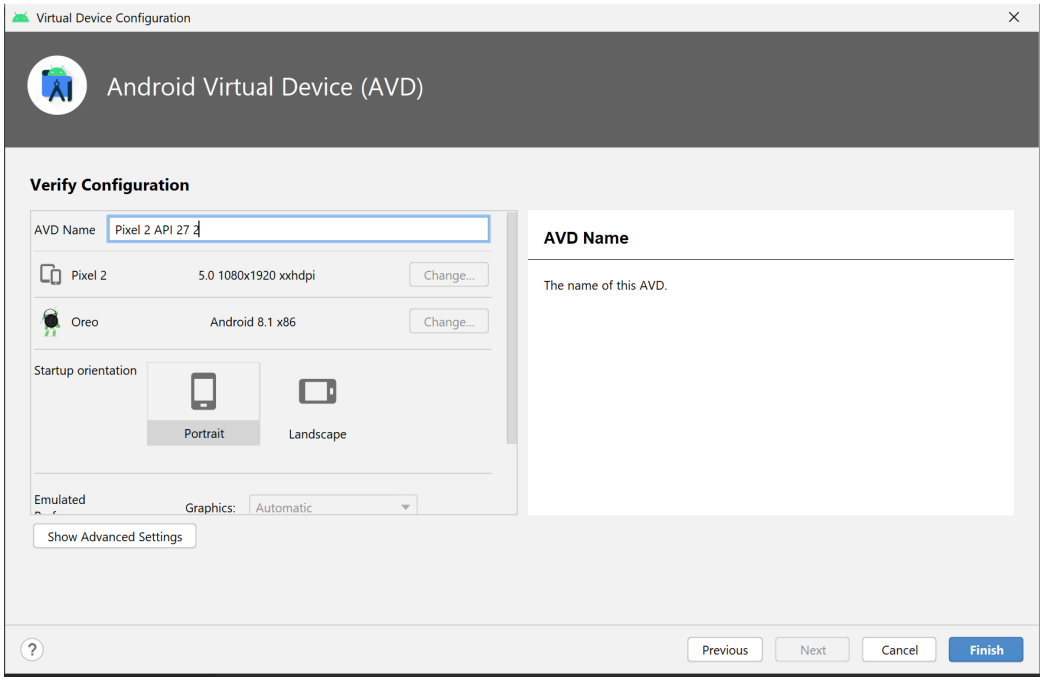
10.1: Once that's installed, hit the vertical 3 dots in top right> 'Virtual Device Manager' > 'Create Virtual Device' > Phone > Pick any phone, I am using the pixel 2, It'll look a little different for you guys because I didn't update to the latest version of android studio at this point in the guide, but the steps are the same:



10.2: I am sure that you are able to use whichever device type and System image would work fine, but I am personally using the Pixel 2 and the Oreo 27 Android 8.1 system Image:



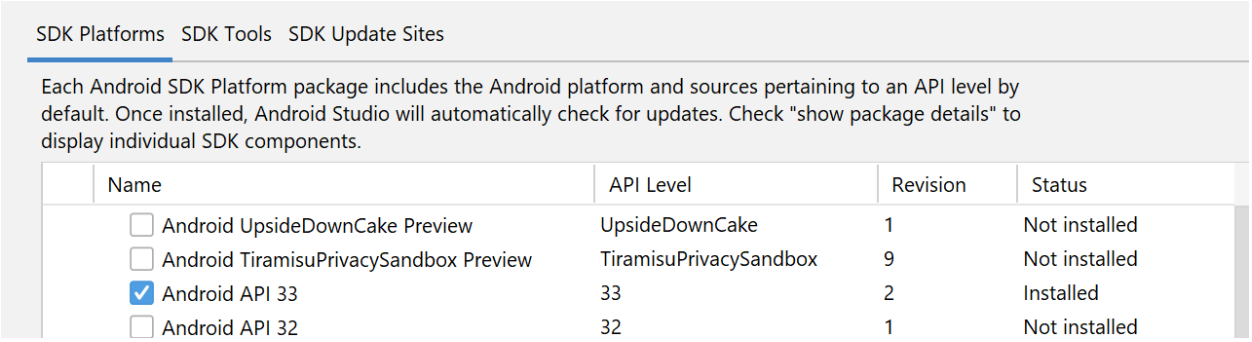
10.3: Clicking next gives us this screen:



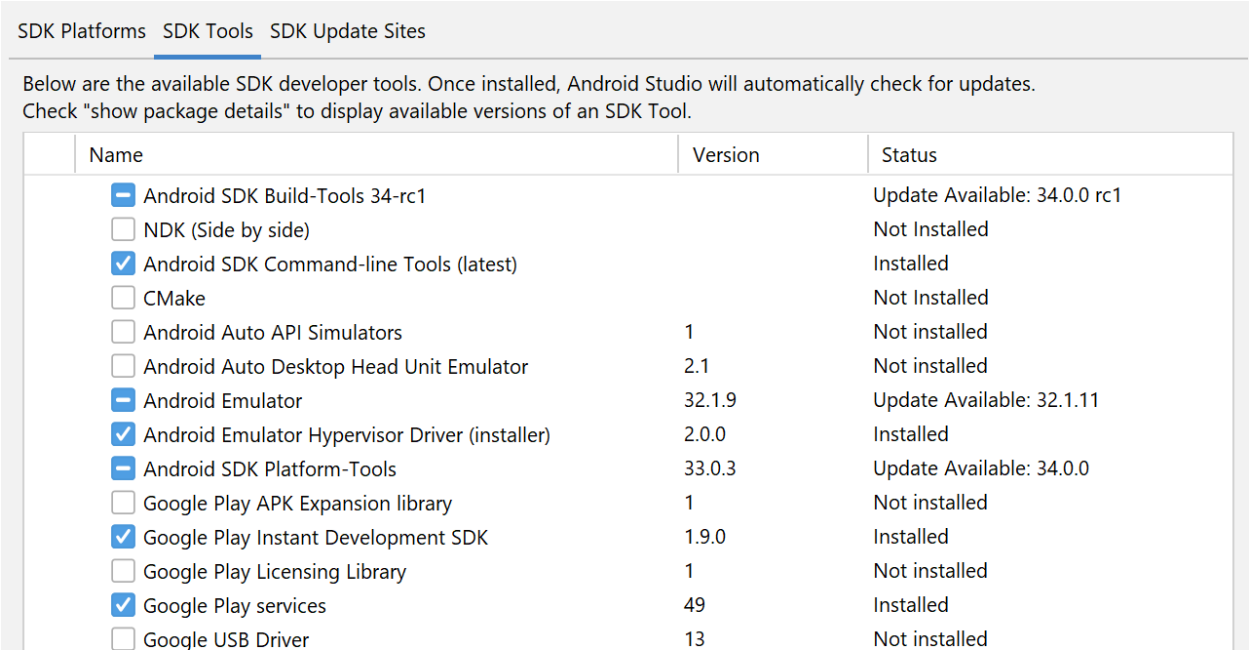
Enter the device info and hit finish.

Step 11: Head back to the Android studio main page, and navigate to configure > sdk manager

- ‘The Android API 33’ Will be labeled ‘Android 13.0 (Tiramisu)’, so pick that one.



Step12: Next, navigate to ‘SDK Tools’. Make sure that you have everything I have checked.



Step 13: Head back to the command prompt, and run the command ‘flutter doctor’

```
C:\Users\jacob>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[√] Flutter (Channel stable, 3.7.3, on Microsoft Windows [Version 10.0.19044.2075], locale en-US)
[√] Windows Version (Installed version of Windows is version 10 or higher)
[√] Android toolchain - develop for Android devices (Android SDK version 33.0.1)
[√] Chrome - develop for the web
[X] Visual Studio - develop for Windows
    X Visual Studio not installed; this is necessary for Windows development.
      Download at https://visualstudio.microsoft.com/downloads/.
      Please install the "Desktop development with C++" workload, including all of its default components
[√] Android Studio (version 4.1)
[√] VS Code (version 1.75.1)
[√] Connected device (3 available)
[√] HTTP Host Availability

! Doctor found issues in 1 category.

C:\Users\jacob>
```

- If you have any x’s like my Visual Studio is, or Exclamation points, you’ll need to find ways to fix these before anything will work.

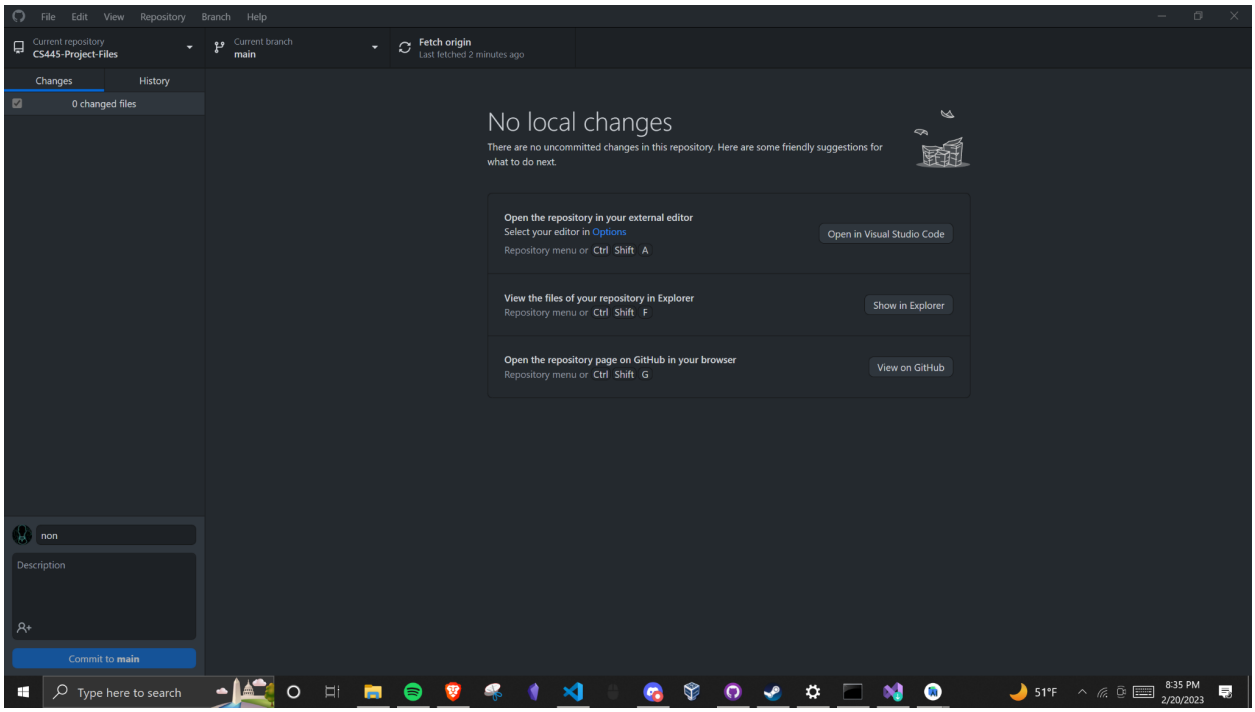
Es Bueno:

```
C:\Users\jacob>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[√] Flutter (Channel stable, 3.7.3, on Microsoft Windows [Version 10.0.19044.2075], locale en-US)
[√] Windows Version (Installed version of Windows is version 10 or higher)
[√] Android toolchain - develop for Android devices (Android SDK version 33.0.1)
[√] Chrome - develop for the web
[√] Visual Studio - develop for Windows (Visual Studio Community 2022 17.4.5)
[√] Android Studio (version 4.1)
[√] VS Code (version 1.75.1)
[√] Connected device (3 available)
[√] HTTP Host Availability

• No issues found!

C:\Users\jacob>
```

Step 14: Install Github Desktop: https://desktop.github.com/

14.1: Once installed, goto File > Clone Repository > URL > enter: "https://github.com/duhBlu/CS445-Project-Files" and choose a local path to save files locally.

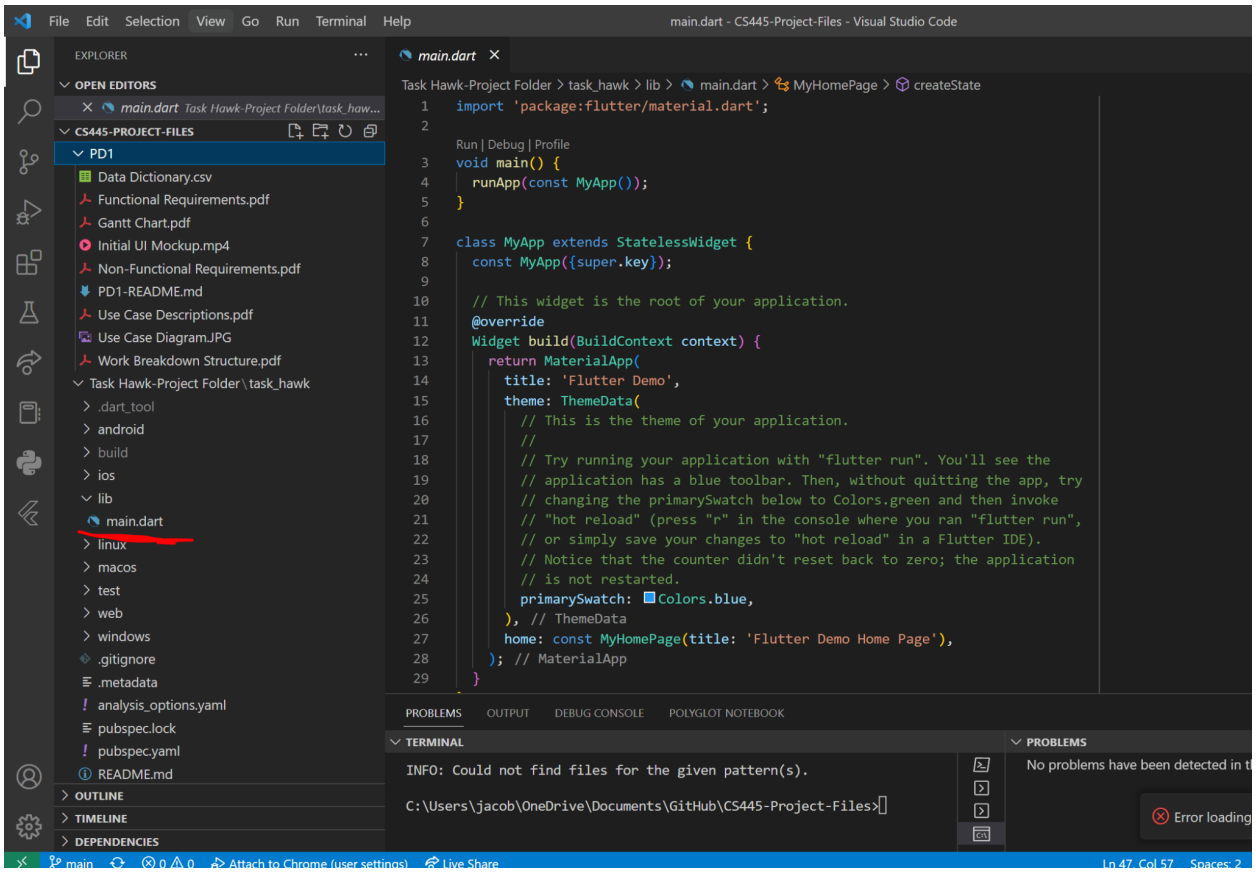
14.2: You should be back at the home screen w something like this:



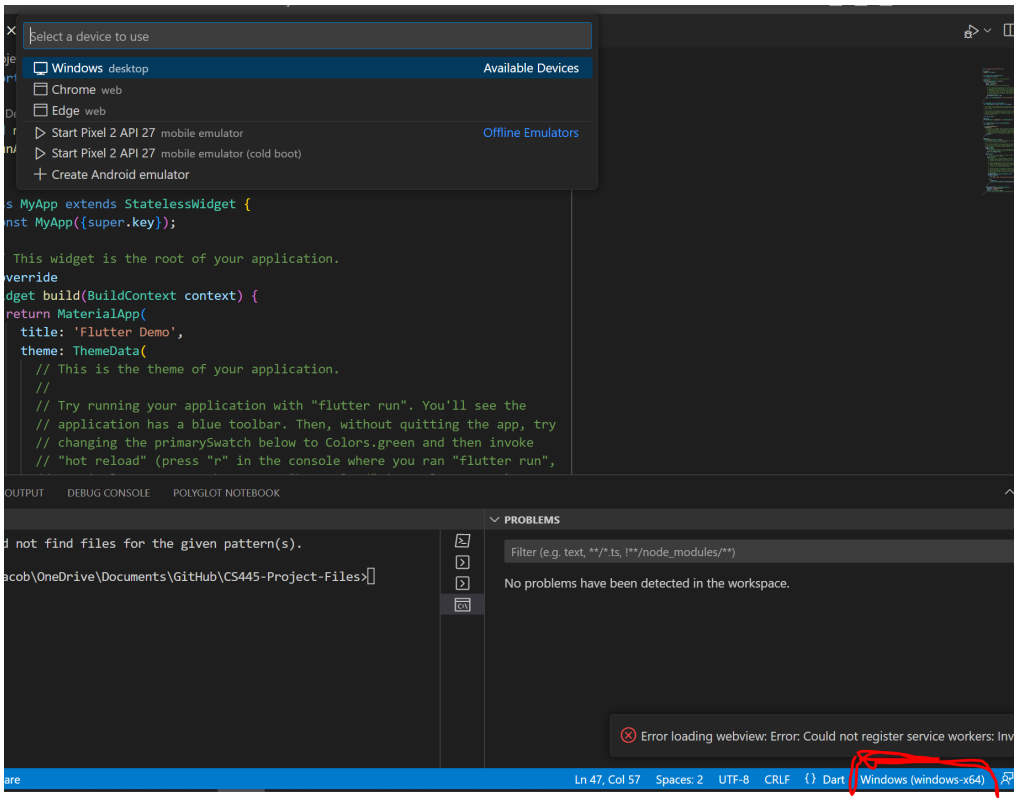
14.3: If CS445 Project Files is in the top left, then you're good

- Fetch origin to pull the latest changes, then click Open in Visual Studio Code

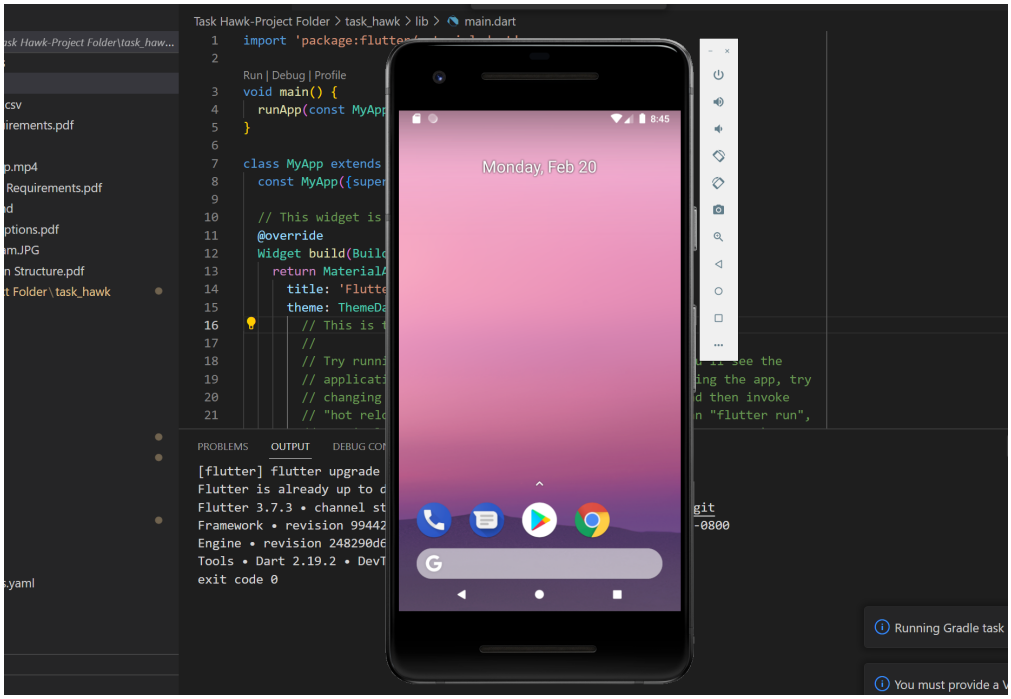
You should see something like this. ‘main.dart’ is the boilerplate app that came with the build, but ‘lib’ will be where the main dart files are.



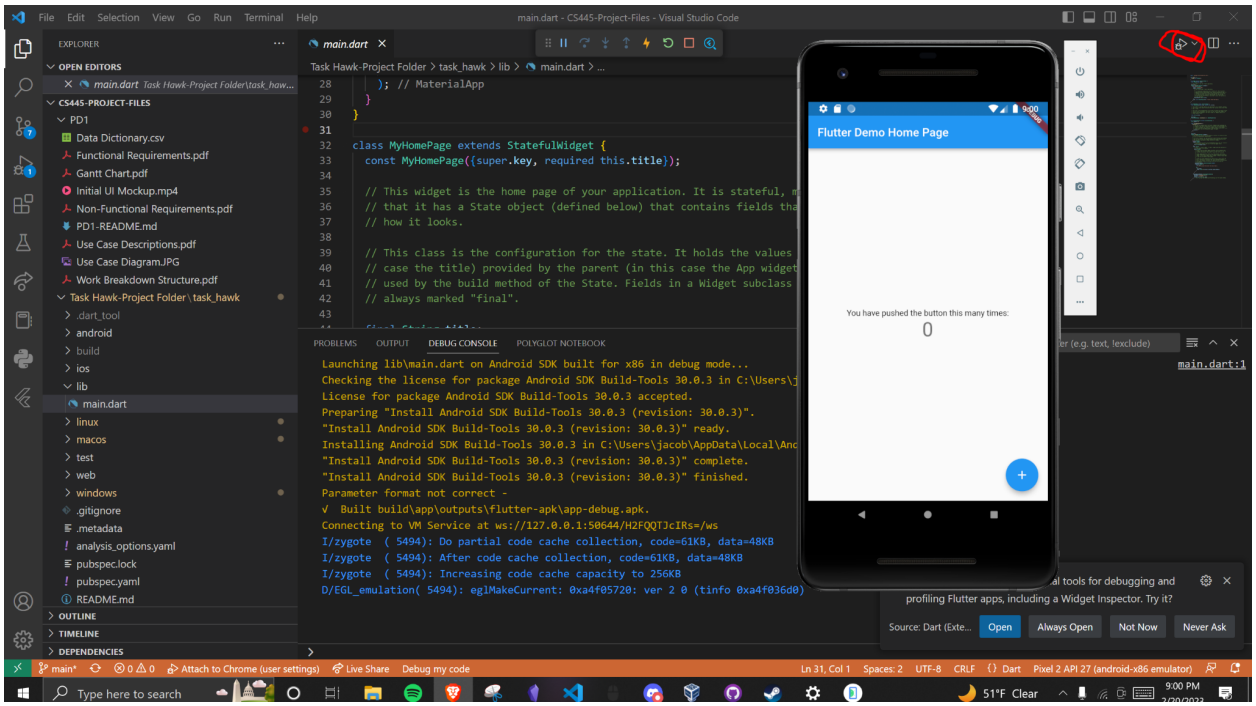
Step 15: Click what I circled in the bottom right, and the window in the top left will pop up. Pick the device you picked earlier:



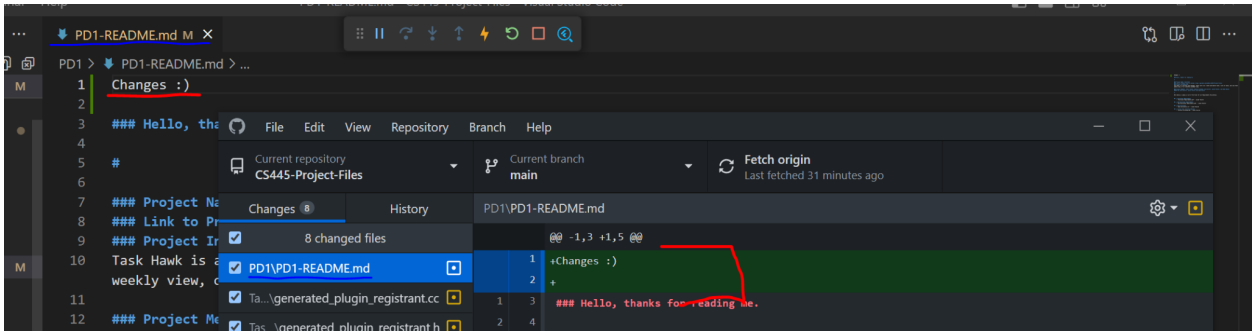
And emulator should pop up:



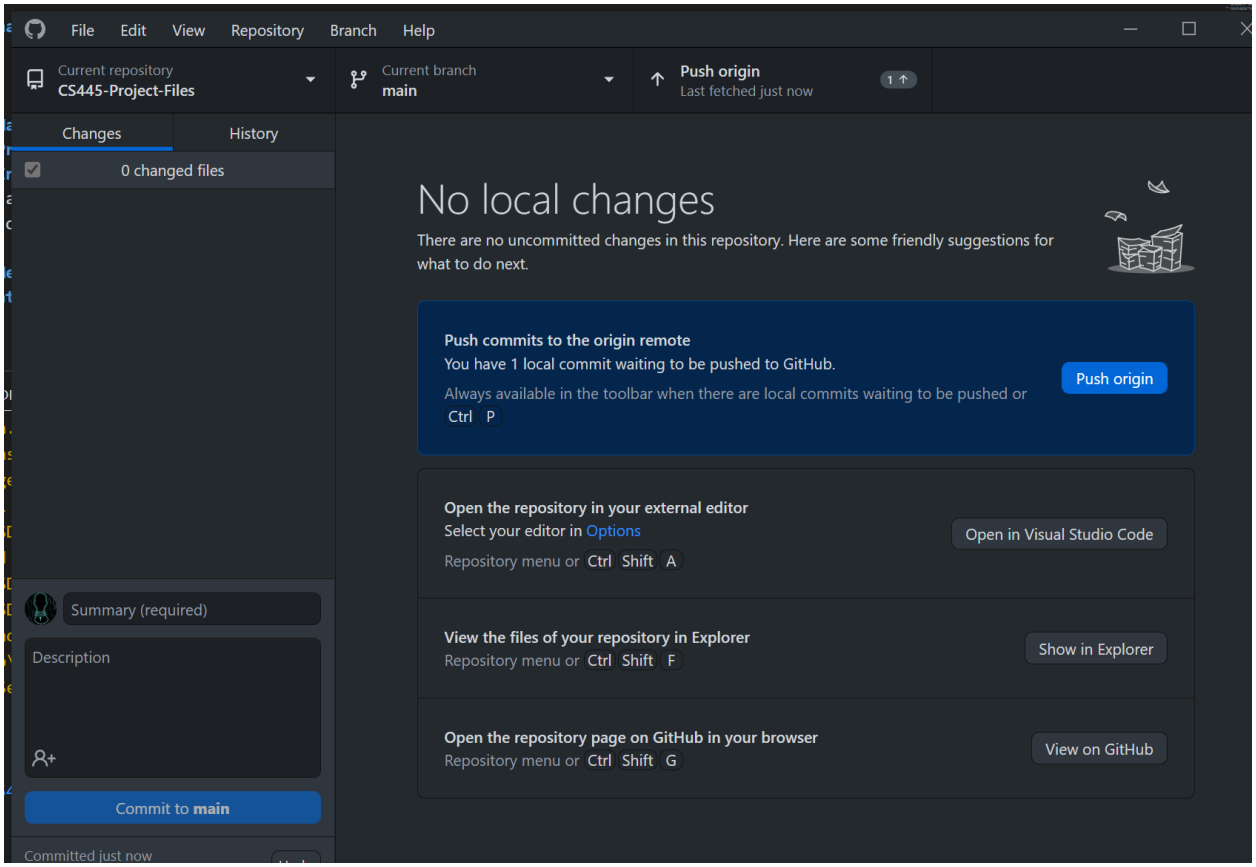
Step 16: Click Run and Debug Icon that's circled. It took a while, and there will likely be a couple unforeseen issues, but there's a lot of help on the internet. Hopefully though I covered most of it.



If you want to make and save changes to the github, open a file in vscode, or from the place where you saved the repository local files. Add whatever you want to the file and save the changes. Open up github desktop to see changes you made, Here I added "Changes :)" to the readme:



If your changes look good then hit Commit to main > Push origin:



Always Fetch origin before making changes to avoid merge conflicts