How to Install and Run Fire Safety App:

This document covers the installation and running of the Fire Safety App. There are six steps covered:

1 Getting the Repository

2 Install Node.js

3 Running Expo

4 Running on an Android Emulator

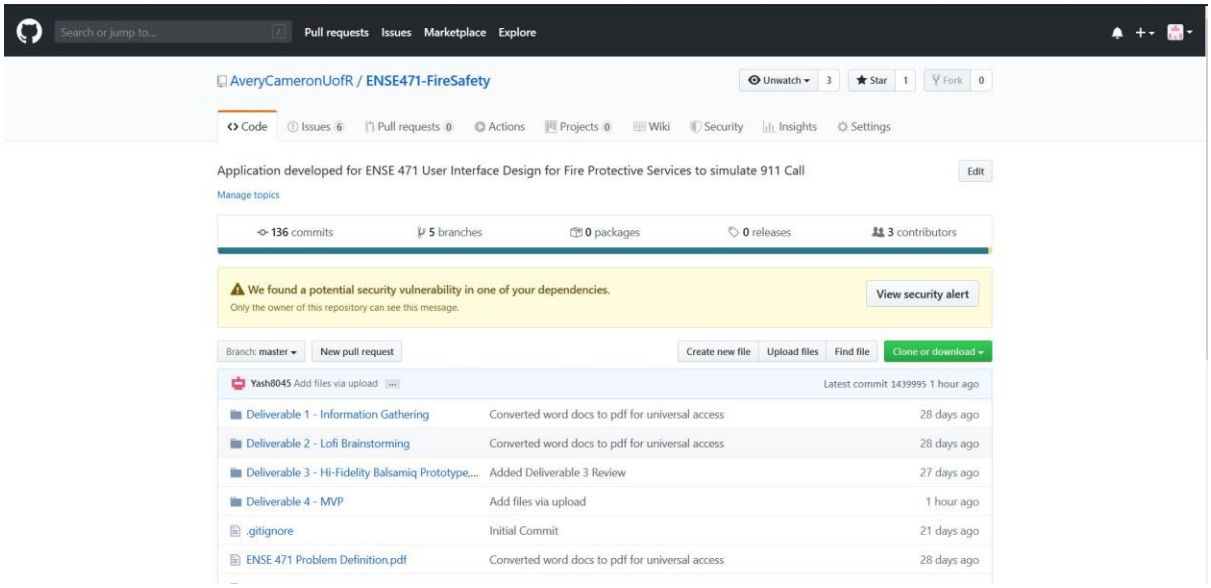
5 Running on your Phone

6 Running in Browser

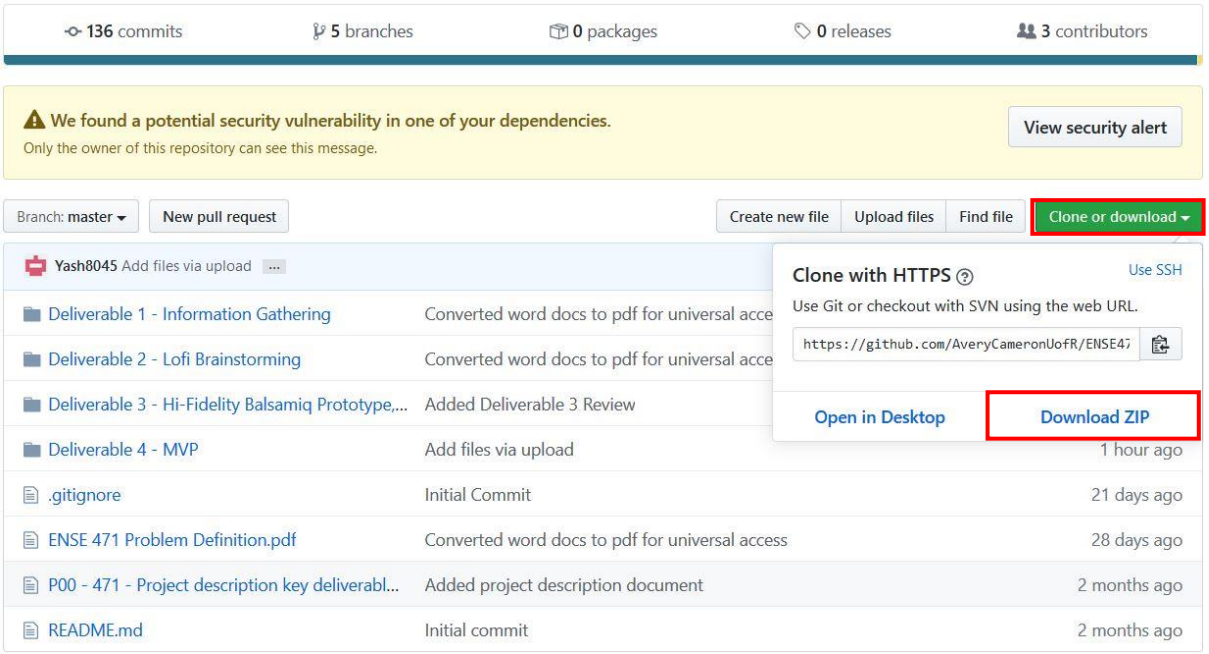
The App is recommended to be run on an Android emulator as described in Section 4. Other options, Sections 5 and 6, are given as alternatives and are personal preference. There are instructions on download location, some browsers will not prompt you can will download automatically to you ***Downloads*** folder. This is perfectly fine for this tutorial, however instructions on how to save if you are prompted are included. You can safely ignore these steps if your downloads do not prompt you.

1 Getting the Repository:

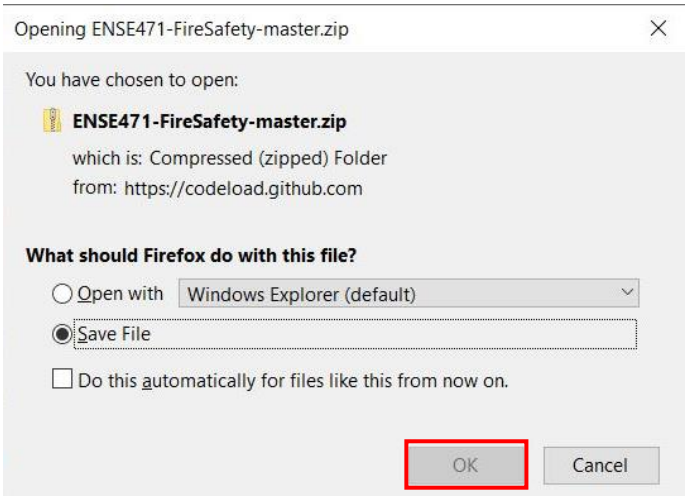
1. Go to our GitHub Repository at: https://github.com/AveryCameronUofR/ENSE471-FireSafety



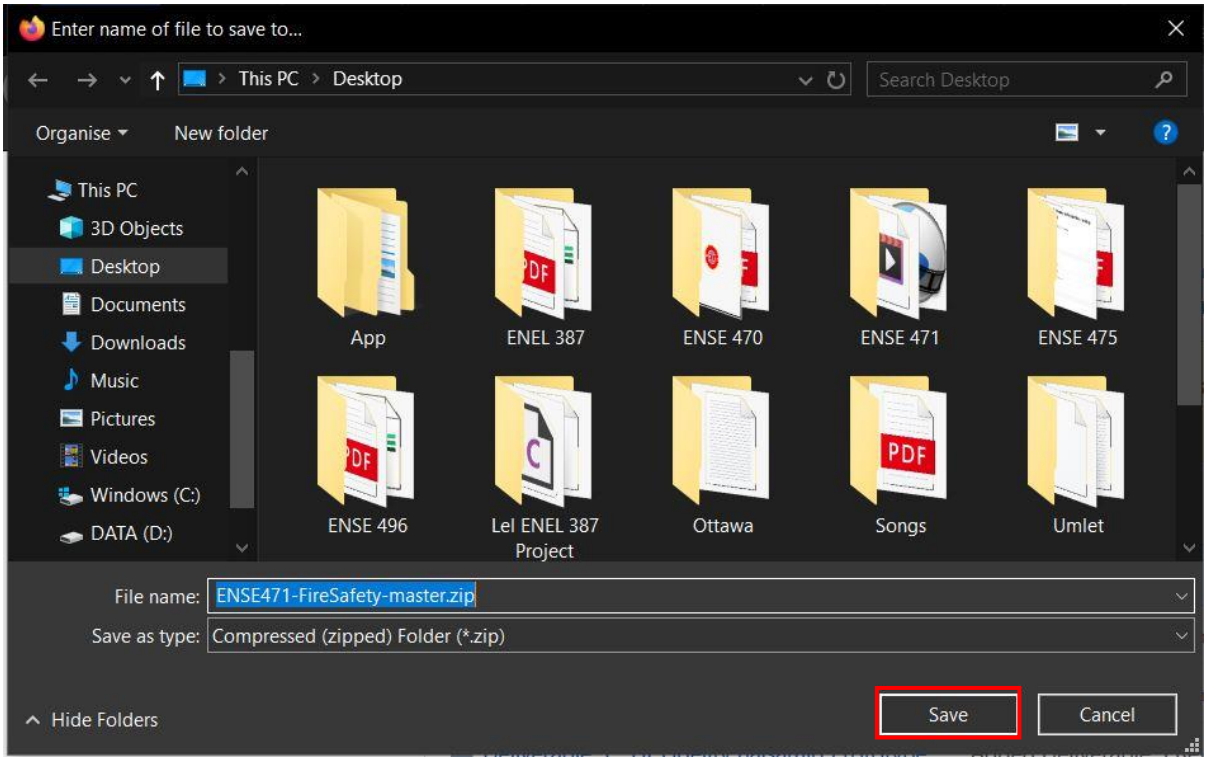
2. Select ***Clone or Download*** and ***Select Download Zip***:



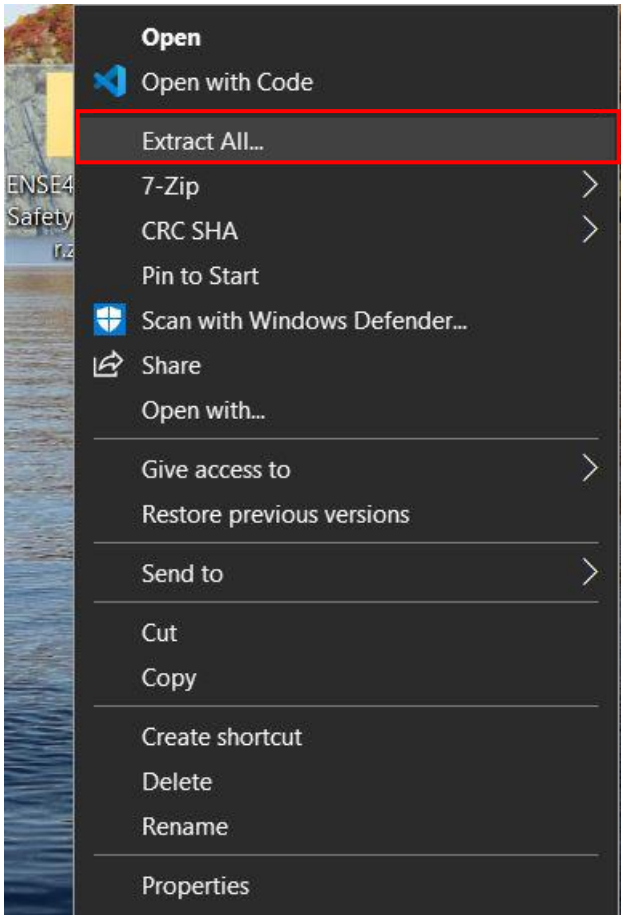
3. Save the file if prompted, some browsers will save automatically to your ***Downloads*** folder or a folder specified by you, that is okay:



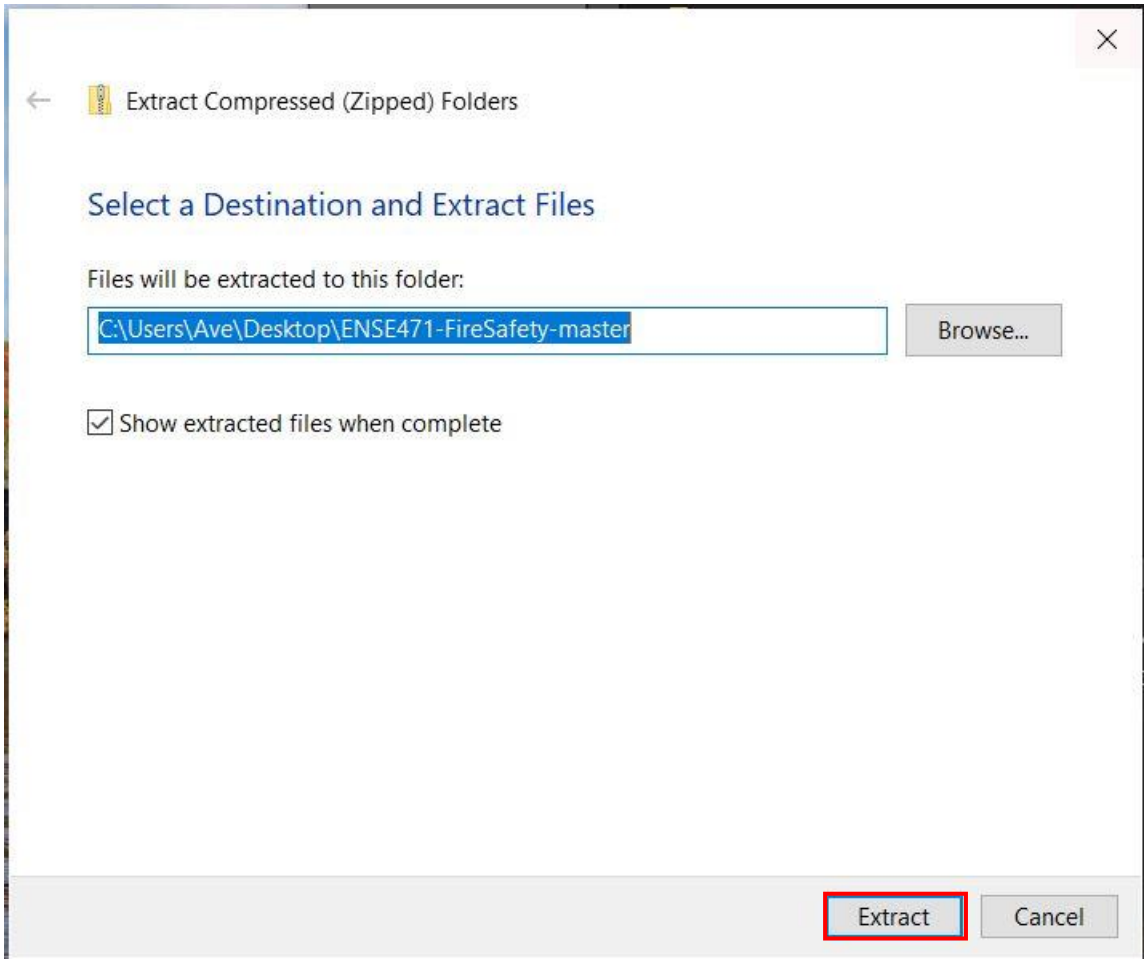
4. Choose the Save Location for the folder and click ***Save***:



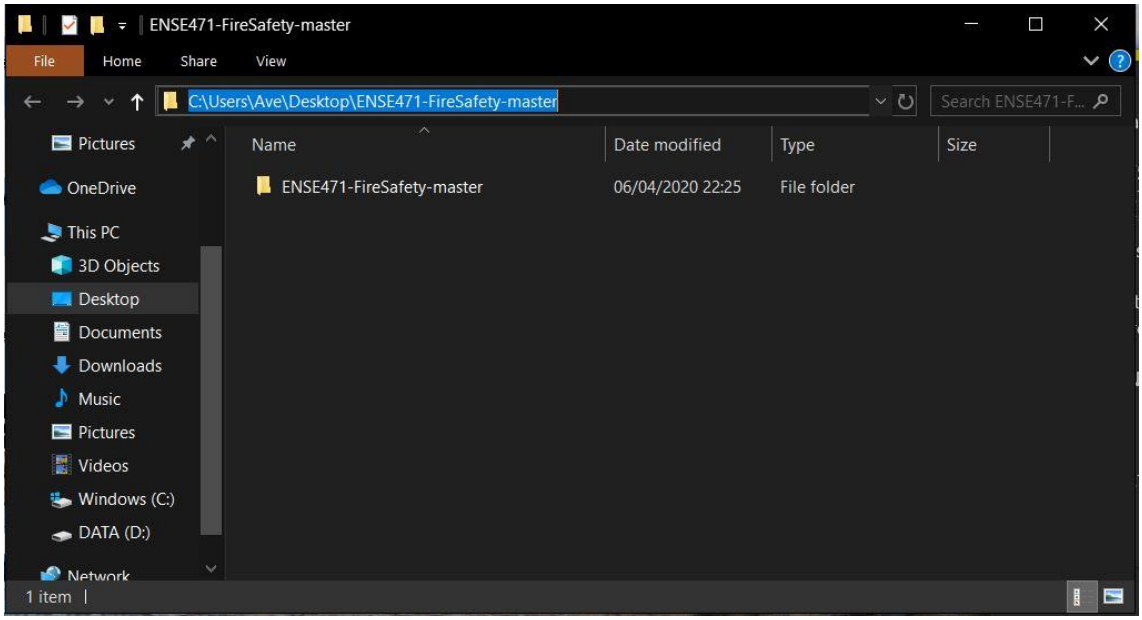
5. Once the folder is saved, right-click on the folder and select ***Extract All…***



6. Choose the Location to Extract the files to, this will provide you the usable folder and Select ***Extract***

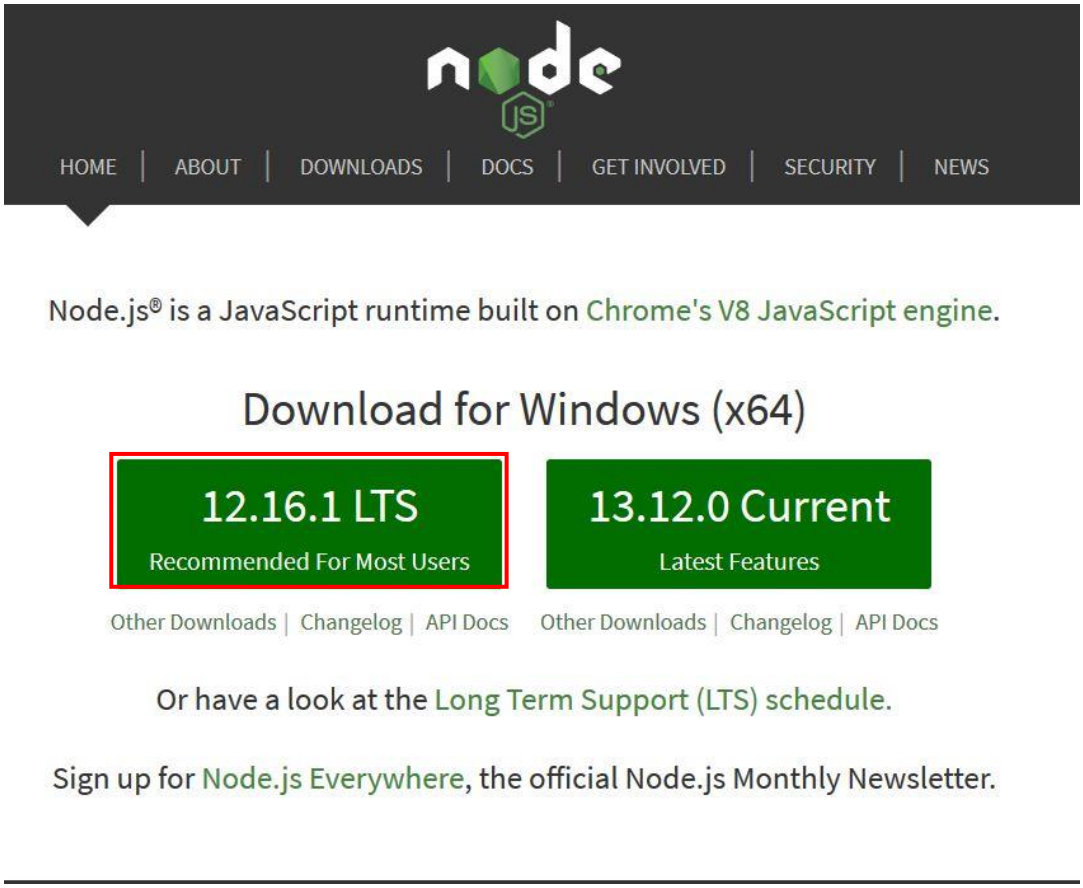


7. Shown Below is the result of the extracted folder:



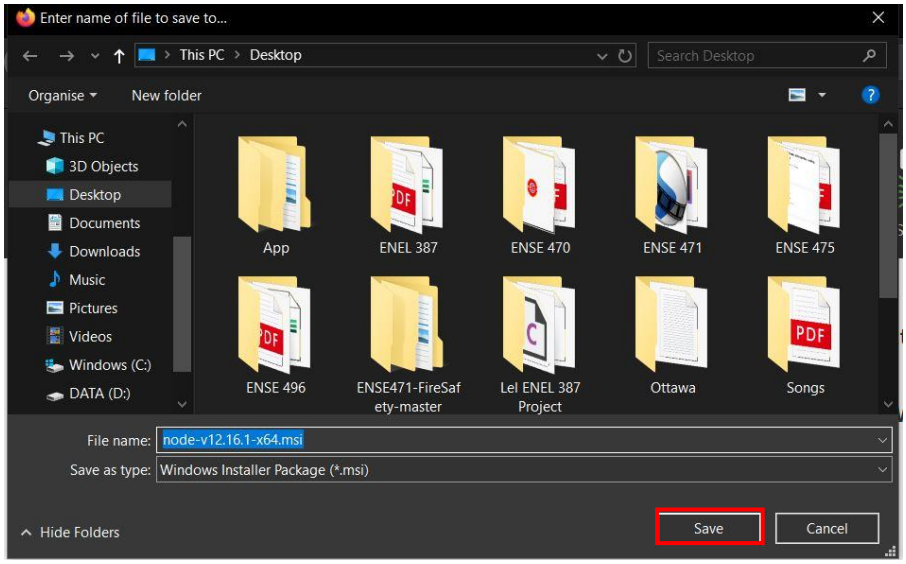
2 Install Node.js:

1. Go to the Node.js website: https://nodejs.org/en/ and select the ***Recommended For Most Users*** Download Option.



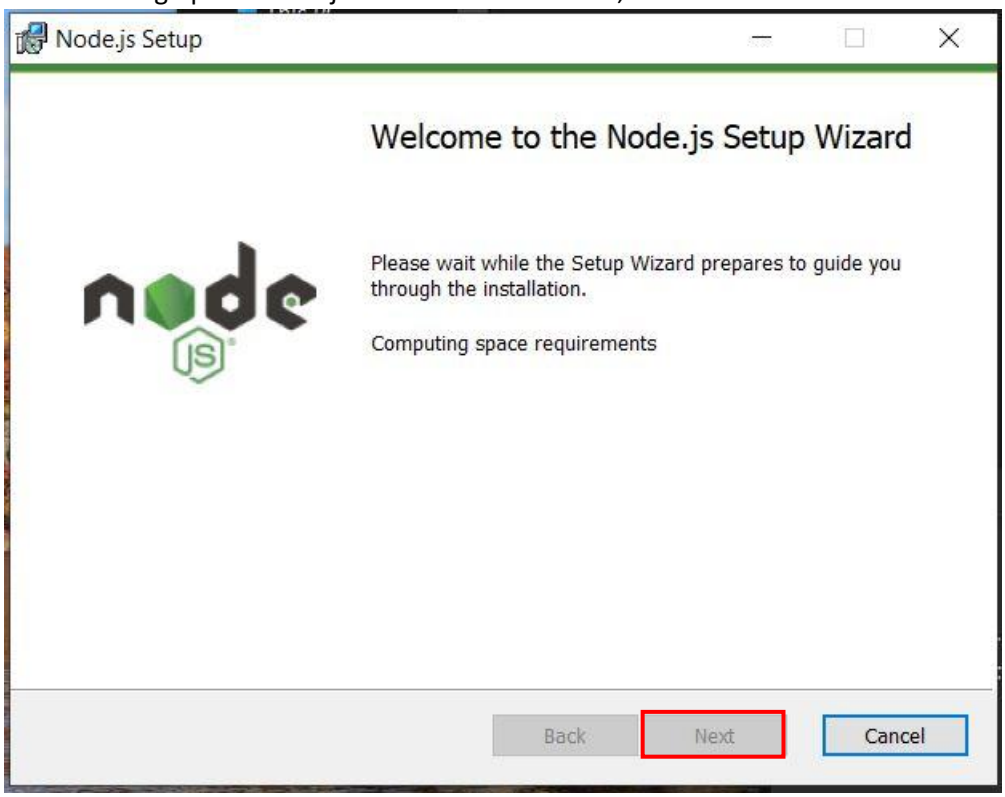
2. Save the Node.js installer by clicking ***Save File***

3. Select a save location for the installer, this can be anywhere. And click ***Save***



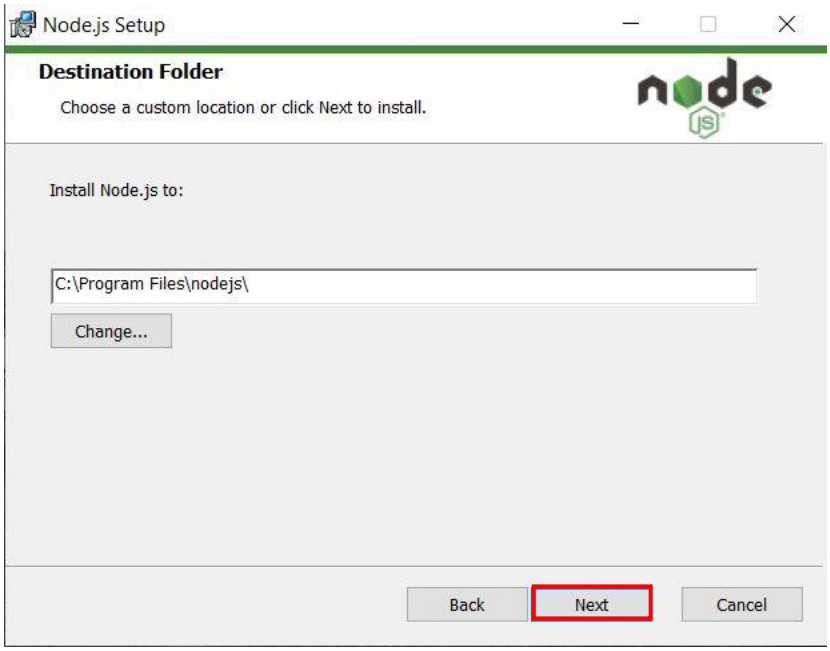
4. Go to where you installed the file, and *double click* on the icon.

5. This will bring up the Node.js Installer shown below, Select ***Next*** once it is done loading:

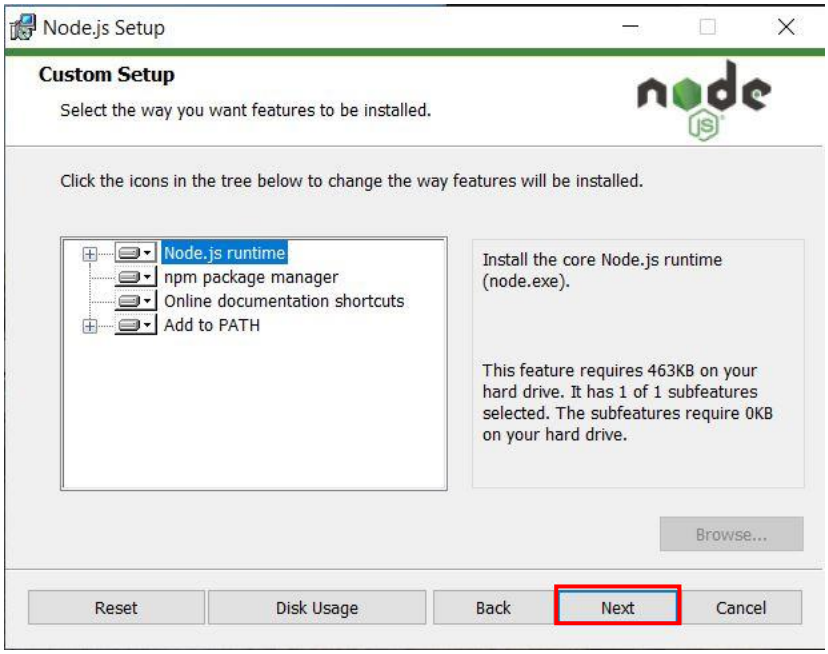


6. Accept the Licence and select ***Next***:

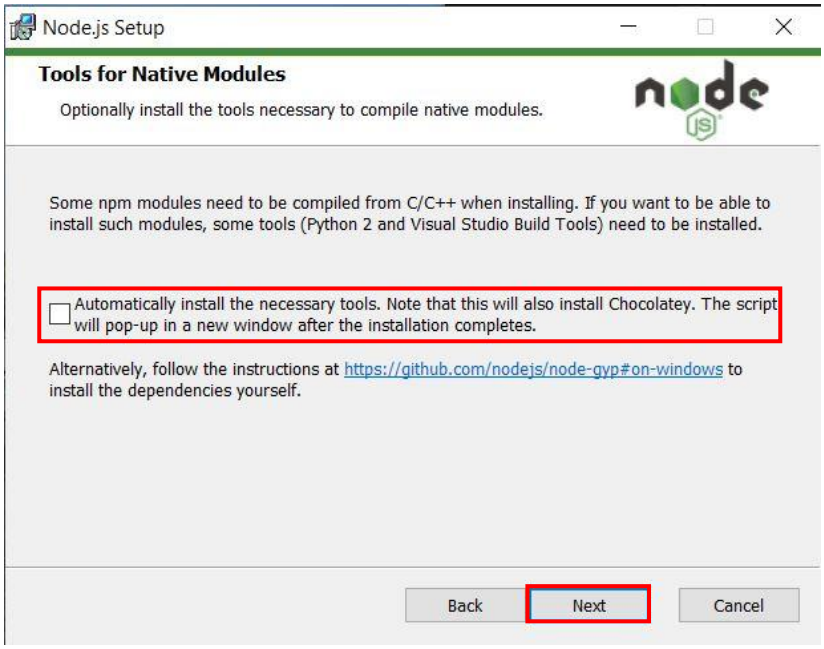
7. Select the Node.js Installation Location. Choose a Directory of your choice and Select ***Next***:



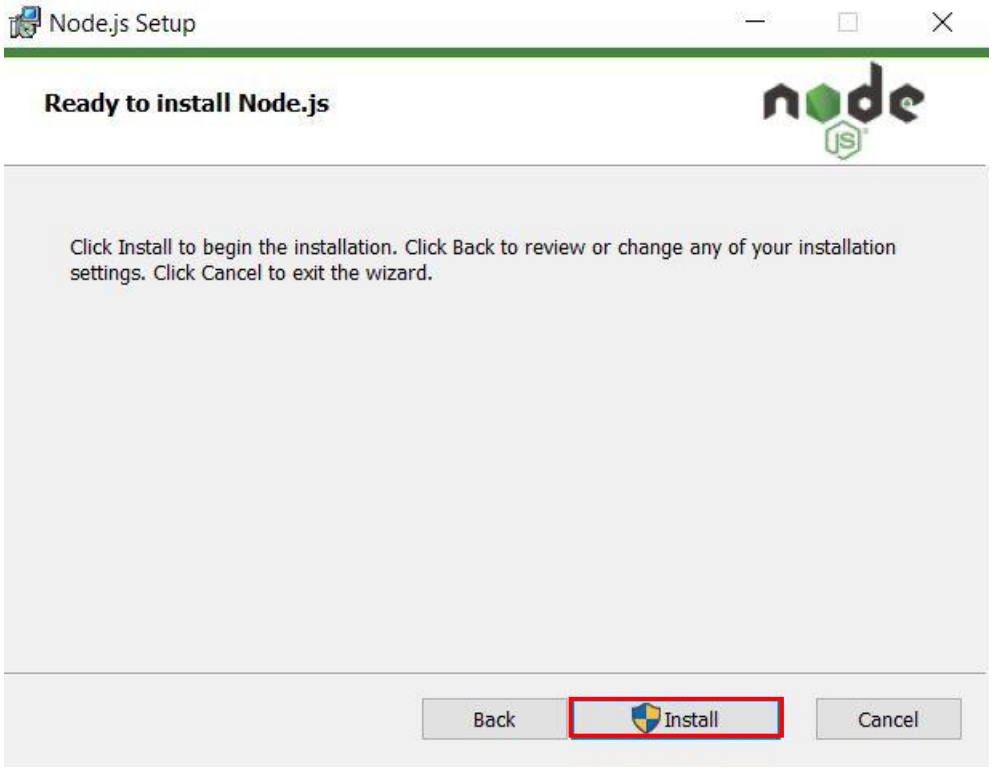
8. Select ***Next*** when prompted with the Installation Options, default values are fine.



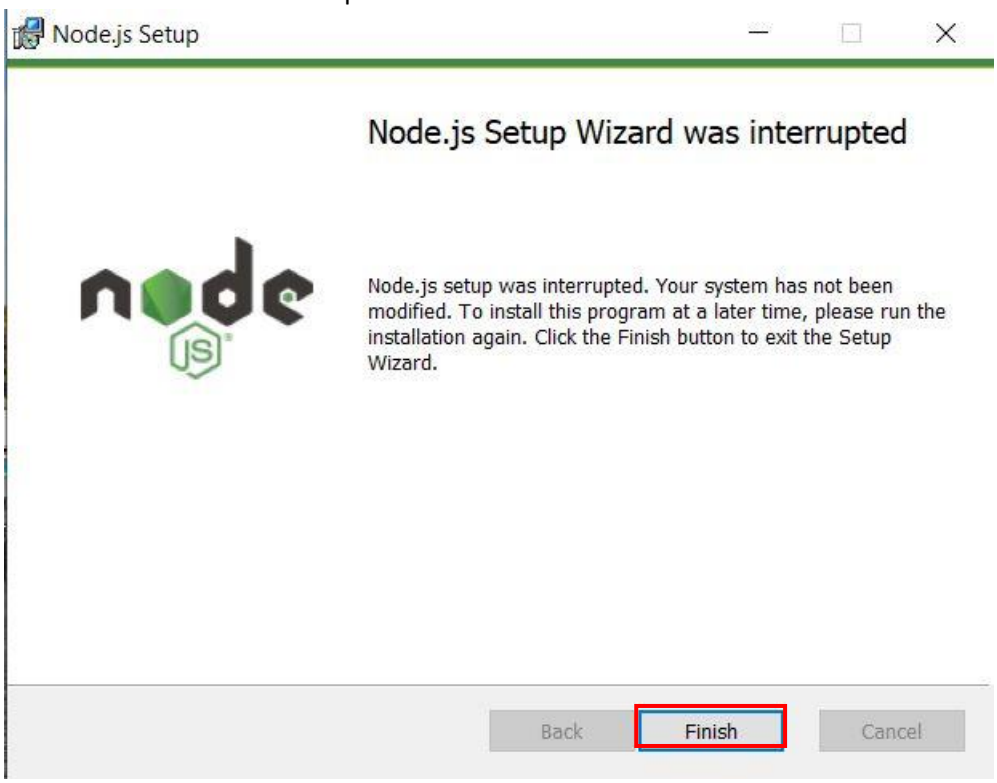
9. When Prompted for extra options, leave the check box ***unchecked*** and select ***Next***



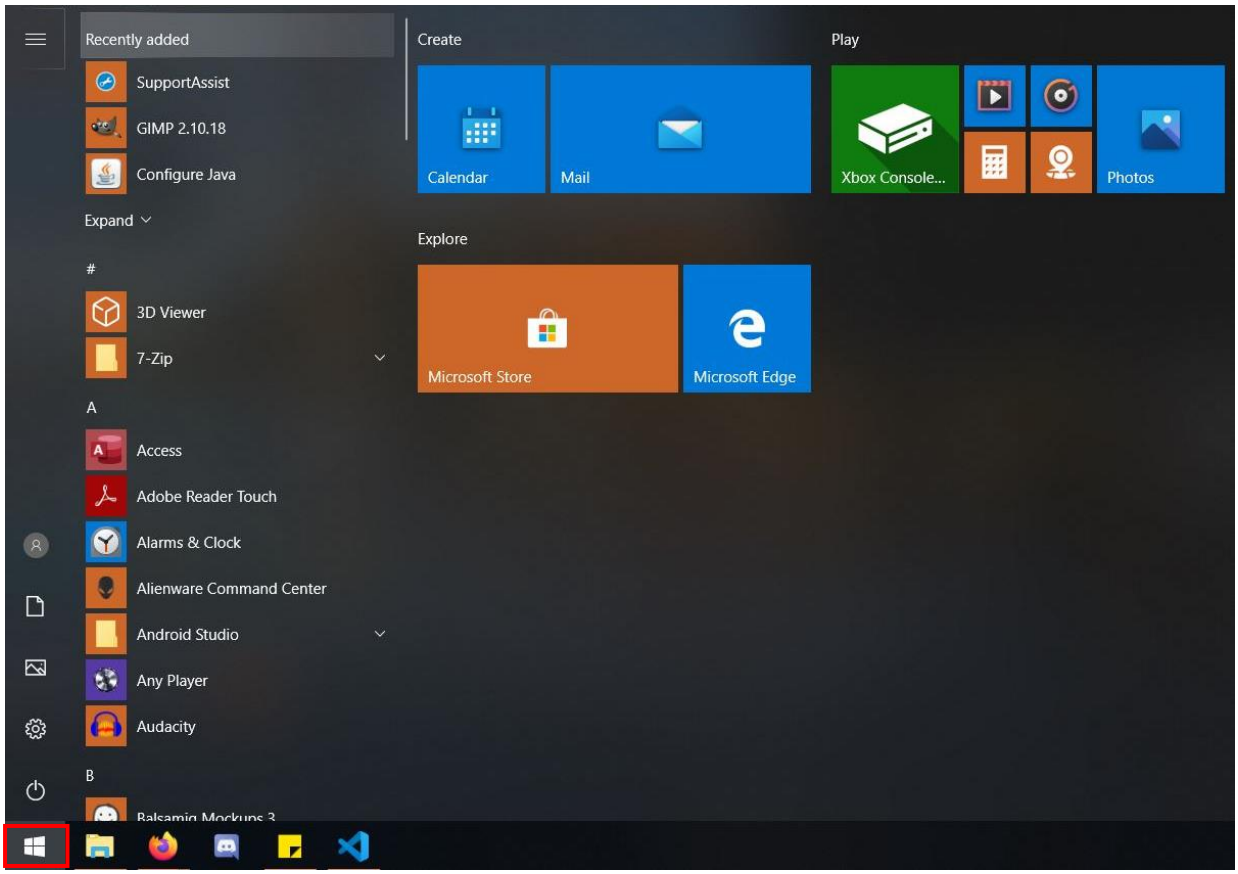
10. Start the install by selecting ***Install:***



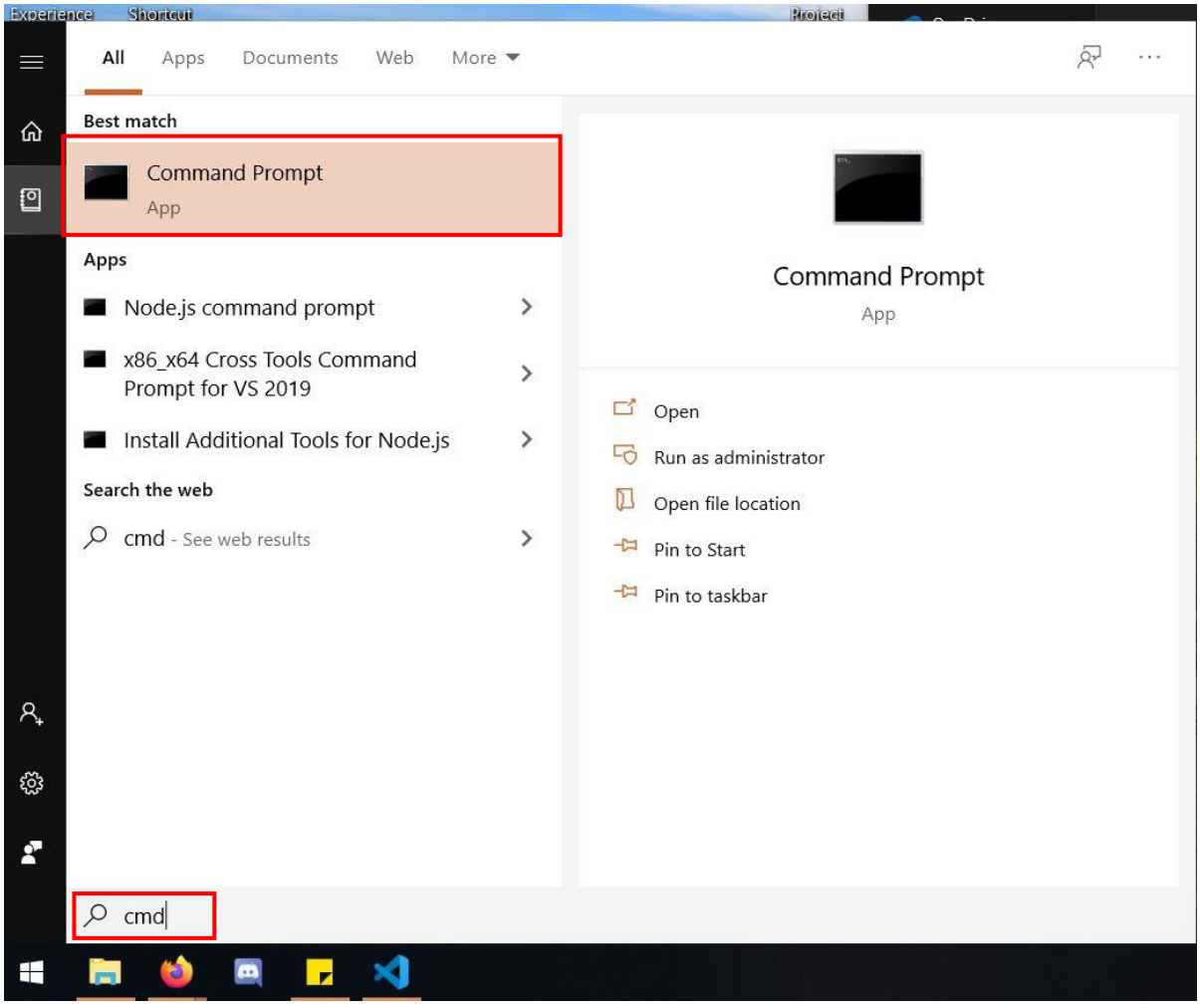
11. When the installation is complete select ***Finish***



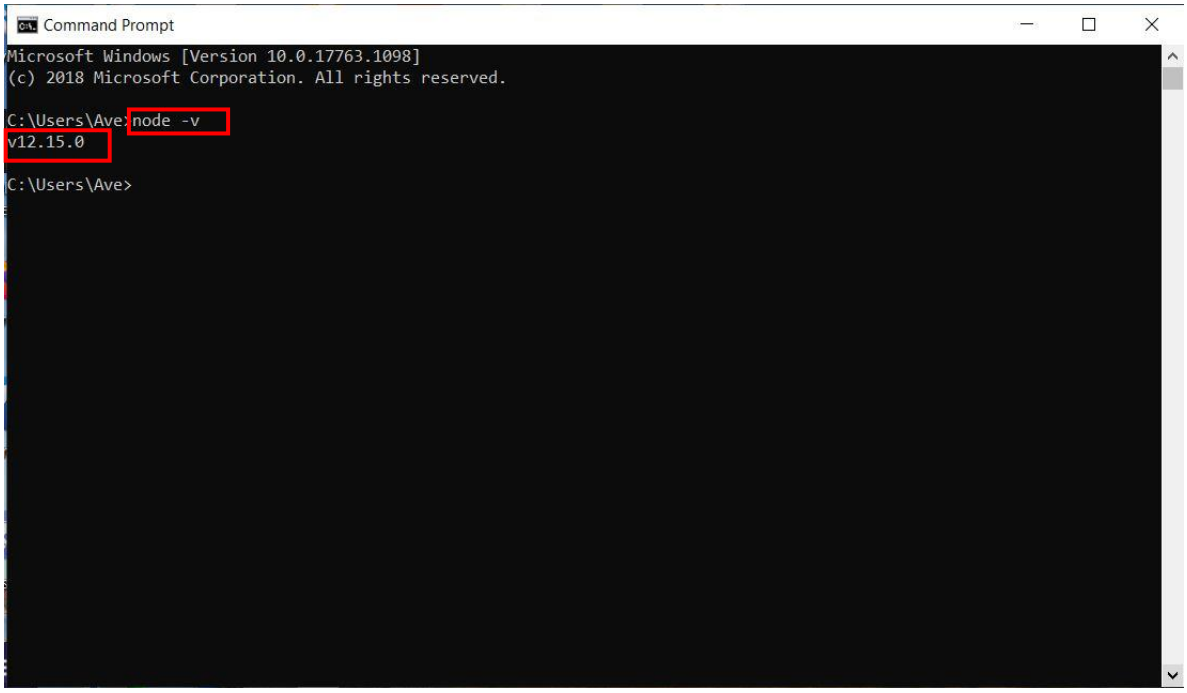
12. To confirm that the installation is completed successfully, press the ***Windows Key*** **or the** ***Windows Icon*** in the bottom left corner of the screen.



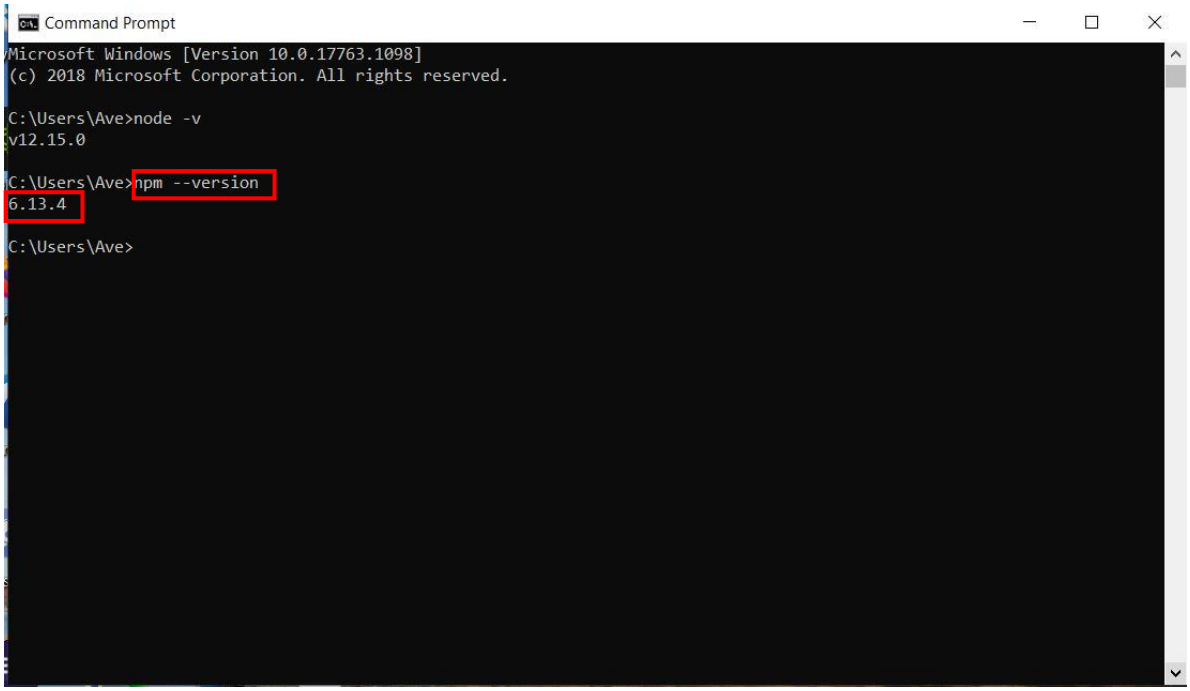
13. With the *Start Menu* open, type ***cmd*** and select the Command Prompt Application:



14. The command prompt will open. Type ***node -v*** and hit the *enter* key to verify that the Node.js installation succeeded. The version seen on the download page in step 1 should appear.



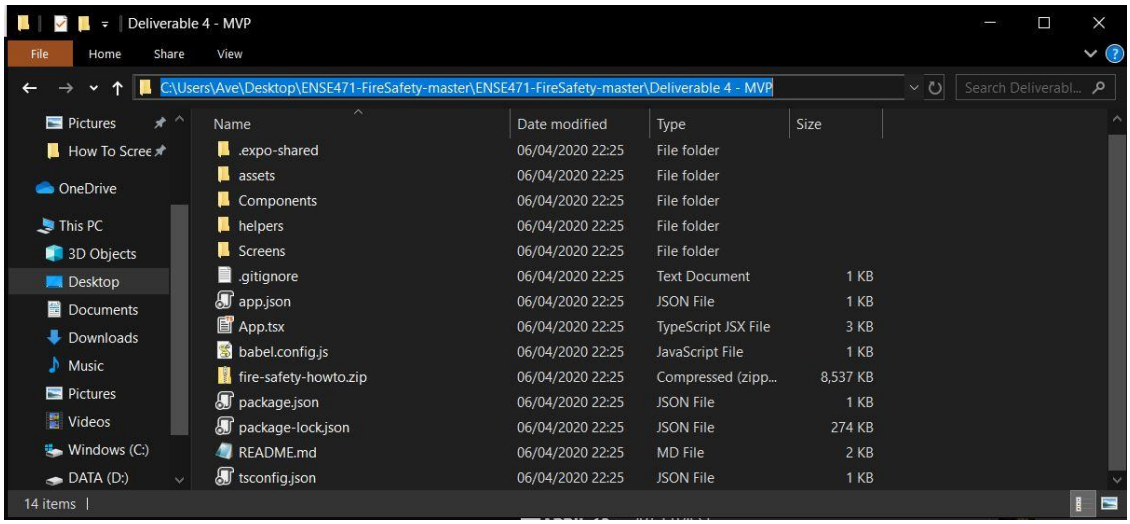
15. With the command prompt still open, type ***npm --version*** and hit the *enter* key. This will verify that npm, our package manager also installed correctly.



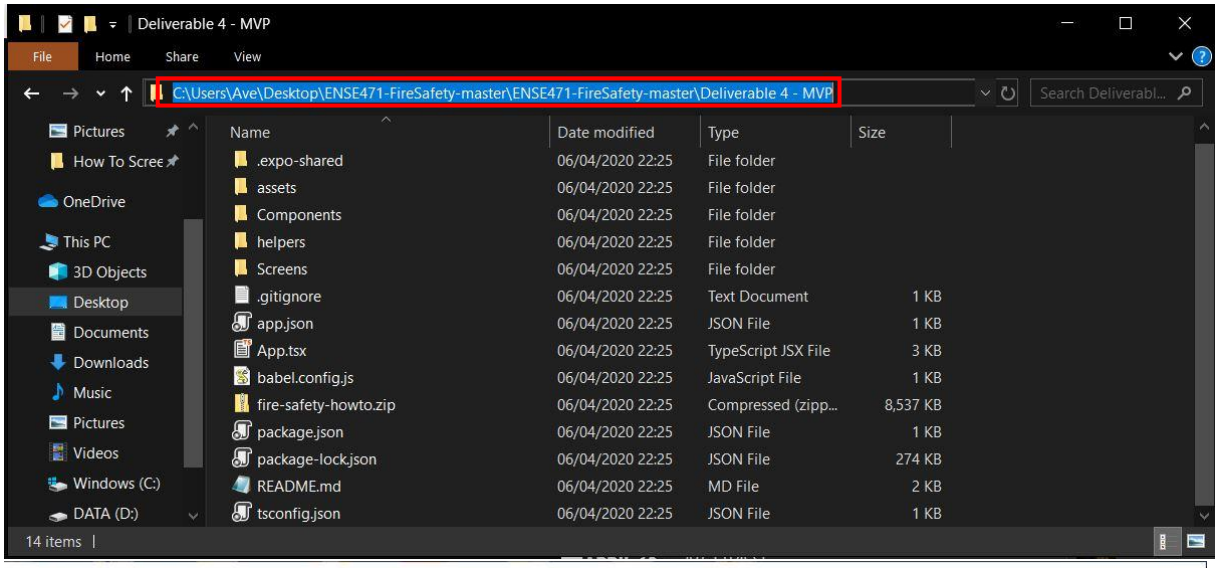
Note: The Version numbers may be different for you, that is okay, this should still work. If there is an error when typing either of the commands, try restarting your computer and repeating steps 12 to 15.

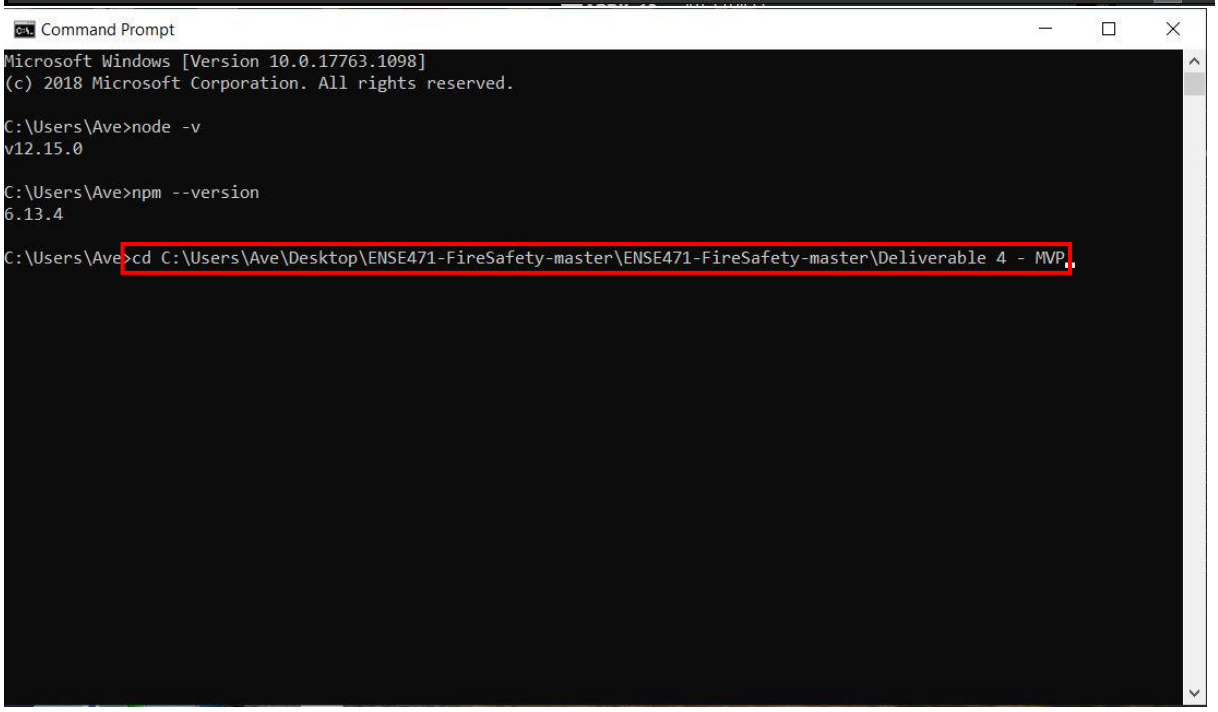
3 Running Expo:

1. Open up the folder that you extracted the files to in Section 1 Step 6. And select the ***Deliverable 4 – MVP*** folder.

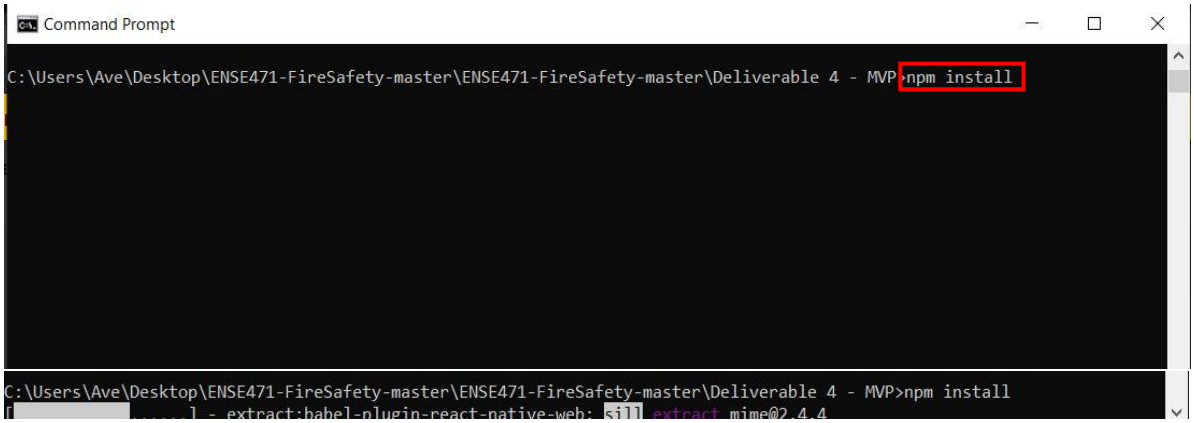


2. With the command line open as shown in Section 2 Step 12 we will go to our Deliverable 4 – MVP folder. Type ***cd*** and paste the copied file path for Deliverable 4 – MVP using ***right-click***

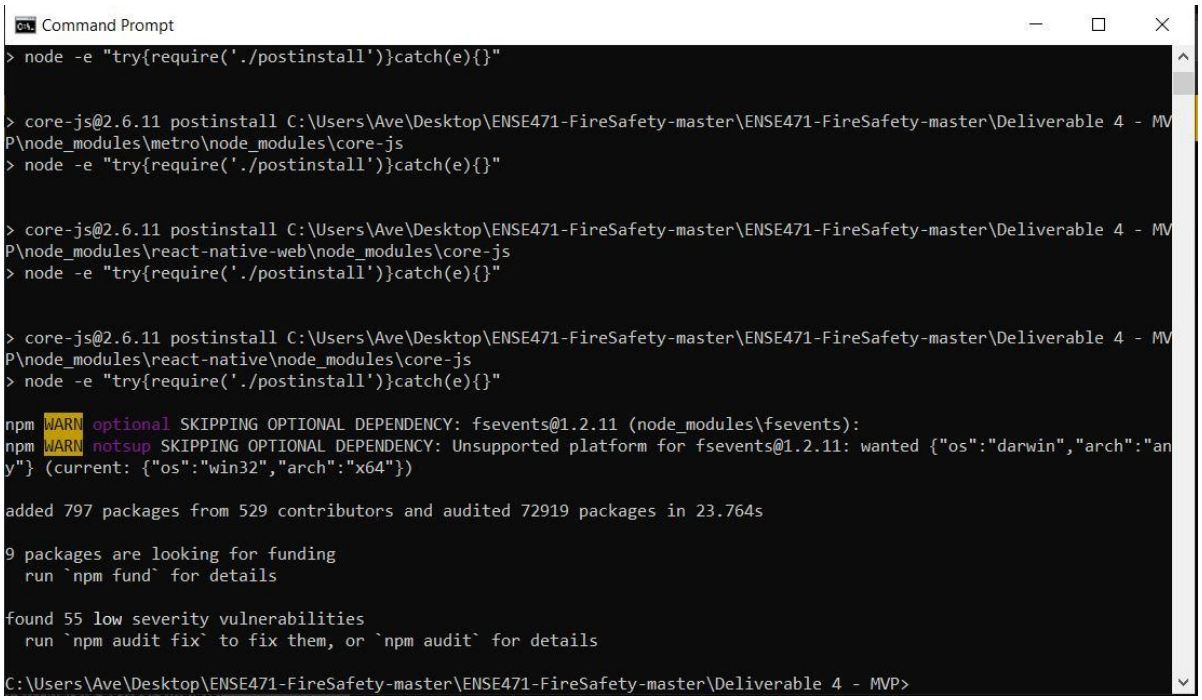




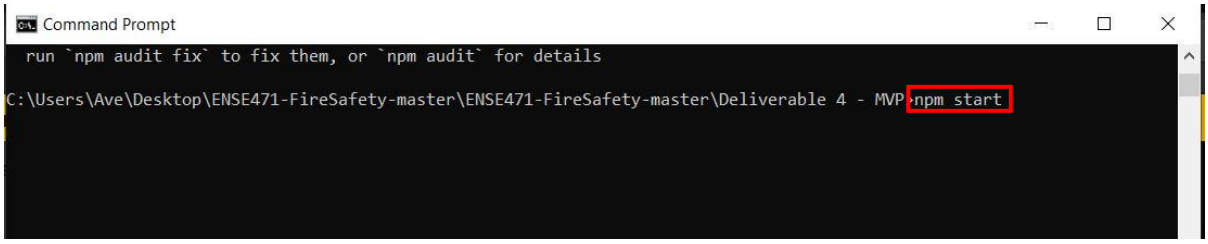
3. Inside the directory, type ***npm install*** this will install the necessary dependencies for the project to run.

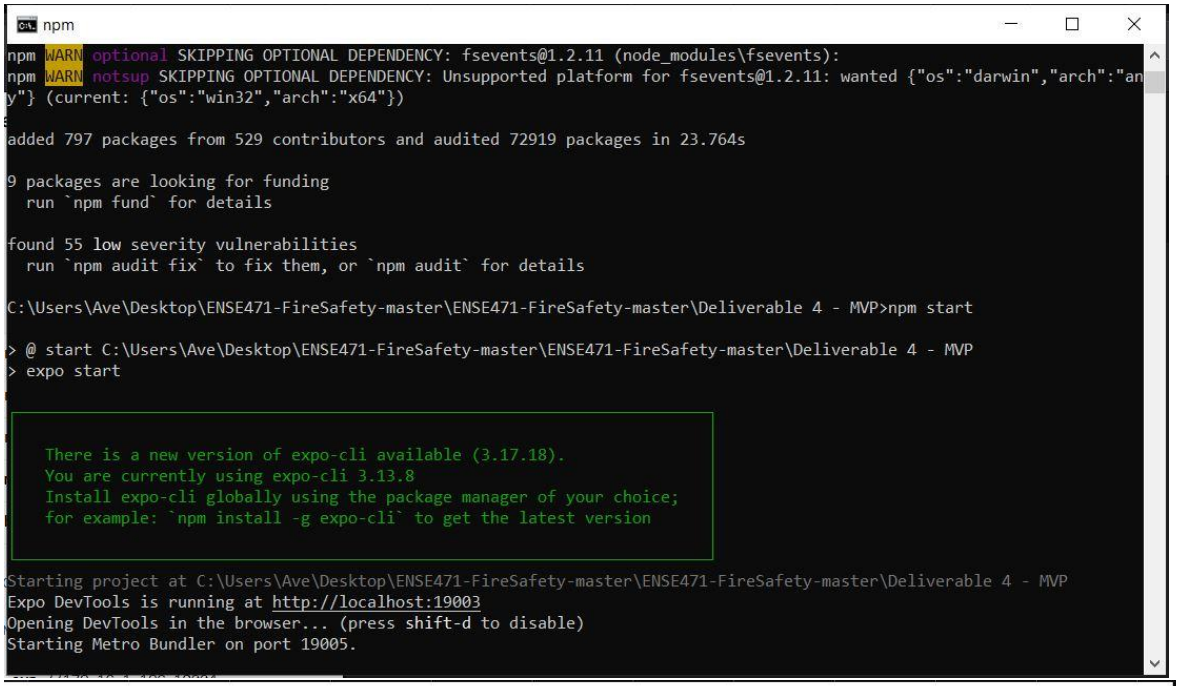


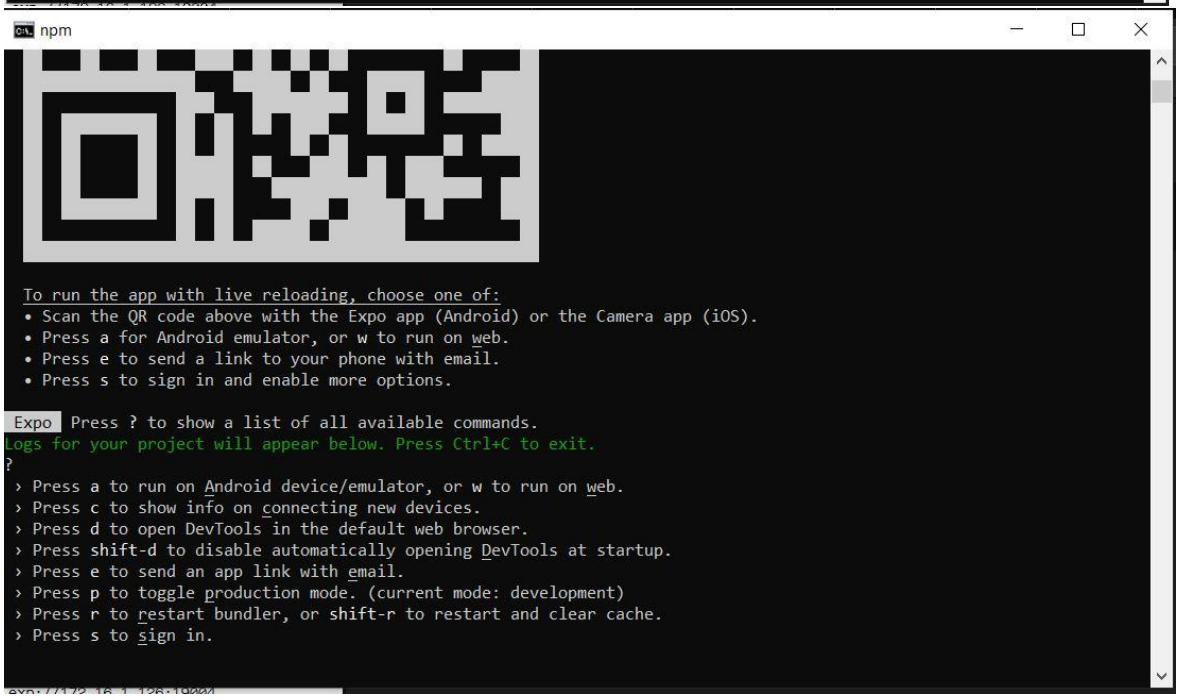
4. The installation will complete, if there are any prompts accept them and you will receive a screen similar to below.



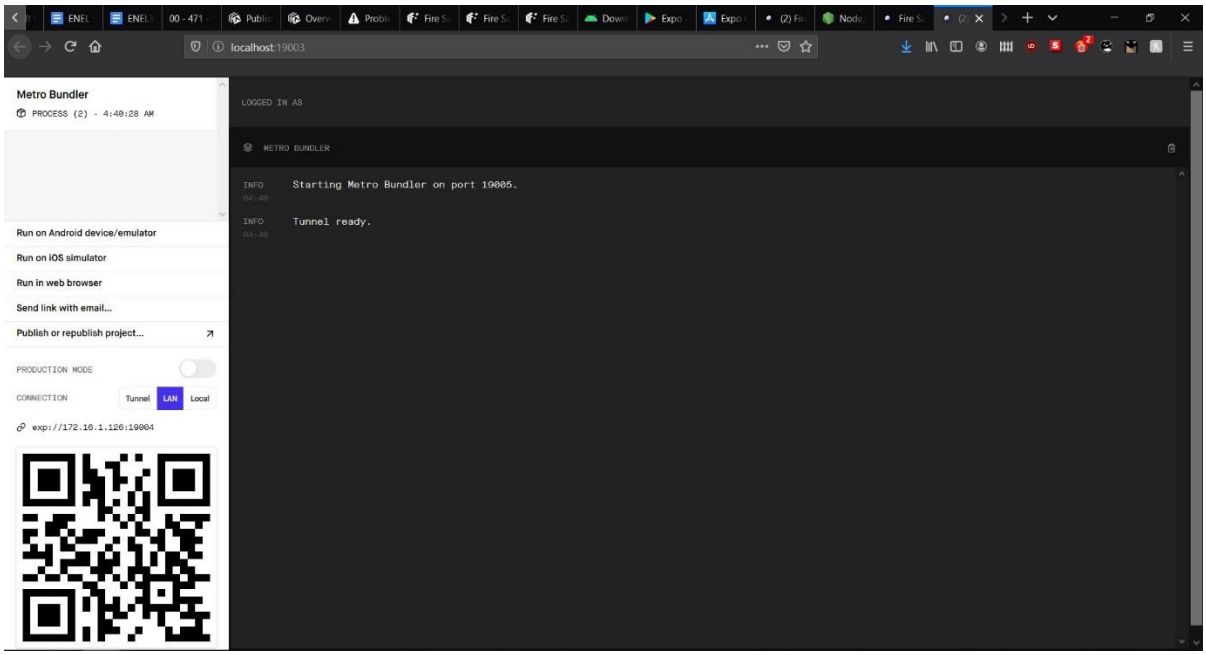
5. With the dependencies installed, we can start our App. Type ***npm start*** to start running the application. Which will result in output similar to below. If you are prompted to install anything, accept with ***y***




npm
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.11 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.11: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})
added 797 packages from 529 contributors and audited 72919 packages in 23.764s
9 packages are looking for funding
run `npm fund` for details
found 55 low severity vulnerabilities
run `npm audit fix` to fix them, or `npm audit` for details
C:\Users\Ave\Desktop\ENSE471-FireSafety-master\ENSE471-FireSafety-master\Deliverable 4 - MVP>npm start
> @ start C:\Users\Ave\Desktop\ENSE471-FireSafety-master\ENSE471-FireSafety-master\Deliverable 4 - MVP
> expo start
There is a new version of expo-cli available (3.17.18).
You are currently using expo-cli 3.13.8
Install expo-cli globally using the package manager of your choice;
for example: `npm install -g expo-cli` to get the latest version
Starting project at C:\Users\Ave\Desktop\ENSE471-FireSafety-master\ENSE471-FireSafety-master\Deliverable 4 - MVP
Expo DevTools is running at http://localhost:19003
Opening DevTools in the browser... (press shift-d to disable)
Starting Metro Bundler on port 19005.

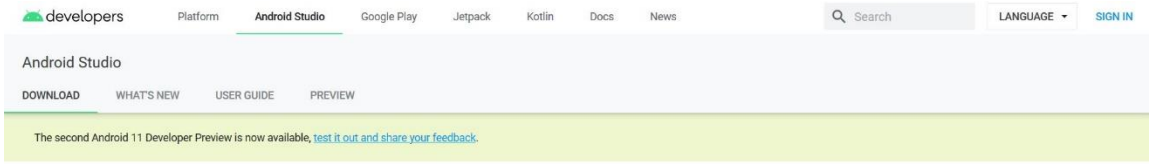

npm
To run the app with live reloading, choose one of:
• Scan the QR code above with the Expo app (Android) or the Camera app (iOS).
• Press a for Android emulator, or w to run on web.
• Press e to send a link to your phone with email.
• Press s to sign in and enable more options.
Expo Press ? to show a list of all available commands.
Logs for your project will appear below. Press Ctrl+C to exit.
?
› Press a to run on Android device/emulator, or w to run on web.
› Press c to show info on connecting new devices.
› Press d to open DevTools in the default web browser.
› Press shift-d to disable automatically opening DevTools at startup.
› Press e to send an app link with email.
› Press p to toggle production mode. (current mode: development)
› Press r to restart bundler, or shift-r to restart and clear cache.
› Press s to sign in.

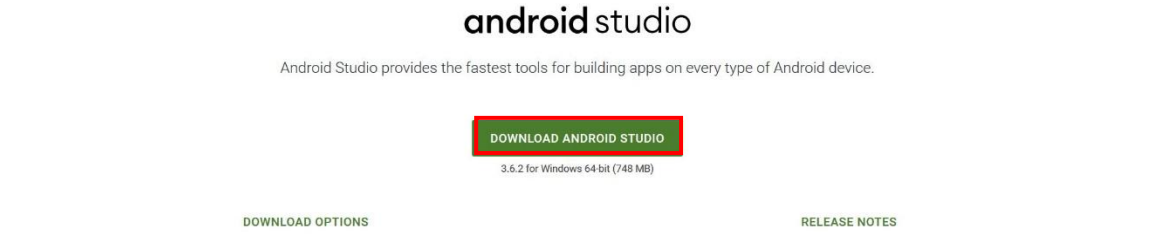
6. A browser window should open up automatically. If nothing appears, type ***d*** in the command line to launch the web browser.



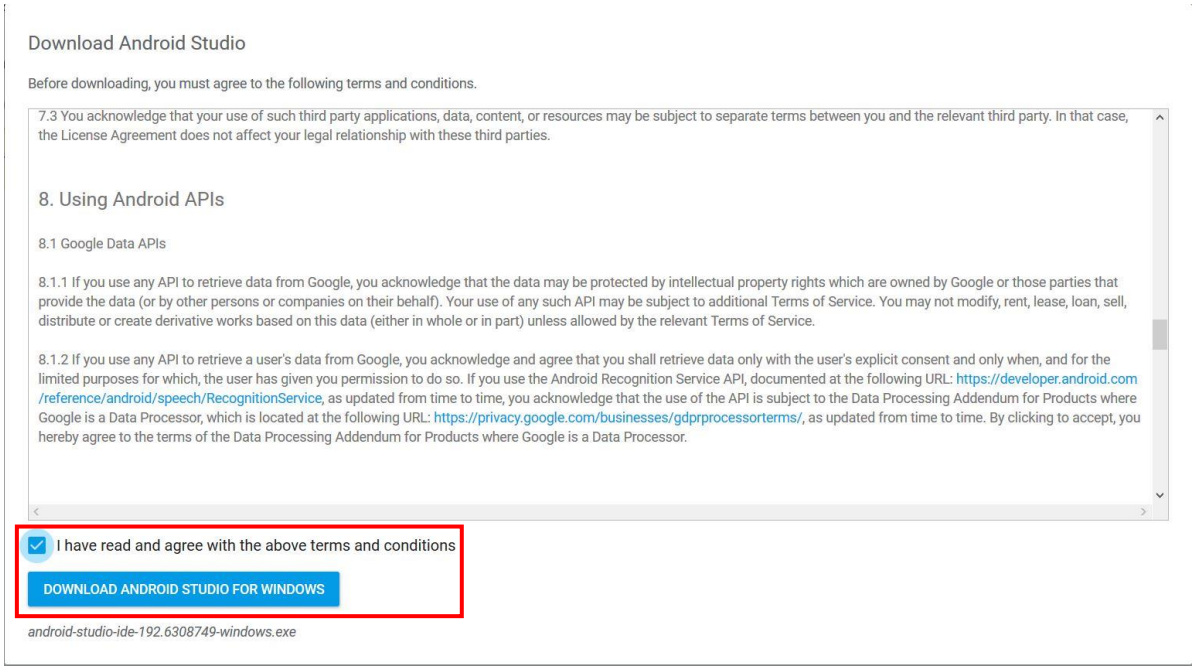
4 Running on an Android Emulator:

1. To run on an Android Emulator, you will need an Emulator installed. We will be using Android Studio for our emulator but if you already have one installed, you can skip these installation steps.
2. Go to https://developer.android.com/studio/ and click the ***download*** button

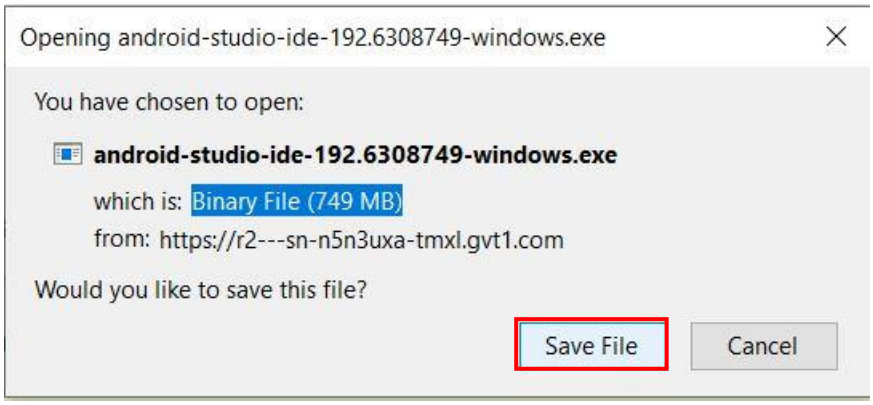




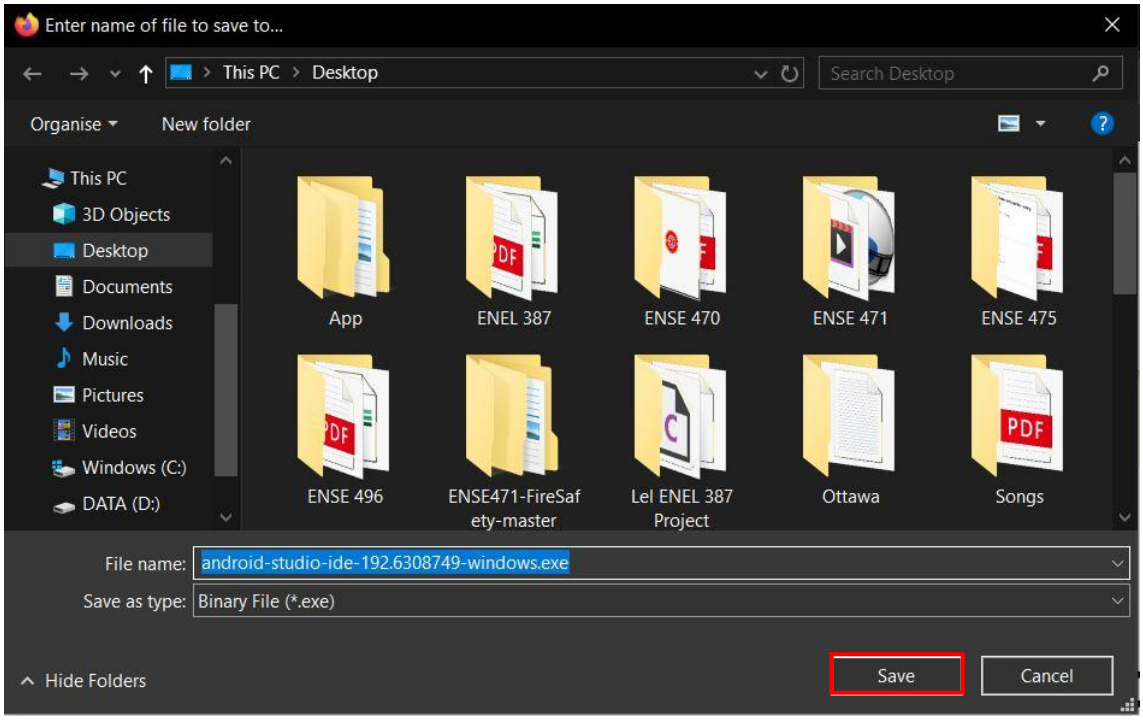
3. Accept the download agreement that you are prompted with



4. Save the file:

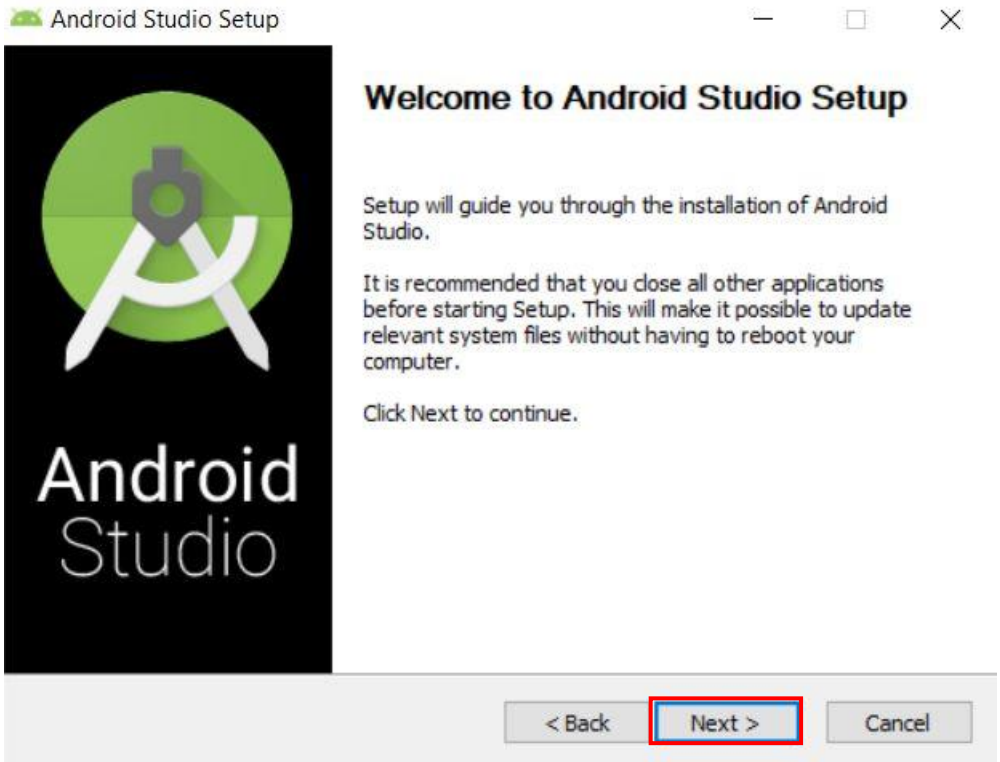


5. Select the location to save the file:

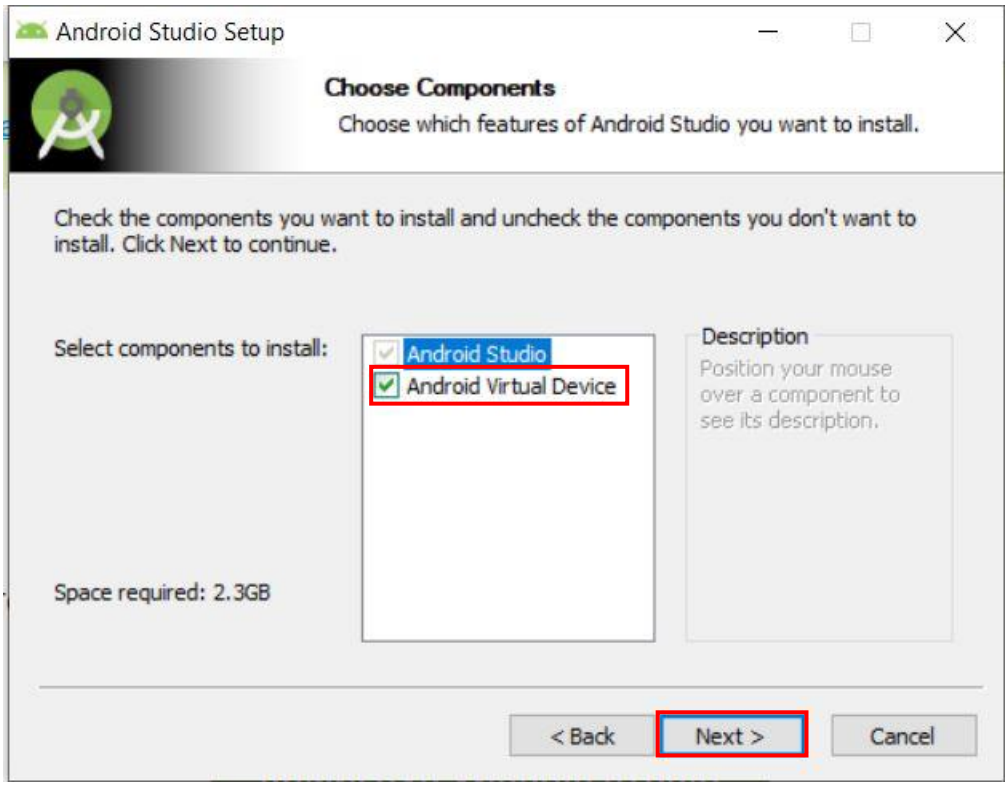


6. Once the download is complete, double-click on the icon to start the installation

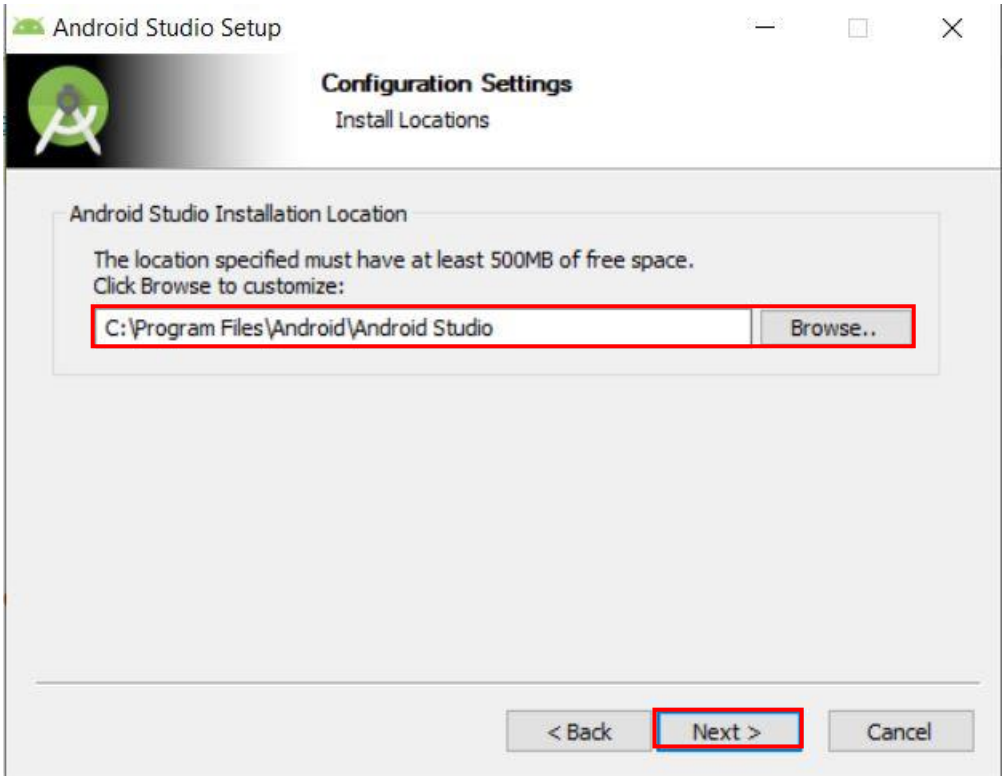
7. Select **next** on the Welcome screen



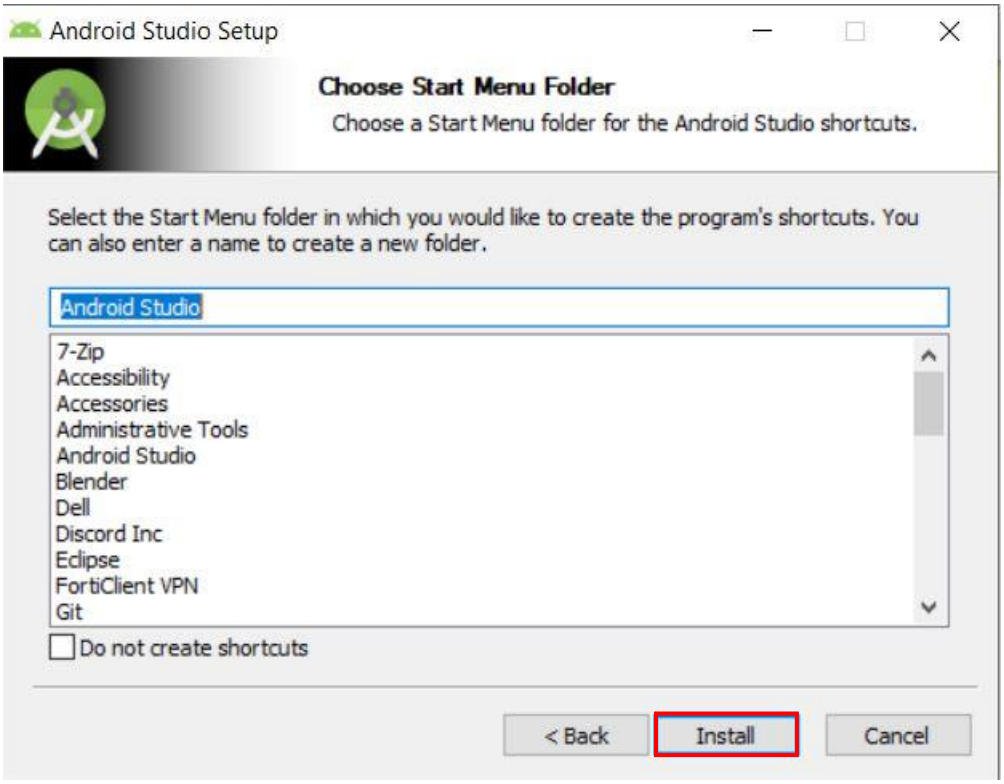
8. You will be prompted to Choose components, make sure that *Android Virtual Device* is selected. And click the **Next** button.



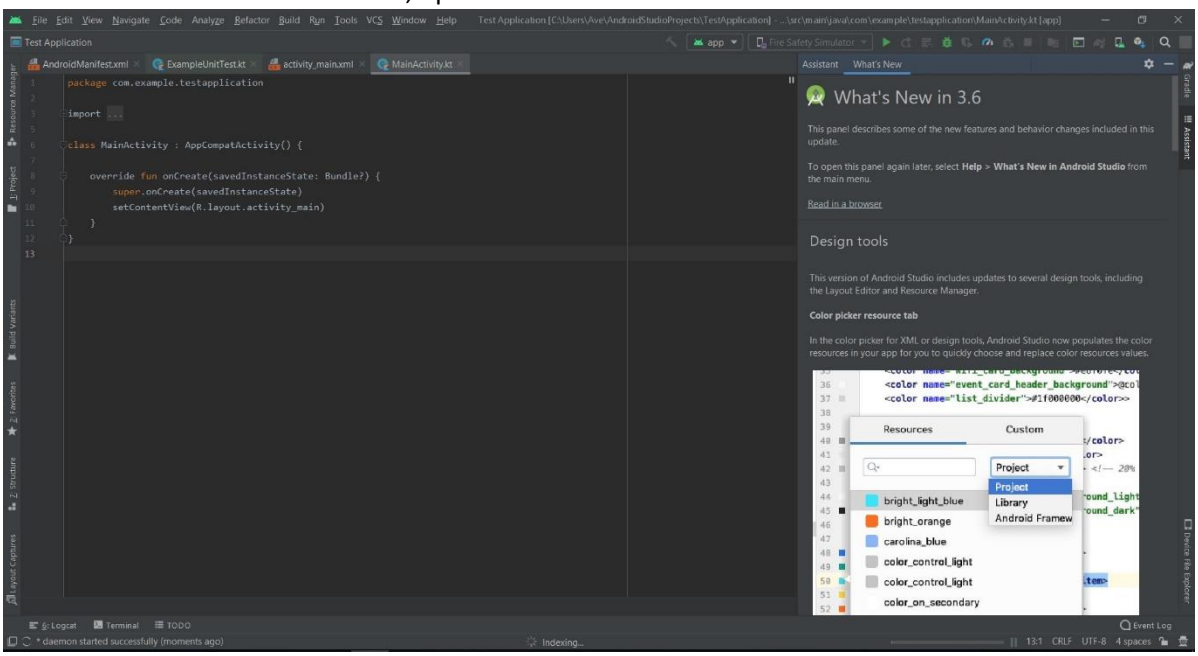
9. Choose the location of your choice to install Android Studio and select the **Next** button:



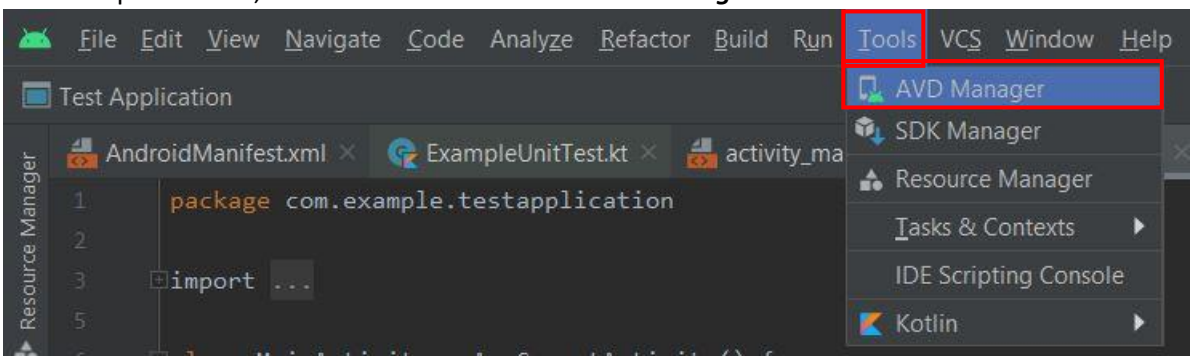
10. Select **Install** and Android Studio will Install:



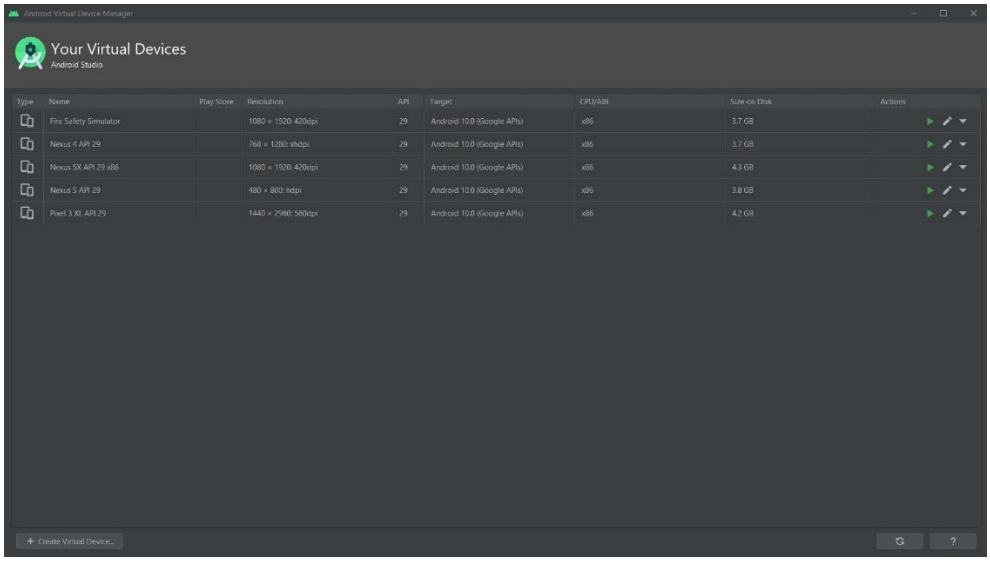
11. Once Android Studio has installed, open **Android Studio**



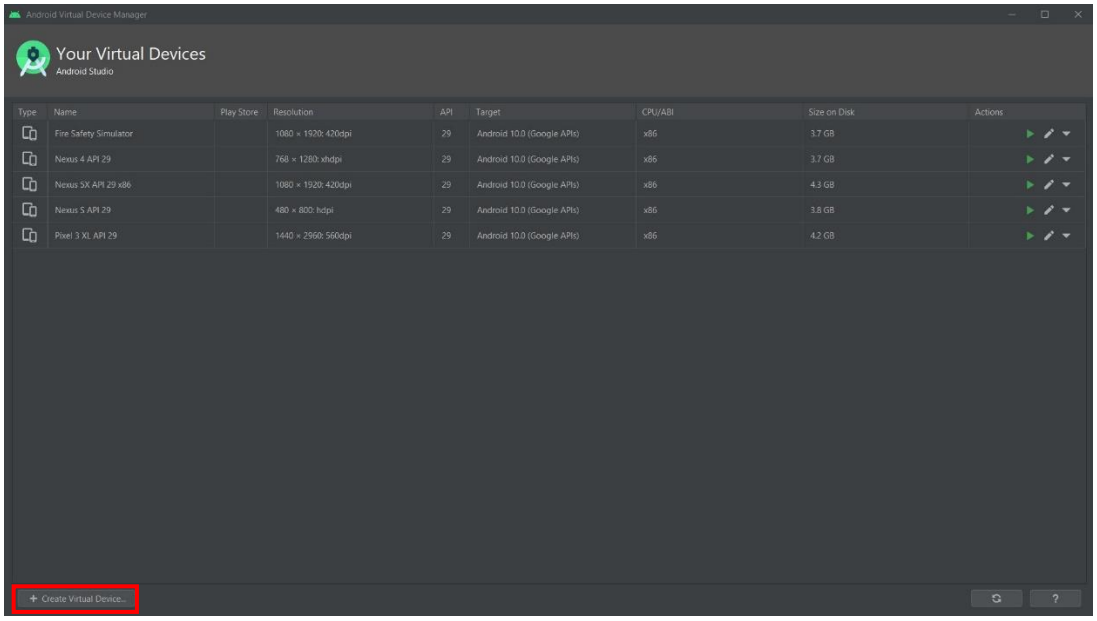
12. On the top menu bar, click on ***Tools*** and select > ***AVD Manager***



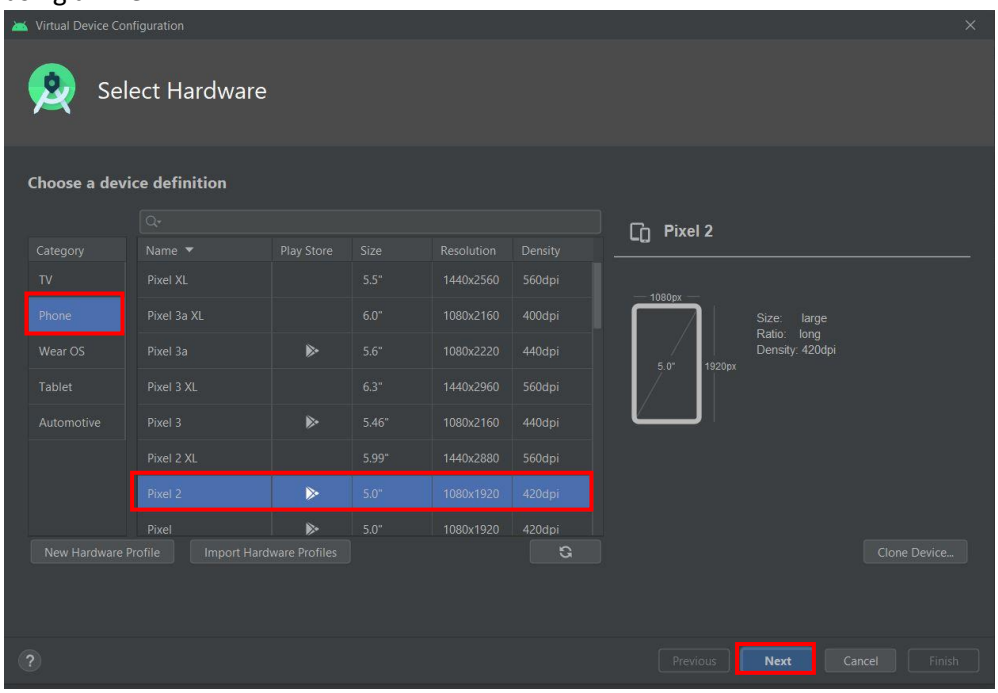
13. The Android Virtual Device Manager will open up.



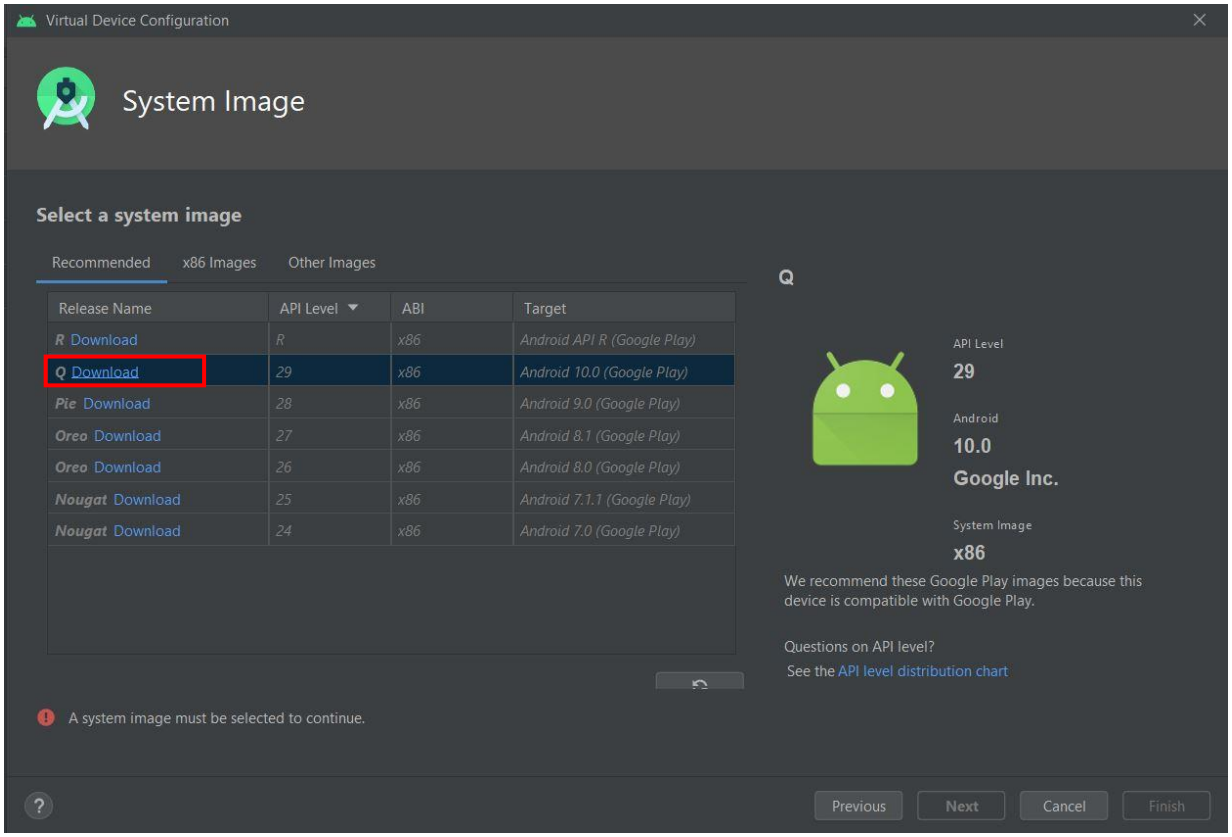
14. If you have an emulator installed, you can skip the setup of the emulator. But if you do not have an emulator, click ***Create Virtual Device***.



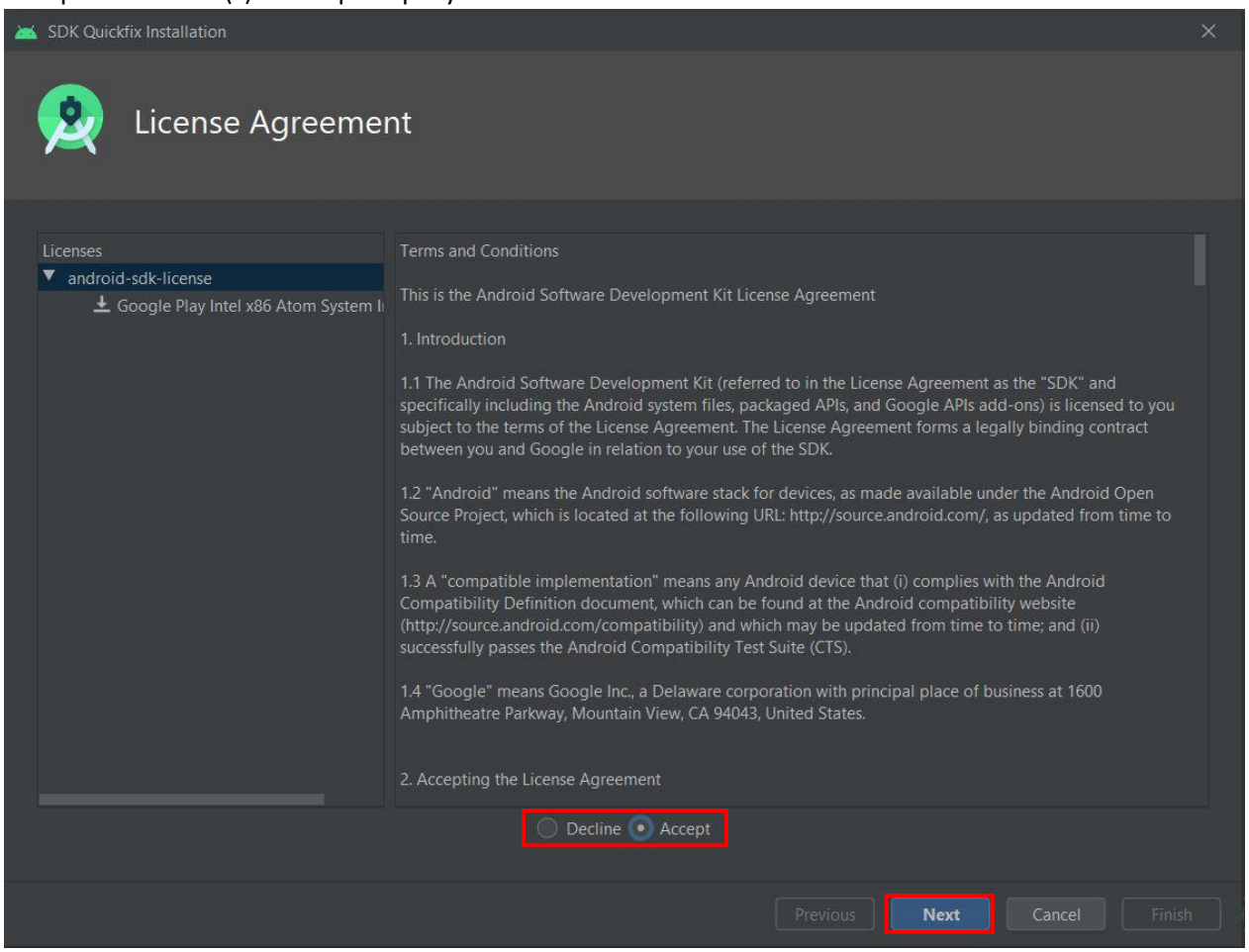
15. You will have a couple options for devices to install, select a device type to install and click ***next***, we will be using a Pixel 2.



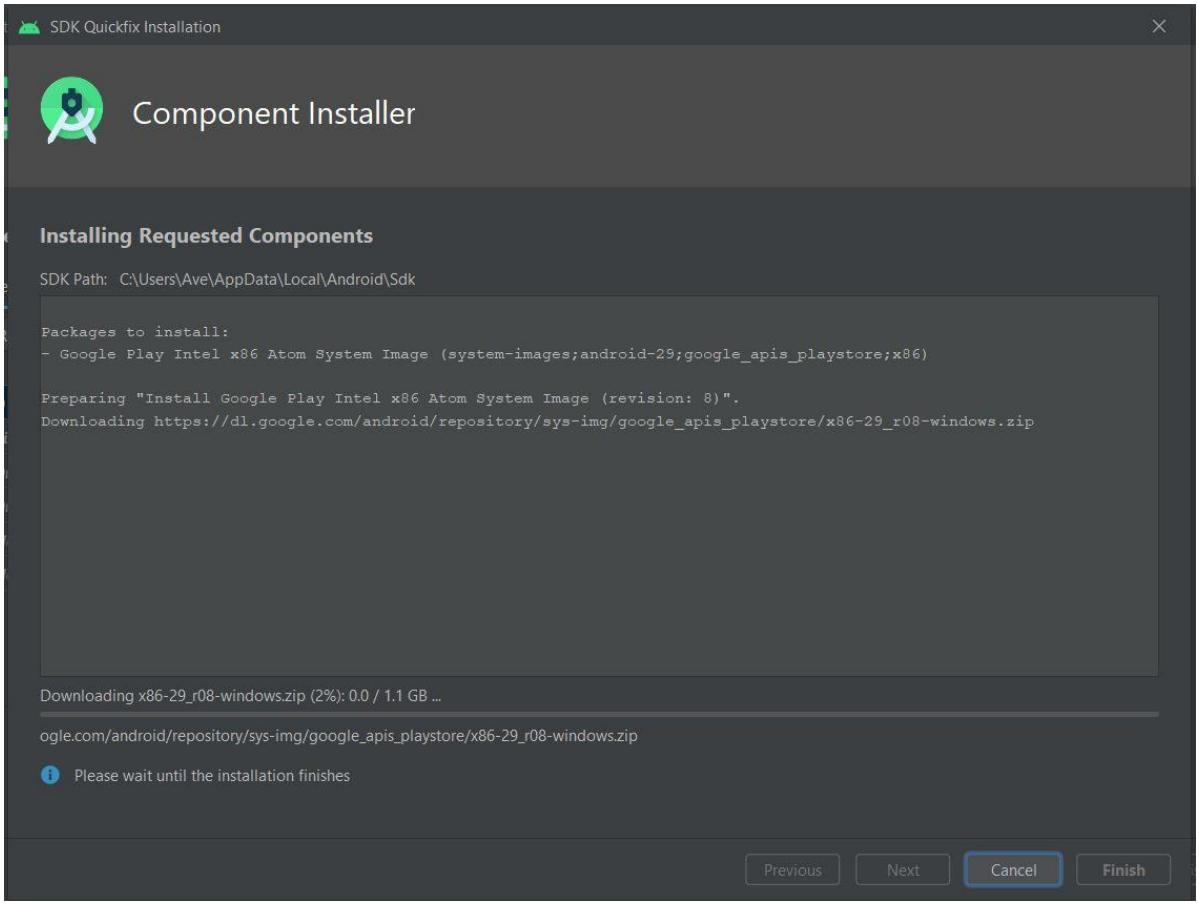
16. You can select and API version and install it, we will be using Android Q, click the **download** button:



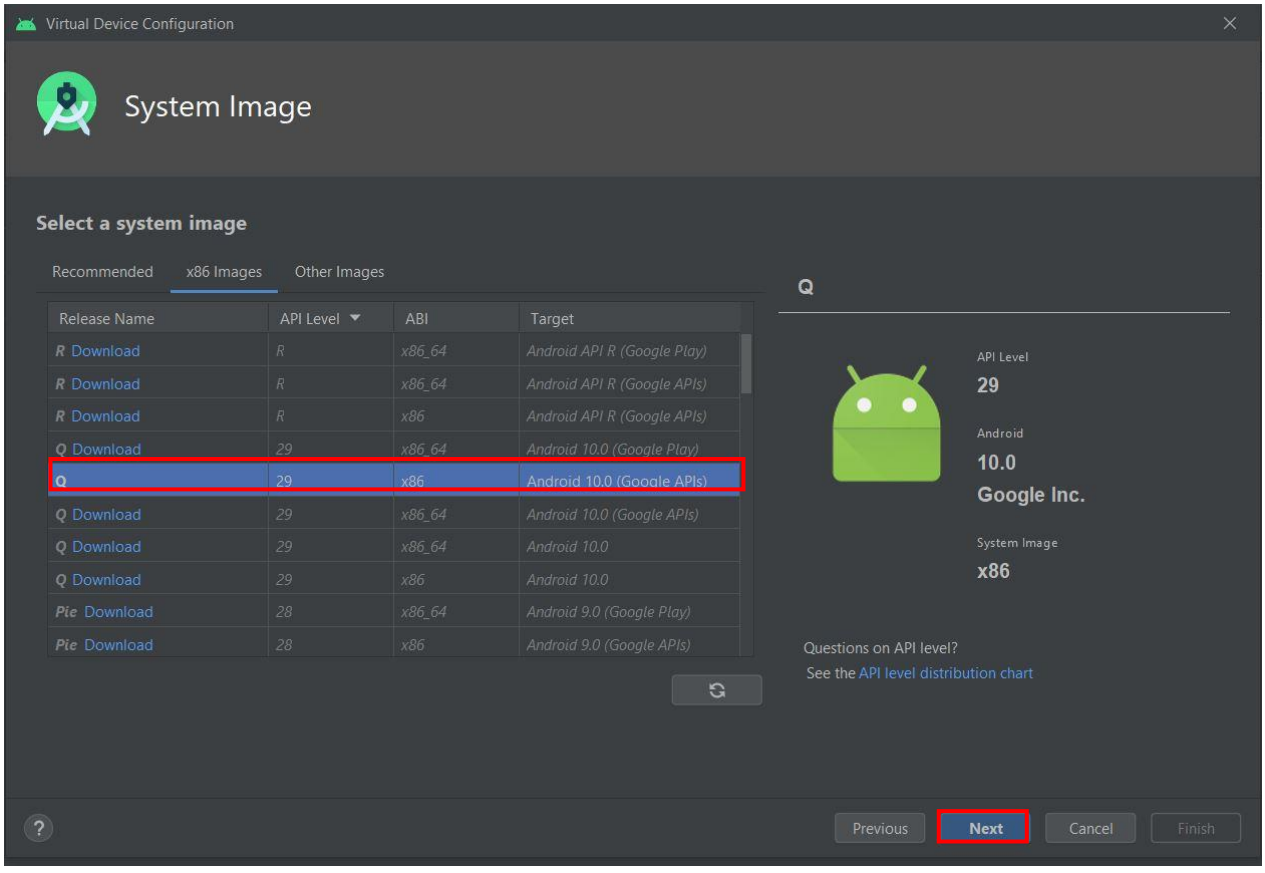
17. Accept the License(s) that it prompts you with and click ***Next***



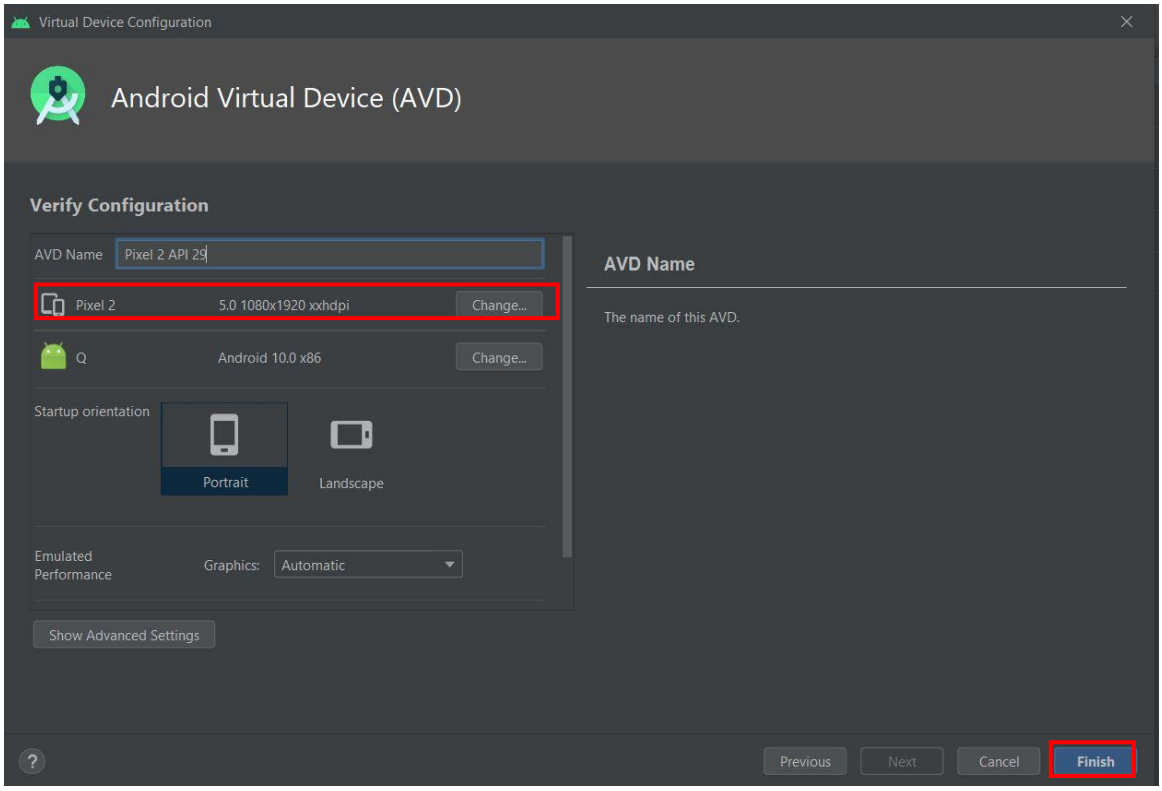
18. This will install the necessary files for our Android Emulator



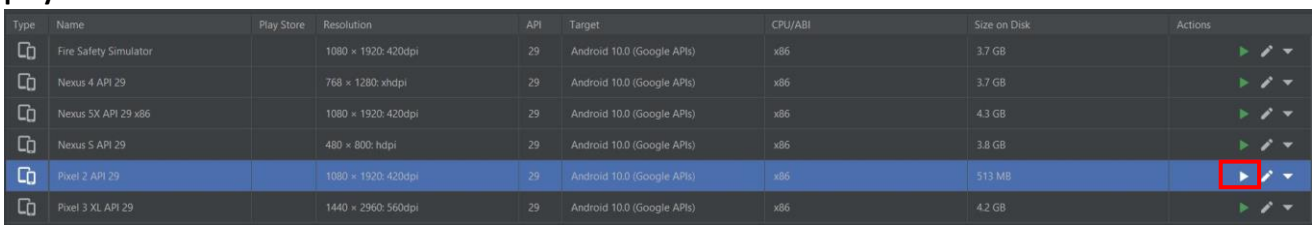
19. Select the downloaded System Image and click ***Next***



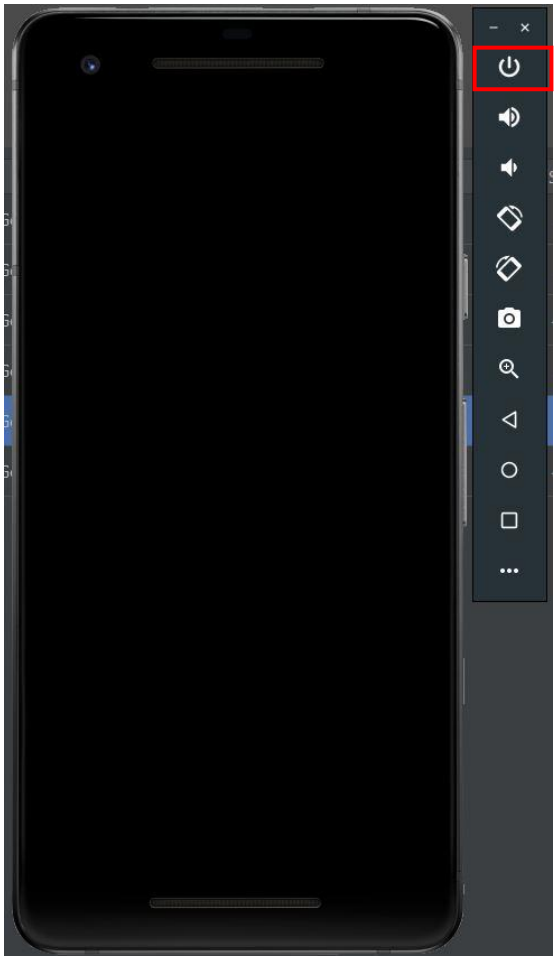
20. You can rename the Android Emulator if you want and select ***Finish***



21. From the Android Virtual Device list, select the Virtual Device you just created. And press on the green/white **play button** to launch the Virtual Device.

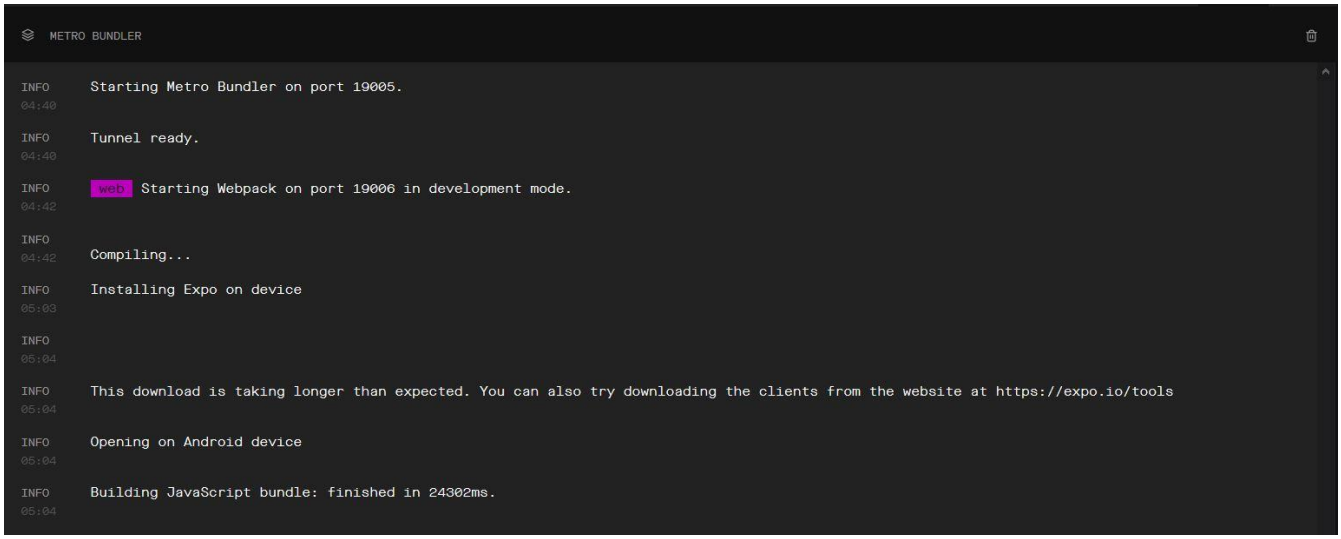


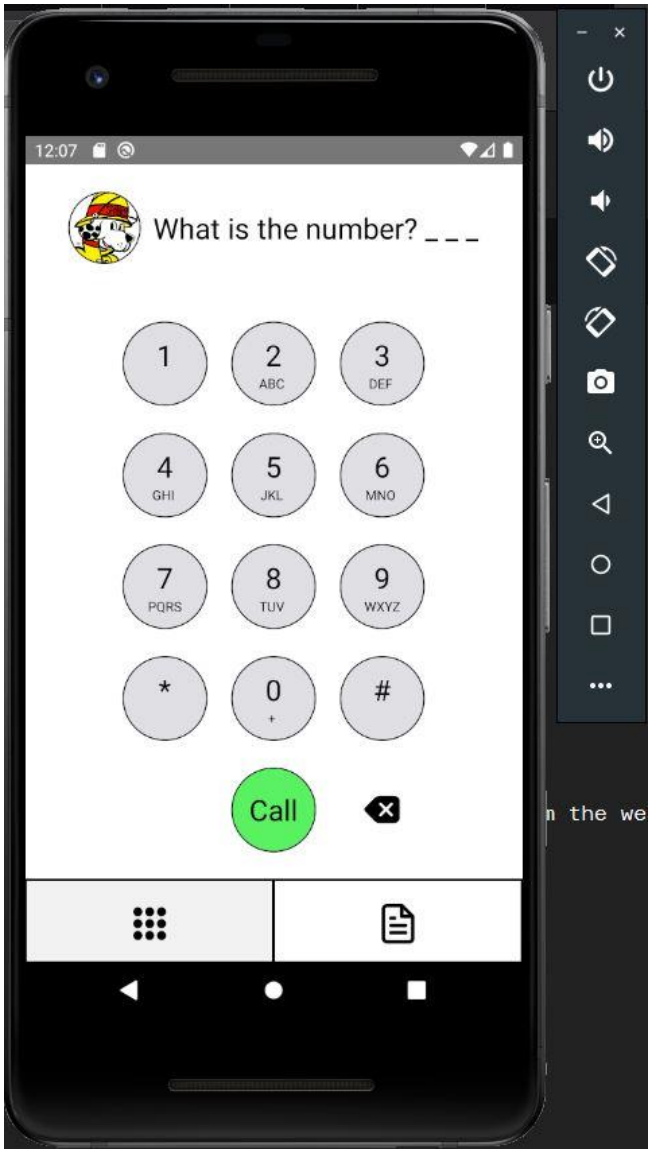
22. The device will launch, press the **power** button on the side to start the device.



23. With the emulator up and running, go to the web page that was started in section 3. Select ***Run on Android device/emulator*** make sure the Connection mode is on **Tunnel**. The ***Production Mode*** should be turned on

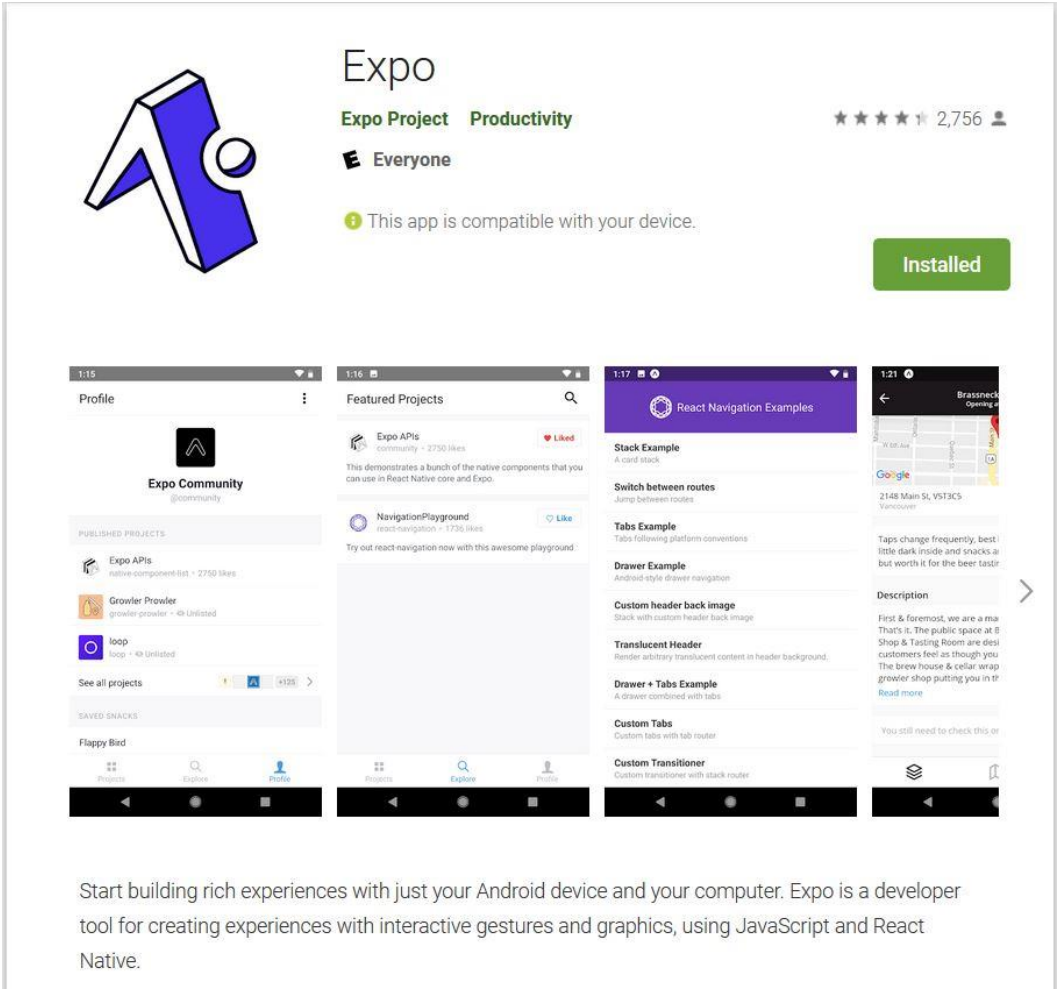
24. The web page will show some output as the project is setup and will display the app in the emulator. This may take some time.

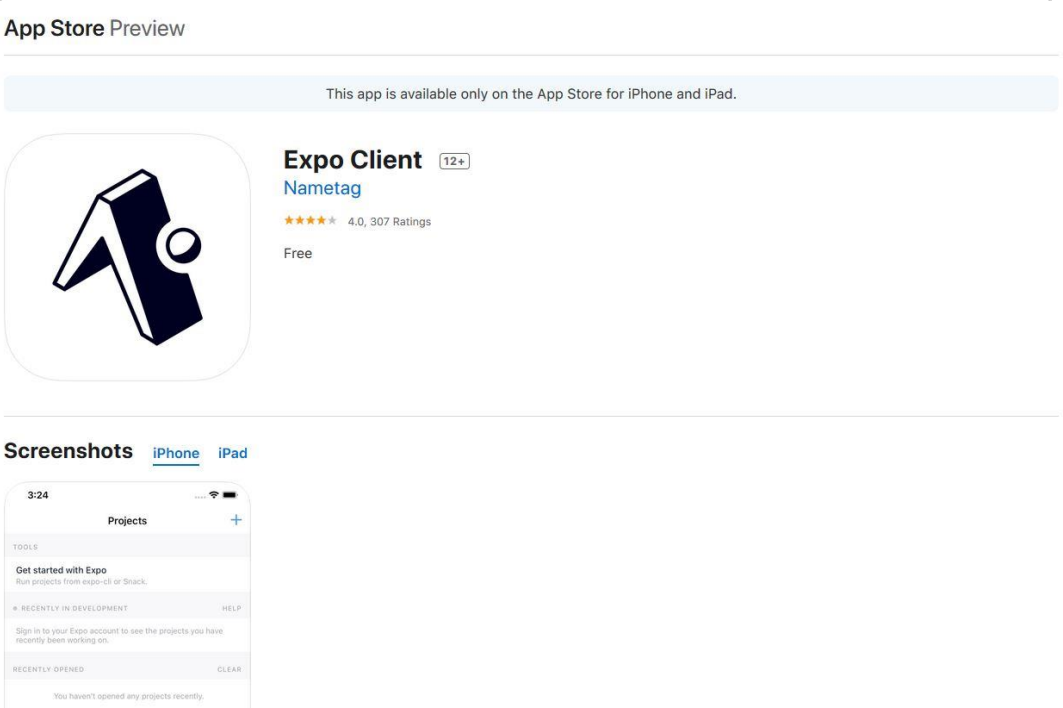



12:07
What is the number? _ _ _
1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
7 PQRS
8 TUV
9 WXYZ
*
0 +
#
Call

4 Running on your Phone:

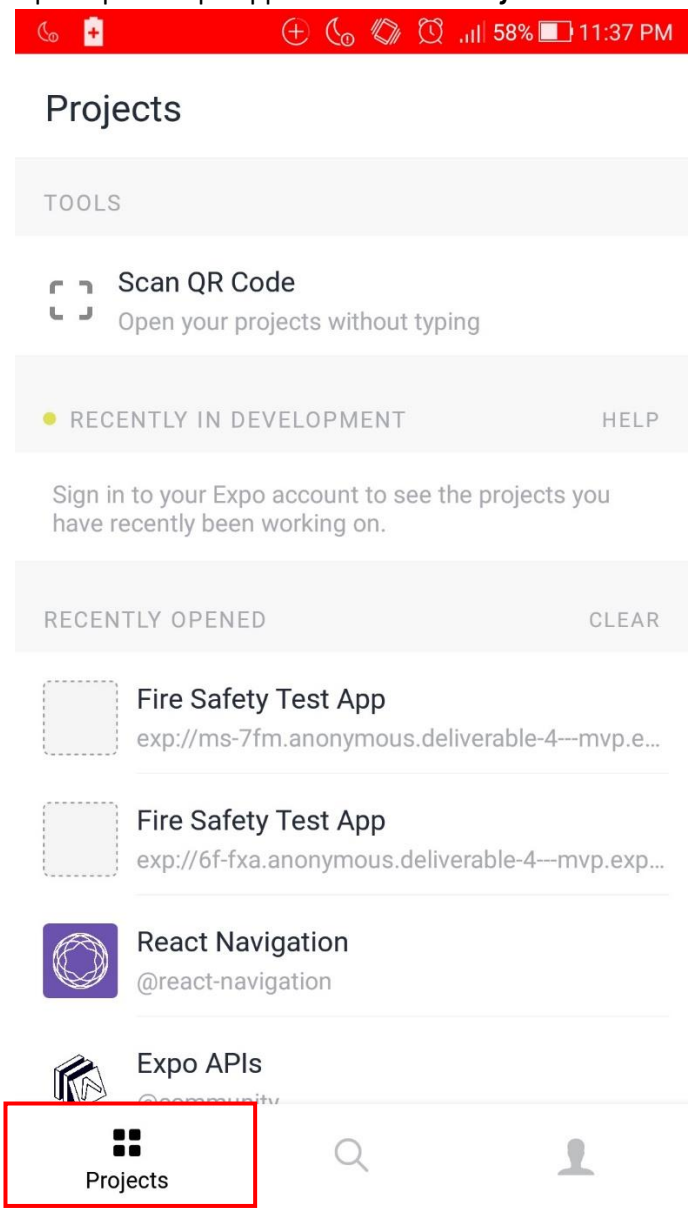
1. To run the app, you can install an app and scan the QR code. The app is called **Expo**. Download the app for your Android or Apple Device:
   https://play.google.com/store/apps/details?id=host.exp.exponent&hl=en_US
   https://apps.apple.com/us/app/expo-client/id982107779



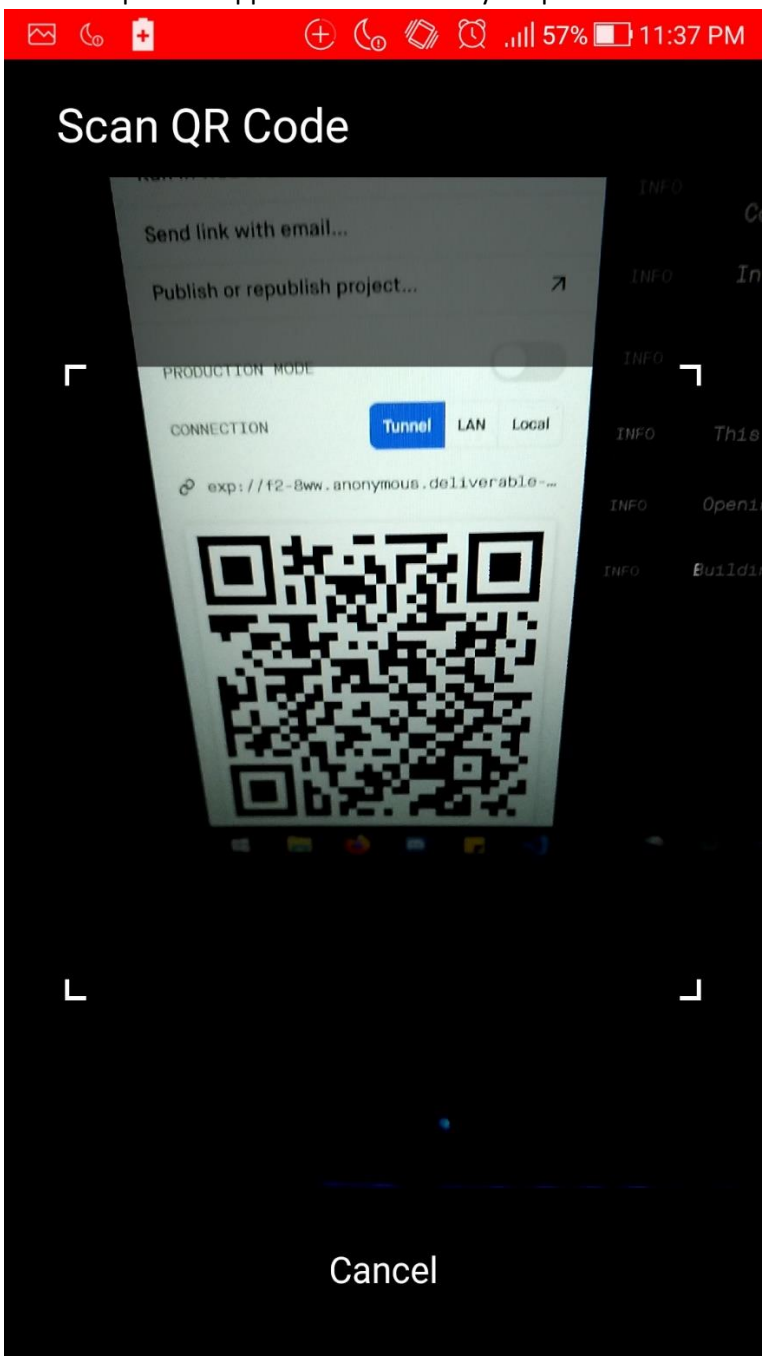


2. With the app installed, go to the web page that was opened in Section 3. Make sure the connection is set to ***Tunnel***.

3. **For Android:**
    a. Open up the Expo app and select the ***Projects*** tab.



b. In the *Project* tab, select ***Scan QR Code*** and scan the QR code provided to you from the web page. This will open the app and it will run on your phone.



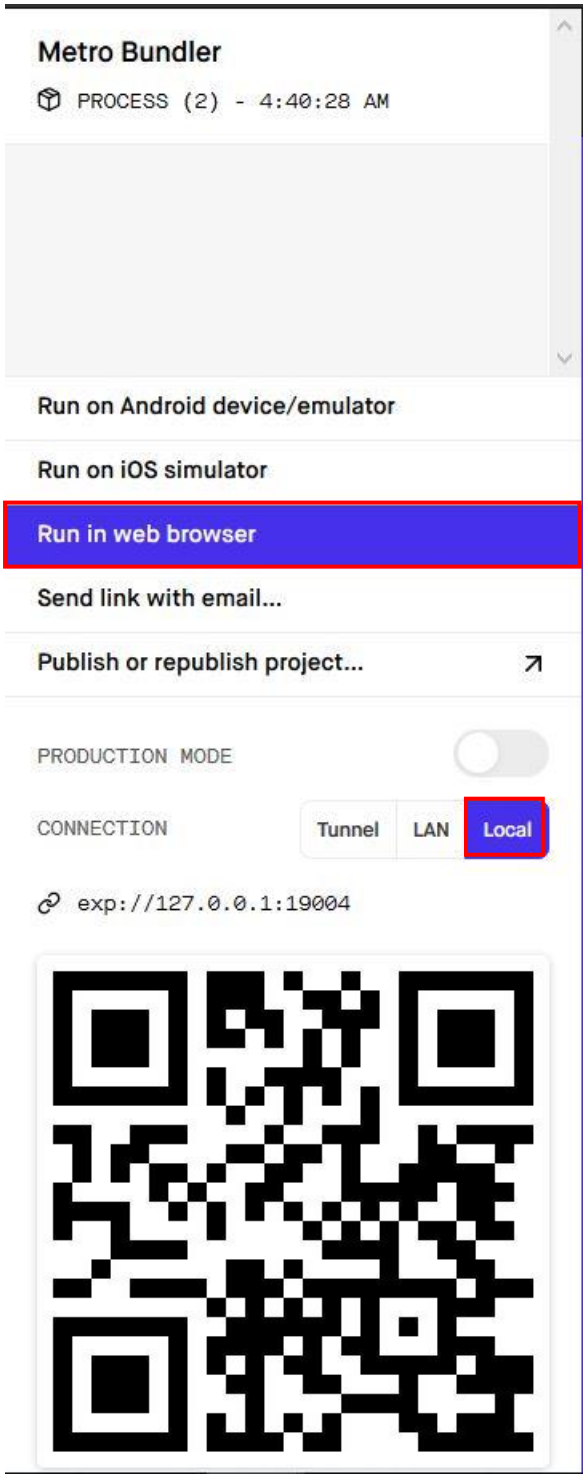
4. ***For iPhone***
    a. Open the **Camera** Application on your iPhone and scan the QR code from the web page.

    b. Press on the ***Open in Expo*** prompt that will appear.

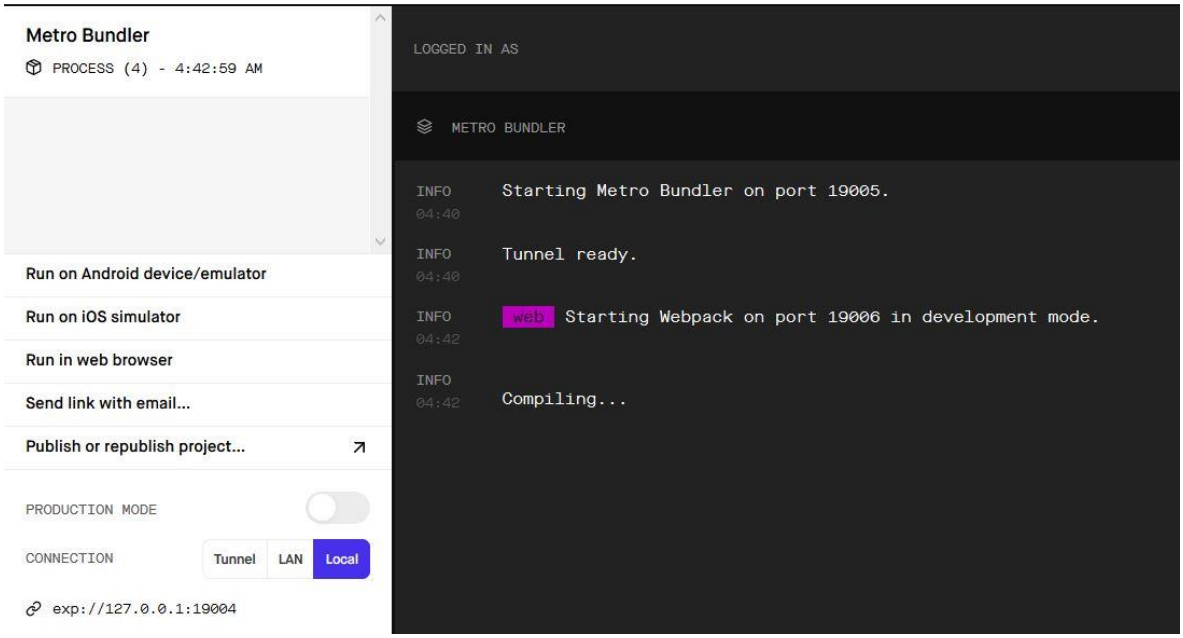
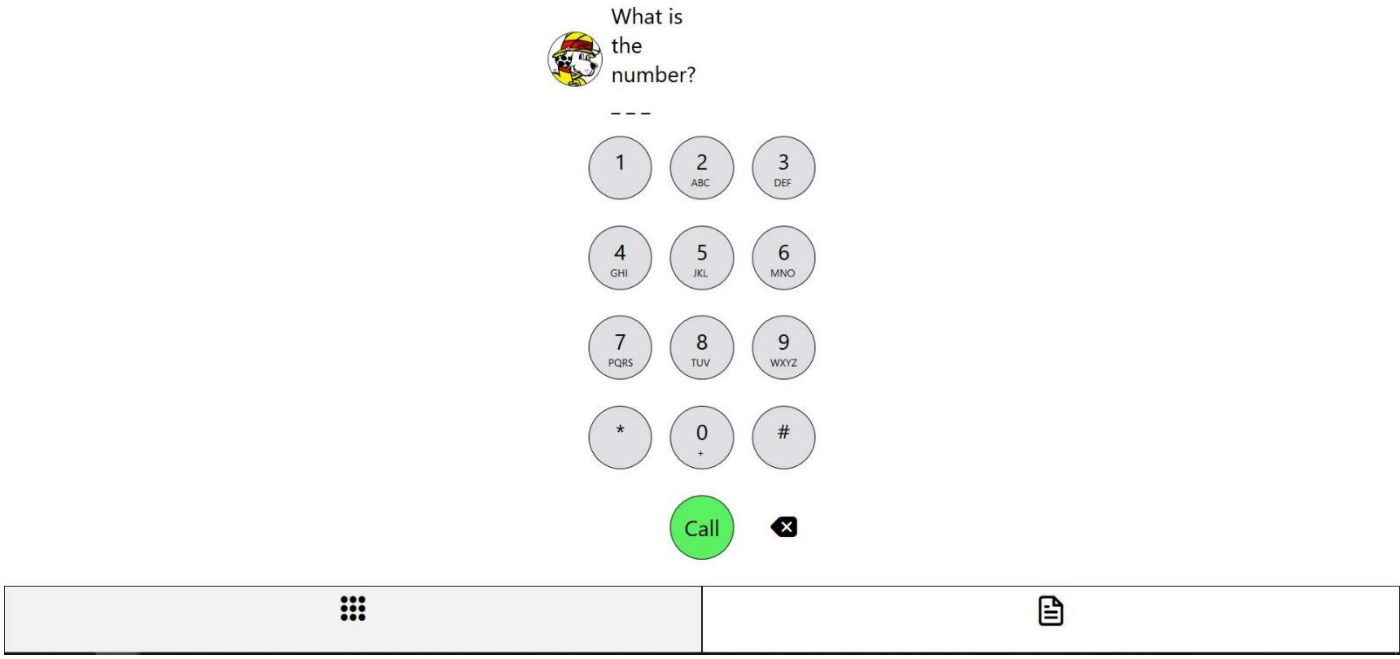
5. The App is now running live on your phone, there are sounds and you can navigate the app just like a real deployed app.

6 Running in Browser:

1. You will notice on the side bar, a menu of launch options. There may be an option called ***Run in web browser*** if this option is not available, skip to this section. This is a beta feature and may not show up. Select ***Local*** from the connection options shown and click ***Run in web browser***.



2. The application will show output similar to below:



3. The App will launch in a new Tab with output similar to the following. This output may be a stretched along the bottom but provides a quick example of the App.