



UNIVERSITY OF ALBERTA
FACULTY OF SCIENCE
Department of Computing Science

SOFTWARE DESIGN AND ARCHITECTURE

**Android Studio Setup Tutorial
Windows**

Android Studio Tutorial - Windows Users

This installation tutorial was completed on Windows 10, but the instructions should not differ for other versions of Windows as long as they are compatible with Android Studio.

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1. Download Android Studio (version 3.4 or newer):

<https://developer.android.com/studio/index.html>

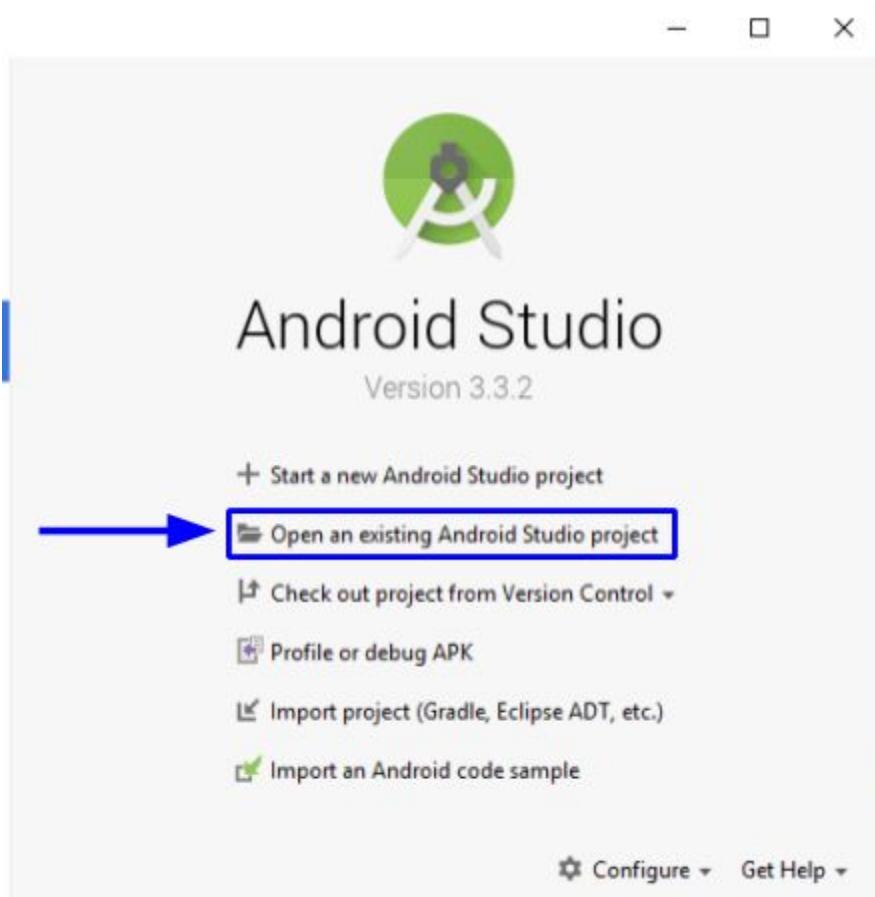
2. Install it.

- Leave the Android SDK and Android Virtual Device boxes checked -- they are necessary.
- It may take a while for the program to install.
- If asked to import settings from a previous version/setup, ignore and continue with the setup.

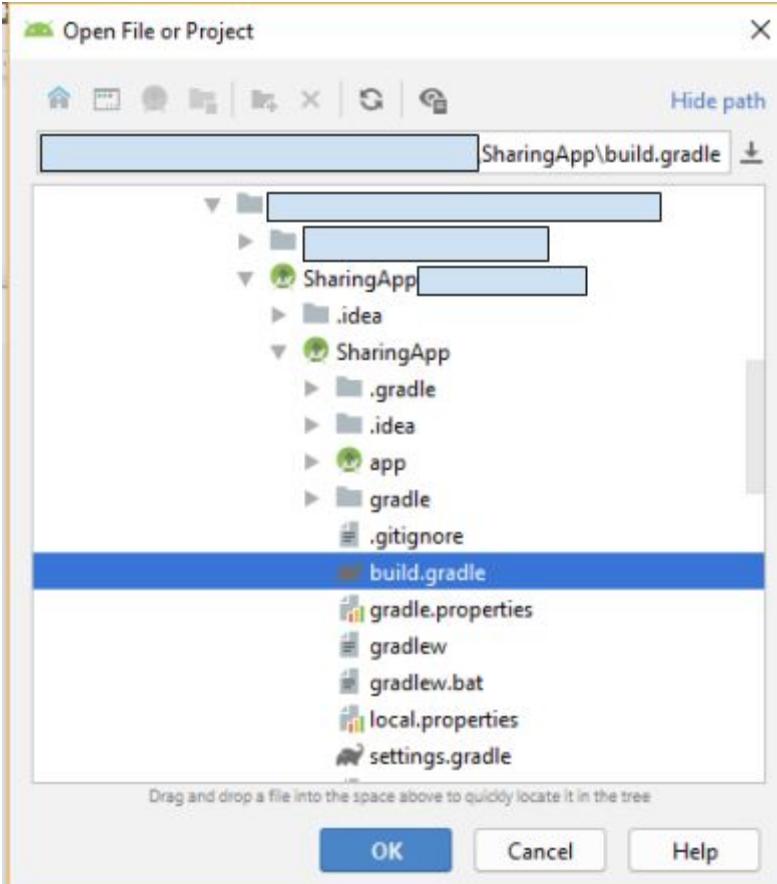
3. Open an existing Android Studio project.

- Open Android Studio and click “Open an existing Android Studio project”

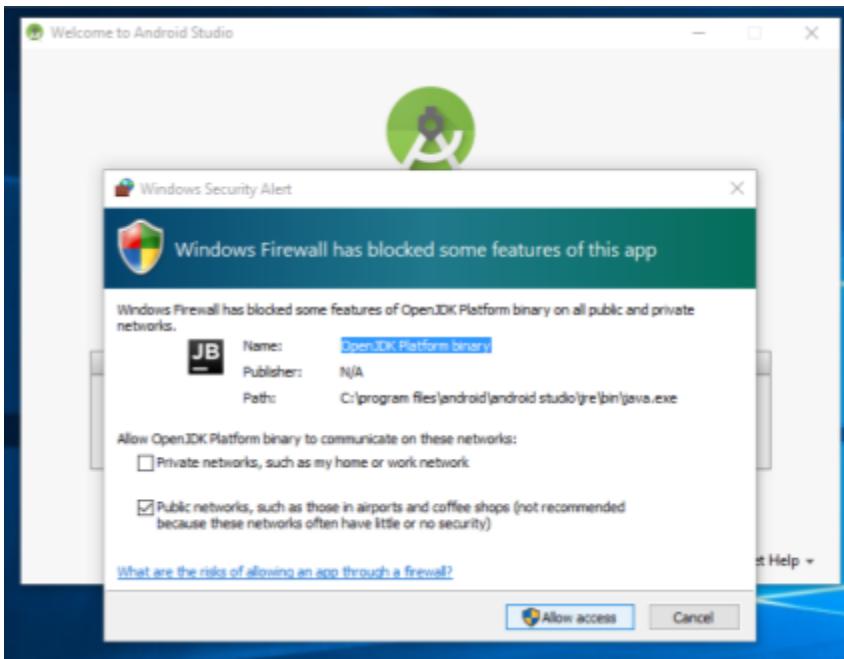




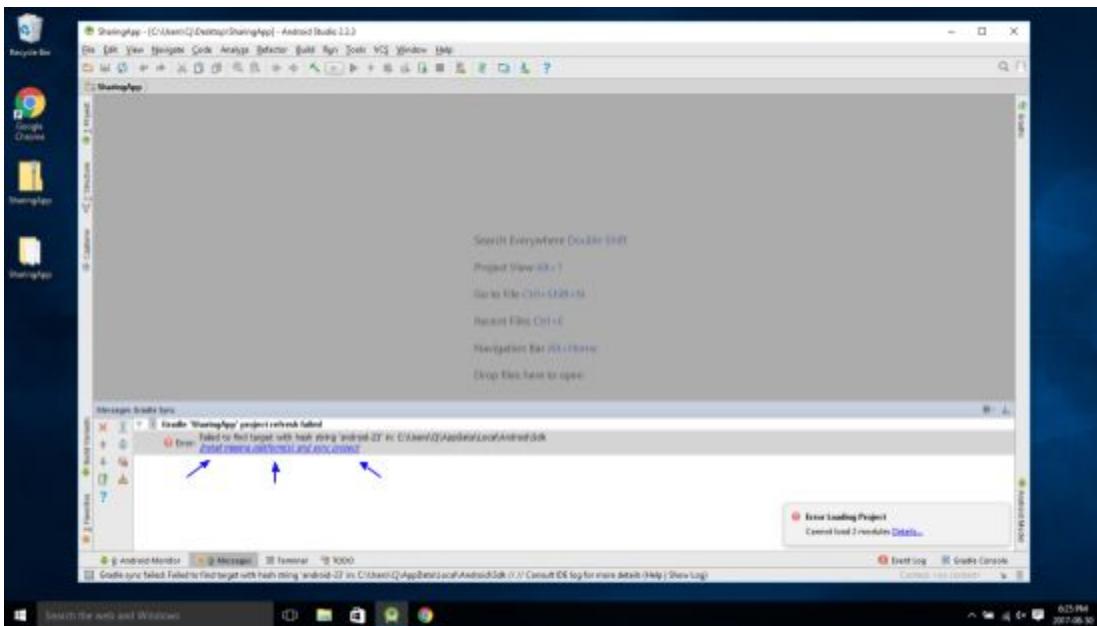
- Navigate to the gradle file and select it.



- Once you click **OK** it will start ‘Building “SharingApp” Gradle project info’, which may take a few minutes to complete.
- You may receive this message from Windows Firewall when it is done. For the purposes of this app, it is alright to select ‘Public networks’ and click ‘Allow Access’.



- You may need to download or update Java -- Android Studio will let you know when you try to build the project.



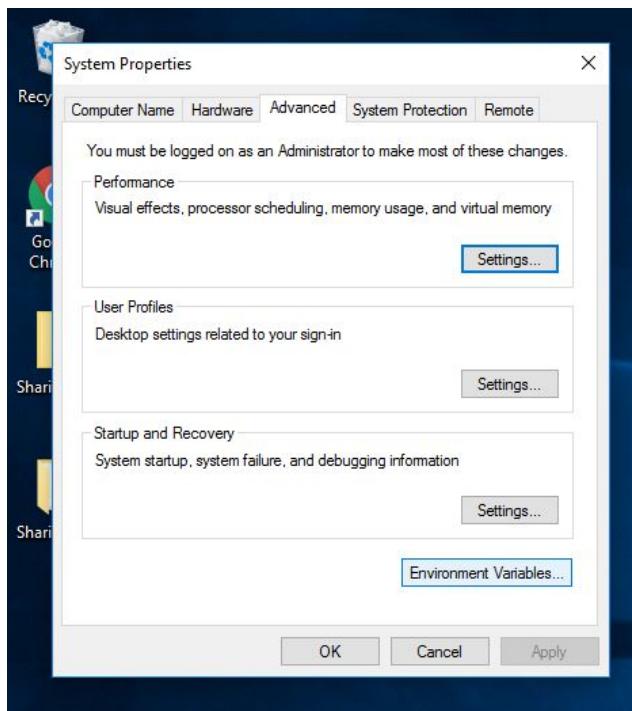
- Update everything it prompts you to update by clicking on the blue link.
- When it is done updating, it will still show the previous prompt and clicking on it will do nothing. Restart Android Studio to fix this and no prompts should pop up.
- At some point, if you’ve downloaded/updated to the correct version of Java, you must complete the extra step below or you will continue getting errors.



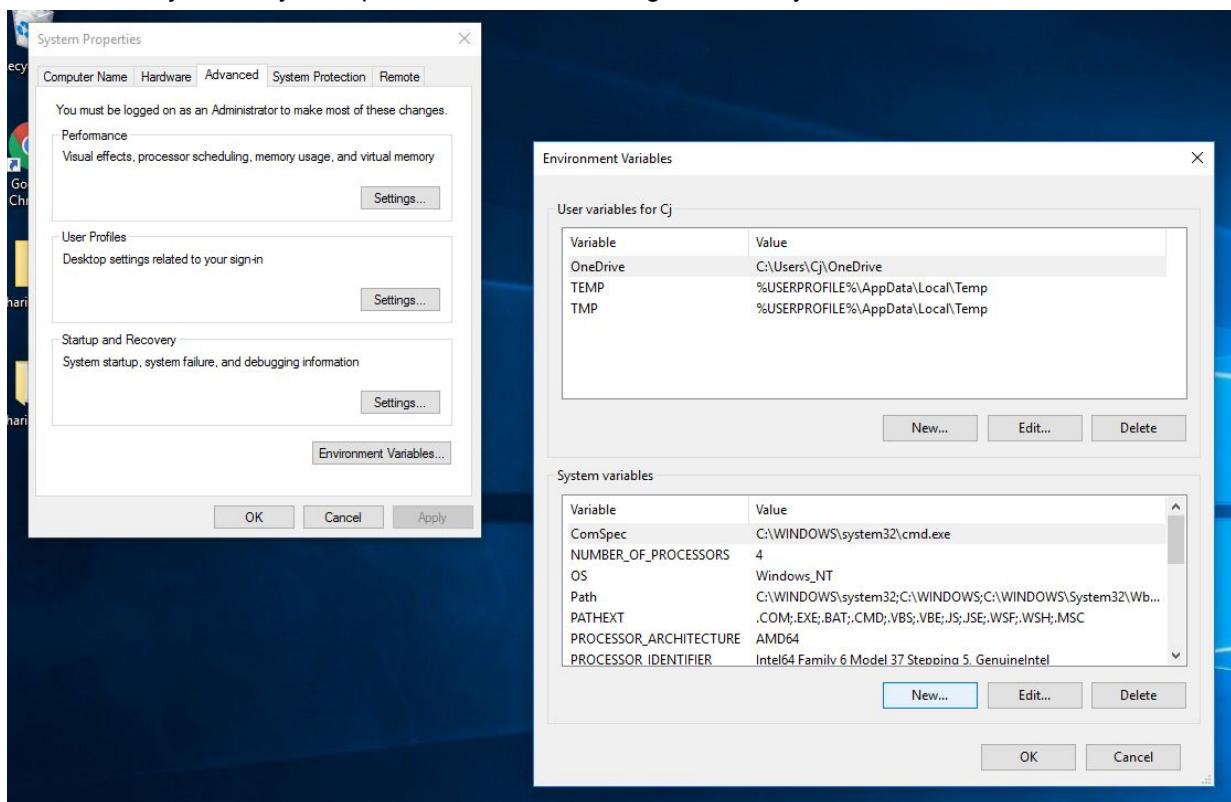
4. EXTRA STEP:

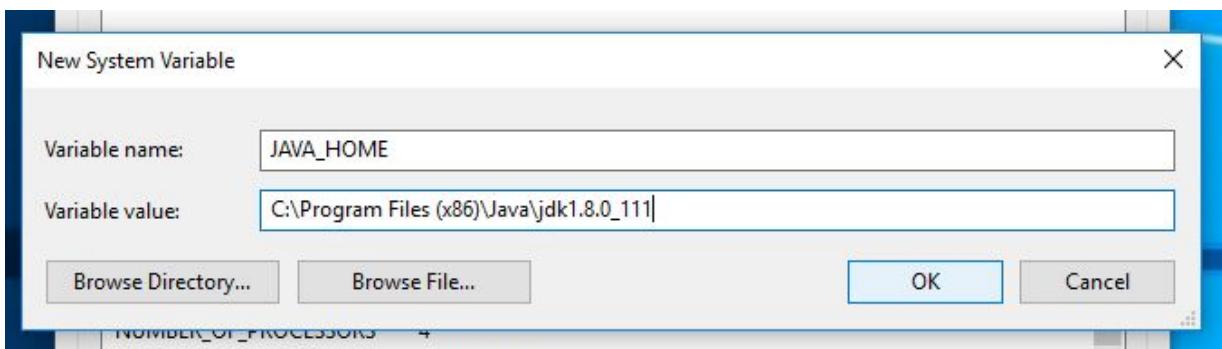
This step is for Windows users only. Android Studio will **not** run the project if you do not complete this step.

- Go to System Properties > Advanced > Environment Variables. You can find System Properties under the advanced system settings in the Control Panel.



- Create a New System Variable called JAVA_HOME. Android Studio will use JAVA_HOME to find the version of java that you require and is saved in Program Files by default.



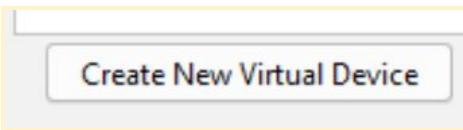


- After accepting the new System Variable, you can close these windows. No other variables need to be made, nor do you have to delete any others.

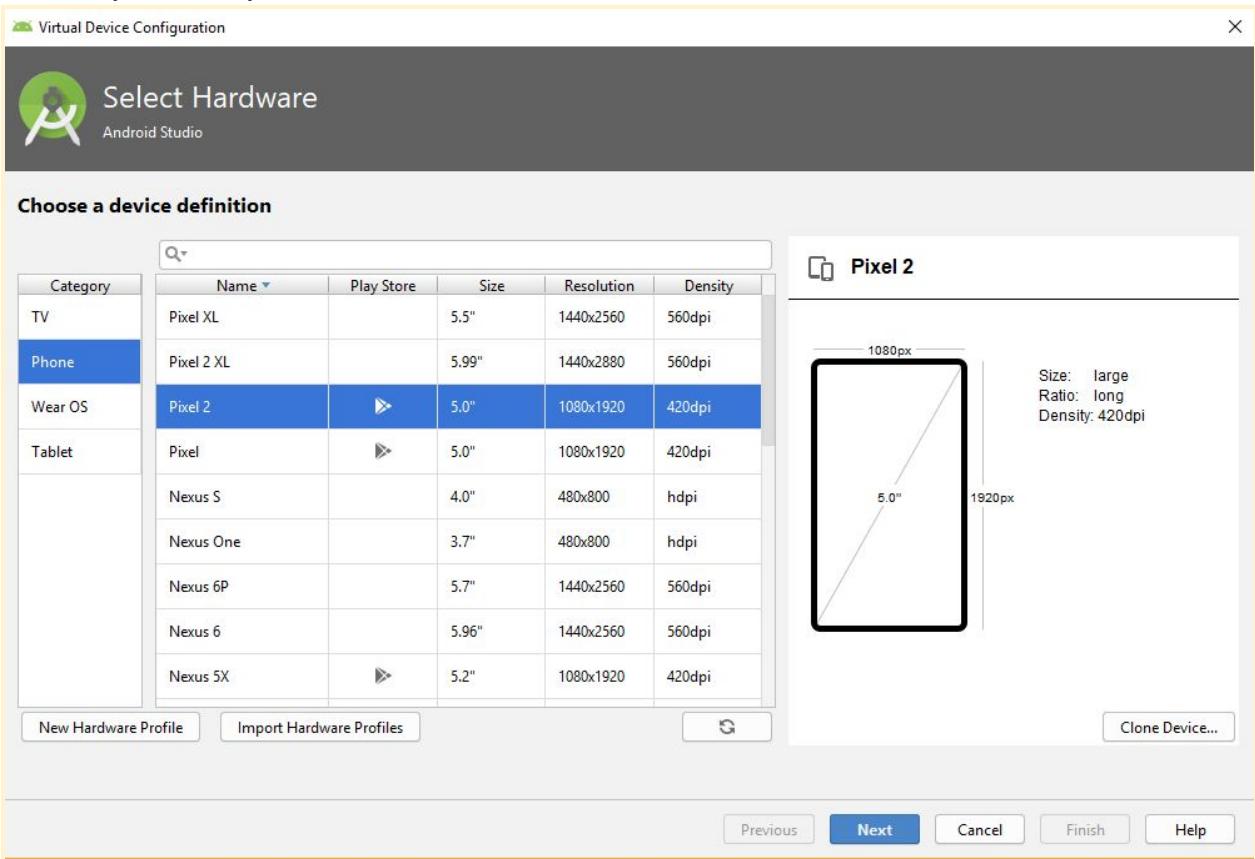
5. Create an Android Virtual Device (AVD)

Next you will need to **create an Android Virtual Device (AVD)** i.e., an android emulator.

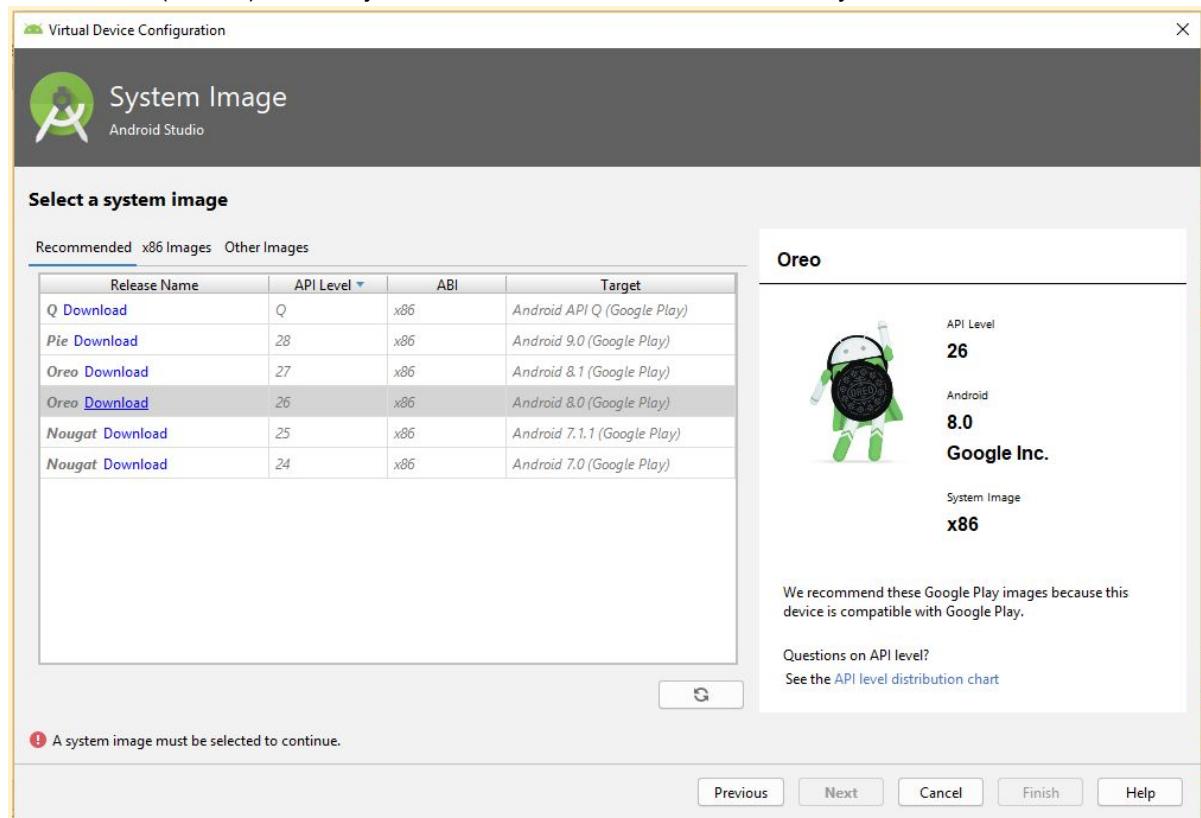
- Open the AVD Manager: Tools → Android → **AVD Manager**
- Click **Create Virtual Device**



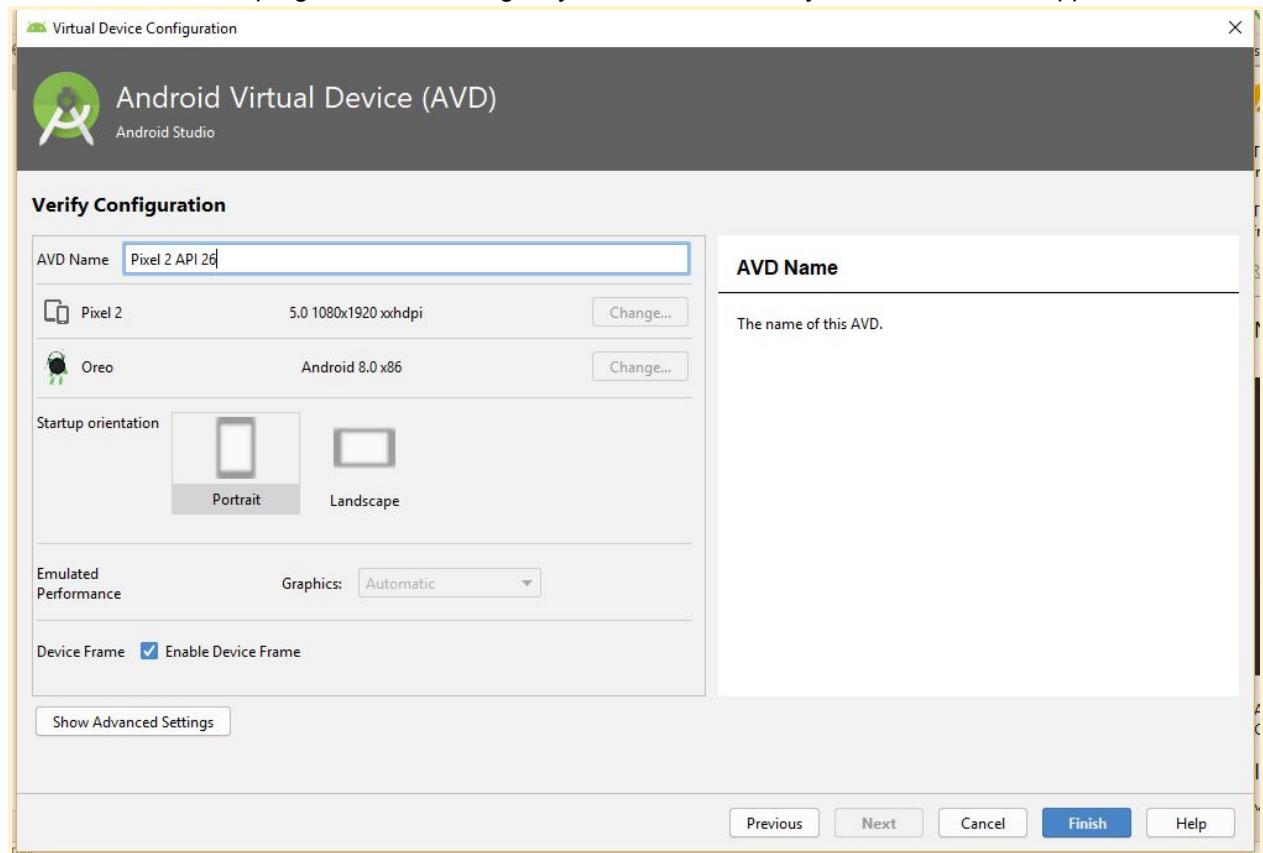
- Select any device of your choice; here we use **Pixel 2**. Click **Next**



- Select **Oreo** (API 26). You may have to download this first and this may take a while.



- After accept the agreement, it will prompt you to give it a name to identify it. The name will have no effect on how the program runs, as long as you know which one you need to run the app.

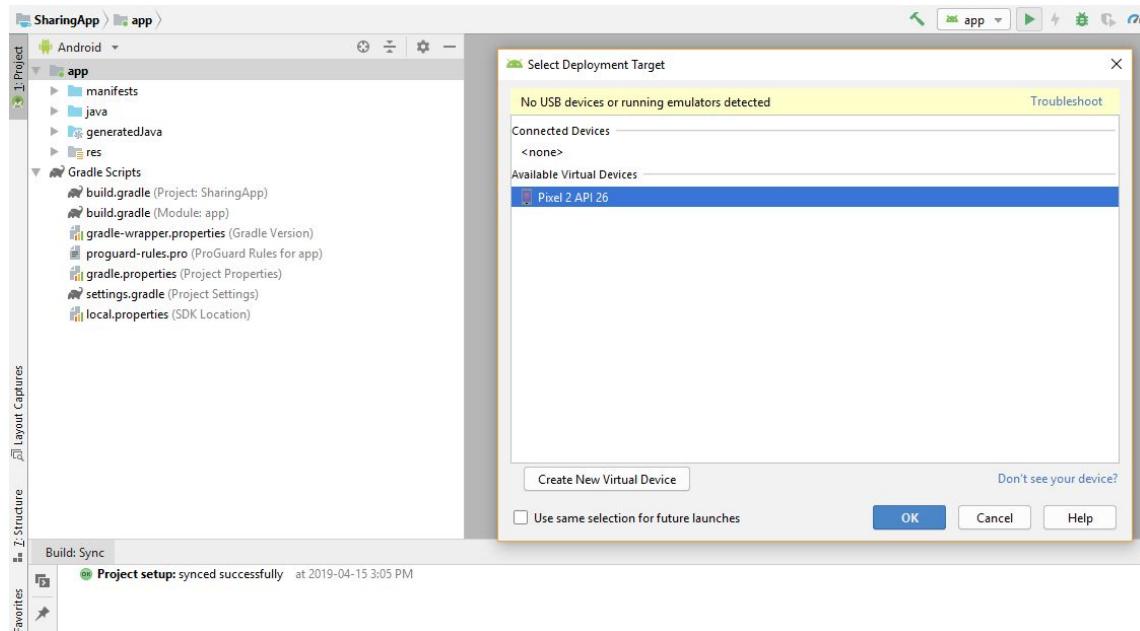


- Click **Finish** when this is complete.

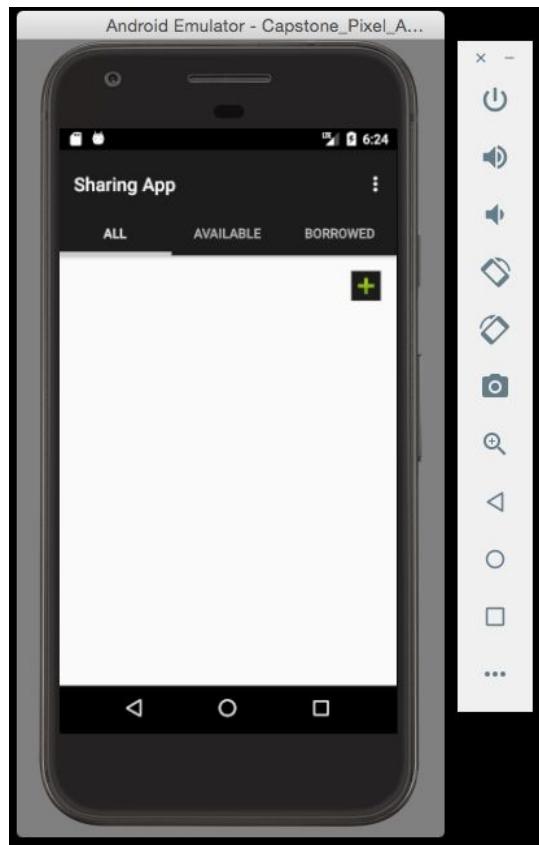


6. Run the App

- Click the **run** button.
- Select your virtual device and press **OK**. Sometimes the emulator takes a while to load, install and run your app. Be patient!



- Eventually your emulator will finish loading and the app will start:

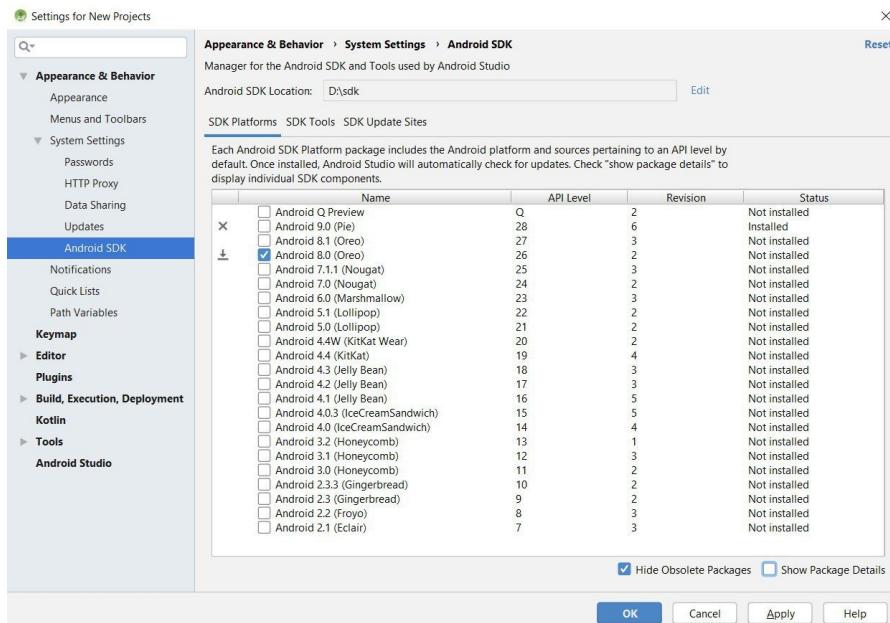


Congrats, you can now start programming in Android Studio! Play around with the app to see how it works!

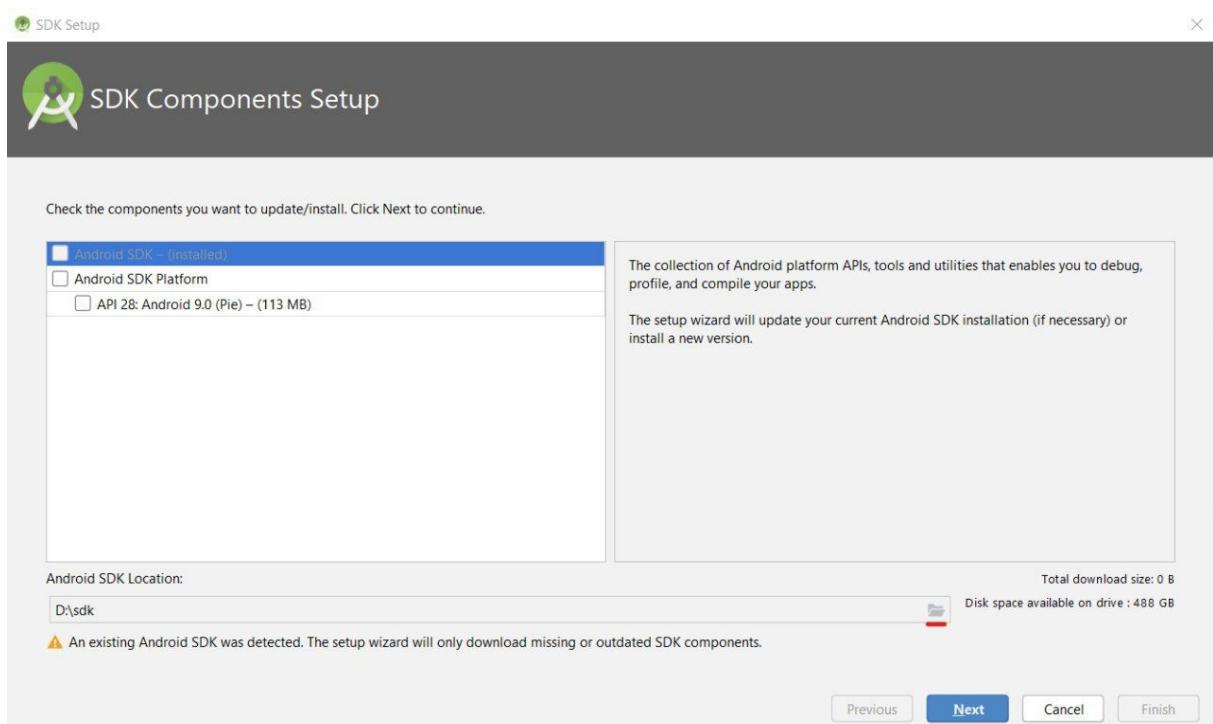
Extra: Common Problems:

1. The SDA package(s) is missing

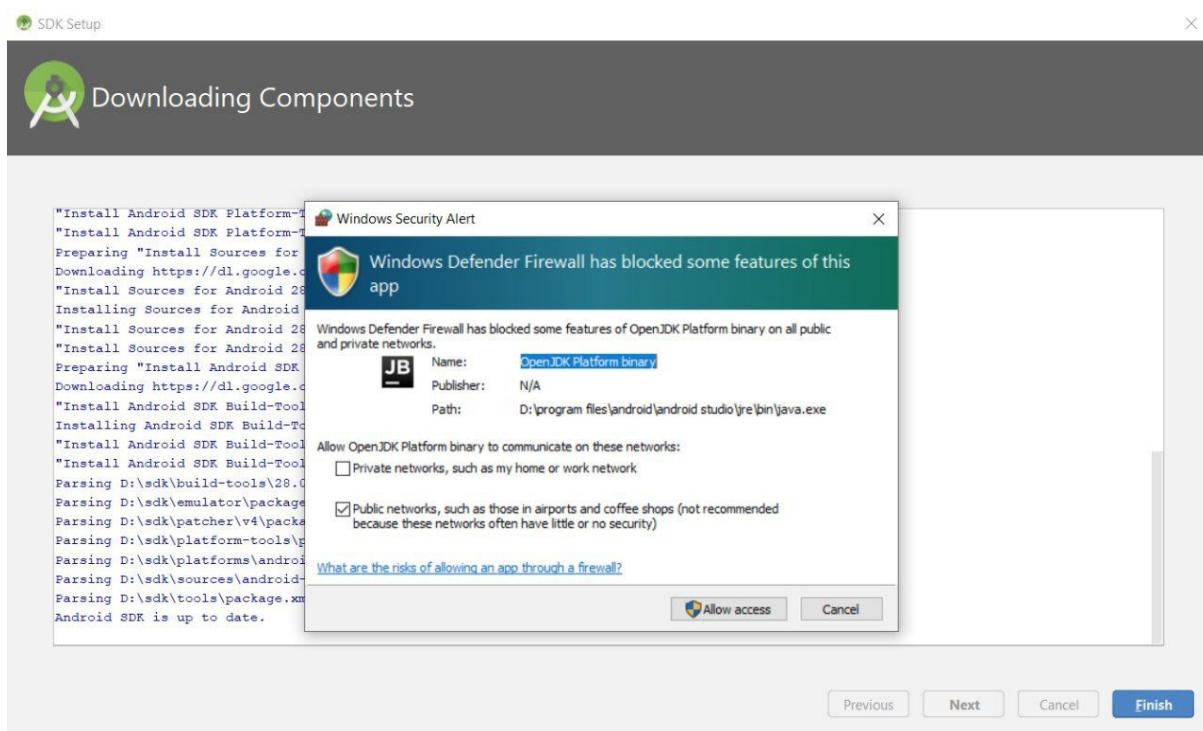
If the SDK package(s) is missing, go into **Tools > SDK Manager**. Once you open the SDA Manager, this window should pop-up. If you want to specify a path for Android SDK Location, you can click “Edit” and change it.



If you click “Edit”, this window should pop-up:



Click on the folder icon to specify a path for it. You may receive this message from Windows Firewall when it is done. For the purposes of this app, it is alright to select ‘Public networks’ and click ‘Allow Access’.

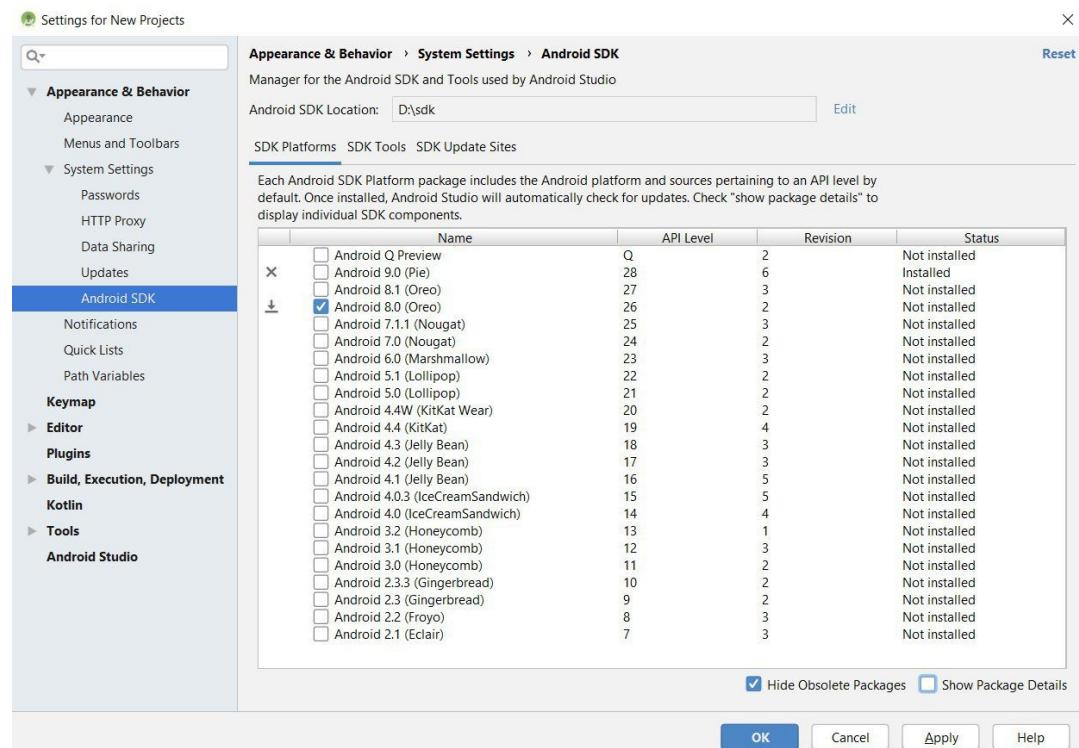


Once it's done the appropriate SDK package(s) should be installed.

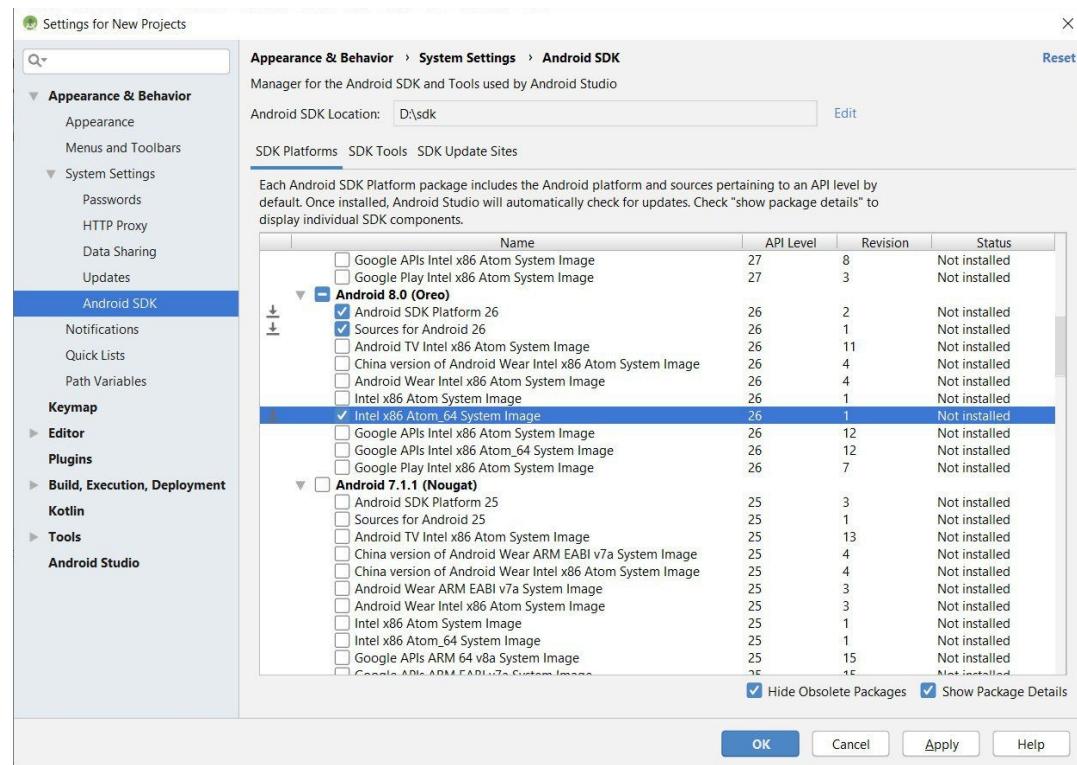
2. The Emulator Won't Show Up

If you are running into a problem that your emulator won't show up, try to complete the following steps:

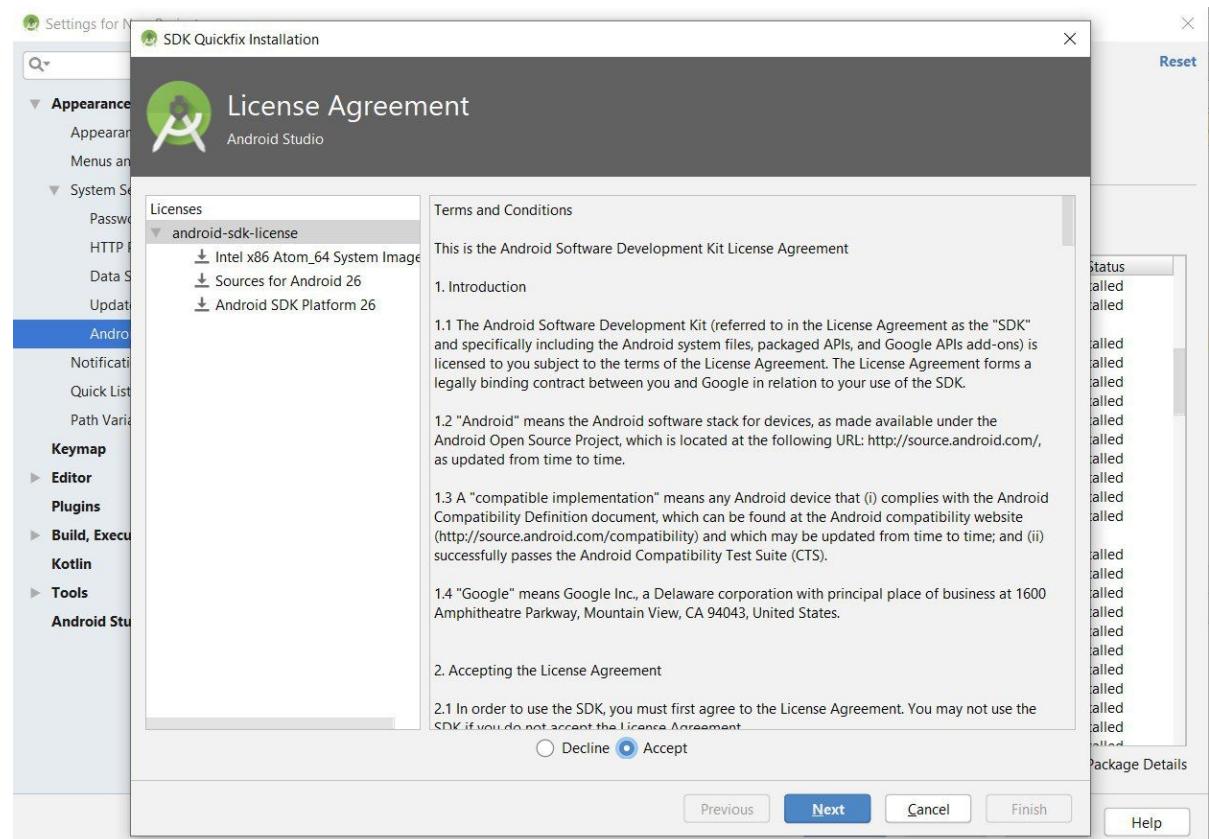
- Click **Tool -> SDK Manager**, then click on “Show Package Details”:



- Depending on the version of your Windows Processor, (eg. 32-bit vs 64-bit), click on either **Intel x86 Atom System Image** for 32-bit or **Intel x86 Atom_64 System Image** for 64-bit. In our case, we have the 64-bit so we are going with the **Atom_64** one. Click **Apply**.



After clicking **Apply**, this window will pop-up:



Accept the terms and select **Finish**. Re-run your app and your emulator should work!