



**UNIVERSITY OF ALBERTA**  
**FACULTY OF SCIENCE**  
Department of Computing Science

# **SOFTWARE DESIGN AND ARCHITECTURE**

**Android Studio 4 & Android 10  
Setup Tutorial - Mac**

## Android Studio Tutorial - Mac Users

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### 1. Download Android Studio (version 4.1.0 or newer):

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



Android Studio provides the fastest tools for building apps on every type of Android device.

[DOWNLOAD ANDROID STUDIO](#)

4.1 for Mac (878 MB)

[DOWNLOAD OPTIONS](#)

[RELEASE NOTES](#)

### 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.



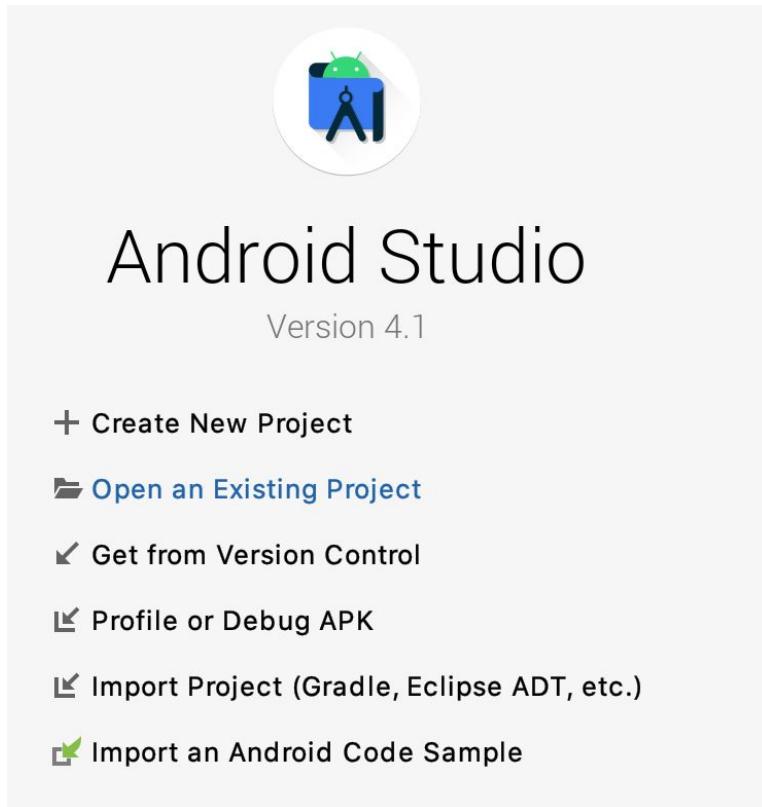
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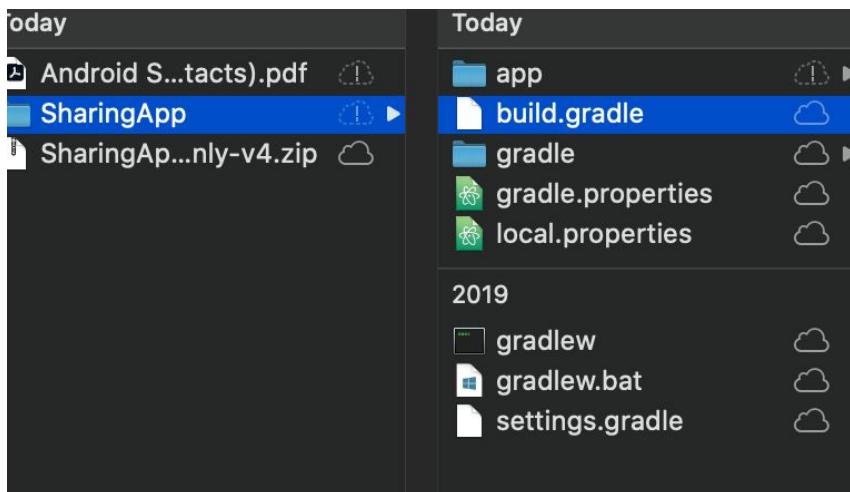
- If asked to import settings from a previous version/setup, ignore and continue with the setup
- 

### 3. Open an existing Android Studio project.

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



- Download the provided codebase. Navigate and select **build.gradle**



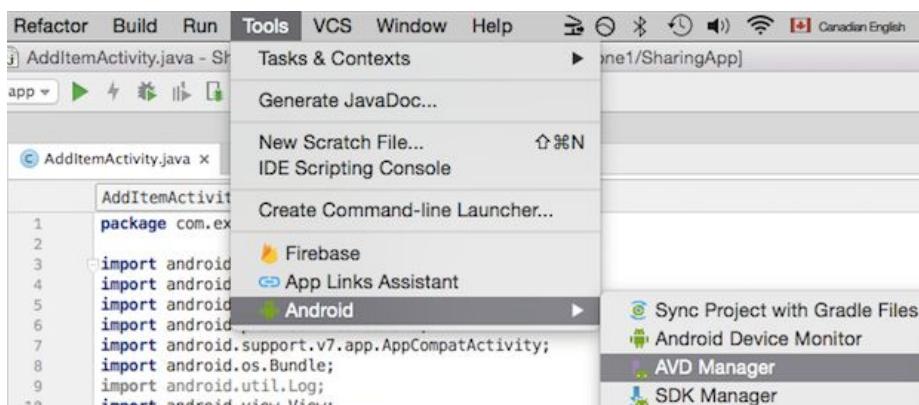
- Once you click **OK** it will start building the project, which may take a few minutes to complete.
- You may need to download or update Java -- Android Studio will let you know when you try to build the project.

- Update everything it prompts you to update.

## 4. Create an Android Virtual Device (AVD)

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

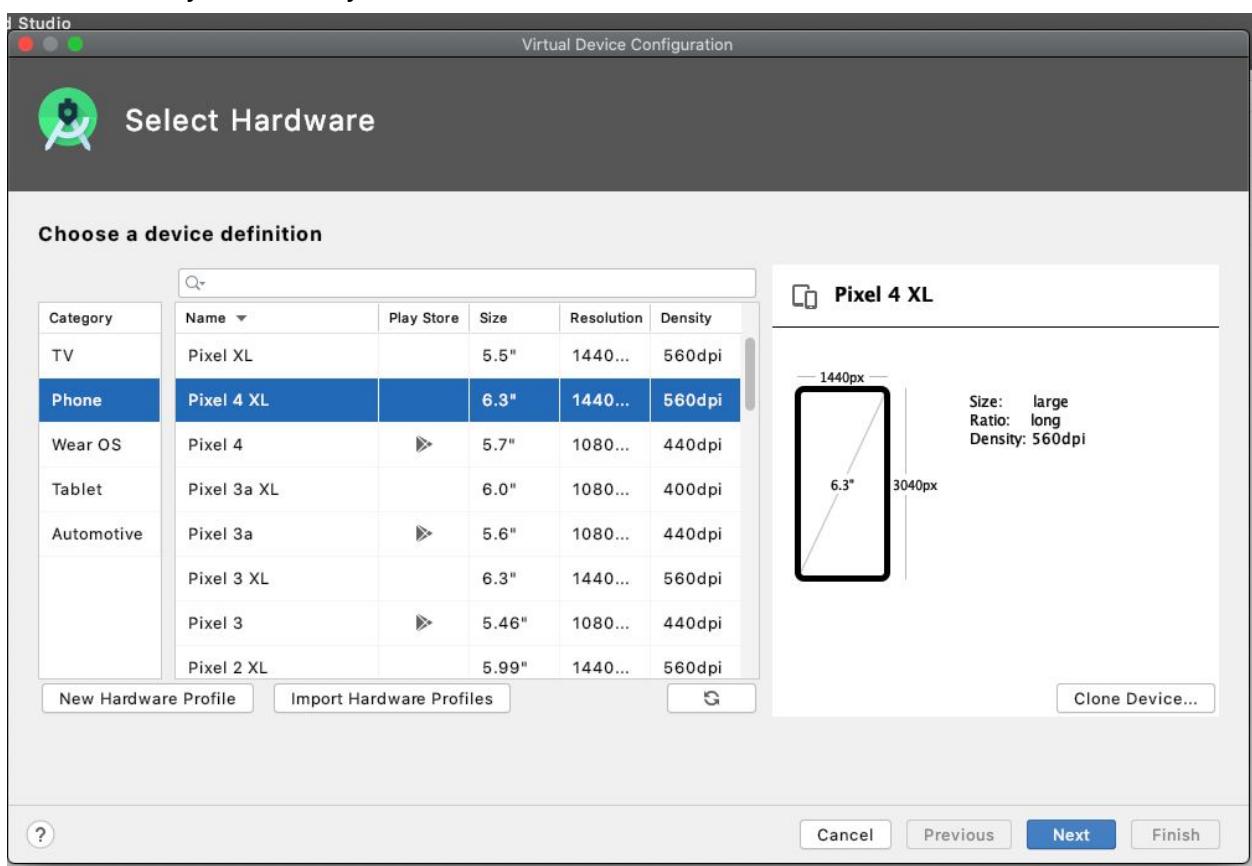
- Open the AVD Manager: **Tools → Android → AVD Manager**



- Click **Create Virtual Device**



- Select the any device of your choice - here we use **Pixel 4 XL**; click **Next**



- Select **Q - API level 29** (Aka Android 10). You may have to download this first and this may take a while.



Release Name	API Level ▾	ABI	Target
R	R	x86	Android 11.0 (Google APIs)
R	30	x86	Android 11.0 (Google APIs)
Q	29	x86	Android 10.0 (Google APIs)
<a href="#">Oreo Download</a>	27	x86	Android 8.1 (Google APIs)
Oreo	26	x86	Android 8.0 (Google APIs)
<a href="#">Nougat Download</a>	25	x86	Android 7.1.1 (Google APIs)
<a href="#">Nougat Download</a>	24	x86	Android 7.0 (Google APIs)
<a href="#">Marshmallow Download</a>	23	x86	Android 6.0 (Google APIs)
<a href="#">Lollipop Download</a>	22	x86	Android 5.1 (Google APIs)

- 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.

## 5. Run the App

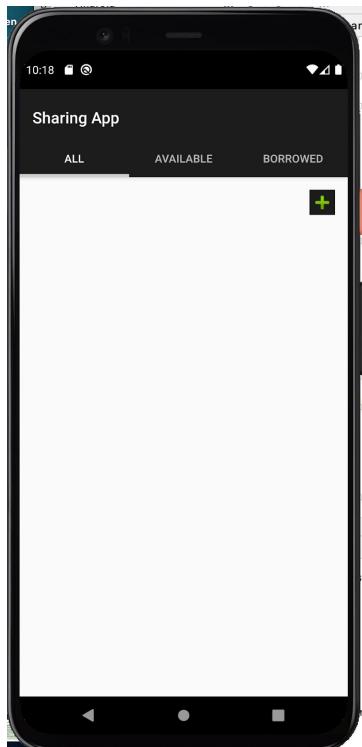
- Select a virtual device from the drop down menu



- Click the **play button** to run the app.



- The emulator takes a while to load, install and run your app. Be patient!
- Once your emulator 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!

