**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**

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

https://developer.android.com/studio
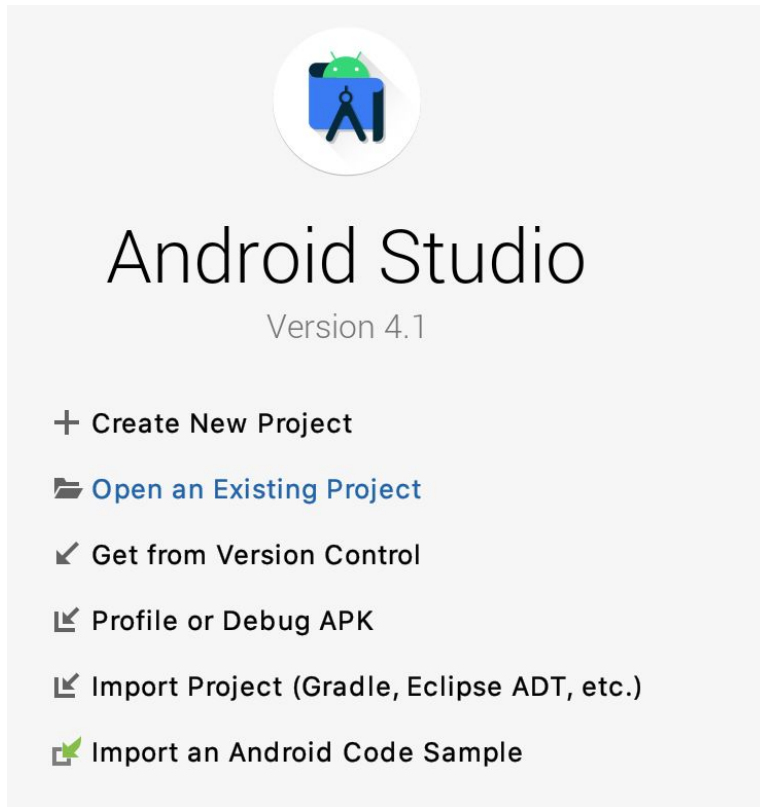


# 2. Install it

- Leave the Android SDK and Android Virtual Device boxes checked -- they are necessary.
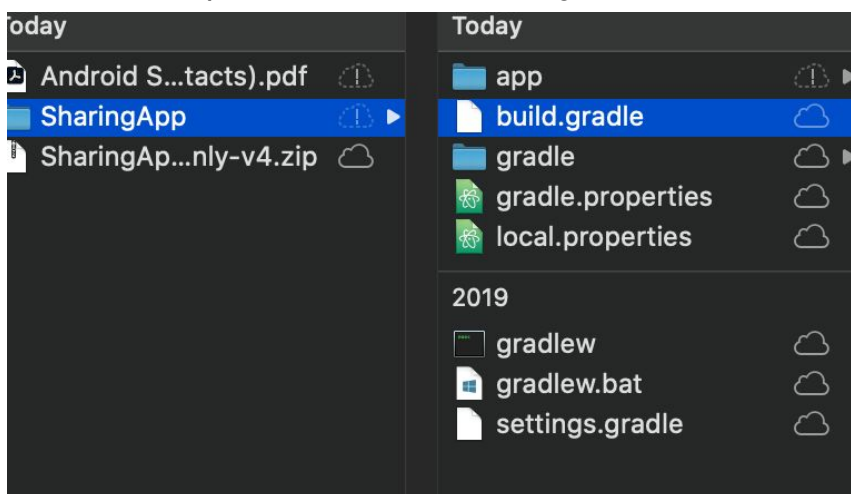- It may take a while for the program to install.

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

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<div style="background-color:#76b852;padding:6px;">

## 3. Open an existing Android Studio project.

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- Open Android Studio and click **"Open an existing Android Studio project"**



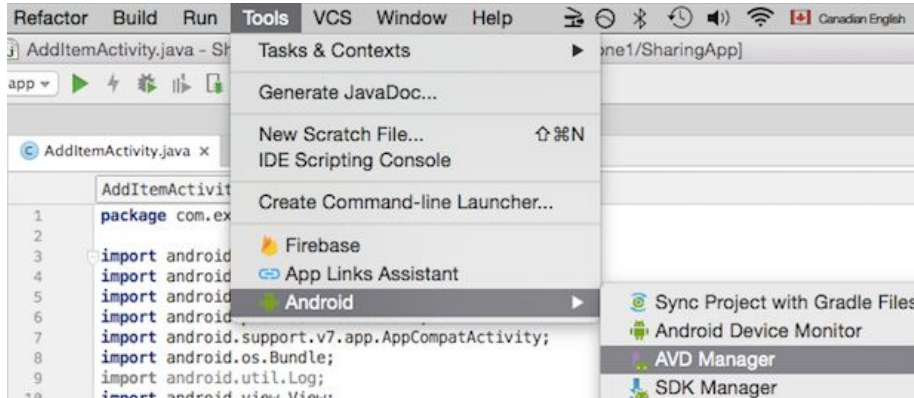- Download the provided codebase. Navigate and select **build.gradle**



- 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.
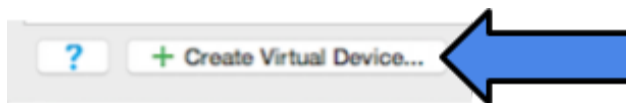
- Update everything it prompts you to update.

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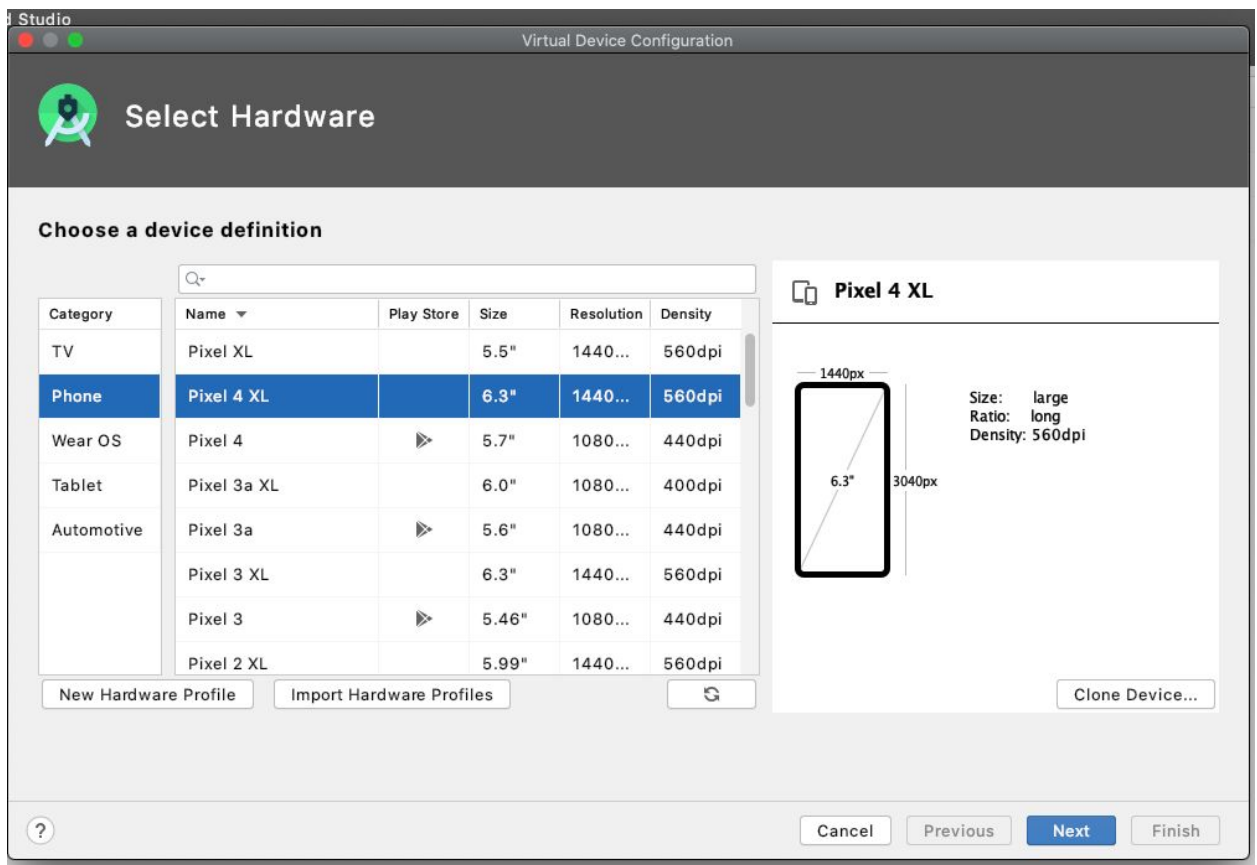Next you will need to **create an Android Virtual Device (AVD)** i.e., an android emulator.
- Open the AVD Manager: **Tools → Android → AVD Manager**



- 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.

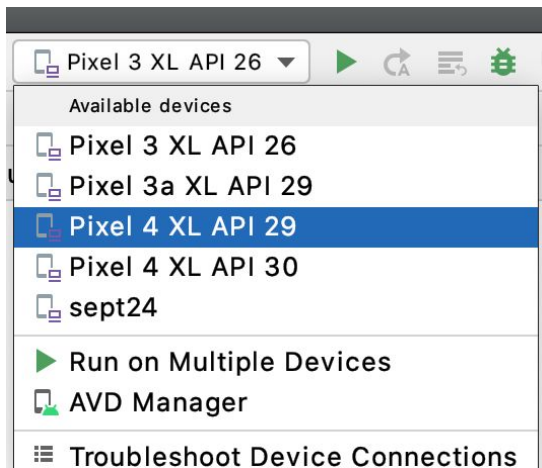| Release Name | API Level ▼ | ABI | Target |
|---|---|---|---|
| **R** | R | x86 | Android 11.0 (Google APIs) |
| **R** | 30 | x86 | Android 11.0 (Google APIs) |
| **Q** | **29** | **x86** | **Android 10.0 (Google APIs)** |
| *Oreo* Download | *27* | *x86* | *Android 8.1 (Google APIs)* |
| **Oreo** | 26 | x86 | Android 8.0 (Google APIs) |
| *Nougat* Download | *25* | *x86* | *Android 7.1.1 (Google APIs)* |
| *Nougat* Download | *24* | *x86* | *Android 7.0 (Google APIs)* |
| *Marshmallow* Download | *23* | *x86* | *Android 6.0 (Google APIs)* |
| *Lollipop* Download | *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.
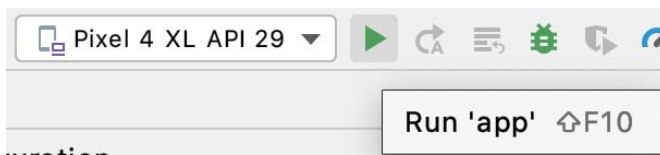


- Click **Finish** when this is complete.

# 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!