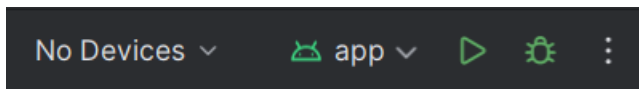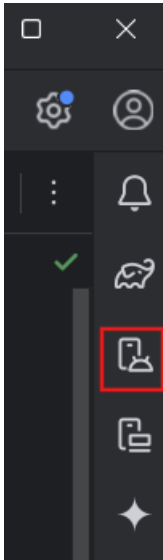1. Let's run our app on a device
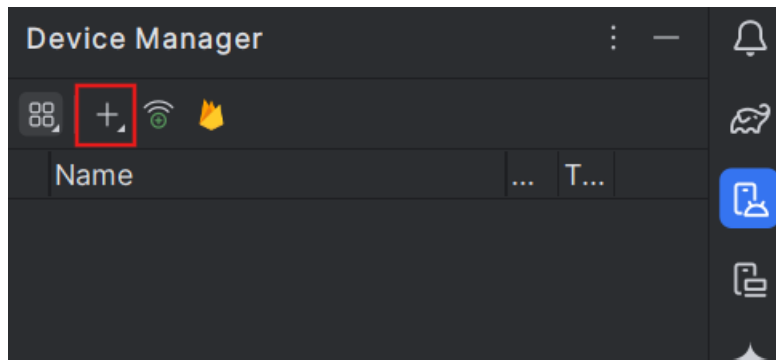   a. You will see here if you have a device selected or not

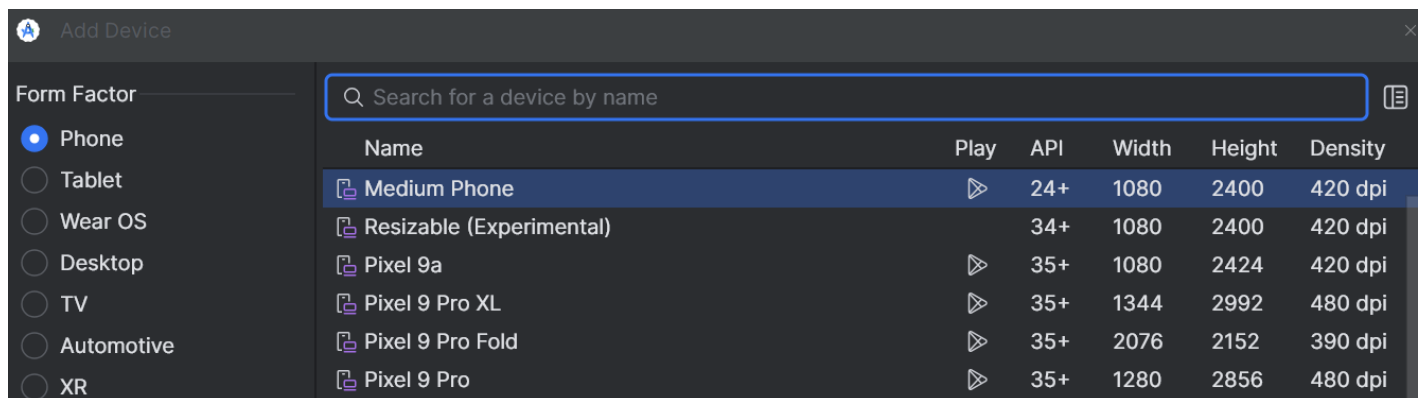   b. Open the Device Manager to set up a new device

2. You need to decide if you will use a physical device or the virtual device and emulator

   a. If you have a physical android device, consider using it instead of a virtual device
      i. This page covers USB, Wi-fi pairing, and device mirroring options:
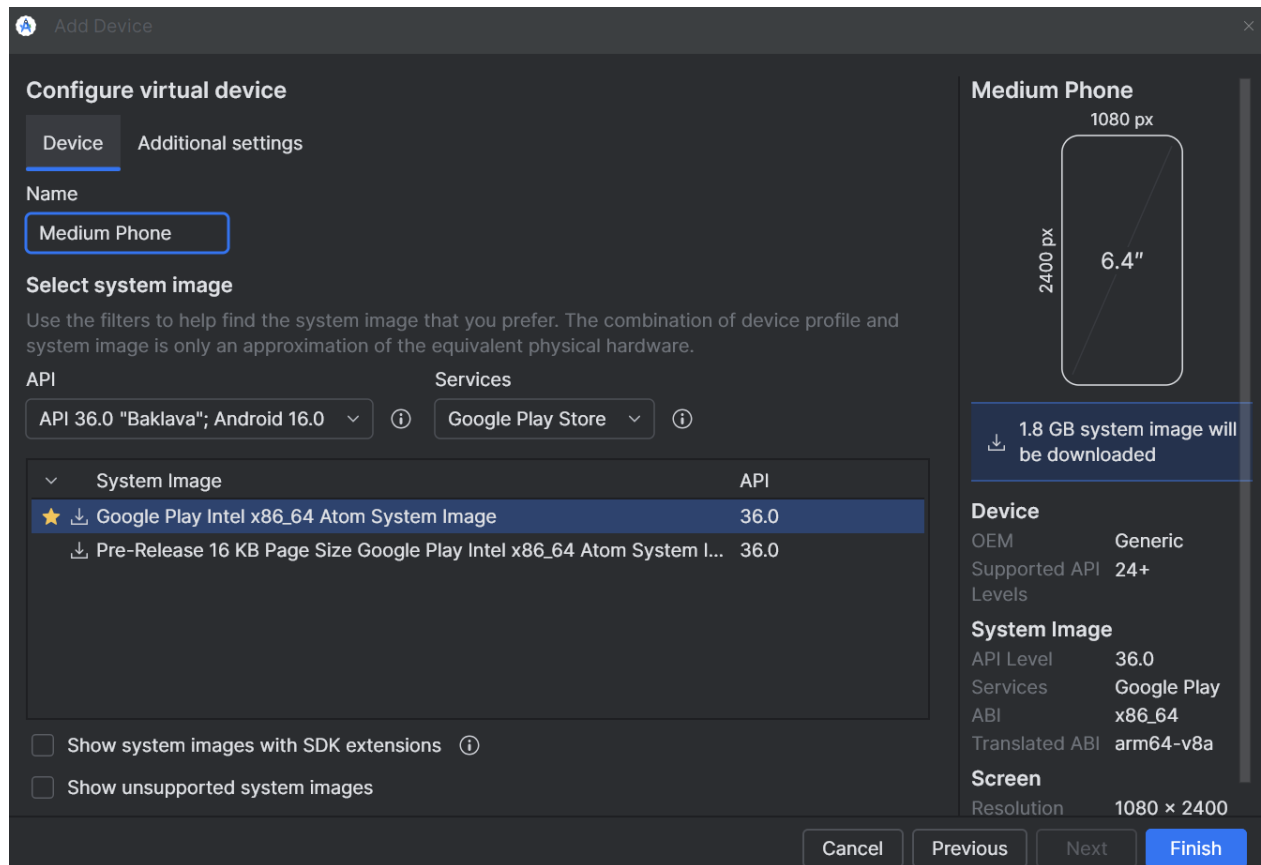   https://developer.android.com/studio/run/device
      ii. Skip to step 5

b. If you don't have a physical android device or rather use a virtual device, select the **+** icon → create virtual device
    i. ** The android emulator can take up a lot of CPU and RAM so having a good laptop is important. Not having a good laptop while using the emulator can be **detrimental** to your success in this course.
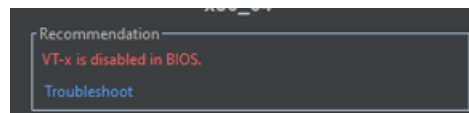

3. Next, we create a new virtual device. You can choose whatever one you want, but I am going to suggest the Medium Phone option, as this is what I will be using this term

4. Next you need to configure your virtual device and download an OS version (system image) to be used on your virtual device. Go ahead and select the latest stable version available which was **API 36** when making this doc.
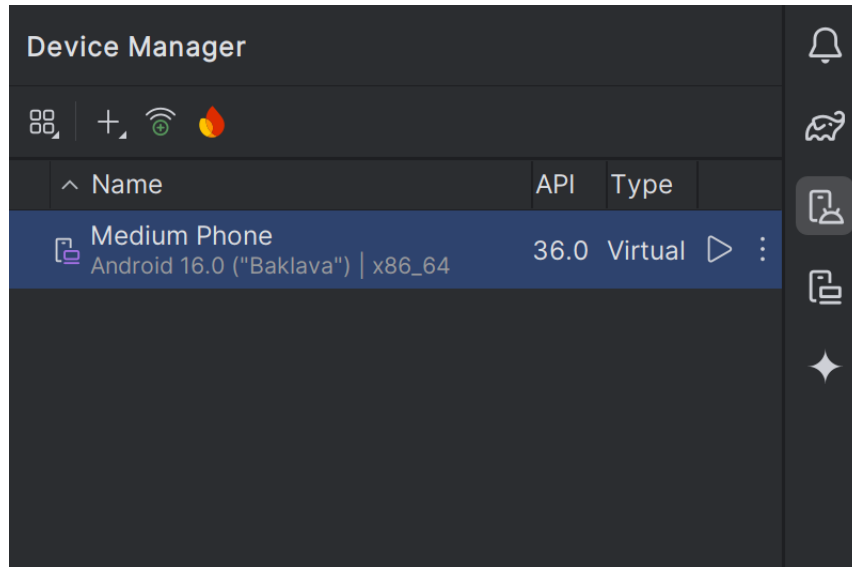

a. If some of you see a VT-x is disabled in BIOS warning, it is highly recommended to enable virtualization in your computers BIOS settings to properly run a virtual device.
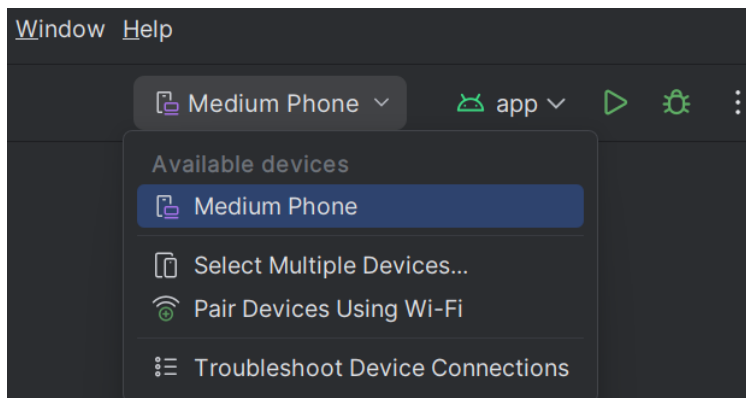

You can do this after setting up your device, screenshots at bottom of doc

b. Hit **Finish** and download the system image if prompted, this may take some time to download

5. You should see your device in the Device Manager now; you can set up multiple devices if you would like, but keep in mind each virtual device will take up space on your hard drive.

a. If it is not selected already, you can now select the device you would like to use when running your app

6. Click the green arrow icon on the top toolbar
   a. **If using a virtual device, the first time you run the emulator will take time to boot up, so be patient

7. When your app boots up you should see some text at the top of the screen, congrats!

8. Enabling virtualization in your BIOS (skip if no issue)

    a. Most common ways to get here is to press F2 when your computer is booting up, once in the BIOS settings go to advanced and then virtualization technology should be somewhere around there. Here is a screen shot below of mine, but it will be slightly different for most of you