Local Platform Setup

Download, Install and set up Android Studio

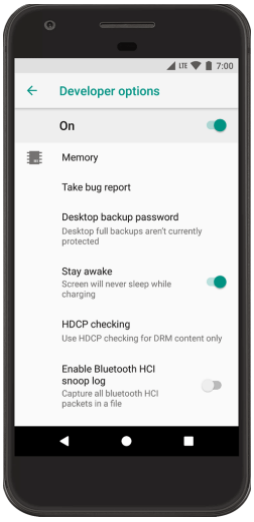
In order to develop Android apps with your computer, you will need to install two pieces of software.

1. **Oracle Java Development Kit ("JDK")**
   To run Java code in your app, you will need the Oracle Java compiler and libraries on your system. These are collectively called the Java Development Kit or "JDK" for short. Download the JDK from the following address:
   https://www.oracle.com/technetwork/java/javase/downloads/index.html
   A common mistake here is to accidentally download the Java Runtime Environment, or "JRE", instead of JDK. The JRE is not the right download; JRE enables you to run Java programs but not compile or develop your own. Be careful to download JDK and not JRE.). Once the JDK installer is done downloading, run it to install JDK on your system. You can use all of the default settings.

2. **Android Studio SDK** .
   Download Android studio for your own platform (works with Windows, Linux, and Mac) from the following link: https://developer.android.com/studio/#downloads.
   Please download the latest version, so that we all have the same version and we can easily build and run your apps. To install in your own platform, follow the guide from android developers website https://developer.android.com/studio/install

Enable developer options and debugging

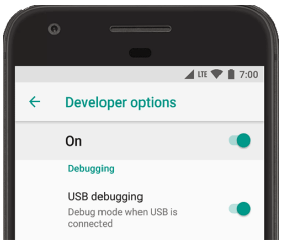
On Android 4.2 and higher (but lower than version 8.0), you must enable this screen as follows:



1. Open the **Settings** app.
2. (Only on Android 8.0 or higher) Select **System**.
3. Scroll to the bottom and select **About phone**.
4. Scroll to the bottom and tap **Build number** 7 times.
5. Return to the previous screen to find **Developer options** near the bottom.

At the top of the **Developer options** screen, you can toggle the options on and off (figure 1). You probably want to keep this on. When off, most options are disabled except those that don't require communication between the device and your development computer.

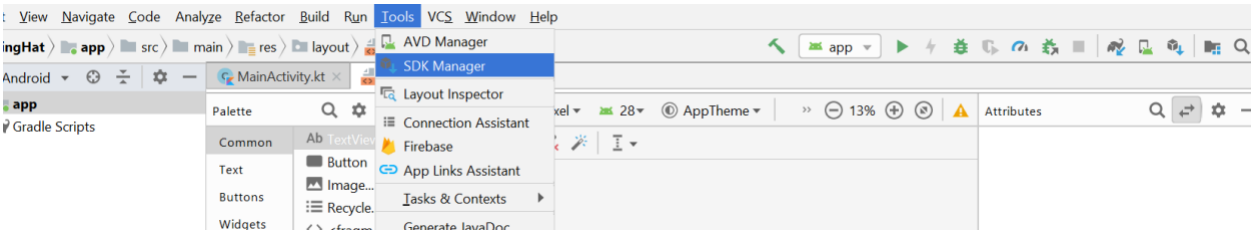
Next, you should scroll down a little and enable **USB debugging**. This allows Android Studio and other SDK tools to recognize your device when connected via USB, so you can use the debugger and other tools.



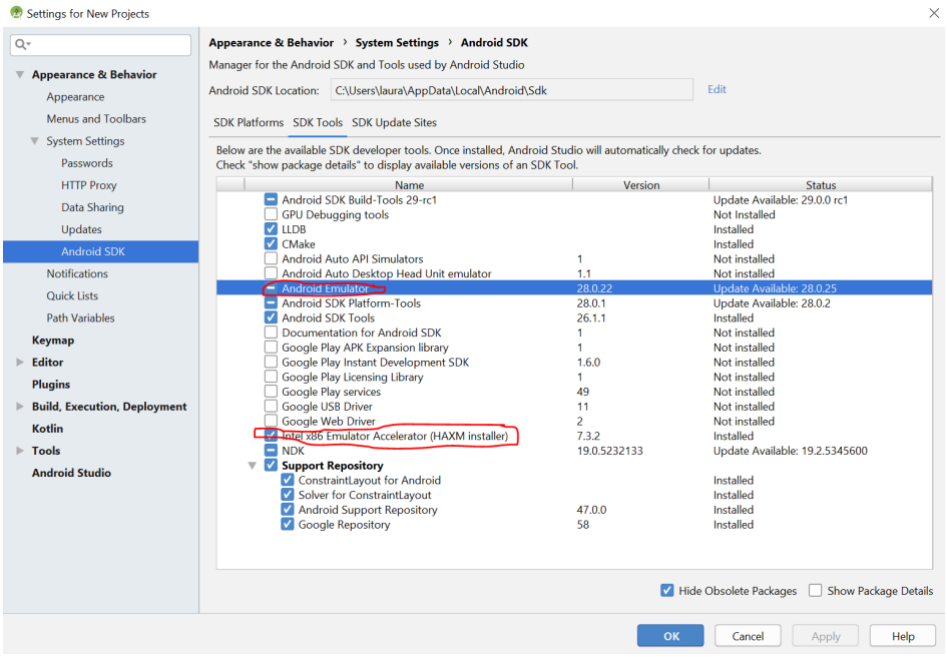
Setting Up a Virtual Device

1. Create a virtual device.
   https://developer.android.com/studio/run/managing-avds

2. Open the SDK Manager and



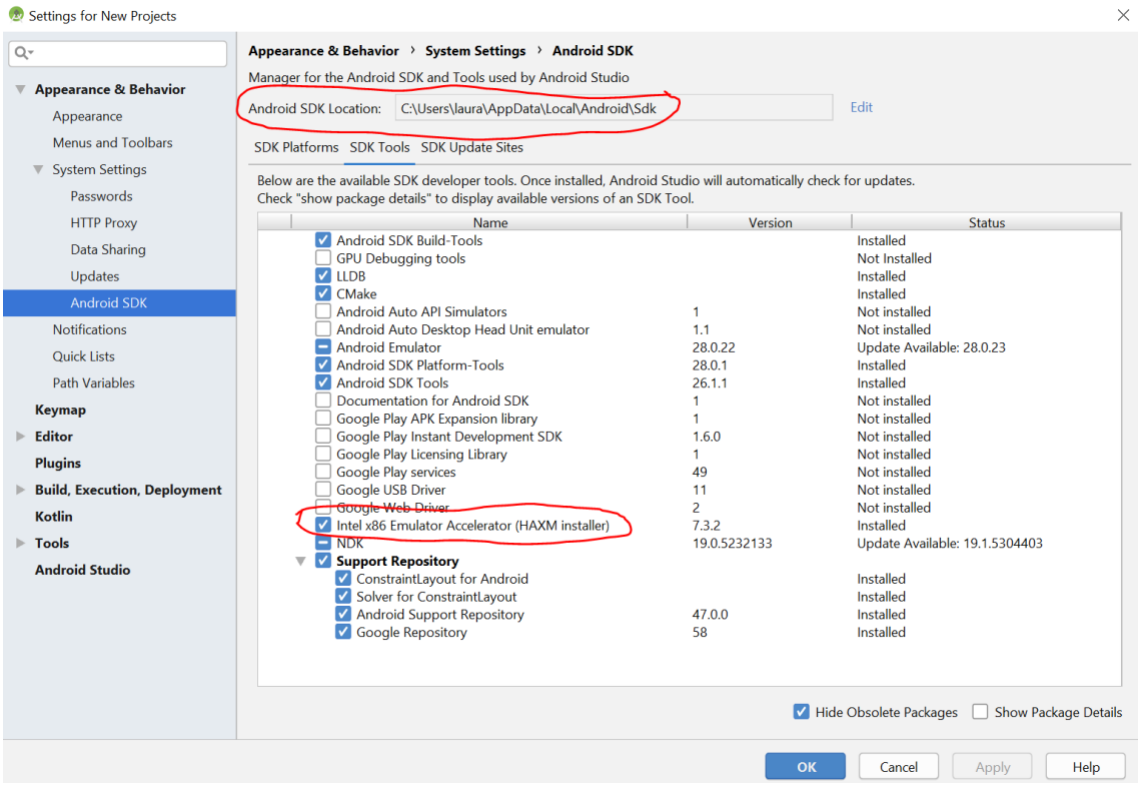
install 1) Android Emulator, and 2) the Intel x86 Emulator Accelerator (for Windows)

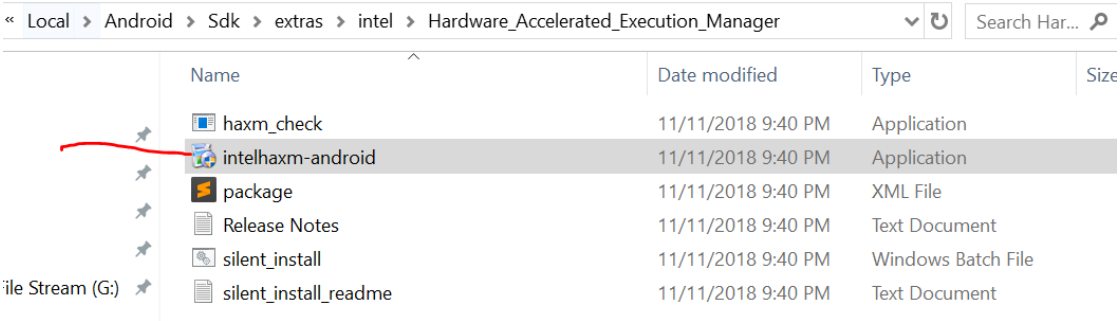


For windows users:
When running your app with the virtual device, you might encounter the following error

```
emulator: ERROR: x86 emulation currently requires hardware acceleration!
Please ensure Intel HAXM is properly installed and usable.
CPU acceleration status: HAX kernel module is not installed!
```

This is how to solve it. The Android SDK Manager **does not actually install HAXM**, it just downloads it. In the top of the Android SDK manager window, you can find where the installer is located on your PC. Please open the subfolder `extras\intel\Hardware_Accelerated_Execution_Manager`, and run the installer manually:
intelhaxm-android.exe (just click on this file)
In my laptop, this file is in:
C:\Users\laura\AppData\Local\Android\Sdk\extras\intel\Hardware_Accelerated_Execution_Manager





More information about configuring the emulator can be found in

https://developer.android.com/studio/run/emulator