**CIS 494 – Business System Development in Java**

<u>Android Studio Setup Instructions</u>

1. Before you get started, **ensure that the Java Developers Kit (JDK) is installed**. Eclipse works well with the Java Runtime Engine (JRE); however, for Android Studio, you will need to ensure the JDK is installed.

1.1 Go to the Program Files folder and look in the Java folder. If you see a folder with "jdk" in the name, then you do have a JDK. If you only see a folder with "jre" in the name, you have only the JRE.
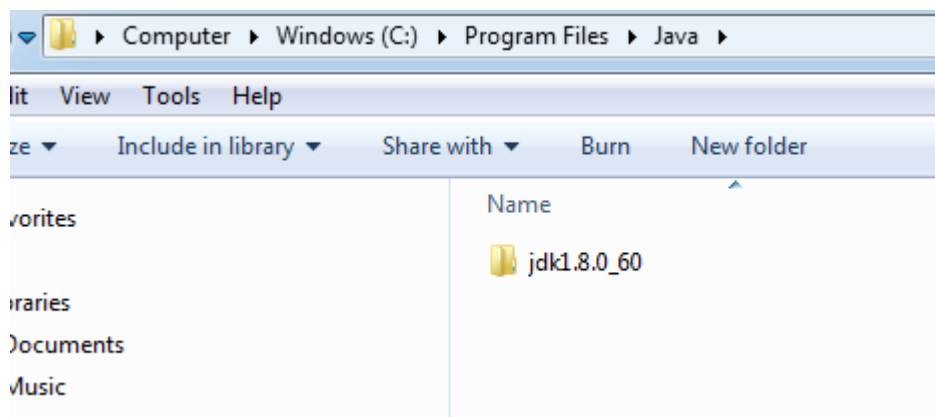
If the JDK is not installed, download the JDK for your operating system from Oracle's website.

http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html

Get the JDK for your operating system and processor. If you have a 64-bit OS, get the version marked 64bit. If you have a 32-bit OS, get the version marked as x86.

1.2 **Install the JDK.**

1.3. Add a JAVA_HOME variable in Windows so that third-party software can easily locate your JDK installation without any guesswork.

Use the location of your JDK – don't copy the value shown in the picture below!

Select **Start menu > Computer > System Properties > Advanced System Properties**. Then open **Advanced tab > Environment Variables** and add a new system variable `JAVA_HOME` that points to your JDK folder, for example `C:\Program Files\Java\jdk1.7.0_21` .

2. Once you have installed and verified that the JDK is installed, **download Android Studio** from
http://developer.android.com/sdk/

This will be 1.0+ **Gigabytes** in size. Ensure you have sufficient hard drive space as well as a good network connection before you start the download.
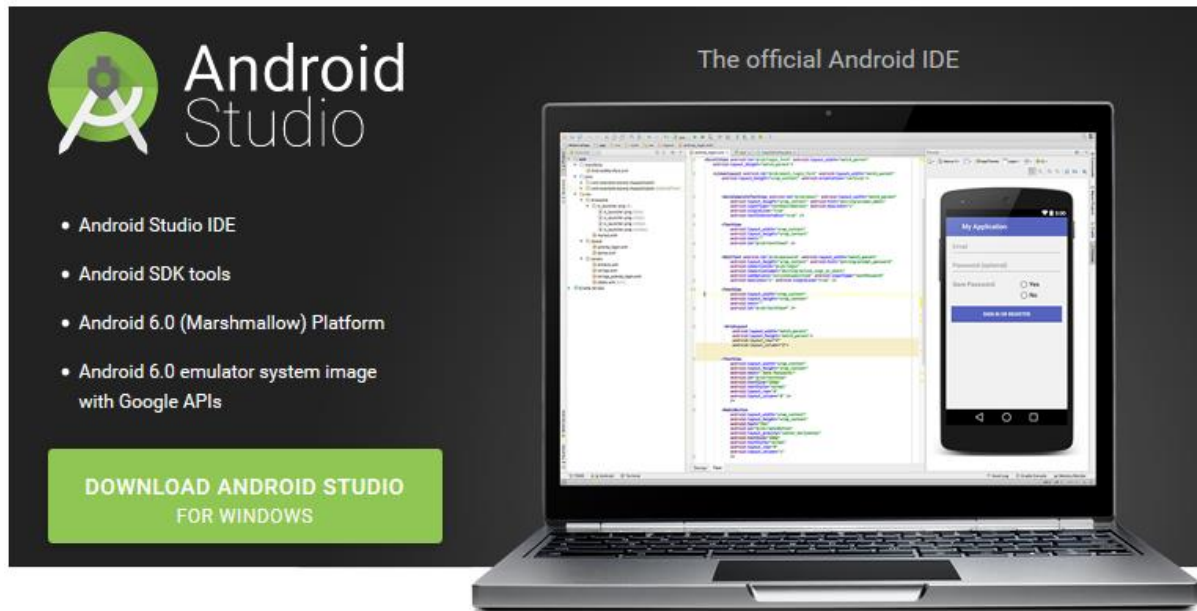
3. **Prepare for installation**

- Close ALL applications.
- Preferably, disable or suspend your antivirus software or any other application that can prevent the setup process from accessing files.
- Disable Windows Defender.
- Ensure that you have at least 5 GB space available.

   Remember to turn on your security software after Android Studio is working.

4. Before you begin the setup, read the following suggestions:

4.1 Android Studio will be installed to Program Files by default. This choice is acceptable.

4.2 The setup will also install Android Software Developer's Kit (SDK). This software manages all the components that Android Studio needs such as emulators, APIs, and extra software components. The default location for the SDK is in the app data folder.

Preferably **modify the setup location** for the SDK from the APPDATA folder to something more accessible like C:\AndroidSDK. *There can be no spaces in the path name.*

4.3 Should you get a choice about the RAM size for your emulator, the default choice will be 1 GB of memory. Extend that to anywhere between 1.6 GB (1600 MB) to 2 GB. The default 1 GB will not be enough memory to actually run the emulator. ***This choice cannot be modified short of running the emulator setup again.***

4.4. **Run the Android Studio setup file** as administrator by right-clicking the file in Windows. You can accept most default choices except for the suggestions stated above.
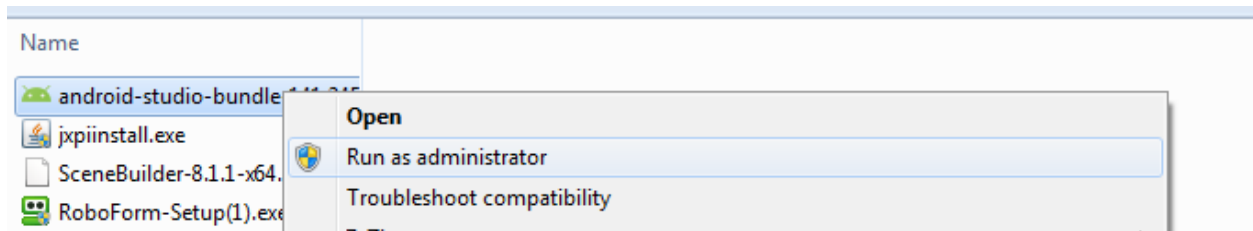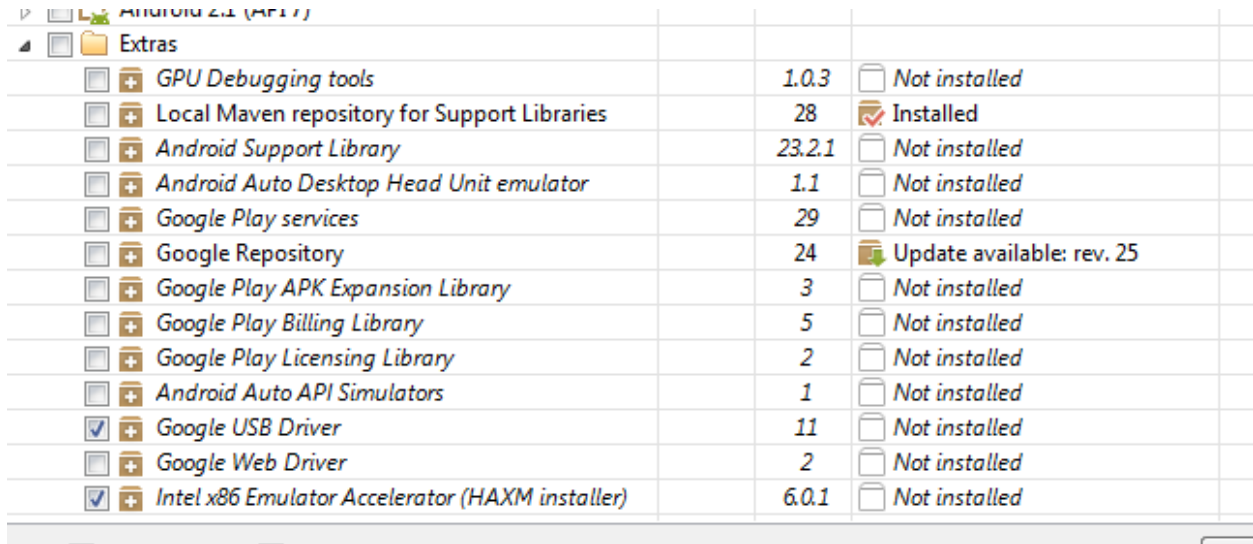

5. After you finish setting up Android Studio, go to the SDK folder. It will be in the folder location you specified during setup (if you changed the default APPDATA location).

You should see the Android Virtual Device (AVD) Manager as well as the SDK Manager.
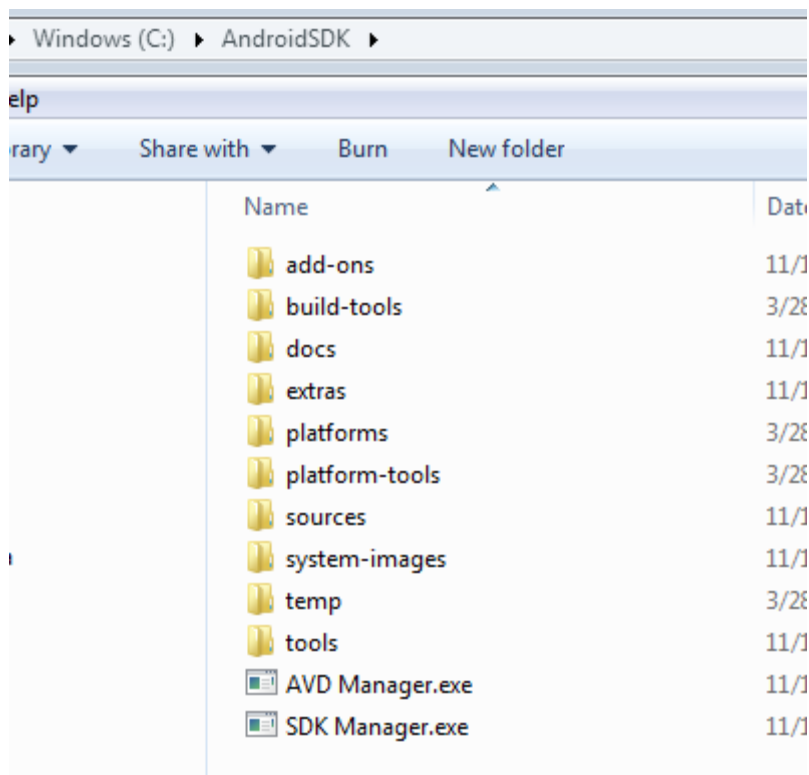
5.1 **Run the SDK Manager**.

Look at whether the following are installed or not. For example, the screenshot below shows that Google USB Driver is not installed and is checked for installation.

▷ ☐ Android 2.1 (API7)			
◢ ☐ 📁 Extras			
☐ GPU Debugging tools	1.0.3	☐	Not installed
☐ Local Maven repository for Support Libraries	28	☑	Installed
☐ Android Support Library	23.2.1	☐	Not installed
☐ Android Auto Desktop Head Unit emulator	1.1	☐	Not installed
☐ Google Play services	29	☐	Not installed
☐ Google Repository	24	🡇	Update available: rev. 25
☐ Google Play APK Expansion Library	3	☐	Not installed
☐ Google Play Billing Library	5	☐	Not installed
☐ Google Play Licensing Library	2	☐	Not installed
☐ Android Auto API Simulators	1	☐	Not installed
☑ Google USB Driver	11	☐	Not installed
☐ Google Web Driver	2	☐	Not installed
☑ Intel x86 Emulator Accelerator (HAXM installer)	6.0.1	☐	Not installed

Check the box and install these components if these are not already installed. If the installer tells you that you already have a more recent version installed, you can skip the installation for that particular component.

- Tools Folder
  - Android SDK Tools
- Android 6.0 (API 23)
  - Google APIs
  - Google APIS Intel x86 Atom System Image
  - Google APIS ARM EABI v7a System Image
- Extras
  - Google USB Driver
  - Intel x86 Emulator Accelerator (HAXM Installer)

You can come back anytime to the SDK Manager and install and/or update components.

6.0 **Run Android Studio**! Let it perform any software updates it needs to do.