Introduction to Android Studio

# Get Android Tablet Checked Out

Follow the guidelines of the check-out process to get your UP-issues Android tablet for the semester. Treat your Android tablet kindly, and do not lose any parts. You will use the tablet for testing code throughout the semester, both for your CS 301 coursework and your CS 371 coursework.

# Set up an Android Tablet

In order to run apps you create on your tablet, you need to enable Developer Mode. It’s an odd process, but here’s how you do it:

1. Open Settings.
2. Scroll to the bottom and tap About.
3. Tap Software info.
4. Tap Build number seven times. After the first few taps, you should see the steps counting down until you unlock the developer options. Once developer options are activated, you will see a message that reads, “You are now a developer!”
5. Go back to the Settings pane, where you will now find Developer options as an entry.
6. Tap it and toggle the switch on if it is not already.

Make the following adjustments to the Developer options.

1. Enable Stay awake (third from the top).
2. Disable Automatic system updates (8th from the top).
3. Enable USB debugging (first in Debugging section).

You may or may not need it for this course, but you can enable the wifi connection on your tablet if you wish.

**Checkpoint 1a (5 points):** Show the instructor or TA that you have completed this step.

# Getting Started with Building and Running Projects in Android Studio

You are encouraged to use the Shiley 249 computers, which has Android Studio installed. You can access the build remotely through the VM client and host desktop.up.edu, which can be downloaded from [here](https://my.vmware.com/en/web/vmware/downloads/info/slug/desktop_end_user_computing/vmware_horizon_clients/horizon_8#win64). After lab, you can install Android Studio on your own computer, where you may see better performance. However, troubleshooting issues on your own computer can prove more troublesome than on the Shiley machines, where we have external tech support that can help. The reason to use the VMWare desktop client is because it will allow you to plug your tablet into your computer and pass it through to the Shiley machine so that you can run your Android program on your tablet even though you developed it on a Shiley machine.

If you use a Shiley machine, **save all your work onto your P: drive**. Otherwise your work will be lost as soon as you log out, including possibly accidental logouts due to an internet interruption.

If you wish to install Android Studio on your computer, install Android Studio **version 4.2.0** from here: <https://developer.android.com/studio/archive>. You can install a later version if you wish, but the labs are tested on v4.0, so your mileage may vary and the instructor/lab assistant may be less able to help you if you install a different version.

**Checkpoint 1b (5 points):** Create a project from scratch and run it on your tablet. The instructor will step you through this process as part of the intro lecture in CS 301 and in lab.