# P1 Journal

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## Task 1

Installing and running these apks was straightforward, and took me about an hour to complete. The main difficulty I had was finding certain apks listed, which in some cases could not be accomplished. Namely, I could not find on F-Droid the tmux, web.oss.sshsftp, or com.spartacusrex.spartacuside apks. Other than that, getting proper screenshots and formatting them in my report in a decent looking way proved to be slightly time consuming, although not necessarily difficult.

## Task 2

Installing and configuring the Intellij IDEA IDE was very simple. I experienced some permission problems getting the android sdk setup in /usr/local/android-sdk, and had to chmod the directories to ensure proper permissions were given to Intellij. Writing the APK to fit the criteria proved to be rather tedious. I found the wording of the instructions to be a little bit confusing, as I was initially reading them as individual criterion and therefore did not realize until I had implemented everything that steps 2-5 were to be implemented as individual activities/screens. I’m also uncertain that I did an ample job documenting exactly how each screen was implemented to show that the criteria were adequately met. Overall, I spent a little over 4 hours on Task 2.

## Task 3

This turned into the most complicated step by far. I chose to build the Orfox project as my open source android app, and was ultimately unsuccessful in my attempt. There was limited documentation to work with specific to the Orfox project, most of what I had to work with was using the Fennec (firefox for android) source build documentation, as Orfox is a fork from the fennec libraries. Orfox has fallen significantly behind the Fennec code, and the Orfox repo required versions of the support library and the android-ndk and sdk that weren’t even offered anymore. I made leaps and bounds via looking up bug reports for fennec and either removing useless c function declarations (I.e unix\_rand’s getdtablesize) that were causing build errors, and messing with makefiles to remove flags that were causing the build to fail due to deprecation errors from the old java libraries. I got through several problems with the build and it seemed like I actually got the majority of things building, it got to what seemed to be some of the last stages of the build process involving packaging resource images and building third party libraries before I hit a stand still. As it was left, one of the third party library’s makefile targets was failing, and I could not manage to get it to give me any usable error message or stack trace to follow, thus I hit a rock I could not pass. All in all, I spent about 14 hours making changes and researching problems trying to get this to build. An exhaustive list of every change and trial I took is included in my report.

# Task 4

This was very straightforward, other than some small issues getting the ADB console to detect my device being connected. Reconnecting the device seemed to resolve this. This task took me about 15 minutes to complete.

# Task 5

The AWS setup was very straightforward, and getting the SSH connection and commands running remotely went smoothly. I had some initial trouble with the X11 forwarding portion, but realized I forgot to include the –X argument in my command. All in all, this portion took about 30 minutes to complete.