

Android Development

Objectives

This assignment is to become familiar with Android development, as well as doing some research activities.

Please submit this assignment through Canvas as a Word doc, Google Doc, or PDF.

1. Create your own application in Android Studio that uses your name as the app name - like JeffApp. Take a screenshot of the project view in Android Studio as proof that you have created the application. Use the "Empty Activity" template under "New Project"
2. Run that application in an Android Emulator, specifically, a Google Pixel emulator. Again, take a screenshot as proof. (5 points extra credit: Run it on an Android device, and take a photo of the app running on the phone that shows the phone). **This is not required any more.**
3. Add an image and another text view to the application. The text view should state your name, and the image should be the ic_launcher Android app icon (a little green alien). Paste in the XML contents of the activity_main.xml file as an answer, as well as a screenshot of the Android Studio.
4. Style one of the text views using the best looking color in the world. Add burnt orange to the res/values/colors.xml file, and then reference it in the activity_main.xml layout file. Points will be lost if the color is actually Sooners crimson.

The remainder of this assignment will be written answers to questions. Pretend you have just gotten an internship for the remainder of the semester with a small company or non-profit that does not have an Android app yet. They do have an iPhone app. They heard you know how to turn Android Studio on, so it's now your job to figure out how to get an app done.

5. They don't know the difference between apps that run on Android and apps that run on iPhones. Can you come up with 5 major differences between them? One or two sentences for each is fine.

Android apps need to be published on Google Play, which costs \$25 once, but iPhone apps need to be published on the Apple App Store, which costs \$99/year.

6. They heard that you can write cross-platform apps that can run on both Android and iPhone. Can you find 5 different solutions for this? A name, and one or two sentences about what makes this solution unique is fine.

7. They also found out that they can either start an Android project in Java or Kotlin. What are some things they should think about before they hire someone to do the project? Are there more Android developers in one or the other? Come up with 3 different answers.

Prerequisites

Install Android Studio on your local computer, or use Android Studio installed on the computers in CMA 4.146. If you have problems installing Android Studio, or you do not have a computer that can run Android Studio, please let me know as soon as possible so we can make arrangements.

<https://developer.android.com/studio/install>

Grading Evaluation

Name	Points	Description
Created Android App	10	There is a screenshot of the Android app project in Android Studio
Ran Android App	10	There is a screenshot of the app running in an emulator.
Image and Text View in App	20	There are two text views and one image view in the application.
Color of Text View	10	One of the text views uses a burnt orange color referenced in the color.xml file.
Android vs iOS	20	There are five differences.
Cross Platform Solutions	20	There are five solutions.
Java vs Kotlin	10	There are three things to consider.
100		

