Abdul Samad, Eamonn Conway, Zach Ballard

Kotlin Proposal

Wish to study: Android App Development through Kotlin

Why: We use apps everyday and we're interested in how they are made. After some research, we found that a popular language used to code apps that we haven't used before is Kotlin. Kotlin is a new language with a lot of potential. That's why we want to explore and learn more about it.

The Plan: We researched different ideas of simple apps to code in kotlin to help us learn more about the language and decided to build a GPA calculator for Android in Kotlin. We would want to create an interface where users can pick the courses they are taking in the semester and calculate their GPA, using the letter grade they got in the course and total credits of that specific course.

Major Milestones: General layout of the app, Buttons to work as intended, have a drop-down list for subjects, an input row for each subject for letter grades, calculate the GPA using number of credits.

Schedule: We plan to have the layout set and the buttons and dropdown functions working by 11/15/2019. So, we can get the progress report ready by 11/18/2019. We then hope to have the rest working by 11/29 so that we have a week to finish off paper draft by 12/2 and the final paper ready by 12/5.

Hardware or Software: We are going to be using Android Studio which we have downloaded on our software engineering lab computers so we should be fine with this.

Conclusion: We are hoping that by trying out this project we would learn to make android apps. Kotlin also has some new features compared to java. We won't be able to use them all in our app but we certainly would be able to implement a few and get an idea of how they work. Some of them are null safety, extension functions, invariant arrays and new range expressions.