CPE 436 Project Proposal

Description

We will be creating an iOS Application for health and fitness, focusing on personalization of workouts based on the user's end goal.

Overview

Emily and I came up with this app idea one day thinking about fitness apps. There are very many fitness apps out there right now, but none of them fully catered to what it is we wanted. I use one specifically for the timers and for the saving of my different workouts, and she uses a few to get workout ideas that are different from what she has done. Both of us are very into being fit and healthy and think that an app that created workouts for you based on your end goal would be a hit with people. We want users to be able to enter in if they are looking to do cardio only, HIIT, CrossFit, or anything else and our app can prescribe workouts that will help them reach their goal. One of the best ways to stay in great shape is to keep your body guessing by mixing up lifts and reps, while also hitting the same muscle groups in a structured way. This app will also have many different types of timers for the users to use. When the workouts are prescribed to the user, they will be told which timers to use. We will also suggest rest days and stretches for before and after the workout.

Anticipated iOS APIs and/or technologies

In order to make the application more private and personal for the user, we will incorporate Touch ID and Push Notifications. The purpose of having Touch ID is so that there is an extra layer of security into the app. Many users like to keep their health and fitness goals and information private, so the fingerprint authentication will prevent others from attempting to view the user's information. We are planning on storing the data for the workout plans on a cloud database, potentially Firebase Real Time Database since it has iOS capabilities already. Firebase also provides automatic backup of the data, which gives us more security and protection. It is a NoSQL database and is designed to allow the developer to define how the data should be structured, and where the data will be written from and when.

Other Code

Currently have no other code we want to use but will update as we go.

iOS Experience

Emily - During my summer internship at Apple this past summer, I was doing iOS Development to create an internal tools application for the company. I had no prior knowledge of Swift or any mobile app development entering the internship, but I was able to teach myself the language and learned some of the core concepts of iOS that were applicable to my project.

During WWDC ‘16, they released the APIs for Siri so I was trying to incorporate some of that technology into my project. Initially, I wrote the entire application using the version before Swift 3, so I had to update my code when attempting to integrate Siri. I am more familiar with the older Swift language, but getting used to some of the differences in Swift 3. Something that I struggled with was working with Dynamic Table View Cells so I am hoping we touch on that during this course.

Evan - I have no experience with Swift or iOS development. I also have no mobile app development in general.