CS411 Team Assignment 1 - Proposal (*Revised*) Group 20 - Manish Patel, Ji Zhang, Chen Feng, Curtis Mason and Takamitsu Shirono

Chosen Idea:

One idea could be creating a scheduling application to work out conflicts with groups, determining common meeting times based on everyone's collective schedule. A few APIs that could be useful here would be the Google Calendar API and a weather API (e.g. Open Weather Map API) to incorporate into our scheduling decisions (i.e. making decisions for outdoor events based on the weather). Third-party authentication, through OAuth, would work here since each user would need to log in with their Google account so that their Google Calendar can sync to the application and the users can move forward to schedule with others. ReactJS would make up the front-end and Flask (using Python) would be used on the backend. A SQL database could be used to track the invited attendees (their emails) for these group events and their "IDs" for the invite system to see who the invited and accepted attendees are, which allows for proper "invite" links to be generated by the application.

Rejected Ideas:

Our second idea is a gym equipment "guide" app for which users can figure out how to use certain machines or types of equipment at the gym. We can categorize all types of equipment and let the user sort by the specific brands of the machines or even the specific body parts that the machine would be exercising. Some sort(s) of fitness API(s) could be useful in adding functionality for tracking different activities at the gym or nutrition records (i.e. macros), so that the users can have a one-stop application for many of their gym needs. A database of each user's personal information (e.g. height, weight, etc.) along with the actual database of the different equipment and machines would be necessary. Alternatively, if the application appears too complex, we could simplify the application to provide basic goals for each users (e.g. Bulking, Toning, and Burning Calories). For each goal, the application will provide appropriate workout routines, pulled from some Fitness API, as well as nutritional intake goals, pulled from a database/API on nutritional value information.

A third idea, although it may not fulfill the requirements, we could create a chat service that we would develop such that developers can use our developer friendly API to send messages and maintain conversations with their users over our network. This would be more of a service, where users could add chat to a platform. A SQL database could be useful for storing the messages/conversations that each user partakes in.