

CS 242 Final Project Proposal

Gymr.

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1. Abstract

1.1. Project Purpose

The purpose of this project is to allow people to easily find gym partners/spotters based on user-defined criteria, such as Gender, Weight Lifting, Types of Workout, Social Circles. Users should go on this platform before going to the gym on the day to look for buddies.

1.2. Background/Motivation

I found it sometimes may be embarrassing to look for spotters in the gym at times. It will be helpful if one can look for gym partners easily, and even meeting new people. I also found that it is confusing to wait for benches at gym, if people can partner up to gym, it may significantly reduce the waiting time.

2. Technical Specifications

2.1. Platform: Android App

2.2. Programming Languages: Java, parse.com (PAaS)

2.3. Stylistic Conventions: camelCase, Java Standard naming Conventions, Android Developer Conventions, 100 characters per line limit, see: <https://source.android.com/source/code-style.html>

2.4. SDK: Android SDK, Parse SDK

2.5. IDE: Android Studio

2.6. Tools/Interfaces: Android Phone, Android Platform Tools, Google Chrome

2.7. Target Audience: UIUC Students, Gym users in general

3. Functional Specifications

3.1. Features

- User should be able to login with Facebook
- User should be able to create a profile of himself, including the amount of weights that he currently lifts of different body parts.
- User should be able to select a body part of a workout and available time on the day of gym

- User should be able to configure the criteria of matching, including gender, whether other user are working on similar body part on the same day, whether the other user should lift similar weight than the user.
- User should be able to accept/reject matches found for him/her, if both users accepts the match, they will become gym buddies of the day.
- User should be able to have a simple chat with another user to determine the place and time to meet once matched up
- User should be reminded of their gym schedule on the particular day

3.2. Scope of project

One of the limitation of the project is it will not support customised workout, and a certain body part might be ambiguous for users to be matched. It also does not record history of matching which you may end up with the same gym partner multiple times, which could be good/bad.

In the future, functions such as custom equipment/body parts and workout history can be added to the system. Ratings on gym partners can also be added to the system to add extra social factor into the app.

4. Timeline:

4.1. Week 1

- Setting up the parse.com back end database and login permissions, login with Facebook
- Develop backend logic and data schema on parse.com, configure all used API endpoints
- Mocking up Android user interface

4.2. Week 2

- Read up Parse SDK Docs
- Setup Parse SDK on the Android App
- Develop basic login system on the Android App
- Develop Profile Configuration on the Android App
- Connecting login and profile to the backend

4.3. Week 3

- Develop Matching Criteria function on the Android App
- Develop functions to enter available time and body part preferred on the gym day on the Android App
- Connecting matching criteria and available time to the backend
- Retrieve matching criteria from the backend

4.4. Week 4

- Develop Accept/Reject functionality on the Android App
- Develop reminder to user on the gym day
- Setup Connection to Facebook App so when two users are matched, there is link to redirect users to their gym partner's Facebook profile link
- Connecting Accept/Reject record to the backend

5. Future Enhancements

I will plan on expanding this to a gym-wide management/social system, when users can manage his/her weekly schedule at a gym. Then the app can optimise user's schedule by determining the amount of users that uses a particular weight/machine/equipment at the gym at a particular day, and suggest users to alter his workout schedule. The app should also include a queueing system particular equipment at the gym, so user does not have to wait in line and may proceed to the next workout while waiting. I will continue to work on this in the future.