

Software Requirement Specification

Problem Statement: A few sentences to describe the problem you are trying to solve, i.e., justify why this software is needed.

Tough to meet people at gym, hard to track workouts in notebooks or notes app, and lack of sense of community in the gym. Starting out in the gym is difficult. No specific social network/app for gym-goers, as there is for bikers/runners/etc that also brings together workout tracking, exercise help/info, and progress tracking.

Potential Clients: Who are influenced by this problem and would benefit from the proposed solution? (i.e. the potential users)

- Gym-goers at the recreation center (and other analogous gym-goers at their own school). This is meant to be school-specific.
- Those who want to connect with other gym goers
- Those who want to start going to the gym, but don't know how to start.
- Those who want to be more consistent with their gym habits, easily track workouts, find new workout info, etc. within one application

Proposed Solution: Write a few sentences that describe how a software solution will solve the problem described above.

A mobile application where people can find gym buddies with similar interests, track workouts, and create a group of interactive following where they can track progress and share goals/achievements. This is essentially an app that seeks to be a full gym aide, encompassing all the things that one might need to start lifting, find a community, make progress and stay consistent, etc.

Functional Requirements: List the (functional) requirements that software needs to have in order to solve the problem stated above. List these in role-goal-benefit format. It is useful to try to group the requirements into those that are essential (must have), and those which are non-essential (but nice to have).

Must have

- As a new user, I want to be able to create an account with my email or social media credentials so that I can access the app
- As a user, I want to create and customize my profile by adding details like my fitness interests, location, and a profile picture
- As a user, I want to send connection requests and accept or decline requests from potential gym buddies
- As a user I want to be able to create a workout schedule (frequency, days of week, muscle groups, etc.) to make sure I have a plan I can stick to.
- As a user, I want to receive notifications that hold me accountable to the schedule I created, to ensure I make strong progress.
- As a user, I want to have a way to provide feedback, report issues, or seek help from the app's support team.
- As a gym-goer, I want to be able to post my progress, workout results, and fitness achievements so that others can see it.
- As a gym-goer I want to be able to find/be matched with another gym-goer (based on criteria such as location, fitness goals, and interests) so I can have a gym buddy.
- As a gym-goer I want to be able to track workout stats, including exercise details, sets, reps, and duration, since it is difficult to do it by memory or paper.
- As a JHU student, I want to log in with JHU SSO
- As a user, I want to be able to see how my progress (via leaderboard for example) stacks up against my peers (who are comparable based on sex, weight, age, etc.) so the competitive aspect pushes me.
- As a gym-goer, I want to be able to see common products other users have had positive experiences with (such as lifting straps, belts, wrist supports, etc) so I can see the products that people feel good about.

Nice to have

- Nutritional guidance
- Book training sessions (powerlifting club?)
- As a user, I want to have a messaging system within the app to communicate with my gym buddies for coordination and motivation.
- Advertise Events
- Web App
- As a user, I want to set personal fitness goals within my group and track my progress towards achieving them.
- As a user, I want to discover and locate nearby gyms or fitness facilities based on my current location or preferences.
- As a user, I want the option to integrate the app with fitness tracking apps or devices (e.g., Fitbit) to automatically import and sync my workout data.
- AI to filter out inappropriate content

Non-functional Requirements:

- UX must be top-notch
- Display improvement through graphics
- Able to handle a large number of users

Software Architecture & Technology Stack: Will this be a Web/desktop/mobile (all, or some other kind of) application? Would it conform to specific software architecture? What programming languages, frameworks, databases, ..., will be used to develop and deploy the software?

This will be a mobile application. React Native is the frontend framework that we will use because we are familiar with React (React Native isn't too different) and allows us to use the same codebase to build apps for both iOS and Android.

For backend, we will use Python (Flask framework). This is lightweight, easy to build, test and deploy.

For a database, we will use supabase (PostgreSQL). Relational database makes sense for this project as users will be connected to each other (social media aspect) and data will be fairly structured.

Similar Apps: List a few similar applications to the one you are developing. Don't be eager to conclude no similar app exists! There is always something similar to what you are building! Finding those will help you to better specify your project. You must be prepared to explain how your app is different from the existing ones.

- CoreCircle <https://apps.apple.com/us/app/corecircle-social-fitness/id1553742219>
- Strong <https://www.strong.app/>
- Strava <https://www.strava.com/>