## PositiveFitness

PositiveFitness is a convenient social fitness app for Android devices. It is geared towards people who are heavily involved in fitness, as well as people starting out and those who have trouble keeping fitness in their lifestyle. There are many other apps that relay how-to diagrams, record and display workout progress, and track diets. This app covers many of these features, but it mainly focuses on providing positive reinforcement and tangible incentives to users. Similar to role-playing video games, this project adds another dimension to working out that rewards maximization of participation and effort, and minimization of non-participation and laziness.

For the core of the app, it is a social network. Users will be able to track their personal progress and publish it to their public profiles, as well as compare progress with other users. Users will be able to message each other, challenge each other to different goals, and recommend gyms/activities. Checking in at a gym or known fitness location via GPS will reward the user with participation points. Users can earn achievements and awards for various individual milestones, and land spots on leaderboards between users. Gyms who participate with the app will be able to publish challenges, connect personal trainers to users, and provide real-world prizes (gym memberships, clothes, money, etc) to users who participate. Lastly, users can find other workout partners with similar interests via GPS. Additionally, the app will be able to support features of other competitive fitness apps: tracking diets and workouts, Michael Shintaku Contributions by Stan Kuznyuk Proposal document CSE 403 graphs of recorded results, and guides on exercises.



The product architecture revolves around the app on the phone and a cloud-based server/database to facilitate communication between users. The software architecture will conform to the Model-View-Controller design. The main components will be the GUI and communication handler (between the client and server). Subsequent modules will be attached to the GUI, including user profile information, user workout/diet progress, graph and visualization tools, and any other additional features. Modules attached to the server's communication handler will include the friends system, data for all users' profiles, and user-wide challenges. For development, this app will involve Java for the Android client, and any languages/kits needed for a cloud-based server/database.

This project will have a fair amount of challenges and risks. The main risk will be falling behind schedule. This will probably be due to the main challenge: which is learning the frameworks necessary to create a program on Android, and how to communicate between an Android app and a server. Attempting to add too many features, as well as underestimating the resources necessary to complete modules will be other important risks. These risks can be managed by clear communication between Michael Shintaku Contributions by Stan Kuznyuk Proposal document CSE 403 members, prioritization of learning unfamiliar frameworks/tools, and clear organization of

responsibilities.