

Nick, Grant, Dirk

### Project 3 Phase 1:

#### Description:

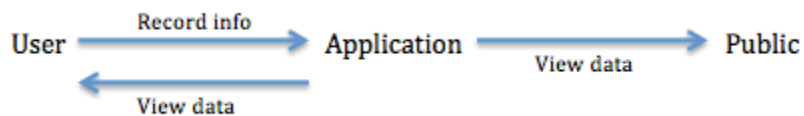
This app will help users in their daily workouts by allowing them to easily track workouts they've planned and done and help them receive motivation to achieve their workouts. A leaderboard will be implemented to display progress and motivate users to achieve their workout goals, and workouts can be shared between users.

#### Purpose:

- Track Workouts
- Motivate Workouts
- Share and Compare Workouts

#### Context:

Users are external agents who can record workout information onto the website. Users and the Public can view data from the application.



We rely on users completely for gathering data to display. Our application can't generate data, only organize and present data entered into it by users.

#### Concepts:

- Workout - fulfills tracking workouts
- User Performance - fulfill sharing/comparing workouts
- Leaderboard - fulfills the motivate workout and compare workout

#### Challenges:

One challenge with workouts is whether we will let the user type the name of the cardio/lift workout, or if we will have a set list of predefined cardio/lift workouts that they choose from. For example, do we let them type "Bench Press" or will we have them select "Bench Press" from a drop-down menu? We decided predefined names are a better choice, for several reasons. Primarily, everyone is choosing from the same set of workout names, and thus results and progress can be directly compared. Another advantage is that it makes everything more readable and easier to display and analyze. The downside is that it takes away some freedom from the user to input specific exercises. For instance, they might do some obscure workout that isn't in the drop-down. However, this is a special case and will not be an issue for the vast majority of users. A way to mitigate this is to allow for the addition of exercises to the dropdowns with, say, moderator approval.

Along the lines of comparing/sharing workouts, another challenge is what metric we will use to compare. Obviously, a 100 pound user will not be able to lift as much as a 200 pound user, so comparing their stats directly will be inconclusive. Instead, we will likely use the ratio of how much the user can lift compared to how much they weigh. This will make results more reliably comparable. In addition, we will have the option to compare to users who are in the same weight class and of the same “athletic prowess”. The idea of filtering by weight class and athletic prowess is also directly applicable to our Leaderboard. We will make the leaderboard filterable by every attribute of a user (height, weight, age, athletic prowess, etc.). This leaderboard customization will allow the user to compare their stats over several different measures.

Another challenge is how to go about the sharing of workouts. We could implement a global leaderboard, or a leaderboard where only a user’s friends are displayed. The friends option would increase privacy, but add to complexity and add a social networking component to the app. A global leaderboard has less privacy, but would seem to achieve the goal of motivation more effectively and would make the app simpler in development and use. Because the purpose of our app is not dependent upon having defined friends, we chose to have a public leaderboard.

## Data Model:

