

# CS6750 Team Project Check-In 1: Needfinding

Team Supreme: Cassandra C. Lung, Benjamin J. Weber, Matheo Xenakis, Drew Shoemaker, Ann Katz

clung7@gatech.edu, bweber34@gatech.edu, mxenakis3@gatech.edu,  
sshoemaker7@gatech.edu, akatz43@gatech.edu

## 1 CONTEXT

One of our members, Matheo Xenakis, evaluated a mobile fitness tracking app called "Strong" over the course of the M assignments. The Strong app allows fitness enthusiasts and other gym-goers to track their workouts, and they may use templates to customize workouts to a certain degree beforehand. In the last M assignment, it was found that needfinding research specific to user customization of templates and/or personalization of feedback or other application aspects may be a crucial requirement to some users. The current templating system lacks customization of specific exercises, variations of exercises, and metrics many users want. Our needfinding goal is to further explore the importance of that requirement to users, the ways in which personalization or customization are desired, and to use that data to determine if or how the interface may be redesigned according to that need.

## 2 NEEDFINDING PLANS

### 2.1 Plan 1: Interviews

Fitness enthusiasts who use the Strong app to track progress and gym-goers who use other tools or methods to track workouts will be interviewed to determine why they track workouts, how specific/detailed they want that tracking method to be, what personalizations/customizations regarding planning, logging, and feedback they expect, and how important that customization feature is to them.

The data inventory items to be addressed include users' identities, their goals, their needs, and their tasks/subtasks. Questions aren't set in stone, and some questions may be omitted or expanded upon depending on the user, their current method of tracking, and their time. The overall goal is to listen to and understand their most crucial needs related to tracking workouts. To mitigate biases related to leading questions, however, only questions from the question pool will be asked. To mitigate biases related to social desirability, questions have been designed to be answered in an open-ended way (there is no "good" or "bad" answer) and

questions will be asked in a neutral tone of voice. To provide sufficient data for the first design we are targetting 10 interviews.

**Table 1**—Question topics and example questions

Topic	Questions
User Demographics (Who are the users?)	Age? Gender?
Fitness/General goals (What are their goals, needs, tasks, contexts?)	What are your fitness goals? Can you describe any specific challenges you face in achieving your fitness goals or staying on track? Do you work out solo, in a group or in a class? (+ at home, in a gym, or elsewhere?) What types of workouts do you currently do and how often? To what degree would you say your workouts vary in terms of exercise type/reps/sets?
Strong-specific questions (What are the tasks/subtasks of current Strong app users?)	Can you take me through how you typically use the Strong app during your workout? Are there any frustrations or difficulties you've encountered with the Strong app? When you first used the app, were you able to easily discover all the features of the app? What do you use the most? What changes to Strong would better support your current workout habits and goals?
Personalization and Customization goals  (What are their goals and needs related to this specific task? How important are they?)	To what level of detail would you like to track your workouts? Does your current method allow you to document workouts to that level or are there data entry limitations? Are there unique or specific metrics you wish to track during your workouts (for example: pausing duration in squats, angle of lift, heart rate variability during different exercises)? Does your current workout tool give you personalized feedback, suggestions, or metrics based on what you've entered? How important is this to you? Do you have a specific fitness goal, and would you like your tracking tool to consider this when providing feedback/metrics/recommendations? Are you following a specific diet, and would you like your tracking tool to consider this when providing/metrics/recommendations?

## **2.2 Plan 2: Survey**

Survey participants will be sourced from the CS 6750 classroom among students who regularly work out. The survey will allow us to gather larger amounts of user data regarding how frequently they track their workouts, how often they perform exercises with variations, and will provide information on subtasks that users often encounter while working out, such as how often users typically modify their planned workout due to the level of business at their gym, fatigue, or injury. The goal of the survey is to understand how users both track and plan their fitness routines in order to inform a redesign of the Strong application's workout template system. We expect our survey to provide more quantifiable and provable data than the interviews. To create a more conclusive understanding of the problemspace for the first design we are targeting 25 survey responses.

*Table 2—Survey questions, input types, and rationale*

Question	Response Type	Rationale
What is your age?	Ratio input	Establishing age demographic data of users
What is your gender?	Free input	Establishing gender demographic data of users
How often do you perform resistance training?	Frequency	Provides data inventory for establishing who our most regular users may be based on how often they workout in a way that the interface can track
How often do you record your workouts?	Frequency	Provides data inventory for establishing who our most regular users may be, based on their workout recording habits
What recording methods do you use?	Multiple checkboxes: Notebook, smartwatch, mobile app, None, Other	Helps us understand alternative interfaces that aid the user in accomplishing their tasks.
During a typical workout session, how many exercise routines do perform? (This could be a push/pull/leg routine, upper or lower body or zero routines if no workout plans are used)	Ratio input	This gathers data on how many workout plans users typical need to account for within their fitness routines.
How often do you perform workouts with multiple variations? (e.g. standard back squats and squats with lifted heels, bench press and bench press with tempo timing)	Frequency	Gathers information on the subtasks within a user's workout.
Provide an example of a workout variation you perform	Free input	Followup question to the above to gather qualitative data on user workout habits.
How often do you modify your workout plan during your workout?	Frequency	This question gathers information on potential obstacles that users need to overcome while using the interface
What are the most common reasons you must modify your workout plan?	Multiple checkboxes: Equipment is occupied already, Injury, Fatigue, Unable to finish work out as planned	Gathers additional qualitative on the above question
If you selected other to the above question, please explain	Free input	Followup question to collect data on scenarios the survey did not anticipate
If you use a fitness tracking mobile application, how often are you unable to find the exact exercise you wish to add to your template?	Discrete Ordinal 5	Qualitatively gauge ubiquity of customizability issue
To what extent do you agree	Discrete Ordinal Data	Qualitatively gauge impact of