

Group 6

Milestone 1 - Healthy Help

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# Introduction

## Problem

A problem that everyone faces every day is maintaining their fitness. All people, regardless of their age, gender, social status, or any other qualifier, need to address their basic physical needs in regards to their health. These include exercise, hydration, nutrition, and rest. Yet most of the population, especially in America, are unhealthy. There are many factors that contribute to this problem, but the number one reason people aren't healthy is because of mismanaged time. While the average adult in America feels they don't have enough time to exercise, the average adult also spends an average of over 5 hours a day watching television.

## Purpose

With this problem in mind, we aim to evaluate the needs of the average busy person and provide an application that aids them in organizing their time more efficiently in order to meet their health needs more effectively and consistently. In addition we also would like to extend functionality to offering customized suggestions regarding rest, nutrition, hydration, and exercise.

## Objectives

- To evaluate the needs of the average person who feels they can manage their time more efficiently, and provide a computing based solution that aids them in organizing their time effectively in order to meet their health needs (exercise, hydration, rest, nutrition) .
- Find the target audience who would benefit most from a computing based solution for time management.
- Understand the objectives and purpose of other related solutions that already exist and analyze ways we can improve
- Understand the main contributing factors to mismanaged time and inform our target audience to avoid these practices
- Highlight the top 3 biggest time wasting tasks for the target audience
- Explain to our target audience the importance of managing time to maximize productivity and personal health.
- Have a successful impact on the target audience in terms of personal health with the criteria we specified.

## Target Population Research

We surveyed family, friends, and Redditors to determine what constitutes “healthiness” and what are the biggest challenges of maintaining a healthy lifestyle. We also asked about common hindrances and setbacks when trying to stay healthy.

## Potential Stakeholders

### Primary

- College Students: One of the biggest challenges for new college students is organizing a daily/weekly routine. Unfortunately for many students, this means diet and exercise are put on the back burner. Our solution aims to directly give college students some structure and reminders to help maintain and improve their overall health.
- Health-Minded Individuals: College students aren’t the only ones at fault when it comes to scheduling difficulties. Many individuals want to be healthy, but struggle to incorporate proper dieting and exercise into their busy schedules. Our solution will give these individuals a plan to eat right and meet their health goals.
- New Year’s Resolutioners (Beginners): Many individuals want to better themselves, but just don’t know how or where to start. Our solution provides an excellent structure that can be customized to fit the needs of any individual.

### Secondary

- Universities: One of the primary goals of a university is to encourage healthy lifestyles for their students. Our solution is designed to promote health for all people, including college students.
- Gyms: Giving people some direction on their health goals may increase traffic at gyms. Gym employees could also use the solution to encourage their members.
- Family Members and Friends: The best source of encouragement is people who are close. Changes in diet and exercise could encourage family members and friends.
- Surrounding Community: The overall health of a society is important to its productivity and growth.

### Users in the problem space

Our target users are individuals who want to live a healthier lifestyle but don’t have the time or understanding to do so. For many individuals, busy schedules and lack of energy become major setbacks in their aspirations to be healthier. For others, it’s a failure to eat properly that causes problems. Whatever the case, our solution aims to give these individuals some structure in their pursuit of healthy living.

## Task Analysis

### Tasks Performed

- Set short term body weight goals
- Set long term body weight goals
- Set nutrition goals (Caloric intake)
- Receive reminders for when to eat and how much
- Schedule workouts for the week
  - Choose number of workouts for the week
  - Choose muscle group
  - Choose duration/calories burned
- Receive reminders about workouts
  - Accept, decline, change, or reschedule
- Receive reminders for hydration
  - Record hydration consumption
  - Set hydration goals
- Set rest/sleep goals
- Receive reminders for rest/sleep
- View a summary of the previous week

### Existing Exercise Solutions

1. [30 Day Fit Challenge Workout](#)
  - 1.1. **Strengths**
    - 1.1.1. Allows you to select your preferred level of exercise
    - 1.1.2. Provides instructions on how to perform these exercises
    - 1.1.3. Allows you to set a daily reminder to perform these exercises
    - 1.1.4. Allows you to not be reminded
    - 1.1.5. Animations show the user how to perform the exercise
  - 1.2. **Weaknesses**
    - 1.2.1. Does not suggest times based on the phone's calendar (set time every day)
    - 1.2.2. Does not allow you to split exercises among the day
    - 1.2.3. Does not include the nutritional aspects of fitness
    - 1.2.4. Does not account for gym equipment if any are available
2. [10 daily exercises](#)
  - 2.1. **Strengths**
    - 2.1.1. Interface is straightforward
    - 2.1.2. Paces the workout well
  - 2.2. **Weaknesses**

- 2.2.1. Stagnant workouts
  - 2.2.2. Workout difficulty settings are obscure
  - 2.2.3. No daily reminder for workout
- 3. PersonalFit
  - 3.1. Strengths**
    - 3.1.1. Develops plans for a specific client
    - 3.1.2. Varies the exercises performed based on an algorithm
  - 3.2. Weaknesses**
    - 3.2.1. Does not consider body exercises.
    - 3.2.2. Does not adapt to the user's schedule
- 4. [FitBit](#)
  - 4.1. Strengths**
    - 4.1.1. Individual users can buy the specific FitBit type they want to use
    - 4.1.2. Convenient design lets users strap it on and forget about it
  - 3.1. Weaknesses**
    - 2.2.1. Very expensive especially when compared to free apps
    - 3.2.2. Doesn't track all types of activity
    - 3.2.3. Another piece of hardware to keep track of

## Conclusion

From the results of our survey, it is evident that the two biggest contributing factors that hinder people from being healthy are lack of motivation and too much stress.

What are your biggest setbacks to being healthy?				
Time	Money	Healthy food sucks	No motivation	No friends
3	2	4	3	1

Why don't you eat healthy?		
Time	Money	Apathy
3	2	5

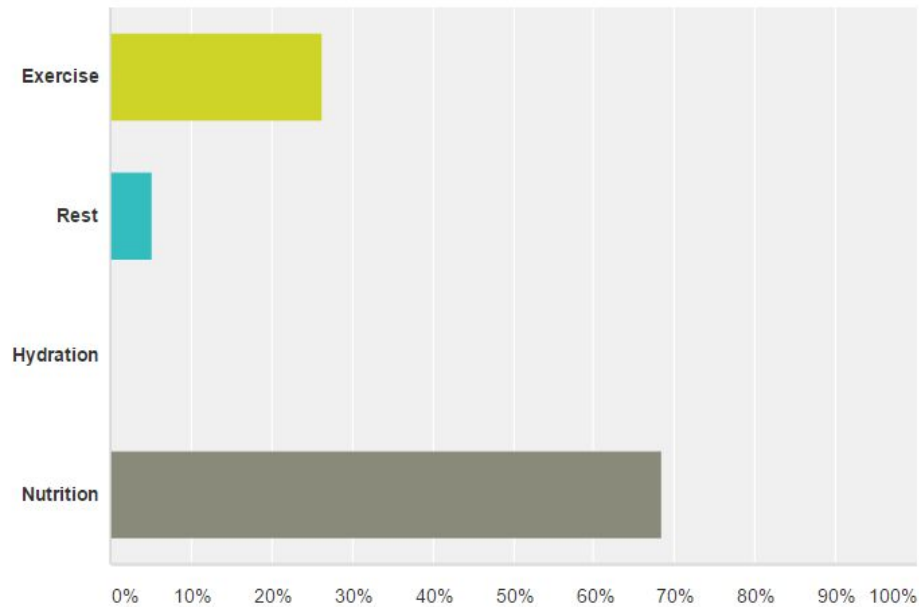
Furthermore, based on our findings there appears to be room for improvement when it comes to living healthy. It's evident that many individuals want to be healthy, but for one reason or another (whether it's time, money, or motivation) they struggle in their pursuit of a healthy lifestyle. Previously we defined a healthy lifestyle as a being properly hydrated, eating healthy, getting the right amount of rest, and exercising. It is our belief that this problem can be solved with a mobile application.

We can also conclude that there aren't any systems currently designed to integrate a diet and workout routine into an individual's day to day schedule. The available solutions seem to be temporary fixes for quick weight loss rather than structured solutions for a healthy life. Our proposed solution has an emphasis on working closely with the user's existing schedule to find opportune times for "healthy" tasks.

Additionally, a consistent reason in the survey responses for not being healthy is lack of motivation. Many individuals don't have the energy or drive to exercise and eat healthy. Perhaps this comes from previously failed attempts or uncertainty in their strategy. Whatever the case, it's apparent that our solution needs to address the issue of motivating our users. Moving forward we plan to research what motivates people and what deters their efforts. By incorporating these concepts into our design, we feel this will set us apart from the many existing "solutions" in the health domain.

### Given these options, which factor do you feel most affects one's health?

Answered: 19 Skipped: 1



What constitutes a healthy lifestyle?							
Diet	Exercise	Rest	Meditation	Sex	Socializing	Hydration	Fresh Air
16	15	5	3	1	2	3	1

Finally, as seen from the graph and table above, diet and exercise are perceived to be the biggest contributing factors to overall health. Our plan, then, is to develop a solution that tailors a schedule for the user that not only aids in managing their diet and exercise, but also provides motivation to actually keep this schedule included in their day to day lives.

In summation, our solution will rely on a deep understanding of our user base. We see a clear lack of motivation combined with the stress of a daily schedule that is inhibiting users from living a healthy lifestyle. Our goal is to provide a digital solution that will alleviate the burden of planning and motivate our users to want to be healthier.



## Sources And Documentation

Olivera, Tiago, Diogo Leite, and Goreti Marreiros. "Fitness App with Intelligent Plan Generator." *PersonalFit*. N.p., 20 July 2016. Web. 07 Feb. 2017.

Springen, Karen. "The Top 6 Exercise Excuses and How to Beat Them." *WebMD*. WebMD, n.d. Web. 07 Feb. 2017.

SurveyMonkey. "Healthy Lifestyle Survey." *Welcome to SurveyMonkey!* N.p., n.d. Web. 07 Feb. 2017.