**Fitbit Stat Tracker**

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**Abstract**

**1. Introduction**

Our group noticed that many fitness apps focused on the one individual using the app and that there was not many apps that had a focus on the user and his friends . With that in mind, we came up with the idea to make an app with a score system that compares your progress with your friend’s progress. Many apps have implemented a challenge system that allows two users to compete where the most steps in a certain period of time is the winner. We think this is an inadequate system because it only focuses on one aspect of the fitbit app; walking. There are many other aspects of the app that could be used in the challenge system like workouts, eating, or sleep. Our group made our app to be more in-depth and cooperative with the user’s friends and community which will make using the fitbit app more of a group workout environment rather than an individual experience. We focused on the test case of two Fitbit users, John and Jane. John is a man in his late 50’s and Jane is in her mid 20’s. John and Jane want to be able to compete, but their differing lifestyles make it difficult to have a fair and balanced competition. Our app aims to fix that. The rest of this paper first discusses related work in Section 2, and then describes our implementation in Section 3. Section 4 describes how we evaluated our system and presents the results. Section 5 presents our conclusions and describes future work.

**2. Related Work**

Many other apps that we researched had a challenge option where two users can compare how many steps are taken in a given amount of time. As stated before, we thought that this was not an adequate challenge system, because it does not implement all of the functions the fitbit app can provide like sleeping and working out. We decided to focus our app on making this challenge system fleshed out. We eventually ran into the problem on how to effectively compare some users actions with others, for example one user could do a lot of walking but another do a lot of working out. We eventually decided to use a point system to make it more balanced. This way, the challenge system will effectively compare two users, by giving points to both the user that walks and the user that works out. For example, if a user does a lot of walking during the work day, that isn’t really a fair competition to the person with a desk job. Our application will give more points to the person that goes out of their way to workout and be healthy. The person that just walks won’t get as many points for low intensity workouts in comparison with high intensity workouts.

There weren’t many other apps that solely focused on the challenge aspect of a fitbit device. Therefore, it would be hard to compare the functionality of another app to ours. Because of the comparison limitation, we don’t have any basis for the point system in the app. The points we come up with for each task will be completely experimental. It could take some time to balance out the points earned from each task. Other than that, we do not feel we should compare the functionality of our future app with most of the apps on the marketplace. The things that we should take into comparison are design aspects. Later in the paper, we will talk about how important simplistic design is and how it’s important for the user to know exactly how the app is supposed to work..

**3. Implementation**

We will be creating a web app that allows fitbit users to focus on completing specific fitness tasks (Ex. Running a mile in 10 minutes, Having 30 minutes of active time in a day) to earn points. These points are used to compete with friends in a more balanced form of fitness competition. To create the web app, we first needed to come up with a design. During the design faze, we all three made bluelines of what we thought could be a successful app design. Once we had drawn bluelines, we compared and communicated what we thought was best from each design. Each design had it’s flaws and each had it’s own successes. After comparing and deciding what each of us liked, we were able to choose the best from each and combine them into our first design draft. After the design draft was completed, it was our task to get feedback on that design which will be covered in the next section of our paper.

We will have individual user accounts linked to fitbit devices. We will pull fitness data from the fitbit devices and compare this data with requirements for fitness tasks. If the data meets these requirements than a user will have completed a task for that day. Each completed task earns the user points. Users will be able to compare points in a leaderboard in order to see who has the most points. Users will be able to receive more points if they go out of their way to workout. High intensity workouts will give more points to a user than a low intensity workout. This idea is extremely important because it will level out the playing field and give a more interesting competition. The app itself will be made in Ruby on Rails using agile and lean development styles to provide an efficient and flexible mode of development

**4. Evaluation**

During this project, we were to practice Lean UX. Lean UX requires you to acquire feedback and helpful hints from potential users. After we had decided on the initial design, we used close friends, roommates, and others to retrieve feedback. The feedback was helpful in the design of the application.

We had done enough research on similar applications and knew that it was absolutely essential that we kept the design “simple” and easy to use. Some of the initial feed backback came from Patrick’s connections. Many of them didn’t exactly know what we were trying to accomplish with the original design and suggested that we have an “about” application page. We thought that this was a good idea and immediately added the page into the next design. Some didn’t understand why the tables on the initial page were accessed by the press of a button and thought that the application should support a “slide right” technique. We decided to not add this functionality into the application because of the limitations a web application has to the device API. Other feedback included adding calories burned and steps taken for the convenience of not having to go to another app for that information. We decided that particular feedback was out of the scope of the project and could possibly clutter the application. Adding in un-relevant information into the app could really raise some confusion about the applications goal. Our main goal was to give users a way to compete against each other fairly and adding “calories burned” functionality and “steps” doesn’t really help us approach that goal.

All feedback on the actual design and simplicity of the application seemed to be positive. One of our test users suggested that she felt confused about how to navigate the application. She suggested adding a splash home page that starts the applications navigation. After some thought, we left it out of the final design for this sprint, but based on future feedback it will be considered as an add-on. Most users thought that our application design displayed all of the information needed without cluttering up the page. The main goal when we started designing the app was to avoid cluttering and we think we were very successful in that regard.

Many of the complaints with applications such as “MyFitnessPal” were that the application was “ugly” and the interface was cluttered. When we noticed how good the reviews were on the “Drivebit” interface, we knew that it was important that our application have a sense of simplicity. A simple interface helps the user know exactly how the application should perform. Most of our bad feedback was on the navigation of the application, once a user was on a page they seemed to know exactly what it was supposed to do. As we continue to build the application and improve navigation, our solution will be very effective in addressing the simplistic interface problem that many apps struggle with

**5. Conclusions and Future Work**

The problem we have recognized is that using raw fitness statistics isn’t the most efficient way to have a competition between two people trying to get in shape. Every person is different, and they are individually suited for different amounts of physical activity. It is very easy for a person in good shape to win out over a person trying to get in shape. This kind of one sided competition is less enjoyable than a balanced competition.

We are making a point based fitness competition app that allows for more balanced and fair competition. Users will be able to complete fitness tasks that are based on effort more than raw numbers to earn points. This allows people who are trying to get in shape to have a fair chance against their fit friends. As the progress, the point system will keep improving and hopefully we will reach our goal of a fair competition.

This is the only fitness competition app that we know of that compares something other than raw fitness data (Number of steps, calories burned, distance traveled). Raw fitness data works fine in some cases for fitness competitions, but for people just starting to work out it can be disheartening to lose in these kinds of contests. For people in shape it is easy for them to sit comfortably at the top of leaderboards, and not push themselves. This app will do a better job of motivating both types of people to continue bettering themselves.

There are plenty of features that we will not have the time or resources to complete in class, but should the project continue we will look into doing the following.

* Supporting other devices
  + There are devices like the Nike+, Vevo Fit, and JawBone that also track fitness statistics. In the future these devices could be supported by our app.
* Offering rewards for continued use of the app
  + Points earned from fitness tasks could be used to buy coupons or gift cards from participating companies.
* In app achievements
  + Long term Achievements or badges to celebrate fitness achievements over longer periods of time.