

# REDESIGNING LOCAL FITNESS TRACKERS FOR HIGHER USER ENGAGEMENT

A blurry, semi-transparent background image of a person jogging on a path in a park. The person is wearing a cap, a light-colored tank top, and dark shorts. The background shows trees and a fence, suggesting an outdoor setting.

# EXECUTIVE SUMMARY

## IMPROVING THE APP EXPERIENCE

### PROBLEM

#### Lack of Engagement

Customers currently do not have enough **incentive to use a fitness app everyday** due to its inability to make fitness scores a more meaningful metric of success for result-oriented goals. This causes 82% of users to not use a personalized digital coach and 51% of users eventually dropping the app from lack of value.

### RECOMMENDATION

#### Personalized App Experience

##### 3 things need to improve:

1. Improving the UI/UX by adding goals to the overview screen
2. Incorporating a **personalized goals system**
3. Introduce a daily streak counter & **personalized notifications**

### OUTCOME

#### Increased User Retention

Reduce the number of recreational users who are leaving by 50% and increase the daily interaction rate to 88%<sup>2</sup> in at least first 6 months of subscription of a fitness tracker app itself.

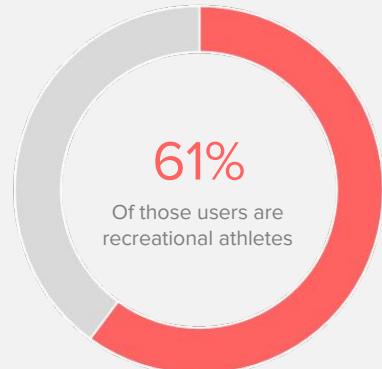
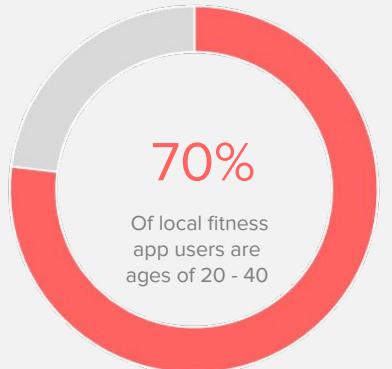


## Customer Opportunity

# TIM MARCIN

29 y/o recreational enthusiast; bought a digital fitness tracker to workout amid pandemic

“So, there's all this stuff — pages of graphs, lots of stats, impossibly minute details. But...I didn't totally love the experience... At times, though, this amount of information was **overwhelming** to me. The app can really feel like a labyrinth of data and visualizations... made it **hard for me to focus on simple goals.**”<sup>1</sup>



## FOCUS ON RECREATIONAL USERS

Based on data for a target market of recreational users between the ages of 20 and 40, we can determine that they have an average salary ranging from \$33,280 to \$59,020<sup>1</sup>. This is significantly higher than the median \$35,977 for all Americans<sup>2</sup>, and is the local market's largest, current, and growing user base. Most of these users have the **common goal of either reinforcing good habits, losing weight, or sleeping better**.

People who begin to subscribe to a fitness app with these goals are **the most likely to leave**<sup>3</sup>. Increasing daily app usage incentive by letting users see value is our key to achieving our goal of 50%+ Daily App Usage.

# THE PROBLEM IS ENGAGEMENT

Digital fitness trackers offer **top of the line, data-based insights**, but they currently **fail to create incentives** that will engage users in the long run.

## Budget-Friendly

8%

Digital fitness member cost is only ~8%<sup>1</sup> of the average family's ~\$4500<sup>2</sup> spendings on entertainment and fitness services. Many families aren't making the most of fitness tracker subscription to keep a subscription.

## Scale of the Problem?

47%

41% - 47% of people who cancel have stated that the tracker either “fails to meet budget” or has not helped reach goals. Too many users find digital fitness tracker performance elevation value proposition to be inadequate.

## Intentions are Key

The primary reason why 88%<sup>3</sup> of people fail at New Years resolutions is the fact that people set “moonshot goals”<sup>4</sup>. With digital fitness trackers, the #1 goal among leavers was losing weight and improving sleep, both result oriented goals. This makes it clear: people with moonshot goals most likely do not use the app and quit.

## Some find trackers useless

2.7%

They don’t have a reason to log onto it every day. Research shows that people who are already healthy are just as likely to find fitness bands useful as those who do not workout finding it useless.<sup>5</sup> That why people who have solid, short term goals (training for competition) are least likely to leave. Those who are leaving need a reason to engage with the tracker’s experience to not find it useless.

THE

# OPPORTUNITY



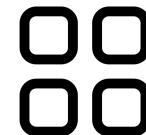
## Behavior Change via Extensive Data Visualization

First, we keep doing what trackers all succeed at: outputting customized data. Here's the twist: we can then use this information to create **daily workout goals based on strain scores<sup>1</sup>** (or other health metrics captured by a tracker) tailored to each specific user.



## New Streaks System with Push Notification Reminders

By implementing a streak system, local fitness tracker companies can expect to see **50%+<sup>2</sup>** daily interaction rate with its preexisting subscription model. The push notifications help even further by **increasing app retention<sup>3</sup>**. Both of these features are targeted at providing further incentive to use the digital app daily by making workout a part of people's daily lives.



## The Intuitive, Lifestyle App We Love

Fundamental psychology shows how new features uses dopamine to make the exercise lifestyle **more rewarding for the user's input<sup>4</sup>**. We take the experience of finding fulfillment in pushing our limits to a habitual level. **Increased daily users, more retention on the app, and a thriving community** all will come because working out is no longer a chore.

# The Facts Show Results

Research shows value to be found in incentive-based, goals-reinforcement based fitness training models

**88%**

Of people continue fitness band subscription under a goals incentive program after 6 months<sup>1</sup>

**80%**

Maintain cognitive motivation on tasks that provide high, visible expected reward-value<sup>2</sup>

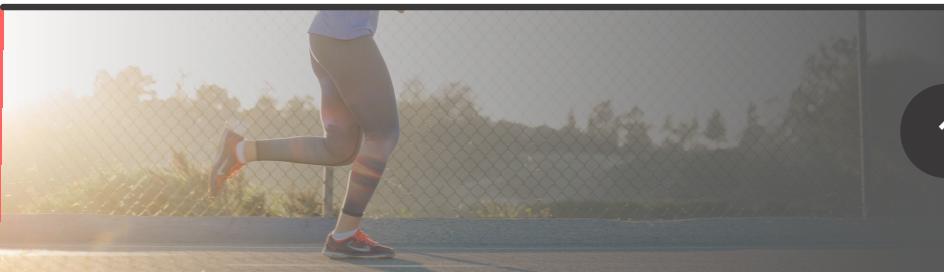
**74%**

Of local fitness trackers' total consumers will experience significant performance increase from dopamine powered goals system.<sup>3</sup>

**50%**

Attend gym more often, given a value incentive<sup>4</sup>

# Solution Overview



1

## Daily Streak

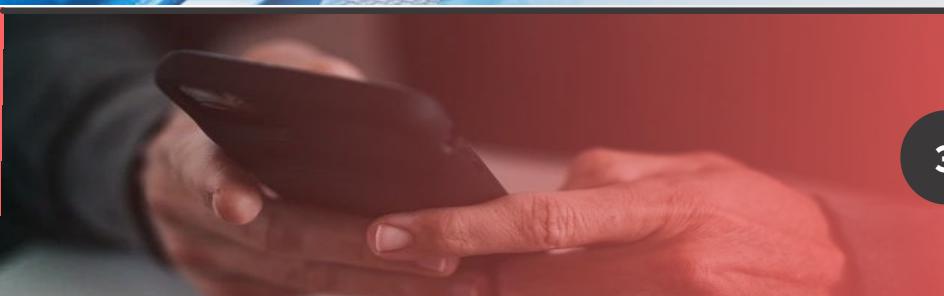
Trackers analyzes a lot of data from sleep to strain, but there are currently no system encouraging the user to upkeep daily performance based on those insights. A daily exercise-streak is a feature that can increase daily user engagement by 50%.<sup>2</sup>



2

## Personalized Goals

Trackers also know that many of its users has result-oriented goals, or macro-goals. Goals like these can have success metrics that are difficult to quantify. Helping users build habit-reinforcement goals can provide more value to them off of measurable success.<sup>1</sup>



3

## Personalized Notifications

Most trackers currently have no push notifications for the app, and yet, mobile app notifications boost app engagement by 88%.<sup>3</sup> A small reminder for the user to complete their daily goals is sometimes all it takes to fire someone up.



# DAILY STREAK

Case studies on the success of behavior-building systems  
Followed by a mockup of implementation into digital fitness trackers



#### Case Study Summary

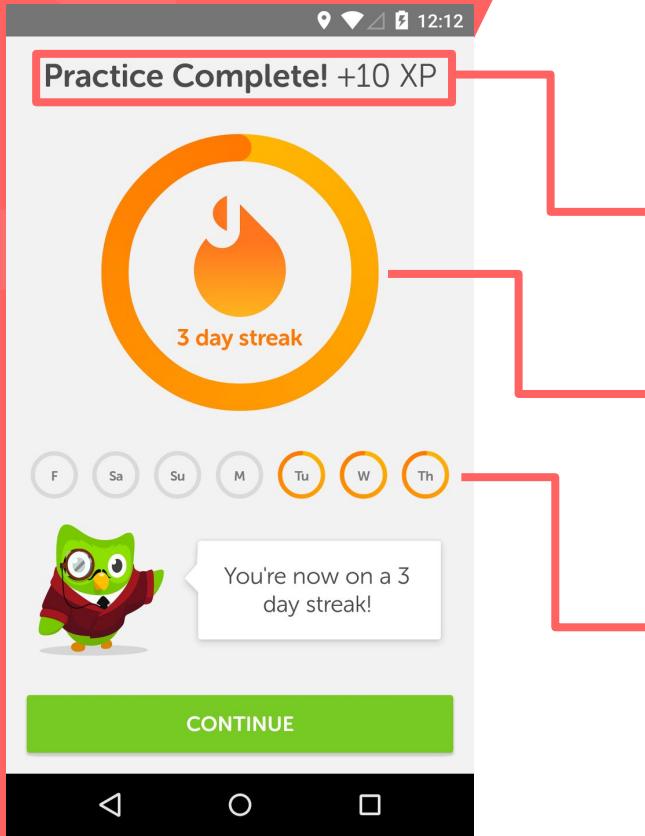
## Duolingo

Examining a top rated<sup>2</sup> learning system used by a billion dollar company.

A streak counts the amount of consecutive days a user accomplishes a task.

- By having a daily streak counter for language lessons, users are more incentivized to make daily progress by interacting with the app.
- Because users were motivated to complete a lesson daily and continue their streak Duolingo saw a **14% increase in daily app users.<sup>3</sup>**
- Duolingo's one-goal-completed-per-day system helped them see **50% increase in daily app users<sup>4</sup>**

The same increased engagement can be applied to digital fitness trackers' users. Learning languages and fitness both require daily continued progress building. Streaks make progress and commitment more visible.

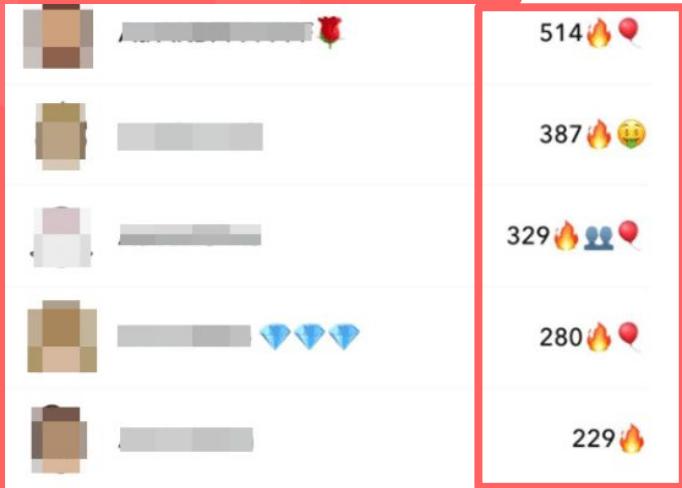


## Duolingo Streak Counter

Mini-rewards for task completion encourages dopamine boost, which is shown by research to encourage continuation of learning.

Emphasis is placed on number of streak days to encourage consistency, by taking up almost  $\frac{1}{4}$  of the screen.

Week overview gives user feedback on when they need to make sure that they upkeep the streak.



## Case Study Summary

### Snapchat

Streaks are so addicting, that friendships have been defined by them <sup>1</sup>

A snap streak counts the amount of consecutive days two users have sent each other a snap in the same day.

- By having a daily streak counter, users are incentivized to interact with friends daily, while being pressured to upkeep the daily contact.
- **63%<sup>2</sup>** of total users on Snapchat engage in streaks everyday by sending each other snaps **every day**. This shows that streaks urge users to interact with the app daily.

Digital fitness app users can also be encouraged in a similar way to upkeep workout streaks. Individuals can be incentivized to continue exercising daily while coaches can get a better sense of the individual's daily commitment to conditioning.



## Case Study Summary

### Streaks Workout

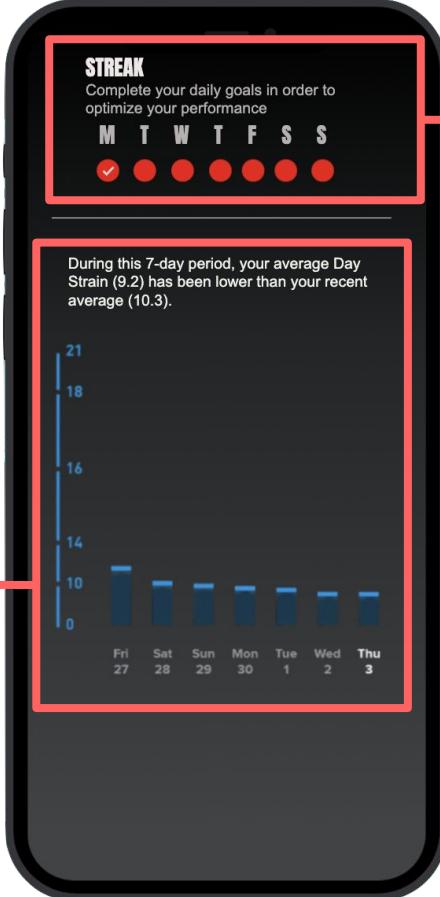
Rated #20 on Health & Fitness in App Store, 4.8/5 Stars with 5000+ reviews

A streak counts the amount of consecutive days a user has completed a workout per day.

- Users are kept accountable of the days they have worked out on to encourage building a daily habit of working out for at least a few minutes.
- In 2018, the app was ranked **#4** on the app store for fitness.<sup>1</sup>
- This is an example that shows the effectiveness, popularity, and **widespread demand for fitness streaks**.<sup>2,3</sup>

Local fitness trackers can benefit from the same. Streaks workout does not have the data analytics of those trackers to objectively help users make decision about their fitness. A fitness streaks incentive like this can superpower local fitness trackers' current services by building incentives off real data.

# Daily Streaks



The weekly graph of strain progress will be hand-in-hand with the daily streaks. This shows user direct correlation between peak performance levels and consistency of daily engagement.

Implementing a daily streak will allow users to gamify their experience as well as track their consecutive days working out with a fitness tracker app

A day will be checked off if a user has completed a goal

As seen in previous case studies, streaks are designed to habituate exercising while significantly increasing daily app usage with an incentive to interact daily.



# PERSONALIZED GOALS

A showcase of our mockups to for our proposed solutions  
As well as a case study of its effectiveness.

# APIs & Tools to Use

Adding a Geolocation API into trackers' database is essential to personalizing the user's goal system. Adding different locations in a radius near the user will enable the user to execute their goals whenever and wherever! Adding specific and different locations for users to workout out will further satisfying their personal needs. More opportunities will increase the likely on the user actually doing that specific task. Geolocation APIs essentially track the users IP Address from where the user is connected to the internet which can give you data on their zip code, latitude/longitude, country, state, and even street!

## Telize

Telize is a Geolocation API service which obtain's the user's IP address and asks the user for their other location information. Telize then would return JSON-encoded IP geolocation data. Telize is also supported by Cross-origin resources sharing CORS and JSONP.

Basic	1,000 Requests per Day	\$7 per Month
Pro	5,000 Requests per Day	\$22 per Month
Ultra	20,000 Requests per Day	\$50 per Month
Mega	100,000 Requests per Day	\$100 per Month

## geoPlugin

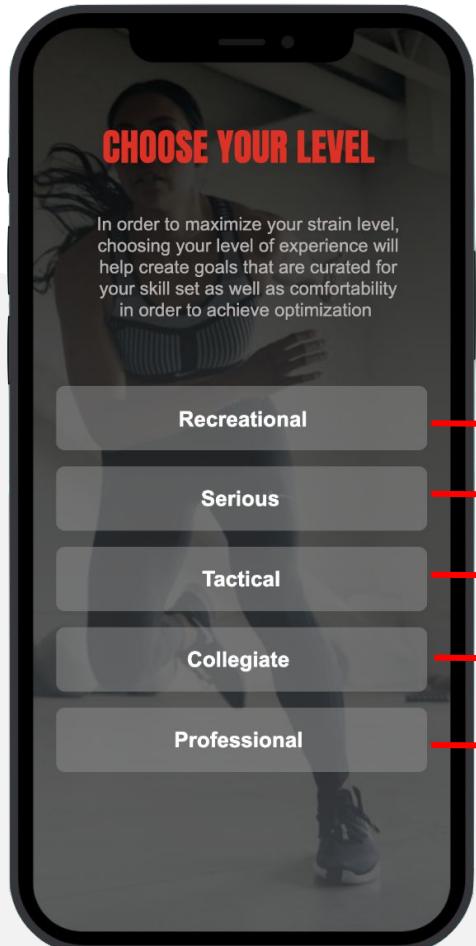
geoPlugin is the largest free and original free IP geolocation web service out right now since 2006. geoPlugin can be run on multiple coding languages including JSON, PHP, XML, CSV, ASP, and JavaScript. Both on IPv4 and IPv6 can also run on geoPlugin! In addition, it also contains a currency converter built in.

## Rakuten In-Depth Review on both Geolocation APIs



[Telize Overview](#)

[geoPlugin Database](#)



Workout goals can be tailored according to multipliers based on one's strain score. Our proposed modifiers for each difficulty level is as shown, based on [research for recreational athlete vs professional athlete capacities](#).

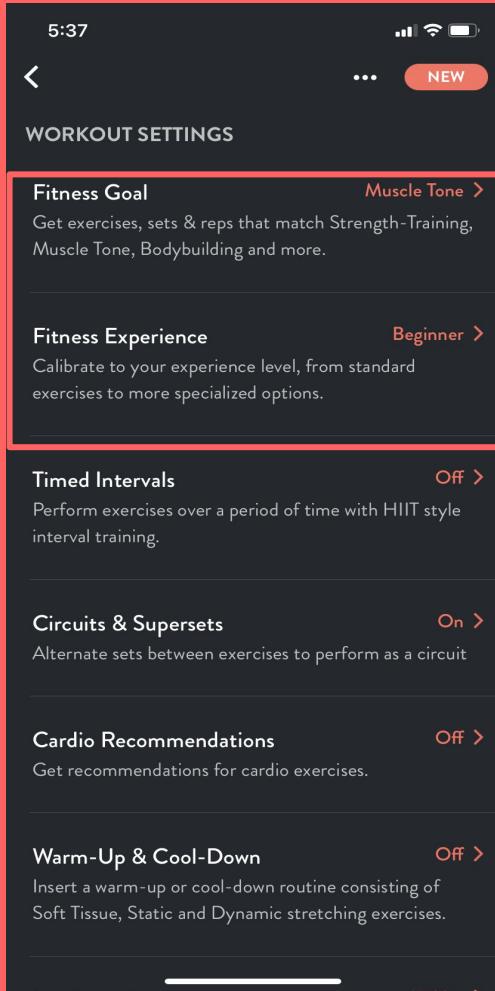
We take recreational fitness to be the standard baseline - 1.0x

Serious enthusiasts are slightly above the baseline - 1.20x

Tactical athletes need fitness for utility on their occupation<sup>1</sup> - 1.50x

Collegiate athletes train in a environment where performance determines opportunities for going pro - 1.75x

Professional athletes compete with other hardcore athletes for a living - 2.0x



# Spotlight: Fitbod

Editor's Choice awarded fitness app, 4.8/5 average from 100,000+ reviews

## Integrating Personal Goal Setting

Fitbod has many perks when figuring out whether or not to integrate it with a fitness tracker app. It has the personalized plan with only two settings that will ultimately create the perfect workout plan, users will be prompted to choose their level of experience in the Fitness Experience setting, which will be paired with their fitness goal such as Bodybuilding or Powerlifting, to generate a workout plan. Implementing a system, just like Fitbod, where daily goals will be curated based on the level of experience a user has.



<https://www.fitbod.me/partner>



# OUTCOME

The projected outcome implementing our solution  
should bring

# OUR UNIQUE ADVANTAGE

**Our biggest strength lies in our numbers.**

- Currently, there are only a few fitness trackers on the market to provide extensive analysis of athlete limitations from strain, sleep, and recovery. Not even Duolingo offers such **deep data analysis of quantifiable behavioral progress.**

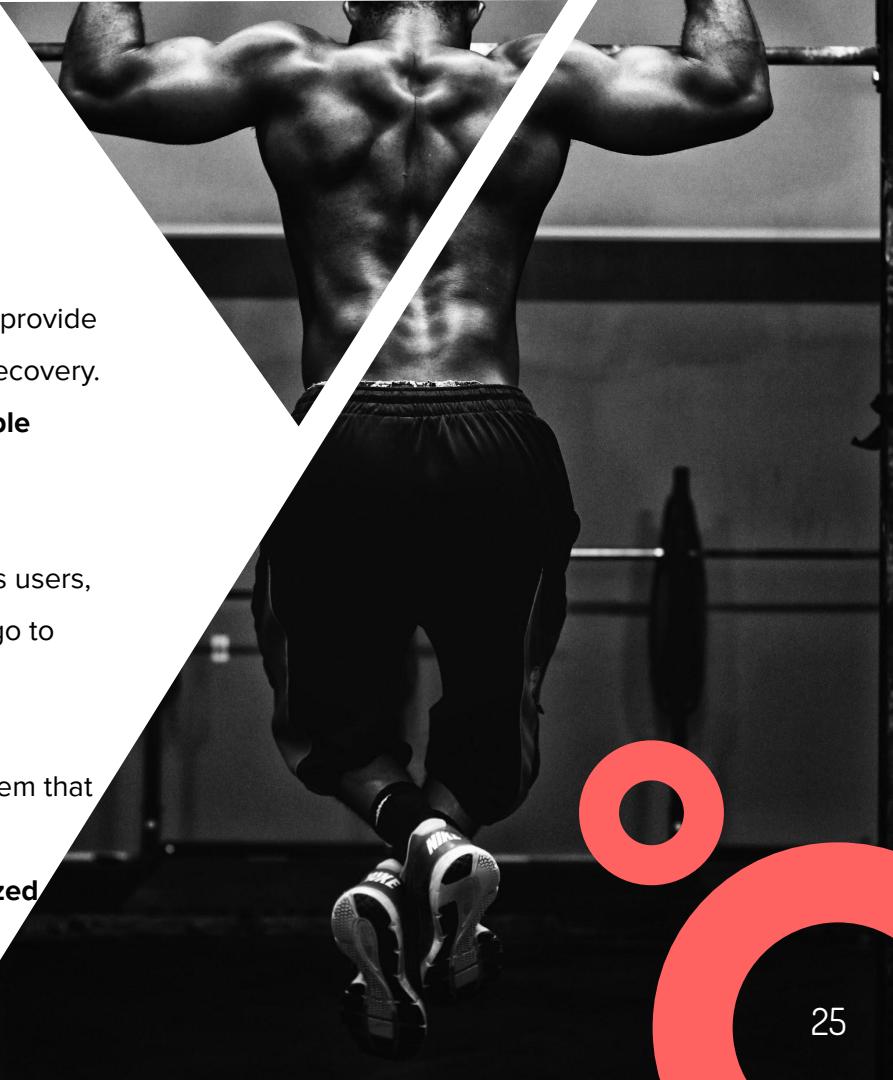
**Our biggest problem lies in how we use our numbers**

- Most digital trackers are still failing to generate daily value for its users, precisely because it has **no reinforcement systems** like Duolingo to upkeep user behavior.

**Now this is the best part:**

With the mockups shown, digital trackers can easily create a goals system that tailors specific workouts using strain score for quantifiable success.

- This provides a **clear, executable goal by leveraging personalized insights..**



# BOTTOM LINE FOR TRACKERS

1

## Increase of 88% Daily App Users

Not only can we achieve the 50%+ of Daily App Users, but we can achieve similar results as those in the [Harvard Medical School research](#), especially given some trackers' [distinguishing advantages with personal goals](#).

2

## 50% decrease in client loss

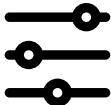
According to research, 50%<sup>1</sup> of trial patients under a commitment-based contract kept exercising after initial incentives expired. Habitualization of the fitness lifestyle, which our recommendations facilitate, was a key factor in resubscription.

3

## Projected profits: +\$150,000 subscription revenue

Given that Massachusetts has ~2400 subscribers, and each pays \$180 for 6 months renewal. Using projected DAU of 88%, loss prevention of 50% of existing users, and assumption that all weekly users (30% of 2400) continue subscription. The gains could have the potential to impact many more on the international level.

# THINGS TO KEEP IN MIND



## CUSTOMIZATION

Obviously, not everyone has the same body with the same fitness goal intensities. In fact, a failure to tailor goals to each individual can actually discourage users from continued app usage.<sup>1</sup>



## UNDERSTANDING

If no one understands what the point of this new feature is, we'll end up right back at square one. People need to understand that this feature is designed to let visualize the pushing of one's own athletic limits.



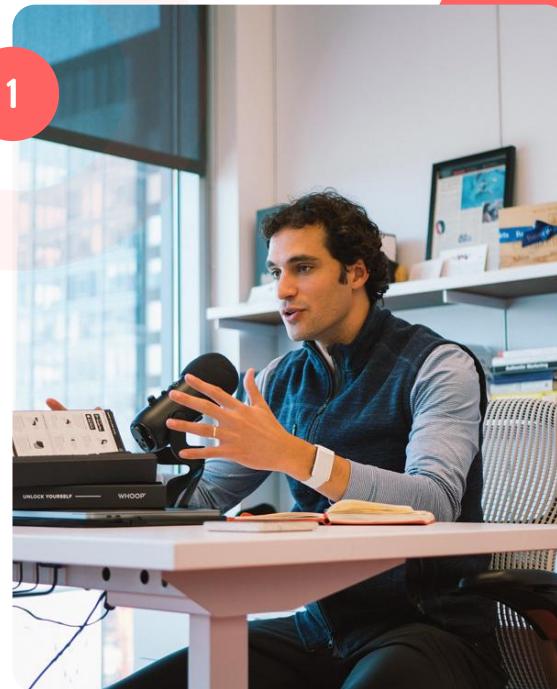
# IMPLEMENTATION

Actual application of the suggested methods

## **Step 1: Implement Goals System & UI Changes (February 1st - May 31st)**

We're reaching 2021 and the New Year's is THE time for people to make new goals.

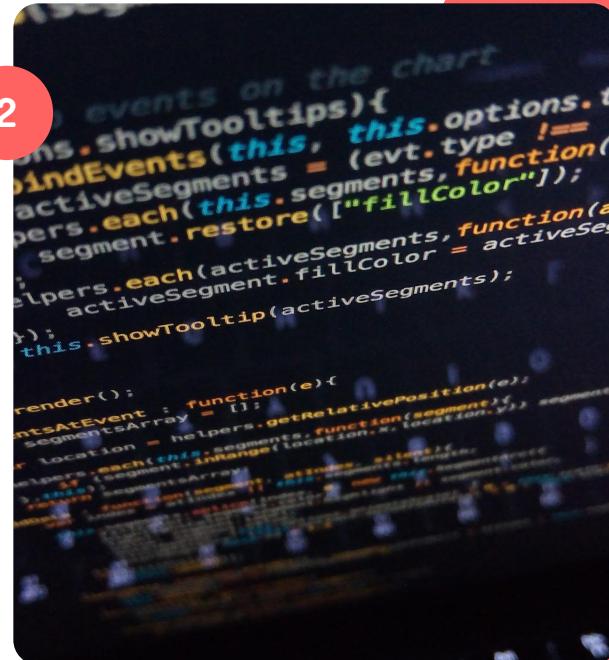
1. Finalize the UI/UX of the personalized goal system by implementing basic goals that align with the most popular workouts on the digital tracker app
2. Starting locating areas<sup>4</sup> where users can complete these quests and create quests based on those solutions
3. Integrate the digital tracker application with the Geolocation API Telize!
4. Most common goals for Americans who made New Year's resolutions in 2019 are exercising more (50%)<sup>1</sup> and losing weight (37%)<sup>1</sup>. We can base our marketing campaign off of this.
5. Starting creating interest through social media advertisements (Twitter, Instagram, Youtube for [Target Market](#))
  - a. Here's an [example post](#) for the New Year campaign.



## Step 2: Beta Mode (June 1st - August 31st)

---

1. A/B test the personalized goal system to each of the user categories (recreational, professional, etc.) to ensure that the added feature is actually making a change.
  - a. Examine task completion and which specific quests are completed most and least often, and implement, delete, tweak specific quests.
2. Utilize athletes, professional gymnasts, and other experts to promote and demonstrate the new Beta Mode.
3. Continue advertising on social media and giveaway early access to the people who have had the tracker app for a while



## Step 3: Release Feature (September 1st-)

After the 6 months of feedback gathering and implementation from Beta tests, feature should be ready for release around September 2021. People will want to exercise more often. The average person in September 2020 has gained anywhere from 3 to 15 pounds of weight since the pandemic started! <sup>1</sup>

- A) An example event to kick off release might be having a monthly challenge for three months for users to compete for 6 months of the free digital tracker subscription. The challenge would be designed for two people to win: The challenge would be completing the most amount of tasks and the second would be having the most Strain Growth!
  - a) This way, with only \$360, we collect **real data** to be used in future marketing campaigns and **prove effectiveness** of new system.
- B) Implement **more specific quests** for users after every week that complement their previous goals and results.



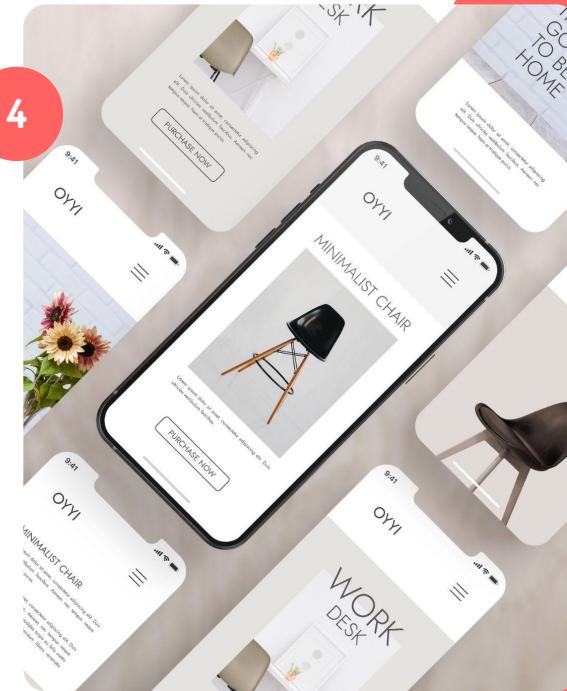
3

## Step 4: Monitoring Costs (September 1st-)

For an ideal fitness app the basic estimate will be anything from \$15,000 to \$30,000. Yet, if you choose a cross-platform, the cost may raise up to \$50,000.

"If you want to build a basic fitness app with features like sign-in/sign up, payment integration, workout log, social integration, geolocation, ratings, and review management and search and filter the exercises, then it will cost you anywhere between \$16,000-30,000. While a more advanced fitness app with high-end features and functionalities with those advanced tracking systems integrated will cost you about \$85,000 to \$130,000."

- Specifications and Design prototypes (40 hours — \$1000 to \$2000)<sup>1</sup>
- UI Designing (60 Hours — \$1500 to \$3000)<sup>1</sup>
- Front-end and Back-end development (400 Hours — \$10,000 to \$20,000)<sup>1</sup>
- Testing (80 Hours — \$2000 to \$4000)<sup>1</sup>
- Bug fixing and updating (40 hours — \$1000 to \$2000)<sup>1</sup>



1

February - May

## Implement Goals System & UI Changes

- Start advertising the new app experience, make the suggested UI changes and new features (location goals, goal types, etc)

2

June - August

## A/B Test New Features

- Give early access to the app's users with initial A/B tests

3

September +

## Full Release of Solution

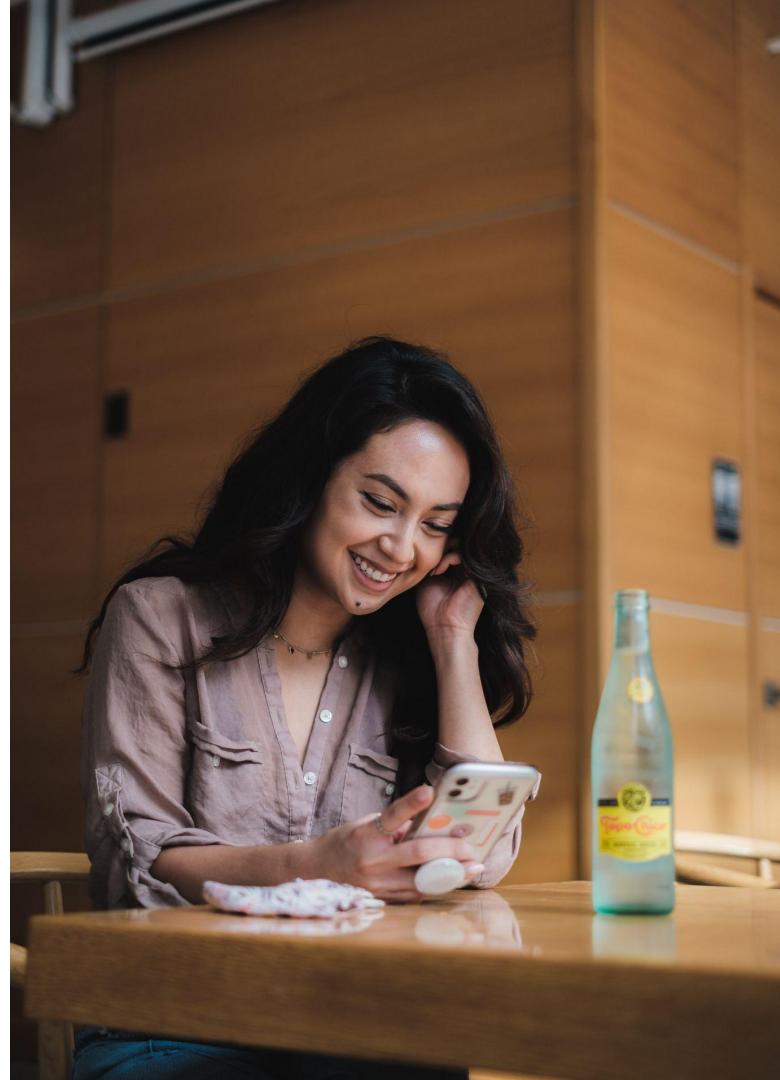
- Implement updates and feedback from the Beta Mode and release it to the public.

4

September +

## Monitoring Cost

- General upkeep of the personalized goals system and the new features



NEXT STEPS

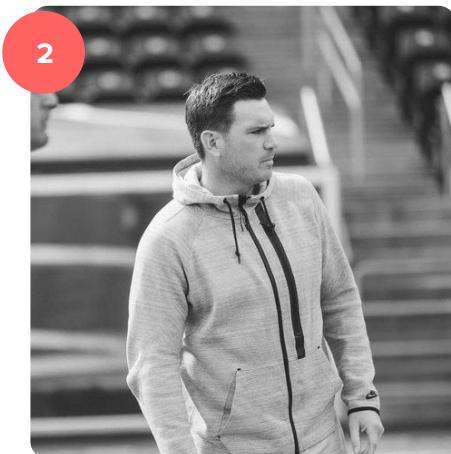
# CONTACTS



**BETH CHASSE**

SENIOR UI/UX DESIGNER @ DUOLINGO

WORKED DIRECTLY WITH DUOLINGO'S  
STREAK FEATURE



**RYAN FLAHERTY**

SENIOR DIRECTOR OF PERFORMANCE @ NIKE

EXPERTISE IN SPORT PERFORMANCE COACHING



**IAN WILSON**

DATA ENGINEER & ANALYST @ FITBOD

ONE OF THE EARLIEST DATA ENGINEERS FOR FITBOD

