

Kaleidoscopic Incorporated

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1 Abstract

"Changes will not come if we wait for some other person or some other time. We are the ones we've been waiting for. We are the change that we seek." Barack Obama[2]. During this period with large emphasis on technology and innovation, it is a wonder to us when we found that education has hardly changed from the past until now. However, only during the COVID-19 pandemic have we been able to start seeing improvements and new ideas coming up in order to cope with the rising need for a more individualized and personalized education method, for an example zoom "Enable quick adoption with meeting capabilities that make it easy to start, join, and collaborate across any device." [6]. It aims to connect people from different places to conduct meetings. This is the very definition of the quote "The world has changed, but education has not changed with it." — Robert T. Kiyosaki [1].



Figure 1: *Learning before and now*[5]

2 The Kal Inc. Story

Fitness exercises are very beneficial to personal health and fitness; however, they can also be ineffective and potentially dangerous if performed incorrectly by the user. Exercise mistakes are made when the user does not use the proper form. To prevent this, Kal Inc, a group of like minded individuals with a passion for helping others and serving the community to create this app as a solution to this problem.

2.1 Our Members

2.1.1 Kazu Ho [CEO / CDO]

Kazu is the CEO/CDO of Kal Inc., as well as a passionate coder with a heart to help others. He is well versed in blender, video editing, programming, and UI Design. Kazu has previous experience in developing apps and leads the team he has assembled with his creativity. In addition to overseeing the overall project, he assists everyone in their respective fields, ensuring that the project stays true to what has been envisioned.

2.1.2 Kiran Lim [CTO - iOS]

Kiran is the Chief Technology Officer of iOS development. He is an avid coder who has a burning passion for coding. In his free time, he codes apps and Raspberry Pi. Kiran has an innovative mindset that allows him to code in more efficient ways such that the users can have a smooth experience using his product.

2.1.3 Nathan Soon [CTO Android]

Nathan is the Chief Technology Officer of Android development. He started coding in Secondary 1 when he found out about Javascript and web development. After his recruitment into SST Inc, he started to learn about app development, where he learned more about the development of mobile applications. He uses this knowledge of programming to create Android applications.

2.1.4 Asher Ng Say Kiat [UI/UX]

Asher is the User Interface/User Experience specialist. He loves designing digital content, with his roots in digital art on keynote. Asher designs app UX to guarantee that his users receive a clean and aesthetically pleasing application to use.

2.1.5 Liu Yanzhao [Entrepreneur]

Yanzhao focuses on the business side of the company. He is in charge of our market research and manages the logistics and documents of the company. Yanzhao empathizes and interviews possible clients to find out their needs to better the app.

3 Links

Github Link: <https://github.com/TYPHOON345/BETA-Launch-Fitable>

Figma Link: <https://www.figma.com/files/team/1097862971736094459>

Notion(Timeline):<https://www.notion.so/kazuu/Fitable-aa1000ecb36047b7a99aadd1984b73dc>

4 Challenge - Understanding Issues

Issue: People do not exercise/do not know the correct way of exercising [Transforming the way people (learn to) exercise]

Why do we want to solve the problem: We want to modernize the way people exercise so that they would learn how to exercise properly by themselves

Why is it an issue: When people exercise incorrectly they can get injured/If they don't exercise they might develop health issues

Underlying issues:

1. People do not exercise as they do not know the right way
2. They do not look for a trainer as it is inconvenient

5 Identify - Understanding Problem

Our Goal: Develop an app that will teach the correct way to exercise (And motivate people to exercise more)

Existing solutions:

- Health app / Fitbit
- Google classroom (students only)
- Calendar

Constraints & Limitations faced:

- Time constraints
- Lack of Motivation

6 Define

6.1 Possible User Background

6.2 Analysis of User and user's needs

Name:	John	Alex	Mary
Age:	15	35	20
Background:	A Student in Iceland	A Teacher in Singapore	An University Graduate
Goals & Motivation	- To exercise at home - Exercise properly - Exercise without the help of a personal trainer	- Teach Students - Would like a fun and interactive way to teach students how to exercise	- Motivation to exercise - Would like a fun and interactive way to exercise
Needs:	- How to become fitter - Exercise correctly	- Visually track the progress of student's exercise - To ensure each student exercises properly	- Would like to remain fit without heading out to exercise - Would like to exercise alone - Feel motivated to exercise often
Situation:	- finds it hard to follow exercise videos - gotten injured while exercising due to wrong posture	- Cannot see student's movement over poor quality zoom calls - Not able to tell whether students are actually exercising	- Does not have enough time to head to the gym - Not motivated

6.3 Analysis of User and user's needs

Identify User Goals	Who are they? (Define Target User)	What is their main goal?	What is their main challenge/ problem to achieving this goal?
To exercise without assistance Know the correct methods of exercising	Someone who would like to exercise	To exercise correctly Feel motivated to exercise	They do not know how to exercise properly Lack of motivation

6.4 Problem Statement

How might we enable people to exercise safely and enthusiastically

6.5 Our Vision

We aim to design an app that uses pose estimation using machine learning to watch the user exercise. It serves as a self-directed learning service and modernizes the way people learn to exercise. These functions would encourage the user to exercise through its gamification and teach them how to exercise correctly using pose estimation so as to help them achieve their goal of exercising without assistance. The app also includes a 'class' feature for teachers to set exercise assignments for their students to do and for the teacher to accurately monitor their fitness level.

7 Ideate - Finding Solution

We aim to design an app that uses pose estimation using machine learning to watch the user exercise. It serves as a self directed learning service and modernises the way people learn to exercise. These functions would encourage the user to exercise through its gamification and teach them how to exercise correctly using pose estimation so as to help them achieve their goal of exercising without assistance. The app can be implemented in schools so teachers can set exercise assignments for students to do and for the teacher to accurately monitor their health.

8 Ideate

8.1 possible solutions

1. An app which includes gamification and teaches the user how to exercise through the use of pose estimation (Fitable)
2. Step Counter
3. Smart watch app to track heartbeat etc.
4. A device with a gyroscope to track the users movement

9 Evaluate - assess ideas

On a scale of 1 to 5, with 1 being the lowest scale	How accessible would it be for the user?	How feasible is it?	How educational is it? (Would it teach the user to exercise)	How easy is it to expand on
Fitable	4 (Phone app)	4	4	4
Step counter	2 (Step Tracker)	2	2	1
Smart Watch App	3 (Watch)	3	3	2
Wearable Device with gyroscope	1 (Device)	1	1	3

10 Prototype - from idea to reality

Functions - Education:

1. Uses pose estimation to teach the user the correct poses of the exercise
2. Allows SnW teachers to supervise students through the use of an assignment on google classroom
3. Would not require them to head to the gym, hire a personal trainer (COVID-19)

Functions - Gamification:

1. Uses pose estimation to watch the user exercise and translate their exercise into game points (pose estimation)
2. Able to replace a spotter in a gym with a free app that is available anytime and anywhere.
3. In-game shop
4. Fitable serves as a self-directed learning service and modernizes the way we learn to exercise

11 Accept - Market research

11.1 Primary Research

We did our market research by sending out forms to 15 people with different age groups and lifestyles. We sent the form out randomly so people will be unaware and we will be able to get unbiased results. The age is for us to find out the percentage of interest and the gender would be necessary to find out the gender to find out which exercise routine best suits them.

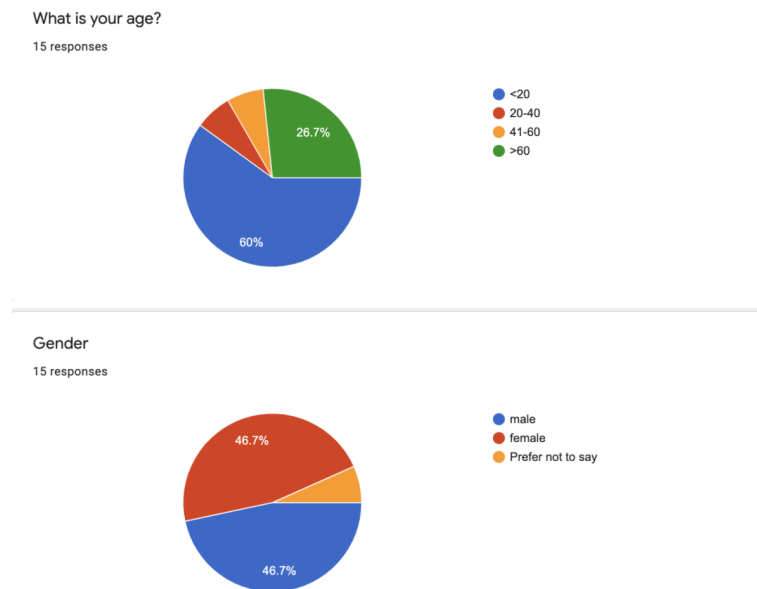


Figure 2: Age and Gender. (click for form)

The next question we asked was about their exercising schedule and habits. This is to find out the type of the audience that we will be getting to better cater our advertisements to. Whether they are already exercising or going to exercise. For example, we will be catering to mainly this 40% of people and the other 60% will be using our continue exercising function.

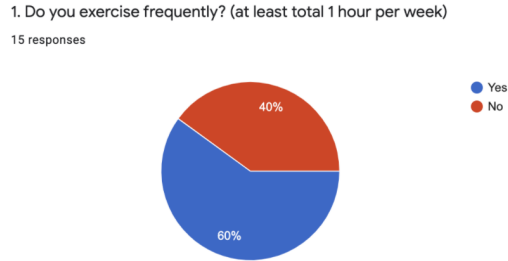


Figure 3: *Exercising frequency (click for form)*

Then after which, we asked what were the main reasons why people refuse to exercise so we can allocate the budget to pour into researching and refining the different aspects of the app. For example, if we have a high number of people who forget, we will need to increase the rate of pop up notifications. From this data here, we will need to increase the rewards given so that these large amounts of lazy people will exercise for long amounts of time.

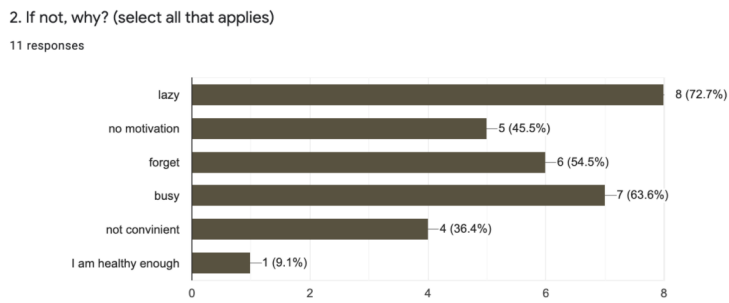


Figure 4: *Reasons for not exercising (click for form)*

Then we asked the respondents whether they would prefer this over going to the gym. This question actually has two purposes, the first being which one of our app functions will be the most sought after, and also to find out what other functions that we can add to improve our app. Most of them prefer to use the app due to its convenience and privacy. There is absolutely no travel time, and you will be able to get a free personal trainer that is available for you 24/7. This is no wonder why people would prefer using this over going to the gym

3. Do you think you would rather use this or go to the gym? Why?

15 responses

this. can exercise alone so ppl wont judge :)
I would rather use this as I like working out at home more. (this is also free right)
yes because going to gym is not that convenient for mew.
I think that I would rather use this as I am more likely to stay at home and do at-home workouts with the equipment i have currently (weights etc)
yes because it is more convenient.
no because I dont like to exercise.
I would like to try this as I can save travel time to gym
yes because I have difficuluty going to the gym because I am old
ves because I dont like to go to the gym

Figure 5: *Why don't you go to the gym? (click for form)*

This is to find out whether we should spend effort designing a well-created character that encourages users to exercise. From this data here we have an overwhelming 93.3% who want; it shows that we should spend some effort designing a character mascot who will encourage the users.

4. If we make this app into a game with unlock-able avatars, would you be motivated to keep exercising?
15 responses

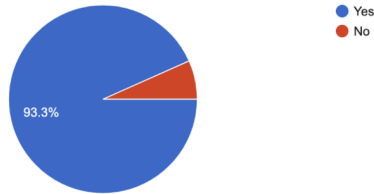


Figure 6: *are avatars a necessary addition?* ([click for form](#))

This question is to ask whether users appreciate the functionality of the pop-up notification that reminds them to exercise daily. These popup functions can also be used to remind students that their exercises assignment are incomplete. 100% of the users would appreciate it, meaning that we wouldn't need to bother making a function where they can switch it off and increase the rate at which these notifications appear.

5. We also have reminders for those who forget to do your exercises, will you appreciate that feature?
15 responses

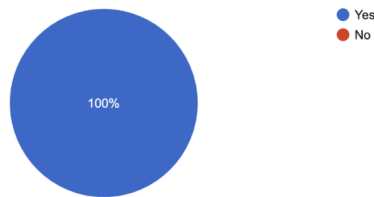


Figure 7: *reminders* ([click for form](#))

This is to find out whether they will prefer the accuracy of our app over other health-related apps that will aggregate the number of calories burnt based on the number of steps walked. And an overwhelming 100% would prefer it, meaning that our app concept will be well received in the market.

6. Using pose estimation, we can accurately estimate the amount of calories you burned after analysing the type of exercise you did, it will be co...nd that feature useful? (e.g. 127kcal = 1 soft serve)
15 responses

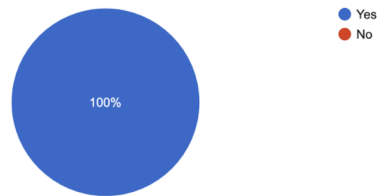


Figure 8: accuracy ([click for form](#))

This is to find out whether our function 'leaderboard' allows different places to compete with each other in the app. and only 20% of the users do not want such a function, so we can make it such that they can opt-out of this function in the app to cater to this 20%.

7. The game will have a leaderboard function that will allow the user to compete with other users of the same app. Upon reaching diamond league, they...at keep you motivated to keep on using the app?
15 responses

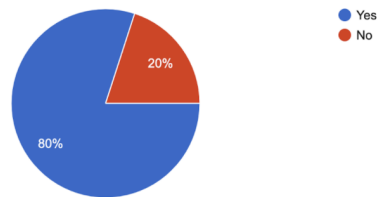


Figure 9: leader board ([click for form](#))

This is to see whether our app will be well received in the market overall. And the result is that all of them are at least four and above. This means that our functions will be adequate and the public will receive them pretty well.

8. Overall, on a scale of 1 to 5 how satisfied are you with the features of our app?
15 responses

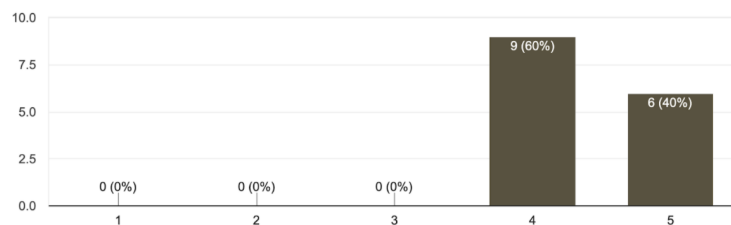


Figure 10: overall satisfaction ([click for form](#))

The next question was about whether students will prefer having an app that can be able to accurately track their exercising process and send it as a report to the teacher. The teacher will be able to send a code to the students and during the student's SnW lesson, their individual phones

will be able to track their process and correct their posture without the teacher helping them to do so.

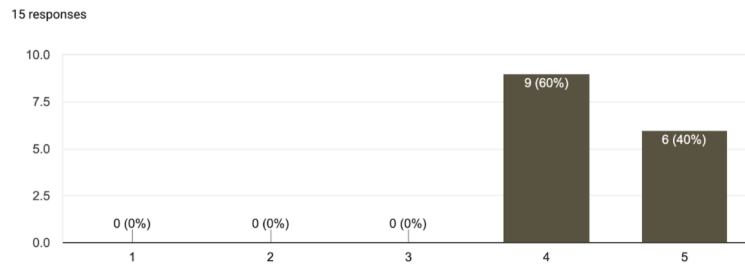


Figure 11: *classroom feature (click for form)*

Finally, the last question is to ask for their opinion on whether they want other functions for the app so that we might consider and include them in an update. And surprisingly, we did get a few possible results, being “maybe can do workouts that superheroes or normal characters do? since it’s like unlocking avatars, it’s like a ”boss level” and have the character-related exercises in order for us to unlock it since it might also be quite hard. but overall I like it very much! :-)”

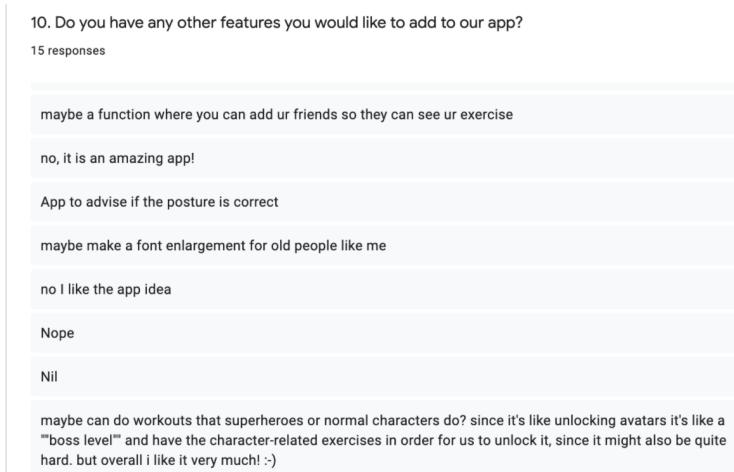


Figure 12: *overall satisfaction (click for form)*

11.2 Summary

We will be using this information to cater to different types of users and try to make the app better every time we update the app. From our results, we already know that our idea will be well received by the public, however, we still have to refine the functions that will be coming along with the app that complements the entire app. Therefore, it will be important to leverage these results in order to bring the best of our app to the public.

11.3 Secondary research

11.3.1 Define your competitors and how you compare

The closest app idea to us will be the ring fit adventure by Nintendo. However, there are certain disadvantages to this particular app.

Similarities	Differences
<ul style="list-style-type: none"> • They both have the idea of combining exercise and games together. • Both encourage healthy living via exercising. 	<ul style="list-style-type: none"> • requires a Nintendo while the other only requires your phone with working front camera • Ring fit adventure requires WiFi but ours does not require a continuous WiFi connection. • Ring fit is a hardware solution while Fitable is a software solution. • Ring fit adventure can only have certain exercises that make use of the ring, ours on the other hand can monitor virtually any exercise because of pose estimation. • Ring Fit adventure does not have a classroom feature.

The concept of the ring fit adventure is similar to ours, but ours is on a phone and makes use of pose estimation which is more accurate and less cumbersome than ring fit adventure which requires a physical “ring.” Furthermore, it does not have a classroom feature to let teachers assign ‘homework’ to students

11.3.2 Pricing (Cost of Developing and Maintaining the App)

The price of developing the app is free as it is just hard coding, however, we do need a fee of \$148 per year in order to get a subscription of apple developers so that we can access better coding possibilities which includes pop up notifications. In the future, we would like to expand our team which would require more funding.

11.3.3 Future development of App (e.g. technology advancement)

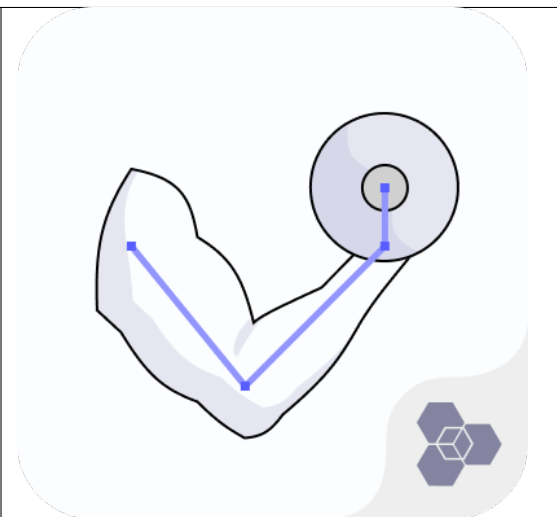
In the future, I feel that we can make use of 3d visuals/augmented reality in order to better let the users know whether they are doing the exercise correctly and whether they will need to change their posture. Another possible use for our application is for physical therapy and/or physiotherapy by monitoring physically disabled users and aiding them in creating a consistent routine for their recovery.

12 Design

12.1 Color Scheme

	
Colour scheme	Main colour: FFFFFFFF
Colour Ranking	Secondary Colour: 3E3F6A

12.2 Icons Used

	
Icons used	link

13 Programming

13.1 Front-end

13.1.1 Main Programming Language

Main Language in which your front-end	Swift for iOS Java for Andriod
Supporting Languages used in your app	JSON

13.1.2 Packages Used

Programming Packages Used	SwiftUI Foundation MobileCoreServices Charts FirebaseAuth GIDSignIn network
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13.2 Back-End

13.2.1 Main Programming Language

Main Language in which your backend	JSON
-------------------------------------	------

13.2.2 Packages Used

Programming Packages Used	Firebase Client SDK GoogleAPIClientForREST Associated Domains GameKit firebaseDynamicLinks
---------------------------	--

13.2.3 Cloud Tools

Cloud Service Used	Firebase Dynamic links Firebase Authentication cloudFirestore
Features Used	Firebase for authentication Realm for storage

14 Presentation

14.1 Links

link to presentation slides	link
link to demo video	link

14.2 Presentation Sections

Section List	<ol style="list-style-type: none"> 1. Introduction 2. Background Research 3. Importance of Problem 4. Solution 5. Unique Value Proposition 6. Competitors 7. Business and Logistics 8. Thank you
Slides in each section	<ol style="list-style-type: none"> 1. Slides 1:2 2. Slides 3:5 3. Slides 6:6 4. Slides 7:7 5. Slides 8:10 6. Slides 11:12 7. Slides 13:14 8. Slides 15:15

14.3 Presentation Assignment

Kazu	Slides 1:4
Nathan	Slides 5:7
Kiran	Slides 8:9
Asher	Slides 10:11
Yanzhao	Slides 12:15

15 Market - Business Planning

15.1 Business Background/ Introduction of Company

15.1.1 Company name - Kal Inc.

Kal is short for kaleidoscopic, the definition of kaleidoscopic being continually shifting or rapidly changing. This sums up our company, whose goals are to constantly change and come up with innovative products and stay relevant to the rapidly changing world that we live in now, even more so for the development and use of Technology. Inc is short for incorporated, which is widely used in technological companies; since our company is an app making company, it makes sense for us to have it. Currently, as medical science is having medical breakthroughs, as part of a kaleidoscopic company, we hope to be able to incorporate these findings into our apps to better cater to our exercising users of the app “Fitable” which will have an AI system that will figure out the best exercise routine for every user, serving the community.

15.1.2 Business/ Brand/ Name of App- Fitable

-able is a suffix used in English as a highly productive suffix to form adjectives by addition to stems of any origin. We hope that our app is able to act as an ‘highly productive adjective’ to help people get fit, thus the name fitable with the highly productive suffix ‘able’.

15.1.3 Company Tagline - To serve our community

Our company creates apps for the community, for the people. It is the people we work for, and that is our raison d’être.

15.1.4 Company Vision Statement

To inspire and contribute to the Internet of things by providing the best exercising environment for every user through integrated education and research along with

innovative coded solutions. We aim to be able to come up with a groundbreaking innovation that can be in the internet of things with sensors or other hardware devices that will allow us to be widely known in the world. People will all know about our products and will use it everyday due to innovative products which are backed with concrete research and carried out through a coded app. They will also use it due to the fact that it is effective in making people get fit. Through our app, we want them to be able to benefit from our innovative apps that allow them to reveal the better and fitter version of themselves.

15.1.5 Company Mission Statement -

To provide solutions in the form of an groundbreaking apps, creating a vibrant and elegant AI integrated environment for all users to better themselves in. We aim to create elegant and simple apps with machine learning to help all the people with their daily tasks. It will unlock people's hidden potential and create a more vibrant society, helping the world.

15.1.6 Proposed App

Our app is an exercise tracking app to help deal with the high percentage of people who do not exercise regularly. It has functions to keep the users hooked onto using the app and creating a simple yet effective exercise routine to help users stay healthy which strengthens the body to fight viruses. The app is able to use pose estimation to watch the user exercise and translate their exercise into game points that is able to keep them hooked onto the 'exercise game'. Theoretically it is able to replace a spotter in a gym with a free app that is available anytime and anywhere. Do look at this link for more information: [link](#).

As for the Educational feature, it will include a classroom mode where teachers will be able to send classroom codes to the student and they will be able to receive time bound exercise assignments they have to complete.

15.2 Who is the User?

Our app works for everyone but we are mainly targeting young adults and children who are 20-40. Most of them like playing games while others like sports. However, most of them do not enjoy exercising. That is a big problem as this lack of exercise will lead to diseases in the future. Therefore, we plan to mix exercise and games together in order to attract more children. There will be an education function so that Physical education teachers can more easily track their exercising process.

15.3 Business Canvas/ (Executive Summary)

15.4 Specific

15.4.1 Marketing Goal(s)

To identify the target market and build up strong brand awareness here. To brand ourselves as a more efficient and wallet friendly app than other healthy exercise apps. To do this, we will need to generate good leads in order to get awareness. We will be making use of a website to do this. As for conversion, we will be calculating this using downloads generated per website click.

15.4.2 Marketing Strategies

McGrath states that a product strategy is, "like a roadmap, and like a roadmap it's only useful when you know where you are and where you want to go"[4]. It is important that this product "Fitable" is able to set the benchmark for possible future products pose estimation AI. However, there are already other similar apps out there, but just without the boy estimation. Therefore when we go into the market, we plan to go big to attract all the interested users in order to have as big of an awareness as possible. We will be pumping more money into websites and advertisements. Moreover, we will have to persist for a while or else people will simply turn to other products. By clearly defining the target market for each product launched, this company should be able to

Problem -unmotivated -forget to exercise -busy Existing alternatives -health app -fitbit -calender	Solution -create a reason to exercise -have an alarm to notify user to exercise -schedule quick and easy exercises.	Unique Value Proposition Our app only requires your phone, to manage your exercise routine using 'pose estimation'. Motivating users with gamified challenges and achievements.	Competitive Advantage The gamified challenges and achievements along with the connection to pose estimation.	Customer Segment we will be targeting young children and young adults
	Metrics (KPIs) Site interactions, downloads, and site visits.		Channels app store, website and play store	Early adopters -people who wants to exercise/ slim down
Cost Structure <ul style="list-style-type: none"> - website (\$200/one time) - maintaining website and apple developer plan (\$198/month) - legal documents (\$2000/one time) - app development (\$500/ 4 month) - salary(\$1000/person) - marketing (\$5000, \$2000 for the next 3 month, repeat.) - uploading app on appstore and playstore (\$124/year) 			Service Revenue <ul style="list-style-type: none"> - in app purchases <ul style="list-style-type: none"> - in-game currency - league advancer - avatars - 'Battle Pass' for extra in-game rewards for the time they exercise. - freemium - advertisement 	

give people exactly the exercise routine they need. A user is unlikely to want a repeat or ripoff of another health app, so each of our products has to be specifically tailored to meet the specific demands of each target market and algorithms have to be coded out to fit the different age and lifestyle of different users. The knowledge learnt from the development of "Fitable" can be utilized in the development of future apps for other pose estimation AI related apps.

The app will be described in a website so users will be able to see the benefits of our app, then we will compare this with the number of downloads in order to see the conversion rate. the website will also increase the conversion rate as much as possible with the content.

15.4.3 Measurable

State clearly what your targets (metrics and KPIs) is at the end of the marketing campaign. For awareness, when we come up with the Instagram page or the Facebook page or the website, we will be looking at the Total Followers, shares, likes and comments. For Conversions, we can measure Lead Inquiries such as Click-Through Rate (CTR), Cost Per Acquisition (CPA, Return on Ad Spend (ROAS), Time on Site, Interactions Per Visit (for our interactive website only) and of course, the Value Per Visit. Finally for positioning we can do this by sending out some simple surveys and ask the user for their opinion on our company.

15.4.4 Achievable

Explain why the goal(s), strategies and targets are attainable? The launch of this product will be supported by a well designed Instagram page and a Facebook site. The rise of Google ads has made advertising to a specific target market far easier and far cheaper than it used to be through more traditional channels. The use of these new channels should ensure that the target market is reached and that the product receives maximum exposure. Combined with the pose estimation AI technology, this app should quickly be adopted by those already exercising or those who wish to exercise. This app relies on user experiences so it is important that it is quickly adopted and

users start to share experiences with each other. As already stated, this product will be distributed through Apple's App Store and also through the various Android marketplaces. The launch of the first product will be specific to these two platforms but could expand to other platforms at a later date.

15.4.5 Relevant

Explain why the goal(s), strategies and targets make sense and how they are able to help the business improve? In order to achieve the goals in 1a (specific Marketing goal(s)), the basis of getting all of these goals to be accomplished is to have a wide awareness and high retention rate in the Business sales funnel model. However, in order to have a high engagement, conversion and retention rate, this is all up to how good the app is, so it has no relevance to what the business model is. But that being said, the business model will be able to affect how much awareness the app can get. And increasing this input will be able to increase the overall output of the engagement, conversion and retention rate of the app. Therefore, by having sensible goals, strategies and targets, we will be able to help the business make money and improve.

Our business goals are very important too, they will have to make sense in order for it to reach more target users. We want to become the most trusted source of health information in the growing health app market so as to separate ourselves from other existing apps by identifying the target market and building up strong brand awareness here. As such, we will be able to brand ourselves as a more efficient and wallet friendly app than other health apps. This will be paramount to our success as a company.

15.4.6 Time-Bound

State clearly how long is your marketing campaign and how much it will cost for the whole campaign. Like stated in b (marketing strategy), we will have to go into the market with a bang in order to increase awareness. Moreover, we will have to persist for a while. Therefore, the most sensible option for us to have is the short campaign. We will have a 1 month short campaign every 4 months in order to refresh the memories of our users. During this period of time, campaigns can not only attract people to use this app, but give current users a window of opportunity to level up in the app, encouraging them to go back into the app to exercise. We hope that our app can be used worldwide, so we will space out the timing to fit the schooling children so the campaign can have a higher exposure to the general public. This will ensure that we will reach the marketing goal set for us within 4 months.

15.5 Marketing Plan (4Ps)

15.5.1 Product

Our product is an app that allows people to accurately track their exercise and incorporate it with a game to compete with other users so they can stay interested in exercising. Furthermore, this will act as their personal gym manager and come up with exercising schedules with them so they can stay on track. Moreover, we will be using the pose estimation technology to accurately see what type of exercise the user is doing and all you need is a smartphone. This is basically a replacement for gym spotters as it will be able to encourage people to keep on exercising but also come up with exercising routines for everybody regardless of age or lifestyle. This is different to other health apps in circulation nowadays which requires an IoT such as a step tracker to come up with an exercise routine and only has limited exercises to analyze. So this has a wider variety while needing less equipment. Our market segment are young adults or working adults who are generally very careful with their money and have no time. We have to make our app efficient in managing exercise and also price it at a low price in order to attract these people.

15.5.2 Price

Our app will be a "freemium" app. This is found very often in the current market of apps nowadays. Users will be able to download the main app for free, however, if they wish to look different from

their friends or level up in the game found in our app “fitable” more efficiently, they will have to pay a premium fee in order to do so, thus the word “freemium”. This will be the main source of income for this company. As Tellis[3] points out, the pricing strategy should reflect the prices of other apps in this category. Based on this, we will follow other apps whose app wireframe is similar to the “freemium” model. We will initially price the “premium” app at SGD7.50 like the game “genshinImpact” and the music playing app “spotify”. There will also be in app purchases that would be priced at \$10.00. Furthermore, for the non premium users, there will be advertisements. The freemium model is designed to be affordable for at least 50% of the users and 30% of the users will make in app-purchases.

15.5.3 Promotion

Other than doing advertisements on instagram and facebook, we will be pasting posters to reach out to those who do not have headphones or do not frequent instagram or facebook. We will paste posters in gyms or parks to attract those who are already interested in exercising. Moreover, we will also paste it near schools and hdb blocks to encourage a wider audience who wishes to exercise. We intend to market for the whole year in a cyclical form every 4 months where the first month \$5000 will be poured into marketing and \$2000 for the next 3 months.

15.5.4 Place

We wish to use instagram, facebook google ads and traditional marketing methods. Instagram and facebook will be used to attract the young adults or working adults, while google ads and traditional marketing methods will be used to attract the general public. Since our app is first created in Xcode, we will be distributing our app mainly through the apple store and our interactive website, however, we will be expanding to the app supporting android and so we will be distributing it through the google play store.

15.6 Financial Analysis(Performa)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Leftover cash	\$ -	\$ 13,678.00	\$ 12,530.00	\$ 11,382.00	\$ 10,234.00	\$ 8,386.00	\$ 10,038.00	\$ 11,690.00	\$ 13,342.00	\$ 14,294.00	\$ 18,746.00	\$ 23,198.00
ESG grant	\$ 8,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Investments (angel investors)	\$ 5,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Investments (from self, friends and families)	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Advertising (Advertisement in the app)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00
In App purchases by customers (240*\$10.00)	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00
Freemium purchases (400ppi, \$7.00)	\$ 2,800.00	\$ 2,800.00	\$ 2,800.00	\$ 2,800.00	\$ 5,600.00	\$ 5,600.00	\$ 5,600.00	\$ 5,600.00	\$ 8,400.00	\$ 8,400.00	\$ 8,400.00	\$ 8,400.00
Total Cash In	\$ 28,200.00	\$ 18,878.00	\$ 17,730.00	\$ 16,582.00	\$ 18,234.00	\$ 16,386.00	\$ 20,038.00	\$ 21,690.00	\$ 26,142.00	\$ 27,094.00	\$ 31,546.00	\$ 35,998.00
Cash Out:												
App development	\$ (500.00)	\$ -	\$ -	\$ -	\$ (500.00)	\$ -	\$ -	\$ -	\$ (500.00)	\$ -	\$ -	\$ -
Salaries	\$ (4,000.00)	\$ (4,000.00)	\$ (4,000.00)	\$ (4,000.00)	\$ (4,000.00)	\$ (4,000.00)	\$ (6,000.00)	\$ (6,000.00)	\$ (6,000.00)	\$ (6,000.00)	\$ (6,000.00)	\$ (6,000.00)
Play store(\$25/yr) and App store cost(\$99/yr)	\$ (124.00)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Server equipment + website development	\$ (2,700.00)	\$ (150.00)	\$ (150.00)	\$ (150.00)	\$ (150.00)	\$ (150.00)	\$ (150.00)	\$ (150.00)	\$ (150.00)	\$ (150.00)	\$ (150.00)	\$ (150.00)
Server maintenance + apple developers	\$ (198.00)	\$ (198.00)	\$ (198.00)	\$ (198.00)	\$ (198.00)	\$ (198.00)	\$ (198.00)	\$ (198.00)	\$ (198.00)	\$ (198.00)	\$ (198.00)	\$ (198.00)
Marketing	\$ (5,000.00)	\$ (2,000.00)	\$ (2,000.00)	\$ (2,000.00)	\$ (5,000.00)	\$ (2,000.00)	\$ (2,000.00)	\$ (2,000.00)	\$ (5,000.00)	\$ (2,000.00)	\$ (2,000.00)	\$ (2,000.00)
Paperwork / Legal Documents (12 year)	\$ (2,000.00)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Cash Out	\$ (14,522.00)	\$ (6,348.00)	\$ (6,348.00)	\$ (6,348.00)	\$ (9,848.00)	\$ (6,348.00)	\$ (8,348.00)	\$ (8,348.00)	\$ (11,848.00)	\$ (8,348.00)	\$ (8,348.00)	\$ (8,348.00)
Leftover cash:	\$ 13,678.00	\$ 12,530.00	\$ 11,382.00	\$ 10,234.00	\$ 8,386.00	\$ 10,038.00	\$ 11,690.00	\$ 13,342.00	\$ 14,294.00	\$ 18,746.00	\$ 23,198.00	\$ 27,650.00

Figure 13: *Financial Analysis (click for spreadsheet)*

This is the cash flow statement above. There are some assumptions made here, being that we will get \$5000 as investments from investors, and also that advertising rates and advertisement rate will stay the same. We also assumed that there will be a constant number of people who make in-app purchases every month. We intend to release a new updated version every 4 month so there will be an increase in app development. Furthermore, we also assumed that there will be a constant 50% of users who will be buying the freemium business model, and 30% will be making in-app purchases. Moreover, advertisements will only come in after June because we do not have the recognition or fame yet that people want to advertise in our app. Moreover, all of these can be bought as a bulk from schools for their students. As seen from the graph, we will be able to break even by June and the remaining cash will increase from then onwards, such that it will almost double during December. The highest total cash spending is during January due to the legal documents and server development. Moreover, every four months there will be an increase in total cash out as there is an increase in app development and marketing for the ‘awareness’ stage. Furthermore, from June to July, there will be an increase due to the increase in salaries.

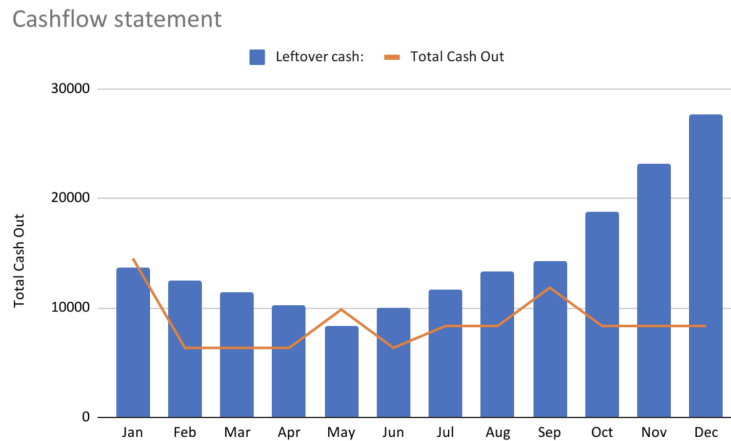


Figure 14: *Financial Analysis (click for spreadsheet)*

16 Conclusion and Analysis

All in all, I feel that making this business succeed is a viable and feasible plan. As shown from the Business plan, we can see that the idea is well received by the public and the income from publishing this app will rise. We are confident that this app will be well-liked by users and exercising will become a daily routine for many.

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