



Fitogram

Promoting a Healthy lifestyle

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Content

Project Background

Project Introduction
Project Inspiration

Aims and Objectives

Aims of the software
Main Features
Stakeholders
Limitations
Risk and Challenges

Timescale of work

Gantt Chart

Research and Requirements Gathering

User Research
Survey
Persona

Fitogram Analysis

SMART Objectives
SWOT Analysis
PESTLE Analysis
Budget Consideration
Technical Specifications
Security and Privacy
Resources needed
Agile
User-centered Design
Test-Driven Development

Market Research

SWOT Analysis on myfitnesspal
SWOT Analysis on Loselt

Low-Fidelity Prototype

UML
Application structure
Application colour scheme
Wireframes
Feedback

Medium-Fidelity Prototype

Wireframes
Feedback

Content

Design Specifications (Re-Detailing)

Background, Aims and objectives
Key selling points, Target Audience
Functionality, Technical Specifications
Font style, Font size, Font family
Colour Palette
Gantt Chart
Approach to building it

How it works (Backend)

Diagram

High-Fidelity Prototype

Screenshot of app
Development of code

Agile Methodology

Agile Methodology
Teamwork

Git Version Control Log

Version control

Test Driven Development

Test Driven Development
Unit testing

Testing Metrics

System Usability Scale (SUS)

Technical Challenges

Challenges

User Testing

User Feedback
Testing metrics

Analysis

Analysis of solution

Evaluation Techniques

Measuring Success or Failures
Analysis of solution
Potential Improvement

Summary

Outcome
Impact on stakeholders and users
Self Reflection

Code References

Appendix

Introducing Fitogram

an app that promotes healthy lifestyle



Fitogram
Promoting a Healthy lifestyle

PROJECT BACKGROUND

Project Introduction

At week4, I was assigned to a group of 5 people to complete these project. I have been trying to contact them so that we can work together, but to no avail. When the midterm deadline is nearing, I contacted the UOL support via email, and was advised that I should notify the tutors via the Tutor Group Forum. There hasn't been any replies yet, but I will be starting on the project on my own in the meantime.

I decided to this project individually, developing my project idea, and to have a working app at the end product. I will be noting down all my research findings, the process of how the idea has developed, as well as producing a low-fidelity prototype at the end.

I will start by introducing Fitogram, the mobile application that I will be developing on, explaining some of the features, and then show my process of how I decided to develop on this idea.

For this project, I will be developing an app that promotes a healthy lifestyle routine. It should include features that help with exercise and meal planning, a nutrition tracker, diet planner, and recipes recommendations. The main goal for this app is to help individuals maintain a healthy lifestyle, and achieve their desired body.

Project Inspiration

This project's inspiration comes from our current situation, the pandemic era. During this though times, many countries have closed down gyms, and implemented quarantine orders to ease down the spread of the pandemic. People have therefore been unable to work out as usual, or they might have gained weight from the lack of daily exercises due to the lack of outdoor activities.

Also, individuals might not always be able to afford food deliveries, and might need to prepare their meal on their own. Youngsters, or to-be-adults, might be the age group having the most trouble coping with this. With the app, it can recommend healthy recipes, that suit their diets needs, with videos on how to prepare their meal.

I have detailed all my research, surveys and findings, and decided on some of the features that will benefit my users, and plan to implement it into my software.

AIMS AND OBJECTIVES

Aims of the Software

The software aims to improve and promote a healthy lifestyle to the users. The main advantage of this app is that it lets users chat real-time with nutritionists and fitness instructors, might they have had any queries. It also allows users to connect and chat with other users, for motivation and tips sharing purposes. I believe that this software would be able to guide the users, especially those who are changing their current lifestyle to a healthier one.

This software is created after countless research and multiple user testings, to ensure that the best quality is delivered to the users, allowing them a pleasant and fluent experience with the app. The aim of this software is to have users utilize it, benefit from its many features, and eventually helping them to maintain a healthy lifestyle.

Main Features

1) Calorie tracker

Allows users to input what they ate, track the amount of calories intake, and also show the different nutrients they have consumed each meal. This can help to people who are dieting, to better plan their meal

2) Chat with Nutritionist

People who are new to trying out a healthy lifestyle often are unsure if they are planning their nutrition intake right. This feature could allow users to chat with a certified nutritionist, to help answer their questions, giving them some recommendations and tips.

3) Chat with Fitness Instructor

Similarly, newbies might not know what type of exercises are best suited for them, and could chat with certified Fitness instructors for clarifications.

4) Meal and Recipe recommendations

Dieting individuals often ran out of meal plan ideas, and recommendations could be helpful for them. This feature aims to sort the recommendations according to the user's specific nutritional and calorie needs. There are also some who are trying to gain healthy weight, and this feature could potentially customize their meal plan for them.

5) Exercise/ Workout recommendations

Doing the same type of exercise can be boring and tiring. This feature can recommend users with different workout routines, so that they won't get bored by doing the same thing over and over again.

6) Social site

Many people often give up midway during their diet plan. A good motivation could be to have a social area on the app, for users to post and share their meals. With such interactions between users, it could help in motivating each other, sharing tips, and even making new friends.

7) Reminder on mealtimes and workouts

Busy working adults often forget about mealtimes, especially when most of the people are working from home during this pandemic. The app should have a feature that tracks the user's last mealtime, and set a reminder on the next meal time. There should also be reminders on workout times. It is proven to be bad for our health, if we were to sit in the same position, and doing the same thing for long period of time.

Stakeholders

The stakeholders can be the group of developers working on this app, testers, users and consumers, investors, partnerships. In this case, the stakeholders for this project will be me, and the users.

Limitations

Since I will be working on this project alone, I would not be able to develop the complete prototype for this project due to the limited manpower and timeframe. There might also be further limitations as I have no prior coding experience, and would not be able to fully produce what I intended to accomplish.

Risk and Challenges

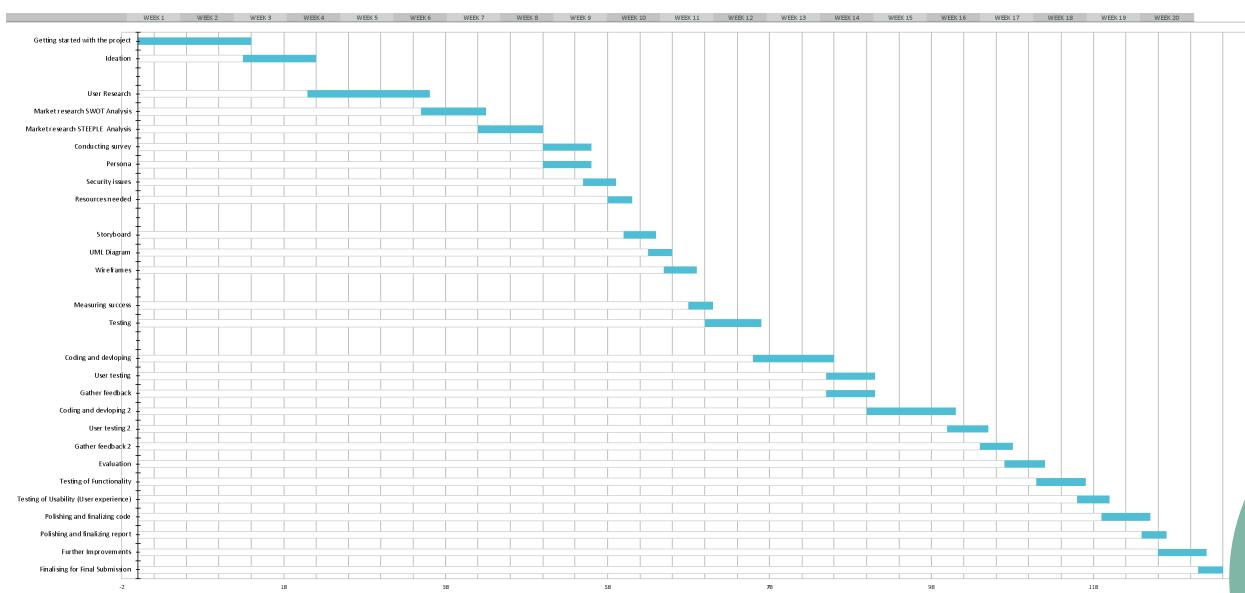
There might be copyright issues with images and other sources used in the app, and I have to be sure that they are licensed under Creative Commons. Due to the limited time, I have to plan the project well, and list out the things I need to research on.

TIMESCALE OF WORK

Gantt Chart

The Gantt chart aids me in keeping track of what I need to complete and help me with time management. This would ensure that I would be able to complete my project on time. I have allocated time for each task, based on their complexity and how much time I might need to complete it.

	TASK NAME	START DATE	END DATE	START ON DAY*	DURATION* (WORK DAYS)
Getting Started					
	Getting started with the project	4/16	4/29	0	14
	Ideation	4/29	5/7	13	9
Research and planning phase					
	User Research	5/7	5/21	21	15
	Market research SWOT Analysis	5/21	5/28	35	8
	Market research STEEPLE Analysis	5/28	6/4	42	8
	Conducting survey	6/5	6/10	50	6
	Persona	6/5	6/10	50	6
	Security issues	6/10	6/13	55	4
	Resources needed	6/13	6/15	58	3
Low-Fidelity Prototype					
	Storyboard	6/15	6/18	60	4
	UML Diagram	6/18	6/20	63	3
	Wireframes	6/20	6/23	65	4
Evaluation phase					
	Measuring success	6/23	6/25	68	3
	Testing	6/25	7/1	70	7
Software developing					
	Coding and developing	7/1	7/10	76	10
	User testing	7/10	7/15	85	6
	Gather feedback	7/10	7/15	85	6
	Coding and developing 2	7/15	7/25	90	11
	User testing 2	7/25	7/29	100	5
	Gather feedback 2	7/29	8/1	104	4
	Evaluation	8/1	8/5	107	5
	Testing of Functionality	8/5	8/10	111	6
	Testing of Usability (User experience)	8/10	8/13	116	4
	Polishing and finalizing code	8/13	8/18	119	6
	Polishing and finalizing report	8/18	8/20	124	3
	Further Improvements	8/20	8/25	126	6
	Finalising for Final Submission	8/25	8/27	131	3



RESEARCH AND REQUIREMENTS GATHERING

User Research

"A new study using a global online survey demonstrates that COVID-19 stay-at-home orders resulted in a dramatic increase in unhealthful lifestyle changes." [1]

Stress during a pandemic may result in: [1]

- anxiety and fear about health, loss of support services, finances, or unemployment
- sleep disruption or altered sleeping patterns
- changed eating habits
- trouble concentrating
- worsening of chronic health problems, including mental health conditions
- increased use of alcohol, tobacco, and other substances

These could than result in weight gain, and at the very least an unhealthy lifestyle. As people have been staying at home, their daily physical activities would be greatly reduced. During the pre-pandemic period, people could still be out for walks and exercise in gyms. However, people have been staying at home most of the time to prevent the spread of the pandemic, and would thus be difficult for them to exercise at home, without professional's help and advice.

Stress associated with altered sleeping patterns, more frequent snacking, and consuming sweet foods may also lead to weight gain. [1]

"These social distancing measures mean that people have far fewer opportunities to be physically active, especially if activities such as walking or cycling as transportation, or taking part in a leisurely activity (e.g. jogging, walking the dog, going to the gym) are being restricted. Furthermore, these drastic measures also make it so much easier to be sedentary at home for long periods of time.[1] The impact of this physical inactivity may very likely be seen in many areas such as health and social care and the mental well-being of people all across the globe." [2]

Benefits of physical activity: [2]

- Strengthening and maintaining your immune system strength - being less susceptible to infections
- Reduces high blood pressure
- Weight management
- Reduces the risk of heart disease, diabetes, stroke, certain cancers
- Improves bone and muscle strength, balance, flexibility, fitness, mental health
- Reduces the risk of depression, cognitive decline
- Delays the onset of dementia
- Improves overall feeling of well-being

Planning your workout routines and diet plan is good in guiding and motivating individuals. Studies have shown that a good plan can efficiently help change to a healthier lifestyle.

5 Reasons Why You Need A Workout Plan:

[3]

- 1) Helps Prevent Under or Over Training
- 2) Provides Structure
- 3) Provides Goals
- 4) Provides a Checklist
- 5) Prevents Burnout

TIPS TO STAY MOTIVATED FOR YOUR WORKOUTS:

[4]

- 1) Schedule your workouts
- 2) Have a workout plan
- 3) Workout when you can
- 4) Make it a habit
- 5) Be flexible, change up your routine

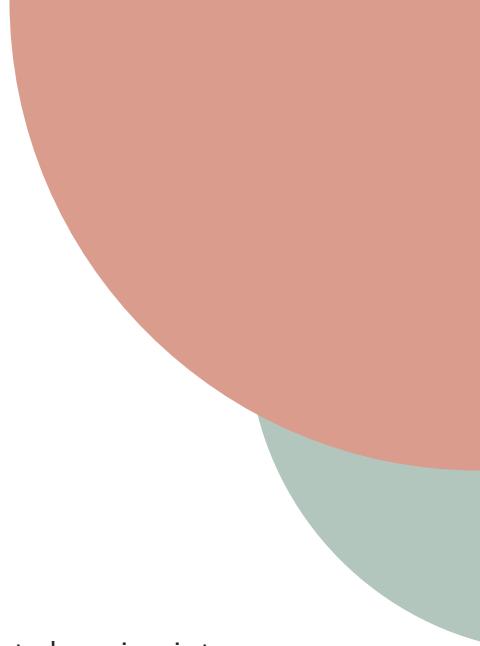
As per the site, heandsheeatclean.com, we can see the benefits of having a workout planned out, and how it can motivate you to maintain a healthy lifestyle. I can thus further verify the need and importance of an fitness app, and how it helps people with their workout.

It has also been proven widely that calorie tracking helps in losing weight, as seen on the healthline site:

"A recent review reports that weight loss programs incorporating calorie counting led participants to lose around 7 pounds (3.3 kg) more than those that didn't. It seems that the more consistently you do the recording, the better."

There are three reasons why calorie counting works: [5]

- Tracking your calories can help you identify which eating patterns you need to modify to successfully lose weight (50Trusted Source).
- Despite its lack of precision, tracking what you eat can give you an approximate baseline to work from and compare to when you're trying to reduce the total number of calories you eat per day.
- Finally, keeping track of what you eat can help you monitor your behavior. This may help keep you accountable for the daily choices you make and motivate you to continue progressing toward your goals.



Sometimes, it may be hard to find like-minded people to talk to about changing into a healthy lifestyle. One may feel embarrassed to talk about it with their closed friends or families. Social sites would than be a good space to talk and discuss about health with like-minded people. I can than use this as an opportunity, and develop my project idea to have an area in the application that allows users to discuss, giving each other tips and motivations.

Angie Ebba, who lives with chronic illness, says she's found Facebook groups also offer an environment for like-minded people to share health struggles. [6]

"These groups have given me a place to ask questions about treatment without judgment," she explains. "It's nice to follow other chronically ill folks online, as it makes the bad days not feel quite as isolating." [6]

This type of emotional support could have powerful physical effects, too, since social connection improves overall health. [6]

With all these research about:

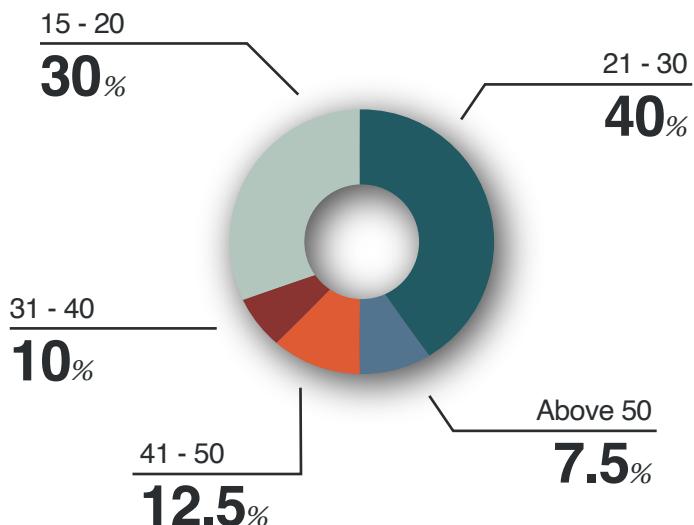
- how the pandemic have changed people's lifestyle, causing them to become unhealthy
- how physical activities can benefit their overall health
- how having a workout routine planned out can benefit in staying motivated for a healthy lifestyle
- how calorie tracking helps
- how having a social site to discuss about health is useful for maintaining a healthy lifestyle

I can implement them as features for my application, so that it will be advantageous through the users' journey to a healthy lifestyle.

Survey

I conducted a survey to understand more about the users, their needs and preferences when using a fitness app, and how to better develop the application to meet their requirements. The data collected from the survey guides me in further enhancing my ideas for the app, and confirm which are the most important features that the users would want to have in the app.

1) What is your age group?

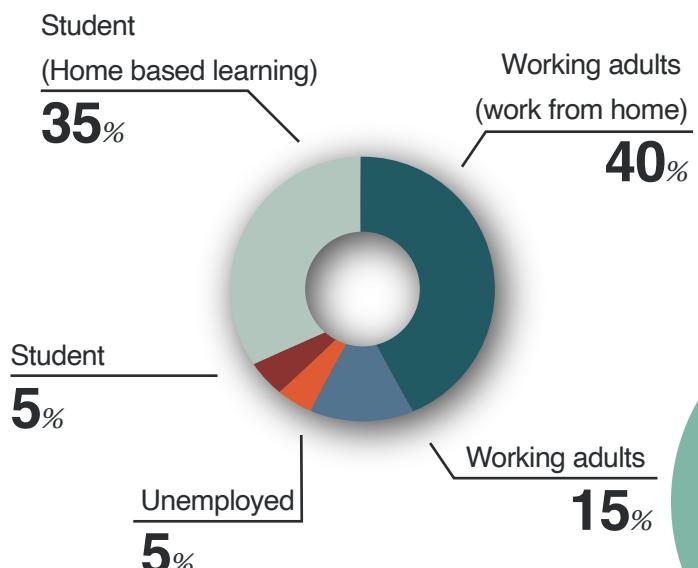


I have surveyed on a total of 40 people that are interested in living a healthy lifestyle, with their age ranging from 15 to above 50. From the 1st question survey results, we can see that many of them are teens and young adults, with 40% age ranging from 21-30, and 30% age ranging from 15-20.

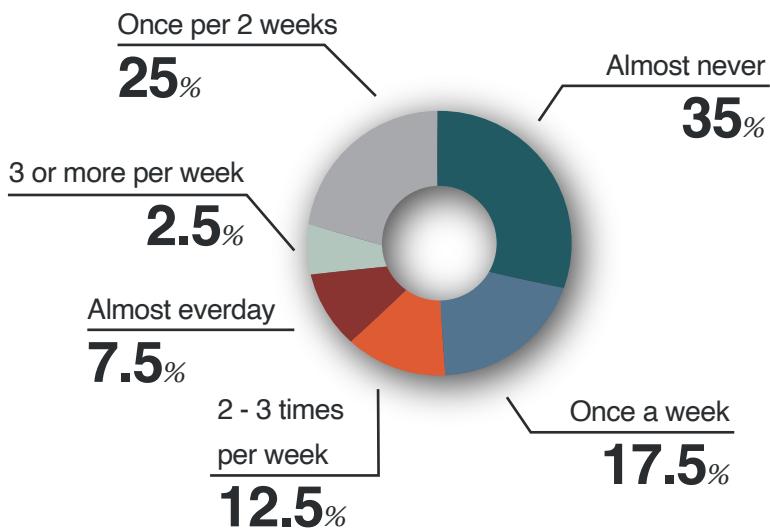
We can tell that most of these people are of a younger generation, and might still be new to keeping fit and healthy. This group of people would than require more professional help to guide them through their journey towards a healthy lifestyle.

2) What is your occupation?

40% of my surveyors are working adults that is currently working from home due to the pandemic. 35% are students who are on Home-based learning. As most of the people are staying at home most of the time, their daily exercise level would be greatly reduced. This is due to the fact that travelling to and fro from their workplace is not needed.

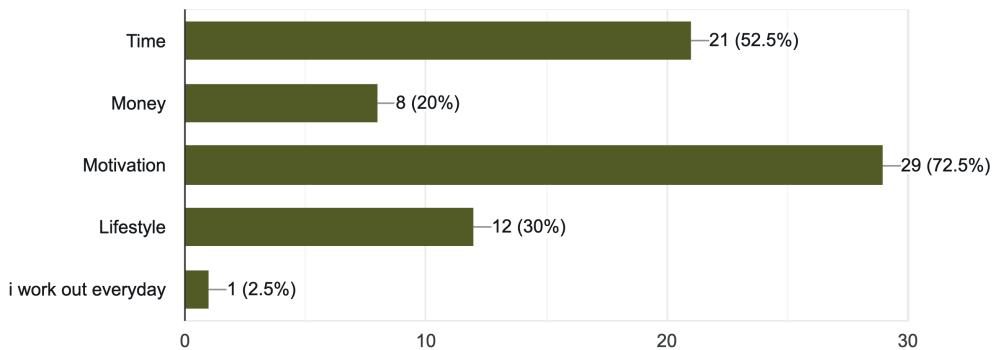


3) How often do you exercise?



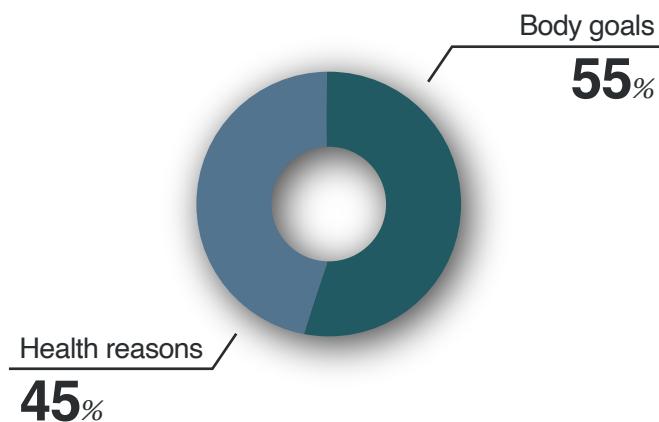
We can further confirm that most of our surveyors are quite inactive, with 35% of them almost not exercising at all, and 25% of them Exercising once per 2 weeks. There is then a further need to motivate more people to exercise.

4) What stops you from working out more often?



Most of them requires a means of motivation for them to work out more often. Many finds it hard to make time to exercise. 20% of them finds it expensive to workout, due to gym memberships and taking on professional lessons.

5) What are your main motivations for maintaining a healthy lifestyle?



Health reasons and Body goals seems to be almost equally important as motivations for maintaining a healthy lifestyle.

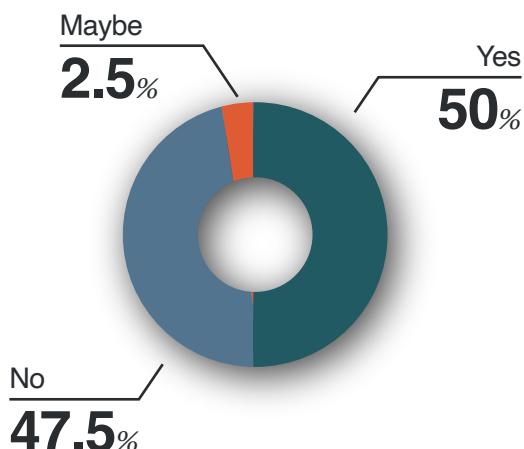
6) On a scale of 1 to 10, rank your knowledge on fitness and workout routines

From this graph, we can see that most people are not very knowledgeable on how to keep themselves fit. This can be an area I can improve on for my app.

7) On a scale of 1 to 10, rank your knowledge on healthy diet plan-

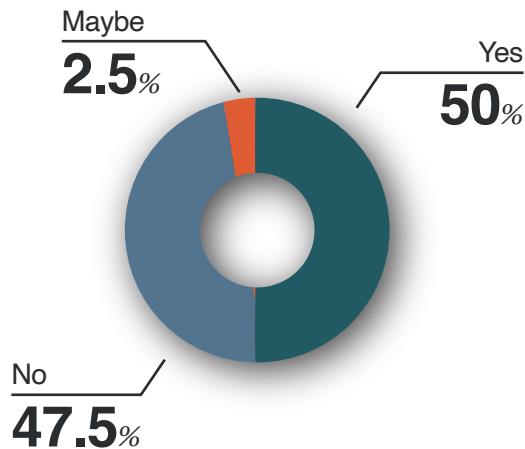
Our surveyors seems to be not very confident when it comes to planning a healthy meal. This can be another opportunity that I can improve on for my app.

8) Have you ever used any fitness app?



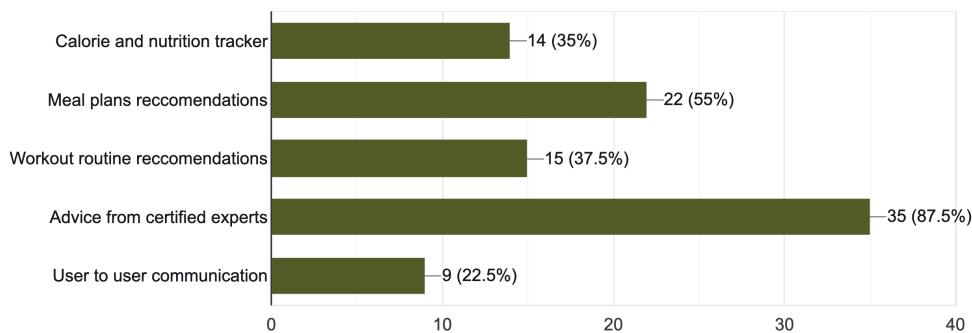
About 50% of my surveyors have tried using fitness app in the past, and 47.5% have not.

9) Would you be interested in using a fitness app that allows users to communicate with experts?



There is a positive response when questioned about the implementation of experts' opinions in the app.

10) What are the main features you would like a fitness app to have?



We can further confirm the main features that users want in the app from this survey question.

11) What do you think the fitness app you are using can improve on?

- Easier navigation
- Better interface
- A better way to motivate users
- Advice from experts
- Customised meal plans
- Limited recipes available
- Recipes not categorised by weight gain or weight loss
- Too many ads
- Elderly-friendly
- Beginner friendly
- Cheaper subscription prices
- More informative
- Need customised workout routines
- Reminder for mealtimes and workouts
- Monthly calendar view for calories intake
- Video guide for workouts
- More accurate calorie calculator
- More images, make it Infographic
- More interface interaction

With these responses, I can take them into consideration when planning for my fitness app.

Persona

This persona would represent my target audience or user group, and would help me to better visualize their needs and wants. The details of the persona is collected from my research and surveys.



Time is precious,
I need to work fast!

JANE

FULL TIME WORKING ADULT

GOALS & DRIVERS

My Goal is to be able to keep myself fit and healthy, even when I am busy.

MOTIVATORS

- Having fellow workout buddies
- When she is able to lead a healthy lifestyle
- When she sees results

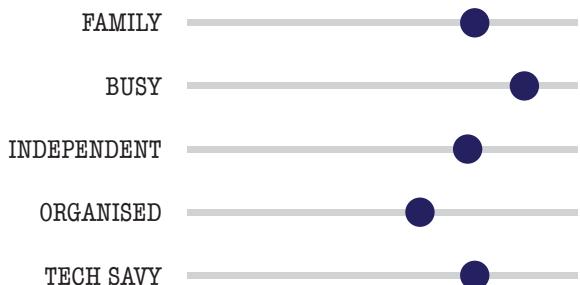
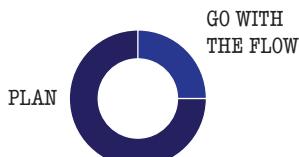
ABOUT

AGE: 23

GENDER: FEMALE

OCCUPATION: WORKING ADULT

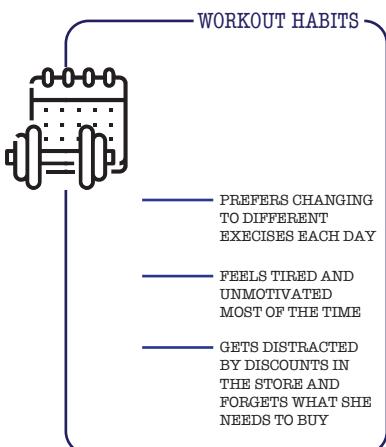
RELATIONSHIP: SINGLE



Bio:

She is a busy adult, that is currently working full time at home due to the pandemic. She feels that having everything planned properly would allow her to spend her time efficiently. She want to have a healthy lifestyle, but is still new to fitness and health. Sometimes, she tends to get forgetful when she is busy (no proper mealtimes or workout sessions).

BEHAVIOURS

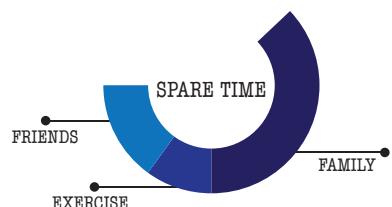


NEEDS & EXPECTATIONS

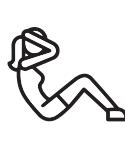
EXPECTS A PLEASANT EXPERIENCE WITH FITNESS APPS
NEEDS MOTIVATION
NEEDS A CUSTOMISED PLAN FOR HER HEALTHY LIFESTYLE JOURNEY

PAINS & FRUSTRATIONS

LITTLE KNOWLEDGE ON HEALTHY LIFESTYLE
NEED MOTIVATIONS FOR WORKOUTS
OFTEN HAVING BUSY SCHEDULES
FORGETS ABOUT MEALTIMES AND WORKOUT TIMES
HATES DOING THE SAME EXERCISE



DAILY ACTIVITIES



FITOGRAM ANALYSIS



Fitogram
Promoting a Healthy lifestyle

SMART Objectives

Specific – The end goal of this application is to encourage more people to have a healthy lifestyle

Measurable – I want users to login to the app daily, and be able to meet their target goals

Attainable – To complete the project within the given time

Relevant – Users will gain useful insights on how to maintain a healthy lifestyle

Timely – My Minimal Viable Product should be finalized in 2 months

SWOT Analysis on Fitogram

I will be doing market research on my app, Fitogram, and list out the strengths, weakness, opportunities, and threats. This would allow me to compare it with other similar apps on the market, and see where my app stands.

Strengths

- Easy to navigate within the app
- Able to chat with professional nutritionist
- Able to chat with professional fitness instructor
- Tracks goals and progress
- Social area to allows user to user interactions
- Beginner friendly

S

Weaknesses

- Might be buggy due to the short timeframe to complete the project

O

Threats

- Other similar fitness and workout apps

T

Opportunities

- More workout routines that targets different age groups
- Meal planning for people who are trying to gain weight as well

PESTLE Analysis on Fitogram

This analysis allows me to monitor the macro-environmental factors (Political, Economical, Social, Technological, Legal, Environmental) that may have a profound impact on an application's performance.

P

- There is stability in the political environment as it involves promoting a healthy lifestyle
- The government is always positive with supporting the health of people

E

- The app is economical as people can follow the workouts on the app instead of signing up for lessons which would be more expensive

S

- People are becoming more health-conscious and this app has a positive image in the market for people to stay fit

T

- Tracking calories and meal planning have become easier
- Ease of use as it is a mobile app, convenient

L

- Health and Safety laws
- Consumer protection laws

E

- People would be more motivated to prepare their meals at home rather than ordering online. This reduces carbon footprint (lesser delivery drivers) and plastic wastage (from packagings)

Budget Consideration

There will not be a budget for this project, as I will be working on this individually, and it will most likely not be completed till its final developed stage.

Technical specifications

For this project, I will be doing it only as a mobile app only, since I won't have enough time to develop for the other devices. I will then have to consider the different screen sizes and visibility.

Security and Privacy

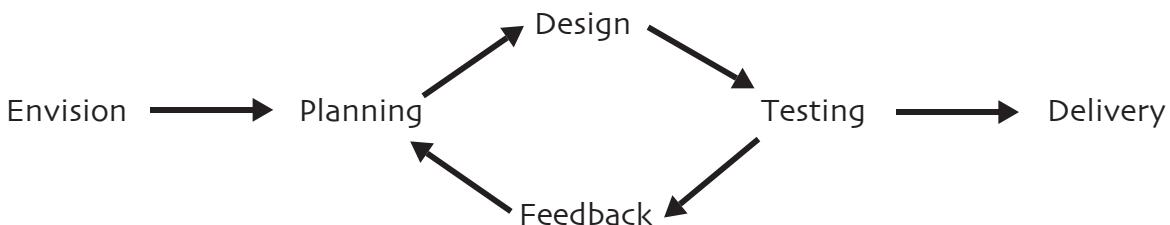
The security and privacy of the users should also be taken into consideration. 2FA authentications can be implemented so that it is more secure for users account, to decrease the cases of loss of account access and invalid user logins.

Resources needed

Some of the resources that I might need to complete this project are: HTML, CSS, JavaScript, Libraries, a suitable IDE, references from books and websites, software that helps to document my research and findings. I will be sure to document down and give credits from the where I have cited from.

Agile

By utilizing the Agile Methodology and its principles, it allows me to have a more frequent testing and feedback stage. It is used to produce shorter development cycles rather than the usual long-winded cycles. This shorter time frame allows me to react to users' feedbacks and develop the software accordingly.



User-centered Design

With the user-centered design approach, I would be able to have a better sense of what the users want the most, and design it in a way that could benefit them. To utilize this type of approach, I would first have to do research on the users, conduct a survey, create a persona that represents my user group. Ultimately, I would also need to find a group of users that can help to test my software, provide useful feedbacks, for me to take into account and present a better version of the software to them next time.

Test-Driven Development

Test-Driven Development is a good approach to building a software. I could first gather the requirements, write the tests based on the features that I need to implement, and then write code to pass the test. This approach would ensure that I focus on implementing all the required features, and not on others that might be not as relevant.

The tests should also be written properly, and not just a simple test for the functionality. Many factors have to be considered, as when more features are implemented, there might be parts where they inter-link with each other, which could potentially cause problems.

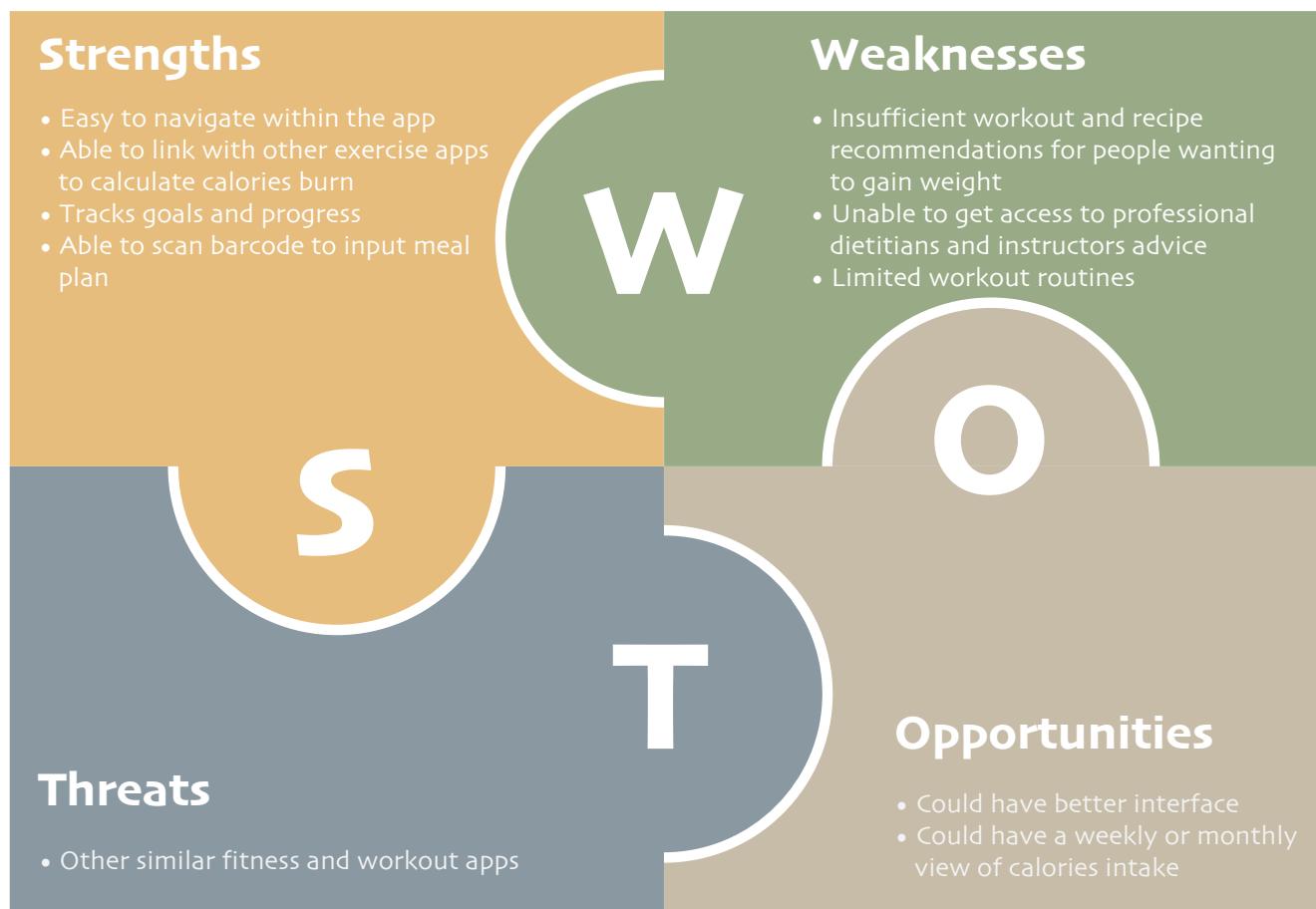
MARKET RESEARCH



myfitnesspal

SWOT Analysis on myfitnesspal

I will be doing market research on a similar app, called myfitnesspal, and list out the strengths, weakness, opportunities, and threats.



SWOT Analysis on Loselt

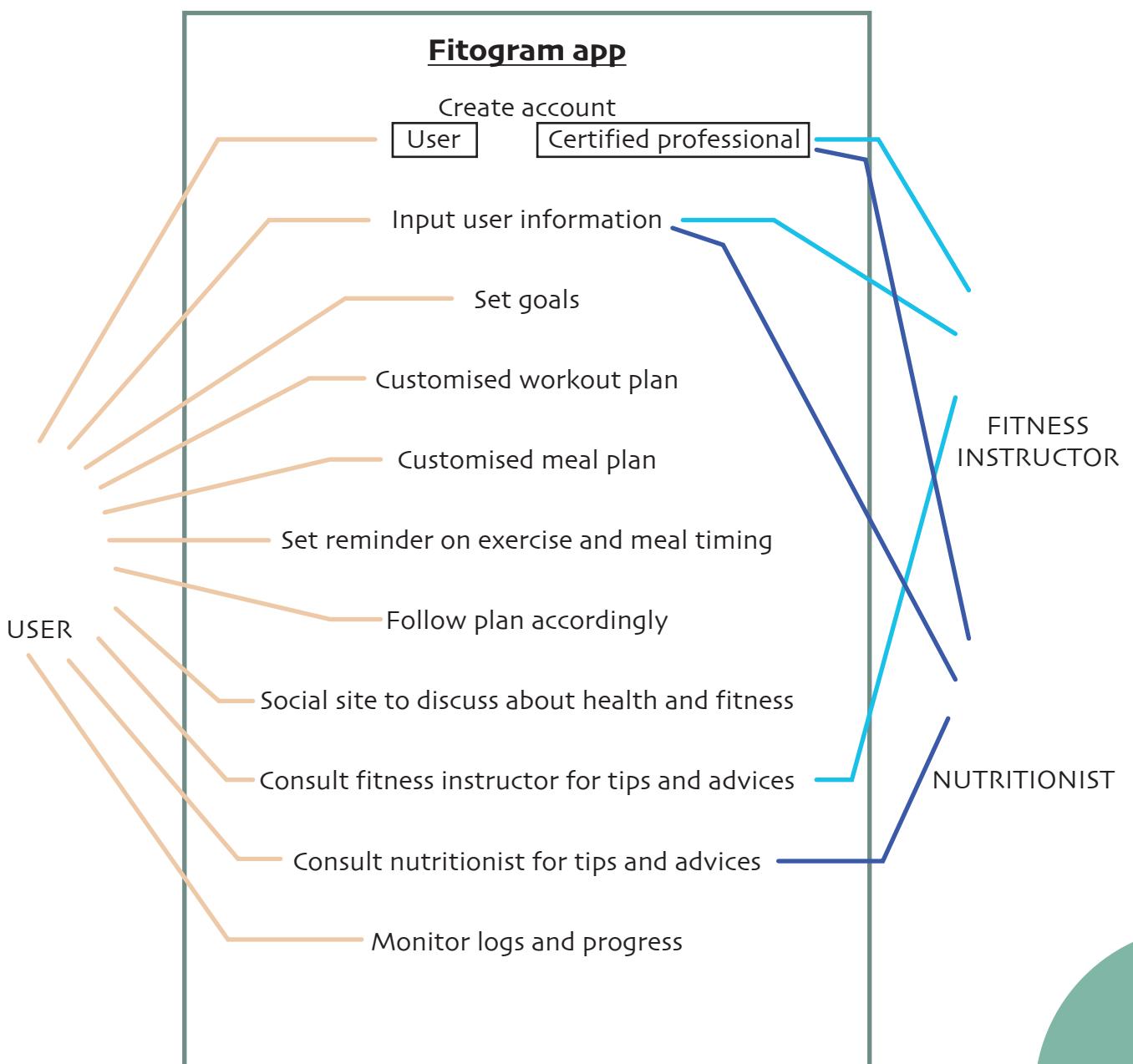
Next, I will be doing market research on Loselt app.



LOW-FIDELITY PROTOTYPE

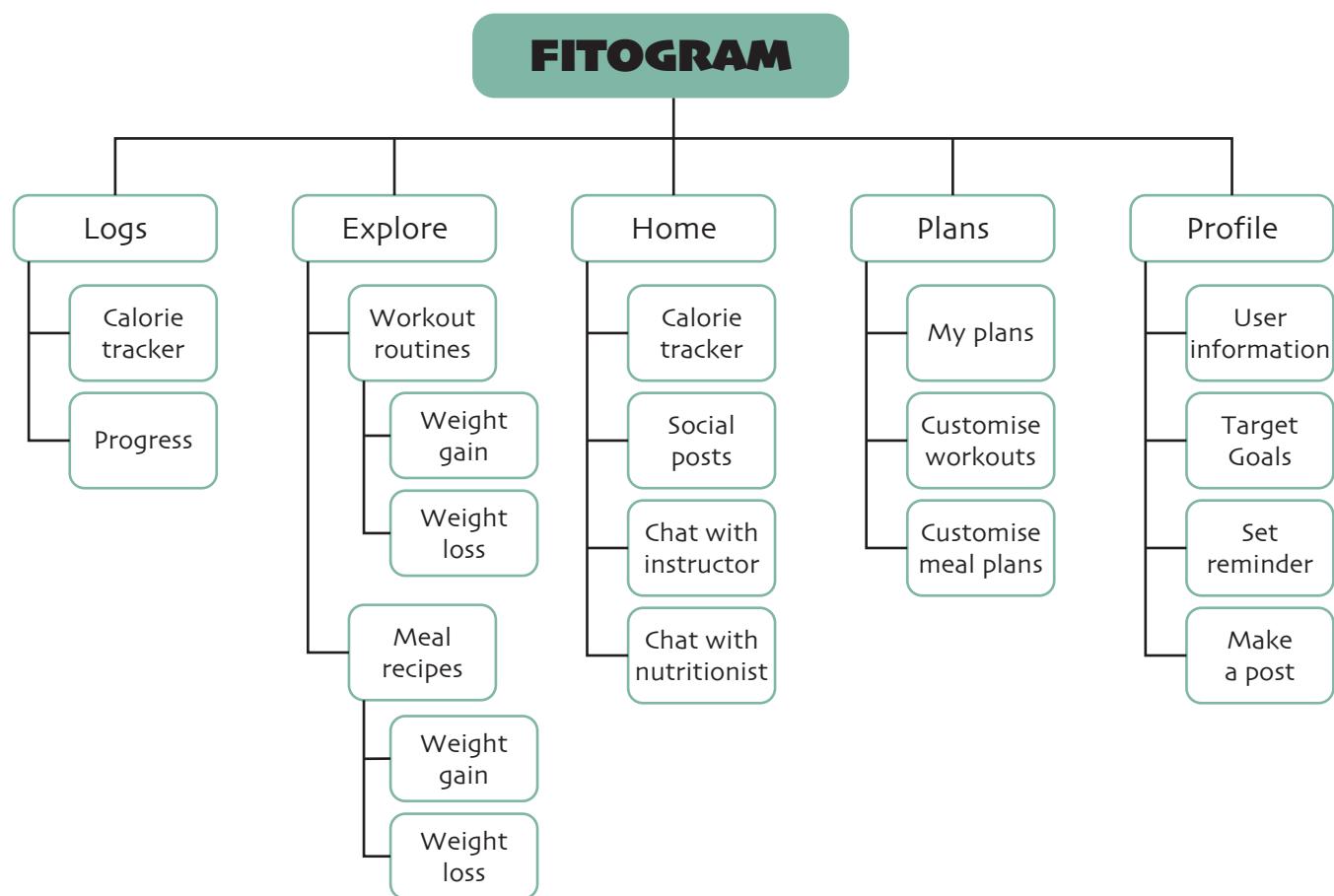
UML use case Diagram

This diagram shows a possible scenario on how the user would interact with the Fitogram app. It shows how the user would be able to benefit and achieve their goals with the help of the Fitogram app.



Application structure

This diagram shows the structure of how my application, Fitogram, will be built. It will include where I plan to place the features at. This structure is derived from multiple user research, and survey results.



Application colour scheme

I surveyed my test users, and asked for suggestions on how they want the colour scheme of the Fitogram application to be. They felt that it should be of a calming colour that could represent health and fitness. It should not look too vibrant and impactful, and the colours should complement with each other. After much consideration, I decided on the colour scheme as follow:



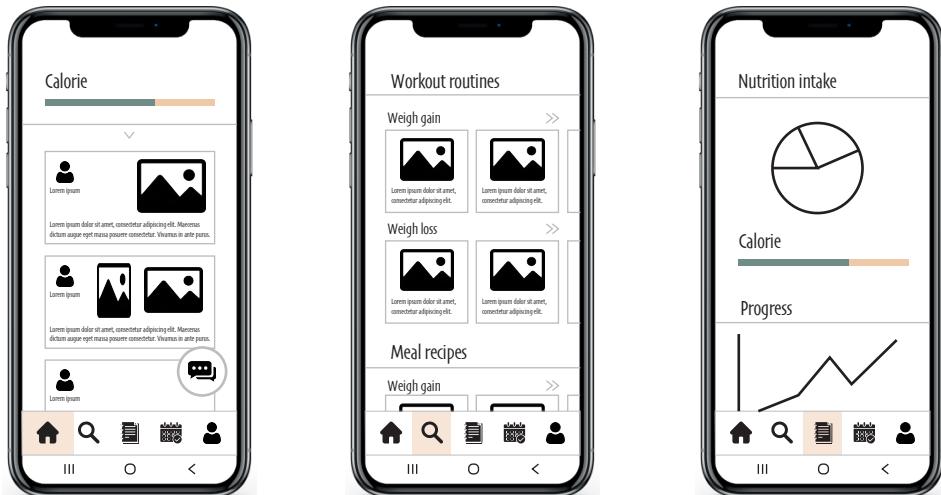
This colour scheme revolves around shades of green. Green represents growth and nature. It is a harmonizing, balancing and calming color. This would fit my concept of having an app that promotes healthy lifestyle.

On the other hand, pink often describes good health. It is a colour that encourages relaxation, anger relief and tension reduction, making it a good fit for motivation purposes.

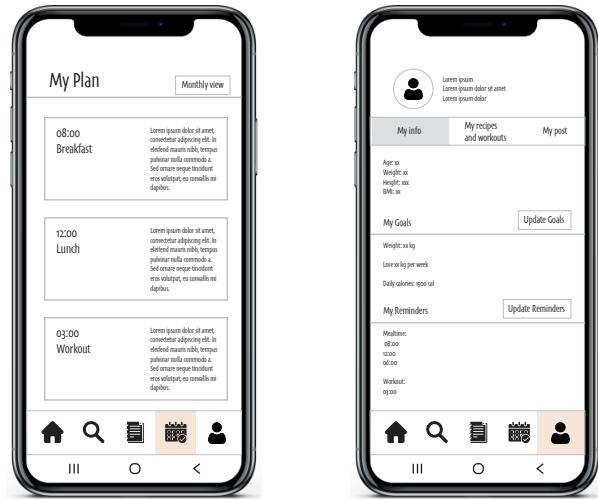
Yellow symbolizes optimism, energy, joy, happiness and friendship. This is the perfect fit of how I want my app, Fitogram, to bring joy to others, and possibly making friends with like minded people.

Wireframe

Next, I will be planning out the layout of the Fitogram application, and showing it as a wireframe. It would be a low fidelity prototype which focuses on showing the layout, with minimal colour included.



Wireframe (continued)



Feedback

After planning out a rough wireframe, I gathered feedbacks from the users, on their experience with the current wireframe layout. I did so by sending them the wireframes as a picture, for them to view it on their phones. This allows the test users to better visualise how the end product might be.

I received some useful advice, where most of the users feedbacked that the home tab could be placed in the center for better flow. Colors should also be used sensibly, for better visibility and user experience purposes.

Many of the testing users also mentioned that I should keep the numbers of tabs to 5 or less, as it may be too small to tap on the phone. It would also ensure that the app would not be too cluttered.

For the explore page, they suggested that it may be better to have a 'main page' with 2 options 'Workout routines' and 'Meal recipes'. When selected, the app than navigates to another page with the recipes or workouts. This would make it less confusing for the users, as the application won't look as messy.

With these feedbacks, I can move on to creating a newer version of wireframes, with the consideration of the test users' feedbacks.

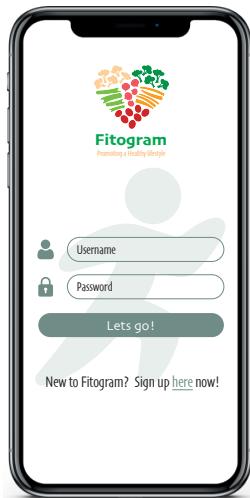
MEDIUM-FIDELITY PROTOTYPE

Wireframe

After gathering the feedbacks, I proceed on to edit the wireframes accordingly to the test users' advices.



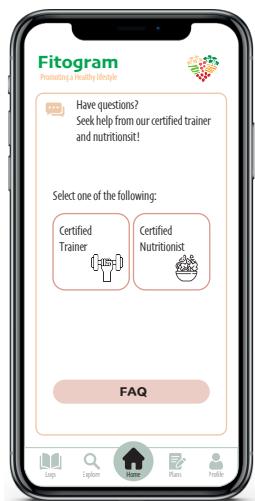
Login page



Login page



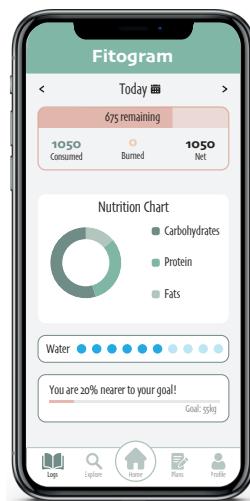
Home page



Home page - chat



Home page - chat



Logs



Logs - monthly view

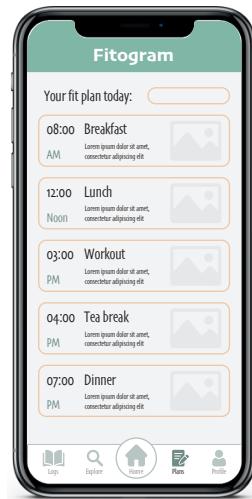
Wireframe (continued)



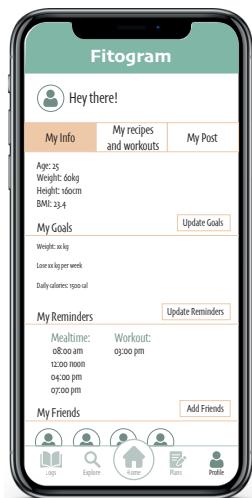
Explore page



Explore page



Plans



Profile page



Profile page



Profile page

Feedback

With the medium-fidelity prototype, the wireframe that is better planned out as compared to the low-fidelity prototype previously, I proceeded on to let the users test it again, and gathered feedbacks. As per the previous test, I exported the wireframes as images for the users to view on their phone. This would help them to better visualise and experience how it would feel if it was the end product.

The users were positive about the changes I made per their previous feedback. They added that the flow of the app is important in maintaining a pleasant experience.

A number of users mentioned that making the home button more visible with the circle was a good decision. It allows them to locate the home button easier.

When asked about the colours used and their suitability, they commented that the green colours help them feel more calm and it is not as striking to the eyes. When they compared the colour schemes used in Fitogram as to the other apps on the market, the users felt that Fitogram's colours were better, as others were either too plain with just 2 colours, or overly striking orange colour.

The test users also reminded me to take note of the font sizes used, and it should not be too small. This would make it harder for people with slight visual impairment to use the Fitogram app.

Another thing that they suggested was the when the users chat with the instructors, there could be an grey background behind, so that they could be more focused on the pop up chat.

DESIGN SPECIFICATIONS (RE-DETAILING)

Background

Fitogram is a mobile application, that is built to help and promote living a healthy lifestyle. Its main goal is to educate the young individuals who are new to living healthily, as well as aged seniors that would like to have some guides to help them exercise.

Through these difficult times (Covid19 pandemic), many are forced to stay at home most of the time, for their health and safety. It is thus almost impossible for them to be out and about in gyms and fitness centres for their exercise routines. They are unable to get professional help, and are probably lost and unmotivated.

This is where the Fitogram app than comes in, to get them motivated, provide them with professional advice, guiding them through their healthy lifestyle journey.

Aims and objectives

Fitogram aims to aid individuals through their journey, whether if they want to lose or gain weight, acquire a toned body, or just to exercise their body lightly. The main goal is for users to have a pleasant experience with the app, and for Fitogram to be able to accompany them every time they are working out or are on a diet.

Key selling points

Fitogram's key difference from other similar apps out there is that it is able to provide professional help to users, from Trainers and Nutritionists. With its well-thought-out functionalities and colour scheme, it provides an intuitive and pleasant experience for the users.

Target Audience

- Young individuals starting out a new lifestyle
- Fitness enthusiasts that are unable to be at the gym due to the pandemic
- Dieting individuals looking for recipe recommendations
- Seniors who want to do some light exercises

Functionality

1) Calorie tracker

- tracks calorie intake
- helps users to stay under or hit their daily calorie and nutrition intake

2) Chat with certified professionals (Trainer and Nutritionist)

- asks professionals for advices
- asks for customised workout or meal plan

3) Meal and workout plan recommendations

- shows a wide range of recipes, with nutritions indicated for users to better plan their diet
- shows a wide range of workout routines, with calories burn indicated for users to better plan their exercise

4) Social interactions with other users

- allows user to add friends
- allows users to make post and interact with other users
- good for motivation purposes

5) Schedule and reminders on workout and meal times

- allows users to plan out their workout and meal schedule beforehand
- reminds users for their workout and meal time as scheduled
- great for busy individuals that needs a way to manage their time

Technical specifications

The Fitogram application is planned to be available on mobile phone, IOS and Android.

IOS supported version: 11.0 or newer

Android supported version: 8.0 Oreo or newer

Font style

- Regular
- Condensed
- Bold
- Italic
- Black

Font size

Minimum: 15px
Maximum: 38px

Font family

Open Sans:

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

Roboto:

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

Sans-Serif:

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

Colour palette

I decided on this colour palette as each colour has a different meaning, and they harmonises together well.



RGB: (191,205,196)
CMYK: 30%, 12%, 24%, 1%
HEX: #BFCDC4



RGB: (139,185,168)
CMYK: 51%, 12%, 38%, 0%
HEX: #8BB9A8



RGB: (121,145,139)
CMYK: 56%, 29%, 42%, 11%
HEX: #79918B

Green represents growth and nature. It is a harmonizing, balancing and calming color.



RGB: (241,208,176)
CMYK: 6%, 22%, 34%, 0%
HEX: #F1DoBo

Yellow symbolizes optimism, energy, joy, happiness and friendship.



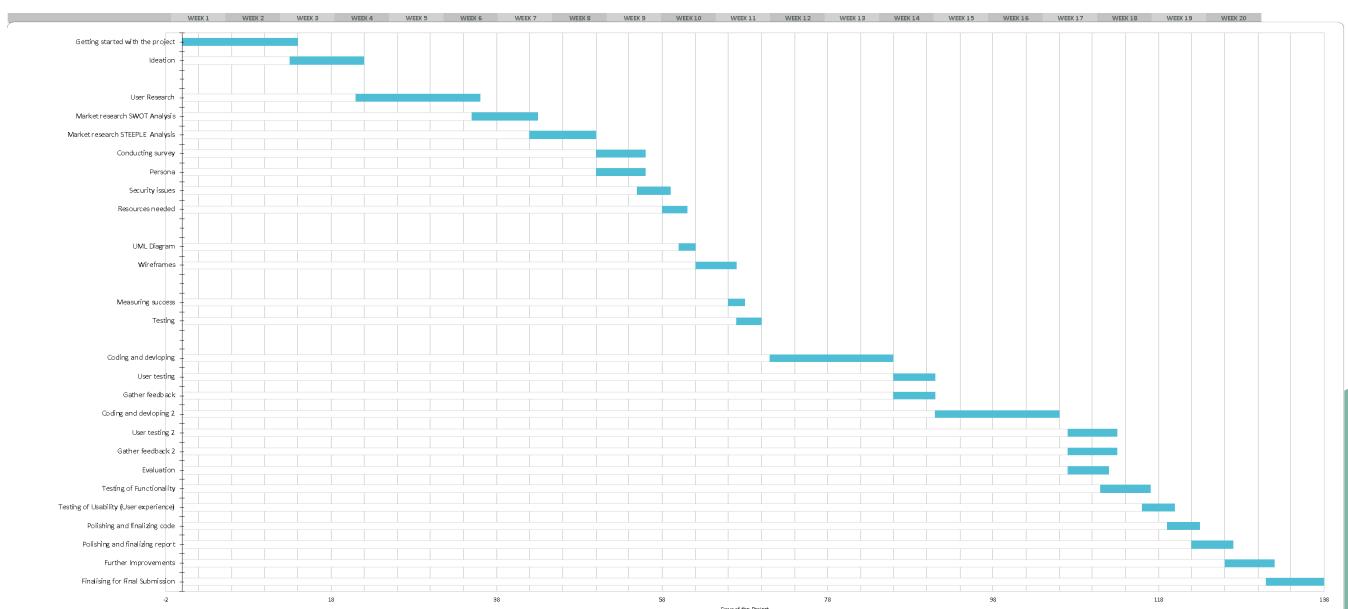
RGB: (223,163,147)
CMYK: 11%, 42%, 38%, 2%
HEX: #DFA393

Pink often describes good health. It is a colour that encourages relaxation, anger relief and tension reduction

Gantt Chart

As the project goes on, I realise that there are some areas that would require me to spend more time on, like the coding and developing of the Fitogram application, and have edited the Gantt Chart.
Below shows the edited Gantt Chart:

	Task Name	Start Date	End Date	Start on Day*	Duration* (Work Days)
Getting Started					
	Getting started with the project	4/16	4/29	0	14
	Ideation	4/29	5/7	13	9
Research and planning phase					
	User Research	5/7	5/21	21	15
	Market research SWOT Analysis	5/21	5/28	35	8
	Market research STEEPLE Analysis	5/28	6/4	42	8
	Conducting survey	6/5	6/10	50	6
	Persona	6/5	6/10	50	6
	Security issues	6/10	6/13	55	4
	Resources needed	6/13	6/15	58	3
Low-Fidelity Prototype					
	UML Diagram	6/15	6/16	60	2
	Wireframes	6/17	6/21	62	5
Evaluation phase					
	Measuring success	6/21	6/22	66	2
	Testing	6/22	6/24	67	3
Software developing					
	Coding and developing	6/26	7/10	71	15
	User testing	7/11	7/15	86	5
	Gather feedback	7/11	7/15	86	5
	Coding and developing 2	7/16	7/30	91	15
	User testing 2	8/1	8/6	107	6
	Gather feedback 2	8/1	8/6	107	6
	Evaluation	8/1	8/5	107	5
	Testing of Functionality	8/5	8/10	111	6
	Testing of Usability (User experience)	8/10	8/13	116	4
	Polishing and finalizing code	8/13	8/16	119	4
	Polishing and finalizing report	8/16	8/20	122	5
	Further Improvements	8/20	8/25	126	6
	Finalising for Final Submission	8/25	9/1	131	8



Approach to building it

I have done some research on how to build the application. I will be using Cordova, to build the Fitogram application with HTML, CSS, JavaScript. Then, I will run both an ios and android emulator, to visualise the app on the phone. With Cordova, I would not need to learn a new programming language to code the Fitogram application.

To ensure that I do not lose the working file, and to prevent myself from redoing it if the working file becomes corrupted, I would be using Git version control. It would allow me to commit and push the different “versions” of the application onto the git repository, save it there, incase some mishaps happens throughout the building process. This also tracks my progress, and allows me to pull whichever versions of the file I have done previously and continue working on it.

When building the application, I would need to ensure that I am focusing on the main functionality that I have decided (along with stakeholders and test users) for the application to have, and not driven away from the main intent of the application.

To do so, I would need to first create tests, fail the test, and then write code to pass the test. This may pose some challenges to me as I am not very knowledgeable when it comes to Test driven development and making unit tests. Since I am working on this project alone (as my teammates were not active), I will be needing help from my tutors, and also get help from people with more experience.

I may also run into trouble when coding the relevant part for inputting login details to login to the account, as I would be required to have a database, and verified accounts, to log in to the Fitogram application. Further research needs to be done on this part to find out how i should go about solving this problem.

After I am partially done with the development of the Fitogram application, I would need to release the build, and send it to my test users, gather their feedbacks, and make the relevant changes. This process should be done repeatedly, till both the test users and the developer(myself) are satisfied with the product.

After the release of the Fitogram application to the public, routine maintenance and inspections should be conducted, to fix bugs, as well as to update the system. The security of the application should also be monitored and updated closely, to prevent security issues like compromised accounts and confidential data leaks.

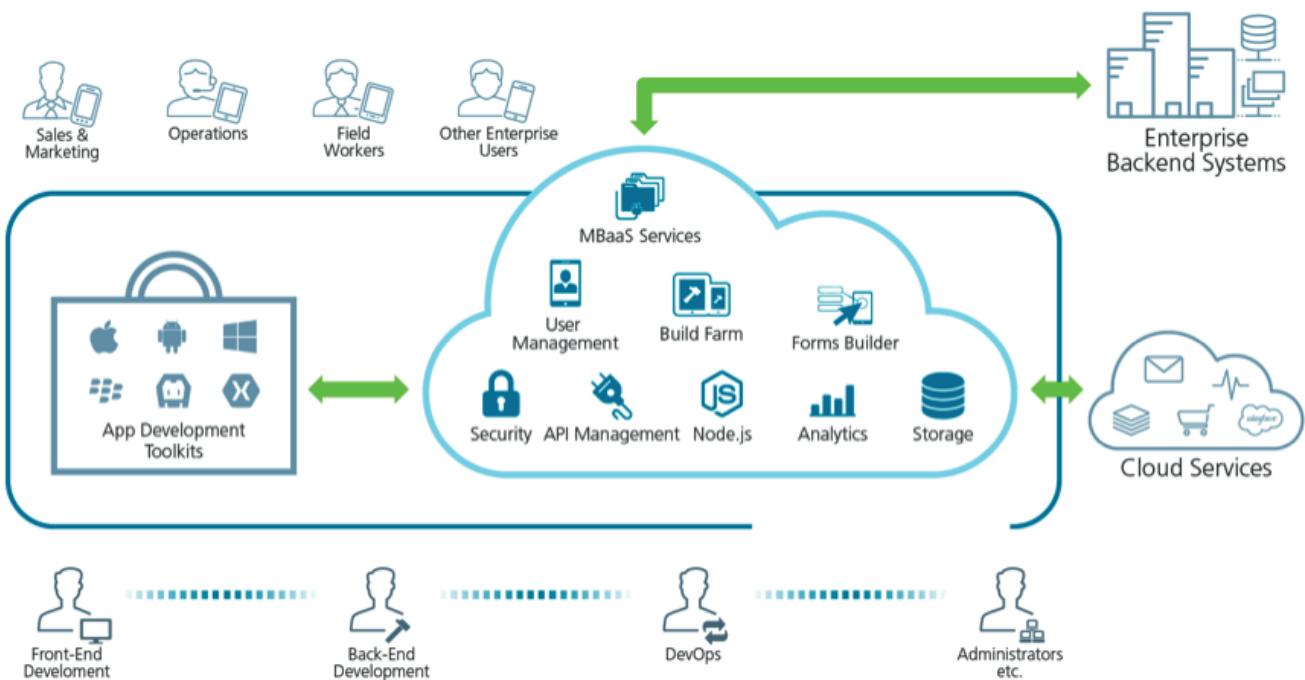
HOW IT WORKS (BACKEND)

Diagram

[7]

The diagram below show how the different parts of the Fitogram application, frontend and backend, would work together.

So for example, when the user login to the application, the application would connect to the backend database, to verify if the user's login credentials is correct. If the login credentials is correct, the system would deem that the user is authorized, and allows the user to login to the application.



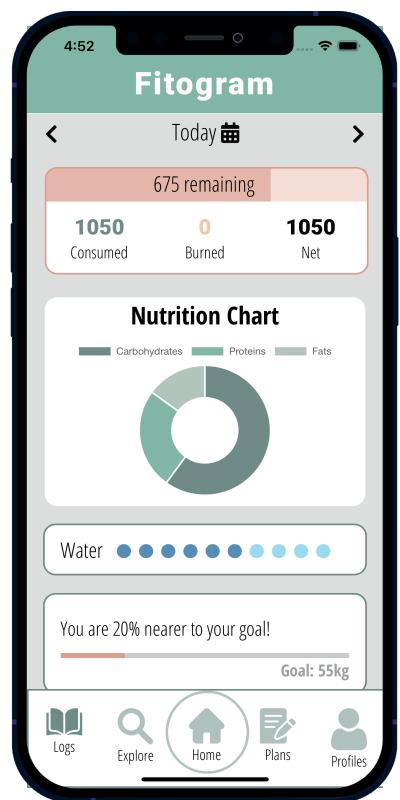
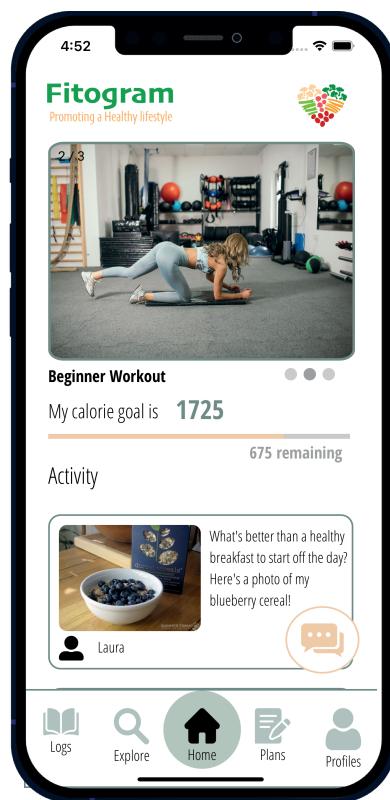
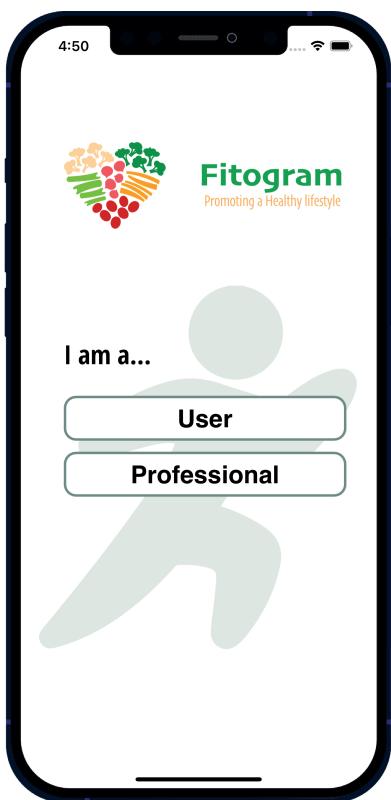
Also, the content of the Fitogram application have to be stored at the backend. For example, when a page loads, it grabs the relevant content and assets that are required from the backend, and displays it on the application.

HIGH-FIDELITY PROTOTYPE

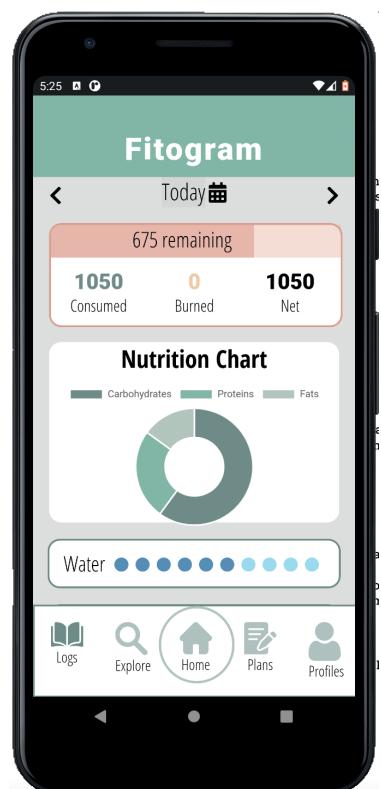
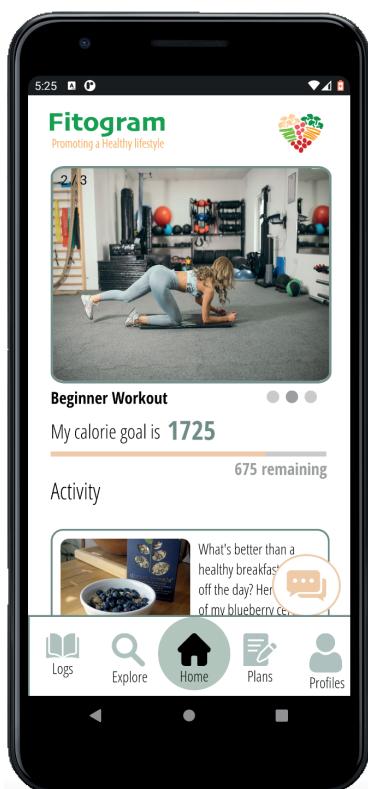
Screenshot of app

The images below shows some screenshot of the app when run on the ios and android emulator. We can see that for different phone dimensions, the application is displayed slightly differently.

IOS: iPhone 12 Pro Max



Android: Google Pixel 3a



Development of code

I included a snippet of my code for the logs tab page of the Fitogram application. For this page, I utilized a library, Chart.js, to produce the nutrition pie chart.

HTML: log.html

Layouts and indicated where the nutrition chart will be placed at.

```
<div class="nutritionchart_container">
  <h1>Nutrition Chart</h1>
  <div class="chart">
    <canvas id="myChart"></canvas>
  </div>
</div>
```

CSS: index.css

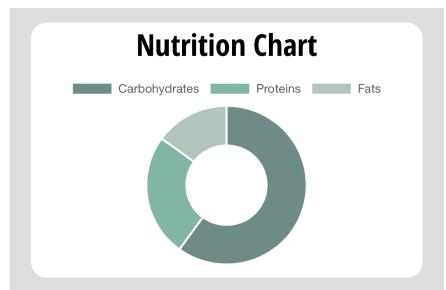
Styles the text and chart

```
/*style nutrition chart*/
.nutritionchart_container {
  width: 90%;
  height: 30%;
  margin-top: 42%;
  margin-left: auto;
  margin-right: auto;
  background-color: white;
  border-radius: 15px;
}

/* style the h1 text */
.nutritionchart_container h1 {
  font-size: 30px;
  font-family: 'Open Sans Condensed', 'Open Sans', 'Roboto', 'sans-serif';
  text-align: center;
  margin-bottom: 2%;
}

/* style the chart */
.nutritionchart_container .chart {
  width: 100%;
  height: auto;
}
```

logs.html's pie chart:



JavaScript: chart.js

Inputs the chart values,
links to the html for the chart to work

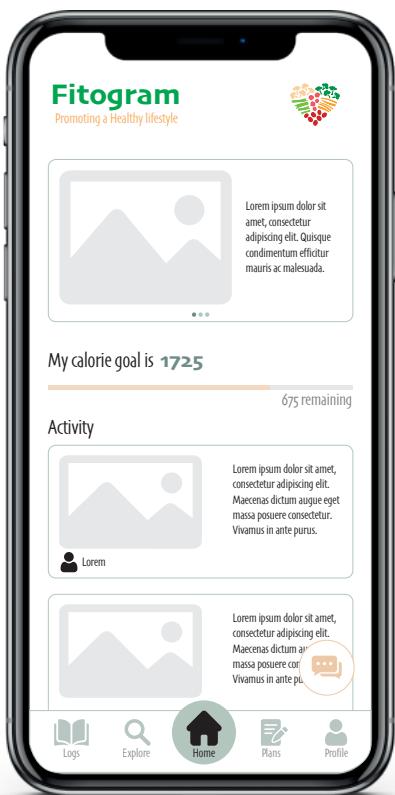
```
1 var xValues = ["Carbohydrates", "Proteins", "Fats"];
2 var yValues = [60, 25, 15];
3 ▼ var barColors = [
4   "rgb(121,145,139)",
5   "rgb(139,185,168)",
6   "rgb(191,205,196)"
7 ];
8
9 ▼ new Chart("myChart", {
10   type: "doughnut",
11   data: {
12     labels: xValues,
13     datasets: [
14       backgroundColor: barColors,
15       data: yValues
16     ]
17   }
18});
```

Development of code

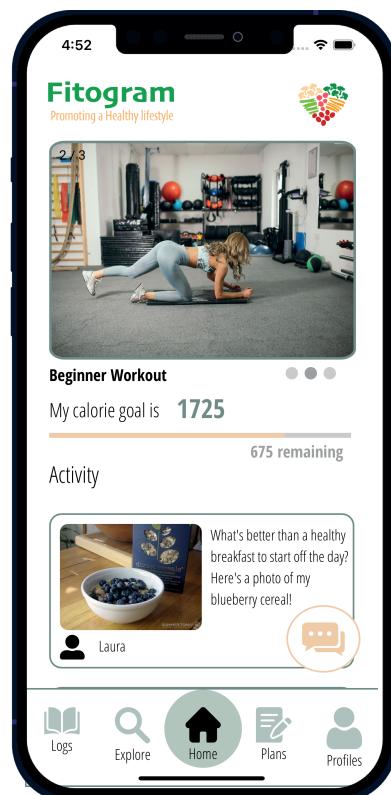
I have edited some parts of the application, after taking the test user's suggestions. For the home page, I have initially planned to have the text for the slideshow at the right side of the image.

The screenshots below shows the planned wireframe, and the outcome after some considerations.

Before editing (ios):



After editing (ios) :



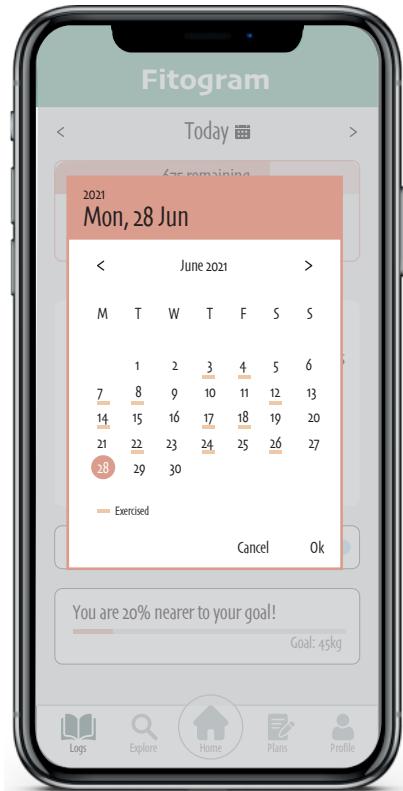
After further discussions with the test users, I realise that it may not be the best choice, as having a huge amount of text would make the page look cluttered. In the end, I decided to minimise the number of words, and shift the text to the bottom of the slideshow.

Also, I have moved the dot indicators below the slideshow. This is because the dots are not as visible when placed on the images.

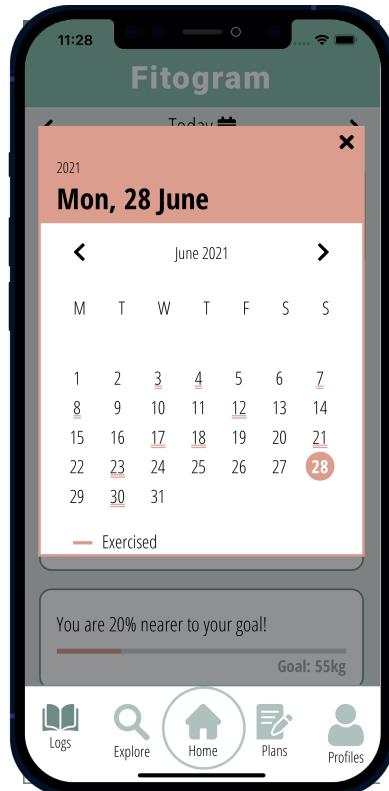
Development of code

For the logs page, I have changed it from a 'Cancel' and 'Ok' button to a close button icon. The changes can be seen below:

Before editing (ios):



After editing (ios) :



This change can minimise the words on the page, and utilizes universal icons. Placing the close button at the top right hand side of the calendar pop up makes it natural and intuitive. This change was suggested by the test users.

log.html:

Html clode that indicates where the close icon should be at

```
<div class="month">
  <button type="button" class="cancel"
    onclick="closeCalendar()">
    <i class="fas fa-times"></i>
  </button>
  <span class="year">2021</span>
  <span class="day">Mon, 28 June</span>
</div>
```

index.css:

Styles the close icon button

```
/* Style the cancel button */
.form-container .cancel {
  float: right;
  margin-top: 2%;
  margin-right: 3%;
  padding: 0;
  background-color: white;
  border: none;
  font-size: 24px;
}
```

log.js:

JavaScript that closes the calendar popup when the close icon is tapped

```
function closeCalendar() {
  /*hide the calendar when close button is clicked*/
  document.getElementById("calendar").style.display = "none";
}
```

Development of code

I realised that I didn't have a wireframe for the registration page. Therefore, I followed the style of the login page, and edited some areas to make it a registration page.

register.html:

This is a snippet of the html code for the registration page. I utilized the input tag, as users need to input their registration credentials here. Icons were also added for easier understanding of the different input boxes.

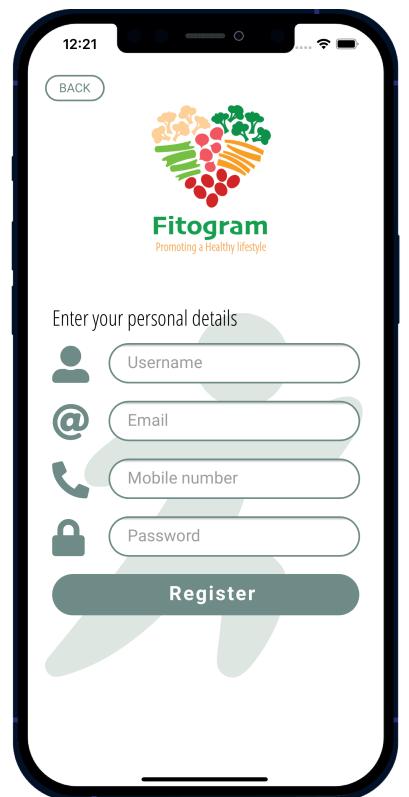
```
<div class="registerInfo">
    <p>Enter your personal details</p>
    <i class="fas fa-user-alt"></i>
    <input type="text" placeholder="Username" name="username" required>
    <i class="fas fa-at"></i>
    <input type="text" placeholder="Email" name="email" required>
    <i class="fas fa-phone-alt"></i>
    <input type="text" placeholder="Mobile number" name="number" required>
    <i class="fas fa-lock"></i>
    <input type="password" placeholder="Password" name="psw" required>
    <form method="get" action="home.html">
        <button type="submit" class="registerBtn">
            <p>Register</p>
        </button>
    </form>
</div>
```

index.css:

This is a snippet of the css code for the registration page. I styled the input boxes with margin percentages, so that it will be aligned similarly even when the application is used on phones with different dimensions.

```
/*Style the input box*/
.registerInfo input[type=text], .registerInfo
input[type=password]{
    font-family: 'Open Sans', 'Roboto', 'sans-serif';
    font-size: 20px;
    padding-left: 5%;
    width: 63%;
    height: 35px;
    margin-left: 3%;
    margin-right: 5%;
    margin-bottom: 5%;
    border-radius: 40px;
    border-width: 2px;
    border-color: rgb(121,145,139);
}
```

After editing (ios) :



AGILE METHODOLOGY

Agile Methodology

The Agile Methodology breaks up the project into different stages: Envision, Planning, Design, Testing, Feedback and Delivery. These stages: Design, Testing and Feedback, requires an iteration process.

The developer would need to design, test it on a group of test users, and gather their feedbacks and suggestions. With the feedbacks, the developer will revert back to the design process, make the relevant changes, and continue on the testing and feedback process again.

Teamwork

It is important for the group to understand what each member is best at, and utilize their skills appropriately.

When working in a team, there are several tools that can be used to ensure that each member of the team contributes, and keeps up with the team. There are also tools like the Gantt Chart that can help the team with managing their time, to ensure that they can complete the project on time.

Git is also a great tool for teamwork, as one member can add and commit onto the git repository, and others can pull from there, to get the latest version of the file.

There are many other tools like google docs that allows groups to work together and contribute to the report at the same time. However, since I am working on this project individually, I would most probably not have the chance to use these tools as much.

GIT VERSION CONTROL LOG

Version control

As mentioned earlier, Git is a great tool for teamworking. It allows them to track their working file versions, add a note to it to state the changes made. Other teammates can than pull the file from the shared git repository, made changes, and push it up again.

This is fairly convenient, as it does not require them to transfer the files manually. It is also less confusing, as they do not need to upload all the files, and only the file that has been edited.

Another issue is that sometimes files would become corrupted or lost. This would pose great inconvenience, as the developers might need to redo whatever that was lost. Git is useful to solve this problem, as users can push their working file onto the remote repository, and incase if the file corrupts, they can than pull it from the remote repository and save it onto their device.

The groupmates could also work on the different branch and versions of the file, and revert back to the any selected version if necessary.

Using version control log can also show us how much each member has contributed to developing the program.

TEST DRIVEN DEVELOPMENT

Test driven development

By utilising the Test Driven Development approach, I would than be able to make sure that I met all the funtionalities and requirements as specified in the Design Specifications previously.

To do so, the first step to take is to write tests, that are related to the functionality the program should have. The test should not be too long winded. Each test should only aim to check one function of the program. If the tests are too long, it may not be as effective, as I would not be able to properly tell which part of the program is causing the test to fail.

Than, I would need to write code that would only pass the test. Writing more code than required is also not advisable as I might be diverted away from the main functionality. This would result in spending too much time on areas that are not as important, which could possibly lead to insufficient time to complete the rest of the project.

After which, the application would be send to test users for testing. This test driven development process would be repeated again after I have gathered the user feedbacks. When making the changes, I will than rewrite the tests, and after that the code to make the test pass.

I will be showing some screenshots of the tests in the next part of the report.

Unit testing

Unit test is a simple way to check and verify if parts of the program is working. It helps in ensuring that the required functionalities of the program is working. Using unit test also allows us to isolate issues, and solve them one at a time.

I have done some simple tests that checks if the user have entered the required login credentials. To login sucessfully, the user needs to enter the username and password. Below shows some screenshots of the html and Javascript Code of the test:

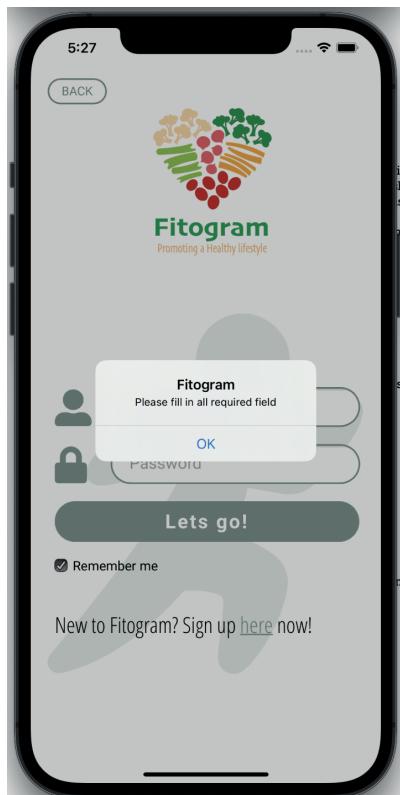
HTML code(login.html):

```
<form method="get" name="login" onsubmit="return validateLoginForm()" action="home.html">
  <i class="fas fa-user-alt"></i>
  <input type="text" placeholder="Username" name="username">
  <i class="fas fa-lock"></i>
  <input type="password" placeholder="Password" name="psw" >
  <button type="submit" class="loginBtn">
    <p>Lets go!</p>
  </button>
</form>
```

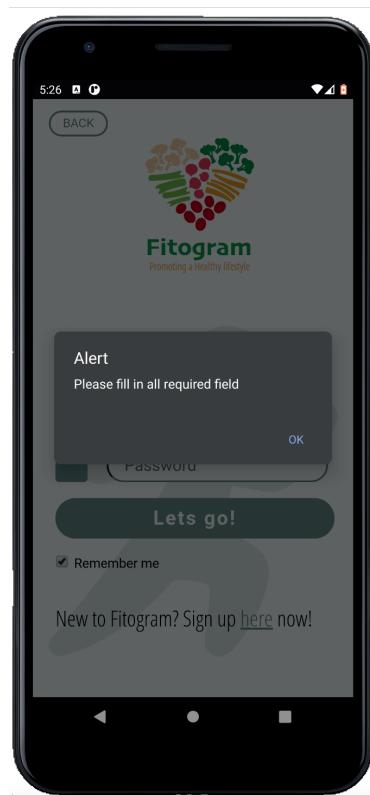
Javascript code(testLogin.js):

```
//test if the login form has all the required fields
function validateLoginForm() {
  if ((document.forms['login'].username.value == "") ||
      (document.forms['login'].psw.value == "")) {
    alert("Please fill in all required field");
    return false;
  }
  return true;
}
```

login alert(ios):



login alert(android):



Another test I have done checks if the user has entered the required registration credentials. To register successfully, the user needs to enter the username, email, mobile number and password. Below shows some screenshots of the HTML and Javascript code of the test:

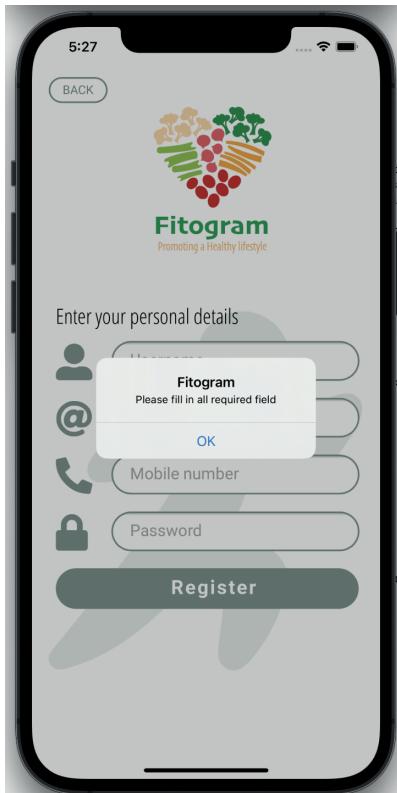
HTML code(register.html):

```
<form method="get" name="register" onsubmit="return validateRegisterForm()" action="home.html">
  <i class="fas fa-user-alt"></i>
  <input type="text" placeholder="Username" name="username">
  <i class="fas fa-at"></i>
  <input type="text" placeholder="Email" name="email">
  <i class="fas fa-phone-alt"></i>
  <input type="text" placeholder="Mobile number" name="number">
  <i class="fas fa-lock"></i>
  <input type="password" placeholder="Password" name="psw">
  <button type="submit" class="registerBtn">
    <p>Register</p>
  </button>
</form>
```

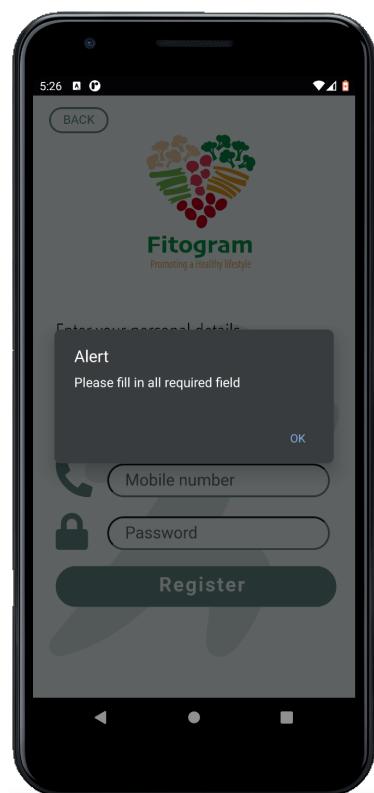
Javascript code(testRegister.js):

```
//test if the register form has all the required fields
function validateRegisterForm() {
  if ((document.forms['register'].username.value == "") ||
      (document.forms['register'].email.value == "") ||
      (document.forms['register'].number.value == "") ||
      (document.forms['register'].psw.value == "")){
    alert("Please fill in all required field");
    return false;
  }
  return true;
}
```

registration alert(ios):



registration alert(android):



TESTING METRICS

System Usability Scale (SUS)

One popular testing metric to use is the System Usability Scale (SUS). It consists of only 10 questions, which asks the users to select a number, based on the usability of the system. Below shows an example of the metric I got online.

[8]

The System Usability Scale Standard Version		Strongly Disagree		Strongly Agree		
		1	2	3	4	5
1	I think that I would like to use this system frequently.			0	0	0
2	I found the system unnecessarily complex.			0	0	0
3	I thought the system was easy to use.			0	0	0
4	I think that I would need the support of a technical person to be able to use this system.			0	0	0
5	I found the various functions in this system were well integrated.			0	0	0
6	I thought there was too much inconsistency in this system.			0	0	0
7	I would imagine that most people would learn to use this system very quickly.			0	0	0
8	I found the system very awkward to use.			0	0	0
9	I felt very confident using the system.			0	0	0
10	I needed to learn a lot of things before I could get going with this system.			0	0	0

The Usability Metric for User Experience (UMUX)

Another testing metric to use is the Usability Metric for User Experience (UMUX). Similarly, It consists of 4 questions, which asks the users to select a number, based on the usability of the system. Below shows an example of the metric I got online. [9]

The Usability Metric for User Experience Version 1		Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
1	This system's capabilities meet my requirements.		0	0	0	0	0	0	0	
2	Using this system is a frustrating experience.		0	0	0	0	0	0	0	
3	This system is easy to use.		0	0	0	0	0	0	0	
4	I have to spend too much time correcting things with this system.		0	0	0	0	0	0	0	

With these metrics, I can have a statistical view of how usable my Fitogram mobile application is. It would also help me in further questioning the test users on why they chose the number for each question. These will be able to guide me further for my application's development.

TECHNICAL CHALLENGES

Challenges

I was troubled with several technical requirements of this application. Since I would need each user to have an account to login to, I would be required to have the backend of the app ready, with servers and database to store user login informations. With my current skillset, it is quite challenging for me, and I was not able to figure out how to go about solving this problem.

Also, for the calorie tracker, I was unable to make it actually able to enter the goals, and track the calories. This would hinder the development process as the test users are unable to give their full insights on this part of the application.

The styling of the application gave me some trouble as well. I had to make the application look similar on both ios and android devices, taking the safe area margins into consideration. I utilize containers, and style them with either auto margins, or percentage margin. This would style the application according to the device's dimensions.

Since I do not have much experience with JavaScript, I was unable to make it such that the users could add friends, and also make posts and interact with like-minded users.

The nutritional chart in the logs page, was also unable to change according to the nutritional intake of the user.

In the future, when I have more experience in this area, I would be sure to revisit and solve these issues, and have both the frontend and backend of the application work together.

USER TESTING

User Feedback

The test users were satisfied with the changes that I have made based on their suggestions. The testing process is also done by installing either the apk or ipa based on their device. This enables them to tap on the buttons and interact with the application, which would allow them to provide me with detailed feedbacks.

My test users are aged between 18 to 50, each with different lifestyles. With a wide range of test users, I would be able to gather feedbacks from all sorts of age range and lifestyles. Some are students, busy working adults, and a small group of them are retired individuals. They have played a big role in this project. With every test sessions and discussions I had with them, they have been supportive and provided me with their honest thoughts.

The feedbacks for this round of testing was that the application is ready for further development of the functions. There were some minor issues with text sizes, which was not as difficult to resolve.

Though there are still parts of the Fitogram application that isn't perfect, I did my best to meet their expectations.

Testing metrics

By utilising the System Usability Scale(SUS) and Usability Metric for User Experience (UMUX), I got an overall view of how ready my application is for the general public. To summarize my findings from the test using metrics:

System Usability Scale(SUS) [out of 5 marks]

- 4.1 --- would like to use the system frequently
- 1.8 --- found the system unnecessarily complex
- 3.8 --- thought the system was easy to use
- 1.0 --- would need support from technical person to use this system
- 3.0 --- thought that various functions of this system was well integrated
- 1.0 --- thought there was too much inconsistency in this system
- 4.4 --- imagine that most people would learn to use this very quickly
- 1.7 --- found the system very cumbersome to use
- 3.7 --- felt very confident using this system
- 1.2 --- needed to learn a lot of things before I could get going with this system

As we can see, the average score of 3.0 for 'thought that various functions of this system was well integrated' is not satisfactory. From the reasons the test users gave, most of them explained that it was due to the fact that the application wasn't fully functional yet, and would definitely obtain a higher score if it was completed as specified in the design specifications.

Usability Metric for User Experience (UMUX) [out of 7 marks]

- 3.2 --- capabilities met my requirements
- 1.8 --- using this system is a frustrating experience
- 5.2 --- is easy to use
- 2.8 --- spend too much time correcting things with this system

The average score of 3.2 felt that the capabilities of this system met their requirements. This is a rather low score, and was because the functionalities has not been fully implemented.

From the results gathered, I can plan better for the future development of the Fitogram application.

ANALYSIS

Analysis of solution

From the Vibeosys website, an article about benefits of health and fitness app was published in 2020. In the article, we can see that such application greatly benefits and pushes users to achieve their goals. Here are the 10 reasons for installing health and fitness apps:

[10]

- 1) It is the first practical step towards your resolve to stay healthy
- 2) Keep track of your daily progress and calories
- 3) Easy workout ideas
- 4) Constant nudges/Notifications
- 5) Mobile app as your personal trainer
- 6) Set goals and work towards
- 7) Monitor diet/Calories
- 8) No major monetary commitment
- 9) Consultation on the go
- 10) You can always see and experiment if it works for you

Most health apps gather data of the users, such as daily exercises, diet, heart rate etc. These health data that are gathered can allow doctors to make more comprehensive, informed and timely medical decisions. The doctors can also be more aware on the patient's daily lifestyle.

"This could enable earlier detection of chronic conditions such as glaucoma, irregular breathing patterns, heart disease or even mental health issues. By collecting data and detecting changes in conditions before they become serious, mobile health apps help improve our overall well-being."

[11]

"As more and more people are becoming conscious about maintaining a healthy lifestyle, healthy life apps are the most popular health apps right now. With the popularity of advanced digital accessories such as smartwatches, fitness trackers, healthy life apps are mainly designed to enable people to stay in shape, follow strict diets, or improve the sleep cycle."

[11]

"They allow users to track their sleep, body mass, food intake, heart rate, blood pressure, calorie intake, and other personal data. Having such data will help individuals set safe and reasonable fitness goals, increasing chances to attain a healthy lifestyle they want. Moreover, people who use these apps can share these data with their personal trainers or friends to obtain more advice and support."

[11]

EVALUATION TECHNIQUES

Measuring success or failures

To measure if the Fitogram app have been useful and effective for the users, tests should be done. I can prepare a questionnaire to ask our users, asking questions and have them select from a range of numbers. With this, I can calculate the average for each question, and look at which area requires more improvement, and which are of the app did well.

Effectiveness:

The Fitogram app should be effective in achieving the intended outcome of promoting a healthy lifestyle.

Efficiency:

The Fitogram should be efficient. The user should not be required to complete too many steps in order to complete a task.

Usability:

The Fitogram should be easy to use. There shouldn't be any issues like being unable to tap on a certain button, or text too small to be visible.

User Satisfaction:

We have to do tests on users, how satisfied they are, preferably with a range or scale of numbers they can choose from.

Potential improvement

If I have the chance to work on this project again, I would focus on the accessibility problems for people with disabilities or visual impairment. A reader function could be implemented, that reads out the application to the user, allowing them to utilize the application without help from others.

To solve the problem of people with colour blindness, there could also be an option to switch the application's colours to a colourblind-friendly palette. Also, since some elderly finds it hard to look at the small words on the phone, an option to enlarge all the words would be great to solve this issue. There could also be a dark or light mode toggle button, so that the the colours would not be striking to the eyes during night time.

For the recipe and workout reccomendations, it can be categorised and filter by the kind of body they want to achieve, or the type of nutrients they want to be a main part of their meal.

Even though most of the users for fitness and health applications are those who want to lose weight, or get a toned body, a number of them are actually underweight individuals trying to gain some weight for health reasons. Due to their body genetics or other health reasons, it is difficult for this group of people to gain weight and achieve a healthy looking body. This group of people are often neglected due to their small pecentage of people, and I would thus like to implement solutions into my application to help them.

Since it is a health and fitness application, the health part of this application should not be absent. Medical or health experts could join the application, and giving advice to individuals with medical conditions on what kind of workout and diets suits them the best. Even though this group of people are not physically strong, they should also not be left out.

Events and activities can also be held, for users to share their experience and journey. This allows user-to-user interactions, which allows them to motivate each other, sharing tips. Webinars on health and fitness could also be recommended to users, for them to gain more knowledge in this area.

The ultimate goal for Fitogram is to have all the users feeling confident in their body, and being healthy at the same time, not achieving their goal in any extreme ways.

Outcome

For the outcome of this project, I managed to create an application, Fitogram, that can be installed on mobile phones. This is done so via the Apache Cordova framework. It includes resources, libraries such as the Chart.js library to create the pie chart that displays nutritional information.

This minimum Viable Product (MVP) is essential for test users to try out the Fitogram application, and provide useful insights for future product development.

The current state of the Fitogram application allows user to enter the application, navigate to the different pages, to utilise it. It is not yet at a stage where it can be published to the general public, as some features that requires further research and development has not been completed yet.

Impact on stakeholders and users

When the Fitogram application is at its final state, where it is ready to be published to the general public, it should aim to be of a significant part in users life. The goal is to be for users of all age to use the application with ease, feel that it was of great importance and that it contributes convenience to their daily life.

By the end of their healthy lifestyle journey, users should have accomplished their goal, or are reaching towards their goal. This can also be a measure of success for the application.

Self Reflection

I felt that I have completed this project fairly well, considering that I did not get to work with any team members, to brainstorm on ideas together. It was a shame that I wasn't able to fully utilise the Agile Methodology in this project.

Completing this project on my own was rather tough, as I did not have any prior experience to coding or anything related in this field, before studying in UOL.

To compensate on this, I did plenty of research, asked people with more experience for guidance, and had many discussions with my test users. With all these help, I managed to produce a Minimum Viable Product, and submitted my assignment on time.

It was also regretful that I was unable to make all of the functionality of the application work. My test users, was then unable to fully experience how the application is supposed to function. Once I have more experience on Application Development in the future, I would surely continue on this project again.

I believe that if I had more time and resources, I will be able to complete this project to a more satisfiable state, and could possibly publish it to the general public.

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