

Project Phase II - GG Health

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Phase I revision

Overview of the problem

Having good health are crucial for living a fulfilling life. Nutrition and exercise are two key components that can greatly impact our overall health. The lack of proper nutrition and exercise can lead to various health problems, such as obesity, diabetes, heart disease, and more. Therefore, it's essential to take care of our health from a young age.

One way to improve our health is through Intermediate Fasting (IF), which is an eating pattern that involves periods of fasting and eating. However, it may not be suitable for everyone, and some people may find it challenging to stick to the IF schedule. Another approach is the 70/30 rule, which emphasizes the importance of having a healthy diet (70%) and regular exercise (30%). This approach is more flexible and easier to follow, as it does not require specific fasting periods. When it comes to our diet, it's essential to eat a balanced and healthy diet that includes all the necessary nutrients our body needs. This includes fruits, vegetables, whole grains, lean proteins, and healthy fats. In addition, it's crucial to avoid processed foods, sugary drinks, and excessive amounts of salt and saturated fats.

Regular exercise is also important for maintaining good health. It not only helps to maintain a healthy weight but also improves our cardiovascular health, strengthens our bones and muscles, and reduces the risk of chronic diseases. It's recommended to engage in at least 150 minutes of moderate-intensity exercise per week, such as brisk walking, cycling, or swimming.

The GG: Good health Good life application is a great tool to help people maintain good health. The app provides recommendations for healthy foods and video exercises suitable for daily life. Additionally, the app sends notifications to remind users to take care of their health, making it easier for them to develop healthy habits.

An analysis of the existing system

Competitor Comparison

Feature	Myfitnesspal	Google Fit	Samsung Health
Exercise tracking			
Calorie tracking			
Food tracking		×	
Water tracking		×	
Macro tracking		×	
Integration with devices		>	
Social features		×	
Wearable device support			
GPS tracking	×		
Heart rate monitoring			
Sleep tracking			
Stress tracking		×	
Blood pressure tracking		×	

Problem statement

Many people lack good health from eating and exercising which causes their bodies to become unhealthy. Some people don't take care of their health because they don't have time or enough knowledge. Users need to gain more information because they want to become healthy people.

So our group came up with a design to be user-friendly and accessible to people who may not have a lot of knowledge about nutrition and exercise. By inputting what they eat in a day and selecting their health concerns, users can receive tailored recommendations for their diet and exercise routine. One important feature of the app is the automatic calculation of nutrition requirements. This takes the guesswork out of meal planning and ensures that users are getting the right balance of nutrients for their individual needs. The app will also provide recommendations for portion sizes and suggest healthy alternatives for less healthy food choices. In addition to diet recommendations, the app will also provide exercise recommendations based on the user's fitness level. By setting their exercise level to beginner, intermediate, or expert, users can receive personalized video recommendations for workouts that are appropriate for their fitness level. The app will also send daily notifications to remind users to exercise and provide motivation to stay on track. Overall, our health application provides a convenient and accessible solution for people who may struggle with maintaining a healthy lifestyle. By using technology to automate nutrition and exercise recommendations, users can easily incorporate healthy habits into their daily routines.

User Persona



Olivia wilson
Film Director

Occupation

> Film Director

Demographic

▶ 45 years old who work in the movies industry for 15 years in California, The United State. He usually sits in a chair during her work.

Goals and Needs

To take care of her health more than in the past by eating good food and exercising.

Pain Points

Lack of applications that store information on what people eat in a day.

Personality

She is addicted to her phone. That's why she loves to use mobile applications.

Relevant Pattern of Behavior

She is a girl who spends most of her time at work. After the work is done, she always goes to the party to drink alcohol and eat junk food.

Self-Discipline

The user should use our application for at least 21 days to become her routine and she will have more discipline.

Figure 1 User Persona

Olivia Wilson, a 45-year-old working woman who lives in California, the United State, has been a film director for 15 years. She wishes to take care of her health by exercising and eating properly to be healthier than in the past. She always relaxes by socializing and eating unhealthy food after working hard. Therefore, it makes it important to access the knowledge of nutrition. She is a person who is addicted to using the phone, but she still lacks applications that meet the need of providing complete information on a daily basis, whether it is calculating both food and exercise that is suitable for herself. Because of this, Olivia is a user who is suitable for applications with a user-friendly UI and also the beautiful cool calm colors tone that gives the feeling of relaxation after returning from hard work, Just using the mobile application that is designed to suit the daily life of individual users by being able to call various features easily and cover the needs of health care.

The user journey

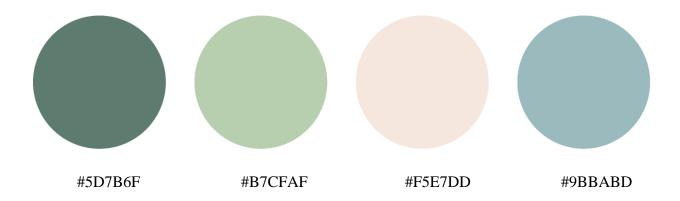
	Before	On-Service	After
User Action	User want to have a health body.	Use our App AI to manage their daily health.	Daily meal plan And Recommend the App to other.
Emotion	Users are troubled by health problems caused by unplanned eating and no enough exercise	Eating healthy food and doing exercises recommended by AI for the first time, still in the process of adapting	With our Al User get a good body and keep health by our App.
Touch Point	Facebook, Tiktok, Smart classroom website	Using our App's AI to find which health food and exercises are suitable for user	Using AI to make daily eating plans
Usability Attribute	There is no efficient, easy-to-learn way for users to make a health life	Because of the AI recommendations it is easy for users to use and efficient	Automatic calculation by AI to recommend plans for users, user-friendly, efficient, and user is enjoy to use
Metadata	Food type, Price, Taste	Calories, Exercise calorie consumption, Protein, vitamins, fiber, water, fat, carbohydrates Type of exercise, Equipment, Time, Frequency	Calories, Exercise calorie consumption , Calories, Calorie consumption Protein, vitamins, fiber, water, fat, carbohydrates Type of exercise, Equipment, Time, Frequency
Scenario	People need a Application that can help them complete their health plan for the daily life	Al to customize an effective exercise and nutritious diet plan for the user	Recommend a variety of diet plans to keep users feeling fresh.

Figure 2 The User Journey Map

A journey map of the user's experience from not using our app to using our app. In the beginning, users begin to have the awareness that they need to focus on their health or fitness. Onservice process, users use our AI for the first time to plan their meals and exercises for one day. They may not feel comfortable. This is because such a change breaks the user's original eating and exercise habits. However, our AI will recommend a suitable plan for users. After using our application many times, users find that our app is a good solution to their pain points and needs, so they use it often and recommend it to others who also want to maintain a healthy lifestyle.

Phase II

A design mantra



Color scheme is an important aspect of application design that can significantly impact user experience and engagement. Choosing a color palette that is visually appealing and easy on the eyes can help users feel more comfortable and engaged with the application, leading to increased usage and user retention. When selecting a color scheme, it is important to consider the psychology of colors and how they can impact users' emotions and perceptions. For example, blue is often associated with trust and security, while green is associated with health and nature. Red is often associated with excitement and urgency, while yellow can evoke feelings of happiness and positivity. To select a color palette that is visually appealing and psychologically appropriate, it is also important to ensure that the colors are used consistently throughout the application. This can help users easily recognize and navigate different sections of the app, improving the overall usability and user experience.

Finally, it is important to consider accessibility when selecting colors for an application. This includes ensuring that the colors are visible and easy to distinguish for users with visual impairments or color blindness. It is recommended to use high-contrast color combinations and to provide alternative text descriptions for any color-coded information.

Idea Creation output

The First Solution

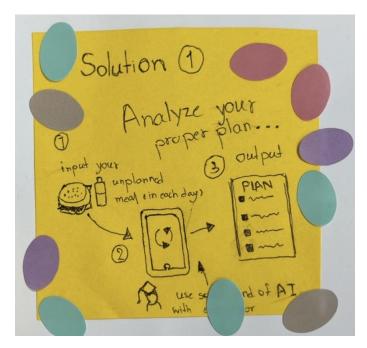


Figure 3 First Solution

Our application aims to help users improve their health by providing them with a personalized and comprehensive nutrition plan. By allowing users to input what they eat in a day, the application can automatically calculate how much the user should consume in a day based on their specific needs and goals. Our application uses AI technology to analyze the user's input and provide them with a customized nutrition plan that fits their lifestyle, dietary preferences, and health goals. The application will offer users various features that include tracking their food intake, providing nutritional information about the food they consume, and suggesting healthy alternatives to their usual meals. The application will also offer users a variety of healthy and delicious recipes that they can try out to add some variety to their diet.

By using our application, users can expect to see improvements in their overall health, such as weight loss, improved energy levels, and better digestion. Additionally, our application can help users develop a better relationship with food by providing them with educational resources about nutrition and healthy eating habits.

Overall, our application aims to provide users with a practical and easy-to-use solution to improve their health and well-being. With the help of AI technology, users can have access to a personalized nutrition plan that fits their unique needs and goals.



Figure 4 First Solution

Figure 4 develops from figure 3 to make it more attractive. Adding an outcome image to our application can be a powerful tool to grab the user's attention and make it more visually appealing. By including an image that showcases the expected outcomes of using the application, users can better understand the potential benefits of the personalized nutrition plan and be motivated to try it out for themselves.

The Second Solution

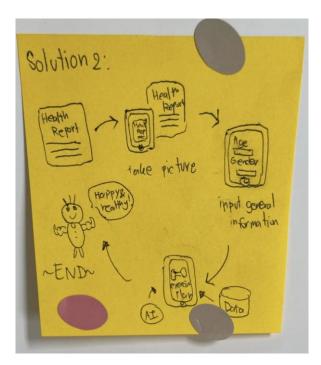


Figure 5 Second Solution

This solution provides a personalized health and wellness program that utilizes a combination of user-provided data and AI algorithms to generate a customized plan for each individual. By asking users to upload their health reports and providing some basic information about themselves, the app can gain insights into the user's current health status, fitness level, and dietary habits.

The AI algorithms can then analyze this information and generate a personalized health plan that takes into account the user's goals, preferences, and unique needs. This plan may include recommendations for specific exercises, dietary changes, and lifestyle modifications that can help the user achieve their desired health outcomes.

The benefits of this approach are numerous. By providing users with a personalized plan, the app can help them overcome the common challenges of sticking to a workout routine or maintaining a healthy diet. Additionally, by utilizing AI to generate these plans, the app can provide users with the latest and most effective health recommendations based on the most up-to-date research and data.

Overall, this solution has the potential to be a valuable tool for individuals looking to improve their health and wellness. By providing users with personalized, data-driven recommendations, the app can help users achieve their health goals more effectively and efficiently than traditional, one-size-fits-all approaches to health and wellness.



Figure 6 Second Solution

Figure 6 develops from figure 5 to make it more attractive. In Figure 4, we have added a section where users can earn points and redeem them for coupons and gift vouchers. This is a feature that can attract users as they will be motivated to use the app more in order to earn points and get rewards. Users can earn points by logging their meals, completing their workout routines, and achieving their fitness goals. By incorporating this feature, we can incentivize users to continue using our app and make healthier choices. This can also potentially increase user engagement and retention.

The Third Solution

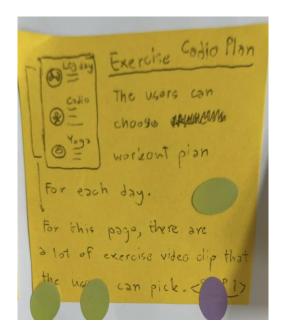


Figure 7 Third Solution

This solution is designed to provide users with a variety of resources to help them establish and maintain a consistent exercise routine. The section includes a wide range of videos that demonstrate different types of cardio exercises, such as running, cycling, and jumping jacks, as well as short articles that provide tips and guidelines on how to perform each exercise properly and safely.

In addition to the videos and articles, the app also offers customizable workout plans that are tailored to the user's individual needs and goals. Users can choose from beginner, intermediate, or advanced workout plans, and can also select specific areas of focus, such as weight loss, muscle toning, or cardiovascular health. The app's workout plans are designed to gradually increase in difficulty over time, allowing users to build up their endurance and stamina at a pace that is comfortable for them. Each workout plan includes a variety of different exercises, and users can track their progress over time to see how far they have come. Overall, the goal of the cardio exercise section of the app is to provide users with a comprehensive and customizable exercise plan that is easy to follow and can help them achieve their health and fitness goals.



Figure 8 Third Solution

Figure 8 develops from figure 7 to make it more attractive. Adding a certificate can be a great way to attract and motivate users. It provides a sense of accomplishment and recognition for the user's efforts. The certificate can be awarded after the user completes a certain number of workouts, achieves a specific fitness goal, or maintains consistent exercise habits over a certain period of time. The certificate can be designed in a visually appealing way, featuring the user's name, date of achievement, and specific accomplishment. The certificate can be easily shared on social media platforms, adding an additional layer of motivation and social recognition for the user.

Overall, adding a certificate as an attraction can be a great way to incentivize and motivate users to use the app and maintain healthy exercise habits.

The solution user journey maps

The First Solution User Journey Maps

	Before	On-Service	After
User Action	Unplan each day meal	Use our App AI to calculate how much users need to consume in one day	Daily meal plan
Emotion	Users are troubled by health problems caused by unplanned eating	Eating healthy food recommended by AI for the first time, still in the process of adapting and changing the eating habits	With our AI users have already got healthy eating plans and are no longer troubled by health problems
Touch Point	Facebook, Tiktok, Smart classroom website	Using our App's AI to find which health food is Suitable for user	Using AI to make daily eating plans
Usability Attribute	There is no efficient, easy-to-learn way for users to make a eating plan	Because of the AI recommendations it is easy for users to use and efficient	Automatic calculation by AI to recommend eating plans for users, user-friendly, efficient, and user is enjoy to use
Metadata	Food type, Price, Food brand, Taste	Calories, Exercise calorie consumption, Protein, vitamins, fiber, water, fat, carbohydrates	Calories, Exercise calorie consumption , Calories, Calorie consumption Protein, vitamins, fiber, water, fat, carbohydrates
Scenario	People need a Application that can help them complete their health plan for the daily life	Al to customize an effective exercise and nutritious diet plan for the user	Recommend a variety of diet plans to keep users feeling fresh.

Figure 9 First Solution User Journey Maps

In this solution, the user does not have a plan for a healthy meal. The user may only focus on the taste of the food or the price. So, GG Health App wants to use AI to make users pay attention to the nutrition and calories of food and recommend them to eat some healthy food. The user may feel a bit disappointed in this process, but by continuously eating the food recommended by GG Health, the user can gradually form a healthy eating habits. In addition, GG Health will recommend a variety of foods to help users keep a healthy eating plan during the process.

The Second Solution User Journey Maps

	Before	On-Service	After
User Action	No enough exercise	Use our App to plan their daily exercises that accounting to their need	Having a healthy exercise habit
Emotion	Users are troubled by health problems caused by no enough exercise	The quantity and frequency of exercise may make users feel uncomfortable	With our Al users have improved their health by making healthy exercise habits
Touch Point	Facebook, Tiktok, Smart classroom website	Using our App's AI that base on the health report to recommend exercises for user	Using AI to create a effective exercises plan.
Usability Attribute	Lack of a safe, enjoyable, and effective exercise plan	GG Health will help users to create a easy, efficient, safe, and targeted exercise program	Users enjoy GG Health's recommended exercises
Metadata	Exercise Time, Exercise Frequency	Calories, Calorie consumption, Type of exercise, Equipment, Time, Frequency User's body fat, blood sugar, average heart rate, BMI, blood pressure	Calories, Calorie consumption, Type of exercise, Equipment, Time, Frequency User's body fat, blood sugar, average heart rate, BMI, blood
Scenario	The user uploads health reports to know the user's health condition and find the user's needs.	Develop effective exercise programs for users by uploading health reports	Recommend diverse campaigns to keep users fresh.

Figure 10 Second Solution User Journey Maps

In this solution, we focus on solving the problem of undertrained users, who will upload their health reports, including body fat, basal metabolism, body fat percentage, BMI, etc. With this provided data, we will use our database and artificial intelligence to create a user-friendly health plan for the user. By developing an effective exercise program, the user's exercise process will not be difficult or uncomfortable. GG Health will recommend a diverse exercise to help users keep a good exercise habits.

The Third Solution User Journey Maps

	Before	On-Service	After
User Action	No effective training	Follow the recommended cardio exercises with our application	Overcoming the challenges of establishing and maintaining a consistent exercise routine
Emotion	Users are confused because they have done exercises every day but no effect	Users do not understand how to complete cardio exercise efficiently	With our cardio exercise users have improved their health and know the knowledge about cardio exercise
Touch Point	Facebook, Tiktok, Smart classroom website	The videos and articles about cardio exercise	Daily cardio training schedule in GG Health
Usability Attribute	lack of effective training and a easy way to learn how to training	GG Health provides an easy-to-learn way for users to learn how to exercise effectively with cardio training	Users enjoy GG Health's recommended cardio training
Metadata	Training Time, Training Frequency	Calories, Calorie consumption, Type of exercise, Equipment, Time, Frequency User's blood oxygen	Calories, Calorie consumption, Type of exercise, Equipment, Time, Frequency User's blood oxygen
Scenario	Users have exercise but not effective exercise, looking for suitable and effective training	Provides many videos and short guideline articles related to cardio exercise	Recommend a combination of rest and exercise plans for users to help them overcome challenges

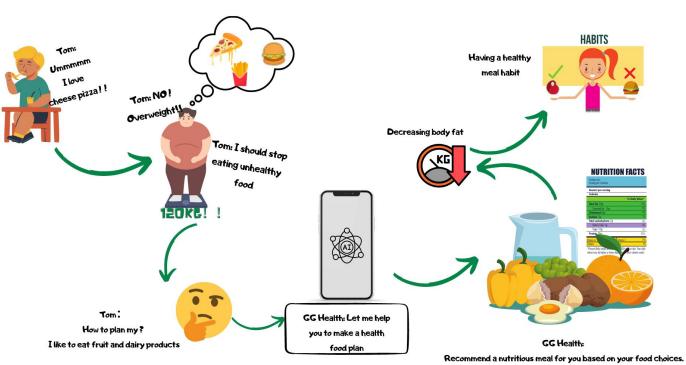
Figure 11 Third Solution User Journey Maps

In this solution, we focus on solving the problem of users who exercise but do not exercise effectively. This app offers a variety of resources, including instructional videos and brief articles, related to cardio workouts. It also provides customized workout plans tailored to individual needs. The aim of this app is to provide a practical solution to help people overcome the obstacles of creating and maintaining a consistent exercise routine. By offering a personalized exercise plan, this app intends to simplify the process of establishing a regular and healthy exercise habits, thus making it more achievable for individuals to stay on track.

Concepts design of the 3 proposed solutions

The solution Storyboards

Detail of all storyboard images: [4]



Project Phase II - GG Health First Solution Storyboard

Figure 12 First Solution Storyboard

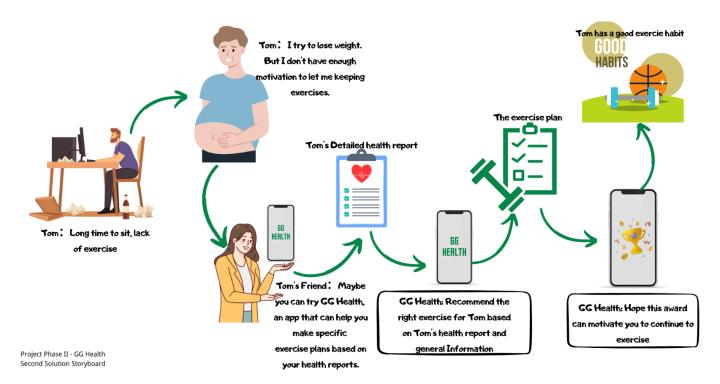


Figure 13 Second Solution Storyboard



Figure 14 Third Solution Storyboard

Design rationale

The first solution: Analyzing The Proper Meal Recommendations Using AI

In the first solution, we integrate AI technology with our system to improve the solution result based on historical large amounts of data. The reason for this solution is that we need the accuracy of the result to be as accurate as possible, and it also needs to be based on real past data that we have gathered and analyzed. So that we can ensure that our customers receive quality and accurate meal and exercise plans. Furthermore, traditional meal planning is frequently based on broad guidelines that may fail to account for an individual's specific nutritional needs, preferences, and health conditions. By using AI, the system can analyze vast amounts of data and provide personalized meal plans based on the user's profile, health status, and goals.

The second solution: Analyzing The Proper Exercise Plan Using AI

The design rationale behind this solution is to leverage AI and data analysis to provide personalized health plans to users based on their individual health reports and preferences. By collecting data such as body fat, basal metabolism, and blood sugar levels, the system can use machine learning algorithms to generate tailored recommendations for diet and exercise. This approach provides users with a more effective and efficient way to achieve their health goals, as opposed to relying on generic plans or recommendations. Additionally, the system's user-friendly interface and personalized approach can help address common issues such as lack of motivation or difficulty sticking to a routine. Overall, the design rationale behind this solution is to provide users with a comprehensive and personalized health plan that is backed by AI and data analysis, resulting in better outcomes and increased user satisfaction.

The third solution: Customizable Exercise Plan And Tutorial Video

The reason that we choose this solution is to address the problem of individuals struggling to establish and maintain a consistent exercise routine. By providing a personalized and customizable exercise plan, the app aims to make it easier for individuals to adhere to healthy exercise habits. The inclusion of videos and short guideline articles related to cardio exercise further enhances the user's experience and knowledge, making it easier for them to perform exercises correctly and avoid injuries. The app's ultimate goal is to provide a practical solution to promote better health and wellness for its users.

Different Product Solution Comparison Table

The below table is the features comparison table of GG Health and its competitors.

Production	Solution Description
GG Health	GG Health is a machine learning integrated solution that aims to improve the efficiency and quality of production. It will have three main features: meal recommendation, exercise recommendation, and cardio and exercise video. The solution aims to help users achieve their fitness goals by providing them with personalized meal and exercise plans, as well as access to a variety of cardio and exercise videos. Machine learning will be used to analyze user data and provide the best recommendations.
MyFitnessPal	MyFitnessPal is an app that helps people with their fitness and weight loss goals. It has a database of over 14 million foods that users can use for free to track their calorie intake. The app also has a premium option for users who want extra benefits.
Google Fit	Google Fit is a platform that brings together data from various health apps and wearable devices, such as activity, nutrition, and sleep data, into one place. The platform provides users with personalized insights and recommendations based on their data to help them achieve their health goals. Google Fit is easy to use and helps users stay motivated to track their progress. With its integration with other health and fitness apps and devices, users can conveniently have all their data in one place to make informed decisions about their health.
Samsung Health	Samsung Health is an app that helps users take care of their health and wellness. The app is easy to use and provides tools for managing health data. There are also resources like coaches, exercises for relaxation, and a group of people to give support. All of these things make Samsung Health a helpful and complete app for managing health and wellness.

Gathered feedback and analyze data

Strengths

- Easy to use
- AI to calculate
- Deep data integration
- Analyze the proper plans
- Wide range of target group
- Creative & analytical skills
- The application itself is appealing
- Has rewards and certificate features
- Great concept on help design user eating habit
- Cooperate with hospital for health information
- Can keep track and provide rewards for exercise
- Suitable suggest calculate for nutrition and work out plan
- Food arrangement for user (appropriate nutrient for meals)
- The solution is very practical and focus directly to the problems

Weaknesses

- Security
- Credibility
- Disorganized
- No revenue plan
- Lack of step to be done
- Less motivation or engaging
- The app measure is not always right
- The accuracy is not high if user input form is not complete
- Lack of a step to ensure that users follow the suggested plans
- Weak certificate usage purpose and may challenge for solution 2
- It just only tracks what user did and suggests a plan calculated by AI

Threats

- There are many competitors
- Cannot correctly predict the right data
- Hackers gaining access to sensitive user information
- By focusing on the health field, it may be challenging to obtain accurate and practical information.

Opportunities

- Online achievement medal
- May explain the system to other food types
- Add calories and nutrient percentage prediction for Sol. 1
- Taking advantage of the growing trend towards health and wellness
- Add something more interesting to fun user fun while using your product
- Adding new features specifically designed for users who want to focus on dieting
- Partnering with healthcare providers or experts in the field for more reliable information
- Offer certificates or other forms of credit to users who successfully complete the suggested nutrition and workout plans.

Other opinions

- Good app
- Nice poster and well-designed concept
- Nice application!, they just need credibility
- Good idea & have a lot of people's attention

Based on the feedback analysis, the GG application has several strengths such as its suitability in suggesting calculated nutrition and workout plans, a wide range of target group, easy-to-use interface, and appealing design. However, the app also has weaknesses, including less motivation or engaging features, no revenue plan, and weak credibility.

There are several threats to the GG app's success, such as many competitors, difficulty in predicting the right data, and a healthy trend. However, there are opportunities to improve the app, such as adding more interesting features for users, focusing on other food types, and offering new features for users who want to diet.

Overall, the GG app has the potential to be successful if it addresses its weaknesses and takes advantage of its opportunities. By implementing strategies such as improving the accuracy of user input data, providing a step-by-step process for users to follow, and partnering with healthcare providers, the app could become a more reliable and trustworthy source for users to achieve their health goals. Additionally, offering rewards and certificates and adding new features could increase engagement and motivate users to continue using the app.

Chosen design concept and rationale

The first solution proposed is to use AI to analyze and recommend proper meal plans for users based on their past data, nutrition needs, preferences, health conditions, and goals. This concept is well-suited for the theme of Smart Classrooms, which is AI, and it can also address users' healthcare issues. Traditional meal planning guidelines may not account for individual needs, leading to suboptimal results. By leveraging AI, the system can process large amounts of data to offer personalized recommendations that are tailored to each user's unique circumstances. This can lead to better outcomes for customers in terms of achieving their health goals. Integrating AI technology with the solution can also improve the accuracy of the results by leveraging past data that has been gathered and analyzed. This can enhance the overall performance of the product and increase user satisfaction.

In summary, the concept of using AI to analyze and recommend proper meal plans is a logical fit for the Smart Classrooms theme and can lead to better results for users. By leveraging past data and personalizing recommendations, the solution can provide a more effective approach to nutrition planning and support users in achieving their health goals.

A Poster

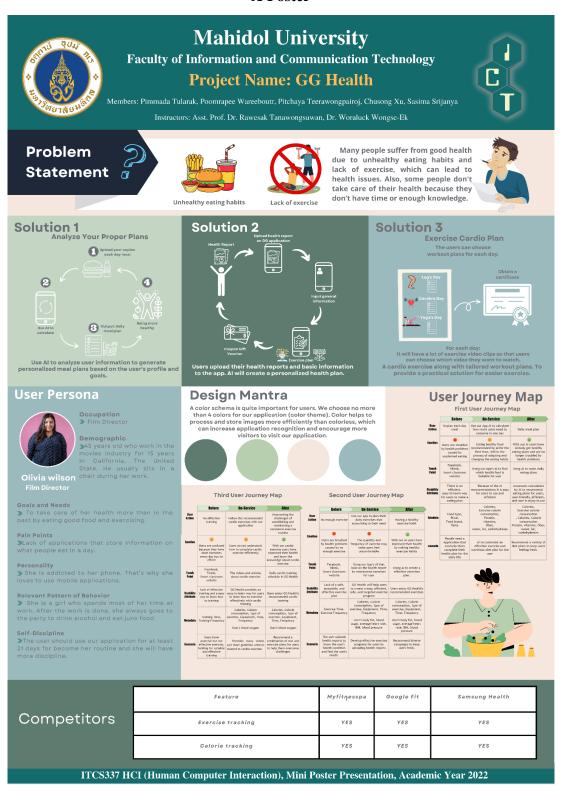


Figure 15 Poster

Team members, project information, and a summary of Phase II

Our team members are third-year students of section 3 of the ICT faculty:

1. 6388072	Pimmada	Tularak	Mook
2. 6388113	Poomrapee	Wareeboutr	Blue
3. 6388133	Pitchaya	Teerawongpairoj	Koikwang/KK
4. 6388177	Chusong	Xu	Shane
5. 6388196	Sasima	Srijanya	Jenny

Our project is about a health application in which people have better health by consuming healthy food and enough exercise.

The summation of Phase II is to find the best solution for the user and we explain each solution for making a decision on which solution we will choose.

References of WHO

The addition of references from the World Health Organization (WHO) to our GG application can significantly increase its reliability and functionality on a global scale. The WHO is an international organization that specializes in public health, and its guidelines and recommendations are widely recognized and accepted. By incorporating WHO references, our GG application can provide users with reliable and trustworthy information related to their health and fitness goals. This not only helps to increase the credibility of the app but also helps to ensure that users are receiving accurate and up-to-date information that is aligned with global health standards. Ultimately, the incorporation of WHO references can help to make our GG application a more valuable and reliable tool for individuals seeking to improve their overall health and fitness.

[1] "Who | world health organization." [Online]. Available: https://apps.who.int/iris/bitstream/handle/10665/337001/9789240014886-eng.pdf. [Accessed: 15-Mar-2023].

[2] "Physical activity," *World Health Organization*. [Online]. Available: https://www.who.int/news-room/fact-sheets/detail/physical-activity. [Accessed: 15-Mar-2023].

[3] "Healthy diet," *World Health Organization*. [Online]. Available: https://www.who.int/news-room/fact-sheets/detail/healthy-diet. [Accessed: 15-Mar-2023].

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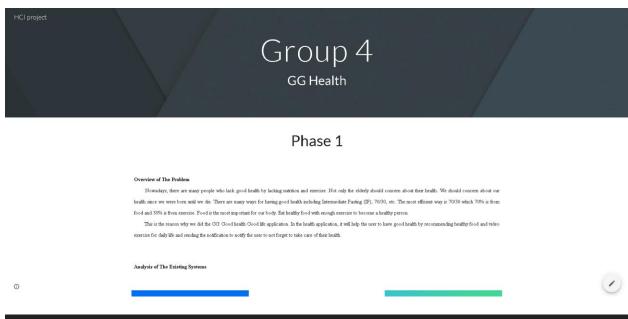
[4] "Canva Free." [Online]. Available:

https://www.canva.com/design/DAFbSbprcEE/I23tt8MWcdeBbPygTefiQw/edit?utm_content=D AFbSbprcEE&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton [Accessed: 15-Mar-2023].

Google Sites link

[5] *HCI project*. [Online]. Available: https://sites.google.com/student.mahidol.edu/hci-group4-phase2/home. [Accessed: 17-Mar-2023].

Screenshots of Google Sites



HCI project

Analysis of The Existing Systems



Brief Description of How The Above Information Was Gathered

From our survey that we received from Google Forms, we can nummarize that most people eat breakfast in the morning, eat 3 meals per day, do not exercise per week, and know how to use mobile applications.

Our group asks about users' weekly life which helps us to design and create a full function for users. Including weight and height for calculating EMI, did users eat breakfast in the morning, how many meals users eat per day, how often users enercise per week, how long users enercise per time and do users know how to use mobile applications.

(1)

Problem Statement

Many people lack good health that from eating and exercising which causes their bodies to become unhealthy. Some people don't take care of their health because they don't have time or enough knowledge.

So, our group came up with a health application that the user will input what they eat in a day and select what they are concerned about in their health. Then, the application will automatically calculate how much the user should eat and how much nutrition they should gain. Lastly, the user can set the application for their exercise to beginner, intermediate, and expert. The application will automatically recommend a video of the exercise that is suitable for the user and send a notification to notify the user every day,



DEMOGRAPHIC

3-45 YEARS OLD WHO WORK IN THE MOVIES INDUSTRY FOR 15 YEARS IN
CALIFORNIA, THE UNITED STATE. HE USUALLY SITS IN A CHAIR DURING HER

GOALS AND NEEDS

SHE WANTS TO TAKE CARE OF HER HEALTH MORE THAN IN THE PAST BY
EATING GOOD EDGO AND EXCEPTIONS.

The User Persona

There is only one main target group which is people who want to have good health by eating healthy food full of nutrition along with exercise.

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	Refere	On-Service	After
User Action	User want to have a health body.	Use our App Al to manage their daily health.	Daily meal plan And Recommend the App to other.
Emotion	Users are troubled by health problems caused by unplanned eating and no enough exercise	Eating healthy food and doing exercises recommended by Al for the first time, still in the process of adapting	With our Al User get a good body and keep health by our App.
Touch Point	Facebook, Tiktok, Smart classroom website	Using our App's Al to find which health food and exercises are ssuitable for user	Using AI to make daily eating plans
Osability Attribute	There is no efficient, easy-to-learn way for users to make a health life	Because of the AI recommendations it is easy for users to use and efficient	Automatic calculation by Al to recommend plans for users, user-friendly, efficient, and user is enjoy to use
Metadata	Food type, Price, Taste	Calories, Exercise calorie consumption, Protein, vitamins, fiber, water, fat, carbolydrates Type of exercise, Equipment, Time, Frequency	Calories, Exercise calorie consumption , Calories, Calorie consumption Protein, vitamins, fiber, water, fat, carbohydrates Type of exercise, Equipment, Time, Frequency
Scenario	People need a Application that can help them complete their health plan for the daily life	Al to customize an effective exercise and nutritious diet plan for the user	Recommend a variety of diet plans to keep users feeling fresh.

The User Journey Map

The user journey map is a journey map of the user's experience from not using our app to using our app. In the beginning, users begin to have the awareness that they need to focus on their health or finess. Then user start to look for appe that they can use to help them keep healthy. And in the process, they find that other apps don't solve their pain points or salisify their needs. So they are depressed enhancis, during the process. After discovering our software in social media, the App store, and other channels, users compared our App with other health management Apps and found that our software can provide accurate data and make a reasonable health plan for users. After using our application many times, users find that our app is a good solution to their pain points and needs, so they use it often and recommend it to others who also want to maintain a healthy lifertyle.

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Answering questions



_		nutritious diet plan for the	feeling fresh.
	health plan for the	user	
	daily life		

- Who is affected? Who is experiencing the problem and how specifically can we describe them? Who are the potential users/stakeholders?

- Who is affected? Who is experiencing the problem and how specifically can we describe them? Who are the potential users/intacholder?
 The people who were affected were healthy people has were to have healthy before show are stress in the problem of the problem. The potential users for our health application are the people who want to change their lifestyles and care about their own health management.
 What is the problem? What are the struggles and what ultimately need to be accomplished? Are there pain points that need to be releved?
 Our application is necessary to turse enter their dayly fine information regularly to get the best-results form their we which is a pash point that may make some users think it is difficult to use. We can solve this by creating the notification function of the app and presenting the daily routine to run the behavior of users to create more enthusiasm for using the
- Where does it happen? In what context does the user experience this problem?
- The issue will arise in the long run and directly affect the user. The context in which users will experience pain points is when they do not recognize and care for their health. In this case, if the behavior persists, it will be a serious problem that must be addressed.
- Why does it matter? Why is this a problem worth solving and what value does this bring to the user?
- The goal of a GG application is to encourage users to lead better lifestyles by offering ruggestions for ruitable activities and portion sizes for meals. In order to do so, we need precise data, which is where the notification feature comes in. The notification feature will help remind users not to forget to enter details about the flood they have consumed throughout the day to so that the GG applications will be computed and provide a ruitable and curvater result for each user.
- What tasks do they seek to perform?
- * The users need to find some tool to help them to be aware of health and nutrition. The tasks they seek to perform are to balance their nutrition for each meal along with their physical
- How to improve the user's workflow/journey?
- The way to improve the user's workflow is to encourage them regularly and integrate the software with wearable health devices. This allows users to import data from their physical activity into the app and is a way to encourage users to improve their workflow in their daily activities.

Phase 2

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Phase 1 revision

Overview of the problem

Having good health are crucial for living a faifilling life. Nutrition and exercise are two key components that can greatly impact our overall health. The lack of proper nutrition and exercise can lead to various health problems, such as obesity, diabetes, heart disease, and more. Therefore, it's essential to take care of our health from a young age

One way to improve our health is through Intermediate Fasting (IF), which is an eating pattern that involves periods of fasting and eating. However, it may not be suitable for everyone, and some people may find it challenging to stick to the IF schedule. Another approach is the 70/30 rule, which emphasizes the importance of having a healthy diet (70%) and regular exercise (30%). This approach is more flexible and easier to follow, as it does not require specific fasting periods.

When it comes to our diet, it's essential to eat a balanced and healthy diet that includes all the necessary nutrients our body needs. This includes fruits, vegetables, whole grains, lean proteins, and healthy fats. In addition, it's crucial to avoid processed foods, sugary drinks, and excessive amounts of salt and saturated fats.

Regular exercise is also important for maintaining good health. It not only helps to maintain a healthy weight but also improves our cardiovascular health, strengthens our bones and muscles, and reduces the risk of chronic diseases. It's recommended to engage in at least 150 minutes of moderate-intensity exercise per week, such as brisk walking, cycling, or

The GG: Good health Good life application is a great tool to help people maintain good health. The app provides recommendations for healthy foods and video exercises suitable for daily life. Additionally, the app sends notifications to remind users to take care of their health, making it easier for them to develop healthy habits.

Competitors Comparison

Feature	Myfitnesspal	Google Fit	Samsung Health
Exercise tracking		Ø	Ø
Calorie tracking			
Food tracking	Ø	8	
Water tracking		•	

(i)



Competitors Comparison

Feature	Myfitnesspal	Google Fit	Samsung Health
Exercise tracking			
Calorie tracking			
Food tracking		8	
Water tracking		8	
Macro tracking		8	
Integration with devices			
Social features		8	
Wearable device support			
GPS tracking	8		
Heart rate monitoring			
Sleep tracking		8	
Stress tracking		8	
Blood pressure tracking			

① Problem Statement

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Problem Statement

Many people lack good health from eating and exercising which causes their bodies to become unhealthy. Some people don't take care of their health because they don't have time or enough knowledge. Users seed to gain more information because they want to become healthy people.

So our group came up with a design to be user-friendly and accessible to people who may not have a lot of knowledge about minition and enercise. By inputing what they eat in a day and selecting their health concerns, users can receive tailored recommendations for their det and exercise routine. One important feature of the app in the automatic calculation of nutrition requirements. This takes the guestwork out of meal planning and enurses that users are getting the right balance of nutrition for their individual needs. The app will also provide recommendations for portion sizes and ruggest healthy alternatives for less healthy food choices. In addition to det recommendations, the app will also provide ensercise recommendations based on the user's fitness level. By setting their ensercise level to beginner, intermediate, or empert, users can receive personalized video recommendations for workouts that are appropriate for their fitness level. The app will also send daily notifications to remind users to exercise and provide motivation to stay on track. Overall, our health application provides a convenient and accessible solution for people who may struggle with maintaining a healthy lifetyle. By using technology to automate nutrition and exercise recommendations, users can easily incorporate healthy habits into their daily routines.



Occupation
Film Director

Demographic

→ 45 years old who work in the
movies industry for 15 years in
California, The United State. He
usually sits in a chair during her

Olivia wilson

Goals and Needs

To take care of her health more than in the past by eating good food and exercising.

Pain Points

➤ Lack of applications that store information on what people eat in a day.

Personality **>**She is addicted to her phone. That's why she loves to use

User's persona

Oleria Wilson, a 45-year-old working woman who lores in California, the United State, has been a film director for 15 years. She wishes to take care of her health by escreting and eating properly to be healthier than in the part. She always retines by socializing and eating unbeathfor do after werking hard Therefore, it makes it important to access the knowledge of nutrition. She is a person who is addicted to using the plones, but the nill lacks applications that meet the need of providing complete information on a daily basis, whether it is calculating both food and exercise that is intable for there? Because of this, Olivia is a user who is nutable for high food and exercise that is intable for there? Because of this, Olivia is a user who is nutable for large for application with a user-friendly UI and also the beautiful cool calm colors tone that gives the feeling of relaxation after returning from hard work, Just using the mobile application that is designed to nut the dealy life of individual users by being able to call various features easily and cover the needs of health care.

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User's persona

Olivia Wilson, a 45-year-old working woman who lives in California, the United State, has been a film director for 15 years. She wishes to take care of her health by exercising and eating properly to be healthier than in the part. She always relaxes by socializing and eating unhealthy food after working hard. Therefore, it makes it important to access the knowledge of nstrinon. She is a person who is addicted to using the phone, but she still lacks applications that meet the need of providing complete information on a daily basis, whether it is calculating both food and exercise that is suitable for herself. Because of this, they ones, western is a cancing cour root and centrate than is suggested or thresh, excuser on the, Often is a user who is analysis of present the course of the course o

The User Journey Map

A journey map of the user's experience from not using our app to using our app. In the beginning, users began to have the awareness that they need to focus on their health or fitners. On-service process, users use our AI for the first time to plan their meals and exercises for one day. They may not feel confortable. This is because such a change breaks the user's original eating and exercise habbts.

	Before	On-Service	After
Oser Action	User want to have a health body.	Use our App AI to manage their daily health.	Daily meal plan And Recommend the App to other.
faction		0	0
	Users are troubled by health problems caused by unplanned eating and no enough exercise	Eating healthy food and doing exercises recommended by Al for the first time, still in the process of adapting	With our Al User get a good body and keep health by our App.
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	complete their health plan for the daily life	nutritious diet plan for the user	feeling fresh.

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Begining Of Phase II

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Begining Of Phase II



Design Mantra

Color scheme is an important aspect of application design that can significantly impact user experience and engagement. Choosing a color patter that is visually appealing and easy on the eyes can help users feel more comfortable and engaged with the application, leading to increased usage and user extension. When selecting a color scheme, it is important to consider the psychology of colors and how they can impact users' emotions and perceptions. For example, blue is often associated with trust and security, while green is associated with health and nature. Red is often associated with excitement and urgency, while yellow can evoke freings of happeners and positively. To select a color patter that is visually appealing and psychologically appropriate, it is also important to ensure that the colors are used consistently throughout the application. This can help users easily recognize and navigate different sections of the app, improving the overall usuability and user experience.

Finally, it is important to consider accessibility when selecting colors for an application. This includes ensuing that the colors are visible and easy to distinguish for users with visual impairments or color blindness. It is recommended to use high-contrast color combinations and to provide alternative text descriptions for any color-coded information.

Idea Creation Output

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The First Solution



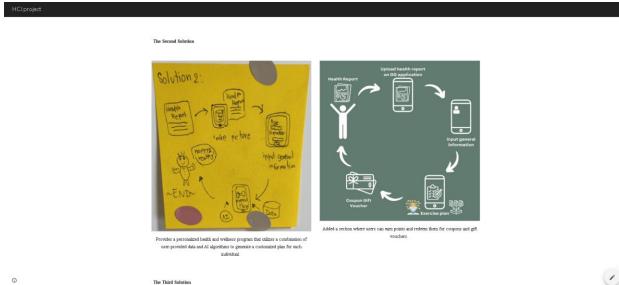
To help users improve their health by providing them with a personalized and comprehensive nutrition plan.



Add the result which users can better understand the potential benefits of the personalized nutrition plan and be motivated to try it out for themselves.

The Second Solution

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The User Journey Map of Solutions



The First Solution

The user does not have a plan for a healthy meal. The user may only focus on the taste of the food or the price. So OO Health App wants to use AI to make users pay attention to the nutrino aII conficient of food and recommend them to est some healthy food. The user may feel a bit disappointed in this process, but by continuously esting the food recommended by GO Health, the user on gradually form a healthy esting habit. In addition, GO Health will recommended a warriey of food to help users loop

	Bellere	Do-Service	Affer
Burn	No enough exercise	the our App to plan their daily exercises that accounting to their need	Having a healthy exercise habit.
lection	Users are troubled by health problems caused by no enough exerctive	The quentity and frequency of exercise may make users feel, uncomfortable	with our At users have improved their health by making healthy evercise habits
Touch Point	Facebook, Timus, Smart classroom vebsite	Using our App's All that base on the health report to recommend exercises for user	Using AI to create a effective exercises plan.
Studenty Attribute	Lack of a safe, enjoyable, and effective evercise plan	GG Health will help-users to create a exp, efficient, sele, and targeted exercise program.	Users ergoy GG Healths reconvenended exercises
Metadata	Exercise Time, Exercise Frequency	Calorier, Catorie consumption, Type of exercise, Egalpment, Time, Frequency User's body fat, blood signs, average heart rate.	Catories, Catorie corpuration, Tipe of exercise, Equipment, Time, Frequency libers body fatt, blood sides, evening heart
Scenario	The user spicads health reports to know the user's health condition and find the user's needs.	Bris, stood pressure Develop effective exercise programs for users by upleading health reports	rate, Bill, blood pressure leconnent diverse campaigns to keep users fresh.

The Second Solution

We focus on solving the problem of undertrained users, who will upload their health reports, encluding body fat, beam metabolaim, body fat percentage, BMI, etc. With this provided data, we will use our database and artificial intelligence to create a user-friendly health plan for the user. By developing an effective corrects program, the user's concentrational reflective corrects program, the user's concentrational processes will not be difficult or uncombination. On Health will recommend a diverse corrects to help



The Third Solution

We focus on solving the problem of users who exercise but do not exercise effectively. This app affers a variety of resources, including instructional videos and brief articles, related to cardio workouts. It also provides customized workout plans tailored to individual needs: The aim of this app is to provide a practical relation to help people overcome the obstacles of creating and maintainance a consistent exercise rooms by offense

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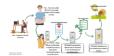
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The Solution Storyboards and Design Rationale



The First Storyboard

We integrate AI technology with our system to improve the solution result based on historical large amounts of data. The reason for this solution is that we need the accuracy of the result to the sa accurate and an accurate meal and needs to be beard on real part data that we have gathered and analyzed. So that we can ensure that our customers receive quality and accurate meal and energie plans returned traditional most planning is frequently based on broad guidents that may full to account for on individually specific sustributed needs, preferences, and bothly conditions. Do using AI, the system can analyze that accounts of the amounts of data and provide personalized meal plans based on the user's profile, health status, and guide.



The Second Storyboard

The design rationale behind this solution is to lebelled and analysis to provide percentage AI and dust analysis to provide percentage and and dust analysis to provide percentage and analysis and preferences. By collecting data such as the study fat, beam dentabolism, and blood gues levels, the system can use machine learning algorithms to generate tailored recommendations for diet and enercise. This approach provides users with a more effective and efficient ways to achieve their health great, as opposed to refuging on generacy plans or recommendations. Additionally, the system's user-insteady starferies and personalized opposeds can help address common issues such as back of motivation or difficulty stricking to a routine. Overall, the design actionals behind this solution is to provide users with a comprehensive and personalized health plan that is basiced by AI and data analysis, resulting in better outcomes and increased user suttification.



The Third Storyboard

The reason that we choose this substion is to address the problem of indrobatis struggling to establish and maintain a consistent exercise routine. By providing a personalized and customizable exercise plan, the app aims to make it entire from anotherable to the problem of the microbina of videos and short galedine articles related to cardio exercise further enhances the user's carpointee and atmosfeding, making it entire for them to perform exercises correctly and award stopies. The propriets particular short on the propriets of the propriets particular short on promote better health and wellness for its users.

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Different Product Solutions Comparison List

1. GG Health

GG Health is a machine learning integrated solution that aims to improve the efficiency and quality of production. It will have three main features: meal recommendation, exercise recommendation, and cardio and exercise video. The solution aims to help users achieve their fitness goals by providing them with a personalized meal and exercise plans, as well as access to a variety of cardio and exercise videos. Machine learning will be used to analyze user data and provide the best recommendations.

2. MyFitnessPal

MyFitnessPal is an app that helps people with their fitness and weight loss goals. It has a database of over 14 million foods that users can use for free to track their calorie intake. The app also has a premium option for users who want extra benefits.

3. Google Fit

Google Fit is a platform that brings together data from various health apps and wearable devices, such as activity, nutrition, and sleep data, into one place. The platform provides users with personalized insights and recommendations based on their data to help them achieve their health goals. Google Fit is easy to use and helps users stay motivated to track their progress. With its integration with other health and fitness apps and devices, users can conveniently have all their data in one place to make informed

4. Samsung Health
Samsung Health is an app that helps users take care of their health and wellness. The app is easy to use and provides tools for managing health data. There are also resources like coaches, exercises for relaxation, and a group of people to give support. All of these things make Samsung Health a helpful and complete app for managing health and wellness

①

Gathered and Analyze Feedback

Strengths

- Easy to use
 AI to calculate

- Deep data integration
 Analyze the proper plans
 Wide range of target group

- Well-range of target group
 Creative & enabytoid stalls
 The application staef is appealing
 Has rewards and certificate features
 Oreas Concept on high design user enting habit
 Cooperate with hospital for health information
 Can keep track and provide rewards for exercise
 Suitable suggest activated for matrices and work out plan
 Food arrangement for user (appropriate nations) the problems
 The solution is very practical and focus directly to the problems

Weaknesses

- Security
 Credibility

- Disorganized
 No revenue plan
 Lack of step to be done

- Luck or Imp to or output
 Less motivation or engaging
 The app measure is not always right
 The accuracy is not high fir over input form is not complete
 Luck of a step to ensure that users follow the reagested plans
 Weak certificate usage purpose and may challenge fir solution 2
 It just only tracks what user did and reaggests a plan calculated by AI



- There are many competitors
 Cannot correctly predict the right data
- Hackers gaining access to sensitive user information
- By focusing on the health field, it may be challenging to obtain accurate and practical information.

Opportunities

- Coportunities

 Otaline achievement medal

 May caphin the system to other food types

 And clusters and nutriest percentage prediction for Sol. 1

 Taking advantage of the growing trend towards health and welfanes

 And something more interesting to this user flux while using your groduct

 Adding now features specifically designed fit users who want to focus on dieting.

 Partnering with healthcare provides or experts in the field for more reliable information

 Offer certificates or other forms of credit to users who successfully complete the suggested sustraion and workout plans.

Other Opinions

- Good app
 Nice poster and well-designed concept
- Nice application!, they just need credibility
 Good idea & have a lot of people's attention

Chosen Design Concept and Rationale

The first solution proposed is to use AI to analyze and recommend proper meal plans for users based on their past data, nutrition needs, preferences, health conditions, and goals. This concept is well-suited for the theme of Smart Classrooms, which is Al, and it can also address users' healthcare issues.

Traditional meal planning guidelines may not account for individual needs, leading to suboptimal results. By leveraging A1, the system can process large amounts of data to



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Traditional meal planning guidelines may not account for individual needs, leading to suboptimal results. By leveraging AI, the system can process large amounts of data to offer personalized recommendations that are tailored to each user's unique circumstances. This can lead to better outcomes for customers in terms of achieving their health goals.

Integrating AI technology with the solution can also improve the accuracy of the results by leveraging past data that has been gathered and analyzed. This can enhance the overall performance of the product and increase user satisfaction.

In summary, the concept of using AI to analyze and recommend proper meal plans is a logical fit for the Smart Classrooms theme and can lead to better results for users. By leveraging past data and personalizing recommendations, the solution can provide a more effective approach to nutrition planning and support users in achieving their health goals.

Poster





