#### **INTRO TO IT**

# **Assignment 3**

# **Our IT Project**

I declare that in submitting all work for this assessment I have read, understood and agree to the content and expectations of the Assessment declaration.

# TEAM PEAK

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# Team Profile

**Team Name: Team Peak** 

#### **Personal information**



Do Hoang Quan • S3800978

View profile

Hello! My name is Do Hoang Quan. I am a Vietnamese, born and raised in Ho Chi Minh City. I want to be an UIUX Designer, to build experiences that enhances and delights people's lives. My current hobby is working out. So far, I have been learning UIUX design for 2 months. With coding and IT skills that I will learn here at RMIT, I hope to be a capable IT professional.



Taesung Yoon • S3847581

<u>View profile</u>

Hi! My name is Taesung Yoon. I am 20 years old. My personal email address is dbsxotjdaos@gmail.com. I'm from Korea and I can speak Korean and English. My hubby these days is doing workout in the gym, cooking, and playing games. Also, I have one cat and her name is "Porori". I got her name from a cartoon.



Jae Jun Kim • S3741333 View profile

My name is Jae Jun Kim, my email address is s3741333@rmit.edu.vn. First of all, I am from the Republic of Korea thus, I speak Korean and English as well. Normally, most Korean are polite when they meet people because they do not like to

have a bad effect on other people and it is a kind of Korean culture. My hobbies are listening to music and using a computer.



Taehyeon Jeong • S3799019
View profile

Hello world and hello everyone! My name is Taehyeon Jeong. I am Korean and I can speak 3 languages which are Korean, English, and a tiny bit of Vietnamese. I decided to study IT because of the necessity and availability in every field. Currently, my hobby is running. I want to get more experience including work in Vietnam if I have a chance.

# **Group processes**

# How well did your group work together in Assignment 2?

We collaborated very well with each other on Assignment 2. Even though we barely have a chance to meet due to different class and personal schedules, the work was done on time with no conflict. Thanks to effective communication and collaboration, with the help of tools like Facebook Messenger for communication, GitHub and Google Docs for progress tracking, our team has managed to be very productive.

Furthermore, the work was split evenly between members, and everyone respected and valued each other's inputs and help. Each member was also active in finishing their tasks ahead of time, and going as far as reminding other members of their deadline and offering help when needed.

We as a team also put extra effort into sympathizing and understanding for one another. When there is miscommunication, our teammates do their best to clear it up with respect. Thanks to that, we've not only managed to create good work, but also created a sense of understanding and friendship.

#### Will you be introducing any changes in process for Assignment 3?

Since the last strategy worked well, we have planned to keep most of it intact. If it's not broken, just improve upon it.

First off, we plan to mitigate one of the largest issues which was that we barely had any meetings, so sharing ideas and concepts was more laborious. Instead of being able to meet face-to-face, we had to text and wait for others' replies, which usually takes a while since everyone is busy. This time around, we plan to have more face-to-face meetings, where we can collaborate more effectively.

The second change is that we will be utilizing spell checking more in our work. As English is a second language for all of us, we are sure to have some shortcomings. These shortcomings require that we spend more time checking over grammar and language use to best report our ideas. This took a lot of time as we only did it in the final step. This time, we plan that each member will spell check their own part before adding it into the final shared report.

Finally, we will collaborate together on one single Google Docs file. Last time, we mostly used Google Docs as a shared knowledge base, but then submitted our own work on GitHub, and one member had to collect that information into the Docs file, which was inefficient. This time, we will directly collaborate on the Google Docs file, then submit it into GitHub, so that we can both easily keep track of the report progress, and the professor can have GitHub to check which member has done what as well.

With these changes, we hope that our work will be finished not just faster, but even more polished.

#### Career Plans

#### **Ideal Jobs**

	Quan	Taesung	Jae Jun	Taehyeon
Job	UI/UX Designer	Security Engineer	Database Developer	IT Specialist

Descrip.	Design user interfaces with the focus on maximizing usability and the	Testing software and monitoring systems for security breaches or intrusions	Ensure that database management systems can handle massive	Maintenance, implementation, and monitoring of specific IT systems and
	user experience		quantities of data	infrastructure
Common	<ul> <li>IT-related jobs.</li> <li>Each job is an important building block of a product / service.</li> </ul> Common skills requirements: <ul> <li>Capable use of English</li> <li>Analysis skills: figure out what the product goals are.</li> <li>Familiarity with computers and electronics.</li> <li>Programming: able to write, understand, and maintain softwares.</li> <li>Keep up-to-date with technology advancements.</li> </ul>			
Stack	Front-end	Back-end	Back-end	Back-end
Focus	What the user sees and feels when using the product	The security, reliability, and trustworthiness of the product	Ensure efficiency, consistency and scalability of the product and its data	Solution design, analysis to solve technical problems, strategy development

Skills required	<ul> <li>Wireframing and UI prototyping</li> <li>UX writing</li> <li>Visual communication</li> <li>Interaction design</li> <li>Coding</li> </ul>	<ul> <li>Anti-virus software</li> <li>Firewall</li> <li>Content filtering</li> <li>System administration role</li> </ul>	<ul> <li>Programming</li> <li>SQL</li> <li>ETL (Extract, transform, load) procedure</li> <li>Excel at SAP</li> </ul>	<ul> <li>Strong         <ul> <li>analytical skill</li> </ul> </li> <li>Establishing</li></ul>
Average salary	~58K USD / year	~ 99K USD / year	~ 73K USD / year	~69K USD / year

# **Career Plans**

# **Similarities**

- 1. Focus on getting bachelor's degree
- 2. Learn and practice more in the interested field while studying
- 3. Practice soft skills like communication, teamwork, collaboration...
- 4. Apply for ideal jobs once graduated

#### **Individually**

# Quan:



I am currently enrolled in an internship as an UI/UX Designer for Grove HR at KMS Technologies Upstar Labs. I plan to continue this internship far and learn a lot. For my job, interviews heavily prefer people with both work experience and a portfolio of experience to prove it. Not only is working inside KMS providing me a very decent point on my resume, Grove itself will be a very bright spot as a product which I have helped build.

Once my internship is finished, I plan to stay at KMS if possible, to support the Vietnamese community and products. However, if the future does not pan out that way, I am confident that my resume after departing KMS will be very competitive, and continue to apply for jobs in many different environments, like outsourcing, agencies...

I plan to do this while balancing my workload at RMIT. I currently plan to study only 2 courses per semester, which might delay my final graduation day, but allow me to learn more from both working outside and spending more time with RMIT.

After graduation, I plan to use both design skills learned from KMS and IT / coding skills learned from RMIT to be competitive in the industry and contribute to Vietnam's burgeoning IT field.

# **Taesung:**

To apply for my ideal jobs more professional, I need field experiences and knowledge, skills for IT tools and C languages. So while attending the university, I want to be an expert in the C languages. To be more friendly with C languages, I will make a basic program based on each language. After that, before I graduate university, I think I will have two decisions, trying to find companies that I can get internship and field experiences. Or trying to make our own business with my friends. I have a lot of ideas that can be possible and succeed in the market.

Right now, my ideal job is a white hacker. But, I keep considering my career plans and may be my ideal job and career path can be changed. These days, I am considering going to graduate school. There, studying about machines and robots that can be manipulated by the brain. I think it will be helpful for hard work people and mostly disabilities.

In conclusion, I chose my ideal job but I keep thinking about my career path. So, I want to collaborate with IT people and study more to choose my specific career path.

# Jae Jun:



I am a student who wants to be a Database Developer. Actually, most related I.T jobs need many licenses and experiences. Especially, possessing SQL license and enough experience is

very important for a Database Developer. So, my plan is that I will accumulate coding skills such as handling SQL by studying assignments that I get from RMIT. After that, if I am given opportunities that I can work at I.T companies, I hope to make experiences.

To be more specific, I made a simple order when I learned and practiced coding. Firstly, I will become an influential person at Python while I am studying in college. Then I will study JAVA and C language at RMIT. Actually, I think studying other languages which I don't study in college on semester term is really hard. So, I will practice SQL skills on vacations. It is a kind of holiday task. Moreover, I am considering working at I.T companies because If I work at a company, there will necessarily exist overlapping rush terms at both company and college. It would cause damage to the company and my assignment or attendance. So, I am looking for short-duration career training during my vacation.

Additionally, if I want to work to be smooth, having competent communication skills are really helpful. Actually, great soft skills are not a huge help at job interviews. However, after that, good communication skills lead to efficient teamwork with fellow workers.

Finally, let me think about my future after I graduate. I will really not think about a lot of my profit such as payment to make my first career as soon as possible. It means first career could be an experience then from getting a second job will be more careful probably. For example, the job is related to handling Databases and the payment is at least specific amounts.

# Taehyeon:

I cannot apply for the ideal job position that I want to become right after I graduate from university. It required overall IT experience in development, active directory, network, security and so on. Therefore, I will establish the overall Information technology knowledge taking the IT major course and will experience the real work industry applying for an internship during the university years. After graduation, I did not determine which job I am going to look forward to but I hope I could build real IT experience through work in practical business at first.

I also have a plan to take communication and business classes in business and management major on elective courses in RMIT because professional business skills are also critical elements for the job whether my ideal job or IT related jobs in general. General practice skills such as communication, negotiation, project management I could get through it will be helpful for every work field.

Getting certificates related to IT is also one of my plans. Firstly, I will apply for the ITIL Foundation certification test, which does not require any qualification for examination, during the school years. ITIL stands for Information Technology Infrastructure Library and it is de-facto standards of IT service management. I will learn and study more about the certification detail and get it when I study in RMIT and after hands on work experience.

# Tools

# **Brief description of what you have done:**

Cloned files from Assignment 2 to the repository for Assignment 3 as many files will be re-used. Sent a link to all teammates.

Collaborate on Google Docs and GitHub. Google Docs for content, and GitHub for files.

Content on Google Docs so members can keep track of where the progress is, and GitHub for files so the website can be made later.

# Group's website:

https://s3800978.github.io/intro to it asgmt3/

The link to your group's Git repository (GitHub, BitBucket, etc.):

https://github.com/s3800978/intro\_to\_it\_asgmt3

# Your comments on how well the audit trail on the Git repository reflects your group's work:

#### Quan:

Just like the last assignment, I think Git accurately reflects everyone's contributions. Once work on their section is done, team members pushed their commits to our central repository, and everyone else could keep track of how much was being done. I think Git is very beneficial to our workflow, as it served as the single source of truth where everyone can view and know how much work has been done.

Although, I also think that Git might have underrepresented how much work each of us did. Since we worked mostly on Google Docs, so everytime we're done, members download the file and push it onto Git. I've forgotten to do this a couple of times, so I think I might have been the same for other members as well.

# **Tae Sung:**

I use Git repository when I share the documents or files like presentation script and prototype images. Also, It is good to look up the history of development and participations.

#### Jae Jun:

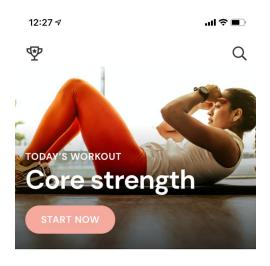
Git may be a means of leaving evidence when we work. We work and register with Git to gain trust in each other's work. I can also refer to the team members' work and see how our work can be more smooth.

# **Taehyeon:**

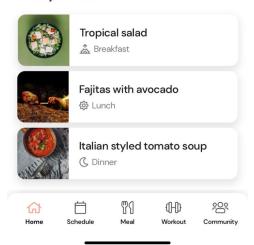
In the group, 4 members as collaborators have pushed 22 commits to the master branch in total excluding the merge. Each member could access the repository as a collaborator. The repository was built on September 1st and each member contributed during 10 days from 10 September to 19 September. Commit audit trails clearly reflect the group's work.

# **Project Description**

# Click here to try out our app on Invision



# Today's meals



# Overview

# 1. Topic



Our application is a super-app that helps users build a habit of working out and eating healthily by providing them with motivation and encouragement. Our target demographic are beginners, people who are getting started need motivation, who might don't have a lot of experience with working out. As you know, one of the big trends these days is health and exercises. But, many people are having difficulties learning about subjects like diet, exercises, postures, and how to turn working out and eating healthy into a habit. So, this application can help these people achieve that goal.



There are many functions that are related to helping with workout. Our main goal is being more friendly with users than other applications and giving them encouragement and motivation to workout. Most applications show too complicated contents to understand and usually make users pay for getting content. But, our application is for beginners and busy people so it will explain easily what they can do and simple exercise. Also, it is free for everyone to approach all contents. However, an app with no way to monetize would not be able to grow. So, to balance between being accessible to users and making money, we will only monetize access to professional PTs and dieticians, who will tailor specific plans for the user. To motivate people (but never push), we will show examples of diets, routines, messages and cheers from friends, user's streak, as well as other users' transformation.

# 2. Motivation

In many cases, people are having difficulties in starting a workout and keeping it. In Tae Sung's case, he actually started workout 1 years ago, but he didn't get much improvement in his body because he was doing it efficiently. Also, for Quan's, he felt stressed and pushed when he was doing workout so he quitted it for a long time. We think the biggest reasons are there are some difficulties in getting information and not much data that is kind for beginners. So, we want to make an application that is suitable for beginners. Also, because of a sedentary lifestyle, most workers are having a lack of motivation. It causes many diseases

like obesity. To deal with it, they just need exercises. However, our group thinks most workout applications can't solve these problems. This is why our application is important for people.

A recent report by App Annie, mobile data and analysis platform, showed that the total number of app downloads is 204 billion, up 6% over the year before. In particular, when it comes to healthcare and fitness apps, the growth rate in March was 67% higher than the average due to the spread of Covid-19. We forecast the number of health and fitness apps users will constantly increase and last quite a long time. Therefore, our app that provides services to help people workout anytime, anywhere and maintain a healthy lifestyle fits in with the current IT trend.

If we work on this project, we think our app will have the potential to give positive influence to a future employer. We can show them capabilities of programming, analyzing, and getting ideas with high quality and extensive features. To say it more specifically, our novel approach with extensive and various features will be a breakthrough in the fitness and health app market. Future employers can be inspired and motivated from this project.

# 3. Landscape

There are many similar apps in the fitness apps in App Store or Play Store but usually divided into 3 types.

- **1. Workout and exercise apps:** Personal exercise training with different formats: 3D models, video, illustrations or detailed description.
- **2. Activity tracking apps:** Track the user's physical activity (the number of steps taken, stairs climbed, hours slept, distance and speed run, and calories burned)
- **3. Nutrition and diet apps:** Monitor the food habits, count the number of calories taken/burned, control water balance, body weight, and so forth.

Some apps create home workout/fitness plans based on the user's activity and recommend meal plans and dietary suggestions by adding the users' personal information such as age, gender, height, weight.

Our app should compete with all types of apps. But unlike the apps above, we combine all features in 3 types. We track the workout activity, sleep, diet record and provide an appropriate workout tutorial. And our community section promotes users to interact with other users beyond friends so that it motivates users to do workout and to be interested in diet and nutrition. Users can establish a good workout, dietary habit and can keep a healthy and balanced lifestyle for longer.

# **Detailed Description**

# 1. Aims

#### Aim:

A motivational and welcoming workout app, aimed at beginner and busy people, focuses on making the users feel good at every step. Forming new habits is not easy. People often plan to adopt a healthier lifestyle and give up due to various reasons. This app will help to make a healthy lifestyle accessible by letting people form healthy habits easily.

And our app aims to improve health. Poor diet causes diseases and lack of exercise makes people more prone to depression, low self-esteem, obesity, and can even lead to dangerous health problems such as cancer. Our useful and welcoming workout app can support them to do the exercises in the right way and motivate them. By providing them various services including meal plan and tutorial, and making them feel good just to have tried instead of pressuring them, people can form a healthy habit of working out easier and keep it for longer. In the long term, this will help many people improve their physical and mental health.

#### Goals:

- **Be welcoming and friendly:** Many workout applications are not friendly and kindly to beginners. It means that beginners are having a difficulty in comprehending pose and managing routine and diet. For these reasons, we will describe the pose, routine, and diet step by step so that every person can understand it easily.
- Offer motivation: For motivating exercises, people need some purpose or someone that affects them to keep doing it. These can be weight, muscle, health, or lover, idol, and some influencers. However, we will make these people write specific goals that they want to achieve. Also, we will make an idol session that can make an ambitious person make a body like them or if I become a toned body, I can make a boyfriend or girlfriend look like them.
- Form a social network consisting of other users/ people who workout: For getting motivation, making friends and partners that can share the feedback, knowledge and

- experience is a great idea. We will form a server and buy a domain. After that, we will form a social network for workout people.
- Curate accurate information: Beginners can't decide well what is reliable and
  accurate information. Also, Information is being updated because of science research.
  For example, In the past, sit up was a very common exercise to develop people's abs.
  But, this exercise harms people's back and spine really hard. Reliable information is
  very important but also, updated information too. However, we will update the
  information that refers to reliable resources and inform efficient and harmless
  exercises.

# 2. Plans and Progress - Collaborative, Later

# What will your project do?

# Our project will be...

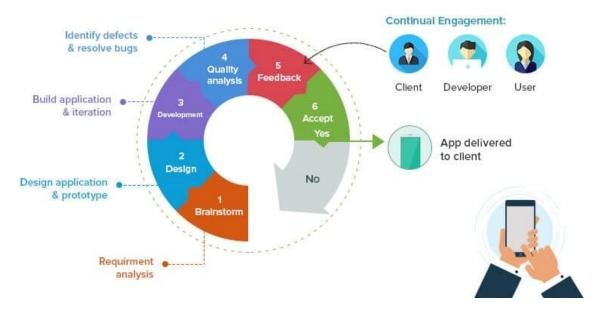
Making our original application - As you read other parts in our report, there are many applications that are related with workout. However, In our opinion, many workout applications in the App Store and Play Store are useless, not kindly, and friendly to basics. Most of the reasons for these happenings are loss of knowledge and experience. For example, there's no doubt that there is a big gap between the person who already has workout experience or doing sports before and the person who doesn't have workout experience and never moves their body. But, most workout applications are aimed at experienced people. After basic people follow the steps and goals in the application, people are being exhausted and they quit it easily. This is why they are not kindly and friendly to basics. Basic people cannot follow goals and progress and comprehend well what they do and are suitable for them. On the other hand, our application will contain both experienced and basic people. Making applications that users can contact reliable and current information - Workout is one of the industries. There is much research about more efficient and effective exercises. If people want to improve their health or muscle more efficiently, they need current information. Also, If they don't, they also need news. Because some exercises can not be effective or harm the body like Sit-Up that can harm spine health. In addition, many health supplement advertisements have appeared. And also many fake health supplements that don't

have many benefits or have different materials are appearing. For example, "Supreme Testosterone booster" is a well known health and protein booster. Last December, it shocked every workout person because it contained sort of steroid material. Steroid can help to get power and advance muscle but it is addictive and gives critical effects. Normal people can be a steroid-user if they consume wrong supplements. In conclusion, reliable and current information is significant to workout circumstances.

Making users be a friend with workout - How can we get more effect when we are doing workout? Managing diet and timetabling is a good idea. But, it is hard to follow the plan everyday. We mitigate their difficulties for providing meal and time table function. Users can easily record meals, calculate their calories, and continue doing workout regularly. Also, make basics to get more knowledge and tips, we will promote social network services that basics and experts can be connected to, share tips, and make friendship.

#### How you will do it

To ensure our project's success, we will follow the standard procedures that many apps are built upon.



Agile methodology in App Development Process

#### Step 1: Research

After brainstorming and coming up with the idea for our app, we will research the market to find what others are doing and how we can differentiate ourselves from the competition.

There are many apps on that focuses on working out and fitness, but they almost always have

these dealbreakers:

- 1. Too much focus on monetizing -> inaccessible to many people
- 2. Doesn't have meal plans or nutrition goals, which is half the fight when trying to get fit.
- 3. Pushes and guilt users instead of gently encouraging them.

Therefore, we have taken the points to make our app, Protein, stand out from the competitors.

Furthermore, our research has shown that more people are getting into fitness and health. However, due to COVID-19, many gyms and fitness clubs are being closed down, and people are moving toward working out from home using the help of apps. Therefore, we believe our project is going to be beneficial at this crucial time.

As a result of our research, we've come to the conclusion that our target demographic would be beginners who are getting started with working out. Own personal anecdotes also line up with this, as our teammates have also experienced the struggles of getting into the fitness lifestyle.

#### **Step 2: Ideate**

Once our main points are concluded as above, we begin to ideate about what features would serve our target group and intended purpose. Our app would have 3 main pillars:

- Friendly
- Approachable
- Extensive, feature-rich

We strive to make our app as friendly as possible to encourage people who are already worried about working out. We also wanted it to be a feature rich super-app, capable of being people's one stop for everything related to their fitness journey.

As such, we've planned to built out these features:

- Motivation: this is the home screen of our app, where we summarize plans for the day, offer consistent motivations for users, and content from other sections of the app.
- Schedule: to help users build a habit be making plans
- Meal plans: show users their nutritional goals and tasty meals to help them achieve that goal.
- Tutorial: workouts and how to do them correctly.
- Community: users can share and view each other's transformations, posts, stories of fitness with each other and encourage friends to keep working hard.

#### Step 3: Design

As we are competing with many apps, we must do our best to stand out with good UI and UX. A beautiful interface and experience will also help serve our main pillars of being friendly and approachable.

At this step, we begin building the face, brand, message, and values of our app. In accordance with our value of friendliness, we've made the choices below:

- Typeface: DM Sans, a circular and friendly, modern typeface.
- Colors: light pink, friendly and approachable.
- Ample spacing between content, curved corners for cards... and other minute design decisions to drive home our values.

Once these choices are made, we begin to build a design system and components to scale our app from many types of mobile screens to even websites, yet always ensuring consistency.

### Step 4: Data

Once we have our design finalized, we will begin building our databases with content from all over the internet. At first, we will find content that is free and certified. Once our app has grown, we will hire professionals to continually produce data and content for our app to use, as well as help us guide our app forward.

# **Step 5: Prototype & Code**

With our design finalized and data in hands, we begin to code our app. Linking our data to our design, developers can now draw up prototypes and can code our app according to

guidelines and standard set of iOS and Android. These are the two mobile platforms that we will first prioritize, with a web version coming later.

Using software such as Zeplin to serve as the source of truth, developers and designers can collaborate on our design system, ensuring that it is up to both beautiful yet realistic and codable.

#### **Step 6: Testing**

As soon as we have a running prototype, designers, developers, quality assurance, and selected users will start testing the app immediately.

Clear and concise feedback will provide us concrete data to help improve and guide our app. As we're working like a startup with not a lot of in-depth knowledge of this field, this feedback is invaluable to us. It can help us see where our assumptions were wrong, what might be confusing, what functions are in high demand, and improve our app. With this concrete data, we can confidently continue to build our app.

#### Step 7: Repeat

The cycle of Research > Ideate > Design > Data > Code > Feedback will continue until we feel like our app has reached a point of maturity enough to publish v1. For every new functionality we add to the app, every crucial new insight or feedback, we will utilize this cycle to help inform and empower us to guide the app in the right direction.

#### How far you have got with developing any features or outcomes from your project.

We discussed the topic immediately after element 3 was launched and decided on a smartphone application related to health as the main theme. Because we clicked, it went faster than I thought. It took almost two weeks, and in the first week we looked at people's complaints about health-related applications that are generally distributed in smartphone application stores and discussed the answers. After that, we not only considered complaints, but also worked on the project in detail, thinking about how to make an improved application, who is the main target of the application we will make, and considering compatibility that can

be used in all countries. The design of this took about a week and a total of two weeks to discuss it.

## After we finish our project...

Basics and dip in workout people can get reliable, multifunctional applications which are unlike other workout applications. People can connect communities for them and reliable information.

# The story of our project

The project began from the thought of the necessity and importance of workout. People tend to care more for their body and health compared to decades ago. We can say that it is the biggest priority especially in the midst of Coronavirus pandemic situations in which everyone should stay at home. The main idea started at this point. Making a workout / health and fitness app to help people to maintain a healthy life which has workout tutorials so that everyone can approach the exercises without a trainer or coach. But through the research and brainstorming, we realized that there is another problem that the workout and maintaining healthy life is not easy to keep as a one part of the daily routine and people give up easily. All team members also experienced the difficulty with it. Therefore, we analyzed the reason. It came to a conclusion that people do not know the method to make it a routine as to how often they should exercise and what they should eat to be healthy. And we also concluded people easily give up due to the thought that everyday should be perfect. As a result, we planned the app to have the feature that motivates and encourages people without stress and makes people perceive workout is an enjoyable activity. Because we believe that working with companions and friends will have high efficiency, we made a community section to share their meal and activity to the other user.

There are 5 phases which are planning, UI/UX design, app development, testing, service support and maintenance after launching. We framed plans in every stage from planning to maintenance and support after app launching.

At the planning stage, we:

- 1. Organized idea: who is the target, what is the need of the user, what is our value we will provide, main goal.
- 2. List detailed features: 1. Homescreen (motivation), 2. schedule, 3. community, 4. meal plans, 5. tutorial.
- 3. Drew the expected scenario:
  - User download the app -> register and put their activity level, body measurement -> set a suitable activity level and goal -> analyze it and recommend the exercise frequency, time, and intensity / meal plan -> show the schedule on the home screen for each day based on what the user done (diet, exercises etc.)
- 4. Determined roles: Product manager, UX/UI designer, Main developer, Database developer

Right now, we are working on the UX/UI design stage in the process. We have created the prototype of the app under the lead of one team member. And now we will move on to the next stage application development.

# Include any dead-ends you may have followed, decisions made, and changes that have been made to the project plan.

We communicated a lot about whose ideas we would refer to when planning the project. First, the team members showed a positive interest in Jaejun's idea. Because Jaejun's idea is not only easy to get information on the subject but also about the library coding system that can be easily found in our daily lives. But Jaejun's idea didn't score much in the first assignment because it was already an existential one, and in the end Jaejun's idea was passed. Secondly, the team members considered Taeseung's idea, but it was kept because the majority of the respondents said that it would be complicated and difficult to deal with the subject of the mobile phone's application. Quan's idea explained that Quan was too ambitious when he thought and according to the professor's feedback. And Quan put forward his opinion that although it may be difficult to use Taeseung's ideas, they are meaningful and realistic in his opinion. Then a new member, Taehyeon, was added to the group and fortunately she was able to do a lot of work for the group project. We divided the parts of each other and

communicated with each other, and the project proceeded smoothly without any conflict of opinion.

#### 3. Roles

## • Quan: UI/UX, Graphic Designer

UI/UX Design is the design of the user interface and user experience. For an app that focuses on being friendly and welcoming to users, good UI and UX is extremely important. Furthermore, since our app is competing with many others, we must be able to differentiate ourselves with a beautiful and easy-to-use interface.

I am handling the role of UI/UX Designer since I am currently working as an UI/UX Intern for a large tech company. I am comfortable and experienced with many design tools, such as Sketch for designing, Invision for prototyping and sharing. I am also knowledgeable with many design guidelines, standards, and terminologies. During my time as an intern, I have learned how to build a design system of components, fonts, and color that represent the brand and can scale efficiently. Therefore, I am confident in my ability to create a beautiful and intuitive app.

Since I am the person building the design system and the project's branding and style, I will also work as the graphic designer for our team. This means I will design the presentation that we will use.

Finally, I plan to design the website for our report. Thanks to learning about UI/UX, I also learned about web design standards like Bootstrap, which I can use to build responsive websites. Furthermore, I will design the website according to good UX standards by architecting the information of our report to be easy to find and understand.

#### Tae Sung: Main developer and server developer

The project idea came from his idea. He is a person who knows specifically of the group project's aims and it's functions. He arranged the most time deadline and divided the projects for each role. Also, his ideal job is a white hacker. So he has to

learn the most circumstances, tools, languages. For this chance, he wants to learn about servers and other languages and this is a great chance to learn it. In addition, the server of this project will be related to update the contents and functions every time and the last hard and complicated functions, social network services. It means the server will be a significant component of this project.

## • Jae Jun: Database Developer

I have wanted to be a Database Developer since I became a high school student. Because I liked computers since I was young, I did research on jobs related to computers and among them, Database Developer, which collects and develops various data, led my interest. But my dream can be changed and i don't know the future. I hope to learn more computer languages and find a language that is more suitable for me and find a job that is suitable for that language.

## • Taehyeon: Product Manager / Strategist

Her role is product manager/strategist who unites multiple tasks and provides the right plan that correspond to the user's requirements. Product manager draws the plans and roadmap of the entire project, and is involved in the process from the planning, design, development, testing to maintenance and support. The role is to lead the communication between developer and designer and assist every other role simultaneously.

The reason why she is suitable for the product manager is that she is good at multitasking, and she took a role of managing when she worked for the previous team. She used to handle problems smoothly and suggested the guideline to the teammates when the other members were stuck in obstacles.

# 4. Scope and Limits

Scope	v1.0	Goal

Capabilities /	Limited:	Super-app:
Goals	<ol> <li>Set up schedule</li> <li>View streak and stats</li> <li>Basic workouts</li> <li>Basic nutrient goals</li> <li>Messages from friends</li> </ol>	<ol> <li>Set up personal and shared schedule</li> <li>View personal and community's streak and stats</li> <li>Continuously updated workouts and programs</li> <li>Continuously updated meals and meal plans</li> <li>Lite social network</li> </ol>
Target market	Beginners	From beginners to professionals
Useful for	<ol> <li>Creating habit</li> <li>Motivation</li> <li>Basic workouts tutorials</li> <li>Nutrient goals</li> </ol>	<ol> <li>Creating habit</li> <li>Motivation</li> <li>Extensive, clear workout tutorials. Suggested fitness program</li> <li>Meal plans and recipes according to nutrient goals</li> <li>Find fitness community with live sessions</li> <li>Share fitness journeys, routines</li> <li>Many more</li> </ol>
Not targeting	Any features not related to creating a habit or motivation, examples:  Meal recipes  Video workouts guides  Connecting to professionals	Any features not related to the domain of fitness and healthy lifestyle.  As a super-app, we wish to continuously build as many

	· Finding community	features that are asked from the community.
Prioritized features	Design  Motivational / habit building  features	Any features with highest requests  Focus on core values: motivation and habit building
Unprioritized features	Features slated for later version	Secondary features, example:  · Shopping list for meals  · Stories / posts for community  · Web version

As with many successful apps out in production today, in our starting steps, our app will focus on delivering the MVP – Minimal Viable Product. That means we are exclusively designing, prototyping, coding, building, and delivering only the most basic functions that people expect from a workout / health / meal app.

Building the app this way have these main advantages:

- Learn what the users want: by first delivering the MVP, then taking feedback and improving, we can understand what our users want and only build what is necessary.
- Save money: thanks to knowledge of what is needed from our app, we can save money by only developing needed features.

As such, our MVP, version 1.0, will only include these functions:

- **Onboarding:** the first step that greets the user. Here we can gather information about our users that we can use to guide the direction of our app:
  - Users accounts, email address, name, age, location, language

- Goals: fitness level goal and nutrient goal, body type goal...
- Preferences: current fitness level, experience with fitness and cooking...
- **Homescreen:** the first stop for content from other screens:
  - Today's workout and nutrient goals.
  - Streak and stats
  - Cheers from friends

# Schedule, Streak & Stats: this our biggest focus for v1 since it will help users build a consistent workout habit.

- Show users a suggested workout plan according to their goal and current fitness level. The user can customize this plan by changing the intensity or frequency to best fit them. A plan that is actively self-built will be followed better.
- Streak: how many consecutive days the users have followed their set plans. Helps to motivate users when they want to give up.
- Stats: users' longest streak, their total lifted weight... These stats will also help motivate users to continue with their plan.

# • Community:

Short messages that users can send to each-others as motivation. We will only
allow sending and receiving messages from and to users whose phone numbers
are already registered in the other user's contact to prevent abuse or bullying.

#### • Workout tutorials:

- 100 most common and basic workouts. Only use simple graphics, focus on the using easy-to-understand language.
- Some basic large programs that consist of smaller workouts.

#### • Meal:

- Food macros: give users recommended nutrient goals (how much fat, calories, proteins, carbs they should take daily).
- We will not have any meal recipe for v1, users must look up sources outside.

The main goal of v1 is to prioritize features that are most essential to **motivating the users to build a habit**, which is the most important part of a health-focused lifestyle. As such, the Schedule and Community sections of the app will be most focused on for v1.

As you can see, for v1, the feature set is very limited. However, as a small start-up team with limited experience, this approach is the safest way for us to build and test our app. With the data we're going to gather from v1, we will have a clearer understanding of what our users want, and prioritize features from there.

Outside of features, we will very heavily focus on design for v1. As our app faces fierce competition, good UIUX is our card to push our app ahead. We will build a cohesive, scalable and recognizable design system and brand guidelines. This will help our app be memorable to users and scale efficiently to a super-app, which is our goal.

For later versions however, we plan to build an extensive list of features that will make this a sort of super-app (like Grab) for fitness and healthy lifestyle. This full-fledged experience is what is demoed on our prototype:

- Motivation (homescreen): this is where data from all main features (Schedule, Meal,
   Community, Workouts) will be summarized
  - All v1 features
  - New / interesting / recommended / popular workouts and meals
  - Live sessions
  - Quote of the day
  - o Community: stories, posts...

#### • Schedule:

- o All v1 features
- Pro class
- Live sessions
- **Meal:** add meals and recipes.
  - Meal plan: one of the pillars of our app. This meal plan will be tailored for users
     from their current and goal fitness level. Meals will come from both our app as

well as the community. This meal plan will be able to satisfy users daily nutrient goal

- New / interesting / recommended / popular meals
- Tips on cooking
- Monetize: connect users to certified dieticians
- Workouts: continuously adding more exercises and programs.
  - Tutorials: add video tutorials. Includes 3D animation as well.
  - Quick actions: 7 mins workouts, breathe, stretching, wind down.
  - New / interesting / recommended / popular workouts
  - Monetize: Pro classes, connect to professional PTs.
  - PTs profiles.
  - Tips on working outs.
  - Workout stats.
- Community: a lite social network
  - Messages inbox for cheers or notification
  - Featured transformation: showcase people who've made great progress on their fitness journey. A very motivating section that can encourage users to continue.
     Show their training style and meal plan so that the user can follow.
  - Cheers from friends
  - Live session
  - Stories / posts.

As we've wished for the app to be accessible for all, almost all features will be free. However, we also need the app to generate funds to keep itself running. As such, monetization will come from connecting our users to certified PTs and dieticians, like a marketplace. We hope to both help these professionals as well as our users.

# 5. Tools and Technologies

#### 1. Softwares & tools:

Languages that need to describe the application:

- Linux

- Python
- Object C
- Java

# Domain services that need to promote databases:

- MySQL
- Oracle

# **Design:**

- Sketch (latest version): designing design system and UI
- Invision: prototyping and sharing screens
- Illustrator: designing graphics for design system
- PowerPoint: design presentation
- Coda 2: HTML / CSS coding software for Mac

# Data / behavior analysis:

- Firebase
- Hotjar

#### 2. Software licenses needed:

Stream - Promoting social network services(<a href="https://getstream.io/">https://getstream.io/</a>)

# **Design:**

- Sketch (<u>https://www.sketch.com</u>)
- Illustrator (<a href="https://www.adobe.com/products/illustrator.html">https://www.adobe.com/products/illustrator.html</a>)
- Coda 2 (<a href="https://panic.com/coda/">https://panic.com/coda/</a>)
- PowerPoint (office.microsoft.com)

# Language for development:

- Linux
- Python

- Object C
- Java

#### 3. Hardware needed:

### Design:

- Mac, iPhone X (or newer): design on the Mac and test it on the iPhone. Since the interface is built for the iPhone X (with the notch), either it or a newer iPhone with the same dimensions is needed.

### App development:

 Mac or Window PC (Desktop / laptop): more than 16 GB of memory and lots of SSD storage for higher performance in development

### **Testing:**

- Multiple mobile device manufacturers use the Android platform (Samsung, LG, HTC, Motorola etc.)
- Multiple apple iOS devices (iPhone & iPad)

### 4. Experiences members has had with tools and softwares:

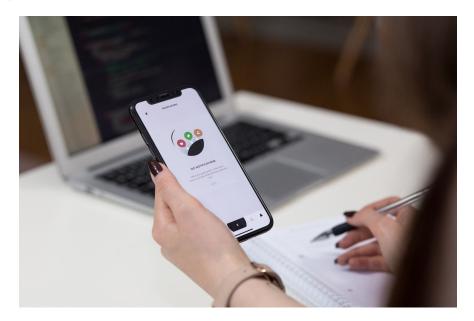
### Taesung:

- Made simple game application using Unix in the high school

### Quan:

- Used Sketch professionally for work for 1 month. Used it as a hobby for around 1 year. Familiar with Sketch functions and special tools to work faster.
- Used Coda to code HTML for around 2 months. Basic knowledge of Bootstrap.
- Used Invision to prototype professionally at work for 1 month.
- Used PowerPoint to design presentations since 8 years ago. Familiar with newer functions like "Morph" animations to make presentation flow better.

# 6. Testing



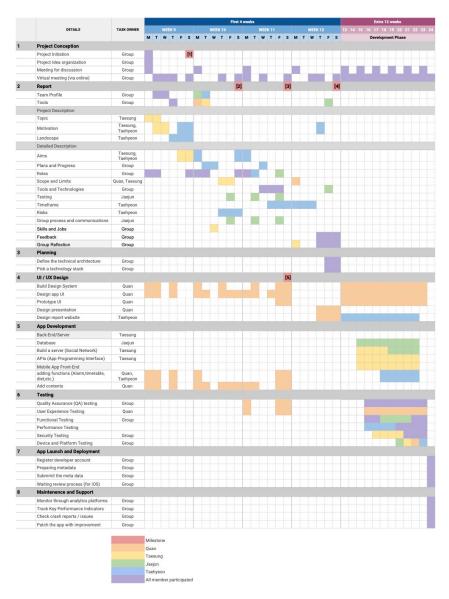
Due to the educational applications we will develop for beginners, we need to test it from two perspectives: 'Is it really simple?' and 'Is it educational about health?' First, to test an application, you register the application in the application market such as Apple's App Store and Google Play Store then add the word 'for test' after the application name and description. Gathering people and giving them two choices. The group of people who are new to the sport is referred to as "Group 1" and the group of fitness trainers as "Group 2." The testing will begin if both the people in Group 1 and the people in Group 2 are filled.

The application will ask people to review the test after it is finished. In addition, the people who have finished application during the testing date will be given prizes such as protein powder to a few people through a raffle and the reviews will produce results on whether or not the experiment was successful. For example, if our experiment was successful, we could collect three or more of the five stars and this application was made from a beginner's point of view.' or 'This application is educational. You'll be able to check out comments like ' Moreover, ratings and comment reviews will be more useful because various errors can be confirmed by many users.

### 7. Timeframe

We presented our timeframe by using google spreadsheet Garnett chart form. We also included specific plans and timeframe all the way from week 9 to end of extra 12 weeks. Milestones and each members' participation were indicated in different color boxes.

# **Click here to view detailed Timeframe**



### 8. Risks

As an IT beginner, making a perfect app will be not that easy. There are various risks in the process. In detail, to develop and run a mobile app effectively, there are 5 phases which are planning, UI/UX design, app development, testing, service support and maintenance after releasing. The risks exist in every stage.

- 1. **Planning**: The first relevant risks we might face are when planning. We should set up concrete ideas, targeting users, and aims and organize what is the users' needs, what is the value we will provide, what is the goal based on the research. The plan should be as specific and accurate as possible and be digitized to be measured. If not, the bigger and fatal errors could occur in the system at the next stages. For example, we want to support both Android and iOS devices but if we pick the languages which have a dissimilar database, we might face difficulties to share with both development tools.
- 2. **UI/UX design:** This stage is difficult because both the UI and UX should be considered to design a design system that speaks the values of our app more friendly and motivational.
  - 1) User Interface:
    - Make the app beautiful and attractive to look at. Done by having consistent spacing, selecting right font choices, picking the correct color.
    - Make the app look familiar to be intuitive and easy to use, but unique so it
      doesn't look like every other app. We have to consider the color scheme, shape
      or curve of button so that the app conveys the right feeling.

### 2) User Experience:

- Make the app as convenient and easy to use as possible. We can do this by thinking about which functions the users are going to use at any given screen, and put that function the most important element on screen. (For example, when a user is on the "meals" page, they probably want to 1. cook today's

- meal, 2. check shopping list, 3. check their nutrition goal, 4. check other meals -> put these functions as button that is clear on the "meal" screen)
- Understand the target users to create the right functions. This means we have to research about other workout apps on the market and learn what they are doing to build into our app.

The main risk and obstacle are to design these things incorrectly, and build an app that is not friendly looking or is hard to use. We can design many screens, but only at the end we can realize that the app isn't friendly or it cannot be scaled because the design system isn't set up correctly. Also, the research might be wrong or the wrong function designed into the app.

### 3. Application development:

The biggest risk in this stage is software and skills-related risk. After the programming language is determined, we have to learn how to write logic, link APIs and services. Even from the initialization, we might face tons of failure and obstacles because we have not experienced many languages. It would be a complex process that requires in-depth knowledge and understanding of language. And lots of errors as if compilation error, runtime error, logic error, linking error, parse error could occur. On all such occasions, we should revise and correct the code. But even after we compile the saved file, the outcome would be different with each feature or it would not be operated smoothly. In order to minimize problems in code, analysis of the solution to cope with possible problems and other aspects of the program is needed.

Our app will utilize the information and database access authority by linking with APIs from smart watches like Fitbit, Apple watch and social media Facebook, Instagram also can use our API. API security is the protection of the integrity of API-both the one we own and the one we use but if we fail to develop a secure API in the process, every data of users' could be broken, revealed, hacked by massive credential abuse attack campaigns.

We will use Firebase and Hotjar for gathering intel and analytics but if the data analysis and database are inaccurate we cannot track the users' habit, lifestyle and therefore cannot provide appropriate plan or service.

- 4. **Testing**: Application testing is always related to risks. Once the application development is completed, the application testing by simulator, emulator and actual mobile devices is imperative. Various testing including User Experience, functionality, performing, penetration testing will ensure the app quality. We can revise errors or bugs in this stage before we launch the app.
- 5. **Services Support / Maintenance :** After app releasing, unexpected system errors like bugs might come out and users can experience inconvenience due to server down, services error. performance issue This is why monitoring systems, security updates and patches through regular and constant testing is essential.

In every stage, there are collaboration risks like disconnects and conflict because 4 or more people make an app not a single person. We must also learn how to deal effectively with experts from the field of physical education and training, diets and nutrients, and human psychology and behaviors. Teamwork, and communication skills are indispensable.

# 9. Group processes and communications

Our group communicated with Facebook Messenger during this project. Smooth communication is one of the important factors in working with many people, and our group worked carefully by presenting their opinions and sharing their responses. Our group's communication is almost daily and answers to questions are very quick. For example, when selecting topics, groups present their opinions and discuss which choices will be more efficient as the project progresses.

Our group held face to face meetings as well as communication using mobile phone applications. We thought 'face to face' communication and cell phone communication were

different and we tried 'face to face' communication. Quan booked a school conference room and arranged our time to schedule a meeting. Unfortunately, one person did not attend the meeting due to health problems, but those who did not participate actively enough to ask in detail about the contents of the meeting through the messenger application and not feel "not attendence." The choice of 'face to face' method of communication was certainly good, as it led us more passionately.

If one of our team members does not try to communicate and there is no response, we should contact him personally to help him participate as much as possible, but fortunately our team members did not. There was always smooth communication.

#### 10. Skills and Jobs

### **Analyst:**

First of all, the most important thing in analyzing a project is the public's reputation. The way to know the public's reputation is to launch a beta server and wait for people's comments, referring to how people feel about the applications our team has developed and what needs to be improved. Even if the ongoing project is a simple application, the answer to whether our team's application will become popular is the public's assessment, so we have to wait for an evaluation of people. So analyze the public's assessments and organize a list of things to develop. The second thing to analyze is that physical fitness trainers should be examined for actions and diets that beginners can easily follow. Since the projects our team will create are health-related, we need to make a lot of contacts with physical fitness trainers to develop customized applications for beginners. Finally, the evaluation of other health-related applications is analyzed. For example, we investigate the inconvenience that people feel when using health applications that exist in App Store or Play Store and analyze the areas that our project team can improve.

### **Content specialist:**

#### **Content Creation** Creativity Research Visual Expertise Write creative, "Ability to create "Visual content specialist" engaging content super in depth content w/stats and Writing, Editing Expertise & Copywriting Long-form writing resource "More quality to create thought leadership copywriters who can post to various - Subject matter expert content channels - "in-depth knowledge of the

Skills for Content Creation

With a wide range of features from meal plans, workout tutorials, to motivational quotes and encouragements, our app is going to rely on a bevy of continuously updated content and information. This constant stream of new content is essentially our app's life. It will be the factor that will draw in new users while keeping old users interested in our service.

That is why having a content specialist is extremely important for our app to be able to grow and scale to our planned scope. This person or team is responsible for creating content, devising strategies, providing copy / writing, and research on subjects like trends, science to continuously produce us valuable data. Furthermore, they will be in charge of connecting with professionals in various fields, including but not limited to, health, psychology, training, nutrition, dieting, etc.

As a result of their responsibilities, these members must be extremely good at learning and absorbing data quickly, as well as having the ability to socialize and build relationships with professionals. Since the work of creating new content is demanding, they must also be good at teamwork and collaboration to ensure their team can work well together.

### Specific skills:

- Excellent memory
- Able to write interesting / entertaining / memorable content

- Works with professionals from many different fields
- Learn and absorb information quickly and efficiently
- Teamwork
- Communication
- Keen on picking up new trends
- Market research

### **Developer:**

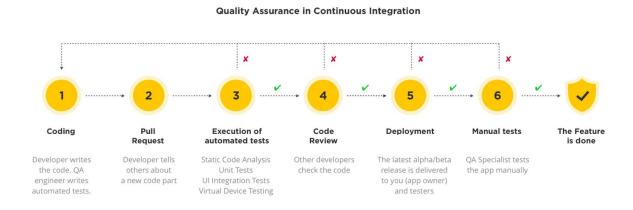


Building an application is like building a structure. In this aspect, developers are builders and designers. They decide the whole outfit and detail of the application and solve the critical problems. If critical problems(bugs) are sustained, it will collapse the structure. Therefore, their roles are important to maintain the application. Also, their works contain the start of the project to end. Their job estimates most of the project. It means the developers have to communicate with other team members and divide the working well. Quality of application depends on their experiences of team working and tools used.

Specific skills:

- Team work
- Communication
- Experience of work circumstances
- IT Tools
- Knowledge of C language
- Designing

### **Quality Assurance:**



Quality Assurance in Continuous Integration

To develop the higher quality of product that contains the requirements of the user and deliver to the market, QA (Quality Assurance) is a vital process in app development. Therefore, one position will be **QA specialist** who is responsible for ensuring that the product meets the quality standards. The process of quality assurance is test planning and designing, test execution to reporting and QA specialists oversee the implementation and inspection of products alongside the whole testing process. They decide the testing approach (Manual or automated), tools, environment (different types of devices) and execute the front-end, back-end, APIs testing. They also assist developers with creating test data.

Specific skills required for the QA specialists are:

- Problem solving
- Decision making
- Understanding the statistics

- Ability to work as part of a team
- Knowledge of product quality standard

# Feedback

# Quan:

Taehyeon: I had some initial doubts about our new member, but Taehyeon has proven herself to be an indispensable member of our team. Thanks to her contributions, I was able to focus on the prototype and designing our presentation. Her work ethic is great, and the work she put out is of high quality as well. I am glad to have her as a member of our team. I don't think she needed to improve on anything, as she has done way past my expectations.

Taesung: His idea is what allowed us to do this project. His insight and hard work has given us a great project to work on together. He always addresses us as "friends" on the group chat, which I think is very sweet. He is constantly reminding us about getting the work done, which I appreciate very much as well. He did his job great, so I don't think he needed to improve on anything.

Jae Jun: Originally, we were going with Jae Jun's idea for our project, but ultimately chose Taesung's idea. I appreciated that Jae Jun was understanding and didn't feel bad or put up a fight about it. He got his tasks done, albeit a bit later than was agreed on, but it wasn't too late so I had little problem with it. I think one area where he should work to improve is keeping track of his task, but other than that, I think he is a good teammate.

As for myself, I was a little disappointed about my performance. I had to focus on designing our prototype and balance my time at my internship (this is fully my own responsibility, so I was sorry that it affected my performance here), so I did not have a lot of time to work on the report with everyone. I also didn't prioritize as well as I could have, so I hope to improve on that fact and be a better teammate.

# Taesung:

Quan: His designing skills are great. I was so surprised at the small detail in the last report's image, his presentation intro video. And also he is so helpful when I forget some detail parts

and modify informal languages and words to formal words. And he has a great habit of writing notes every moment. I have to learn these parts from his side. There's nothing to improve for him

JaeJun: Since at the beginning of the assignment 2, he has done a great job. His writing skills are impressive. Everythings is ok except he has to communicate more in the group chat.

Taehyeon: She has great writing skills and keeps reminding me when I make a mistake in a small part. I was surprised when I saw her collaboration skill and I actually wondered if she can have difficulties in comprehending our group idea and project because she joined the group just for this assignment but It's my mistake. I think there's nothing to improve for her.

Me: While I am participating in a group project, I recognised that there's some difficulties in my english grammar and my knowledge of words. I think I have to repeat it more.

### Jae Jun:

Quan: Without Quan, I think our team's power loss is very big. His high-quality skills, assignment to team members, and plan design actually took up a large part and finished his part faithfully. He is not at all lazy and handles his work steadily and faithfully, as if by machine. In addition, the quality of his work can be guaranteed to be very good.

Taeseung: Taeseung added me to assignment2 and I remember asking questions whenever I was confused with my duties. Thank you for answering my question even though I don't have enough time because of a lot of assignments. And his work must also be sincere and high. He likes to communicate and articulates his thoughts about opinions.

Taehyeon: Although Taehyeon became a new member this time, he did her job skillfully and sincerely as if he had already been. Although there was not much communication with her, timeframe and git confirm that she also liked communication and worked hard.

Me: My assignment wasn't as big as I thought it would be. But I recently started part-time jobs and participated in a contest. Besides, I didn't have much time because of other subjects' assignments. That's why I feel sorry for not finishing my work quickly and participating in the work as much as possible.

# **Taehyeon:**

Quan - He is a competent and versatile person who works with enthusiasm. He always showed wonderful outcomes. Also, his practical experience and knowledge about app making have done much to advance our project. But I would like to say that it would be helpful to work in order of priority to get a solid accomplishment.

Taesung - He was always proactive and diligent. His ability to organize and arrange the plan facilitated collaboration. The whole process went smoothly because he kept us informed of the specific plans and deadlines. But I think it would be better to check the smaller assessment details carefully to drive high team performance.

Jaejun - Despite the fact that we did not have much chance to interact, I assure that he has done a great job. He did his stuff well without any complaints and followed the plan faithfully. However, I feel that he could achieve more if he finished his assigned part earlier before the deadline we set.

Personally I think I should have taken part more in the face to face meeting besides the virtual meeting. There was some time I could not attend the face to face meeting. Thankfully the other member summarized and organized the minutes of the meeting but I should have actively participated with responsibility.

# **Group Reflection**

### Quan:

What went well: our group communication and respect.

I am very happy to have been a part of such an understanding and empathetic group.

Everyone respected and went out of their way to encourage and remind other members, and I felt there was a sense of friendliness amongst everyone. I believe that everyone just wants to get good work done and pass the class, so we did our best to focus on the work and not the drama.

What could be improved: meetings and deadlines.

Looking back, I still wished that we had more face to face meetings so that we could've collaborated better. However, since everyone was still so busy, it was still very difficult to find a time where we could all work together. Secondly, this applies to myself as well, I believe that we should've kept to our agreed upon deadlines better. I don't think anyone was deliberately lazy, but inundated with their own work or school.

Surprising things: our new members and teammates stepping up

Our new member, Taehyeon, has been a wonderful addition to our team. She has worked so hard and her work has been of great quality as well. I appreciate the effort that she has put in to help the team as a whole. Furthermore, I am very happy that Taesung has stepped up and taken the role of leadership and helped remind everyone of the deadline.

### Things I've learned about the group:

This group has proven my beliefs that a team that respects and trusts each other, and has a sense of friendship work together better. Everyone is so friendly, so I was very happy to contribute to our group's work 100%. And since, I don't have to worry about any drama, I can entirely focus on delivering my best work.

### **Tools:**

Just like the last assignment, I think Git accurately reflects everyone's contributions. Once work on their section is done, team members pushed their commits to our central repository, and everyone else could keep track of how much was being done. I think Git is very

beneficial to our workflow, as it served as the single source of truth where everyone can view and know how much work has been done.

Although, I also think that Git might have underrepresented how much work each of us did. Since we worked mostly on Google Docs, so everytime we're done, members download the file and push it onto Git. I've forgotten to do this a couple of times, so I think I might have been the same for other members as well.

# Taesung:

Whole progress of the report is great. All one tends to write their parts before the deadline that we arranged before. And I think everybody participates well in writing and helping each other when they have difficulties and barriers. But, In my opinion, we have to communicate regularly. And I was so surprised about everybody's writing skills and ideas. Liam's designing skill is also impressive. In the past, there were many differences in participation when I had a group interaction. That was so annoying. However, I was so happy all group members are having an appropriate attitude and respect each other. In this assignment, Taehyeon joins our group. I worried about her because she wasn't a group member at assignment 2. So, there could be difficulties in comprehending our group project and assimilate the new group. But I am surprised about her adoption and learn from her skills of adoption and cooperation in the new circumstances. At this time, I don't use much Github. I usually use google doc rather than Github. But, I recognize Github is better. Because Google doc can't save the backup data and load them. But, Github can do it. I have to use Github more the next time.

#### Jae Jun:

First of all, I am very grateful that I have formed a group of well-matched team members to carry out the task. We carried out our work neatly without disagreement and without lazy people. I got to know a new i while doing this project. I could see how happy I was to work with good team members as well as the information.

I don't think there's anything we need to improve, but if we had to find one, what if we had more meetings? If we actually meet and listen to the team members' voices and work together, I think we will pay more attention to the team and we may come up with better ideas.

One thing that surprised the team during this project is that everyone's team members seem to have worked more diligently than I did. I worked on the project with the idea of at least not causing any damage, but all the team members worked very hard. They are regular and fast. Github is evidence that tells us who worked hard and I feel proud when I see what I've worked on.

# **Taehyeon:**

As a new member of the group, I felt sorry for the teammates due to the fact that I joined in the group abruptly. Also, I simultaneously worried that there might be communication problems at first. But eventually everything went smoothly. We split the part relatively equally and everyone tried to complete the assigned task on time. But personally, it would have been better if we finished the tasks earlier. Because group tasks always have variables and extra time gives us a chance to manage it.

A surprising thing was that every team member was devoted and contactable almost every time compared to the previous team. Despite few face to face meetings, we communicated well via virtual meetings. We found the task and conducted it before the other member mentioned.

I have learned the way how to treat others when working and collaborating. There was no conflict and everyone was gentle and sincere to each other. We do not know each other deeply but we were cautious not to give offense to others.

I usually worked on google documents when I wrote the group report. Therefore, my GitHub log could not reflect my activity in the same way. But besides the group report documents, Github log was reflected well with other files as if image, html and excel files I updated.

# **Group:**

#### What went well:

**Division of workload:** Everybody works on the group project and the amount of work is the same. All members are focusing on completing group projects and work quality and cooperating it well.

Communication: every member agreed that the group communicated very efficiently and effectively. Despite rarely meeting face to face, our members were able to connect and collaborate using a wide range of services, including Git, Messenger, Docs, Sheets... This points out that our group was very abled in connecting through the internet, apparent in the fact that we got everything done on time without having to meet regularly. Furthermore, all members also said that the atmosphere between each other was friendly, sincere, and respectful.

**Each member's skill set:** our group agreed that every member bought something special to our group as a whole. Everyone had a skill that benefitted the group, and they were also very active in providing their help and contributing.

**New member:** everyone in the group has given praise to our new member. Despite not being with us since the start, our new member has proven to be a hard worker and has contributed greatly to our group.

### What could be improved:

**Meetings:** Although we collaborated well online, all members agreed that more meetings would have been beneficial to our group work as a whole. Reasons given include that it would increase productivity, allow us to work together faster, share ideas more efficiently... This is one of the areas that we are still working on improving since Assignment 2.

**Meeting deadlines:** some members stated that our work would've gotten done ahead of time if we were more able to meet our agreed upon deadlines.

### At least one thing that was surprising:

**Communication:** all members shared that the group's efficient and respectful communication was a pleasantly surprising factor compared to their previous experiences.

Members also stated that despite members not being close and rarely getting the chance to meet, everyone was doing their best to create a welcoming atmosphere.

### At least one thing that you have learned about groups:

The importance of friendliness and respect: all members expressed their gratitude and contentment at the group's friendliness and respect for each other. All members communicated in English so everyone could understand, and paid attention in their use of language to make sure that they got the right idea across without offending anyone. This has proven that when doing teamwork, the amount of care that each individual member put into being mindful and considerate of each other goes a long way in creating a friendly and welcoming environment where everyone can focus on creating good work.

#### **Tools:**

Our group agreed that online tools such as Github, Docs, Messenger... were essential in our success on both communication and creating the report. Thanks to these services, our work was done both faster and better. As everyone got to collaborate and track our progress, we could move ahead with confidence when creating content.

# Reference

#### Overview

Alicia, P., Jul 2020. The Number of Health and Fitness App Users Increased 27% from Last Year | eMarketer [online] eMarketer. Available at:

<a href="https://www.emarketer.com/content/number-of-health-fitness-app-users-increased-27-last-y">https://www.emarketer.com/content/number-of-health-fitness-app-users-increased-27-last-y</a> ear> [Accessed 05 Oct 2020]

Daria, B. Developing Different Types of Health and Fitness Apps: Our Experience and Market Leaders Examples | Yalantis [online] Yalantis. Available at:

<a href="https://yalantis.com/blog/health-fitness-apps-development-location-based-activity-trackers-workout-apps-technology/">https://yalantis.com/blog/health-fitness-apps-development-location-based-activity-trackers-workout-apps-technology/</a> [Accessed 06 Oct 2020]

THE APP SOLUTIONS. HOW TO CREATE YOUR OWN FITNESS APP [online] Available at:

<a href="https://theappsolutions.com/blog/development/fit-app-development/#contents\_1>[Accessed 06 Oct 2020]</a>

Sveta, C., May 2020. Health and Fitness App Development: Must-Have Features | Mobindustry [online] Available at:

<a href="https://www.mobindustry.net/health-and-fitness-app-development-must-have-features/">https://www.mobindustry.net/health-and-fitness-app-development-must-have-features/<a>[Ac cessed 06 Oct 2020]

#### **Risks**

Team Invonto, January 2020. Mobile App Development Process: A Step-by-Step Guide [2020] | INVONTO [online] INVONTO. Available at:

<a href="https://www.invonto.com/insights/mobile-app-development-process/">https://www.invonto.com/insights/mobile-app-development-process/</a> [Accessed 05 Oct 2020]

RedHat, API security | RedHat [online]

Available at: <a href="https://www.redhat.com/en/topics/security/api-security">https://www.redhat.com/en/topics/security/api-security</a> [Accessed 06 Oct 2020]

Ryan, B., Elad, S., November 2018. Exposing APIs can create security risks if you're not careful | Disruptive.asia. [online] Disruptive.asia. Available at:

<a href="https://disruptive.asia/exposing-apis-security-risks/">https://disruptive.asia/exposing-apis-security-risks/</a> [Accessed 06 October 2020]

# Reference for Visual Material

Peeyush Singh, Agile methodology in App Development Process, illustration ,viewed 20 September 2020,

<a href="https://appinventiv.com/blog/agile-scrum-methodology-in-mobile-app-development/">https://appinventiv.com/blog/agile-scrum-methodology-in-mobile-app-development/>.

Curata.com, Skills for Content Creation, photograph, viewed 20 September 2020, content, <a href="https://www.realseo.com/content/">https://www.realseo.com/content/</a>, <a href="https://www.realseo.com/content/">curata.com</a>.

Quality Assurance in Continuous Integration, March 2020, QA in Continuous Integration, photograph, viewed 20 September 2020,

<a href="https://www.thedroidsonroids.com/blog/quality-assurance-mobile-web-app-development-process">https://www.thedroidsonroids.com/blog/quality-assurance-mobile-web-app-development-process>.