RMIT UNIVERSITY

COSC2083 – Introduction to Information Technology

Assignment 3

SAVVY SIGHTS

~ Whatever you see

Inspires you~

Huynh Ngoc Giang My (s3978986)
Nguyen Le Minh (s3980284)
Nguyen Phu Nghia (s3924506)
Nguyen Nhat Lam (s3989101)

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Team name

Technolobies - The name is simple, it tells us exactly who we are, technocrats, "technology" to "technolobies". We chose this name because it is easy to remember and absorb for students because it is similar to the compound name in English. It is also a unique name that makes it stand out from the competition.

Team Profile

Nguyen Le Minh (s3980284)

My name is Minh and I come from Ho Chi Minh city. I just graduated from Nguyen Cong Tru high school and this is my first year at this university. I love reading manga and watching anime. I chose to study IT in this school since my parents partly recommended it and I partly like computers and new technology. I expect to become an AI engineer in the future because I like how computers communicate with people and do tasks that people cannot do. I hope I can create a product about AI that helps people in the future.

Nguyen Nhat Lam (s3989101)

Information Technology is a big part of many aspects of the world and will soon be a cornerstone of life, of industry, which is one of the things that caught my interest in this field. I also have interests in web design, web development, and game development, alongside the rising popularity of Artificial Intelligence. I am hopeful that I am able to master various programming languages like Python, Java, etc. on this long journey ahead of me.

Huynh Ngoc Giang My (s3978986)

As a first-year student at the RMIT Saigon South campus, technology has caught my attention because of its potential to create artificial intelligence (AI) and smart products that will benefit many people in their daily lives, such as in the medical or scientific fields. My talent lies in learning new languages and various ways to communicate with people in general. Learning to communicate with computers gives me different ways to learn a language than before. I have experience handling issues in Python, Java, and a little HTML and CSS, but I'm eager to learn and master other languages in order to fulfill my aim of creating the best VR game ever created.

Nguyen Phu Nghia (s3924506)

Basically, technology is the process of carrying out the discoveries of science and integrating them into our daily lives. The term technology refers to the variety of tools, machines, and equipment we use on a daily basis. As a result of human invention, these tools and equipment are designed to assist in making tasks more efficient, easier, and comfortable for us. As Rmit's student, I am s3924506 known as Nguyen Phu Nghia, the person who can solve all of the technical problems. Game testing, quality assurance tester and systems analyst will be my joy. I have some experience in IT a few years ago since I had my first personal computer. Curiosity and dabbling have led me to the path of information technology and especially computer science. But until I entered the world of IT, that world was so big and made me constantly try and learn more to be better.

Ideal Jobs

.Software developer

- Skill Requirements
    - Bachelor’s or Master’s degree in Computer Science or a related field
    - 3+ years of experience in mobile application and game development
    - Proficiency in popular coding languages including Python, Java and C++ and frameworks or systems such as AngularJS and Git
    - Excellent knowledge of the software development life cycle
    - Strong problem-solving and communication skills
    - Knowledge of Object-Relational Mapping frameworks
    - Experience with Agile and Scrum development methodologies
    - Ability to learn quickly and work independently or as part of a team

.Web Developer

- Skills & Requirements
    - Proficiency in programming languages
    - Understanding of search engine optimization (SEO) practices
    - Excellent written and verbal communication skills
    - Strong interpersonal skills
    - Ability to work independently and manage time efficiently
    - Solution-oriented and high-level programming skills

- Ability to troubleshoot and optimize web pages for security and responsiveness
- Understanding of network diagnostics and analytical tools

.Software Engineer

- Skill & Requirements
  - Be able to work with other engineers in teams to promote technology and ensure consistency of the system.
  - Be able to work independently and collaborate with other team members to fulfill team results
  - Minimum bachelor's degree in computer science, programming, mathematics, or a related field.
  - Master a variety of programming languages such as: C++, C#, JavaScript, and Python and practice building software.
  - Ability to adapt quickly to an existing, complex environment.

.Data Analyst

- Skill & Requirements
  - SQL
  - Spreadsheets
  - Critical Thinking
  - Statistical programming languages
  - Data visualization
  - Public speaking
  - Machine learning
  - Data warehousing
  - Communication
  - Problem-solving
  - Research
  - Attention to detail
  - Collaboration
  - Project management
  - Data prep

- Statistics
- Writing
- Domain knowledge

.Ideal jobs distribution

	My	Nghia	Lam	Minh
Software Engineer		✓		
Web Developer				✓
Software Developer	✓			
Data Analyst			✓	

.Summary

All of our ideal jobs request for the ability to work both independently and together as a team, as well as years of coding experience and knowledge of a variety of coding languages, such as HTML and CSS for web development or C#, C++, Java, Script, etc. for software engineering and developers, as well as communication skills, and the ability to write and comprehend analytical tools and diagnostics. This is the basis for our shared ideal careers and the decision to collaborate on this project. It also explains why we work well as a team and have similar viewpoints. Although we all have similar ideas, we all specialize in different areas from our ideal jobs. For example, Lam will be more advanced in designing and recommendations despite aiming to be a data analyst, and Minh is more capable of analyzing information and data despite needing to be good at designing in order to pursue a career in web development.

Project description

- Topic

In the initial project, our group decided to choose VR/AR since this area has a big potential and it can improve profoundly in the future. Virtual is a terminology that existed around the 1960s. Today, VR comes into our lives with many high-end stimulated experiences created by hardware and software to provide real-world experience. This comes with headsets aka head-mounted displays from Sony, HT, and Intel, and smart glasses like Oculus and Hololens from Facebook and Google. Our group particularly noticed glasses from those two big companies and we decided to make a project about this and add some improvements.

- Motivation

Although we may lack knowledge about smart glasses, we still think this a good chance to do a small research and make our own product based on those two glasses. Our product is named Savvy Sights, Savvy stands for wise and clever. The alliteration in the two letters ‘s’ also make it very memorable and marketable. The aim of our product is to make it fashionable and simple, easy instruction, and bring an interesting experience to users.

- Landscape

The most important thing in making glass is the materials. They make temples, we tend to use plastic, aluminum, or even titan for high-end products. The lens we use is crystal-like like any other glass and inside the lens, we can see UI and applications appear in front of our eyes. We have not included any deep analysis like hololens and oculus but we still adapt basic functions for users like calling, picturing, or even surfing websites.

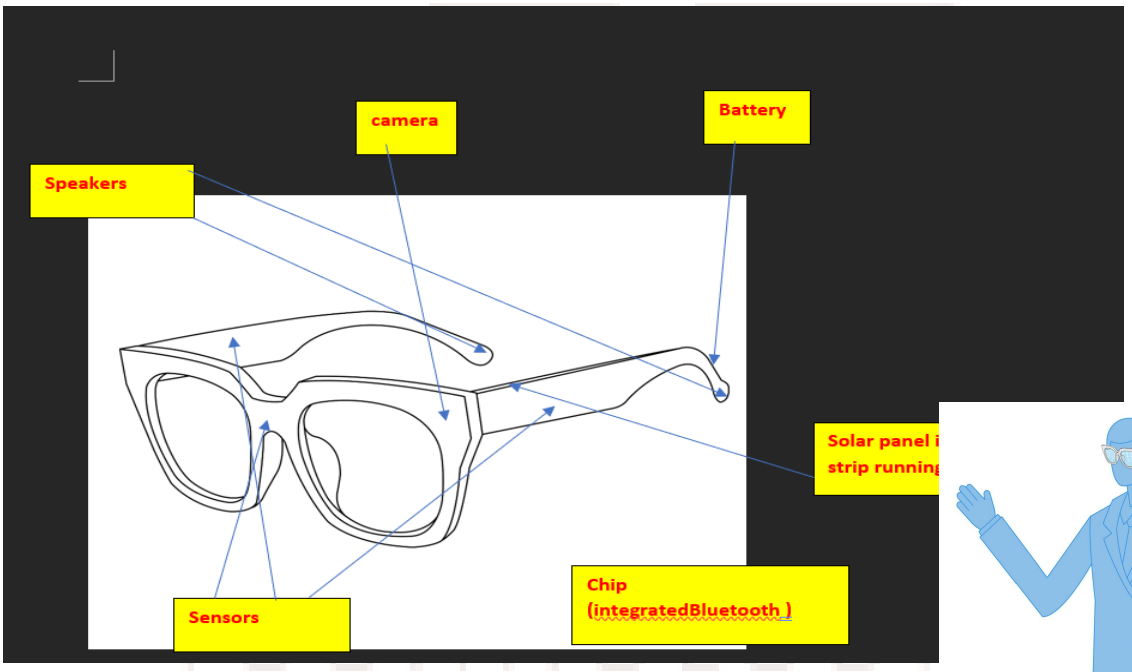
Detailed Description

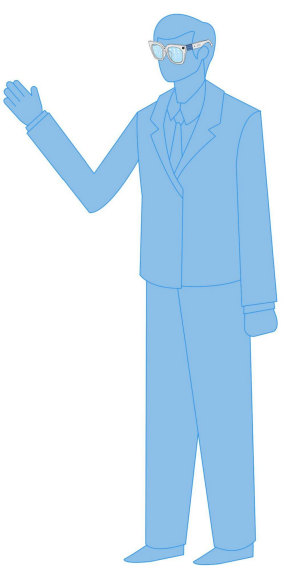
- Aims

As stated in the topic, this is our group's take on creating more fashionable, user-friendly smart glasses for the general public rather than just the tech geeks and enthusiasts. More features will be available along with some of the features that already have such as navigation, and applications access (Instagram, Facebook, Twitter…).

- Goals

1. Ideas





As stated in the topic, our initial intention was to create VR glasses because it was the area we tackled in the first assignment. However, after some debate and a review of our team's skills, we decided to create smart glasses instead of a full set of VR glasses that included games. The design, components, and materials for the glasses frame were all decided upon at this first stage.

2. Prototypes

The next step is for us to develop a complete look for the glasses based on aesthetically pleasing and practical eyewear currently available on the market. Although our original intention was to develop a different type of eyewear similar to hololens and google glasses, we changed the prototype's color and design to make it harder to tell that the user is wearing smart glasses. This was a very clever move that will help the general public understand our product. As a result, several prototypes are created and go through the testing stage. This is also the time when we test out which prototype will be carried to the final stage and sold.

- Plans and progress

For a team to create a product for our clients, communication is crucial. So, on the first day, we need to allow everyone to introduce themselves. This will help us understand everyone's talents and weaknesses so that we can place them in the ideal roles for the project. The group should next start working on identifying the issue and choosing their project objectives. Each member of the team needs to fully understand the objectives established as well as the issue they are working to resolve. The requirements that have been requested by users are ultimately discovered through a process called requirement elicitation and consumers. By doing so, we will guarantee that we meet customer expectations, provide important functionality, and cut out unnecessary processes.

Week / Student	Nghia Nguyen	My Huynh	Minh Nguyen	Lam Nguyen
Week 1	Organizing a team and assigning tasks			
Week 2	Investigating some products that are similar and discussing ideas			
Week 3	Career strategy and team profile			
Week 4	Topic, Purpose, and Setting	Include a summary, career strategy, and roles.	Focus on the essential points of the subject.	Generating design concepts
Week 5	The initial section of "plan and progress"	Part two of the plans and progress	Writ scope and Limit	Reference checking
Week 6-9	Take note of the risks, testing and goals	Describe how to create the website in your writing.	Skills, jobs and communications writing	Web design and project results
Week 10	Summarize the group's reflection, and list some presenting ideas	Make a draft of a PowerPoint presentation and write some website content.	Take note of some PowerPoint and website idea	Fix various issues with the main page of the website.
	Web development and writing report based on presentation and work plans Reflections, members information, Ideal jobs will be self written			

Week 11	Web development, plans and progress	Project Detailed description, Ideal jobs summary	Project description in general, Scope and limit	Skills and Jobs, Testing
Week 12	Reviewing, Readjust report and upload to GitHub			

- Roles

With each week progressing forward, and once they have completed their portion, they can offer to assist other members who are having trouble with theirs. For instance, during the first three weeks, our group was extremely dispersed, poorly informed, and without a designated leader to oversee the group's activities and divide the work, which resulted in misunderstandings among all the participants and ultimately resulted in our failure in understanding the exact requirements of the assignment.

As a result, when it was time for the next assessment, we all got together and decided on a leader who would oversee the members' work progress and assign early-stage duties to each member.

In this assignment, for instance, My and Minh will share the work of writing reports and proofreading primarily because they are more proficient writers and have a better grasp of appropriate reports, Nghia and Lam will divide the work of designing the website and prototypes because they are more adept at describing how the product will work.

All participants agreed on the concept for the product, and it was thoroughly considered as to how the glasses would look in the end or which appearance would be best for a presentation and product promotion. After testing the prototypes, each team member will write a report on them, including any modifications they think should be made or their thoughts on the spectacles.

- Scope and Limit

As we said above, our product aims at every customer. Therefore, we tend to use a simplified mechanism to ensure that every customer buying products has the best experience. To make it more interesting, controlling or navigating the interface on glasses through gestures instead of actively touching. Users can receive

notifications from their phones like email or SMS. We also care about health problems because the improvement of the medical area is aligned with the advancement of technology. Our essential functions like checking heartbeat, nutrition or even sleep patterns. That information will be sent to the machine and used by an algorithm to predict and diagnose future health problems like diabetes, choking and chest pain.

Besides, users can also surf the Internet with glasses and use texting applications. Overall, our product is very versatile and brand new to customers. In terms of limitation, we need to focus more on the durability of our product since we still need to imply water proof and warranty time duration. We still have to face competition in the market with big companies like Facebook or Google. Finally, we need to improve our user interface and operating system because it is still simple and rudimentary.

● Tools and Technologies

Github

Our team has chosen to use Github as the main location to keep our source code as well as other project-related data like and photos. Since we first learnt how to use Github in this course, this is the first time we have ever used it. Despite this, we find it to be rather user-friendly and convenient because we can complete our duties without having to physically interact with one another.

Our repository: https://github.com/Myiea/Technolobies

Other design tools are also relevant in terms of sketching, brainstorming ideas, and visualizing what the design would look like. Most of which can be accomplished through Figma, Photoshop. Certain app design and interface can then be designed through the Balsamiq app, a common app used by business analysts that is excellent for this purpose.

● Testing

The testing process will involve collaboration with QA testers to optimize the devices and interface to its full potential. The goal here is to work out any potential bugs and go through various scenarios that a typical user may encounter in their time using the product.

Thinking outside the box is key in this regard, as we must try to cover as many of these scenarios as we can to ensure a functional interface and user-friendly experience. As it is right now, we are still in the design and development phase, as

such we do not yet have a physical product to conduct these tests. It is an important part of the process, nonetheless, that we account for these bugs in the development cycle.

On the other hand, it is very notable for us to report about the variety of issues we have managed to encounter while developing our website in this project. Various problems with how the visuals of the page would look, such as the borders and certain text boxes being all wrong, aligned incorrectly. Alongside certain images being either too big or too small. Not to mention the problem of certain texts not being centered at the correct spot.

- Risks

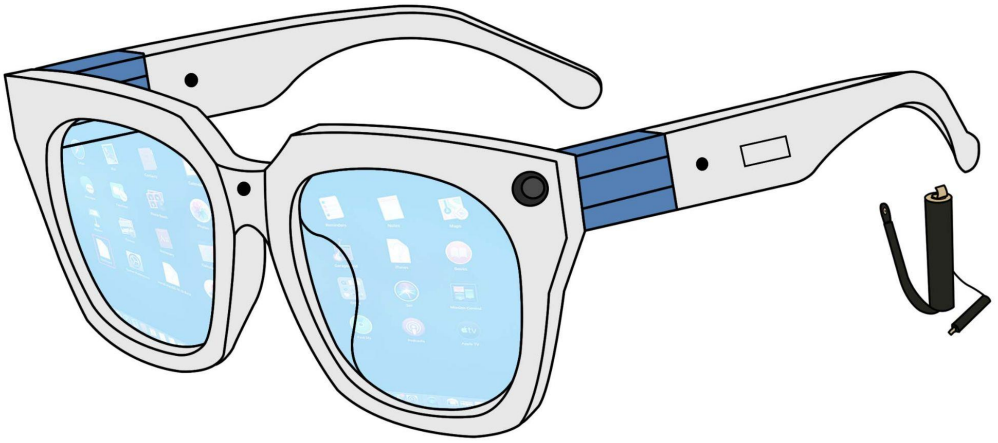
While we are building this project, significant challenges come up. Let's start by discussing the little amount of time we have to design and complete the prototype in order to complete other tests and assignments, present the assignment, and meet the deadline. Then, when we create the web UI and prototype, several issues with the modules' appearance and the interface we come up with—which is not specific to the glasses themselves—arise. Additionally, there are many things we didn't learn about while planning and creating the website and prototype for this project, and there are also certain elements that may have been improved if we had given them more thought.

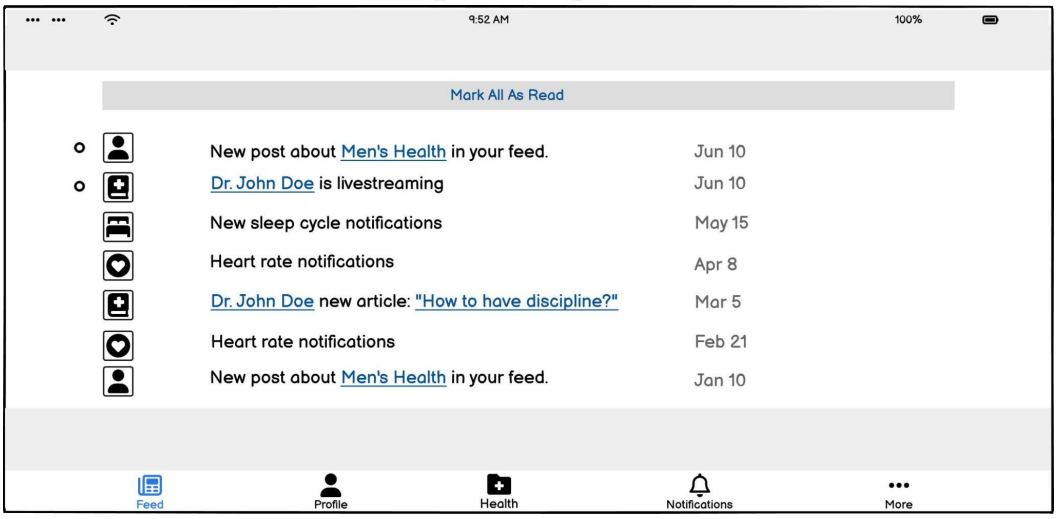
- Group progresses and communications

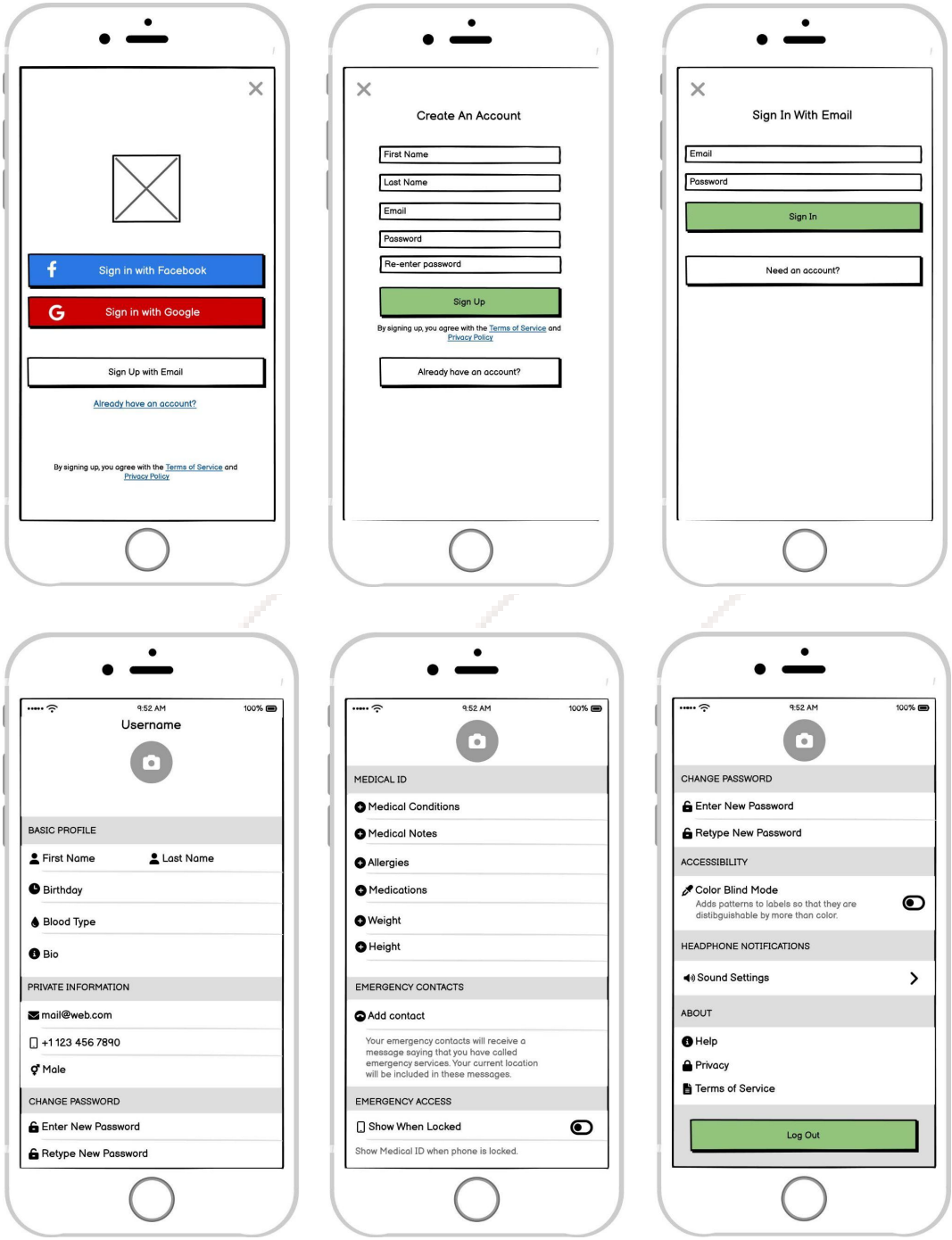
We established a messenger group and exchanged emails to improve communication with one another outside of the classroom. In order to share new concepts and designs, we also organized weekly online and physical meetups. Our members typically won't have much spare time after class for offline meetings, so we pick up a few hours here and there and schedule brief sessions at the school cafeteria or classrooms.

GitHub is adequate for use and setting up an online discussion for online meetings. Since not all of our group members are yet familiar and at ease using this platform, we decided to use Messenger as our primary method of communication. This decision was also made because, as previously mentioned, many of our members work outside of school and won't have as much free time as the other group, so all of the conversations will be recorded online and can be easily reviewed. This is also how we'll keep tabs on everyone's progress and make sure they're all working according to schedule.

Project Outcomes/Product Prototype



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Already have an account?
By signing up, you agree with the Terms of Service and Privacy Policy
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MEDICAL ID
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EMERGENCY CONTACTS
Add contact
Your emergency contacts will receive a message saying that you have called emergency services. Your current location will be included in these messages.
EMERGENCY ACCESS
Show When Locked
Show Medical ID when phone is locked.
CHANGE PASSWORD
Enter New Password
Retype New Password
ACCESSIBILITY
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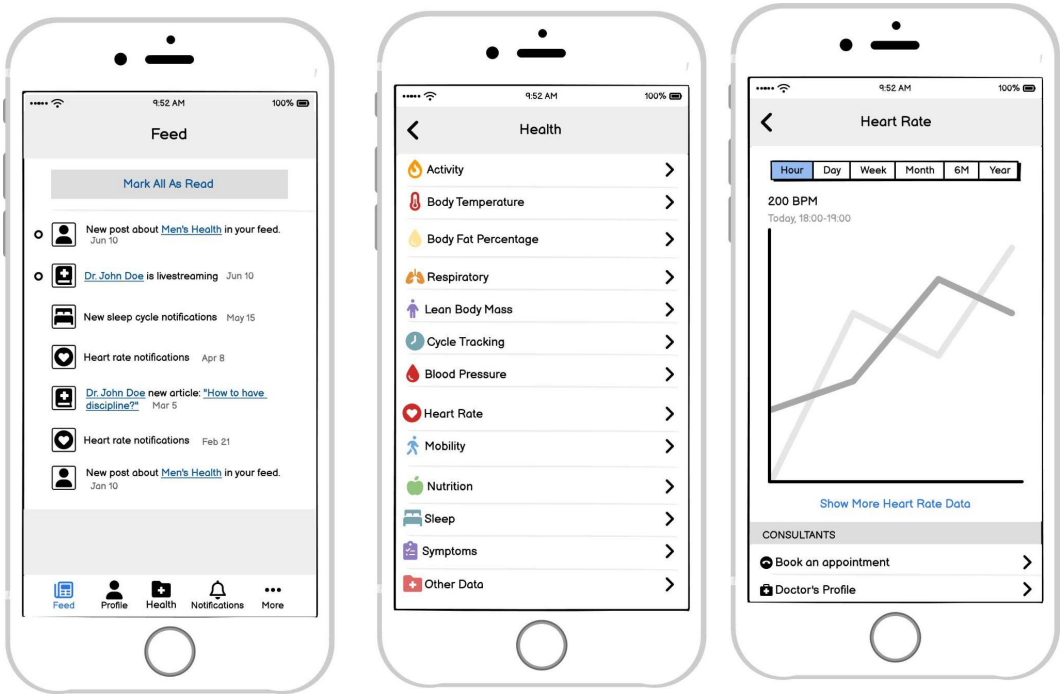
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Dr. John Doe is livestreaming Jun 10
New sleep cycle notifications May 15
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Dr. John Doe new article: "How to have discipline?" Mar 5
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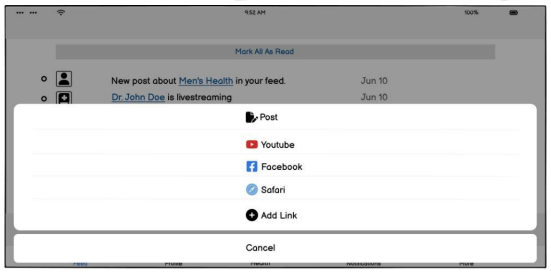
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Dr. John Doe is livestreaming Jun 10
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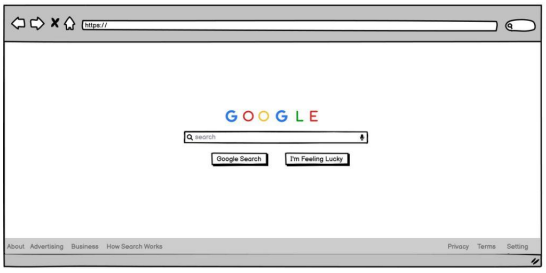
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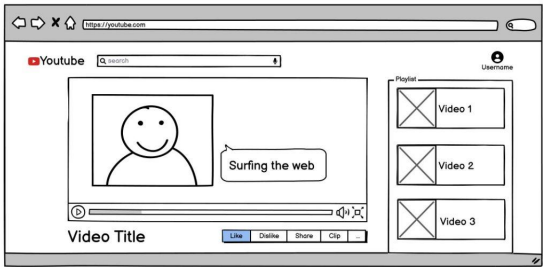
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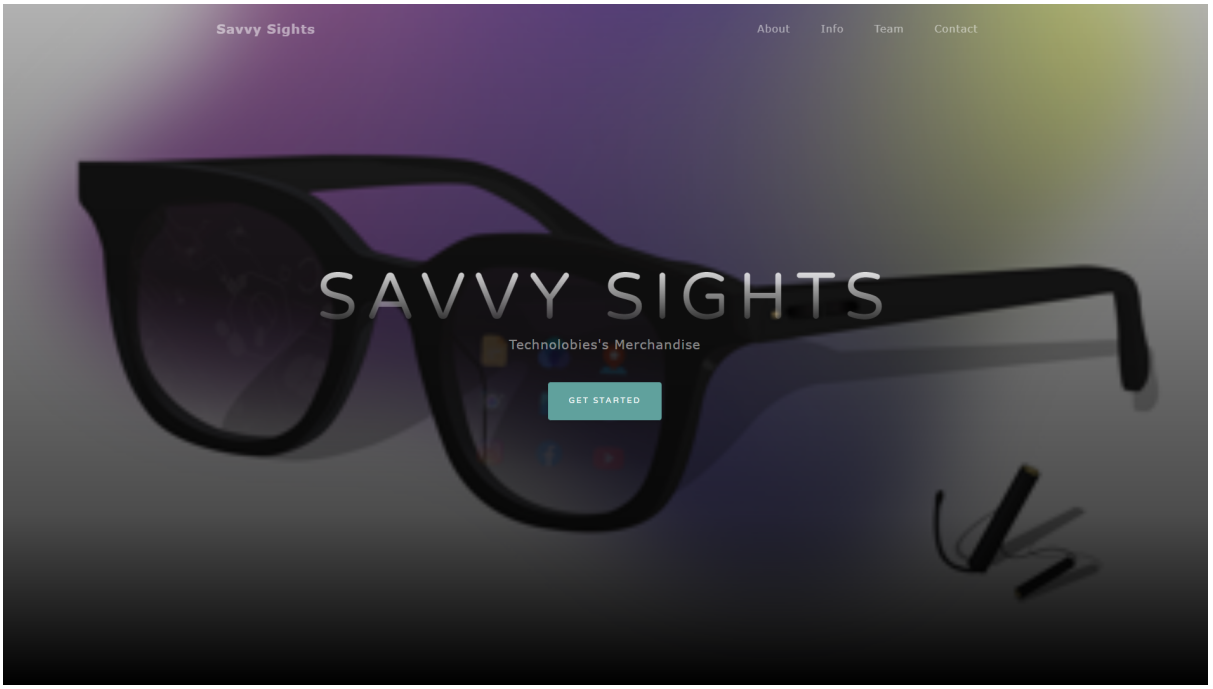
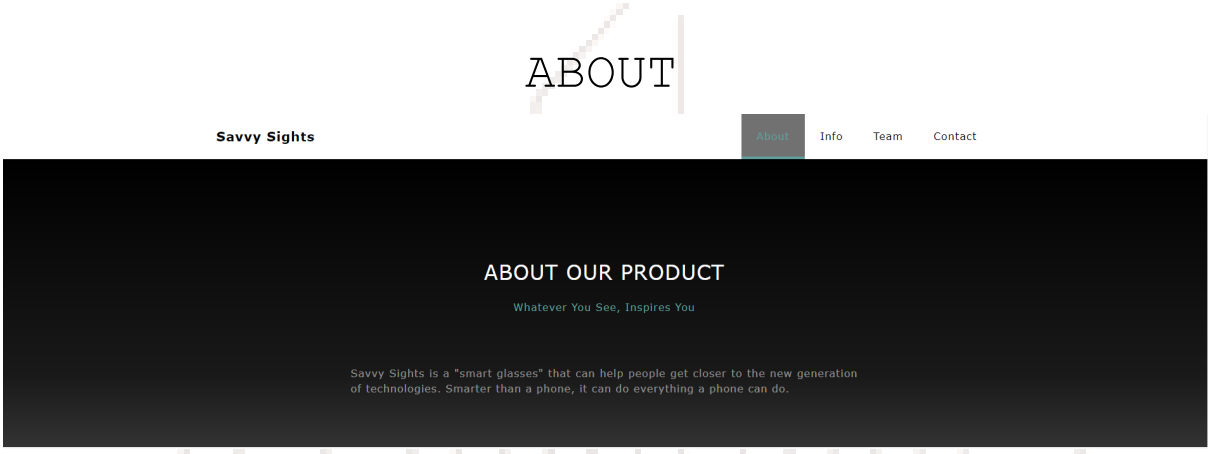
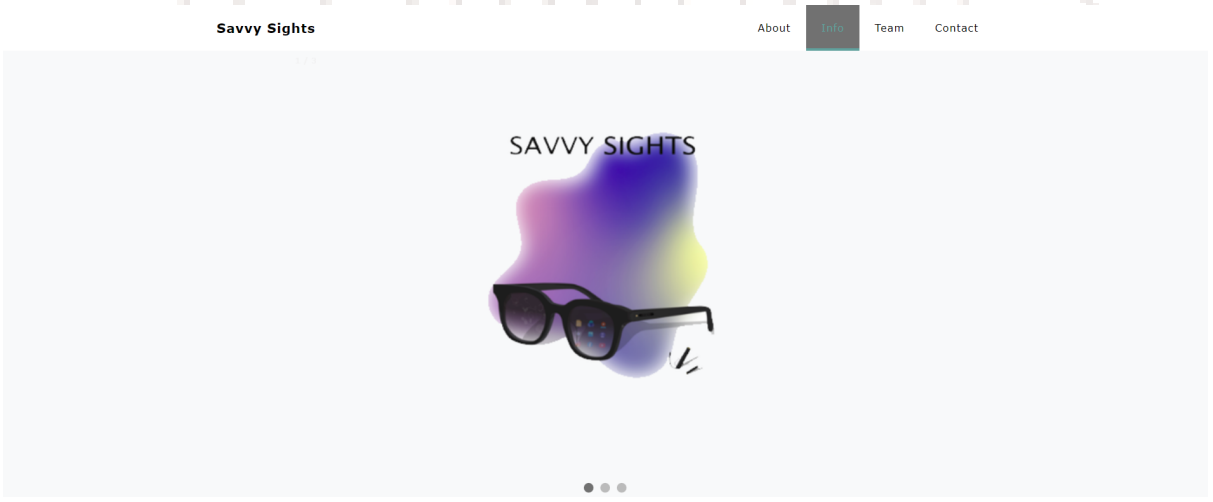
Product Website







Savvy Sights

About Info Team Contact

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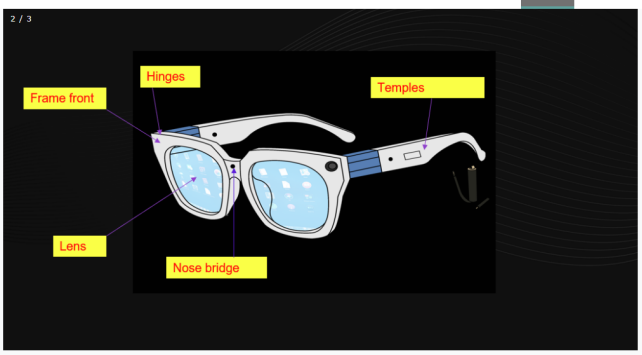

Savvy Sights

About Info Team Contact

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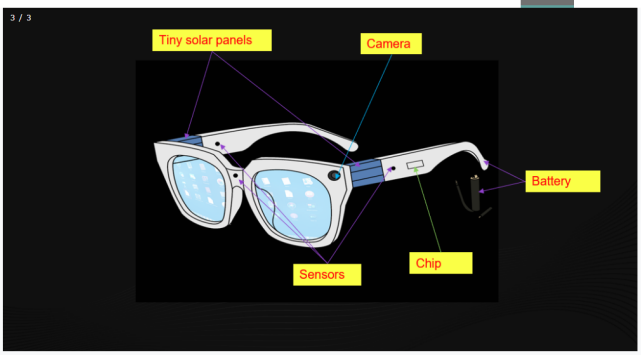


TEAM

Savvy Sights

About Info Team Contact

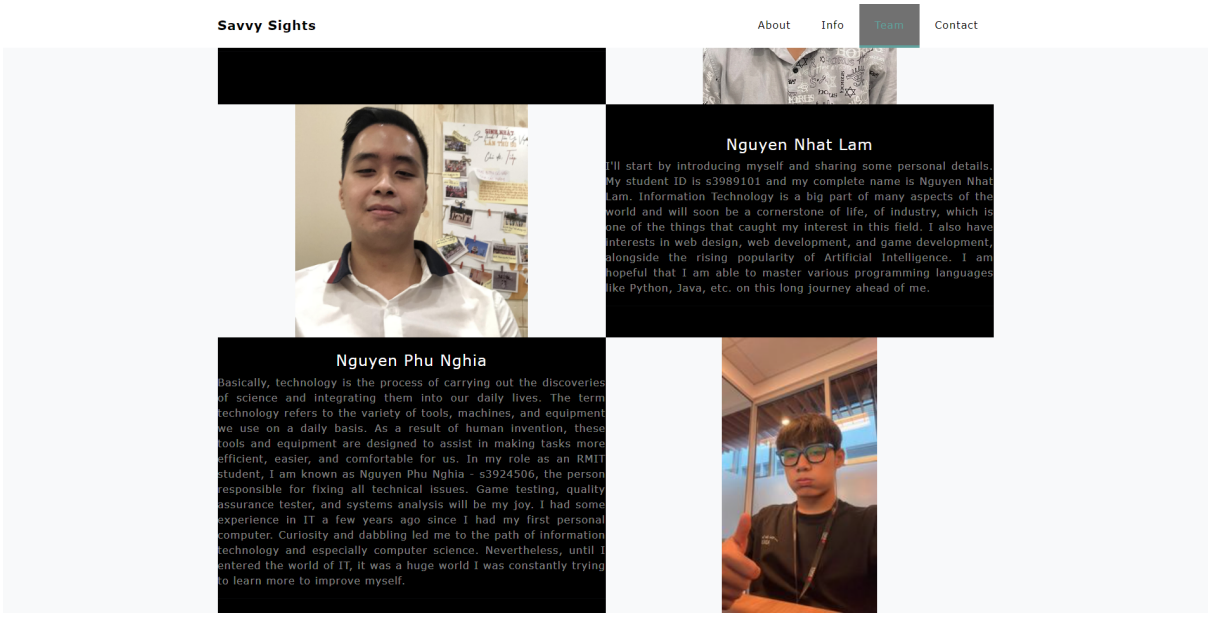
CREATORS

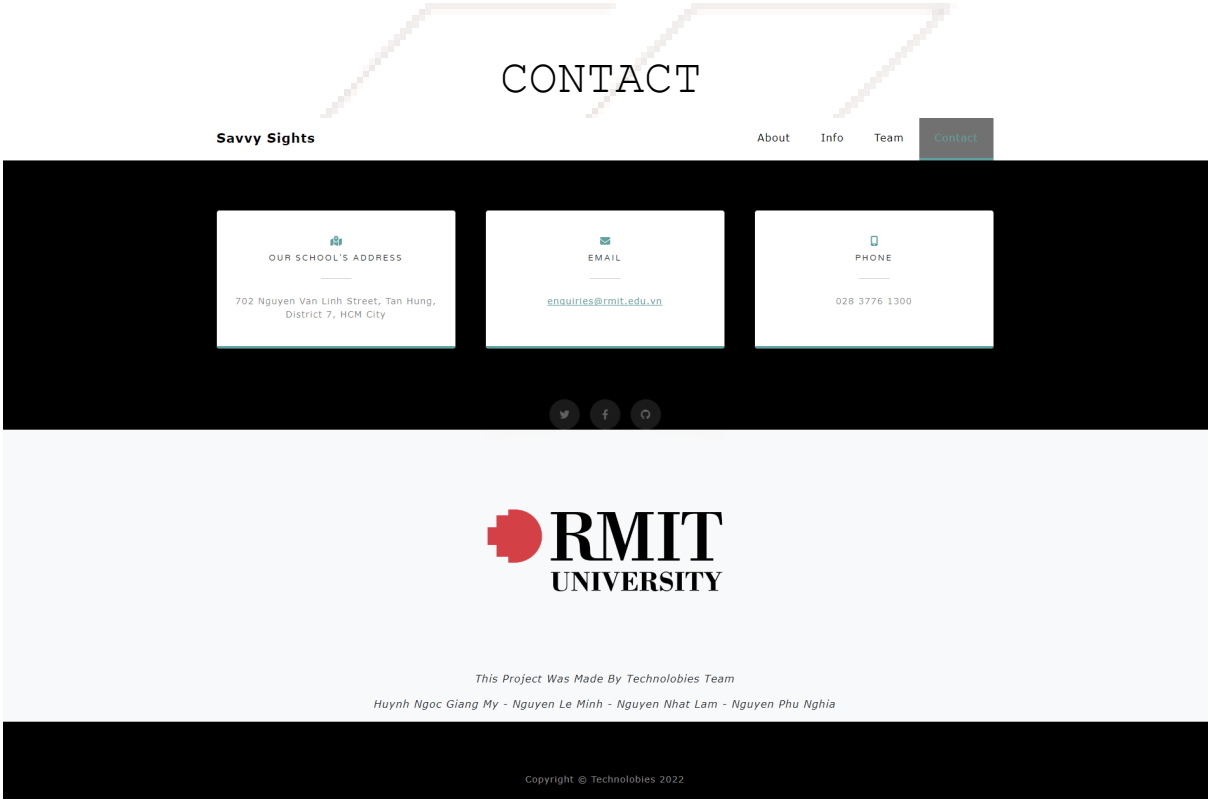
Huynh Ngoc Giang My

As a first-year student with ID s3978986 at the RMIT Saigon South campus, technology has caught my attention because of its potential to create artificial intelligence (AI) and smart products that will benefit many people in their daily lives, such as in the medical or scientific fields. My talent lies in learning new languages and various ways to communicate with people in general. Learning to communicate with computers gives me different ways to learn a language than before. I have experience handling issues in Python, Java, and a little HTML and CSS, but I'm eager to learn and master other languages in order to fulfill my aim of creating the best VR game ever created.

Nguyen Le Minh

As a Ho Chi Minh City native, my name is Minh and my student ID is s390284. After graduating from Nguyen Cong Tru high school, I am entering my first year at this university. My parents partly recommended this school to me, and I partly enjoy computers and technology. Manga books and Anime are my hoobies, i really enjoyed them. The ability of computers to communicate with people and perform tasks that people are not capable of making me a great candidate for becoming an AI engineer in the future, and I trope to be able to create a useful product related to AI that will help people in the long run.





Skills and Jobs

There are several important jobs to consider for this project. Most notable are the project manager, front-end and back-end developers (which can be divided into software and web developers), quality assurance testers, and business analyst. The project manager is pretty obvious, they are the ones to oversee the project to make sure everything is in order and progressing as planned while managing the budget,

the schedules, and so on. The business analyst is a surprisingly important position, they might not seem as essential as the technical developers at first glance, but this position is crucial for any project to function and succeed.

While technical developers are extremely skilled at what they do, if they are not able to develop a product according to customers' or market's demand, then what they are developing may result in a failure, or result in a product that does not cater to the specifics of those in need. The business analyst in this case will help keep things on track and propose suitable solutions accordingly. They will have to have great communication skills between customers and developers in order to bridge the gap between the two and communicate effectively. They may also have organization skills (like that of organizational methods like Agile, Kanban, etc.) that can be crucial to the project's success.

The front-end and back-end developers will collaborate with one another in the development of the hardware required to construct the product as well as the software that will eventually go into this device. Developing the interface used to integrate them seamlessly with the VR/AR technology is also crucial. For this, they will have to collaborate with the business analyst to get a clear idea on what a smooth and user-friendly interface would look like, catering to their needs. Ease of use and accessibility will be considered for all kinds of user experiences, on top of being able to produce a marketable product that is appealing to the general audience as well.

And last but not least we also have the QA testers whose job is crucial in helping the project keep up to standard. It is important while developing to have experts in this field who are able to cover blindspots for the developers, spotting bugs and potential inadequacy in how the product is used, as in, being able to see if the user experience is optimized while also giving quality suggestions and improvements.

Group Reflection

Huynh Ngoc Giang My:

I have learned a lot about teamwork and experience while working on this project, particularly in terms of how to write an appropriate report and create a website. Through this project, we learned some important lessons regarding the differences between high school and university learning styles and how we may change to get better grades. My primary responsibility during the project was to steer the group in the appropriate direction, supervise everyone's work, and write reports

and make adjustments as necessary. The majority of the suggestions came from the other team members, who did a fantastic job of coming up with original suggestions and according to directions to complete their tasks. Being that it was our first year immersed in a different community that is more connected to the real world and gives us more freedom to experience life and socialize with many different people from all over the place, I did not think that I gave the project my all because I had many other things to do (club events, family issues). Many of our members are also in the same situation.

Nguyen Le Minh:

This is the best project I have ever made because VR/AR has much potential in the future in the form of wearable gadgets. Turning regular devices like glasses into smart ones makes them more attractive. Although the technology for making smart glasses is still rudimentary and incomplete, there will still be more improvements in the following years. Overall, implementing technology into items aims to give users unforgettable experiences and enhance life quality. Regarding the group's progress and presentation, we still lack communication and consistent goals to keep up the progress. This project could be better if everyone in our group had expressed their ideas more frequently. I still expect to finish our report before the deadline, even before a week, but we have to spend more days than we set due to our circumstances. Overall, I saw that we all did well, but I expect to be more than that.

Nguyen Nhat Lam:

I do think that our group did a good job with the given task at hand. Despite not being able to consistently meet face-to-face due to our differing schedules and circumstances, we were still able to communicate relatively effectively through online means. There were of course difficulties still with our organizational skills, and there is always room for improvement. I think if we were to be able to do another project like this again, it would be good to have a more specified timetable with more specific dates and goals, and perhaps even projected deadlines. Sometimes a project may change halfway through, so the deadlines might not be able to be extremely rigid, but it is still something good to strive toward. Despite all this, I do think we still managed some very consistent progress as the weeks went by. Discussions and exchanges of ideas were frequent, and everybody was always open-minded to any new changes to the project that needed to happen. This has overall been a good experience as I have had the opportunity to get familiar with several new development and design tools and skills I was not too familiar with beforehand. Things like Figma, Photoshop, Balsamiq, Github, and so on. And of course, it was important for me, too, to get familiar with not just design tools but also technical tools used to develop and program our smart glasses product. Getting to know more about HTML, CSS for app development and as well as Python, Java made things very eye-opening.

Nguyen Phu Nghia:

The project's effects on my future were really fascinating. Your chances of obtaining a graduate-level position enhance if you have relevant experience. I show that I have the requisite skills and that I am interested in the area in which we work by actively seeking out experience. By volunteering and earning experience at different organizations and in various roles, I may investigate and test options to see if a job is right for me. When I come to apply for graduate positions, I will find it simpler to concentrate on what I am looking for as a result. This project has an impact on a brief work placement that the institution arranges and that is also a part of a course of study, may concentrate on a certain job, like building the business a website. In particular, if I'm enrolled in a course where placements are optional, gaining experience through placements will provide me with a multitude of examples and experiences to discuss with potential employers during interviews. Employers will see from this that I care deeply about my work and have already gone above and beyond to participate and be a step ahead of the competition. By the way, I had Sinusitis in my nose, and I can not attend the presentation day. That's was a huge omission of mine

Reflection as a group

Overall, our group has managed to progress to a strong start on this project, and despite not having a physical product in hand yet, the planning and design stages have produced a lot of usable information that we would be able to use to continue developing our product. Each of the team members was able to communicate adequately and was reliable enough to handle the work assigned. We have managed to learn many things throughout this journey, from tiny adjustments we could make in designing the product, or coming up with new ideas, to larger and more important things like the research process, the design and development, and as well as our communication skills during the presentation process. Learning to pitch an idea or product effectively is a big part of all our paths to success. No matter how technical the project may be, if we are not able to adequately explain them to a potential layman, then it means we have yet to truly understand the full minutia and technical aspects of the product.

Of course, the technical aspects of the product are something that should not be underestimated. For it is crucial that we master this foundational knowledge in order to properly develop what we hope to achieve. Just like in all other parts of our development process, there are a lot of tiny details and adjustments to look out for during the coding process. Some of which could actually be very tricky to spot and be potentially detrimental to the pace of the project, unnecessarily delaying our schedule.

There is, of course, still room for improvement, one notable aspect of which was time management. Despite the fact that we were able to communicate relatively frequently, the pacing could still be improved if we had established a much more specific timeline of things that needed to be done, with specific dates being mapped out more regularly. We will also have to improve our approach as far as the number of face-to-face meetings we were able to make, which was not as many as we had hoped given our conflicting schedules and timetables. This aspect of communication is crucial for good team chemistry and productivity because while online devices provide immense value in communication, there are still certain limitations that make things not as optimized as they could be. So therefore it is important for us to have a combination of the two approaches to maximize our effectiveness in communicating.

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