



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING
SEMESTER 1 2023/2024

SECP1513 – TECHNOLOGY & INFORMATION SYSTEM

SECTION 2

DESIGN THINKING REPORT

LECTURER: DR. ARYATI BINTI BAKRI

GROUP 6 (SOCIAL MEDIA)

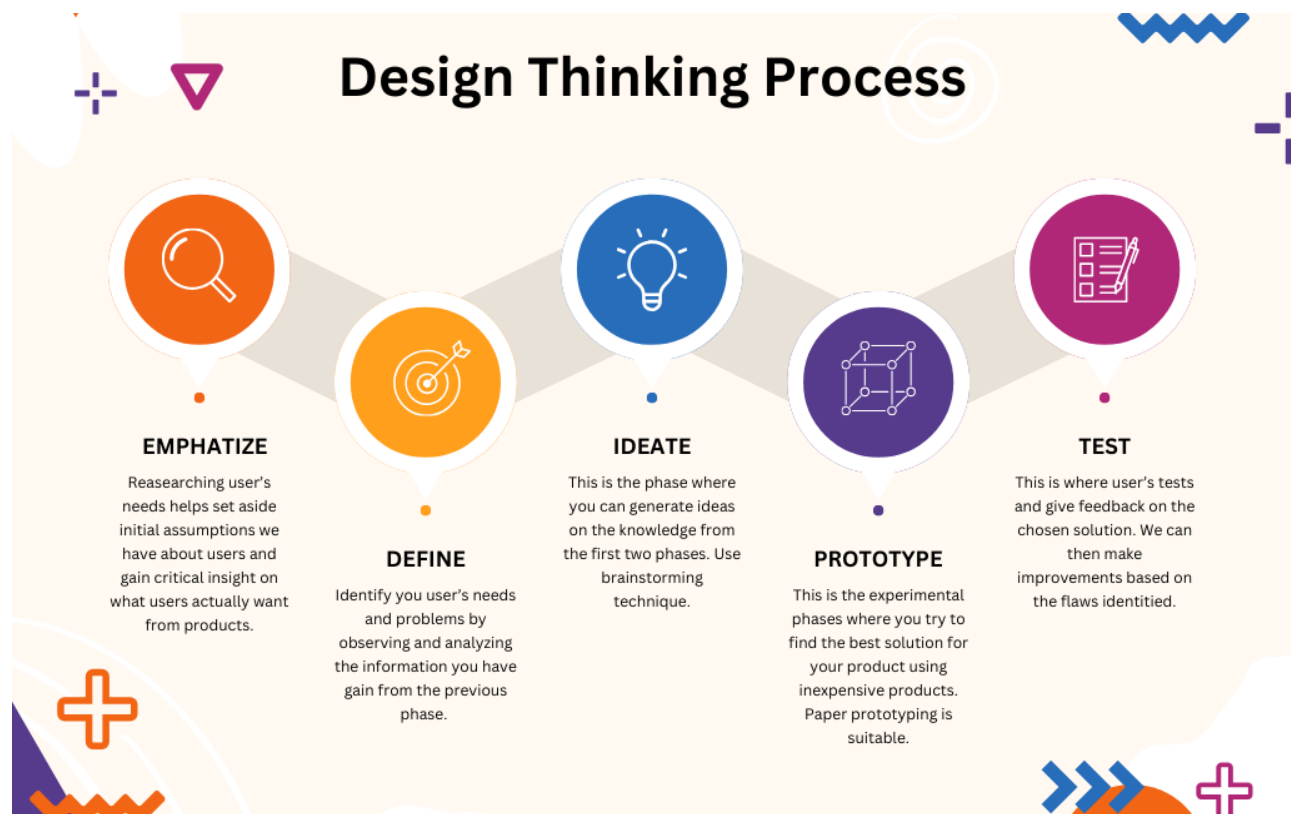
NAME OF STUDENTS	MATRIC NO.
TAN YI YA	A23CS0187
CHUA JIA LIN	A23CS0069
TEH RU QIAN	A23CS0191
GOE JIE YING	A23CS0224
NAJMA SHAKIRAH BINTI SHAHRULZAMAN	A23CS0140

Table of Contents

1.0 INTRODUCTION.....	3
2.0 TIMELINE.....	4
3.0 DETAILED DESCRIPTION.....	5
3.1 EMPATHIZE.....	5
3.2 DEFINE.....	5
3.3 IDEATE.....	6
3.4 PROTOTYPE.....	7
3.5 TEST	8
4.0 PROBLEMS AND SOLUTION.....	12
5.0 ASSESSMENT	13
6.0 REFLECTION.....	14
7.0 THE TASK FOR EACH MEMBER	16
8.0 REFERENCES	17

1.0 INTRODUCTION

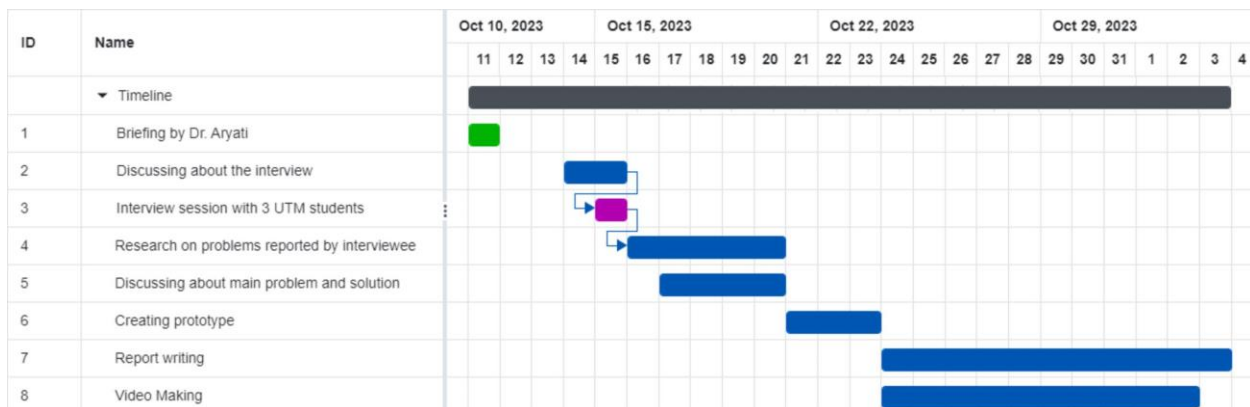
Design thinking is a design method that uses a human-centered approach to problem-solving with the intention of making a product that fits the user's needs. It is important to understand the rapid changes in the user's environment and behavior to make the perfect product or solution for them. There are five phases of design thinking which are Empathy, Define, Ideate, Prototype, and Test.



Social media is a place where people can share information and interact with each other online. As social media usage is on the rise, there are many who choose to take advantage of those who are not so well-adapted in the ways of social media. We have interviewed some students and have concluded that scammers are one of the common problems that users come across when using social media. After going through the design thinking process, we have produced a mobile phone extension called SAFETYLAA that alerts users when encountering a potential fraud.

2.0 TIMELINE

11/10/2023	Briefing by Dr. Aryati about the design thinking assignment
14/10/2023	Discussing about the interview matter
15/10/2023	Interview session with 3 UTM students
16/10/2023	Research on problems reported by interviewee
18/10/2023	Discussing about main problem and solution
21/10/2023	Create prototype
24/10/2023	Report writing - Introduction
25/10/2023	Report writing – Detailed description (Empathize, Define, Ideate, Prototype)
26/10/2023	Report writing – Detailed description (Testing), Problems
27/10/2023	Report writing – Assessment, Reflection, The task for each member, References
30/10/2023	Video making
1/11/2023	Video and report checking by Dr. Aryati
3/11/2023	Report finalize



3.0 DETAILED DESCRIPTION

There are 5 phases in design thinking which are empathize, define, ideate, prototype and test.

3.1 EMPATHIZE

In this stage, we try to use the interview method to tackle the user's problems while they are using social media such as WhatsApp and Telegram. During the interview session, we had 3 UTM students as our interviewees who are Syarifah Dania binti Syed Abu Bakar, Yasmin Batrisyia binti Zahiruddin and Asilah binti Mohd Razak. After the interview session finished, we obtained the problems they faced while they were using social media platforms.

Example questions during interview session:
1. What is your name?
2. How old are you?
3. Which faculty are you from?
4. In your opinion, what is the biggest problem regarding social media?

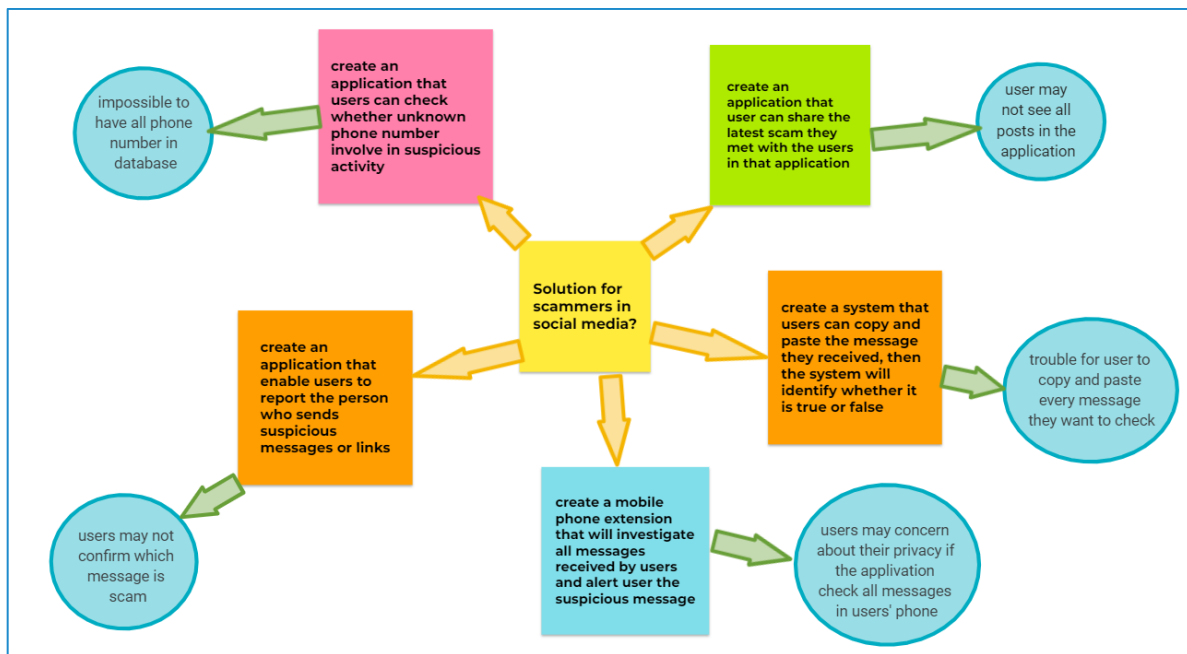
3.2 DEFINE

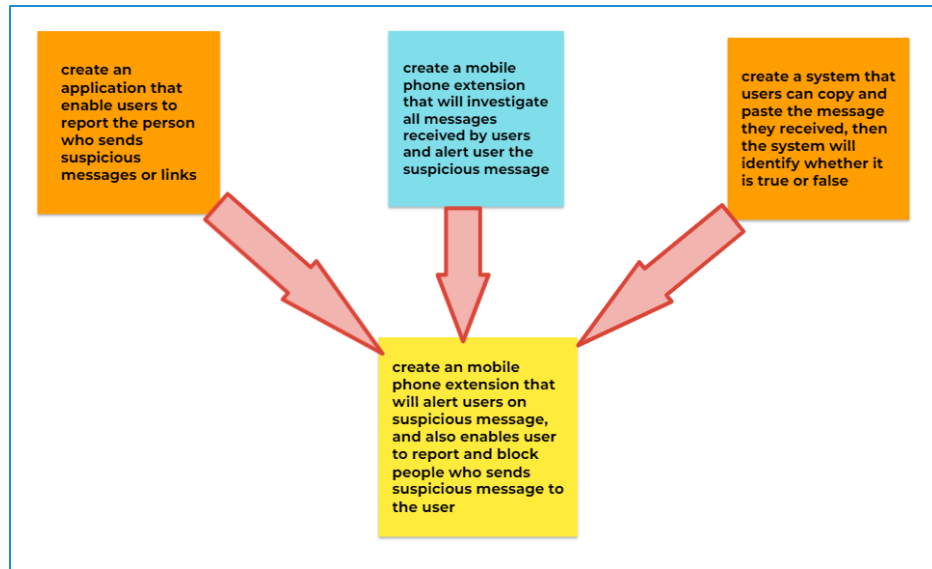
The issues reported by the interviewees were scammers, excessive advertising and cyberbullying. Then, we did some additional investigation and discovered that scammers on social media are currently the biggest issue. 26% of all recorded fraud losses in 2021 were due to social media.^[1] Therefore, we decided to make scammers as our main issue.

Scammers are people who commit fraud to others. For example, a scammer messages a person that he or she had won a prize through a lottery and then asks him or her to pay an upfront payment for fees and taxes.^[2] That's how people got scammed.

3.3 IDEATE

After we decided our main problem, which is scam, we conducted a discussion using Jam board to figure out a solution to solve this problem. Finally, we plan to create an extension which will alert users about which message was suspected of fraud. Besides, users can also report and ban a person who sends suspicious message that involves scams to them.





3.4 PROTOTYPE

After discussion, we created a mobile phone extension called SAFETYLA. The steps using our extension are listed below:

Switch on to safety mode. (Figure 3.4.1) After that, our system will always be active to detect scammers and alert users when scammers are present. For example, in the conversation shown in Figure 3.4.2, a pop-up message appears.

Also, users may just click on the profile of the person who sends suspicious links, to report and block them. After we receive the report, our system will investigate the person. During the investigation, the person won't be able to access any other social media accounts. If our system found that the person is scammer, the number will be blacklisted to chat with users. This action can prevent users from falling into traps.

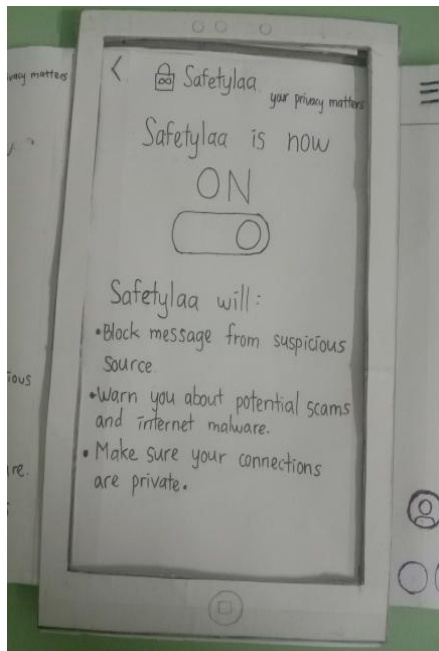


Figure 3.4.1

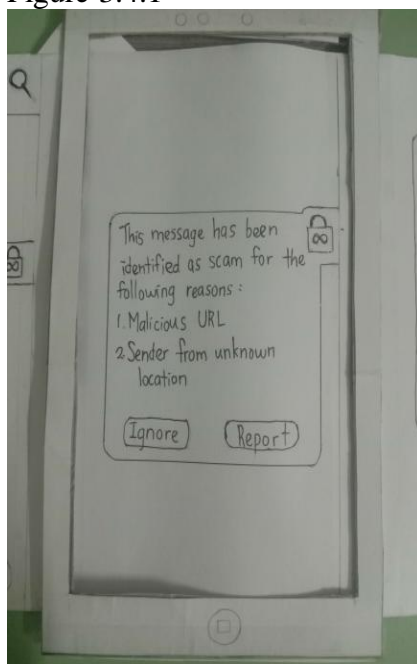


Figure 3.4.2

3.5 TEST

After we created this mobile phone extension, we did some testing by implementing it in our mobile phone. Then, we test the extension for several situations. At the end of the testing, we found that the extension works very well. It can detect fraud messages accurately and report it to the user. (Table 1)

Page	Description
<div data-bbox="224 525 685 1144" data-label="Image"> </div> <p data-bbox="203 1165 289 1197">Page 1</p>	<p data-bbox="824 525 1149 556">The phone's home screen</p>
<div data-bbox="224 1201 685 1820" data-label="Image"> </div> <p data-bbox="203 1848 289 1879">Page 2</p>	<p data-bbox="824 1201 1421 1270">Turn on SAFETYLAAs before using the social media</p>



Once SAFETYLAA is turned on, it will assist you in identifying fraudulent links and scammers to keep you from falling victim to their tricks.

Page 3



Here is an example of a suspicious source.

Page 4

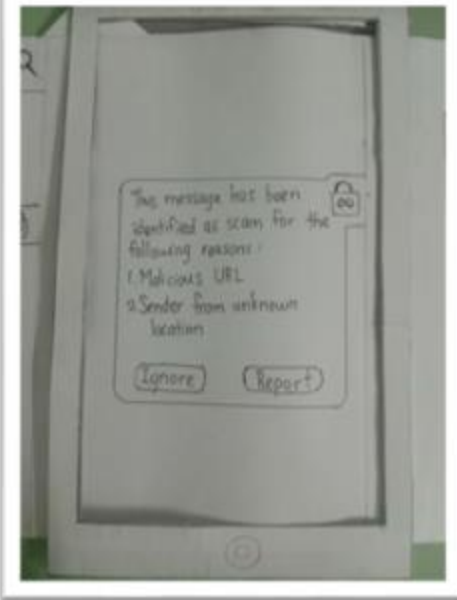

 <p>Page 5</p>	<p>Following that, SAFETYLAA will identify the link and display a pop-up window. You may decide to report to that user at the moment.</p>
 <p>Page 6</p>	<p>Presenting the user's current reporting to SAFETYLAA. After that, SAFETYLAA will take the actions required to prevent the message from being sent.</p>

Table 1

4.0 PROBLEMS AND SOLUTION

Detailed Description (Problem, Solution and Team Working)

The biggest problem that we collected from interviewees is scammers on social media. Nowadays, scammers are increasingly using social media to take advantage of people. This is because social media is the most profitable method for them to target people. For example, the con begins when a con artist contacts you, frequently through a direct social media message. They will initially try to build a connection by directly sharing details of a "great investment opportunity" that enabled them to make so much money in a short time. Then, they offered investment websites with a professional appearance but lacking in information to lure and guide you to complete your transaction. In this situation, many users fall into traps and lose their money.

As a result, our group starts to brainstorm ideas to find a solution. Fortunately, we have a solution to this issue, which is to develop an extension in mobile phones. Our team is going to collaborate with social media, especially Facebook, Telegram, Tik Tok, and more, to enable universal access to the extension. Through artificial intelligence, this extension is used to identify and avoid scams. As an example, it will check every single hyperlink that was sent in a message as quickly as

possible. If it is determined to be a scammer, a pop-up warning will appear and advise users not to click it.

In addition, users can use the extension's user reporting system to suspect and report a person who always bothers them. To confirm that the phone number is secure, they can also check it in this system. The system will determine the authenticity of the phone number and, if the person who sent it is a fraudster, it will block him.

5.0 ASSESSMENT

The teamwork and efficiency in our group is visible. After Dr. Aryati assigned us the assignment on October 11th, we started to find team members to make our group. After that, we had an online meeting to discuss our respective tasks. Each team member works hard on their own tasks. We enlisted the help of multiple auxiliary applications to carry out research. For example, we used Google Docs and Microsoft 365 (Microsoft Word) to ensure that each team member can include their part in the report. Besides, our interviews received good responses from users. After conducting interviews, we prepared innovative approaches to address a range of issues that many users may face. Judging from the results of the interview, scams on social media have become a major problem faced by many people. Therefore, after discussion via Jam board, our team members came up with a solution, which is creating a mobile phone extension to solve the scams problem. Finally, our team finalized a plan to resolve scamming issues after multiple discussions. With reasonable task allocation and teamwork, we completed this assignment faster than expected time which is on 15th of November.

6.0 REFLECTION

Tan Yi Ya

The goal that I would like to achieve at the end of the day is to acquire the skill of flexibility in terms of thinking and problem-solving abilities. Design thinking promotes our creativity and allows us access to different viewing perspectives of a problem from people with different backgrounds. I shall continue to learn, polish and grow from my own flaws to achieve my dream.

Chua Jia Lin

My goal regarding this course is to know more about current technologies and their history. This project inspired me to learn more about the application of current technologies in our daily lives. To improve my potential in the industry, I have to do more research to learn more about technologies on websites.

Teh Ru Qian

According to my understanding, design thinking is an iterative process in which we try to find and solve problems in different ways. In my opinion, this project introduced me to the importance of

identifying a problem and coming up with many creative and innovative solutions. I'll surely apply what I learn about design thinking to problem-solving in my everyday life.

Goe Jie Ying

By studying this program, my goal is to gain stronger problem-solving skills, technical foundation and analytical skills. Design thinking encourages me to be innovative, adaptable, and open to feedback which is important to achieving my goals. I'll always develop my soft skills such as communication and problem-solving to improve my potential in industry.

Najma Shakirah Binti Shahrulzaman

My goal is to have a strong understanding and mastery of everything taught in this course and gain self-learning skills to catch up with the newest and relevant technologies. Design thinking plays a crucial part in problem-solving as it is important to fully understand the problem and resolve all assumptions regarding the problem to find the most effective solution. I will do my best to ensure that my capabilities and knowledge are up to par with what the industry needs.

7.0 THE TASK FOR EACH MEMBER

Tan Yi Ya

- Videographer/editor
- Prototype
- Brainstormer
- Photographer

Chua Jia Lin

- Design thinking process
- Brainstormer
- Report finalizer

Teh Ru Qian

- Problem & Solution
- Brainstormer
- Photographer
- Prototype

Goe Jie Ying

- Assessment
- Brainstormer
- Interviewer

Najma Shakirah Binti Shahrulzaman

- Introduction
- Presentation
- Brainstormer

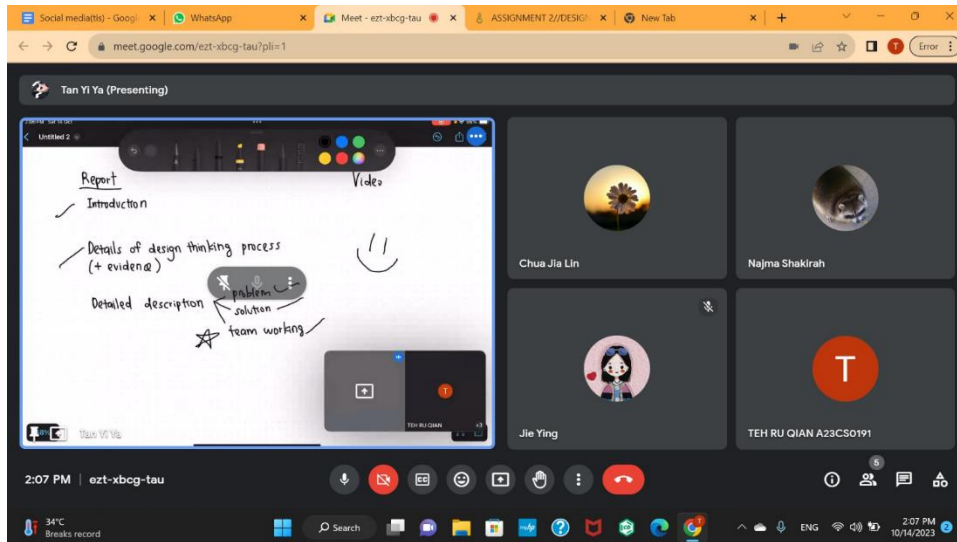
8.0 REFERENCES

1. Research, M. (2023b, October 2). Top Social Media Scams | How to protect your business. *Bolster AI*. <https://bolster.ai/blog/social-media-scams#:~:text=Social%20media%20scams%20are%20rampant,these%20scams%20are%20to%20detect.>
2. *What are some common types of scams?* / *Consumer Financial Protection Bureau*. (2023, August 28). *Consumer Financial Protection Bureau*. <https://www.consumerfinance.gov/ask-cfpb/what-are-some-common-types-of-scams-en-2092/>
3. *Interaction Design Foundation - IxDF*. (2016, May 25). What is Design Thinking?. <https://www.interaction-design.org/literature/topics/design-thinking>

Appendix

14/10/2023 - Meeting to allocate task





Discussion via Jam Board

Solution (about scams on social media)

- app to check suspicious activity
- app to report suspicious activity
- extension to investigate msg
- define whether the msg is true / false
- auto check the message received

Final Decision

create an mobile extension that alert user on suspicious message and enable them to block and report the people that sent it to them