UTM UNIVERSITI TEKNOLOGI MALAYSIA

SCHOOL OF COMPUTING
Faculty of Engineering

(Technology and Information System)

Design thinking and Industrial report

Group III

(Chapter X- Information System)

LECTURER'S NAME:

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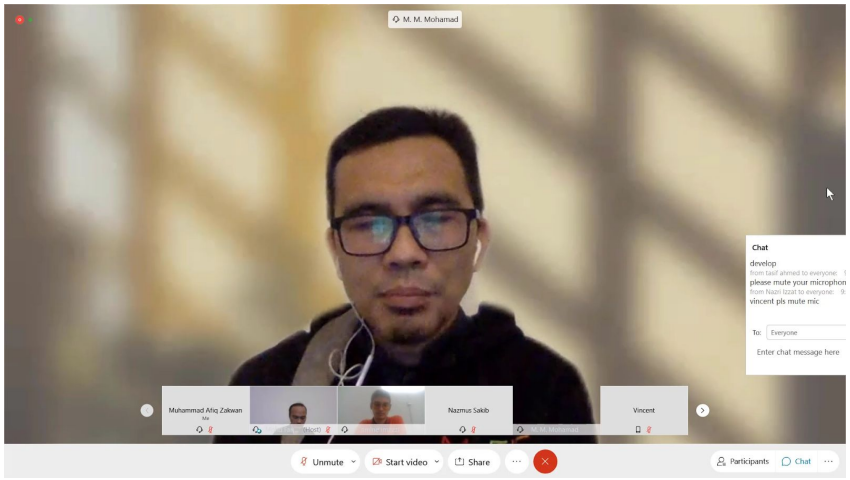
In our first week of class,the lecturer taught us about the design thinking method and to make a brainstorm in jamboard.Design thinking is a brand new design methodology that provides a solution-based approach to solving the problem.The lecturer told us to create a group of 5 people and make our own design thinking,from our available topics in class.Our group choose topic 10 about information system as our design thinking topic,because its very in interesting topic to talk about during this pandemic.

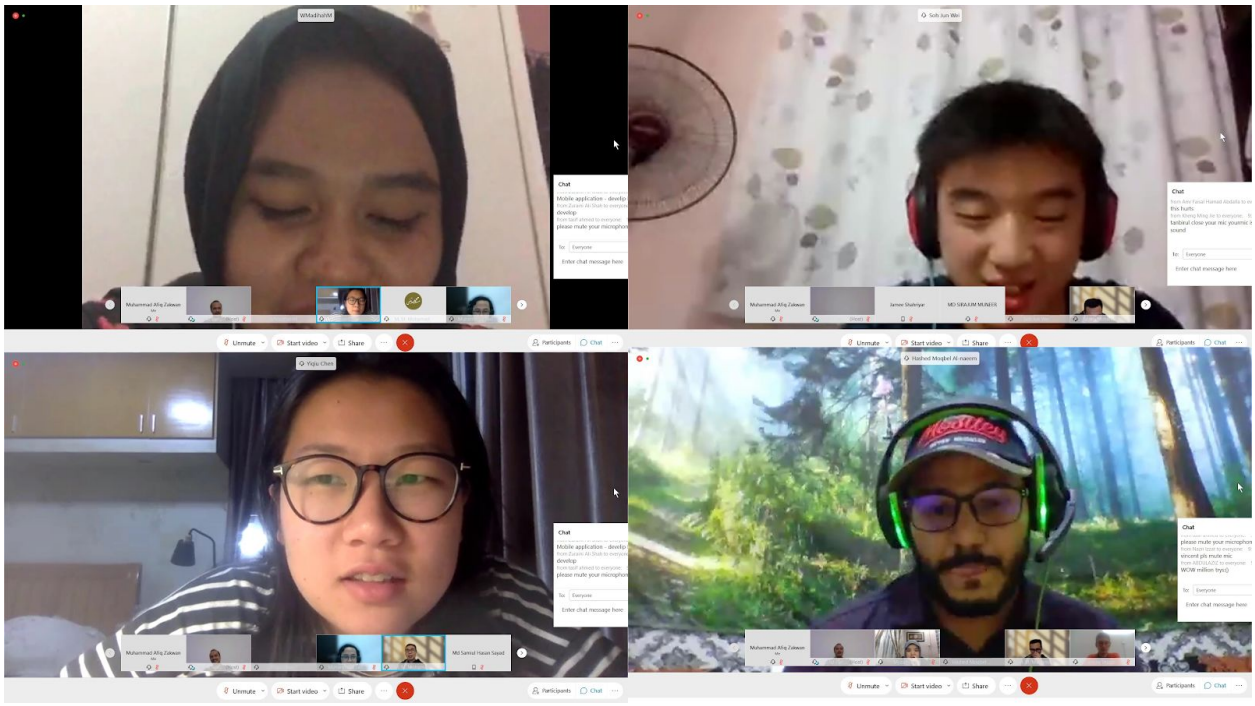
There are many variants of the design thinking process in today's world,and they have from three to seven phases, stages, or modes. However, all variants of Design Thinking are very similar.All variants of Design Thinking embody the same principles, which were first described by Nobel Prize laureate Herbert Simon in The Sciences of the Artificial in 1969. Here, we will focus on the five-phase model proposed by the Hasso-Plattner Institute of Design at Stanford, which is also known as d.school. We've chosen d.school's approach because they're at the forefront of applying and teaching Design Thinking. The five phases of Design Thinking, according to d.school, are empathize,define the problem,ideate,prototype and test.

The first step we have in design thinking is to empathize with other people.That's mean we need to conduct an interview with an expert or the people with problems that we need to solve.Thankfully our lecturer had gave us an appointment to meet with someone who's expert in our topic.On september 3rd we met our expert,their names are Mr Mohd Farid & PM Dr Murtadha.They've been working for 5 years in information system for UTM.We asked Mr Mohd farid & PM Dr Murthadha,if they have met some problem when they doing their job and how did they come up with a solution to their problems.The interview take us about 2-3 hours to finished and after,we've done asking all the questions,We collected the question and answer so that we can find the solutions to the question.



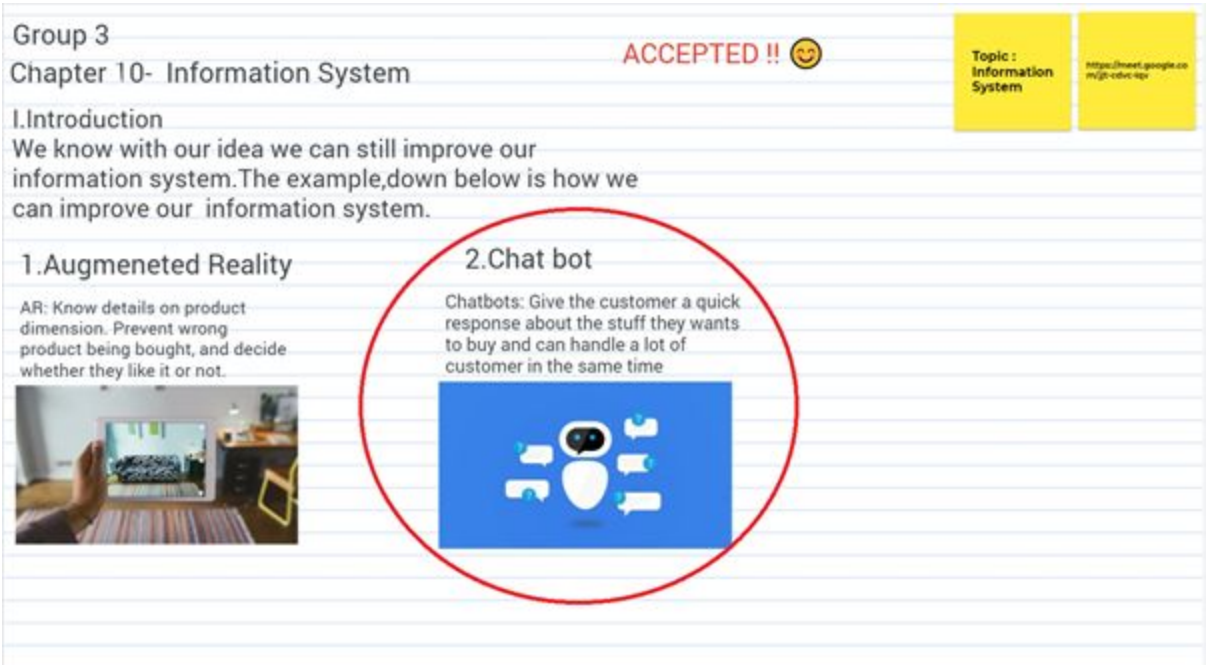
(Image 1.Empathize)

During the interview session, we noticed that most of the questions were about e-learning, UTMSmart and matric cards. Some of the questions are even closely related, but the experts still have to answer their question even though the answer is quite similar. So, we decided that this issue happened due to lack of information sources. Even if our questions got answered, we are really sure, during the next future interview with new students, this issue would still get asked.



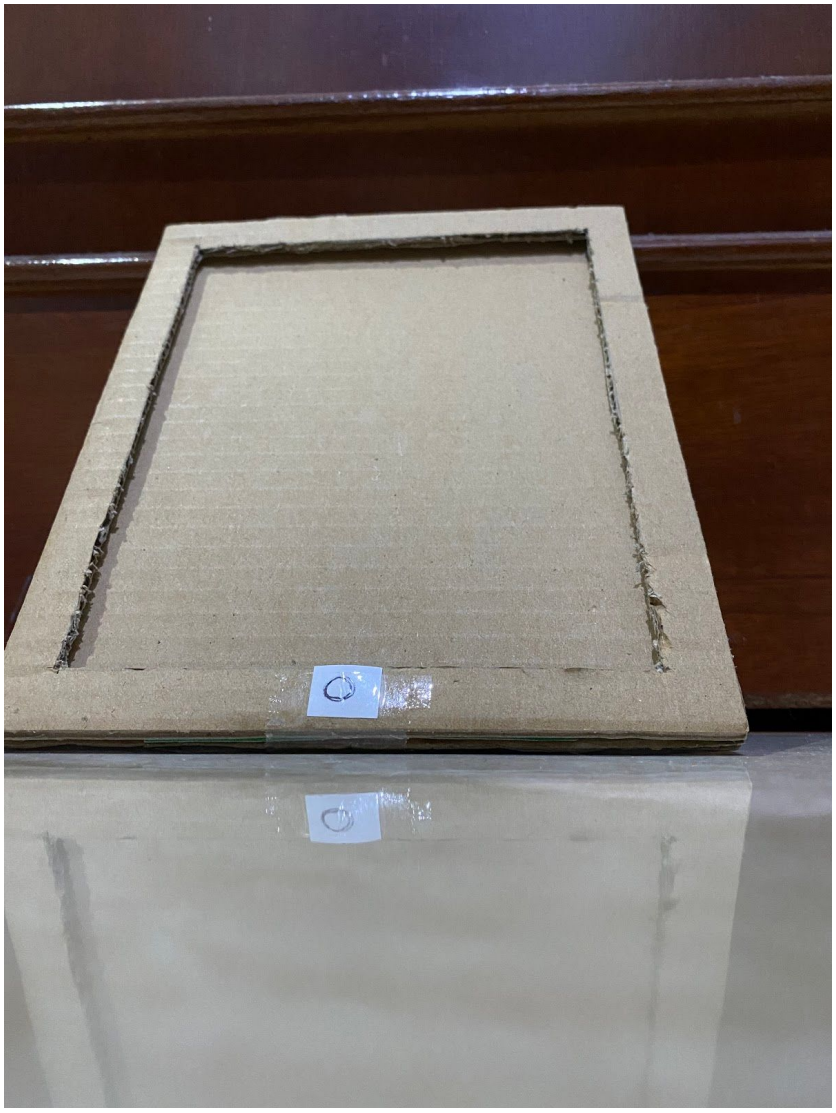
(Image 2. Define the problem)

From the defined problem, we decided to center this issue, thus the solution is Chatbot. This Chatbot would be available to all students, for them to access anytime, using their UTMID. This would prevent any misinformation or lack of information on the related issues, as the answer would be standardized, and clear. This would also make the person in-charge of all this information be at ease, as they would not get asked the same question over and over again. This Chatbot would behold all the public information, and if necessary, this Chatbot can be made available for the future UTM students, before they decide to join UTM.



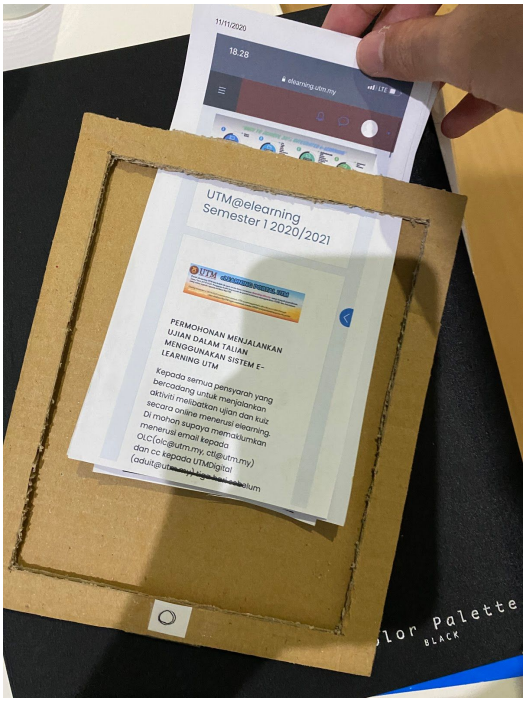
(Image 3. Ideate)

After we finally choose Chatbot as our Ideate, the next step that we are going to do is making the prototype. Although we're supposed to create the prototype together, sadly because of pandemic we decided to split our project task. The material that it takes to create this prototype is cardboard, scissor, glue and printed papers. At the end of making this prototype, even though it doesn't really look good, we tried our best to pull it off and *voila*, one prototype is ready to serve. To be honest, at the making of this prototype, it was really hard, we failed a couple of times because of the structure of the cupboard and wrong design, but in the end we managed to create it and although once again, it was not what we expected to be.



(image 4.Prototype)

The last step that we need to do is try to test our very own prototype. The step was actually pretty simple, we just pretended like it was a *real gadget* and then we proceeded to test it by changing the printed paper each time we interacted with it. First thing is we click on the bot thingy button, then it'll lead us directly to the Chatbot. After that, we continue to interact with it using the command that was already given before we used the Chatbot. Lastly, after the Chatbot successfully arranges the problem, it'll contact the admin that is relevant with our problem. Even though this is only a project, we hope that, in the future there will be a real Chatbot and of course with more advanced and more realistic Chatbot that can actually don't need a human brain to help them.



(image 5.Test)

We hope in the future,we are able to use all the methods and knowledge that we learn in this course to be useful,not just for us but to other people as well .And maybe by any chance in the future we can make our own methodology on how to solve problems,so it can be used by other people to solve their own problems.

And we think The step in design thinking is very well made and easy to used.by using this method of thinking,we can most likely solve problems that we have in everyday life and help other people problems too.

One of the things that we need to improve for our potential in this industry is to strengthen our skill in mapping and visualizing our problem in the form of design thinking. With this, hopefully you will understand the scope of your problem well and help solve your problem effectively.

TASK FOR EACH MEMBERS

TASK	Member
Prototype making	Rey
Report writing	Afiq, Fauzan, Rey
Video making/editing	Nabil
PowerPoint making	Arsyad, Fauzan

Link to our design thinking video:https://youtu.be/_NAwB_PgMRU

MEETING MINUTES

1st meeting

Date/Day/Time: 3 November 2020 Tuesday 6:00pm (GMT+8)

Meeting method

- **Google Meet (https://meet.google.com/mjb-gtgf-bwk)**

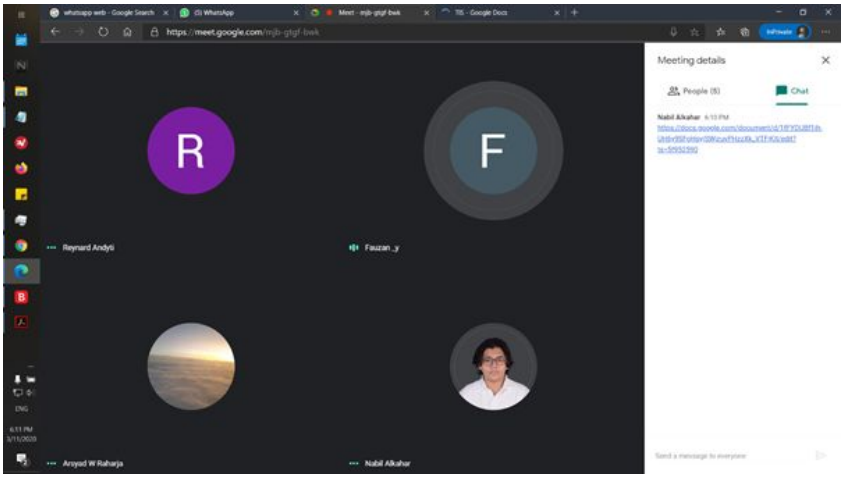
Agenda Items

- **Distributing tasks**
- **Prepare for the interview**

Reporting

1. **Task distributed**
    a. **Making the prototype : Rey**
    b. **Report writing : Afiq, Fauzan, Rey**
    c. **Video making/editing : Nabil**
    d. **Making Power point : Arsyad, Fauzan**
2. **Some questions regarding our topic were discussed.**

1st meeting Google Meet Image:



2nd meeting

Date/Day/Time: 5 November 2020 Thursday 9:30pm (GMT+8)

Meeting method

- **Google Meet (https://meet.google.com/vns-krfu-dbc)**

Agenda Items

- **Design thinking process**

Reporting

1. **Design thinking process**
    a. **Empathy and define : From interview video**
    b. **Ideate : Chatbot**
    c. **Prototype : Cardboard and A4 paper**

2nd meeting Google Meet:

3rd meeting

Date/Day/Time: 10 November 2020 Wednesday 11:45pm (GMT+8)

Meeting method

- **Google Meet (https://meet.google.com/jty-jkts-gqw)**

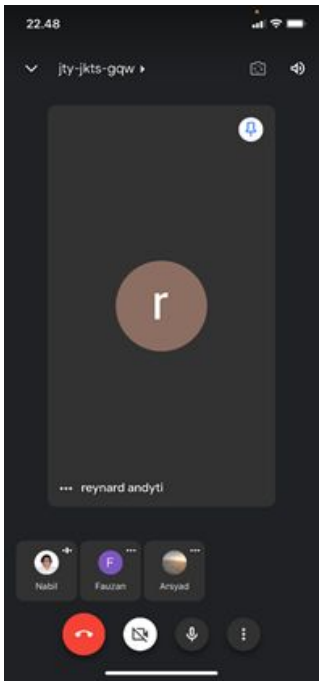
Agenda Item

- **Design thinking progress**

Reporting

1. **Design thinking progress**
    a. **Prototype making process done**
    b. **Group video progress shared by Nabil**
    c. **Date/time for us to test prototype before review by user was decided**

3rd meeting Google Meet:



Note: Afiq cannot join due to sudden loss of internet connection.

Source:

-https://medium.com/mytake/design-thinking-for-everyday-life-c19f52352c0f
-https://www.interaction-design.org/literature/article/what-is-design-thinking-and-why-is-it-so-popular

-https://en.wikipedia.org/wiki/Design_thinking