



# DESIGN THINKING

Course/Section: SECP1513/03

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# Software System.

## Introduction.

To begin with there are a lot of problem in universe but also most of the problems around the world got solutions. This process is known as design thinking and will totally change the way on how you solve problems. Design thinking not only provides a method for us but also a unifying language for multinational collaboration leading to faster solution and its a motivation for a greater creativity.

 <p>Empathize</p>	Empathy is the process where it starts. Without having this initial step, design thinkers would not be able to understand the needs of users. This understanding is done by direct observation, engage with the users face to face or even getting into the mind of users by seeing things from their perspective of view and knowing how they feel.
 <p>Define</p>	Define the real problem exists. After gathering all the information from the empathize phase, this information is then being analysed, interpreted by design thinkers. This step provides an reflection that has been confirmed in order to create a plan to address the users' need.
 <p>Prototype</p>	At this stage, design thinkers learn by transforming these radical ideas into small prototypes into physical form that test possible outcomes. Rapid prototyping can speed up the innovation process because they only learn the quality of their ideas by putting it into the real world.
Reflection	<ol style="list-style-type: none"><li>1. What is your goal/dream with regard to your course/program?</li><li>2. How does this design thinking impact on your goal/dream with regard to your program?</li><li>3. What is the action/improvement/plan necessary for you to improve your potential in the industry?</li></ol>

## Empathize.

We had some interviews to one of the stuff in CICT who are involved in computer and have an experience for software system. Through these interviews, we get to know the problems that they faced with different version of system software specially UTMSmart. We get some information that related the problems and the challenges they fave while developing and functioning UTMSmart. Every software

that have been made around the world faces a lot of problem before it success done. UTMSmart is a software application that the university made it for the student for many occasions, so we asked the problem and the challenges they have faced we they were fixing this application. There are threats and challenges that software systems face, Software threats are malicious pieces of computer code and applications that can damage your system, as well as steal your personal or financial information in the system. Fortunately, many antivirus programs, as well as comprehensive security software, exist to prevent the effects of software threats. They have faced challenges like security threats, time estimation, extremely high competition and requirements volatility. Likewise this application (UTMSmart) faced challenges like that specially security threats, so its failed three times according to the information that stuff we interviewed gave us when they were developing it.

Meanwhile the technology around the world is getting much better day after day people won't be interested in old thing any more, cause latest things are much more easier to use, understand and have a greater quality. UTMSmart is quit slower when it come to using the application compere to the modern software applications. This cause to the system sometimes to stop working and take some time to fix by the software Technicians and sometimes it needs multiple times to log in the system which is a waste of time which is the main problem here.

## **Define.**

Challenges and problem that software applications face while developing or functioning "using" can be tackled in many ways first of all we have identify the problem, then understand it. After that we can came with some possible solutions and list them down, then we evaluate our options through discussions. In addition we select a solution that can solve our problem we have here after we agreed on one. The problem we identified in UTMSmart application is that it is a bit slow and failed to work sometimes. There are couple of possible solution including upgrading the application's security system and the design make it more attracting to people using it and better quality version of this application.

## **Prototype.**

After we got the solutions, we started to bring out the solutions into version by design the system software used by the technician to overcome their problems. We create a rough prototype with different version of system software. Then we made a prototype with different version of UTMSmart application, we make it modern with a new features including face recognition with the security password and the user name login and with a whole new design.

For the software system failed to work while developing we have to use systems that can detect bug on the application.



## **Solution.**


After defined all the problems, all of the members gather them together to find out the suitable ways and solutions to solve these problems faced by our technician. Since our main focus is technicians so our ideas of solving are based on the system software that

is used by them. The solution that we prefer is creating the old and new system software. This is because different software system has their different and unique properties. The system software was an improvement an old system software. So, by making both old and new system software we were fully understand the solution that they came up with in the upgrade. After we had analyzed all the possibility of problem and solution, we finally came out a final decision which is creating a new version of application (UTMSmart) with the respective the system software for the solution to our technician.

## Design Thinking Assessment Point.

If we conducted a design thinking without any assessment or evaluating our outcome of discussions, we may end up with a poor decision or product. Especially, when we work as a team which may lead to group think. However, we could not meet face to face cause of the pandemic virus which cause as into a lockdown, but we did what can to work as a group and help each other while everyone is doing his/her part.

<p><b>Empathize</b></p> 	<p>Our target audience for this system software is leaning more towards technical staff, lecturers and anyone who have experienced multiple generation of <b>software system</b>. Hence, we decided to interview a technical staff to deeper understand what their problems that they had faced and the upgrade that solved their problems.</p>
<p><b>Define</b></p> 	<p>During this phrase, we should analysis and synthesis the problems that were gathered after doing empathize phrase in order to make a clear problem statement.</p>

	<p>After that, we started to make our prototype solution, we focused in our problem and our solution and how it going to be suitable before we made the new upgraded UTMSmart software system. In the process of making, we make sure that the product is align with our main ideas and it is functioned according to the outline.</p>
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## Reflection (each member).

Ameera.

### **What is your goal/dream with regarding to your course/program?**

My goal is to understand more about technologies; their specialties and specifications because the more I learn, the more the curiosity gets me. It is fun to learn something new. I have a dream to get a job related to cyber security, and in order to get that I at least need to know something about the inside and the process of technologies such as the Internet, software and the computer itself.

### **How does this design thinking impact on your goal/dream with regard to your program?**

I am able to communicate with my group mates without being shy when I presented/shared my ideas to them. Communication is the key to a group's success. Besides, I found out that there are lots of creative people presenting their ideas. They made me realized that I need to be more creative and have the courage to show the creativity to people.

### **What is the action/improvement/plan necessary for you to improve your potential in the industry?**

I will strengthen my confidence level by learning to communicate more with people other than my friends. I need to increase my social circle for the sake of my future. Employers are attracted to confident people than people who stuttered during the interview or presenting themselves to them. Next, I will try to gain a lot of other knowledge besides the curriculum by reading lots of non-fiction books and

getting in touch with the current issues. Who knows they might be useful someday in the future.

[Azim.](#)

**What is your goal/dream with regarding to your course/program?**

My goal regarding to my course is that I can learn something new because I do not have any experience about Science Computer course.

**How does this design thinking impact on your goal/dream with regard to your program?**

By doing this design thinking project, I need to have a proper procedure to solve some problems that we as a human have.

**What is the action/improvement/plan necessary for you to improve your potential in the industry?**

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[Khalid.](#)

**What is your goal/dream with regarding to your course/program?**

My goal here regards to the program SECR is to study hard within the upcoming years, build a strong foundation of knowledge which related to the course, and get myself know more information about the field of network and cyper security. Apart from that, I hope to utilize the knowledge that I will learn through the coming 4 year in UTM, doing something big in the field of network and security engineering and putting the name of Malaysia shine bright on the stage of international.

**How does this design thinking impact on your goal/dream with regard to your program?**

Design thinking is a process or cycle that enables different people to put different ideas together through having communication among each other, modifying the solutions creatively by first identifying the problems that happened. I think by mastering the skills of design thinking, it impacts me in a way that how I see problems from different perspectives, come out different solutions by following the different stages mentioned in design thinking. When reaching the level of university, what are we all planning is to carry out actually an vital trial for us, that prepares us to gain experiences in the real life, even when we make mistakes at this point of stage no one will blame us. What we need to do is to move on and correct the mistakes but when entering the real industry, one small mistakes might be risking it out your stakes. Hence mastering skills of design thinking can shape my thoughts into what it should be my field of engineering.

**What is the action/improvement/plan necessary for you to improve your potential in the industry?**

My plan to improve in this industry is to bring something new in my field of education, which may benefit other after me in the industry or around the globe. It's been always my vision to create something new that matters to the world to help others and make this world better, and hopefully this led this industry into a bright future.

Amir.

**What is your goal/dream with regarding to your course/program?**

My goal for this course is to gain as much experience and knowledge about the related knowledge of technology and information system.

**How does this design thinking impact on your goal/dream with regard to your program?**

Design thinking let me see how I can visualize my process on building idea.

**What is the action/improvement/plan necessary for you to improve your potential in the industry?**

My improvement need to be on the area of my fundamental in using new application on multiple multimedia, and also in my knowledge about useful technology.

## References

*What is Design Thinking.* (n.d.). From <https://careerfoundry.com/en/blog/ux-design/what-is-design-thinking-everything-you-need-to-know-to-get-started/>.

*What is design Thinking and Design Thinking Process.* (n.d.). From <https://think360studio.com/what-is-design-thinking-and-design-thinking-process/>.

**The End.**