



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

School of Computing
Faculty of Engineering

DESIGN THINKING REPORT

CHAPTER 2 : THE INTERNET, THE NET AND ELECTRONIC COMMERCE

TECHNOLOGY AND INFORMATION SYSTEM

SECP1513 – SECTION 10

LECTURER : DR NOR AZIZAH SA'ADON

GROUP 1

MEMBERS :

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E-Commerce

Introduction

Design thinking is a comprehensive approach to design knowledge and configuration discovering that empowers understudies to work effectively in interdisciplinary groups and achieve a positive plan that drives change in the world. Design thinking mainly concentrates on providing solid answers to complicated issues that are socially ambiguous and neither simple nor sure to assimilate, make ideas, and discover solutions. It is said to be deliberately nonlinear in illustrative aspects of design thinking concept and iteration is commonly used by designers to figure out the problems. In the beginning, some viable solutions were brought about followed by generating some simple prototypes. The original solutions are then iterated to find the final result based on the important external feedback.

Design thinking consists of 5 steps which are empathy, define, ideate, prototype, and test. In the empathy step, we observe users and their attitude towards a problem, engage with the users by interviewing them to gain insight, and immerse into the problem to experience what actually users feel. For the define step, we evaluate, clarify, and draft based on the data we obtained to find the user's real problem. The ideate step emphasizes discovering the solutions to the problem from the group. Meanwhile, the prototype step involves applying the decided idea to create a simple model. The group will be using available materials to build the

example model and explain how it works. For the last step, the prototype is modified and a working product is constructed for testing.

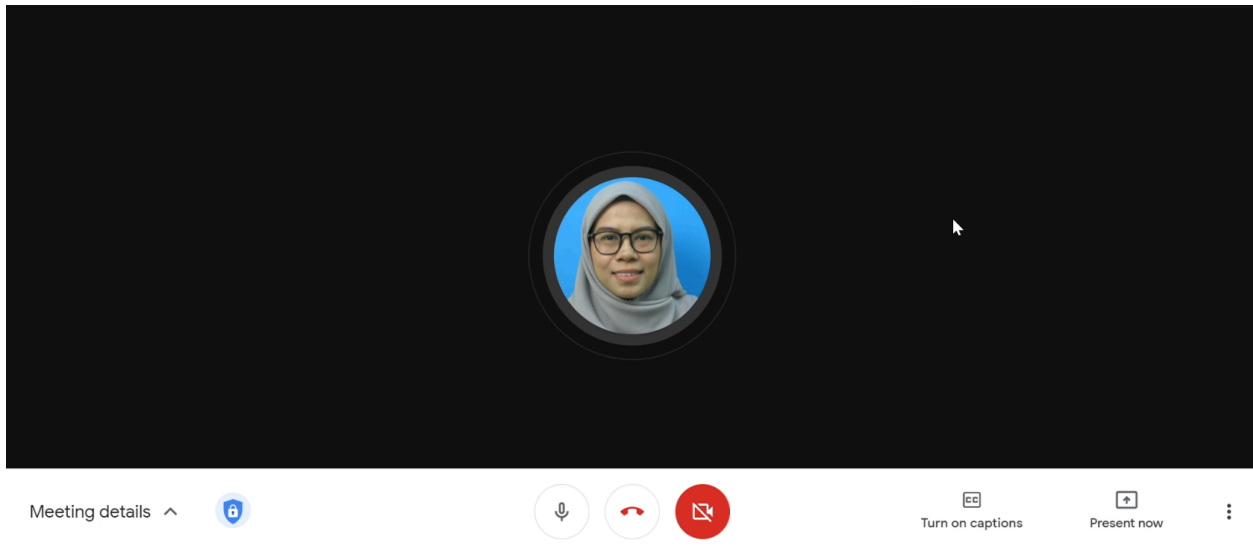
The topic of our design thinking assignment is E-commerce from chapter 2 of the Technology and Information System subject. Electronic commerce is a business model that lets people buy and sell goods or services over the Internet.

Methods

1. Empathy

Empathy is important but when we apply it in real life, it can be a challenge. Empathy is different from sympathy. Empathy can help us to identify situations that everyone faced and understand their feelings. For example, on 9th November 2020, we interviewed one of the lecturers of Universiti Teknologi Malaysia who served as Senior Lecturer in the School of Computing, Faculty of Engineering, Dr. Noor Hidayah Zakaria about e-commerce. She has been working as an academician for almost 3 years but just transferred to UTM early this year at the end of February. She always uses an online shopping platform to buy products because she can compare the advantages and disadvantages online unlike physical shopping. Also, with the recent situation of pandemic Covid-19, she prefers to shop online to reduce the hassle of going to places and searching for things. Sometimes, the checking out of the application is a very frustrating process from filling in credit card details to writing the home address. Hence she tends to let go of the items in her cart. Other than that, weak

security makes the information leaks to a third party. Also, due to the current sale on 11th November 2020, there are a lot of items that would be posted out, because too many people tend to shop online during this day, so the delivery of the items keep on being delayed. She personally thinks that we need to improve the delivery system as more users tend to shop online nowadays.



2. Define

Due to the pandemic Covid-19, it is almost impossible for every student and lecturer to go out of the university like before. Therefore, e-commerce is really important for students to pay their registration fees, or buy e-books from the university. E-commerce needs to be more secure as it involves users' personal and banking information especially when a lot of people use online shopping platforms like Lazada and Shopee to buy miscellaneous items. The delivery system needs to be improved as more users tend to shop online nowadays so that the delivery will not be delayed. Furthermore, many people are not familiar with online shopping. Some of them are new to the online shopping system. They need more instructions and information on how to use an online shopping application because the

application sometimes is not user-friendly enough and can be a bit complicated.



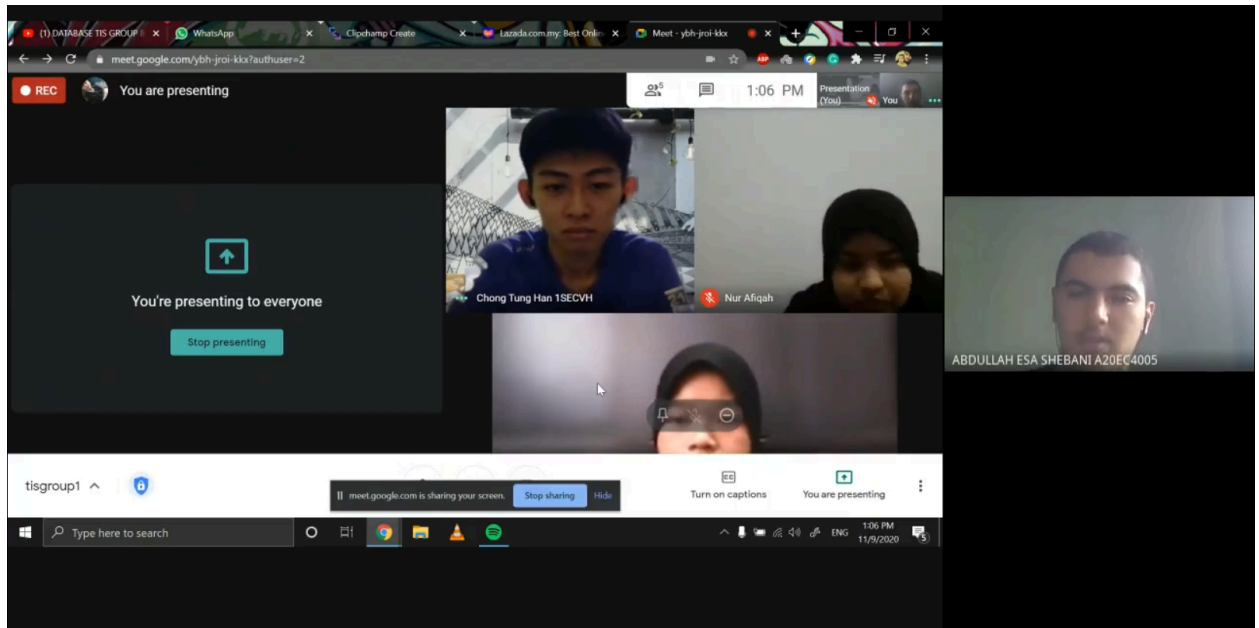
3.Ideate

Ideate is the 3rd step in the design thinking process, and it is considered as the brainstorming phase in this process. During this part, we brainstorm and think of solutions, answers, and ideas. Now that we have already defined the problem, which is that most e-commerce online platforms nowadays during the COVID-19 pandemic are not user friendly as well as they have a complicated and bad delivery system when people need it the most. Especially students who can no longer purchase the hard copy books needed for their studies, especially when universities do not provide those books for them.

After discussing this problem we came to the conclusion that if we were to create an app specifically made for university students in Malaysia to purchase and sell old and used student-related items.

In this app, you will not only be able to find books you will also be able to find old notes, exam sheets, home/kitchen appliances and many more items that other students no longer want or need. And to ensure that not

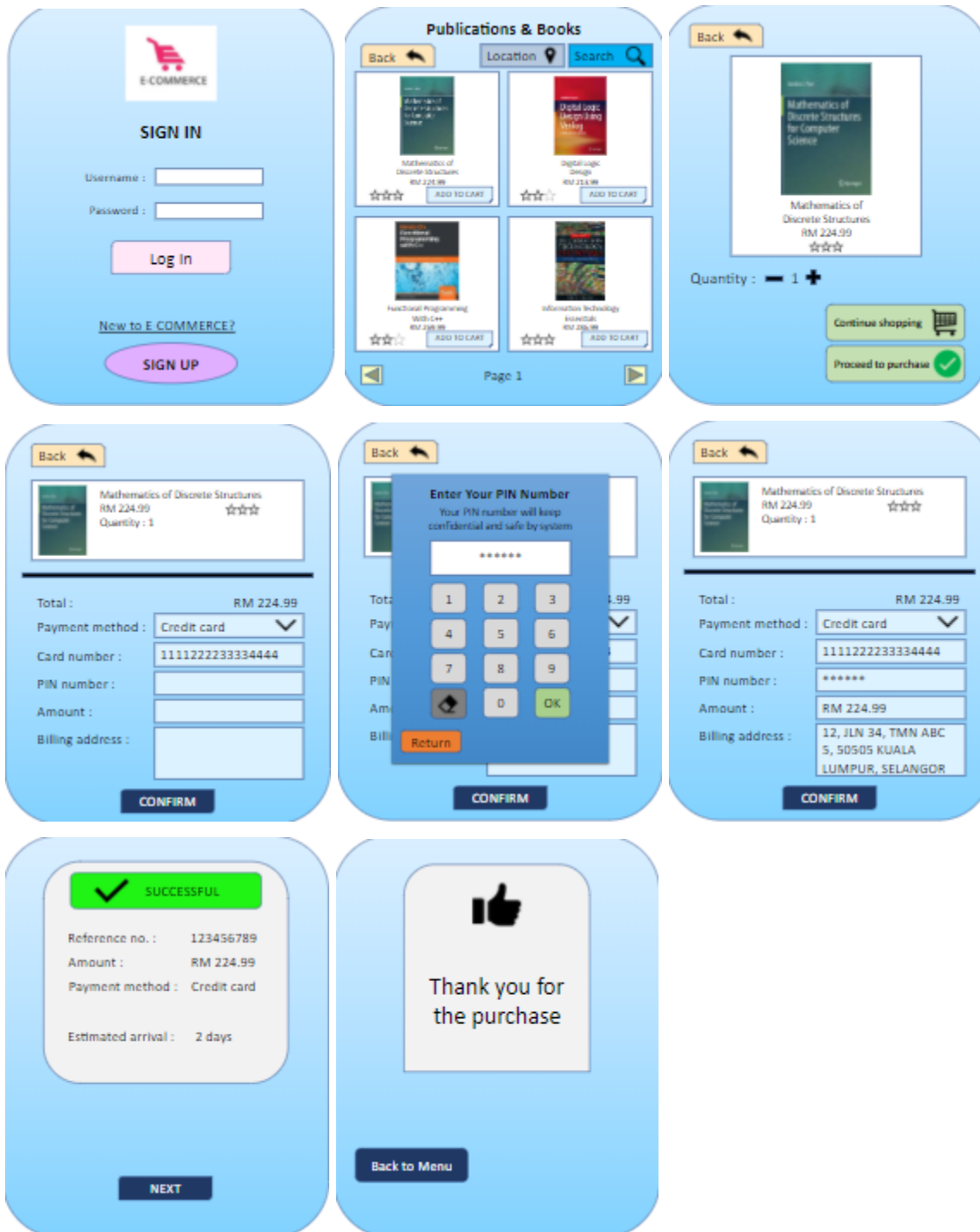
anyone can use this app, one of the requirements to sign in is to use the students' ID that is provided by universities. This way there will not be any pressure on delivery since not as many people will use this app and students will get their order on time.



4. The Prototype

The prototype was designed to be user friendly. First thing users will see after opening the app is the login page where they will have to enter their username and password. After that, a menu page will be displayed where they can choose what category of goods they are searching for. My Profile button will lead users to a page with personal info. Log out button will also be on the same page. After users clicked on their desired category, there is a search tab at the top of the page for more detailed search and a location button so the page will filter goods with nearest sellers to the location filtered by users. Users can add goods to cart and continue shopping or proceed to purchase. When users proceed to pay, they will fill in payment details such as payment method, card number, etc.

All collected data will be under protection and privacy laws. When users completed with payment, delivery will be arranged as order details and estimated arrival will be displayed. Users then can continue with a new order.



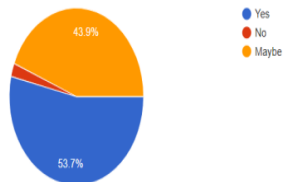
5.Results/ Findings

To test the prototype, we cannot test it physically by going in the public because of the current COVID 19 pandemic so we made a google form/survey instead. We also attached the prototype to it so potential users can take a look at it and then give feedback by answering the questions in it. Questions were prepared so that we know whether our prototype is capable of providing solutions for our future users' problems and needs.

From forty-one responses that we collected, after looking at our prototype flow and design, 53.7% want to download the finished app while 43.9% are considering it. Then, 30 people believe that this product is useful for students. We also received some suggestions from potential users which we can implement if we are ever going to work on the product further.

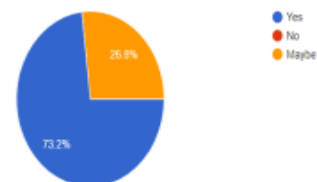
Do you think you will download this app and use it?

41 responses



Do you think this product is useful for students?

41 responses



Please give your comment or feedback on this

18 responses

Can have a icon to trace the stuff we buy

Good job

Reflections

a)What is your goal/dream concerning your course/program?

We have a goal of becoming professional in our current profession which is multimedia and graphic software. As students of multimedia and graphic software, we need to keep improving ourselves on programming skills, creativity, and innovation so that we can excel in our course.

b)How does this design thinking impact your goal/dream concerning your program?

Based on the Design Thinking Assignment, we were allowed to enhance the way we solve problems. Design Thinking stresses creative and critical thinking when solving a problem, we manage to communicate and contribute various types of ideas from different points of view. Through this assignment, we were able to understand the significance of the steps of design thinking to create a useful solution. Hence, we are capable of developing ourselves a product in a correct procedure which is very helpful towards our future career workplace.

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

As graphic and multimedia software students, we need to always gain new soft skills in our field of study because only knowledge is not enough to make ourselves qualified computer science graduates. We must keep ourselves updated on current issues to adapt to the current situation. Besides, we need to often be involved in workshops and practical projects to further build up our potential in the industry. By doing so, we can gain experience related to our career path which will make us get employed in the future.

Tasks for each member

Members	Tasks
Abdullah Esa Shebani	<ul style="list-style-type: none">· Edit video· Writing report· Make presentation slides
Chong Tung Han	<ul style="list-style-type: none">· Design prototype· Writing report· Make presentation slides
Fatin Syazliana binti Nazri	<ul style="list-style-type: none">· Conduct interview on user· Writing report· Make presentation slides
Tengku Nur Afiqah binti Tengku Ahmad Munir	<ul style="list-style-type: none">· Create survey form· Writing report· Make presentation slides
All	<ul style="list-style-type: none">· Contribute ideas· Check on report, prototype and video· Presentation

Group Meeting No.1

Date: 7/11/2020

Time: 1.5 Hours

<ul style="list-style-type: none">Attendance for Group Members :
1. Abdullah Esa Shebani
2. Chong Tung Han
3. Fatin Syazliana Binti Nazri
4. Tengku Nur Afiqah Binti Tengku Ahmad Munir

Discussion

In this meeting, we discussed the design thinking video and divided the work among the 4 members.

Members contribution/ Ideas for the video design thinking

<ul style="list-style-type: none">Members:	<ul style="list-style-type: none">Contribution
1. Abdullah Esa Shebani	-Will do video editing
2. Chong Tung Han	-Will design the prototype
3. Fatin Syazliana Binti Nazri	- Will conduct the interview with a UTM staff member
4. Tengku Nur Afiqah Binti Tengku Ahmad Munir	- Will make the Google survey/form

Group Meeting No.2

Date: 9/11/2020

Time: 1 Hour

<ul style="list-style-type: none">Attendance for Group Members :
1. Abdullah Esa Shebani
2. Chong Tung Han
3. Fatin Syazliana Binti Nazri
4. Tengku Nur Afiqah Binti Tengku Ahmad Munir

Discussion

In this meeting, we discussed writing the report and divided the parts among the members of the group.

Members contribution/ Ideas for the report task

<ul style="list-style-type: none">Members:	<ul style="list-style-type: none">Contribution
1. Abdullah Esa Shebani	-Writing about the Define step -providing meeting evidence, and the meeting logs
2. Chong Tung Han	-Writing the Introduction and Reflections
3. Fatin Syazliana Binti Nazri	- Writing about Empathy and Ideate parts
4. Tengku Nur Afiqah Binti Tengku Ahmad Munir	- Writing about Prototype -Writing about Findings from the survey

Group Meeting No.3

Date: 13/11/2020

Time: 1 Hour

<ul style="list-style-type: none">Attendance for Group Members :
1. Abdullah Esa Shebani
2. Chong Tung Han
3. Fatin Syazliana Binti Nazri
4. Tengku Nur Afiqah Binti Tengku Ahmad Munir

Discussion

In this meeting, we discussed the presentation video and divided the subtopics of the chapter among the members.

Members contribution/ Ideas for the report task

<ul style="list-style-type: none">Members:	<ul style="list-style-type: none">Contribution
1. Fatin Syazliana Binti Nazri	- Will present from introduction to the Urls subtopic
2. Abdullah Esa Shebani	- Will present from (TLD) subtopic to Internet security suites subtopic
3. Tengku Nur Afiqah Binti Tengku Ahmad Munir	- Will present from communications subtopic to Webcasts, Podcasts, Wikis subtopic
4. Chong Tung Han	- Will present from the search tool subtopic to Careers In IT - Webmasters subtopic

