



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SEMESTER 1 2020/2021

SECP1513

TECHNOLOGY AND INFORMATION SYSTEM

ASSIGNMENT 1

DESIGN THINKING

<u>NAME</u>	<u>Matric No.</u>
JAMEE SHAHRIYAR	A18CS3012
<u>NAME OF LECTURER</u>	<u>SECTION</u>
Dr Johanna Binti Ahmad	03

Date of submission: 16th November 2020

Table of Contents

1. INTRODUCTION.....	3
2. DETAIL STEP AND DESCRIPTIONS	3
3. DETAIL DESCRIPTIONS	5
4. DESIGN THINKING EVIDENCE	
a. Sample Work.....	8
b. Phase in Design Thinking	
i. Empathy.....	8
ii. Define	9
iii. Ideate	10
iv. Prototype.....	10
v. Test	10
5. REFLECTIONS.....	11
6. TASK FOR EACH MEMBER	12
REFERENCES.....	13

1. INTRODUCTION

To find a job it is important to make a CV first. Nowadays, to find a job is quite difficult because the number of job seekers is increasing. So the competition is also increasing. To win this competition it is important to have an exceptional curriculum vitae that will help the employees to identify a proper candidate for the job. To help the job candidates we come out with an idea of making a website “Hire Me”. In this website there will be professionals who will help the users to make a proper CV.

2. DETAIL STEP AND DESCRIPTIONS

In order to successfully put out a product that would be beneficial to society and industry, we followed a detailed process that would identify what needs to be done in an orderly manner that would increase not only the team’s efficiency but also the successful outcome of the project. The process is divided into five processes which are, empathize, define, ideate, prototype, and test.

By following these steps, we will be focusing our design on the users and getting feedback from these users to fulfil their needs. It also helps by showing where we are in the design process, what to do in that process and what our individual goals are. Hence, a clear sight of each individual responsibility is seen from a sea of problems that needs to be solved.

i.Emphathise

Emphathise is the establishment of a human-centered plan process. In order to complete this phase we must first observe the user. What is meant by this is that we must view the user’s life and how they conduct it in their perspective so we can identify what problems they face. Then, we must engage with the users by doing interviews through scheduled or short encounters. By doing this we can further understand the problems faced by the users and what they want. Lastly, we should immerse ourselves in the situation of the user by experiencing what the user experiences to get an even deeper understanding of the situation and relate to them more.

ii.Define

For this phase, we need to unload and blend the empathy discoveries into compelling needs and insights and put a target on a specific issue. Two objectives of this phase are to create a profound understanding of our users and the design space and, using that understanding to come up with a significant issue statement in our perspective. Our viewpoint will be a direct explanation that centers on the users, and insights and needs that were uncovered during the empathize phase. Understanding the significant issue to address and the bits of knowledge that we can use in our plan of work is principal to make a successful solution.

iii.Ideate

Ideate is an approach during our design process in which we focus on thought generation. Rationally it speaks of a preparation to "going wide" in terms of concepts and results. The objective of ideation is to investigate a wide arrangement space where a huge amount of thoughts are born and there are differences among those ideas. From these endless ideas we'll be able to construct models to test with users. The way we select the ideas are by four categories which are the logical choice, the most like to delight, personal favourite, and the long shot. We vote on which idea is the best regardless of the category mentioned and we make a prototype based on that.

iv.Prototype

Prototyping is getting thoughts and investigations out of your head and into the physical world. A prototype can be anything that takes a physical form - be it a horizontal prototype, a storyboard, or a mock-up prototype. The determination of our model ought to be comparable with our advance in our project. The prototype that we chose to do is something that we can interact with. What we learn from these interactions can offer assistance to drive more profound empathy, as well as shape effective solutions.

v.Test

This is the final stage of the 5 stage model, but the findings produced during the testing phase are also used in an iterative process to redefine one or more issues and remind users 'understanding, the conditions of use, how people think, act, feel, and empathize (Rikke Friis Dam, 2020). We made this phase based on the interview session with PM Dr Murtadha Bin Mohamad and Mr Mohd Farid Bin Sarji. Dr Murtadha shared his experience that when he and his teammates making UTMSmart application, they failed 3 times. He also said that failure of the application is because of lack of experience, technical, capabilities and communication with industrial. Besides, even some output of the system may look simple, but actually the development is the same as a web application. When we made the test, if we found out it seems like did not friendly-user, we will make changes until the user is satisfied with our system.

3. DETAIL DESCRIPTIONS

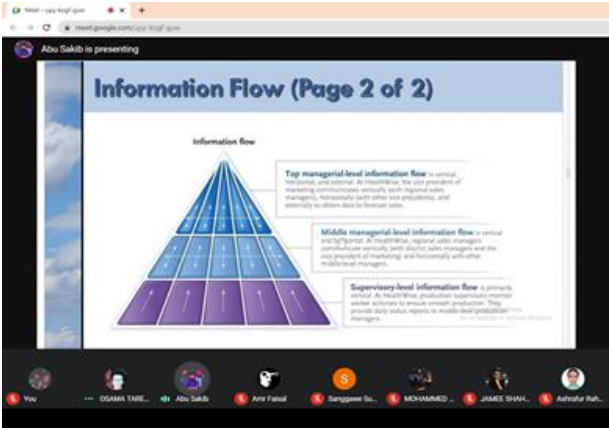
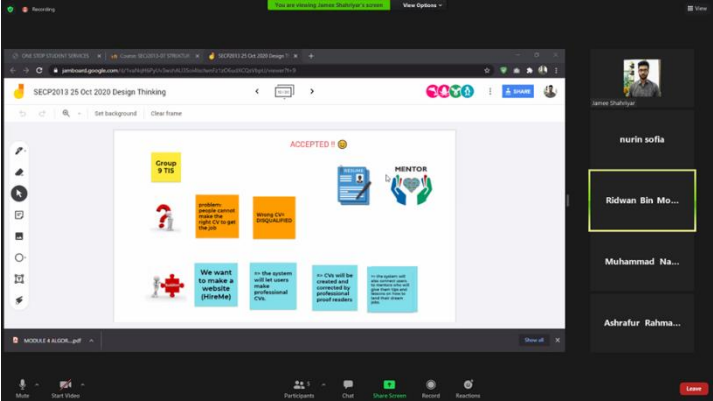
Problem

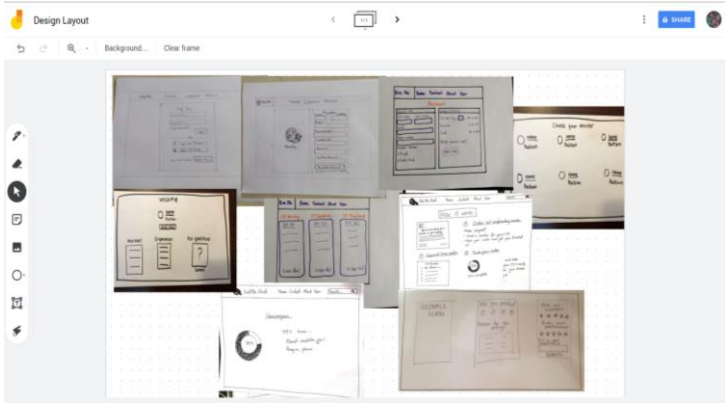
People cannot make the right Curriculum Vitae (CV) to get the job. This is because, most of the graduates did not get a job because of their CV and resume are filled with things that the employer do not want to see. A CV is a comprehensive document highlighting your professional and academic backgrounds (short for the Latin term curriculum vitae, which means "course of life"). Usually, CVs provide data such as work experience, accomplishments and achievements, scholarships or grants you have received, coursework, research projects and work publications. When applying for jobs, you might be asked to request a CV (What Is a CV? Curriculum Vitae Definition and Examples, 2020).

Solution

We want to make a website name 'HireMe'. This system will let the users to make professional CV. The CV will be created and corrected by professionals and proof readers. Besides, the system will also connect users to their own mentor who will give them tips and lessons on how to land their dream job. A mentor will shares information, advices, and tools based on the format and priorities of a particular mentoring relationship. A mentor can share data about his or her own career path with a mentee (or protege), as well as provide guidance , encouragement, emotional support , and role modelling. Furthermore, a mentor can assist with career exploration, goal setting, contact creation, and resource identification (What is the role of a mentor?, 2019).

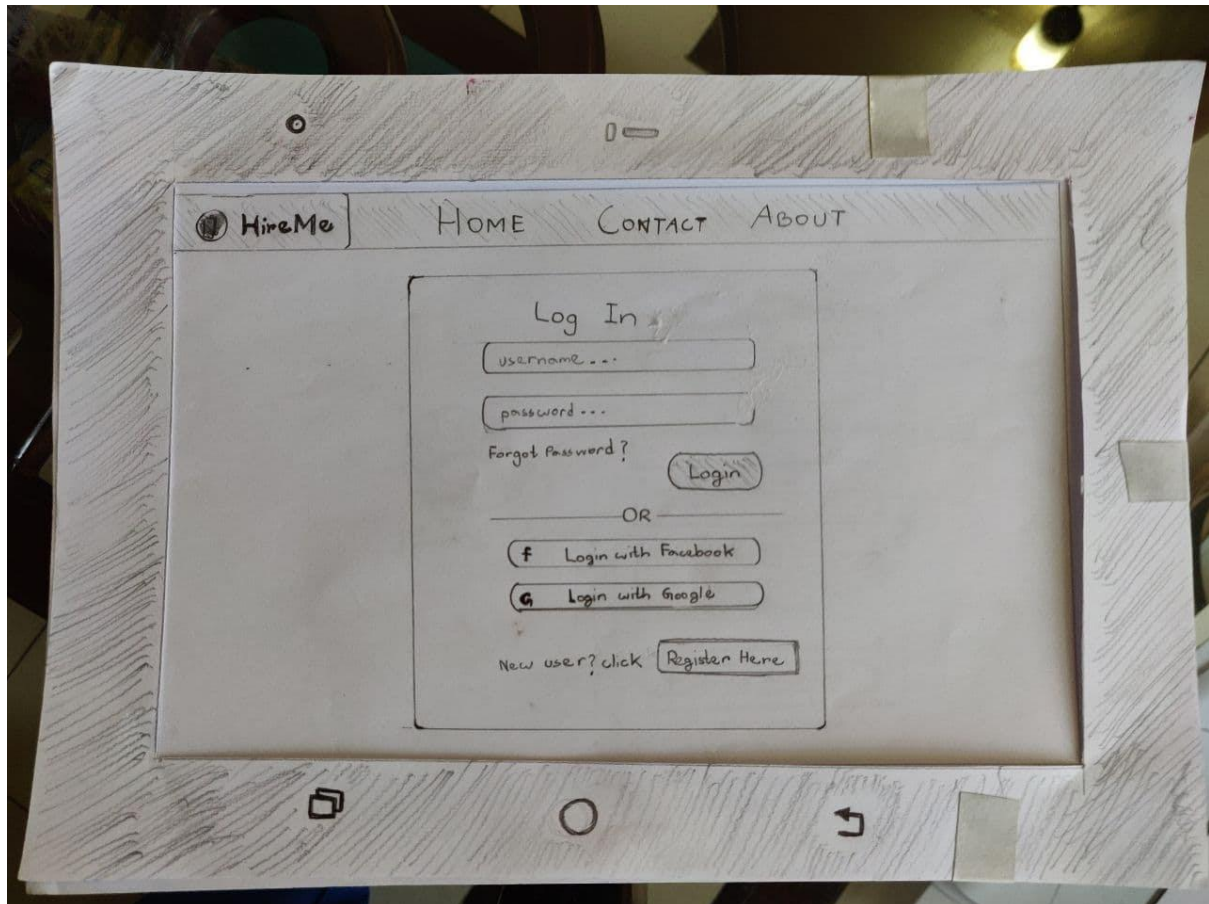
Group minute meeting

Date	Topic	Description
3/11/2020	Briefing for interview session	 <p>Discuss questions to ask with PM Dr. Murthada and Mr Mohd Farid on Google Meet with other students from different sections.</p>
5/11/2020	Brainstorming process	 <p>Brainstorming and dividing the task.</p>

7/11/2020	Design layout	 <p>Design layout of the website for the prototype on jamboard and find ideas on how to make paper prototype using the ideas on layout.</p>

4. DESIGN THINKING EVIDENCE

Sample work



Empathize

Firstly we had to understand people's issues with the current way they are making CVs and the problems they are facing, so that, we can identify the features that our HireMe website must have in order to satisfy the needs of users.

We carried out small interviews with senior students mostly 4th year students or people done with university. Their ages around 25- 28. The questions which we felt had the most importance was:

Q 1) Have you ever tried making a CV? What problems did you face while you were making the CV?

Ans: All the interviewees responded by saying that making a CV was not easy and they had to look at a lot of resources on the internet to understand how to make a CV. This required a lot of time and, this was especially problematic when they had to quickly make a CV for a job.

Q 2) How would feel about a website where you can upload your information and experts will make the CV for you? What features would you want in such a website?

Ans: All the interviewees responded positively to the HireMe website and gave a lot of suggestions on features they would like.

Secondly, we had to understand how to work towards developing an information system, how to manage and control the access and view of different data in the information system of HireMe and how to maintain information system.

In order to get these information we interviewed an expert in Information Systems Professor Madya Mohd. Murtadha Bin Mohammad. The questions were:

Q 1) Where information and data are universally accessible to everyone, how do we control our data?

Ans: According to the privacy policy information that has to be confidential has to be kept confidential. Therefore the policies have to be followed closely when designing the system.

Q 2) What is the problem during development and your advice for someone who wants to develop system?

Ans: Team work is important as a system may look simple but the works behind it need a lot of effort. He asked us to learn from failures. Dr. Murthada shared that UTMSmart app had failed 3 times because of the lack of experience, technical knowledge, capabilities and communication with the industry.

Q 3) Why should we update the system software regularly?

Ans: He advised us to make sure to keep the system up-to-date, as systems are not a perfect beings and bugs happen which effects user satisfaction. So, bugs need to be fixed and it is a continuous process until the system reaches its limit.

Define

Problem: Firstly we had to understand people's issues with the current way they are making CVs and the problems they are facing, so that, we can identify what to develop in order to satisfy the needs of users. From the interview responses we could conclude that a lot of people found it very difficult to make CVs and often did not find the right guidance and as a result were facing problems delivering good CVs on time and landing jobs.

Solution: To solve their problem we came up with the HireMe system which will take their information and the information will be used by experts to make CVs using the template that they desire.

Ideate

We knew what our website needed to do, however, we had to plan the features and functionality of the website. We had a few suggestions from the people we interviewed. We started with that. We had many meetings and discussed all the functional and non-functional requirements that website should have. We decided very early on that the website will have Login and Registration. The website would allow users to Make Order and then select package and make payment through payment portal. We also knew that users would want to View the Progress on their Cvs so we added that. We wanted users to be also able to get expert advice from mentors, so added a Book Mentor feature where users can schedule meetings with mentors. As a final though we decided to add a Rating System for mentors so that users are able to rate mentors and then book the best mentors based on ratings. All the data, files and schedules will be managed by the information system and their access or view will be maintained so that only authorized users can view it.

Prototype

We had all the features decided. Then we thought about the user interface and all the pages we want the website to have. We decided on the design and the layout of features in a meeting and then divided the task of drawing the paper prototype with the correct progression.

Test

Due to the Covid 19 pandemic we were limited to testing with the people around us. We performed a few tests with some of the users we had previously interviewed. We received mostly positive feedback. People agreed that the Website was easy to navigate. We did receive some comments and we used those to update our paper prototype and come up with the final version.

5. REFLECTIONS

- a) The reason I have taken Software Engineering as my major is because I fell in love with the Idea of being able to create something that people will be using at a regular basis. As a young boy games and applications really fascinated me and I wished to create something similar. Now I am slowly learning the skills to be able to do just that. I want to eventually go into Web Development and work on developing web based applications.
- b) While developing any sort of program or application it is necessary to plan each and every step. This is where design thinking comes in. It is important to get requirements from users so that the application is able to meet both user and market demands. This is the empathize step. Then the problem and solution must be defined to identify the main focus. Then the idea must be brainstormed to come up with the features and finally a prototype must be made which can then be tested with the actual users of the program. This will help to identify any major flaws before developing the actual system and increase the chance of the project succeeding.
- c) In order to improve my potential in the industry I must try to develop more and more projects and slowly enter the market. I have to working on projects with a group to improve my team working and communication skills. I also need to start going about developing my projects in a systemic and planned way.

6. TASK FOR EACH MEMBER

1. Report	
Part	Role
Introduction	Ashrafur
Detail step and description	Nazri
Detailed descriptions	Nurin
Design thinking evidence	Jamee
Reflections	Individual
2. Design thinking video	
Making layout and design of the prototype	Everyone
Compile video	Jamee
3. Chapter presentation video	
Introduction	Ridwan
Flows of information	Jamee
Transaction Processing Systems (TPS)	Nurin
Management Information Systems (MIS)	Ashrafur
Decision Support Sytems (DSS)	Nazri
Executive Support Systems (ESS)	Ashrafur
Conclusion	Ridwan

References

Rikke Friis Dam, T. Y. (August, 2020). *5 Stages in the Design Thinking Process*. Retrieved from Interaction Design Foundation.

What Is a CV? Curriculum Vitae Definition and Examples. (27 October, 2020). Retrieved from Indeed Career Guide: <https://www.indeed.com/career-advice/resumes-cover-letters/what-is-a-cv#4>

What is the role of a mentor? (29 April, 2019). Retrieved from Disabilities, Opportunities, Internetworking, and Technology: <https://www.washington.edu/doit/what-role-mentor>