UNIVERSITI TEKNOLOGI MALAYSIA

SEMESTER I 2023/2024

TECHNOLOGY AND INFORMATION SYSTEMS

(SECP1513)

SECTION 15

TASK : DESIGN THINKING

GROUP MEMBERS:

No.	STUDENT NAME	MATRIC NUMBER
1.	AKINA AISHAH YEAP	A23MJ5005
2.	CHRISTINE SHANE ONG	A23MJ5026
3.	NUR IMAN FARISYA MOHD HAZLIN	A23MJ5030
4.	NUR DIYANA MOHD HANAFIAH	A23MJ5046

CONTENT

1.0 Log Journal

Date	Activities
23/12/2024	Group members started the discussion and planning on what to do for the design thinking project. This includes doing tons of research on the topic and choosing which topic suites best. We come up with a conclusion to choose a topic based on Image Recognition & Machine Learning.
16/1/2024	Group members divide the tasks among themselves, based on report writing and app designing.
20/1/2024	Some members started with app designing on Canva and Figma while the others assist in finding the problem and solution
23/1/2024	Started report writing based on the tasks divided. (Further task division will be discussed in '7.0 – Team Working'.)
24/1/2024	Final report done and was finalized. All group members proceed with the discussion on how the presentation video will be recorded and how to split the topics.
25/1/2024	Recording of presentation video started.
26/1/2024	Editing and final checking of presentation video to ensure all points are stated in the video.
28/1/2024	Final checking done by all group members. The report and video are ready to be submitted through e-learning.

2.0 Introduction

Design Thinking is a method that involves the creation of innovative ideas and problem-solving. It can be utilized in various fields such as technology, education, and business, without being confined to design-specific scenarios. The primary focus is on addressing human needs and developing effective solutions to meet those needs. Moreover, it plays a role in improving products by examining and understanding how users engage with them and investigating the conditions under which they operate. The Design Thinking process consists of five phases: Empathize, Define, Ideate, Prototype and Test.

3.0 Detail Steps of Design Thinking Process

3.1 Empathy

Empathy is a crucial phase in which developers must comprehend the challenges encountered by users. Our goal was to allow students to access the e-learning platform through the university's application, UTM Smart, without having the need to go to browser.

3.2 Define

The define stage is where we confirm the issues encountered by users. Upon gathering input from group members, we identified all the problems and requirements by analyzing the responses.

3.3 Ideate

Ideate stage involves brainstorming to collect various opinions and solutions to address the problem statement. Through discussions, we discovered a solution to address the problem by creating an alternative button that will direct the students to the e-learning platform.

3.4 Prototyping

Prototype stage involves identifying the most appropriate solution and incorporating it into the product. After deciding our conclusion through online meetings, we commenced the prototyping of our project using Canva and Figma. The prototype is based on the user interface of the application UTM Smart.

3.5 Test

The test stage involves users testing the product and providing feedback to identify any mistakes, thereby improving and enhancing the product. With the complete prototype, we showcased the developed app by demonstrating the new functions of the application and gathered responses from users.

4.0 Detail description of Design Thinking Process

4.1 Problem

In the university's e-learning system, a substantial challenge has surfaced as many students show reluctance to use web browsers for accessing essential course materials on the official website. Despite the convenience of current web-based platforms, students prefer alternative methods due to concerns about user experience and accessibility. In this project, our group aims to understand the factors behind this reluctance and seeks insights into the diverse needs and preferences of students, with the goal of creating a more inclusive and user-friendly e-learning environment by using UTM Smart as an accessible application to open the e-learning system.

4.2 Solution

In order to tackle this problem, our group came up with a solution to design the University's application called UTM Smart, an accessible app to the e-learning system. This application is designed to seamlessly integrate with the existing e-learning platform, providing students with an alternative and more user-friendly interface. The purpose of this is because by using the UTM Smart App to access e-learning, it will create a more organized environment whereby all students do not need to access the browser to open the e-learning system, as all the study materials are kept in the application. This benefit students that are always using their phones or tablets to do their revision and assignments. The goal of this design is to encourage active engagement with course materials, resources, and e-learning functionalities through this application.

4.3 Team Working

All things considered, our project was a success due to teamwork. Each and everyone played their part by completing all the details. Akina will contribute by designing the project which includes producing the prototype and testing of the prototype. Furthermore, Christine will add to providing a detailed description for the project while Nur Diyana will be doing the introduction. Lastly, Nur Iman will be in charge of editing the presentation video alongside providing the detailed steps for the project.

As we are facing the final exams while finishing this project, we are afraid that we are unable to complete it. Thankfully with the help of IT, we are able to communicate and assist each other through Whatsapp and google meet . We discussed our problems and held our meetings online as not all of the group members are able to attend the physical meeting. Although facing difficulties on deciding the prototype, we help each other by cooperating with one another and finishing the project on time.

Figure 1 : GROUP DISCUSSION

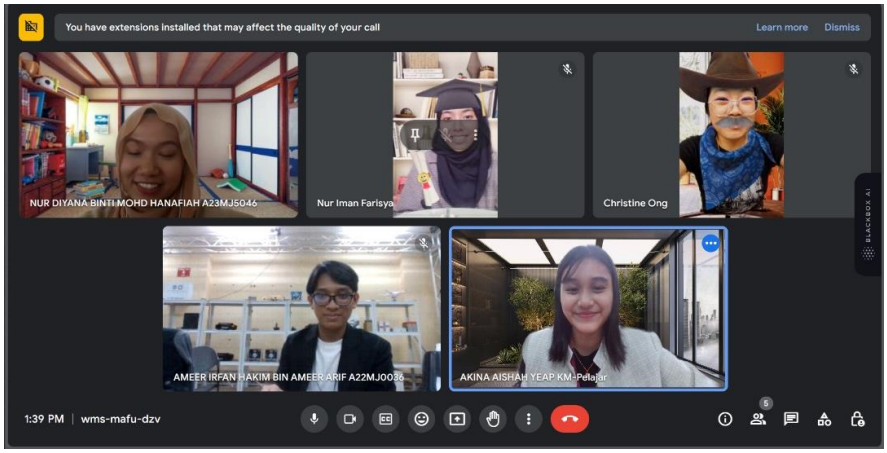


Figure 2 : DISCUSSION WITH CLIENT

5.0 Prototype Description

We are thrilled to introduce the upgraded version of the UTM Digital Campus Lifestyle application, designed with your convenience in mind. This initiative aims to enhance student's university experience by providing a range of services catering to the needs of students, staff, and the public. The new prototype boasts general features such as a Freshies' Guide, Getting Around modules for easy campus exploration, and real-time updates through the What's New section. Based our client needs, it now is able in accessing UTM eLearning, your student timetable, and the UTM portal is just a tap away, complemented by a user-friendly design tailored to the preferences of our Kuala Lumpur and Johor Bahru-based users. Whether you're a student preparing for university life or a staff member managing tasks efficiently, the app offers tailored services, including QR code attendance tracking and specific features for staff, lecturers, and students. We invite you to explore the enhanced functionalities and enjoy the seamless experience this upgraded prototype brings to your digital campus lifestyle.

Prototype link : https://www.figma.com/proto/ww883wKvTkYckWSckxXQF2/UTM-SMART-2.25?type=design&node-id=1-350&t=26YgZg2OFfNAEAsp-1&scaling=scale-down&page-id=1%3A2&mode=design

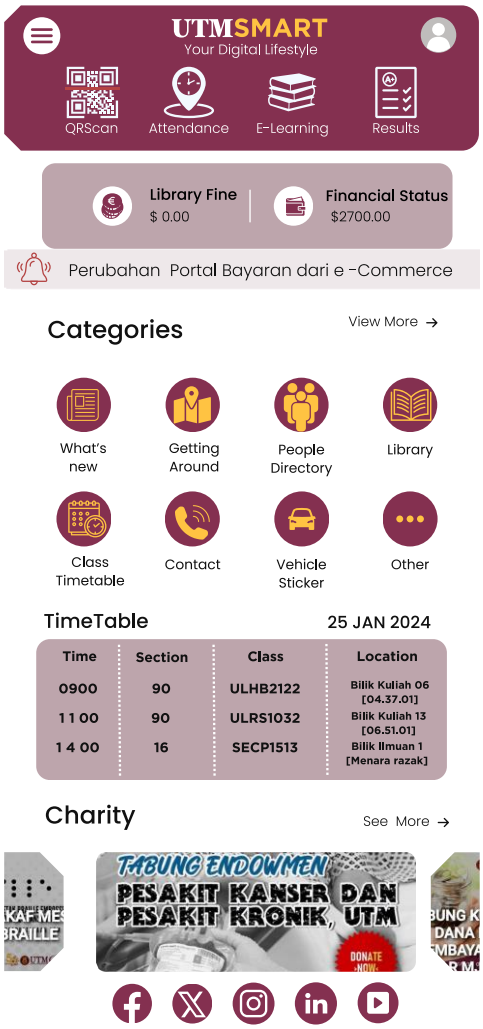
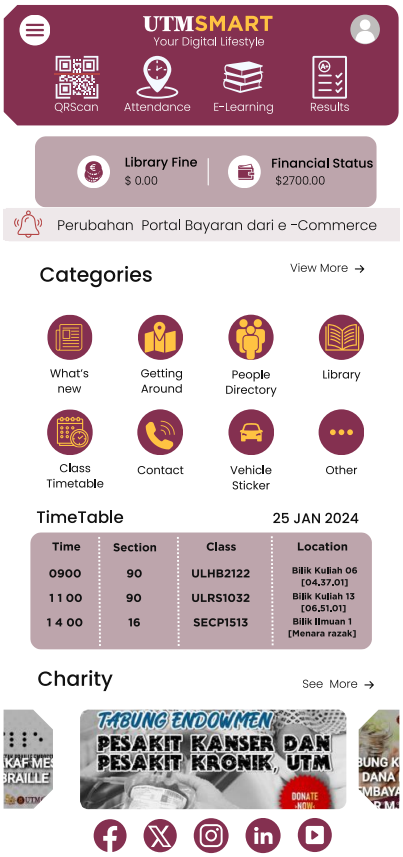
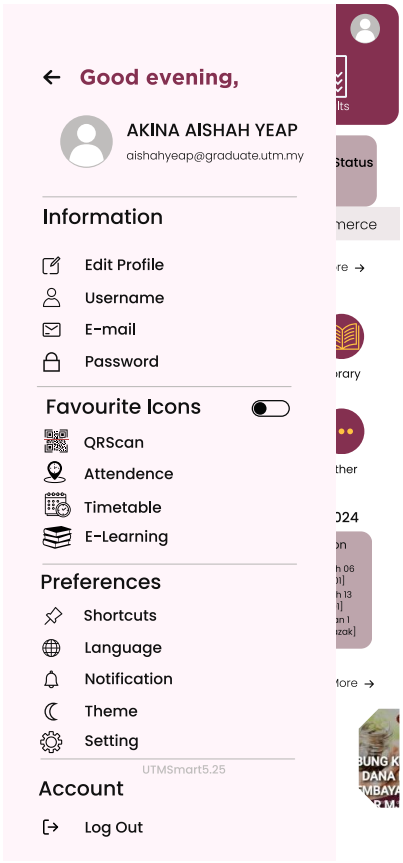


Figure 3 : UPGRADED UTM SMART

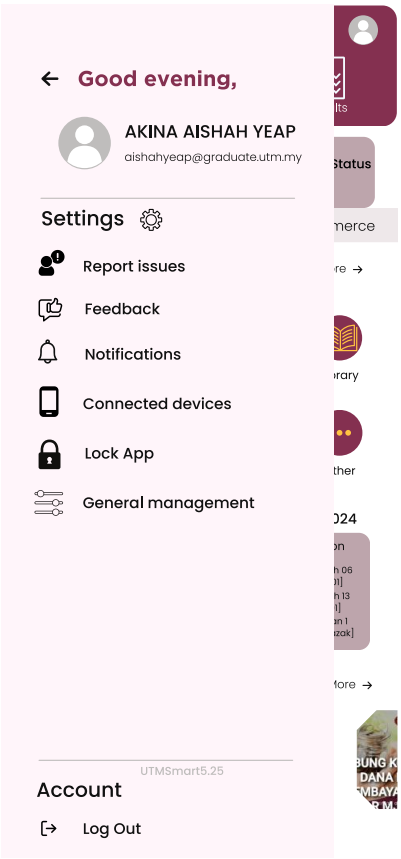
DEFAULT MAIN SCREEN



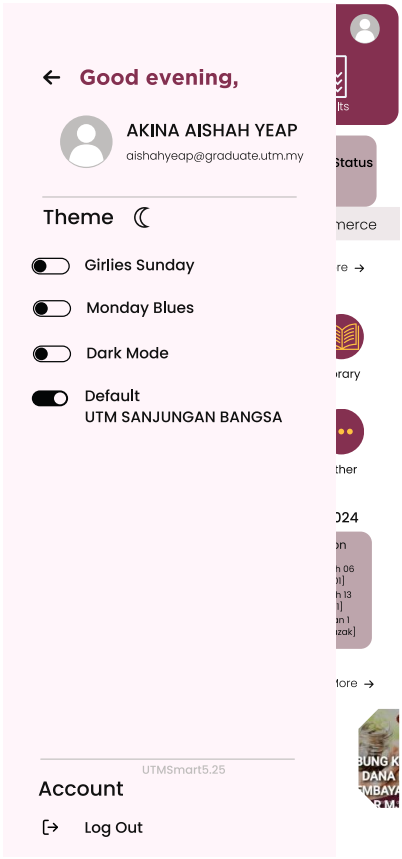
DEFAULT SIDE BAR



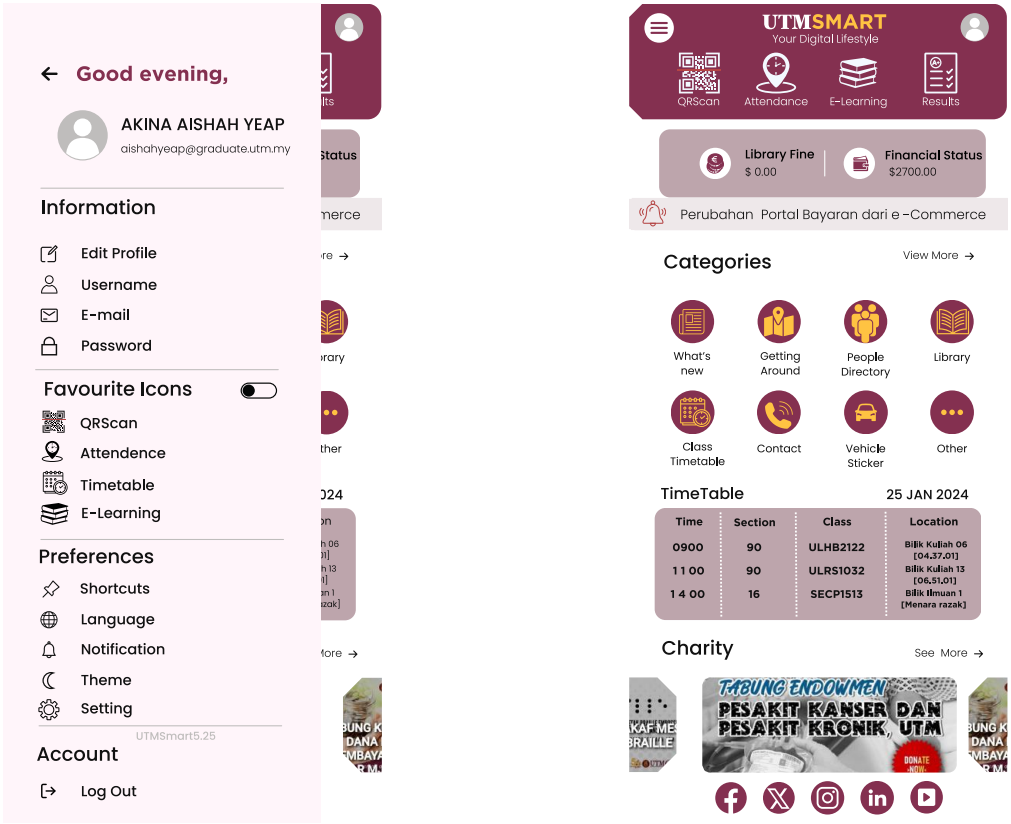
DEFAULT SETTINGS



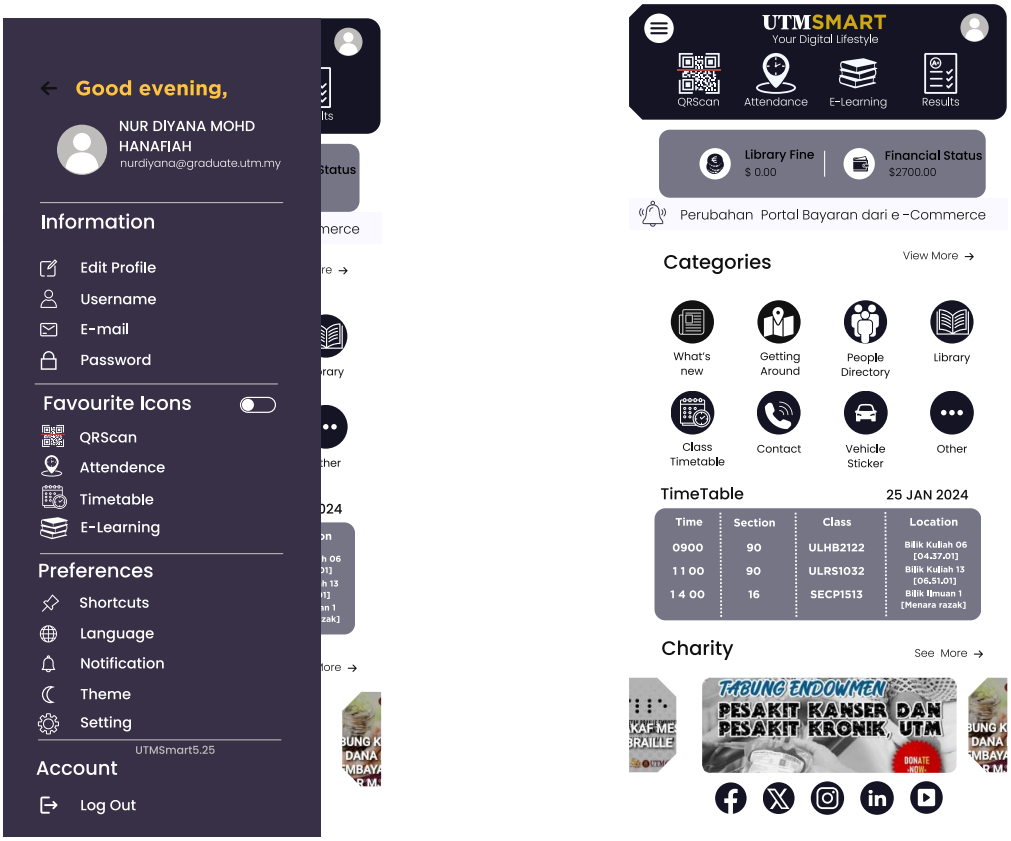
DEFAULT THEMES



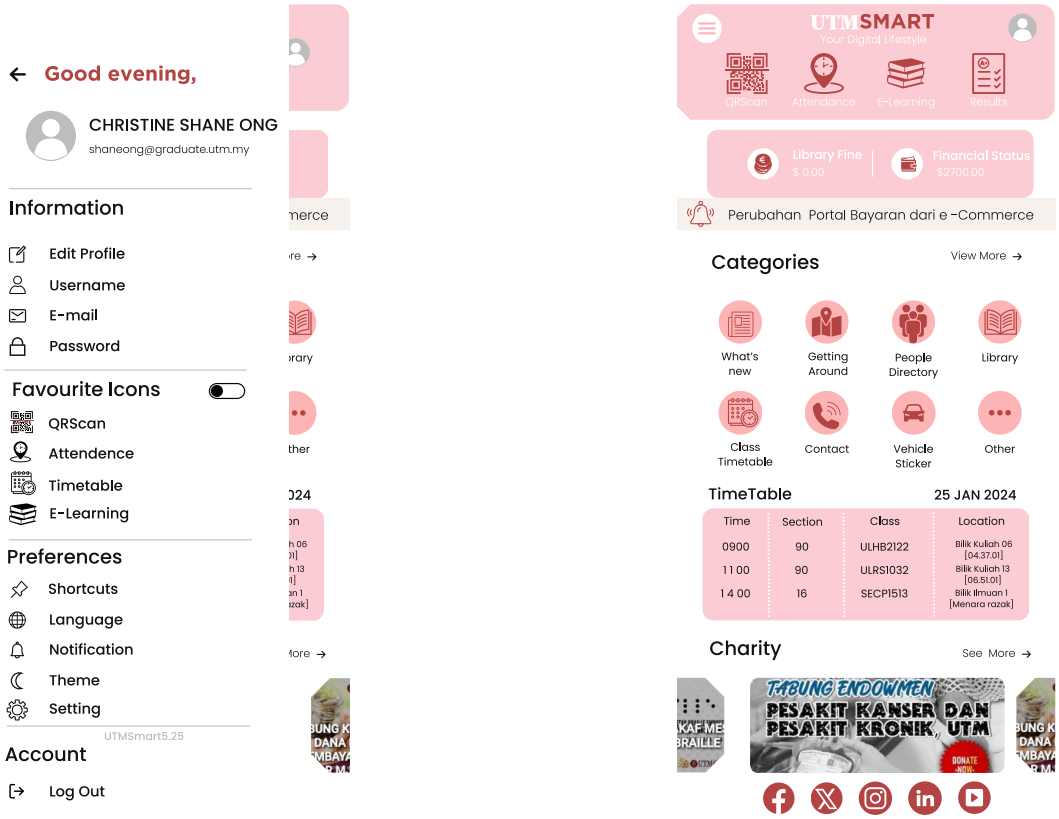
DISPLAY THEMES



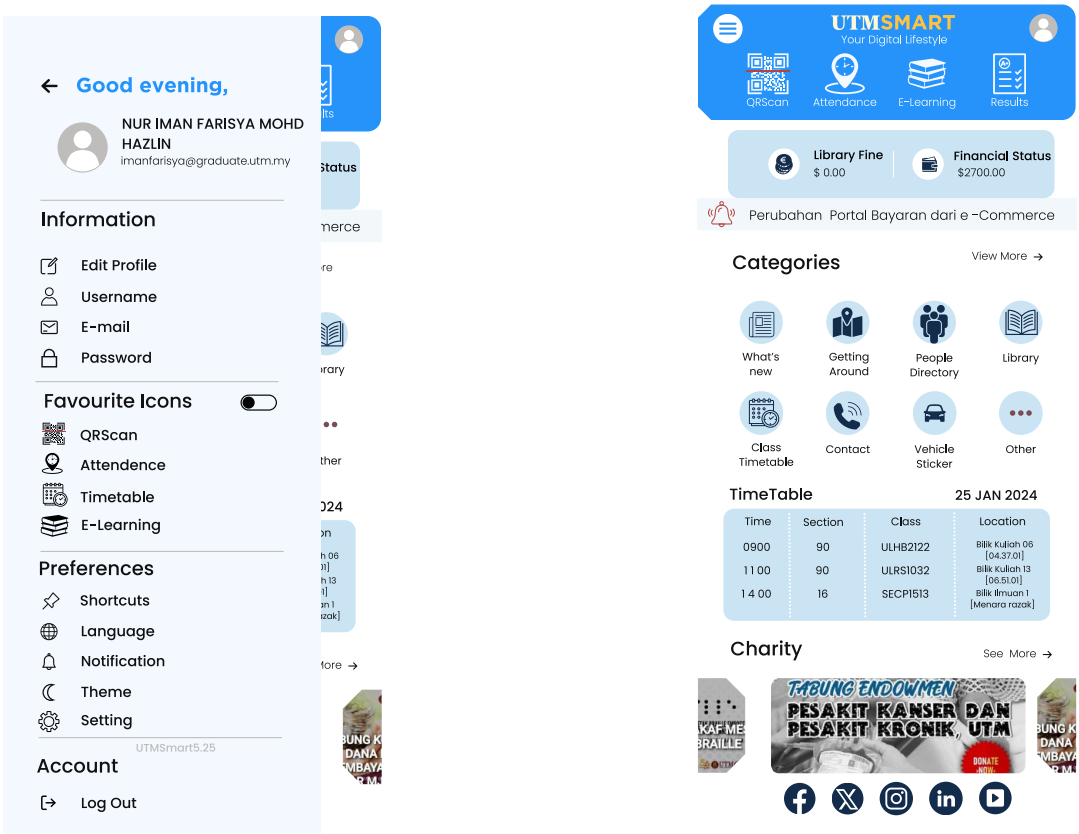
DEFAULT THEME: UTM SANJUNGAN BANGSA



DARK MODE THEME



PINK THEME: GIRLIES SUNDAY



BLUE THEME: MONDAY BLUES

6.0 Student Reflection

Akina Aishah Yeap

a. As a software engineering student, my goal and dream with regard to my course and program are to become a proficient and innovative professional in the technology and information systems field. I aspire to contribute to cutting-edge technological advancements, develop impactful software solutions, and play a pivotal role in shaping the future of the industry.
b. Design thinking plays a crucial role in shaping my goal and dream within the software engineering domain. It empowers me to approach problem-solving and solution development with a user-centric mindset. By integrating design thinking into my skill set, I aim to create software and technology solutions that not only meet technical requirements but also resonate deeply with end users. This approach will enable me to design and implement solutions that address real-world challenges, enhance user experiences, and contribute to the advancement of the industry
c. To improve my potential in the technology and information systems industry, I have outlined several key actions and plans. Firstly, I recognize the importance of continuous learning and skill development. I am committed to staying updated with the latest technologies, programming languages, and development frameworks. Engaging in self-study, online courses, and practical projects will be essential in expanding my technical expertise and adaptability in a rapidly evolving industry.

Christine Shane Ong

a. My goal for this course and program is to emerge as a dynamic and resourceful professional in the technology and information systems sphere. I aim to take initiative in the development of innovative software solutions and contributing to groundbreaking technological advancements. The vision that I want to achieve is making positive contributions to technology through my expertise and insights.
b. Design thinking encourages me to empathize with users, identify core issues, brainstorm innovative solutions, prototype and test ideas, and iterate based on feedback. This method ensures that the solutions I develop are not only technically

strong but also closely aligned with user needs and preferences, ultimately advancing my goal of effecting positive change through technology.

c. To improve my potential in this industry, I am committed to honing my technical skills and staying abreast of the latest technologies, programming languages, and development frameworks. Engaging in self-study, enrolling in online courses, and undertaking practical projects will be pivotal in expanding my technical expertise and adaptability within an ever-evolving industry.

Nur Iman Farisya Mohd Hazlin

a. I dream of using this course and my tech skills to boost creativity and research, making a real impact. I'm constantly learning and growing, eager to put my tech skills to good use and make a difference.
b. Design thinking fuels my dream of developing intuitive technology-powered tools that guide students like me through research and ignite my creative spark, as well as foster collaboration and critical thinking skills to contribute to society.
c. To maximise my potential in this industry, I need to improve my technical skills, particularly user interface/user experience design. This can also be improved by expanding my design thinking skills by joining more design thinking communities and forums, as well as contributing to open-source projects.

Nur Diyana Mohd Hanafiah

a. My goal in the technology and information systems program is to acquire a strong foundation in skills such as teamwork, problem-solving, and innovation to excel in the workforce.
b. Design thinking significantly impacts my goal by fostering critical thinking, collaboration, and creativity, essential elements in the program. It aligns with the skills needed in the industry, helping me develop a holistic approach to problem-solving.
c. To improve my potential in the industry, I need to actively engage in the entire design thinking process, consistently documenting and refining my problem-solving skills, and seeking opportunities for collaborative projects to enhance my teamwork abilities.

7.0 Organization

Name	Tasks
Akina Aishah Yeap	• Project Designing - Producing prototype - Prototype Testing - Prototype Description • Reflection
Christine Shane Ong	• Detail Description for the project • Reflection
Nur Iman Farisya Mohd Hazlin	• Video Editing • Detail steps for project (3.1, 3.2) • Reflection
Nur Diyana Mohd Hanafiah	• Introduction • Detail steps for project (3.3-3.5) • Reflection