**SECP 1513**

**TEKNOLOGY AND INFORMATION SYSTEM**

**ASSIGNMENT 1:**

**DESIGN THINKING**

**TITLE:**

**KANRI (THE SUBSCRIPTION MANAGING APP)**

**LECTURER:**

**DR. HALINAWATI HIROL**

| NAME | MATRIC NUMBER |
|---|---|
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## 1.0 LOG JOURNAL

| Date | Activities |
|---|---|
| 15/1/2024 | The group discussed and planned for the design thinking project, researching and choosing a suitable topic. We decided on creating a subscription managing app |
| 16/1/2024 | Group members assigned tasks for report writing and app designing. |
| 17/1/2024 | We began designing the app on Figma and looked for solutions to the app's problem |
| 19/1/2024 | We started writing the report. |
| 22/1/2024 | The final report was completed and approved. The group then discussed howto record the presentation video and divide the topics. |
| 24/1/2024 | We began recording the presentation. video. |
| 27/1/2024 | We edited and checked the presentation video to ensure all points were covered |
| 31/1/2024 | All group members did a final check, and the report and video are ready for submission through e-learning. |

## 2.0 INTRODUCTION

In an era dominated by the spread of digital services and subscription-based ventures,the vast amount and variety of subscriptions have created a significant issue for professionals, families, and people. It has become increasingly difficult to get throughthe maze of periodic payments, renewal deadlines, and service agreements.

Recognizing this growing requirement, Kanri stands out as an innovator in subscription management app innovation. As a result of the ideas of design thinking, Kanri aims to transform the user experience by reducing complexity, and simplifyingand recognizing user needs comprehensively while also handling the subscription management process. As we set out to create Kanri, our goal is to simplify the complicated system of subscriptions and provide consumers with an easy-to-use, effective solution that fits what they want and need.

## 3.0 DETAILED STEP & DESCRIPTION

A comprehensive and user-friendly solution is now essential to successfully manage digital subscriptions amid a subscription landscape. It emphasizes the development of the subscription-managing app Kanri, which aims to transform how consumers manage and interact with their various subscriptions. We aim to understand people, identify their problems, develop innovative solutions, prototype the app's design, test its functionality, carry out the overall design, and analyze its effectiveness once it hasbeen put into use through an organized design thinking approach. This strategy makessure that Kanri is a solution that has its strength in the requirements and experiences of its users rather than only a product.

## 3.1 EMPATHISE

Our main goal in the first stage is to completely involve ourselves in the users' world and understand their obstacles, preferences, and goals regarding subscription management. Through observation discussions, surveys, and user interviews, we hopeto gain an in-depth knowledge of the difficulties customers experience when managing their subscriptions. This is a vital phase in building a foundation based on user feedback.

## 3.2 DEFINE

The define step attempts to pinpoint specific issues and provide an informative problem statement, building on the understandings obtained during the empathy phase. The objectives of the app are determined in this step, which also makes surethat our design work focuses on solving the main issues that have been identified. Creating a well-defined issue statement, outlining objectives that meet user expectations, and analyzing data to determine ongoing trends and challenges are allessential steps in this phase.

## 3.3 IDEATE

A detailed problem description helps the ideation phase provide a broad range ofpotential solutions by stimulating ideation and creative thinking. Our focus is oninvestigating new and helpful solutions that might transform the subscription management experience. This process involves planning brainstorming sessions,implementing methods like mind mapping and role-playing, and evaluating and improving ideas according to practicality and user impact.

## 3.4 PROTOTYPE

Converting the conceptual solutions into physical forms is the prototype phase's task. We illustrate the app's features, organization, and user interactions by creating interactive prototypes, user flows, and simple sketches. An iteration is essential to improving the user experience and adjusting the design. The main tasks in this phase include developing interactive prototypes, sketches, and user feedback for continuousimprovement.

## 3.5 TEST

Testing the prototype's functionality is vital in order to be sure it fulfils user expectations. We gather useful suggestions from testing sessions to identify the design's advantages and disadvantages and make required modifications to the design to improve efficiency and the user experience overall. Major tasks at this level involvecarrying out usability testing sessions, reviewing user comments, and looping the prototype in response to user opinions.

## 4.0 DETAILED DESCRIPTIONS

## 4.1 PROBLEM STATEMENT

Subscription management has become a major concern for users in today's digital world. The widespread use of services over several platforms has created a discontinuous and lengthy procedure that makes it challenging to track, organize, and manage subscription-related expenses. Users struggle with the burdensome effort of managing several subscriptions on their own and frequently experience confusion about what they have to pay. This problem not only wastes time but also increases the possibility of accidental membership renewals and payment errors. The lack of an organized approach makes matters worse and prohibits users from having an effective and practical experience. Recognizing these challenges, the Kanri app was designed tofulfill the desire for a one-stop shop for managing subscriptions, providing a single platform for effective tracking of subscriptions, budgeting, and ease of use for users.

## 4.2 PROPOSED SOLUTION

The Kanri app presents a comprehensive and innovative answer to the complicated problem of managing subscriptions. Kanri's main objective is to create a single interface that enables customers to efficiently track and manage subscriptions from many services, removing the need to switch between different platforms. By doing financial reduction, the app gives users a strong tool to track and manage subscription-related costs, encouraging improved financial planning and management. The interface is easy to use and makes maintaining many subscriptions much less difficult.

It ensures a smooth and simple experience. The benefits of Kanri include proactive reminders, organized subscription management, transparent financial visibility, and flexible usage analysis of patterns. The proposed solution takes compatibility challenges, the need for updates, and initial setup time into account. It tackles these issues with user-friendly introductions, strong API connections, and a thoughtful layout. In addition to helping customers manage expenses and save time, Kanri assures that users are aware of upcoming payments and provides useful information that helps them make wise decisions. In today's ever-changing digital landscape, thissuggested solution attempts to meet the demands of short-on-time professionals, learners, and families by providing a practical yet effective method of managing subscriptions.

**5.0 DESIGN THINKING ASSESSMENT**

The Kanri Subscription Management App project aimed to address the challenges associated with managing multiple app subscriptions on a single platform. The project unfolded in four key stages: Empathize, Define, Ideate, and Prototype. This assessment will evaluate each stage's effectiveness and provide insights into the project's overall success.

1. Empathize Stage:

In the empathize stage, the team successfully identified the primary issue as the difficulties faced in planning the subscription management app. This initial step demonstrated a strong understanding of the user's pain points, laying a solid foundation for the subsequent phases. The use of empathy in this stage set the tone for user-centric design and problem-solving.

2. Define Stage:

During the define stage, the team meticulously analyzed the problem statements derived from the empathize stage. The effort put into clearly defining the challenges ensured that the subsequent ideation and prototyping phases were well-informed. The focus on precise problem definition contributed to a streamlined development process and a more targeted solution.

3. Ideate Phase:

The ideate phase showcased the team's creativity and collaborative spirit through engaging brainstorming sessions. The generation of creative ideas and potential solutions demonstrated a commitment to exploring various possibilities. The team's ability to think innovatively and outside the box during this phase enriched the project with diverse perspectives and potential avenues for addressing the identified issues.

4. Prototype Phase:

In the prototype phase, the team leveraged the powerful design collaboration tool, Figma, to bring the Kanri Subscription Management App to life. Figma played a pivotal role in transforming conceptual ideas into a visually compelling and interactive prototype. This choice of platform allowed for seamless collaboration among team members, fostering real-time feedback and iteration.
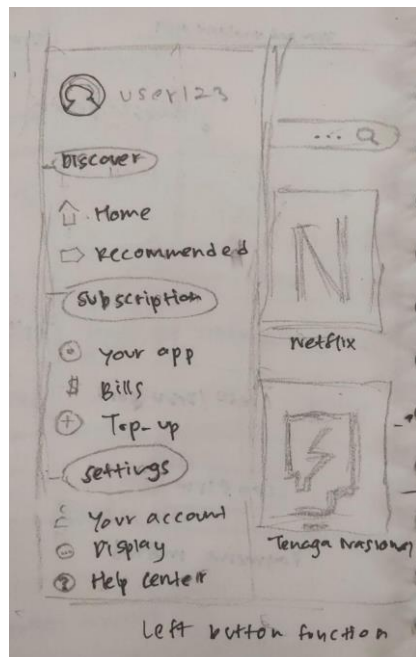
The use of Figma facilitated the creation of a dynamic prototype that not only showcased the app's user interface but also simulated user interactions. This approach enhanced the team's
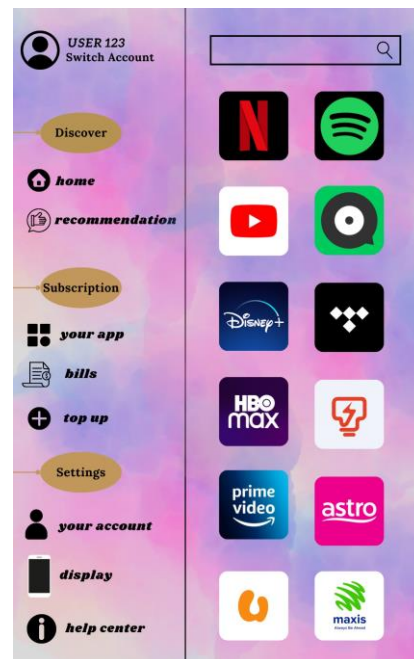
ability to refine and validate design choices, ensuring that the final prototype closely aligned with user expectations.

## 5.0 DESIGN THINKING EVIDENCE

## 5.1 SAMPLE WORK



First Design Layout



Second Design Layout

## 5.2 PHASES OF DESIGN THINKING

### 5.2.1 EMPATHY

Numerous user surveying was done during the empathy phase to identify theproblems related to Kanri- The Subscription Management App. Detailed understanding of the problems users encounter—such as time consuming subscription tracking, financial uncertainty, and the need for a single solution—was obtained through surveys and interviews. To represent userwants and opinions, descriptions of empathy were created. These representations served as the basis for all following design choices.

We conducted brief interviews with our course mates and seniors. Their ages range from 20 to 28. Those that we considered the most important were:

Question 1:

Do you feel that it's a simple process to manage your subscriptions the way youdo it now?

Answer:

All those interviewed agreed that handling subscriptions is a difficult and oftenmanual task. Renewing dates and keeping up order are made more difficult by the lack of a dedicated solution. While some people use calendar reminders there was an agreement that subscription management needed to be simplified with a more direct and friendly option. Some people also use budgeting apps totrack their spending habits, which often involve a variety of subscription services.

Question 2:

What's the average amount of time you spend every month keeping track ofyour different subscriptions?

Answer:

The users of the Kanri app said in interviews that they needed an easier-to-use tool for managing their subscriptions. They needed detailed spending analytics, a built-in subscription recognition system, and a single platform. Timely notifications, partnership features, and negotiation support for renewals were also highlighted. Features like usage reports, financial app connection, and customizable categories were looked after for a more simplified and personalized experience.

Question 3 :

Are there specific types of subscriptions that you find more challenging tomanage than others?

Answer:

Subscriptions for fitness, education, and entertainment were mentioned by all interviewees as being particularly difficult to manage. Single management is required due to various program durations and renewal dates in each of thesecategories. Users expressed an ongoing need for a tool similar to Kanri that would make tracking subscriptions—regardless of their particular Kinds—simpler.

### 5.2.2 DEFINE

The respondent's issues are shown in the table.

|  | Data Accuracy and Timeliness | Notification Fatigue | Device Compatibility Issues |
|---|---|---|---|
| Problem | If the app does notget timely updates from subscription service providers users may experience problems since subscription detailsmay become outdated. | Frequent notifications may cause users to feel stressed or irritated, which would reduce the alert system's effectiveness. | If Kanri is incompatible with the devices or operating systems that users opt for, then users may have difficulties. |
| Description | Users might experience financial problems and confusion because of inaccurate or outdated subscription data. The reliability and efficiency of the app may be affected if Kanri is unable to obtain current updates from subscription services, leading to users | Although notifications are necessary to keep users informed, receiving too many or unnecessary alerts can irritate and wear down consumers. Ensuring a great user experience involves finding a balance and allowing users to adjust their | It could be hard for users to accept Kanri if it is incompatible with their own device or operating system. The app's widespread usage may be hindered by device compatibility limits since users want to use it easily across platforms. |

| | making decisions based on inaccurate information. | notification choices. | |
|---|---|---|---|

Table 1

### 5.2.3 IDEATE

Possible fixes for the issues raised by our respondents are displayed in the table.

**Data Accuracy and Timeliness**

| Rational | Intermediate | Radical |
|---|---|---|
| Automate software updates from subscription service suppliers regularly to make sure Kanri gets the most recent data at scheduled times. By doing this, the possibility of outdated data would be reduced and accuracy kept up without overloading the services' APIs. | Provide a simple way for users to set up updates directly in Kanri when they notice changes to their subscriptions by including a manual sync option. Users now have more control over how accurate their subscription data is. | Explore collaborations or partnerships with large subscription services to establish regulated, immediate information-sharing arrangements. This may include settling on API access terms or creating unique solutions for smooth connection. |

Table 2

**Notification Fatigue**

| Rational | Intermediate | Radical |
|---|---|---|
| Provide a notification settings option in the app so that users can adjust the time frame, helpfulness, and number of notifications according to their needs. | Apply an AI-driven notification system to reduce the    risk of fatigue by recognizing user behaviour over time and customizing the timing and content of notifications to everyone's preferences. | Implement an enhanced system that   offers  users rewards or rewards for responding to notifications. With  this  approach,  users are encouraged to continue taking part without feeling overwhelmed. |

Table 3

## Device Compatibility Issues

| Rational | Intermediate | Radical |
|---|---|---|
| Updating Kanri frequently to make sure it works with the newest versions of operating systems and common devices. Use the concepts of flexible design to develop a user interface that can adjust to different screen sizes and resolutions. | Develop customized mobile applications (iOS, Android) and make sure the UI is suitable for tablets and smartphones. This ensures an individual experience on a variety of gadgets. | Develop an accessible Kanri platform that can be used with web browsers on a range of devices by exploring progressive web app (PWA) development. This approach provides a seamless user interface while reducing dependency on certain operating systems. |

Table 4

| | Characteristics | Description |
|---|---|---|
| Existing Feature | • Notification & Alerts<br><br>• User Convenience | • An effective notification system that actively informs users of upcoming payments, preventing accidental renewals and keeping them aware of what they have to pay.<br>• The user-friendly interface aims to simplify the subscription management process and reduce the stress when handling several subscriptions simultaneously. |

| Additional Feature | | |
|---|---|---|
| | ● Automated Updates | ● To make sure Kanri gets the most recent data at scheduled times. By doing this, the possibility of outdated data would be reduced, and accuracy kept up. |
| | ● Notification Setting | ● Allow users to customize how often and what kind of alerts theyprefer. |
| | ● Regular Updates | ● Update Kanri regularly to ensure compatibility with the most recent operating systems and commonly used devices |

Table 5

## 5.3 PROTOTYPE

These are the necessary evidence which including the additional features that we been working on. This was made possible with Figma. It starts with the log in screen in Figure 5.2.4.1. Figure 5.2.4.2 shows the home screen. Figure 5.2.4.3 is the sidebar tool. Figure 5.2.4.4 is the overview for every user subscription. Users can have put in their bank details in the Finances page (Figure 5.2.4.5) and it will show the deducted money from the account. In Figure 5.2.4.6, you can manage an app individually. Figure 5.2.4.7 is the help center.
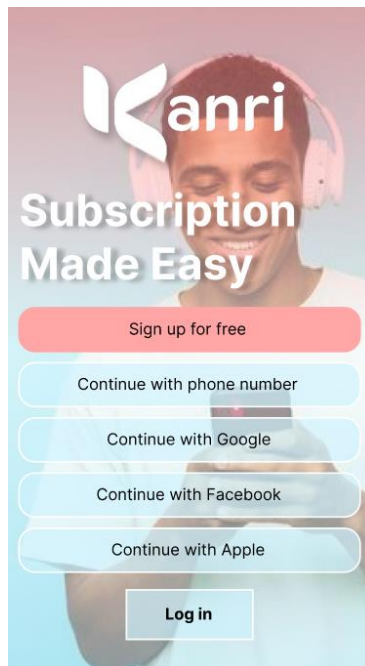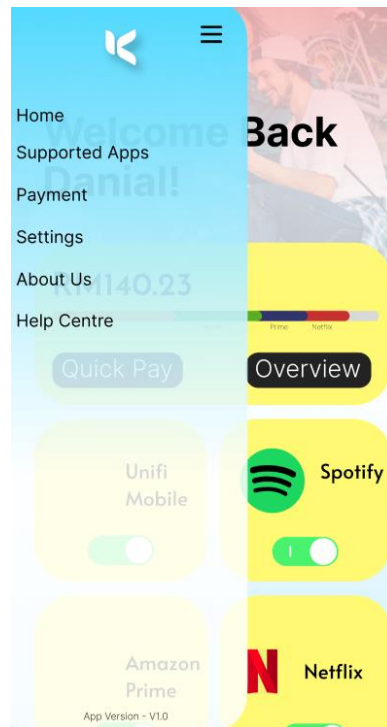
*Figure 5.2.4.1 Log in Screen*

Users have various options to sign up into Kanri account based on their device compatibility.
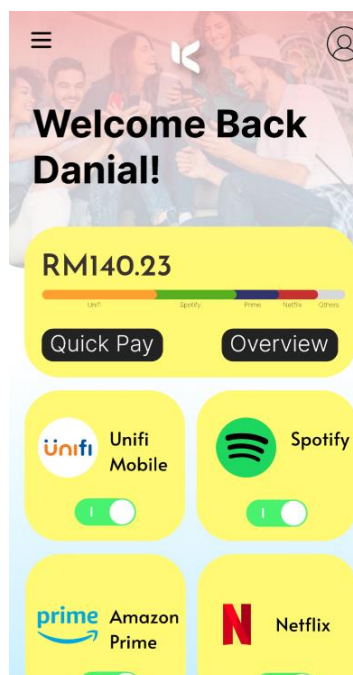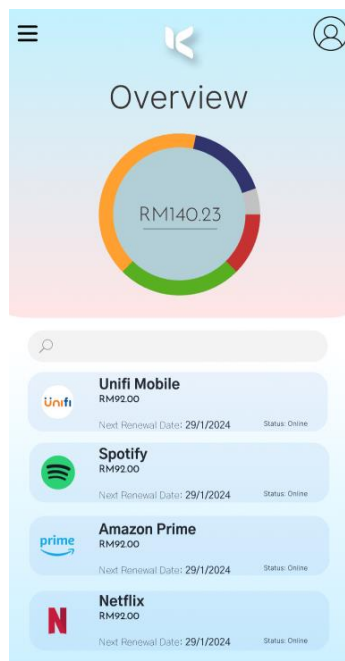


*Figure 5.2.4.2 home screen.*

In the home screen, it will show the apps that you have subscribed to.

*Figure 5.2.4.3 sidebar tool.*

In the overview subscription will display the total amount of all subscriptions for that month. The renewal date is also stated in the bill for the users to know when the next bill will be.
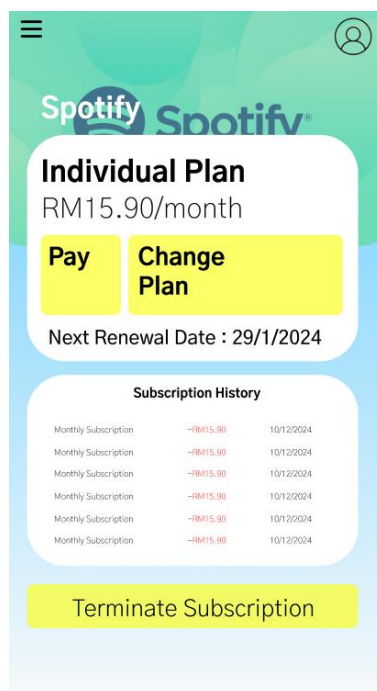


*Figure 5.2.4.4 overview of total amount of subscriptions.*

Each colour indicates the payment of the user's subscription that they need to make before due.
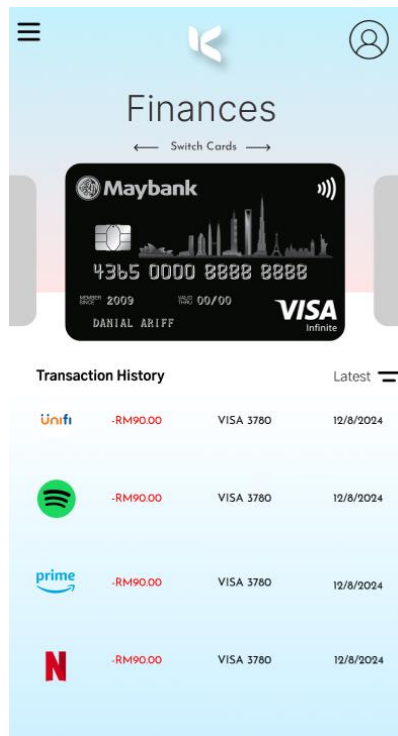
*Figure 5.2.4.5 Finances*

User can select type of payment from using Debit/ Credit Card to online banking payment.



*Figure 5.2.4.6 Individual App Management*

The individual subscription screen provides a comprehensive overview of specific app subscriptions, enabling users to access detailed information and perform tasks such as renewing or canceling the subscription for that app.
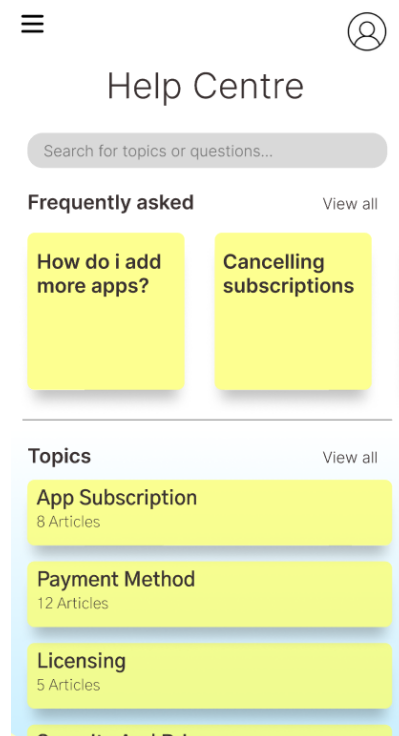
*Figure 5.2.4.7*

Users can ask questions in the Help Centre regarding the apps.

## 5.2.5 TEST

After we finished the prototype, we decided to demonstrate our product, Kanri, the managing app to our course mates and seniors. We explained the details about the features that we add-on on nowadays managing app such as putting all the user's subscriptions in one place to ease the user to sort which one with the highest priority to pay first. They gave us positive feedback and they were very pleased with the new features that we added. It helps them to organize their necessities in a much-organized way.

## 6.0 REFLECTIONS

### 1. WAN AISHAH BINTI MEGAT SHAIFUL

My goal regarding this course is to seek to advance my technical proficiency by acquiring new tools, technologies, and programming languages. I will enroll in workshops, take online classes, or collaborate on group software projects either conducted by UTM or outsiders. This design thinking impacts on my goal/dream about my program by facilitating career growth by encouraging a more comprehensive approach to software development and product development, which can assist maintain the product's relevance and value for consumers. The plan necessary for me to improve my potential in the industry is by making an action strategy. This is by formulating a comprehensive strategy that entails task definition, deadline setting, and resource allocation to support the highlighted areas for improvement.

### 2. EIKLILMYNIZA NASH BINTI NASHRUDDIN

The goal of our course was to grasp software engineering principles, applying them practically to enhance problem-solving skills and understand the software development lifecycle. The Kanri Subscription Management App project was instrumental in achieving these aims. It emphasized user-centric design, clear problem definition, collaborative ideation, and effective prototyping, aligning directly with course principles.

Through this project, we bridged theory with practice, gaining insights into software development complexities. Navigating through empathize, define, ideate, and prototype stages provided a comprehensive view of software engineering challenges. To excel in the future, we'll continue hands-on projects, attend relevant workshops, and stay updated on emerging technologies. Feedback from peers and professionals will refine our approach.

A proactive mindset towards learning, adapting to industry trends, and building a strong network will enhance our capabilities. The Kanri project serves as a foundation for ongoing academic and professional growth, blending theory, practical application, and proactive learning in the dynamic field of software engineering.

## 3. DANESWAARY A/P PALANY

Engaging in a Design Thinking project at Universiti Teknologi Malaysia holds great significance. The university's focus on innovation and problem-solving likely complements this approach. Design Thinking's stages align with UTM's commitment to fostering a user-centered mindset.

Exposure to Design Thinking in the Technology & Information System course equipped me with a structured approach to problem-solving, understanding users' needs deeply. This methodology enhances my ability to tackle challenges creatively.

The project's integration of Design Thinking reflects practical skills gained during my studies, showcasing real-world applicability. This alignment demonstrates UTM's commitment to preparing students for impactful contributions in technology and innovation.

In summary, being a UTM student enhances my capacity to grasp and apply Design Thinking principles, making this project a practical application of academic learning and a testament to UTM's role in shaping innovative problem-solvers.

## 7.0 TASK GIVEN FOR EACH MEMBERS

| Name | | | Wan Aishah | Eiklil | Daneswaary |
|---|---|---|:---:|:---:|:---:|
| Task | Process | Interview | ✅ | ✅ | ✅ |
| | | Discussion | ✅ | ✅ | ✅ |
| | | Prototype | | ✅ | ✅ |
| | | Test | ✅ | ✅ | |
| | Report | Introduction | | | ✅ |
| | | Step and Description | | ✅ | |
| | | Detailed Description | ✅ | | |
| | | Evidence | ✅ | ✅ | ✅ |
| | | Reflection | ✅ | ✅ | ✅ |
| | Video | Preparing slides | ✅ | ✅ | ✅ |
| | Presentation | | ✅ | ✅ | ✅ |

**Evidence of the group members discussing about our project**



**Evidence of interviewing our course mates and seniors**

**8.0 REFERENCE**

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_source=google&utm_medium=adwords&utm_campaign=Subscription_APAC_New&utm_t
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