FACULTY OF COMPUTING

**SECP1513 TECHNOLOGY AND INFORMATION SYSTEM**

SEMESTER 2 2024/2025

**LECTURER'S NAME**

DR NOOR HIDAYAH BINTI ZAKARIA

**DESIGN THINKING PROJECT REPORT**

(BIG DATA AND ARTIFICIAL INTELLIGENT NEW INNOVATION)

**TITLE:**

PERSONALISED LEARNING SYSTEM

| NAME | MATRIC NO. |
|---|---|
| CHE KU MARDIAH BINTI CHE KU MAHHADI | SX241899ECJHF01 |
| SYAHIDATUL NAJWA BINTI ZAMRI | SX241889ECJHF01 |
| UMI IZZATUL NATASHA BINTI MOHD FADZIL | SX240227ECJHS01 |
| BETTY OLIVIA ONG DANKER | SX240277ECRHS01 |
| NUR FARRAH HA BINTI M WALED | SX241905ECJHF01 |

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## 1.0 INTRODUCTION

In today's rapidly evolving educational landscape, Big Data and Artificial Intelligence (AI) are playing pivotal roles in reshaping teaching, learning, and administrative practices. Big Data refers to the vast amounts of information generated by students, educators, and institutions through various digital platforms and tools. This data provides valuable insights into student behavior, learning patterns, and academic performance, which can be harnessed to improve educational outcomes. Artificial Intelligence, on the other hand, employs advanced algorithms and machine learning techniques to analyze this data and create personalized learning experiences, automate administrative tasks, and predict future academic trends.

The combination of these technologies is enabling more efficient, targeted, and adaptive learning environments. AI-driven systems allow for the development of intelligent tutoring programs, where students receive customized feedback and resources based on their unique learning needs. Educators can make data-driven decisions to enhance their teaching methods, while administrators can optimize resource allocation, track student progress, and predict enrollment trends. Furthermore, the integration of Big Data and AI has the potential to make education more accessible and inclusive, ensuring that learning is tailored to meet the diverse needs of students.

However, alongside the promise of innovation, there are significant challenges. The use of Big Data raises concerns about data privacy and security, while AI's reliance on algorithms may lead to unintended biases. These challenges require careful consideration and the development of ethical frameworks to ensure that these technologies are implemented responsibly. Nonetheless, the potential benefits of Big Data and AI in education are immense, offering a transformative approach to teaching and learning that promises to enhance educational experiences and outcomes on a global scale.

## 2.0 DETAILED STEP

**Timeline**

During our first Technology and Information Systems class with Dr. Noor Hidayah Binti Zakaria, held online on Sunday, 16 March 2025, we were introduced to the Design Thinking Project. Dr. Hidayah briefed us on the project and provided the theme: "Big Data and Artificial Intelligence: New Innovation."

After discussing the theme, our group decided to focus on the topic "Personalised Learning System." The objective of this project is to develop a learning application that tailors educational experiences to suit each student's personality, needs, and schedule, enhancing learning efficiency and engagement.

The table below outlines the timeline for our Design Thinking Project:

| Date | Description |
|---|---|
| 16/03/2025 | Briefing by Dr Hidayah about the design thinking assignment. |
| 17/03/2025 | All group members discussed and selected the project topic through our Telegram group. |
| 18/03/2025 | All members agreed to proceed with the topic "Personalised Learning System. |
| 25/03/2025 | A Google Document was created to allow all group members to collaboratively work on and complete the assignment more efficiently. |
| 6/04/2025 | The first face-to-face discussion was held to delegate tasks for writing the report and to further explore the topic for a better understanding. |
| 25/04/2025 | Farha has prepared a Google Form for the student survey. |

| | |
|---|---|
| 27/04/2025 | The purpose of the second meeting was to help Farha by further discussing the interview question.<br><br>In addition, to help Mardiah come up with a concept for the prototype. |
| 28/04/2025 | Interview session |
| 29/04/2025 | Discuss the main problem and solution |
| 30/04/2025 | Create the prototype- from sketch until testing part |
| 1/05/2025 | Report writing - Introduction |
| 2/05/2025 | Report writing—Detailed description (Empathize, Define,<br><br>Ideate, Prototype) |
| 5/05/2025 | Report writing – Detailed description (Testing), Problems |
| 10/05/2025 | Report writing – Assessment, Reflection, The task for each<br><br>member, References |

**2.1 EMPATHIZE**

Most of the students face challenges with time management and often experience confusion about who they should refer to for academic support. Additionally, some students have special needs that may further hinder their learning process. Therefore, there is a clear demand for a learning application integrated with artificial intelligence (AI) that can adapt to each student's personality, needs, and schedule. This type of application would improve learning efficiency and assist students in staying on track to graduate within the expected time frame. We conducted a survey using Google Forms and an interview to gain a better understanding of the issues students face and to gather their suggestions and requirements for a personalised learning application. The Google Forms were distributed via WhatsApp, and an interview was conducted with a student who is still pursuing their studies.

**2.2 DEFINE**

After the empathize phase, we understood the concerns and needs of the students. We discuss the information gathered from the Google Forms and interview session together. In our discussion, we discover that most of the students feel lost or confused during class. They also feel that the lecturer's teaching pace is quite fast for them. The student stated that the challenges that they face in class are understanding the learning material, staying focused, finishing tasks on time, asking questions when confused, and also keeping up with the other students. Therefore, we believe that a learning application would greatly assist students in overcoming these challenges.

**2.3 IDEATE**

After identifying several problem statements from the Google Forms survey and interview session, our team discussed possible solutions to address these issues. Following the discussion, we identified solutions for all the problems, which will be incorporated into the personalized learning application. One of the solutions is to convert lengthy notes into short summaries, audio recordings, or flashcards. We decided to develop a mobile application, as it is easier to use and can be accessed anywhere using a mobile phone. This phase involves assigning each team member specific tasks for writing a report regarding this system.

## 2.4 PROTOTYPE

For this stage, we will design and make the prototype of the application. We began discussing the specifics of our prototype, including its design and the key elements to be incorporated. In this prototype, we will include all of these icons, which are user profiling, language support, time zone handling, flexible scheduling, interactive content formats, progress tracking and feedback, accessibility features, community and peer learning, and admin tools. We have chosen Figma as the application to develop our prototype. In designing the prototype, we aim to keep it simple and user-friendly while ensuring it effectively helps students find solutions to their problems.

## 2.5 TESTING

After completing the prototype design, we proceeded to the next phase, which is the testing phase. Our team identified several users to test the prototype, aiming to observe their overall experience from opening the application to completing a task. We asked for detailed feedback from the users to identify areas for improvement and ensure the application effectively addresses the problems faced by students. This phase allows us to take the initiative to further enhance the application.

## 3.0 DETAILED DESCRIPTION

This section provides an overview of the key aspects of the project. It starts by identifying the key problems and needs that led to the system's creation, team-based discussions to develop effective solutions. Lastly, it outlines the efforts and cooperation within the team members that contributed to the successful implementation of the project.

## 3.1 PROBLEMS

In today's education landscape, one size fits all teaching methods are increasingly inadequate to meet the diverse needs of students. Traditional classrooms often deliver the same content to large groups without considering individual learning styles or interests. This leads to disengagement, with students feeling disconnected and unmotivated. Teachers and lecturers also struggle to manage diverse classrooms, finding it difficult to personalise lessons due to limited time, resources, and tools.

Another pressing issue is the inability to support students with different learning needs. Students with special needs such as ADHD, minor autism, dyslexia, and other conditions often require specialized approaches that standard teaching methods cannot provide. Without access to real-time learning data, teachers face challenges in identifying and adapting to students' individual needs. As a result, many students are left behind or fail to reach their full potential.

Last but not least, outdated assessment methods also limit educational outcomes. Schools continue to rely heavily on standardized tests or quizzes that fail to capture real-time progress, critical thinking, creativity, or collaboration skills of the students. Teachers are left with incomplete information about student development, making it difficult to offer meaningful feedback or tailored support.

**<u>3.2 SOLUTIONS</u>**

Based on the problems stated, a personalised learning system powered by Big Data and AI presents a comprehensive solution to transform the current educational landscape. This system would utilize AI-driven adaptive learning platforms to deliver content tailored to each student's unique learning style, pace, and interests. By analyzing behavioral data such as time spent on tasks, interaction patterns, and quiz performance, the system can adjust lessons in real time to ensure students remain engaged, motivated, and challenged at the right level.

For students with diverse or special learning needs, the system would incorporate intelligent diagnostics to create and maintain a personalised learning plans. These plans would guide the delivery of customised content and include supportive tools such as text-to-speech functions, focus aids, reading assistance tools and interactive simulations. As a result, students receive learning experiences that are not only accessible but also empowering and inclusive.

In addition, the personalised learning system can include gamified quizzes and interactive assessments to replace the traditional tests or quiz sessions in class. AI tracks student progress through tasks like projects and discussions, while quizzes adapt in real-time to each student's performance. This provides teachers with detailed insights into each student's knowledge, critical thinking, and creativity which will help the students to acknowledge their progress and identify their strengths or areas for improvement. Teachers can also offer timely feedback and make early interventions if necessary for a more accurate and engaging view of student abilities.

## 3.3 TEAM WORKING

In order to make sure that the process goes smoothly, our team has followed the Design Thinking approach as a framework to develop the "Personalised learning system". In the empathise stage, we focused on understanding the users' needs and challenges. Our team member, Farrah played a key role in this phase by designing and distributing a survey form to collect feedback from potential users and an interview session to identify common learning challenges faced. Betty also contributed by analysing user pain points and learning behaviors, helping us align our system with actual learner needs.

During the define and ideate stages, Mardiah documented the development steps clearly to help the team stay on track and ensured that each step of design thinking approach was carried out systematically. Umi and Mardiah then contributed innovative ideas and proposed several key features for the system, while Mardiah created the initial sketches that helped visualize our ideas.

In the prototype and test stages, Umi took the lead in designing the prototype interface. These ideas were refined into a conceptual design, ensuring the system would be both user-friendly and data-driven. Then, our team member Najwa tested the prototype, ensuring it met functional and usability standards. She also wrote the project introduction, setting the tone for the entire report. Meanwhile, Betty prepared the presentation slides and video materials, and documented our process in the design thinking assessment section.

This structured division of tasks based on individual strengths enabled us to work efficiently and collaboratively toward a common goal.

## 4.0 DESIGN THINKING ASSESSMENT POINTS

The assessment of Design Thinking applies a well thought process to analyse important processes of innovation in the five major areas of assessment: **empathize, define, ideate, prototype, and test**. As part of the design thinking assessment, we focus on creating a **Personalised Learning System - SmartEdu** under the domain of Big Data and Artificial Intelligence, an educational system .

We began with the **empathize phase** by discussing ideas after class on how to build a system that benefits both students and lecturers. We arranged an interview with a student to understand their challenges. To gather broader insights, we also created and distributed a Google Form to students, allowing us to capture feedback and learning difficulties from both educator and student perspectives.

In the **define phase** , we gathered and analysed the problem statements identified through the interview and student survey. After conducting further research, we listed the issues in terms of priority. The key issues identified included challenges in understanding instructional material, maintaining focus, completing tasks within deadlines, seeking clarification when confused, and keeping pace with classmates.

Moving to the **ideate phase**, we had brainstorming sessions as a team to think of creative ideas and potential solutions. This was a critical stage in which the design thinking assessment helped us filter out unrealistic or unrelated suggestions and focus on those aligned with our goal. By the end of this phase, we agreed on the best solution that is an AI-powered adaptive learning platform that includes personalized content delivery, gamified assessments, and accessibility tools tailored for students.

In the **prototype phase**, we began designing our system by developing wireframes and mockups of the student dashboard, adaptive quizzes, and analytical reports for the student. These prototypes aimed to show how the system could adapt in real time based on individual student behavior, engagement, and performance data.

Finally, during the **testing phase**, we shared our prototype with a few students and educators to gather feedback on its usability and effectiveness. Their insights helped us improve the user

interface, refine the adaptive learning features, and make the platform more intuitive and inclusive.

**5.0 DESIGN THINKING EVIDENCE**

These days, students often fail to understand and focus fully in the classroom. With a personalized learning application, this helps students with different needs, preferences, and learning paces, which could provide a better educational experience for every individual student. By focusing on this design thinking evidence, this report explains how this approach could create an effective and engaging learning platform.

**5.1 Empathize**: Understanding Student Needs

The empathize phase of the design thinking process focuses on deeply exploring the challenges students face in traditional classroom settings. To gather authentic insights, we used a combination of interviews, surveys, and direct classroom observations. These tools revealed a recurring theme: many students feel disengaged or overwhelmed due to the rigid pace and format of conventional instruction.

Students expressed that lessons often move too quickly or fail to align with their learning styles. Some prefer visual aids and the ability to pause and reflect, while others thrive with hands-on activities or require additional time to process auditory information. For students with learning differences or language barriers, these struggles are even more pronounced, leading to frustration, anxiety, and diminished confidence.

To illustrate these findings, we interviewed one of the students. The interviewee is Sarah, a 23-year-old visual learner who needs more time to grasp new concepts. Sarah often feels left behind in fast-paced lessons and benefits from tools that allow her to learn at her speed. Her experience shows the broader needs of students who require more personalized and flexible approaches to learning.

This empathetic understanding formed the foundation for defining the core problem that the personalized learning system aims to solve.

Figure 5.0 : Interviewing face to face with a student

List of questions asked during the interview.

1. How often do you feel lost or confused during class?
2. How well do you think your teacher's pace matches your learning speed?
3. What is the biggest challenge you face in class?
4. Which learning methods help you understand best?

Figure 5.1



Figure 5.1 - 5.2: List of questions from questionnaire



Figure 5.2

## 5.2 **Define**: Identifying the Core Problem

After gathering and analysing the data from the empathize phase, it became clear that traditional classroom models fail to accommodate the full spectrum of student learning needs. While some students are left unchallenged and disengaged due to repetitive or slow-paced content, others feel overwhelmed by the rapid progression of lessons and lack of individual support. These contrasting experiences point to a single core issue: the pace and method of instruction in traditional settings do not reflect the varied learning speeds and styles of students. Below are a few of the results that we received from the questionnaire.
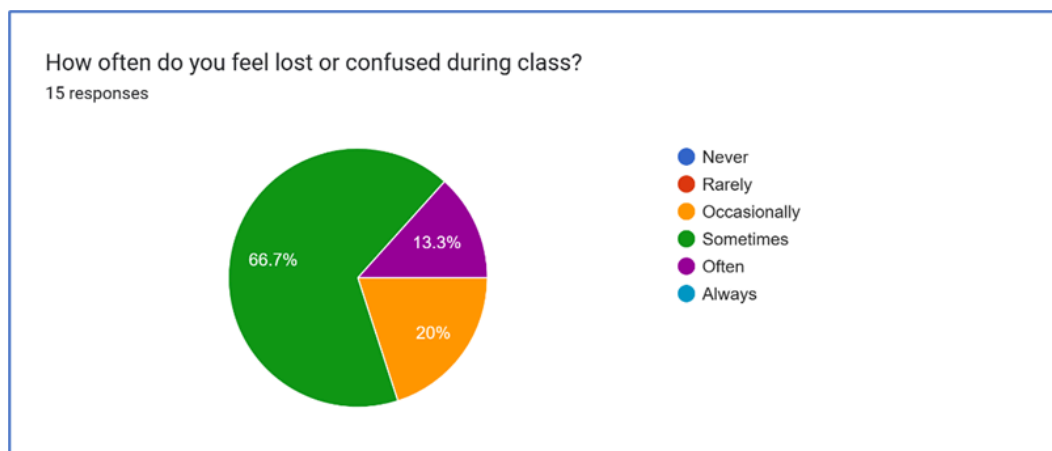


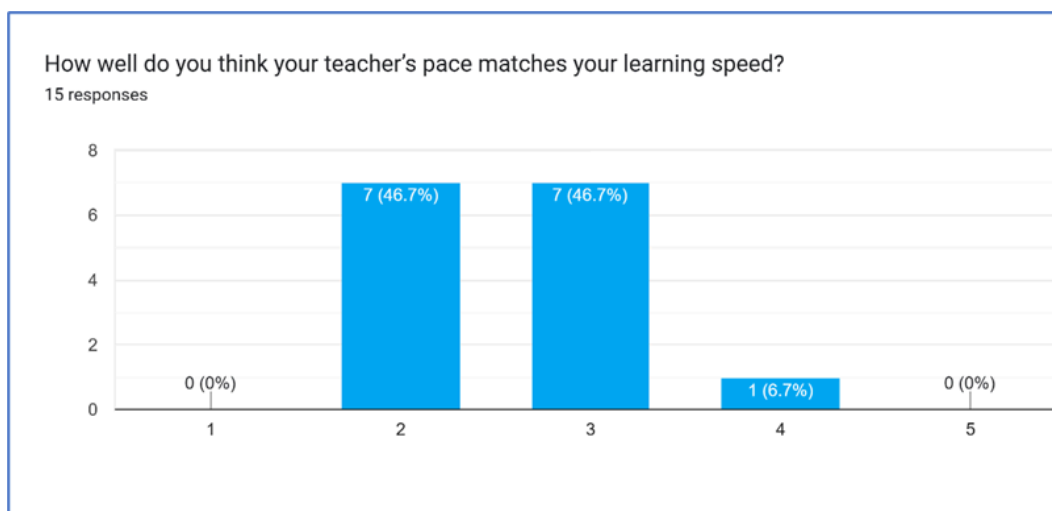Figure 5.3 Pie chart showing the confusion of student during classs



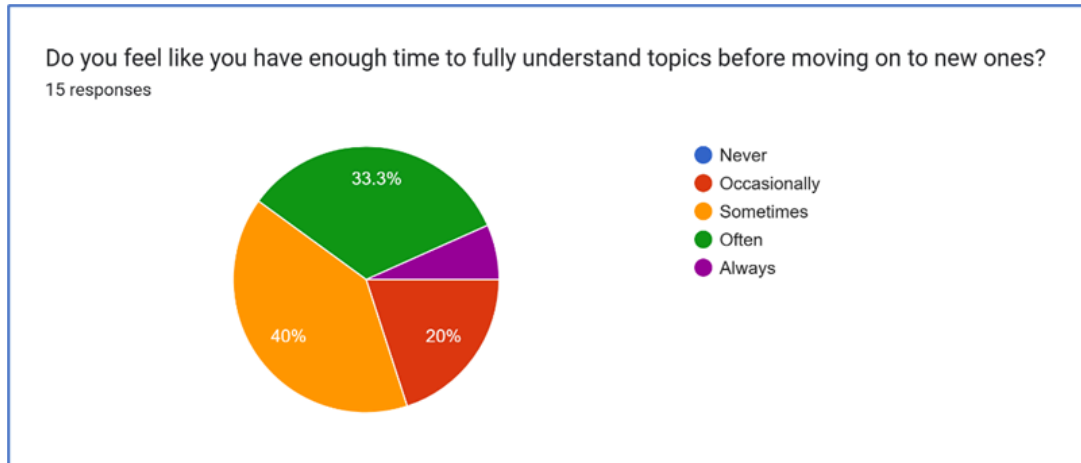Figure 5.4 Bar chart showing the student learning speed

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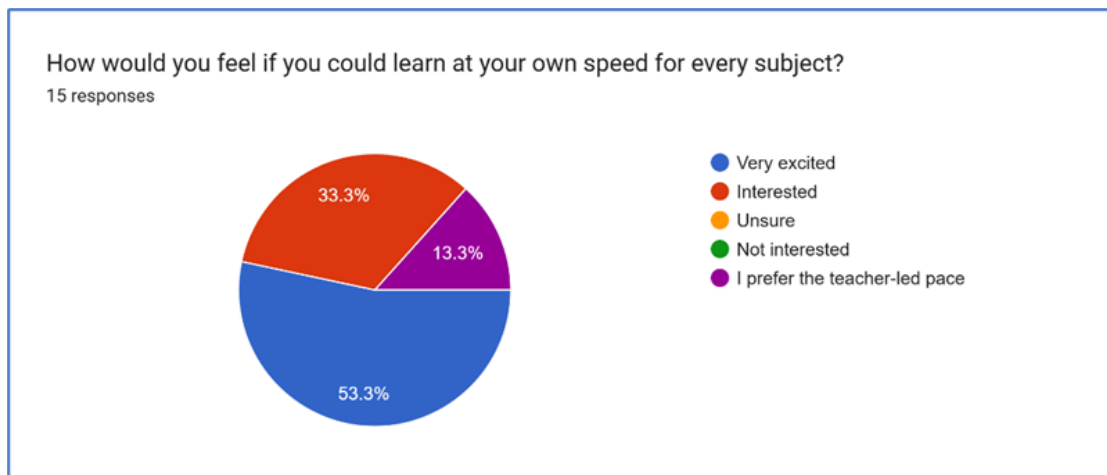Figure 5.5 Pie chart showing the time management of student for study



Figure 5.6 Pie chart showing student learning speed for every subject

From this understanding, we developed a clear and actionable problem statement:

*"Students with diverse learning paces are disengaged because traditional classroom instruction moves too quickly or too slowly for them."*

This problem manifests in several key pain points. Students who find the material too easy often experience boredom and a lack of motivation. Conversely, those who struggle to keep up may face increased frustration and anxiety, leading to diminished confidence in their learning abilities. Over time, both groups risk falling behind or disengaging entirely from their education. Recognizing these issues guided the next phase of our design thinking process by developing innovative, student-centred solutions to support more personalized, effective learning experiences.

5.3 **Ideate**: Generating Solutions

With a clear understanding of the core challenges faced by students in traditional learning environments, the next phase focused on creatively brainstorming potential solutions. This ideation stage was fuelled by insights gathered from the empathy and define phases, as well as an analysis of existing educational tools and systems. Our goal was to generate a wide array of ideas that could effectively address the diverse needs and preferences of modern learners.

During our brainstorming sessions and a detailed competitor analysis, we explored numerous ideas aimed at enhancing the personalization of educational experiences. We examined the strengths and limitations of existing platforms and gathered creative input from students, teachers, and instructional designers. These collaborative sessions highlighted several essential features that should be integrated into our personalized learning system.

These included adaptive learning modules that dynamically respond to student performance, ensuring that content difficulty adjusts to meet individual learning curves. Customizable learning paths emerged as another key feature, allowing students the autonomy to navigate topics in ways that suit their personal preferences and pace. Moreover, the incorporation of diverse content formats such as visual, audio, and interactive materials was also seen as vital to engaging different types of learners.

Additional innovations, like gamified progress tracking and real-time feedback systems, were proposed to sustain motivation and provide actionable insights for both students and teachers. These features collectively formed the conceptual foundation for the prototype phase of our project



Figure 5.7 First meeting

5.4 **Prototype**: Building a Testable Model

To bring our ideas to life, we developed a low-fidelity prototype that included initial wireframes for both the student dashboard and individual lesson screens. The prototype was designed to illustrate how the key features identified during the ideation phase could work together in a cohesive, user-friendly learning system.

The student dashboard displayed a personalized overview, showing each learner's current progress and providing recommended next steps based on their performance. Lesson screens were designed to be interactive and flexible, allowing students to select their preferred format for engaging with content, whether it be video, written text, mind map, or flashcard.

Additionally, we built an adaptive quiz component that modified question difficulty in real time based on student responses. To better visualize how the system would be used, we also created storyboards depicting a typical learning session from the perspective of a student like Sarah, helping us assess the system's usability and alignment with student needs.



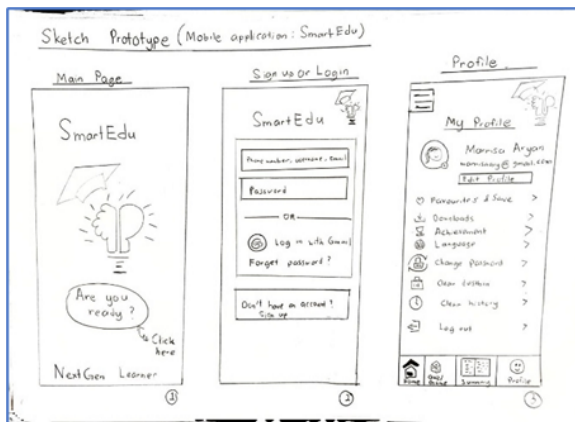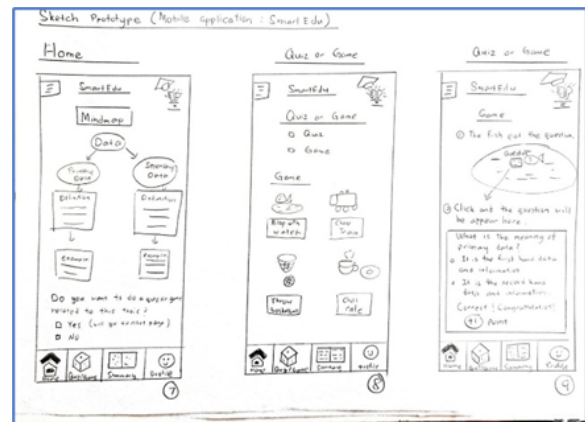**Figure 5.8 Prototype sketch**
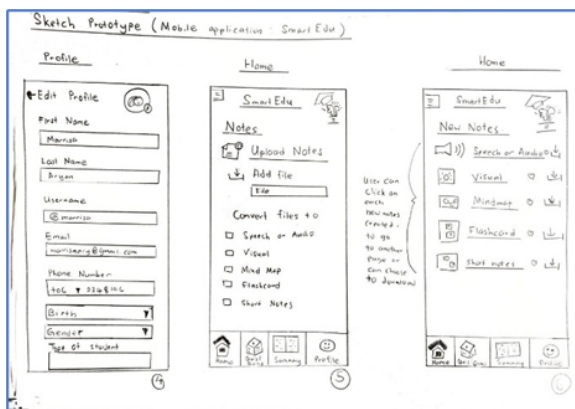


**Figure 5.9  Prototype sketch**
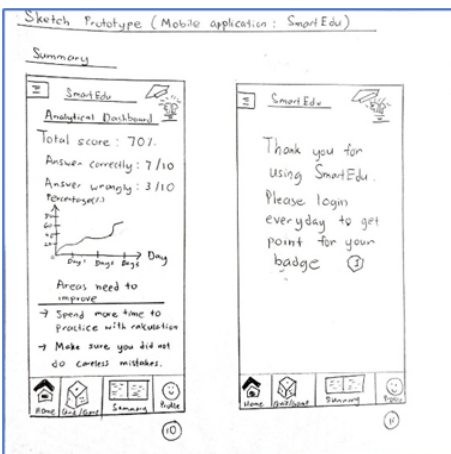


**Figure 5.10 Prototype sketch**

**Figure 5.12 Prototype Sketch**

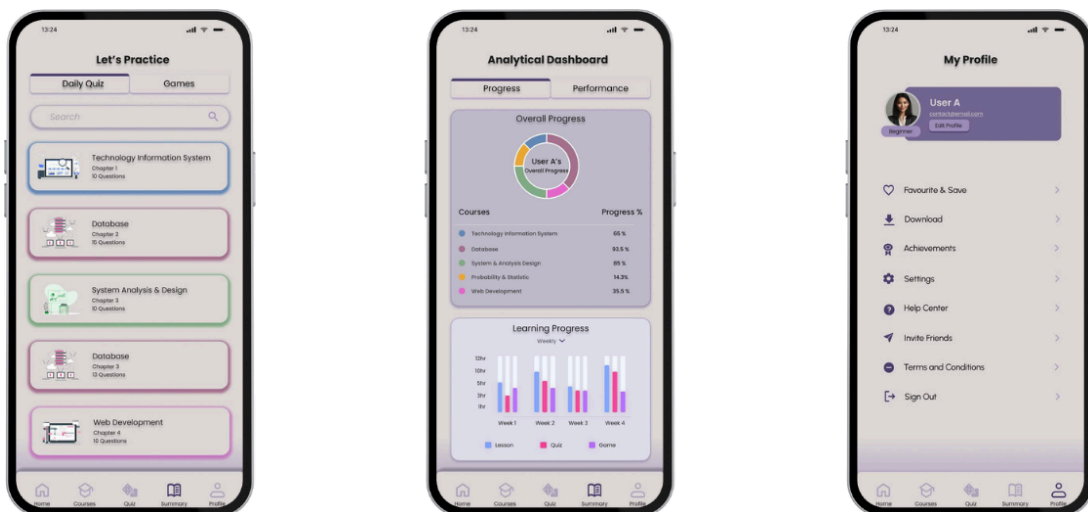**Photo Evidence Prototype Figma**



**Photo Evidence Prototype Figma**

**Figure 5.13: Product prototype**

## 5.5 PROTOTYPE TESTING PHASE

**Test**: Getting Feedback

To evaluate the effectiveness and usability of our personalized learning system, we conducted initial testing with 15 students and 2 teachers. This phase involved structured usability testing sessions in which participants interacted with the prototype, followed by targeted surveys to gather both quantitative and qualitative feedback. These tools enabled us to assess how intuitive and engaging the platform was for users, while also uncovering areas for improvement based on their real-world experiences and suggestions.

The feedback gathered during our pilot testing phase yielded several notable insights. First, an overwhelming 85% of students indicated that they felt more in control of their learning when using the personalized system. This sense of ownership and autonomy is a key driver of engagement and motivation.

Furthermore, both students and teachers expressed interest in enhancing the platform's motivational elements. A recurring suggestion was the inclusion of reward systems. In response to this feedback, we refined the prototype by adding a badge-based reward system and incorporating more dynamic learning visuals to sustain engagement and motivation across diverse user groups. 85% of students reported feeling more in control of their learning.



**Figure 5.14 : Shows the user is testing the prototype**

**6.0 REFLECTIONS**

A. Syahidatul Najwa Binti Zamri

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

  In the field of software engineering, my dreams may revolve around creating innovative and meaningful technological solutions, tackling complex challenges with creativity, and making a positive global impact. I might aspire to build a stellar career, lead transformative ventures, and continuously evolve through lifelong learning to stay ahead in a rapidly changing tech landscape. At its heart, it's about harnessing technology as a powerful tool to bring value to the world and I am at the center of that ambition.

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

  Design thinking plays a vital role in shaping my goals and dreams, by fostering a deep understanding of user needs and inspiring innovative problem-solving. Through this approach, I can explore creative solutions and practical strategies to design software that resonates with users on a meaningful level. It empowers me to prototype, adapt, and refine ideas while staying true to my aspirations in software engineering. With design thinking, I believe I can craft technologies that not only function effortlessly but also make a genuine impact, driving me closer to my vision of contributing to a connected and better world.

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

  To improve my potential in the software engineering industry, I would focus on continuously expanding my knowledge by mastering emerging technologies like AI, cloud computing, and blockchain to stay ahead of industry trends. Building practical experience is equally crucial, so I would engage in diverse projects, participate in

hackathons, and contribute to open-source platforms to develop my skills and create an impressive portfolio. Additionally, enhancing problem-solving abilities through tackling real-world challenges and optimizing solutions would help me adapt to complex scenarios. I would also prioritize networking by joining communities and connecting with professionals to learn from their experiences and unlock new opportunities. Strengthening soft skills, such as communication and teamwork, is vital for thriving in collaborative environments, alongside improving adaptability through effective time management and project prioritization. Lastly, pursuing certifications and specialized courses in fields like cybersecurity and cloud engineering would help me stand out and demonstrate my expertise. By focusing on these plans, I believe I can become a versatile and impactful software engineer, ready to contribute meaningfully to the industry.

B. Che Ku Mardiah Binti Che Ku Mahhadi

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

  It is my ambition to explore software and contribute to innovative solutions. This motivates me to continuously learn and adapt to the ever-evolving technological landscape. I recognize the importance of working cohesively with both humans and AI, as integrating the strengths of both offers tangible benefits and long-term value in my digital systems journey

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

  It makes me more creative and enhances my critical thinking when providing solutions to users. I am able to gain a better understanding of users' needs and expectations by viewing the application from their perspective. This iterative process of meeting requirements inspires me to continuously innovate and develop better solutions. Additionally, collaborating with my teammates fosters diverse perspectives in tackling specific challenges and helps me improve my soft skills, which will undoubtedly benefit my future career.

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

  The evolution of technology and the rise of AI have sparked revolutionary ways for me to improve and stay relevant in the industry. By thinking outside of the box and approaching solutions with creativity and innovation, I am able to adapt more effectively. Additionally, using tools like Copilot and prompts efficiently enhances my workflow, allowing me to focus on high-impact, value-added contributions within the industry.

C. Umi Izzatul Natasha Binti Mohd Fadzil

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

  My goal is to become a skilled UI/UX designer with a strong foundation in software engineering. I want to create digital products that are not only technically sound but also intuitive, accessible, and enjoyable for users. I'm particularly interested in crafting interfaces that improve the overall user experience by combining design thinking with solid engineering principles that function seamlessly, that will help users interact with complex technologies in a simple and meaningful way.

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

  Design thinking has influenced the way I approach problem-solving situations. It taught me to prioritise users' needs and experiences, rather than jumping straight into technical solutions. This helps me combine between functionality and usability, ensuring that the software I build is both effective and user-friendly.

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

  To enhance my potential in the industry, I plan to continue developing my skills in both design and development. This includes improving my proficiency with design tools, while also deepening my understanding of front-end technologies. I aim to build a strong portfolio that showcases my ability to design and implement user-driven applications, and I will seek opportunities for internships, freelance work, or collaborative projects to gain real-world experience and refine my skills and knowledge.

D. Betty Olivia Ong Danker

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

I wish to be a complete IT man who has solid skill in network/security along with software development and UI/UX design. My goal is to create secure, user-friendly software that solves real world problems. I'd like to eventually become a contributor to the tech world, by building systems that are not only unique, but also secure, and maybe even starting my own startup.

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

Design thinking helps me think about the users in everything I make. It balances how something works with how easy it is to use which is super important to me as I learn more about app and software development. I'm still studying and learning computer science especially in network and security but design thinking has already taught me how to build systems that are not only secure but also simple and effective for users. It also teaches me to solve problems in a creative and thoughtful way which is helpful in both software development and cybersecurity.

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

In order to increase my career potential in the best possible way in the industry, I'm going to develop and create connection with industry professionals , participate in tech community events, and contribute on social and professional communities such as LinkedIn and GitHub. I will also make a personal portfolio where I will publish projects in the area of cybersecurity, software development, and UI/UX design. I want to be hands on in this process, so I plan to apply for internships that cater to my career aspiration, as well as freelance to develop my skills and gain poise. I will also be learning through online courses and certifications to keep up with the latest technologies for the network security and also, software development.

E. Nur Farrah Ha Binti M Waled

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

  My goal is to become a highly skilled and reliable IT professional who ensures smooth, secure, and efficient technology operations for organizations. I aspire to advance into roles such as IT systems administrator, network specialist, or even IT manager, where I can lead support teams and contribute to strategic technology decisions.

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

  Design thinking helps me approach IT issues from the user's perspective. Instead of just fixing problems, it encourages me to understand the root causes and improve the overall user experience. This mindset promotes proactive problem-solving, system improvement, and better communication — all of which are essential for growing into a more strategic IT support role

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

  To improve my potential in the IT support industry, I plan to focus on both technical and soft skills development. Earning certifications like CompTIA A+ and Microsoft 365 will strengthen my foundation in troubleshooting, system administration, and cloud-based tools. I also aim to gain hands-on experience with support systems such as ticketing platforms and remote assistance tools to become more efficient in real-world environments.

  Equally important are communication and problem-solving skills, which are essential in helping users feel supported and understood. By improving my ability to explain technical solutions clearly and staying calm under pressure, I can offer better service and build trust with end users.

  To stay competitive, I will continue learning about emerging technologies like cybersecurity and cloud services, while actively seeking new challenges and

responsibilities in my role. This balanced approach will help me grow into a more effective and valuable IT support professional.

## 7.0 TASK OF EACH MEMBERS

| Members | Task |
|---|---|
| Syahidatul Najwa Binti Zamri | ● Report Writing (Introduction)<br>● Test Prototype |
| Che Ku Mardiah Binti Che Ku Mahhadi | ● Report Writing (Detailed Step)<br>● Prototype Sketch<br>● Compile |
| Umi Izzatul Natasha Binti Mohd Fadzil | ● Report Writing (Detailed Description)<br>● Prototype Design |
| Betty Olivia Ong Danker | ● Report Writing (Design Thinking Assessment Points)<br>● Presentation Slides & Video Presentation |
| Nur Farrah Ha Binti M Waled | ● Report Writing (Design Thinking Evidence)<br>● Interviewing |