COLLEGE OF COMPUTING, INFORMATICS AND MATHEMATICS

BACHELOR OF INFORMATION TECHNOLOGY (HONS.)

ICT500

CRITICAL AND CREATIVE THINKING FOR INFORMATION TECHNOLOGY SOLUTION

GROUP PROJECT:

THE SELF REFLECT APPS

PREPARED FOR:

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SUBMISSION DATE:

4 JANUARY 2024

CONTENT

1.0 INTRODUCTION.

In the dynamic landscape of our networked society, the importance of manners has become ever more important. The fusion of a fast-paced, technology-driven lifestyle with diverse social interactions requires a thoughtful and adaptable approach to social behavior. For this reason, we set out to develop an application that not only addresses the challenge of ineffective etiquette, but also uses innovative visualization techniques to improve the learning and application of polite behavior.

As we move across multiple social contexts, both in person and online, the demand for a nuanced understanding of today's etiquette has never been greater. The challenges of digital communication, coupled with the evolving dynamics of various social interactions, underscore the importance of adapting traditional etiquette to the complexities of the modern world.

Our application aims to be more than just a set of guidelines. It aims to be a personal guide that harnesses the power of technology to create a user-friendly platform that promotes a deeper understanding of etiquette. By combining traditional principles with innovative visualization techniques, we aim to provide users with a holistic set of tools to navigate the intricacies of social behavior.

Visualization is at the heart of our approach. Understanding and improving etiquette can be a complex process where traditional methods fall short in capturing the nuances of social behavior. Visualization transforms this process into a dynamic and engaging experience that allows users to see their progress, identify areas for improvement and grasp the impact of their behavior on the overall social landscape.

Our application will offer personalized guidance on etiquette that takes into account individual preferences, cultural nuances and the unique challenges of the digital age. Through an interactive interface, users can receive tailored advice based on their unique social context.The application promotes a sense of community among users. Through shared goals, challenges and achievements, users can connect and learn from each other. Visualization tools are used to show the collective impact of positive social behavior and create a supportive network committed to cultivating good manners.

Our goal is to develop an application that not only teaches the wisdom of good manners, but also makes the learning process dynamic, engaging and applicable to the intricacies of today's world. Join us on this journey to a more polite and connected society.

2.0 GROUP OF CONTENT.

In our modern, fast-paced world, less and less value is placed on good manners. The fusion of a hectic lifestyle and an increasing reliance on digital communication has led to a shift away from polite and respectful behavior. Whether in online interactions or face-to-face encounters, the need for positive social behavior is more urgent than ever.

Ineffective manners can put a strain on relationships, both personal and professional. Miscommunication, misunderstandings and a lack of courtesy contribute to an environment where it becomes difficult to build and maintain meaningful relationships. While the rise of digital communication is convenient, it has also brought new challenges. The lack of non-verbal cues often leads to misinterpretation. Therefore, it is important to find innovative ways to promote effective etiquette in virtual spaces. Incorporating visualization into strategies to improve etiquette can be a game changer if one recognizes the need for a solution.

Visualization tools can help individuals track and understand their behavior patterns. By displaying data in charts or graphs, users can identify situations where their manners are excellent and areas that need improvement. This visual feedback encourages self-awareness and guides individuals on their path to better social behavior. Imagine having a personal dashboard that visually displays your progress in developing good manners. Instead of traditional lists, you can engage with interactive interfaces that display successes, highlight areas for growth and provide a clear roadmap for improvement. This approach makes the learning process more engaging and motivating.

The visualization goes beyond personal progress to include the community. Users can participate in virtual communities where visual representations of collective achievements and challenges create a sense of shared growth. This supportive environment encourages users to learn from each other, share insights and work together to improve social behavior.

As we face the challenges of ineffective etiquette in our digital age, integrating visualizations is not only a solution to these problems, but also makes the path to cultivating positive social behavior more accessible, engaging and impactful. In the following sections, we will take a closer look at specific tools and features that leverage visualization to create a culture of respect, civility and effective communication in our interconnected society.

3.0 MEMBER ROLE, SKILLS AND EXPERTISE.

Name:	NUR IZZAT BIN SAHARUDIN
Student ID:	2022694896
Team Role:	Team Leader
Skills:	Communication and interpersonal skills.
Expertise:	Project management skills, Leadership and team coordination

Name:	MUHAMMAD SYAHRIZAN BIN SHAMSUL
Student ID:	2022266554
Team Role:	Data Analyst
Skills:	Data analysis and interpretation
Expertise:	Proficiency in data analytics tools (e.g., Excel), Statistical analysis and hypothesis testing.

Name:	MUHAMMAD IQKFAN BIN MOHD SAHA
Student ID:	2022654726
Team Role:	UI/UX Developer
Skills:	UX design principles and User research and testing.
Expertise:	Proficiency in design tools (e.g., Sketch, Figma).

Name:	MOHAMMAD DANIAL HAIKAL BIN M.ZAKI
Student ID:	2023759531
Team Role:	Content Educator
Skills:	Communication skills for conveying educational concepts effectively
Expertise:	Content creation and writing Instructional design

4.0 OBJECTIVES.

1. Understand and recognize:

Develop tools that help users recognize and understand their own behavior patterns, especially in relation to their manners. Enable users to recognize situations where their manners are excellent and areas where they need improvement.

2. Encourage personal development:

Encourage personal development in terms of social behavior and etiquette. Provide users with a personalized dashboard that visually displays their progress, accomplishments and areas where they can still grow.

3. Community engagement:

Create a supportive virtual community to foster shared learning and growth. Implement features that allow users to connect, share experiences and collaborate to improve positive social behavior.

4. Communicate effectively in digital spaces:

Address the challenges that digital communication brings to promoting effective etiquette. Develop tools and resources that specifically target etiquette in virtual spaces and take into account the unique dynamics of online interactions.

5. Visual representation for motivation:

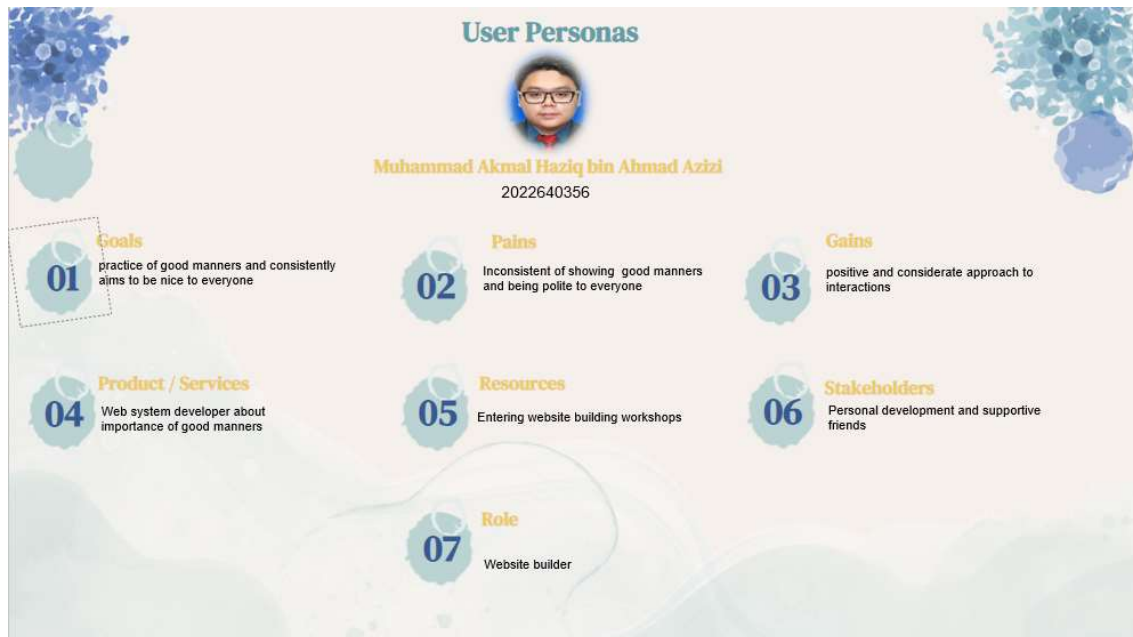Use visualization as a motivational tool. Use engaging and interactive visual representations of progress to motivate users on their journey to develop and maintain good etiquette.

6. Empower users:

Empower users to take control of their own social development. Provide resources, guidance and interactive features that enable users to actively participate in developing positive social behavior.

5.0 WORK SAMPLES

5.1 USER PERSONA

User Personas

Najwa Liyana Binti Rosdeen
2022698274

Goals
01 Strives for a more orderly and purposeful life

Pains
02 Unsatisfied with unachieved goals, indicating a desire for personal growth

Gains
03 Values oneness with God (Tawhid) as a fundamental principle

Product / Services
04 Personal Growth and Manners Improvement App

Resources
05 Islamic Etiquette and Personal Growth Blog

Stakeholders
06 Islamic Scholars and Life Coaches
Content Creators for the Blog
App Developers and Designers

Role
07 Devout Muslim and Personal Growth Enthusiast

User Personas

Muhammad Akmal Haziq bin Ahmad Azizi
2022640356

Goals
01 practice of good manners and consistently aims to be nice to everyone

Pains
02 Inconsistent of showing good manners and being polite to everyone

Gains
03 positive and considerate approach to interactions

Product / Services
04 Web system developer about importance of good manners

Resources
05 Entering website building workshops

Stakeholders
06 Personal development and supportive friends

Role
07 Website builder

User Personas

Siti Nursyahidah binti Suhaili
202267534

Goals
01 To foster positive interactions and create a harmonious environment

Pains
02 Unsatisfied with unachieved goals, indicating a desire for personal growth

Gains
03 values good manners deeply, seeing them as rooted in respect, empathy, and consideration for others

Product / Services
04 Communication and public speaking tips workshops

Resources
05 Online learning platforms

Stakeholders
06 Supportive colleague

Role
07 Sales Advisors

User Personas

Azura binti Jamaludin
2022888198

Goals
01 To values the impact of good manners on public perception

Pains
02 Maintain of demonstrating empathy and actively supporting those in distress

Gains
03 Views good manners as a tool to win people's hearts in public places

Product / Services
04 Sales Enablement Platform

Resources
05 Sales Training Webinars and Podcasts

Stakeholders
06 Content Creators and customer's success team

Role
07 Sales Representative in Technology Industry

User Personas

Mohd Shukri bin A. Rahman
2022467656

Goals
01 To demonstrates positive attitudes through his actions, such as offering assistance and demonstrating empathy

Pains
02 Cant fully engages in actions that show respect and consideration for others

Gains
03 Actively engages in positive actions and behaviors, reflecting a commitment to social etiquette

Product / Services
04 Language Learning App

Resources
05 Language Learning Community Forum

Stakeholders
06 App Developers / Designers and language Instructors

Role
07 International Business Professional

A user persona is an intricately crafted and fictitious representation meticulously constructed to embody the quintessential and broadly generalized characteristics of an ideal user interacting with a product, service, or system. This conceptual archetype serves as a pivotal tool for businesses and design teams, fostering a profound understanding and empathetic connection with the intricate tapestry of needs, goals, behaviors, and preferences inherent in their target audience.

Derived from comprehensive research, robust data analytics, and keen insights garnered from real users, these meticulously detailed personas play a pivotal role in steering product development, guiding design decisions, and shaping strategic marketing initiatives. By integrating user personas into the development process, businesses can ascertain that their final product is not only user-centered but also aligns seamlessly with the nuanced expectations of the intended audience, culminating in an experience that resonates authentically with the diverse and dynamic characteristics of their user base.

5.2 FISHBONE DIAGRAM
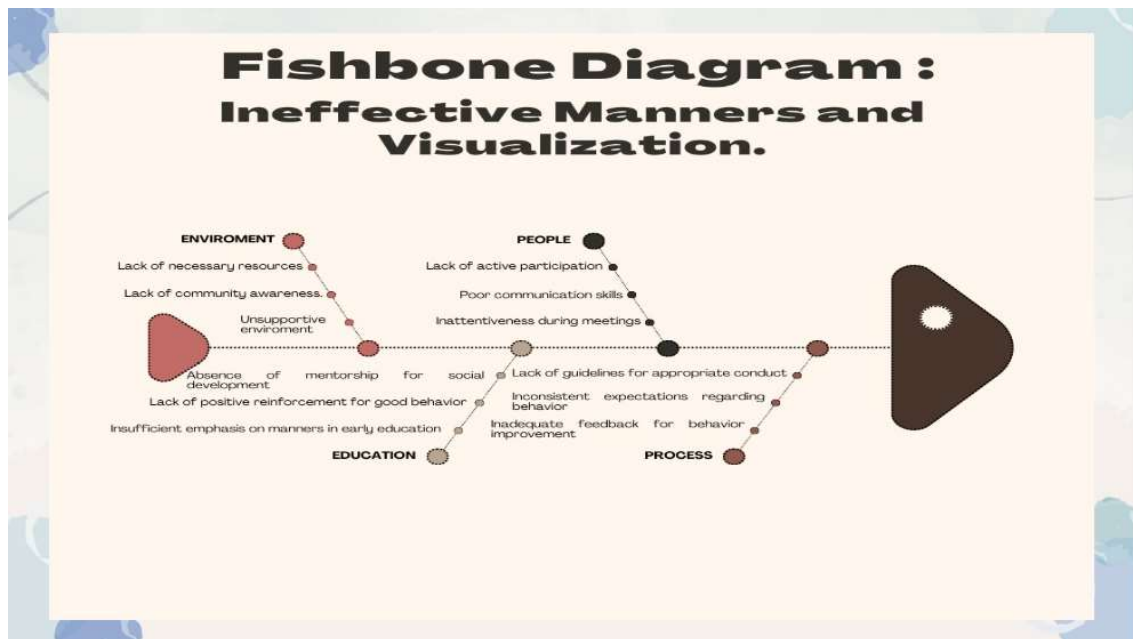
A fishbone diagram, also known as an Ishikawa diagram or cause-and-effect diagram, is a visual representation that helps to identify, investigate and organize the potential causes of a particular problem or effect. The diagram gets its name from its shape, which resembles the skeleton of a fish, with the "head" representing the problem or effect and the "bones" representing the main categories of potential causes.

The main purpose of a fishbone diagram is to provide a structured and systematic analysis of the factors contributing to a problem. It is particularly useful in problem solving and process improvement initiatives. The main categories or "bones" typically include people, processes, equipment, environment, materials, measurements, policies and procedures. These categories can be customized depending on the specific context of the problem being analyzed.

The fishbone diagram encourages a team or individual to brainstorm and assign the potential causes to each category to uncover the root causes of the problem. By visually representing the various factors contributing to a problem, teams can gain a holistic understanding and prioritize their efforts to address key challenges.

The fishbone diagram is often used in quality management, Six Sigma and other problem-solving methodologies. It serves as a powerful communication tool that encourages collaboration between team members and stakeholders as they work together to find solutions and improvements.

5.3 QaDIM
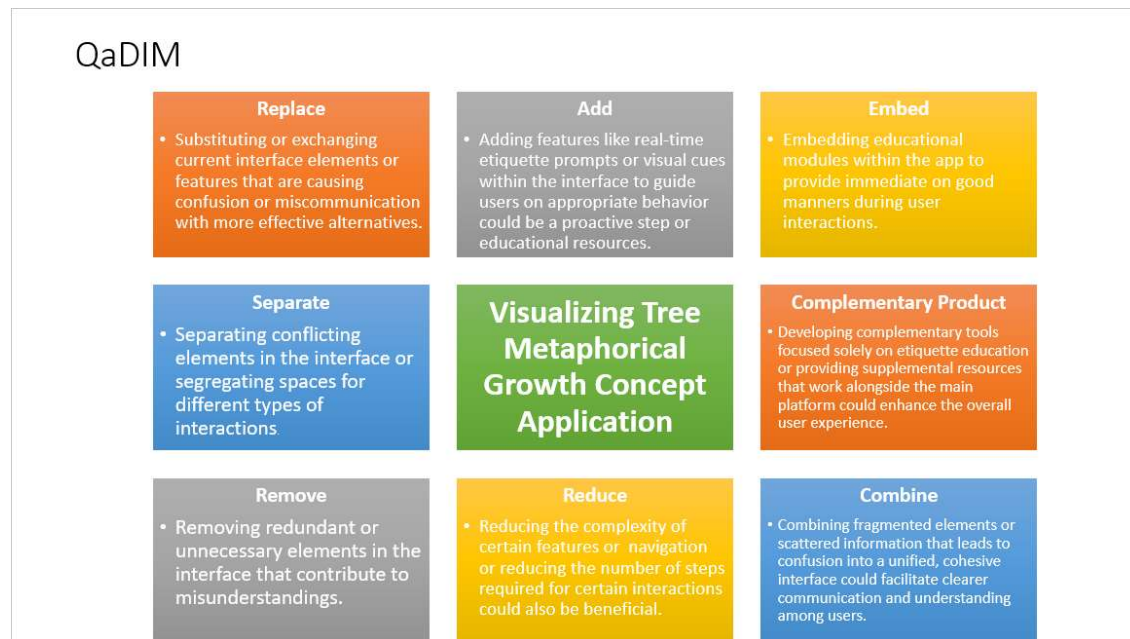
In this diagram that showcase QaDIM for our "The Self Reflect App" project. Our project was based on using QaDIM method. QaDIM is a method used to identify the changes that happened during the process of designing our application by using reference applications, which then transferred to our application as our based structure. During this process, multiple changes have taken place.

We are substituting and exchanging current interface elements or features that are causing confusion or miscommunication with more effective alternatives is a fundamental approach to enhancing user experience. This involves a meticulous analysis of user interactions to identify elements that may be contributing to confusion, subsequently replacing them with more intuitive and user-friendly alternatives.

In addition to substitution, a proactive strategy involves adding features such as real-time etiquette prompts or integrating visual cues within the interface to guide users on appropriate behavior. This not only addresses current challenges but also takes a forward-thinking, educational approach to promote positive user interactions. By providing resources and guidance directly within the interface, users can learn and adapt their behavior in real-time.

Embedding educational modules within the app constitutes another valuable strategy. These modules serve as immediate resources on good manners during user interactions, ensuring that users have access to relevant information precisely when they need it. This educational embedding not only supports users in refining their social behavior but also aligns seamlessly with their ongoing interactions within the application.

The strategy of separating conflicting elements in the interface or creating designated spaces for different types of interactions adds a layer of clarity to the user experience. This separation minimizes the likelihood of misunderstandings and provides users with distinct, organized environments tailored to specific types of engagement, ultimately contributing to smoother and more comprehensible interactions.

The development of complementary tools solely focused on etiquette education or the provision of supplemental resources that work alongside the main platform represents a robust complementary product strategy. By offering additional tools or resources, users can delve deeper into etiquette education, creating a holistic ecosystem that enriches their overall experience.

To further refine the user experience, removing redundant or unnecessary elements in the interface that contribute to misunderstandings is imperative. This simplification process streamlines user interactions, reducing potential points of confusion and fostering a more intuitive and enjoyable interface.

Reducing the complexity of certain features or navigation, as well as minimizing the number of steps required for specific interactions, is another constructive approach. This reduction not only enhances the user experience but also ensures that users can seamlessly navigate the interface, minimizing the risk of confusion and maximizing efficiency.
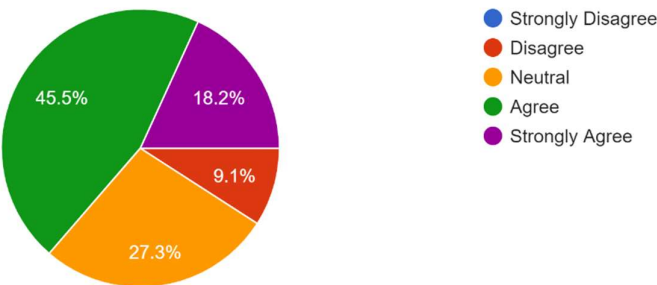
Lastly, the strategy of combining fragmented elements or consolidating scattered information that leads to confusion into a unified, cohesive interface is instrumental. This consolidation fosters clearer communication and understanding among users, promoting a harmonious and efficient user experience.

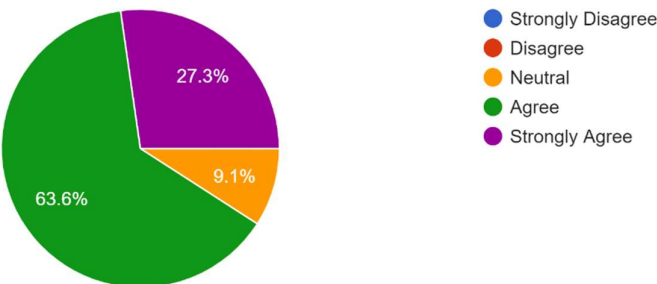# 5.4 SYSTEM USABILITY SCALE (SUS) SCORE

1. I think that i would like to use this website frequently.

11 responses

Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree

45.5%
9.1%
9.1%
36.4%
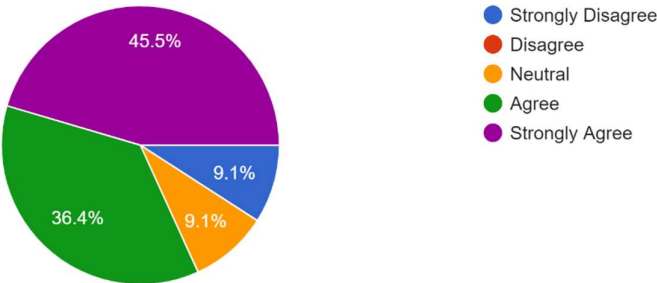
2. I found the website unnecessarily complex.

11 responses

Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree

45.5%
18.2%
9.1%
27.3%

3. I thought the website was easy to use.

11 responses

Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree

27.3%
9.1%
63.6%

4. I think that I would need the support of a technical person to be able to use this website.

11 responses

- ● Strongly Disagree
- ● Disagree
- ● Neutral
- ● Agree
- ● Strongly Agree

27.3%
18.2%
18.2%
36.4%
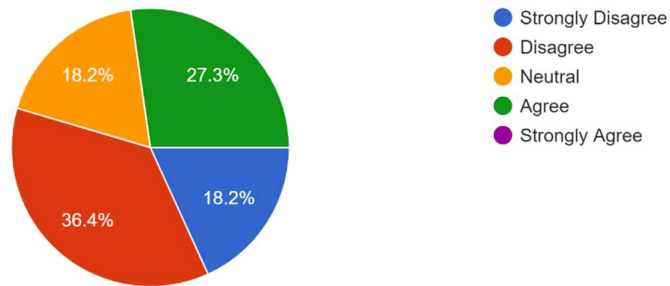
5. I found the various functions in this website were well integrated.

11 responses

- ● Strongly Disagree
- ● Disagree
- ● Neutral
- ● Agree
- ● Strongly Agree

45.5%
9.1%
45.5%
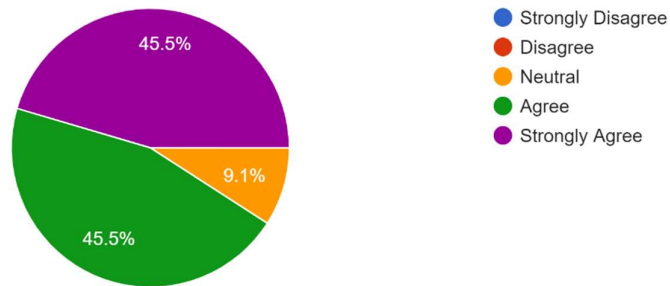
6. I thought there were too many inconsistency in this website.

11 responses

- ● Strongly Disagree
- ● Disagree
- ● Neutral
- ● Agree
- ● Strongly Agree

36.4%
9.1%
9.1%
27.3%
18.2%
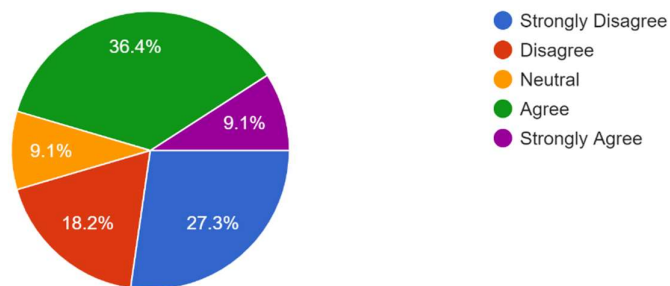
7. I would imagine that most people would learn to use this website very quickly.

11 responses

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

27.3%
9.1%
63.6%
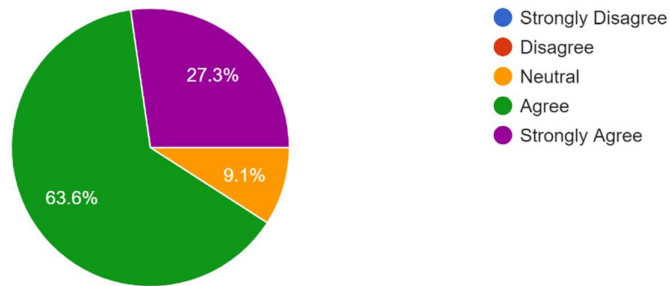
8. I found the website very cumbersome/awkward to use.

11 responses

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

9.1%
18.2%
18.2%
9.1%
45.5%
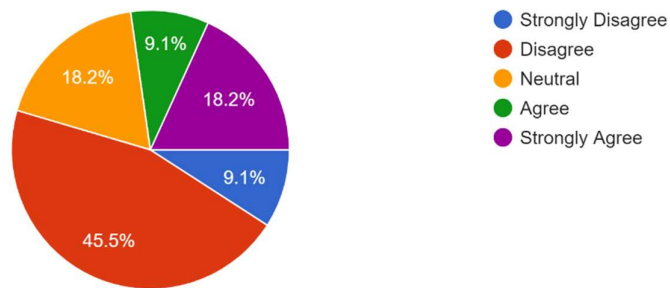
9. I felt very confident using the website.

11 responses

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

54.5%
9.1%
9.1%
27.3%
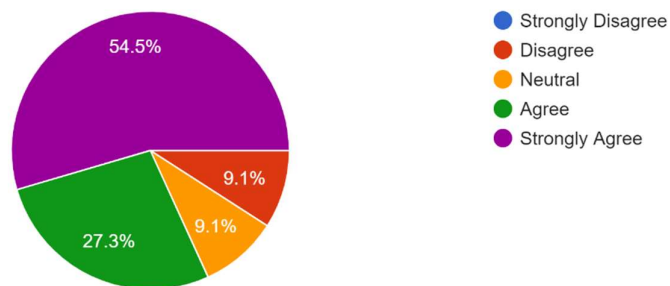
10. I needed to learn a lot of things before I could get going with this system.

11 responses

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree
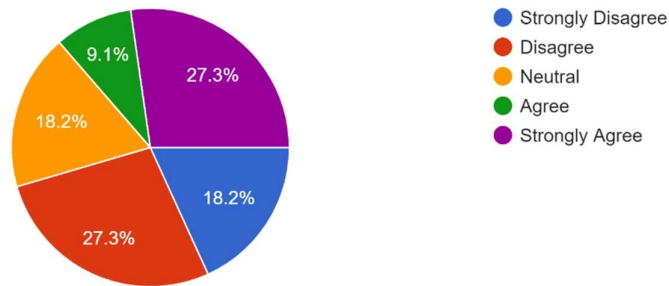
O
SUS SCORE
47.5
70
60
52.5
77.5
80
72.5
65
70
80
80
68.63636364

The System Usability Scale (SUS) is a widely used questionnaire for assessing the perceived usability of a system. It provides a subjective measure of a user's perception of usability based on a set of 10 questions.

The SUS score is calculated based on user responses to these questions. The scores can range from 0 to 100, with higher scores indicating better perceived usability. Generally, a SUS score above 68 is considered above average, and a score above 80 is considered excellent.

Here is a rough interpretation of SUS scores:

85 and above: Excellent

70 to 84: Good

50 to 69: OK

Below 50: Poor

It's important to note that while the SUS provides valuable insights, it's just one measure of usability, and other usability testing methods and metrics should be considered for a comprehensive evaluation of a system's usability.
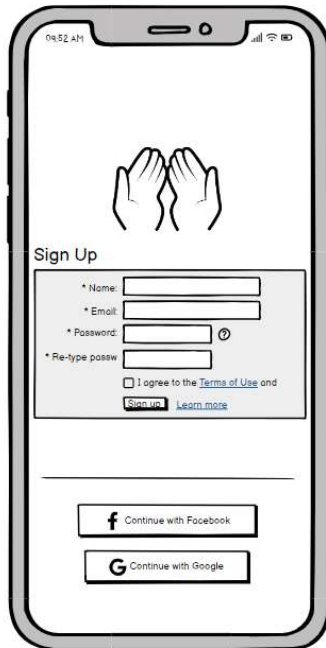
5.5 SKETCH PROTOTYPE
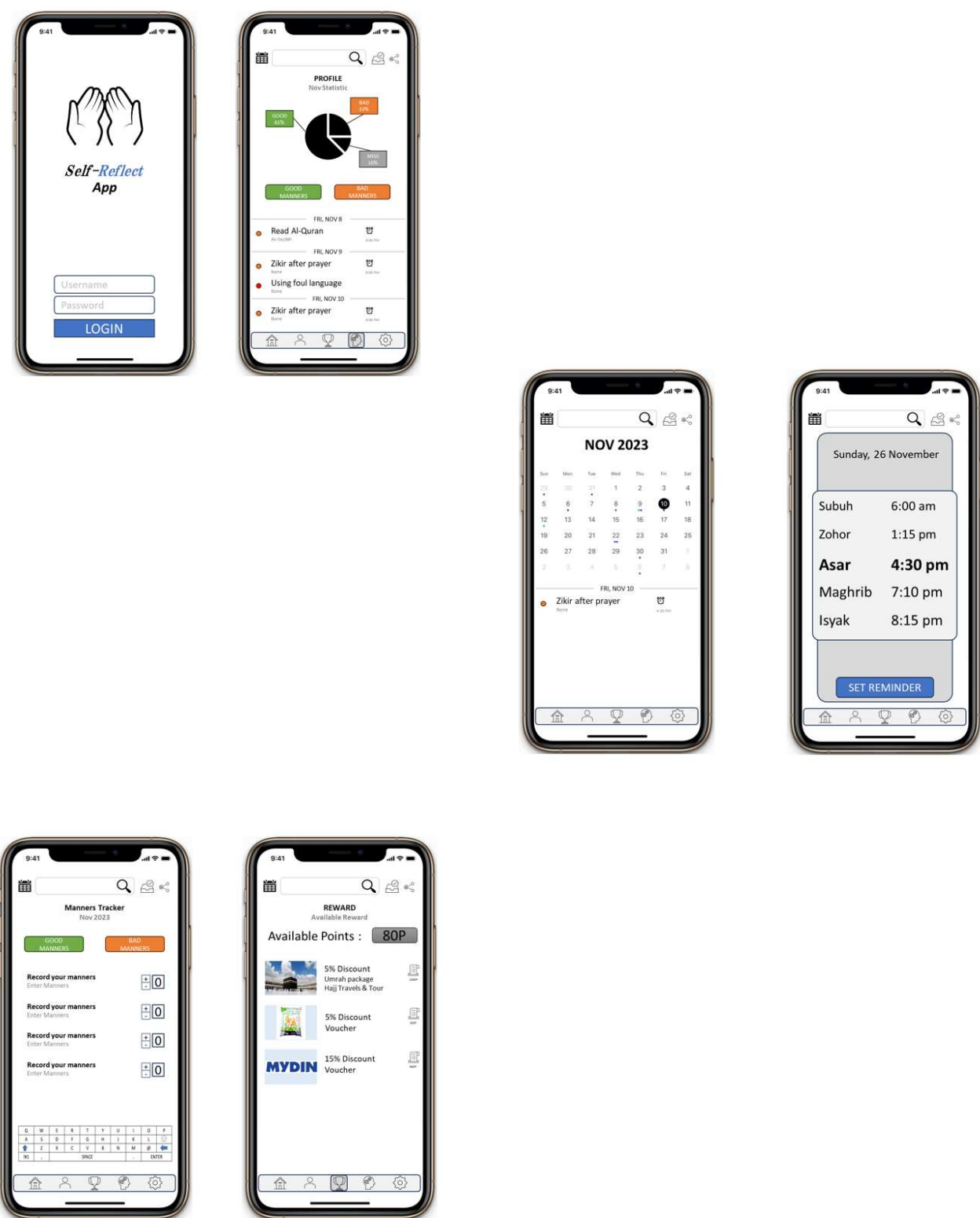
5.6 SAMPLE PROTOTYPE

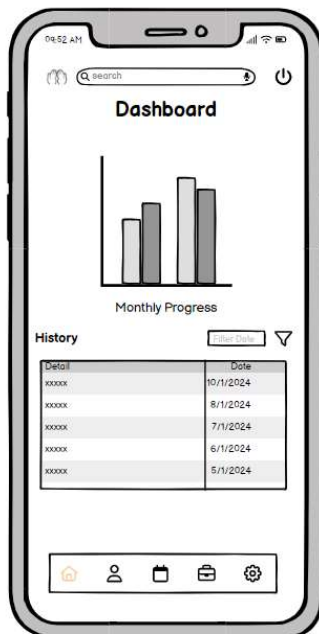**LOGIN PAGE**

This is our login page for user to enter their email and password.

RESET PASSWORD PAGE

If user forget the password, the user can key-in their email and can make confirmation at email to reset the password.

SIGN-UP PAGE

This is our sign-up page for user to create new account.
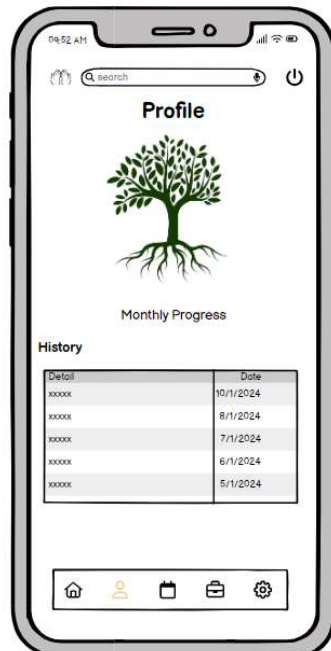

DASHBOARD

This dashboard is designed to user can saw overall progress about their manners.
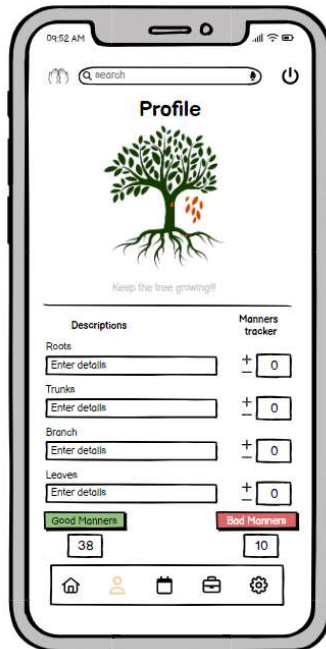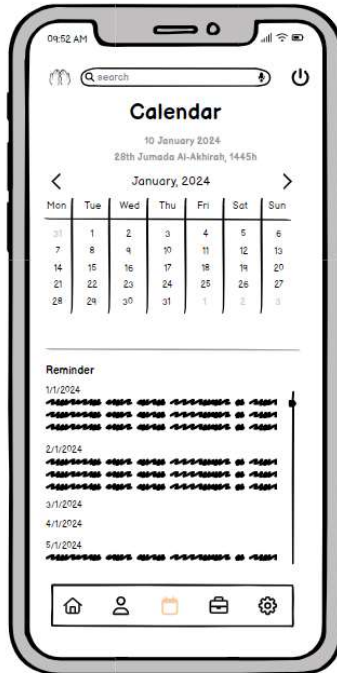
PROFILE

The profile for the user can key-in their data for good manners and bad manners.

This page also has illustrator tree visual to present to user about their manners.
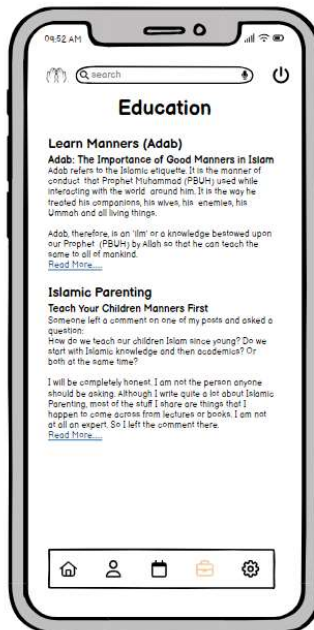

HISTORY

We also designed for user to see their history about their manner behavior.

CALENDAR

At this calendar, user can create their activity or appointment. This app can reminder the user about their activity that already set up from user.

EDUCATION

This education page, user can get any information about to be a good manner person. Everyday, this page will update the new information.
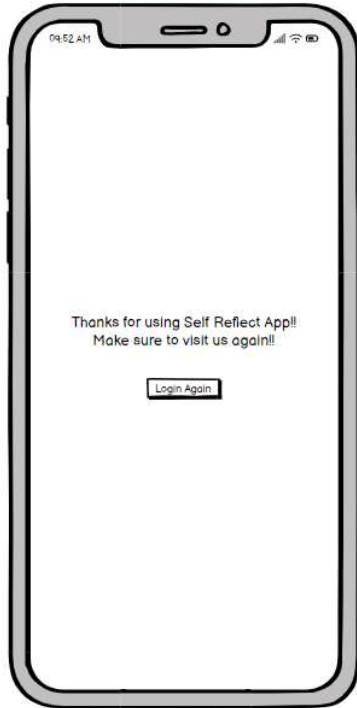
SETTINGS

This settings page, user can see about their detail, change the language and so on.

ABOUT ME

This is interface about me. Use also can update the detail at here.

Thanks for using Self Reflect App!!
Make sure to visit us again!!

Login Again

LOGOUT PAGE

This is log out interface if user click log out button at setting page. If user click at "Login Again", it will show the login page.

6.0 DEMO VIDEO PROTOTYPE
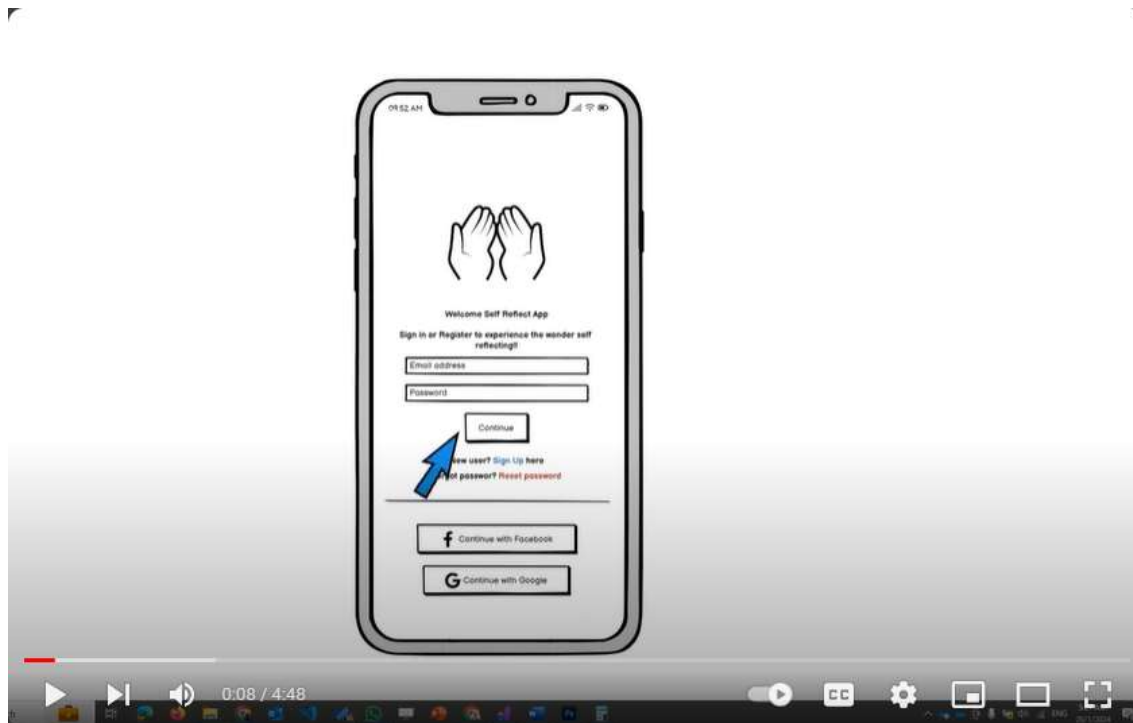
Here, we've attached the link of demo video prototype: https://youtu.be/z_NIeBzGpzo

7.0 LINK TO EACH MEMBER SELF REFLECTION

MUHAMMAD SYAHRIZAN BIN SHAMSUL (2022266554)

LINK: https://www.slideshare.net/slideshows/ict450-critical-and-creative-thinking-for-information-technology-solution-selfreflection-portfolio/266095317

NUR IZZAT BIN SAHARUDIN (2022694896)

LINK: https://youtu.be/nvyPQXh-oYc

MUHAMMAD IQKFAN BIN MOHD SAHA (2022654726)

LINK:
https://www.youtube.com/watch?v=4T4_rDfd3oA&ab_channel=MuhdIqkfan

MOHAMMAD DANIAL HAIKAL BIN M.ZAKI (2023759531)

LINK: https://drive.google.com/drive/folders/12mF65gZZrfbNbTq5_B1_-_a_FG9CIpsI?usp=sharing

8.0 WHAT WE LEARN ON THIS PROJECT.

Over the course of this project, our team has gained invaluable insights and knowledge that have contributed significantly to our understanding of user interactions and effective interface design. One of the key learnings is the importance of proactive measures to improve the user experience. We have learned the importance of getting to the root of problems by replacing or swapping out current interface elements that cause confusion with more effective alternatives.

In addition, integrating features such as real-time label prompts and visual cues into the user interface has emphasized the value of education as a proactive strategy. We realized that guiding users to the right behavior not only solves immediate problems, but also creates a user base with a better understanding of expected norms. Embedding educational modules into the app has shown us the importance of immediate and contextual resources. Providing information on good etiquette during interactions makes for a seamless learning experience that aligns education with the real-time needs of users.

Our exploration of the strategy to separate conflicting elements in the user interface highlighted the importance of clarity and organization. Creating distinct areas for different types of interactions not only minimizes misunderstandings, but also promotes a more organized and user-friendly environment. Developing complementary tools that focus solely on etiquette education or providing additional resources has shown us the potential for creating a holistic user ecosystem. By offering additional tools, users can engage more deeply with etiquette education, enriching their overall experience and contributing to a positive community.

In addition, the process of removing redundant or unnecessary elements in the user interface has highlighted the crucial role of simplicity in user interactions. Simplifying the user interface not only minimizes potential points of confusion, but also improves the overall user experience. Reducing the complexity of certain features or navigation and minimizing the number of steps required for certain interactions have reinforced the idea that simplicity is key. This approach ensures that users can navigate seamlessly through the user interface, ultimately maximizing efficiency and minimizing the risk of confusion.

Finally, our exploration of combining fragmented elements or consolidating scattered information into a unified, cohesive interface has emphasized the importance of creating a seamless and harmonious user experience. This consolidation facilitates communication and understanding between users, in line with our goal of encouraging positive interactions within the application.

In essence, this project was a rich learning experience that provided us with valuable insights into user behavior, effective interface design, and the proactive strategies that contribute to a more positive and engaging user experience.

9.0 WHAT WE EXPECTED IN THIS PROJECT.

At the beginning of this project, our expectations were based on a proactive approach to improving the user experience within the application. We assumed that we would create a more intuitive and user-friendly environment by replacing or swapping the current interface elements that cause confusion with more effective alternatives.

The addition of features such as real-time label prompts and visual cues within the user interface was intended to bring a new level of user guidance and encourage a more informed and aware user base. We wanted to not only address immediate issues, but also in still positive behavior and social norms in users.

Embedding educational modules into the app was intended to provide users with immediate access to resources for good behavior during interactions. This educational strategy aimed to provide users with knowledge exactly when they needed it and to seamlessly align education with users' real-time experiences. Our expectation for separating conflicting elements in the user interface was to create clarity and order. By creating different areas for different types of interactions, we wanted to avoid misunderstandings and contribute to a more organized and cohesive user experience.

The development of complementary tools focused solely on etiquette education or providing additional resources was intended to create a holistic ecosystem for users. We hypothesized that offering additional tools would not only enhance the educational aspect, but also contribute to an overall rich user experience and community engagement.

To summarize, our expectations for this project focused on proactive strategies to solve user problems, improve the educational component of the application, and create an overall positive and engaging user experience. The expected results were in line with our goal of promoting positive interactions, encouraging good manners and contributing to the development of a user-centered and harmonious community within the application.

10.0 CONCLUSION.

The culmination of the Good Manner App project, undertaken in conjunction with the Critical and Creative Thinking in IT course, reflects a synergistic integration of theoretical insights and practical application. Throughout this journey, our team has not only developed a user-centric application aimed at fostering positive social behavior but has also honed critical and creative thinking skills integral to the realm of Information Technology.

In conclusion, the project achieved its primary goal of creating a comprehensive solution to address ineffective manners by leveraging the principles of critical thinking. Rigorous analysis of user interactions allowed us to identify pain points and inefficiencies, prompting thoughtful substitutions, additions, and removals within the application's interface. This process, grounded in critical thinking, enabled us to unravel complex issues systematically and strategically.

Moreover, the infusion of creativity was evident in the proactive measures taken to embed educational modules, real-time prompts, and visual cues. The application stands not only as a testament to addressing existing problems but as a creative endeavor to shape a culture of positive social behavior.

The course, with its emphasis on critical and creative thinking in the IT domain, provided a robust theoretical foundation. The principles learned were not abstract concepts but were immediately applied in the real-world context of developing an application aimed at behavioral change. This practical application of critical and creative thinking elevated our problem-solving approach and fostered an environment where innovative solutions flourished.

As we navigate the conclusion of both the project and the course, it is evident that the synthesis of critical thinking and creativity is a powerful force. The Good Manner App not only represents a tangible solution to a prevalent issue but serves as a manifestation of the skills cultivated through the Critical and Creative Thinking in IT course. This holistic approach underscores the transformative potential of combining theoretical knowledge with practical application in the ever-evolving landscape of Information Technology.

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