

TASKA IBUMAMA MANAGEMENT SYSTEM (TIMS)

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THIS FINAL YEAR PROJECT IS PREPARED TO FULLFILL THE
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DECLARATION

I hereby that the work in this thesis is my own except for quotations and summaries which have been accordingly acknowledged.



28/02/2021

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ABSTRACT

Taska Ibumama Management System (TIMS) is a combination of two platforms that are often used by people today that is mobile application and website. The main focus of this project is to improve the old system and give new exposure to all parties related to this nursery. As we all know, the percentage of mobile phone usage today includes the majority. For this reason, it is appropriate for the nursery to provide an easy-to-use system. There are several problems that can affect the continuity of nursery management. First, the calculation of registration and monthly fees is calculated manually. The probability for employees to miscalculate is high if they are still counting manually. Second, errors when taking attendance of children and employees. The effect on management, the probability of miscalculating employee salaries is high. This can happen because the salary of each employee depends on daily attendance. Third, the use of paper and files as place to stores customer and employee data. As a result, in the event of any natural disaster it is difficult to save. In addition, customer information is also difficult to find. So, this system is made to prevent such problems. In the manufacture of this system, the methodology used is Waterfall methodology which includes five phases that is Requirement Gathering and Analysis, Design, Implementation, Verification, Maintenance.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Taska Ibumama Management System (TIMS) is a combination of web-based application and mobile application that will be used by Taska Ibumama for their business operations. Taska Ibumama starts operating in 2015 and it is still going on until today. This nursery is placed in Taman Puncak Saujana, Kajang. Next, Taska Ibumama also one of the nurseries that have been approved by Jabatan Kebajikan Masyarakat (JKM). All the childcare services are according to the PERMATA module. They also applying National Child Data Centre (NCDC) in their services. Furthermore, this nursery also uses quality manpower as a teacher to the children sent. The condition of being a nursery teacher is to have work experience of not less than 2 years and have a certificate of early childhood care. Other than that, it is an organization that offers childcare services as early as 4 months to 5 years old. There are 3 categories of children that are usually sent to this nursery, namely baby, kid, and toddler. This nursery accepts the maximum number of 60 children to be under their care.

Web-based application are also known as web apps. HTTP is a network connection used by a web-based application and it is often run by the user inside a web browser (Techopedia Inc. 2017). Examples of web application includes video and photo

editing, file conversion, word processors, and email programs such as Gmail and Yahoo (Robert Gibb 2016). Mobile application is an application that is created to be run in the mobile device, such as smartphone and tablet (Techopedia Inc. 2020). Nowadays, many kinds of mobile application have been created in order to fulfil the demand of society, such as WhatsApp, Shopee, Meet, and Waze. These two platforms were chosen to adapt this system to the users involved such as admins, staff, and clients. For admins, the system to be used is a very suitable web-based system to accommodate a lot of data. In addition, for staff and clients, they are more suitable to use mobile applications because this will further help them increase productivity by reducing their time to complete certain processes.

The target user for this system is grouped into three categories which are, Admin, Staff, and Client (Parent). Admin is the person who is responsible in making sure all the staff's and client's information are safe. Besides that, only admin have the authority to create staff's accounts, delete client's inactive accounts, and edit either staff or client information with their permission. Staff is the person that officially working in this organization. As a worker, they need to know about their time tables and their pay slip. They are also responsible to clock-in as soon as they start working and clock-out when their shift end by using the application. Clients are the person that send their child to the nursery. For the client that is first time to register their children, the system will provide admission form for the clients to register their children. Registration and monthly payment can be done using this system. Attendance for children will also be taken using this system.

In the current situation, this organization has no choice but to do all the management work using manual methods. Therefore, this matter gives some problems. Among the problems are, the total prices for registration and monthly payment are manually counted by staff, attendance for staffs and kids are manually taken, and information retrieval is done manually. To ensure that all parties are not affected by the problems, the superiors of Taska Ibumama have unanimously agreed to highlight this matter. This organization wants to use an application that can facilitate their management affairs. The importance of this system is to provide an accurate calculation system, to facilitate attendance to be taken, and to ensure the process of finding information becomes more systematic.

1.2 PROBLEM STATEMENT

The total prices for registration and monthly payment are manually counted by staff

By using the old method, all the total price is counted manually. Therefore, a few errors may occur when the calculation is made. This is because by using manual method, calculation is made by a person. The possibility for them to make a mistake is high. The effect of this event will increase the feeling of dissatisfaction of clients towards the company which will ruin the company's reputation.

Staff usually overlooked the attendance of the children

By taking a manual attendance, there will be a time where the staff fails to notice the presence of some children. The reason for this is, the staff needs to take care of more than 20 children. It will be wasting time for them to recheck the attendance more than once. This will lead to negative consequences and disrupt the productivity of their work.

All information is kept in a physical document

When client register their children in this nursery, all the information will be documented in a physical form. This will result in the forming of too many documents and misplacing it. Next, it is hard for the admin to retrace back all the information when it needs to be used. Besides that, all the documents will take up a lot of space in the office and there is a chance that it might be damaged.

1.3 PROJECT OBJECTIVE

To develop a system that help the nursery to manage the children data more properly

By using this application, all the calculation will be made by the system. Therefore, mistakes will not happen if all the information has been filled out correctly by the client. Next, this may shorten the processing time for them to make a payment. For every child that have been registered, their information will be attached with their parent's data. This will help the nursery to manage many data without using many efforts.

To provide an application for staffs and parents to update the attendance for themselves (staffs) and for their children (parents)

This application will provide a new way of taking attendance where the client will be the one who fill in the attendance form instead of the staff. Staff also have their own attendance that they need to clock in and clock out every day. For parents, every time they send their child to nursery, the need to update their child attendance using this application as well as when they pick their child back. For staffs, they need to clock in the time they start working and clock out when they have done working. This attendance record is one of the nursery intensions to secure their client's child and staffs.

To provide a systematic way of finding any information

By using Firebase for this application, all the information will be kept in the cloud database. This will ensure that all the data is secure and easy to be find. Next, this might be helpful to save some space in the office. Furthermore, there is no chance for client's data to be harm. All the information of the admin, staffs and clients will be stored in the fire store. This will ensure the process of finding any information will be more efficient and accurate.

1.4 SCOPE

1.4.1 Project Scope

This project does not take too long to discuss the needs of the nursery as everything has been set before. Therefore, I continue to start with the design phase and then the programming phase. Past experience has helped me a lot in completing this project.

Mobile Application

For mobile applications, the use of Visual Studio Code and Ionic Framework as a platform is important because it helps a lot to facilitate the work in the programming phase. The use of CSS has also helped to succeed in the design that has been made. An API is also required to connect this application with other applications such as Google Maps, Facebook, Instagram and WhatsApp.

Web-based system

For Web-based systems, HTML and CSS are used for design purposes and PHP to complete the entire system in the programming phase.

Firebase

Both this mobile application and web-based system will be connected to the same database. The use of this Firebase Database is to facilitate the storage of customer, child and staff data.

1.4.2 Product Scope

Mobile Application

Provide online registration form

Clients can access the online registration form in this system before they can login their account. This registration form is only for those clients that have no account yet.

Client can use online payment method

Clients who are newly registered or who have been registered for a long time, they need to make a payment either for registration or monthly payment. With that, they can make all those payments using this system.

New attendance taking method provided

The attendance system that will be introduced is a self-attendance system where parents will take responsibility to ensure the presence of their children.

Web-based System

Display staff, client and children information

All information related to staff, customers and children will be seen by the responsible admin. In addition, the admin also has the authority to make changes to the information in the event of any errors.

1.4.3 Target User

Admin

Admin is a staff in the nursery but their position in the nursery is not a teacher. Only 1 staff that will handle this system. They must login using the username and password provided to accessing all information about staff, client, and children. If there is a complaint or request about the information, admin need to figure out and do the correction to the data. Admin also need to create the staff account if there are new staff hired.

Staff

Staff is a teacher that involve in childcare activity every day. There are 7 staff that need to use this application for their attendance record. They need to login their account using their email and password that have been set. They need to use this application everyday (working day) to make sure that they attend for work.

Client

Client need to login their account by using their username and password to access this application. They can use this application for them to make monthly payment for their children. Next, they also need to use this application every day to declare that they have send their children to the nursery.

1.5 CONCLUSION

In conclusion, initial preparations have been made by the nursery to achieve their goals towards creating a system for management purposes. A comprehensive view to ensure the smooth running of this system covering all parties namely Admin, Staff, and Customers has been made. The user category has also been broken down into 2 parts, namely the Admin will use the Web-based System, while the Staff and Customers will use the Mobile Application. This user breakdown is made according to the user's suitability.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

A good organization is an organization that has a good system. A good system is a system that is able to connect all parties well and is able to ensure the efficiency and smooth management of the organization. Von Bertalanffy (1968) said, "Emphasized that real systems are open to, and interact with, their environments and that they can acquire qualitatively new properties through emergence, resulting in continual evolution. Rather than reducing an entity ... to the properties of its parts or elements ... systems theory focuses on the arrangement of and relations between the parts which connect them into a whole. This particular organization determines a system, which is independent of the concrete substance of the elements."

As Paul Hawken (n. d.) pointed out, "Good management is the art of making problems so interesting and their solutions so constructive that everyone wants to get to work and deal with them." this organization also needs an easy-to-manage system.

2.2 PREVIOUS CASE STUDIES

Before I continue with this project, I first need to do a little research on some existing applications that are more or less the same as the project I will be running. The purpose of this case study is to identify and collect as much data and information as will be an idea in my preparation to ensure that this project can be competitive with existing applications. It can also help me in understanding and getting a clear goal in the implementation of this project.

2.1.1 CASE STUDY 1 (ANAK2U-PARENT)

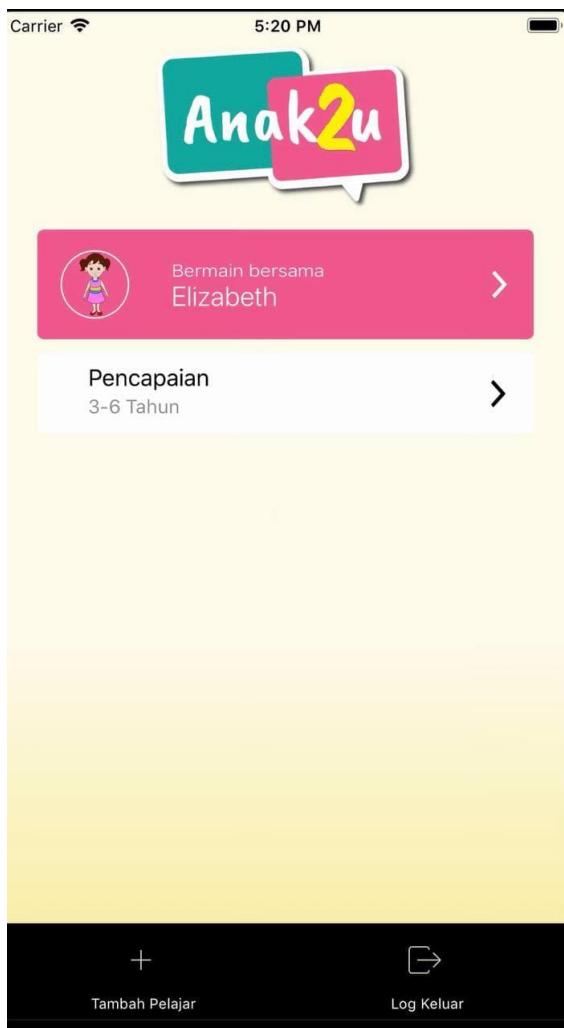


Figure 2.1 Home page for Anak2u – Parent

Figure 2.1 shows the home page for the Anak2u - Parent application. To access this home page, parents need to log in to their account. After that, this page will be displayed to them. At the top, the Anak2u logo is displayed. In the middle, there are the names of their children who have been registered and their achievements. At the bottom there are two tabs, namely "Add Students" and "Log Out". If the "Add Students" tab is clicked, parents can increase the number of their children registered and the name of the newly registered child will be displayed in the middle of this page. Also, if the "Log Out" tab is clicked, they will exit this page.

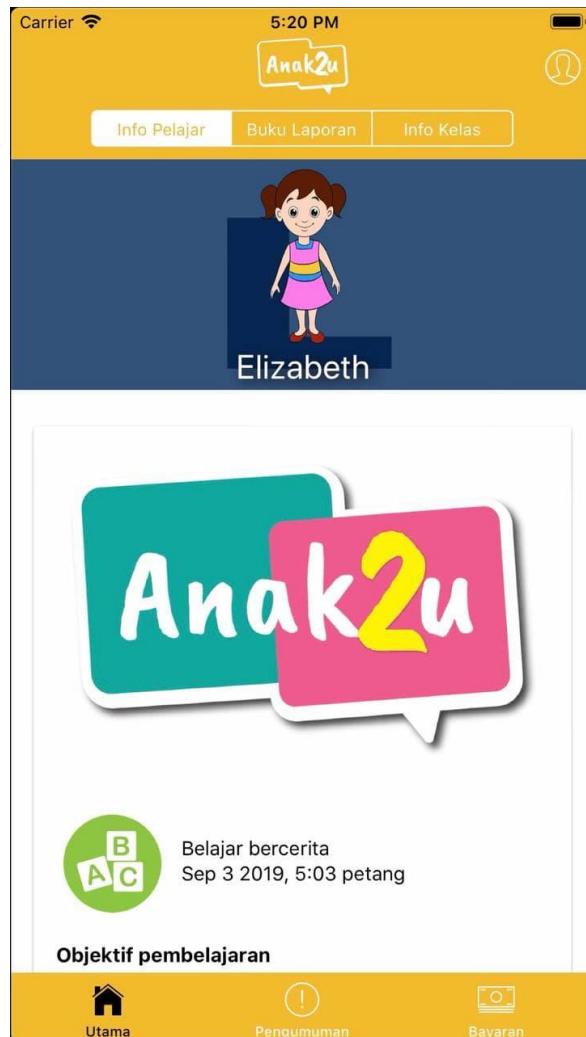


Figure 2.2 Student Info for Anak2u – Parent

Figure 2.2 also shows the Student Info page. This page will be displayed if the name on the home page was clicked. In the header section of this page, there is a small Anak2u logo, profile icon and 3 secondary tabs entitled "Student Info", "Report Book", and "Class Info". In the content section, there is an avatar along with the child's name that has been clicked earlier. All learning activities and objectives performed by the student will be displayed in this content column. At the bottom are 3 more main tabs entitled "Main", "Announcement", and "Fees".



Figure 2.3 Report Book for Anak2u – Parent

Next, Figure 2.3 is the Report Book page. This page will be displayed if the "Report Book" tab on the secondary tab is clicked. At the header page and at the bottom of the page is the same as Figure 2.2. The difference can only be seen in the content column only. In the content column of this page, there is a column that displays avatars and a little information related to students such as name, class, and the name of the teacher on duty. In addition, the percentage will be used to determine the level of student excellence in each aspect that has been set. The activity of this report will be updated by the teachers on duty. This will help parents get an assessment of their children's self-development.



Figure 2.4 Class Info for Anak2u – Parent

In addition, for Figure 2.4 also shows the Class Info page. The position and manner of arrangement of headers and main tabs are still the same as in Figure 2.2. The difference in the content of this page is that there is a class name occupied by the student displayed right below the header. Below it is the name of the teacher on duty and lastly, there is a list of fellow students in the same class. The avatar of each student is also shown to the left of the name of the student.

The profile icon located on the header aims to bring parents back to the home page. The "Announcements" tab will show the important announcements that every parent should be aware of. Finally, the "Payments" tab in the main tab will take parents to another page specifically to make payments such as annual fees and monthly payments for their children.

2.1.2 CASE STUDY 2 (ANAK2U-TEACHER)

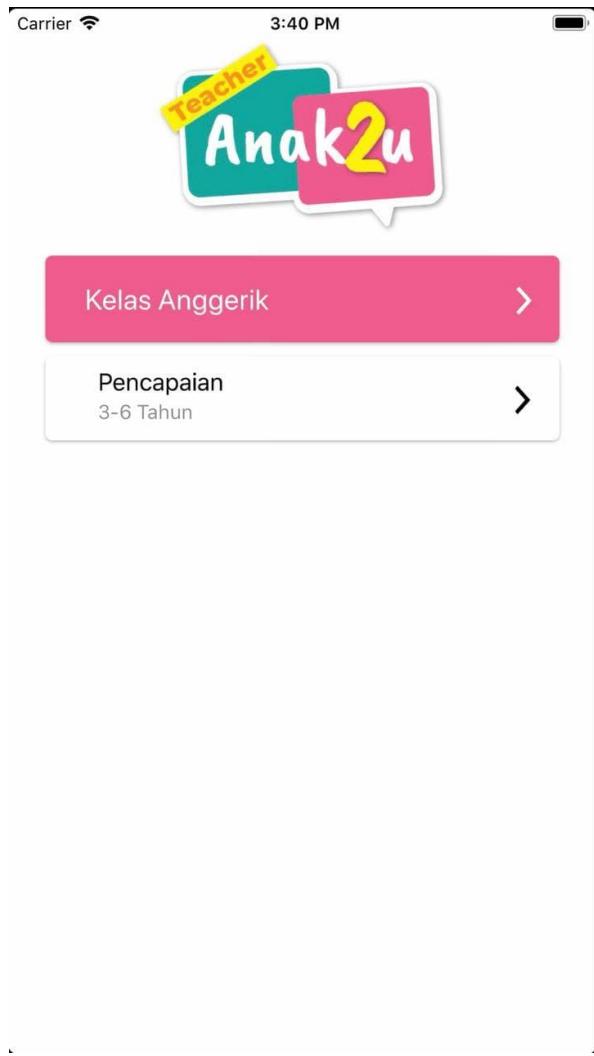


Figure 2.5 Home page for Anak2u – Teacher

Figure 2.5 shows the Home page state for the Anak2u - Teacher application. This page is the page after the teachers log in to their respective accounts. In this page, we can see there is the Anak2u logo with the word "Teacher". This shows that this application is for teachers only. In addition, the name of the class is also displayed for the use of teachers to report on the achievement of their students. Next, the "Achievement" button located under the class name button intended to be used as a reference for teachers.

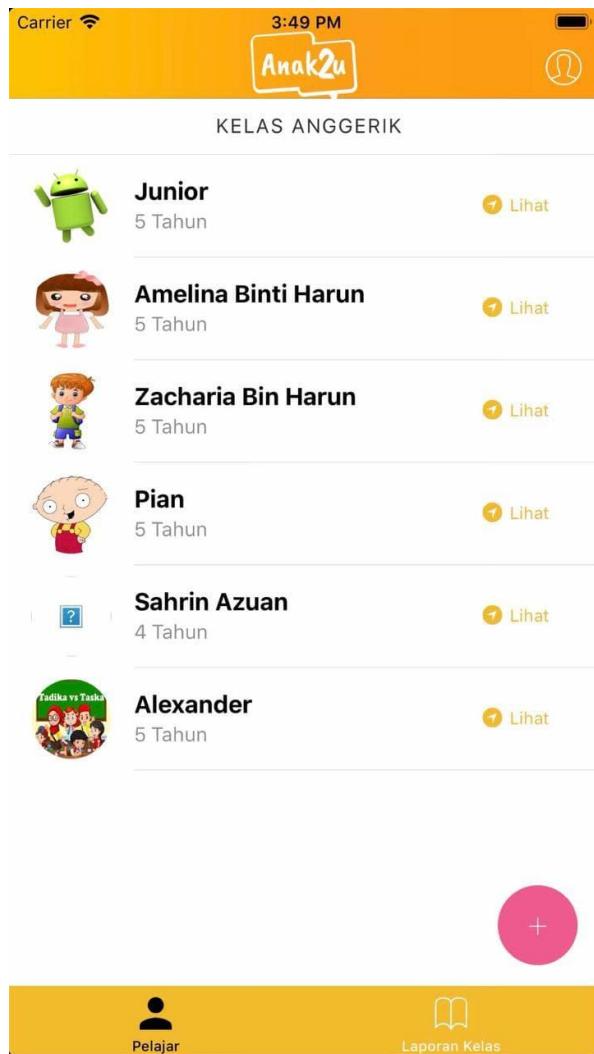


Figure 2.6 Student page for Anak2u – Teacher

Figure 2.6 is a Student page. This student page will be displayed when the class name button on the Home page is clicked. In this Student page, in the header there is the Anak2u logo in the middle and the profile icon on the right. The profile icon if clicked will take teachers to the Profile page which will show their own profile. Turning to the content section, at the top is the class name. Then, there is a list of students who are in the class. Each student's name can be clicked to view their profile. Finally, at the bottom right there is a button with an add icon. This button aims to add new students if any are newly registered. At the very bottom there are 2 tabs entitled "Students" and "Class Reports". This student page is the content of the "Students" tab.

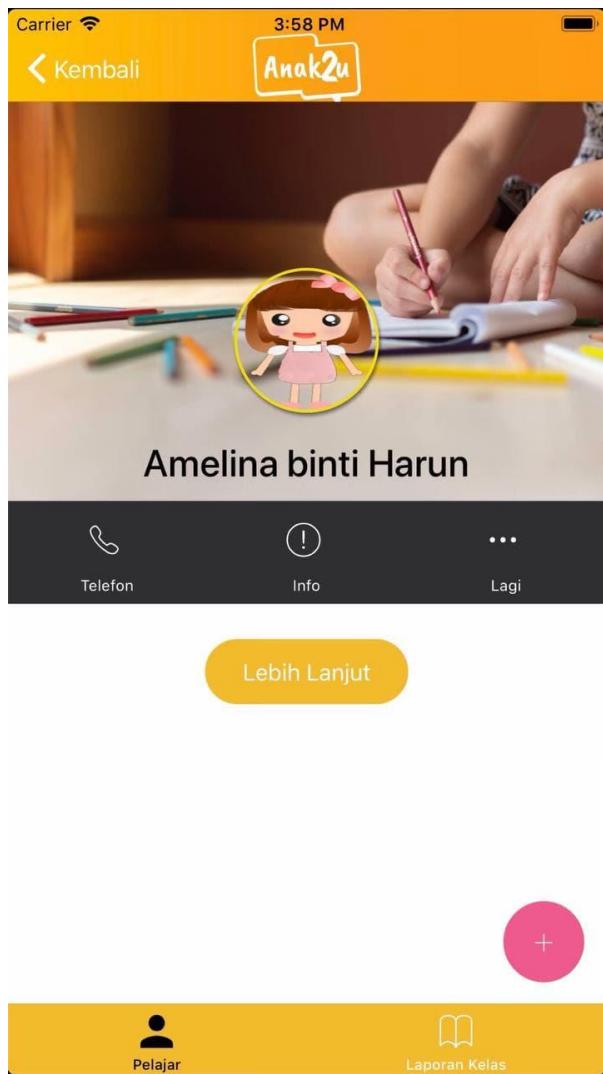


Figure 2.7 Student Info page for Anak2u – Teacher

Figure 2.7 is a picture of the Student Info page. As we can see, this page is a page that shows the profile of students. This profile will help teachers in getting to know students easily. Also, with the parent phone number available on the "Phone" tab. It also helps in the event of any emergency happening to the students under their care. In the Info section, this application will display more things about students, such as attendance and others. Here there is also an add icon button that will allow these teachers to add information if necessary.



Figure 2.8 Class Report page for Anak2u – Teacher

Figure 2.8 shows the Class Report page. This page will be displayed if the "Class Report" button on the previous page is clicked. There are 11 report options available with various different colour variations. This option will be selected by the teacher to provide a daily report on the students in the classroom. Teachers need to complete all 11 reports for each student under their care. In addition to not making this application too boring, the use of appropriate and appropriate icons like this can also help in making it easier for teachers to make reports.

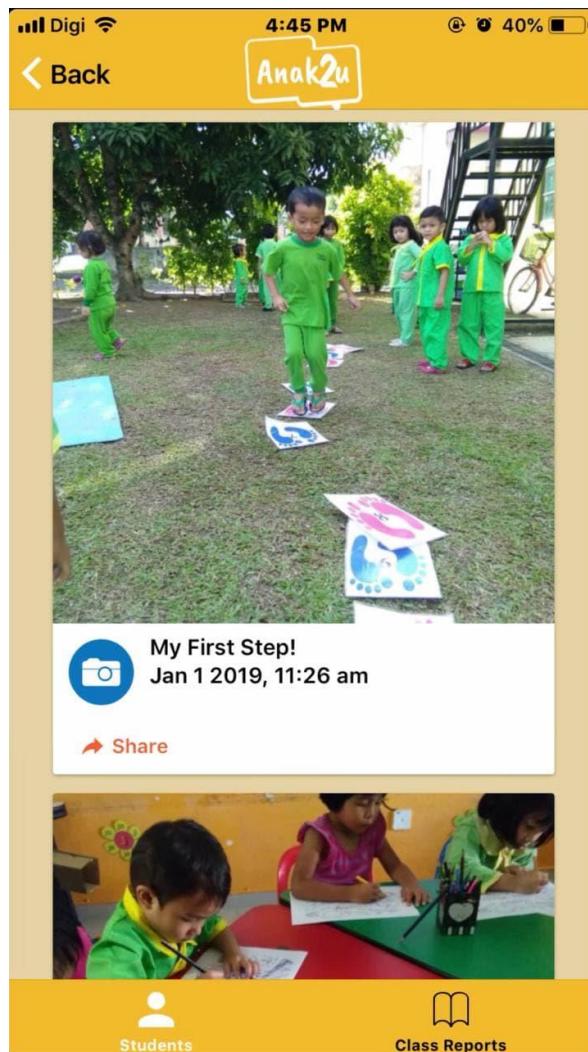


Figure 2.9 Update Report page for Anak2u – Teacher

Finally, Figure 2.9 is an Update Report page where each updated report will be re-displayed with a picture for the purpose of parents can see the activities and development of their children from time to time. All activities will be displayed in the content of this page. While on the header of this page, there is a logo and a back button.

2.1.3 STUDY CASE 3 (ANAK2U-ATTENDANCE)

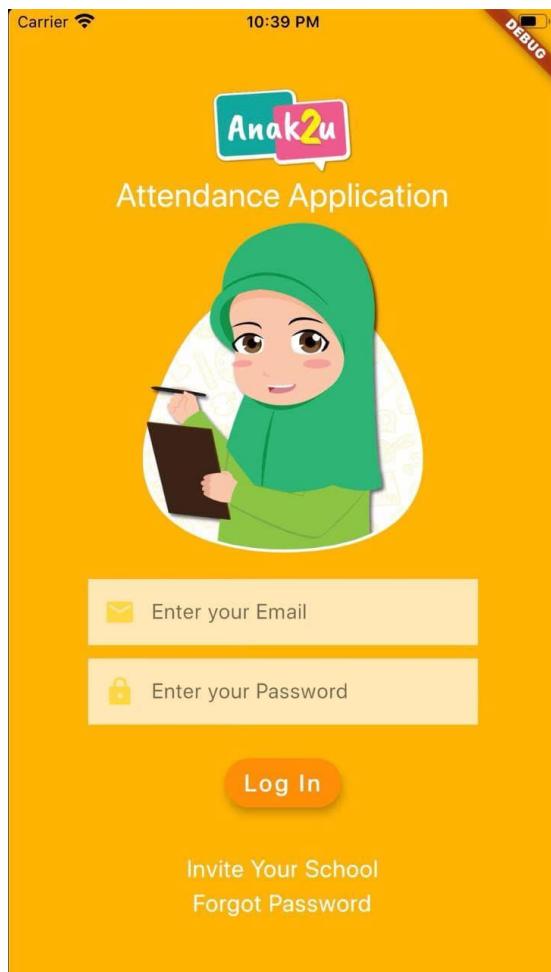


Figure 2.10 Login page for Anak2u – Attendance

Figure 2.10 is the Login page for the Anak2u - Attendance application. Appropriate logos, application titles and pictures are placed on this page to ensure that users know their main purpose of using this application. A field to fill in the E-mail and Password is also provided for the user to fill in before pressing the "Login" button. The "Login" button provided will identify whether the user trying to use this application is a registered user or not. If the user has registered and the space provided is filled in correctly, then they will be taken to the home page. If the user forgets the password they have set, they need to press the word "Forgot Password" to set all their passwords with a new password.



Figure 2.11 Home page for Anak2u – Attendance

Figure 2.11 is the Home page for the Anak2u - Attendance application where in the header column of this page, there is the name of the school or nursery and an icon that will make the user can log out. In the content section, there are 3 user options that need to be selected by the user himself, namely "Teacher", "Student" and "Visitor". Teacher refers to the teaching staff who are in charge of taking care of every class in the school or nursery. Students are students who have registered to enter the designated class. For attendance, it is often the parents who will update the attendance for their children. Visitors are parents or outsiders who visit the school for permitted reasons. These three categories should select their respective buttons.

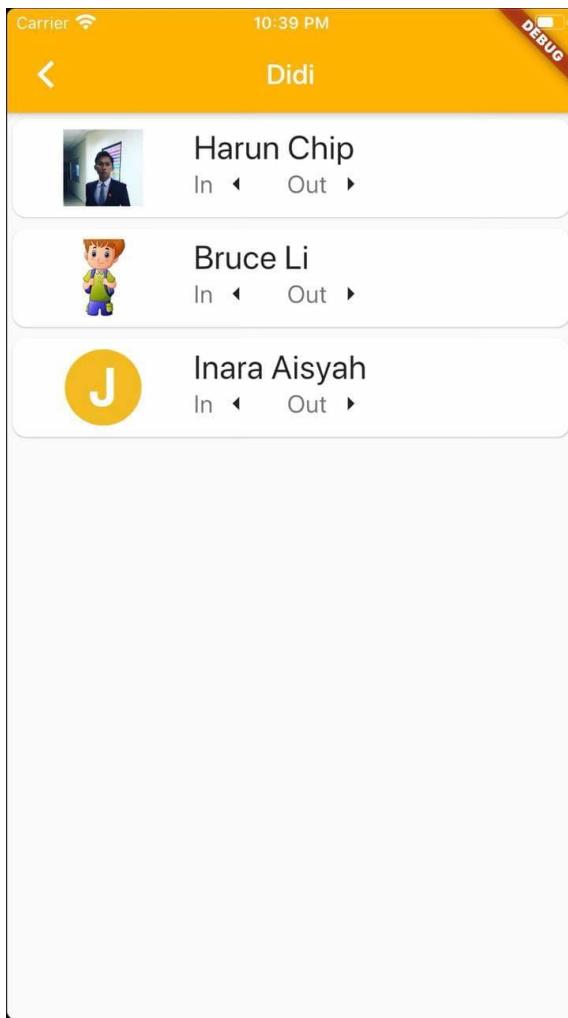


Figure 2.12 List page for Anak2u – Attendance

Figure 2.12 is a List page that will be displayed after the category on the Home page was selected. In the header section of this page, the class name will be displayed along with the back button on the left. In the content section, the list of students will be displayed and can be clicked for the purpose of logging in and logging out. To the left of each student name, there is an avatar that has been placed to further increase the interest of users to use this application.

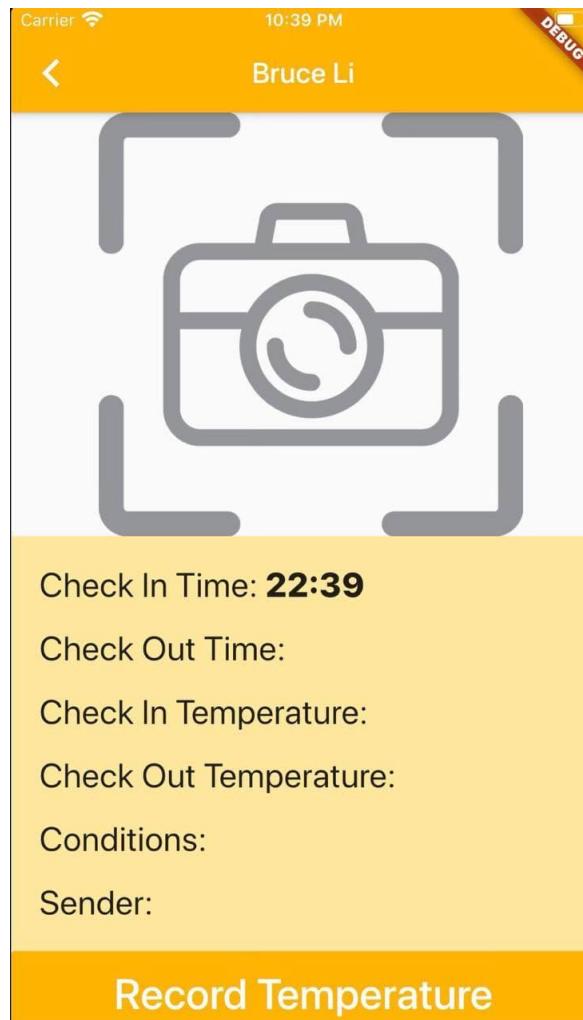


Figure 2.13 Attendance page for Anak2u – Attendance

Finally, Figure 2.13 is an Attendance page that acts as a page that will take the information needed by the school or nursery. In the header section of this page, the username will be shown in the middle and the back button on the left. In the content section of this page, there are several inputs that need to be entered, namely the picture, entry time, exit time, temperature when entering, temperature when exiting, condition, and sender name. At the bottom of this page, there is a "Record Temperature" button for the purpose of recording the temperature when entering and leaving the nursery or school.

2.3 COMPARISON

	Anak2u – Parent	Anak2u – Teacher	Anak2u – Attendance
Design	Simple	Interesting	Simple
Features	<ul style="list-style-type: none"> • Daily Report • Announcement • Payment 	<ul style="list-style-type: none"> • Daily Report • Information • Call 	<ul style="list-style-type: none"> • Attendance
Navigation	Easy	Easy	Easy
Security	Require login	Require login	Require login
User Experience	Very Good	Good	Average
Colors	<ul style="list-style-type: none"> • Yellow • White • Dark Blue 	<ul style="list-style-type: none"> • Yellow • White • Pink 	<ul style="list-style-type: none"> • Yellow • White • Green

Table 2.1 Comparison Literature Reviews

2.4 DISCUSSION

Based on the comparisons that have been made, many things I found out of it. Each of these applications has their own strengths and weaknesses. Due to that, I am more eager to continue this project because each of the strengths that each of these applications highlights to some extent gives new ideas that I can use in preparation for preparing and completing this project. On the other hand, every weakness found in these applications makes me want to try to make them as a strength as well for this project.

In terms of interface or design, I chose to make my application simple but interesting. The combination of these two will make my application more interesting. In terms of navigation, I will emulate these three applications because it is very easy for users to understand the journey of my application. For colour selection, I will use cheerful colours such as yellow, light blue, white, green and others. Also, I cannot follow any of these applications related to the background because most of the backgrounds of these compared applications use white. Therefore, I choose to use a different background on each main page.

I choose to refer all these three applications the most because in my project, these three applications will be combined into one application. This will prevent users from wasting data and storage space on their smartphones. If this application is not integrated, each user must have 2 applications compared either the application "Anak2u - Parent" and "Anak2u - Attendance", or "Anak2u - Teacher" and "Anak2u - Attendance". This will lead to waste. So, with that, I decided to take these three applications as a reference so that they can be consolidated and help avoid this waste.

2.5 CONCLUSION

In conclusion, the three Anak2u-Parent, Anak2u-Teacher, and Anak2u-Attendance applications have been compared in this chapter. In the comparison that has been made, several important aspects have been highlighted such as Design, Features, Navigation, Security, User Experience, and Colour. All differences have been taken into account as a reference to this project so that this project will look more professional and can help parents and teachers.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

Methodology is a method that includes the process of identification, analysis, design and selection that will be used to help this project run more smoothly. The purpose of creating methodology is to allow reader to understand and evaluate the researched project validity and reliability (University of the Witwatersrand 2020). By identifying the problems faced by the nursery, analysis will be made to obtain the percentage of probability for the problem to be worse or not. After that, a selection can be made on how to reduce the existing problems. In terms of selection, we will have many options to apply but not all options are the best. In terms of design, at this time also the selection for the design of this project is made. These include theme colour selection, appropriate image selection, and attractive features to be accepted by users.

3.2 APPLICATION DEVELOPMENT METHODOLOGY

There are several types of methodologies that can be used in preparation for carrying out a project. The use of appropriate methodologies can help developers to complete their projects quickly without reducing the quality of their work. Among the types of methodologies that are often used when handling projects are Spiral Model Methodology, Rapid Application Device Methodology, System Development Life Cycle Methodology, and others.

For this project, I have decided to use Waterfall Methodology as this methodology is the most suitable and accurate to use in the construction of this project. In this methodology, there are five main phases that will go through that is Requirements, Design, Implementation, Verification, and Maintenance. All these phases should be implemented and completed to obtain good results in the completion of this project. Because this project is a small project and not too complex, the use of Waterfall methodology is the best course of action. Each phase will be elaborated further below.

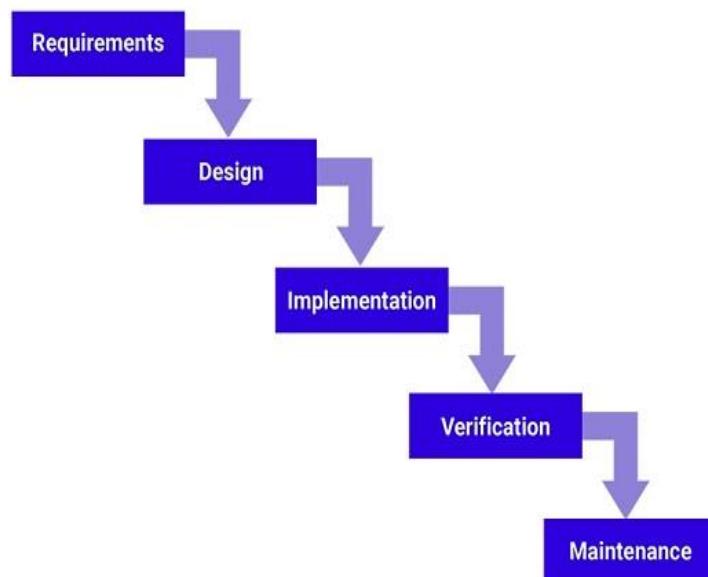


Figure 3.1: Waterfall Methodology

3.2.1 REQUIREMENT

In this phase, the information needed to make this project is collected. There are several suitable ways to get information including surveys, interviews, and brainstorming. In this project I have decided to use the online survey method involving Google Forms. Questions related to this project are prepared before the project is implemented to see the response from the users. The questions asked lead to how to register online, attend online, and pay online. These questions were distributed to an admin, six staff, and twenty-eight customers of Taska Ibumama. Below are the results that have been collected.

3.2.1.1 Admin

Do you agree manage a nursery by using manual system is difficult and unorganized?
1 response



Figure 3.2: Pie chart manual system is difficult and unorganized

The first question addressed to the admin was about the difficulty of using manual methods in the work. Admin has given strongly agree answer which makes the answer get 100% percentage.

Do you agree if having a system can help in data management work in the nursery?
1 response



Figure 3.3: Pie Chart system can help to manage information

Next, in figure 3.3 we can see that the admin strongly agrees if there is a system that can help in making management work. The answer chosen by the admin is strongly agree.

Do you agree if you are usually feel overwhelmed by a lot of customer data and information?
1 response

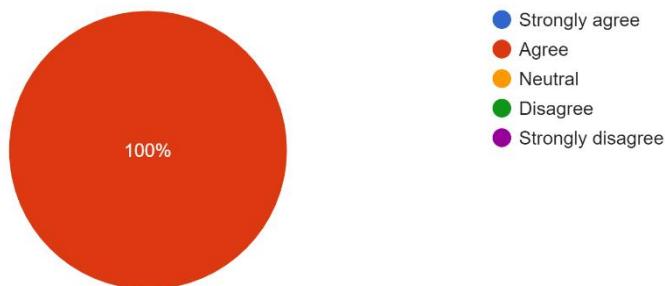


Figure 3.4: Pie chart too many data and information

Too much data and information has made admins sometimes feel overwhelmed. This can be seen based on figure 3.4. Admin himself agrees that a lot of data and information is tiring without a single system that helps.

Can you manage your workplace well if there are too many files of student or customer information?

1 response

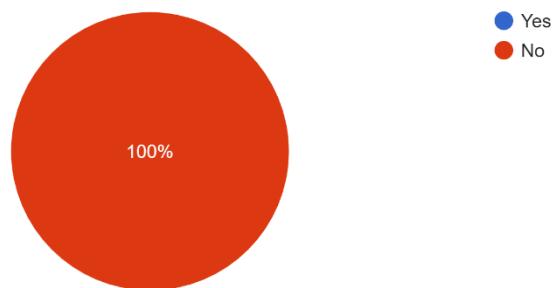


Figure 3.5: Pie chart manage workplace

Based on the answers to the questions shown in figure 3.5, we can identify that the data and information stored using physical files can make the admin work environment less organized due to lack of space.

Do you agree if data is stored in proper and organize manner will make you feel better and easy to work?

1 response



Figure 3.6: Pie chart data stored in proper and organize manner

Based on figure 3.6, we can see that the admin strongly agrees if the current data and information is upgraded from physical files to online storage.

Do you agree if using too much paper to store data and information can be a waste?
1 response

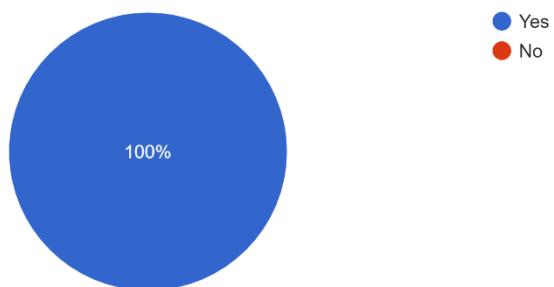


Figure 3.7: Pie chart too much paper is a waste

Using too much paper to store user data is a waste that can be detrimental to the nursery. This can be proven when the admin answers this question. Based on figure 3.7, the admin also strongly agrees with the statement that the use of many of these papers is a waste.

Do you feel safe with the way data and information are stored in your nursery now?
1 response

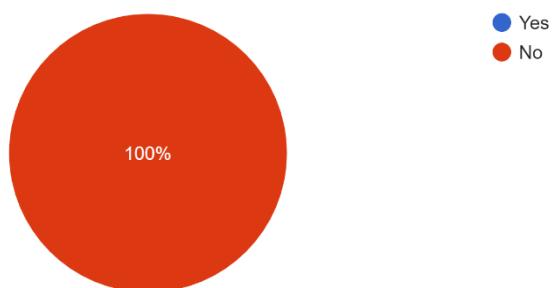


Figure 3.8: Pie chart feeling secure with current method storage

From figure 3.8, we can see that the admin feels that the storage system used by the nursery now is not really safe to use anymore.

If the data and information under your care are lost or stolen, will you feel anxious?
1 response

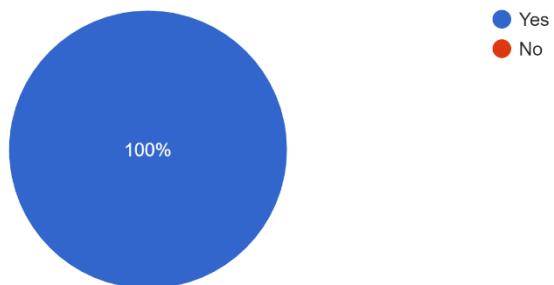


Figure 3.9: Pie chart information stolen

Based on figure 3.9, we can see that the admin is also anxious if the data and information under his care is lost. Too many possibilities can happen if user data is stolen which makes the admin scared.

Have you ever searched for existing customer and kid information stored in a file?
1 response

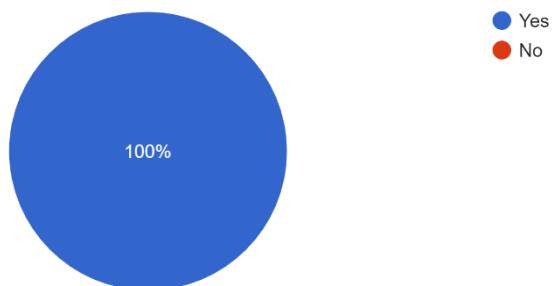


Figure 3.10: Pie chart search existing customer information

Based on the admin's answer, he did find information about customers and children stored in physical files.

If so, do you find the information you are looking for is difficult to be found by using manual search.
1 response

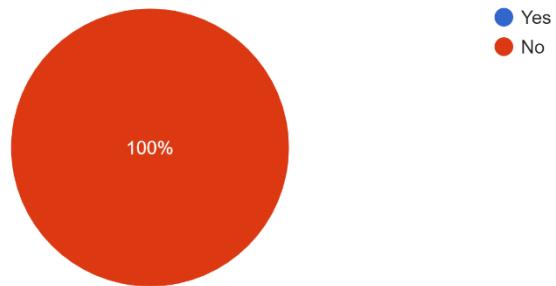


Figure 3.11: Pie chart difficulty to find customer and children information

Figure 3.11 is a continuation of the question in figure 3.10. Based on the admin's answer, he stated that to find information on customers and children is not so difficult.

3.2.1.2 Staff

Do you agree that you are sometime late to punch an attendance card when come to work?
6 responses

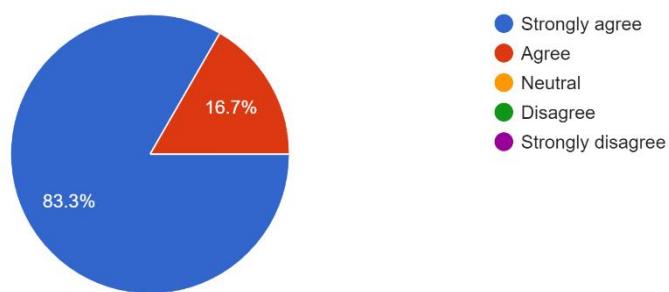


Figure 3.12: Pie chart late punch in for attendance

Based on figure 3.12, as many as 83.3% of the percentage strongly agree that they have been late for their punch in attendance. The rest, 16.7% of them only agreed with the statement.

Do you agree smartphones is essential device nowadays?

6 responses

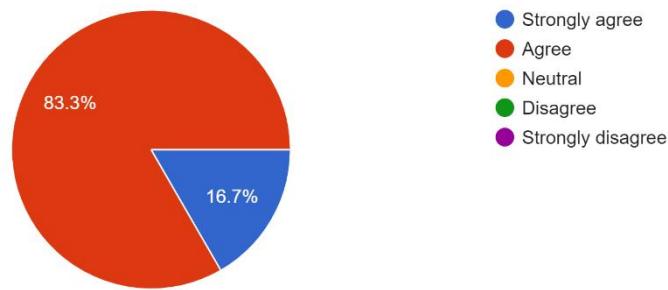


Figure 3.13: Pie chart smartphone is essential device

Based on figure 3.13, the majority of them that is 83.3% strongly agree that smartphones are an essential device nowadays. While 16.7% only agreed with the statement given. This can show that a smartphone is an important device nowadays.

Do you agree that sometime you feel overwhelmed if you are required to use your smartphone while working?

6 responses

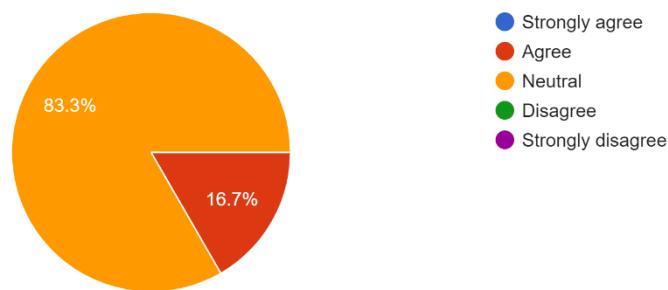


Figure 3.14: Pie chart feel overwhelmed if required phone usage while working

As many as 83.3% of them will feel normal if they are asked to use a smartphone during work hours. Only 16.7% of them will feel uncomfortable using a smartphone while working. This can be seen from figure 3.14.

Do you agree if the staff attendance app that will be used later will use your email address and personal picture?
6 responses

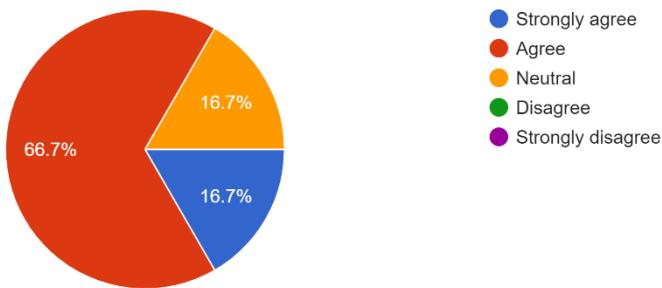


Figure 3.15: Pie chart using personal data for application purposes

Based on figure 3.15, as many as 66.7% of those who agree if personal data such as email is used in the application that will be made in this project. In addition, 16.7% who gave answers strongly agreed and normal with the use of this personal data.

Do you agree by using a mobile application can help to break the chain of COVID-19?
6 responses

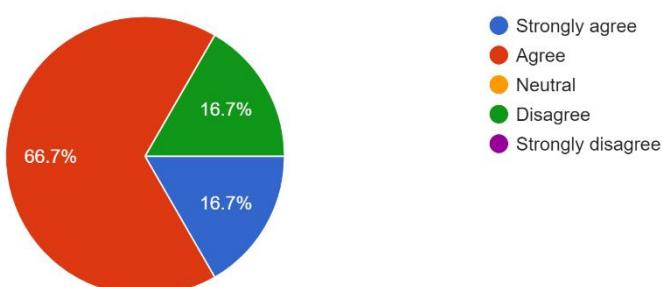


Figure 3.16: Pie chart using an application can help break CVID-19 chain

Based on figure 3.16, as many as 66.7% of those who agree if by using the application, it can break the Covid-19 chain. In addition, as many as 16.7% who gave answers strongly agreed and another 16.7% did not agree with the statement given.

3.2.1.3 Customer

Do you agree mobile apps can help people in their daily life routine?

28 responses

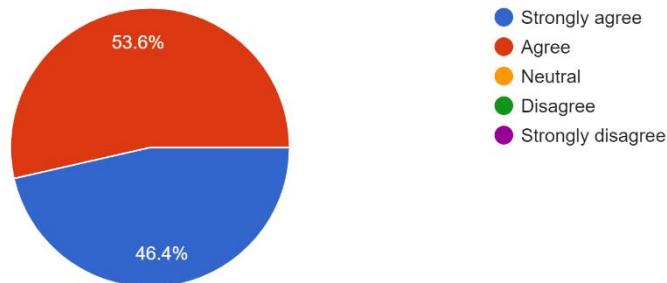


Figure 3.17: Pie chart mobile apps can help people's routine

A total of 46.6% strongly agree that phone applications can help them in their daily routine. In addition, 53.6% of them only agree with this statement.

Do you agree if nursery use mobile apps to make parent job easier?

28 responses

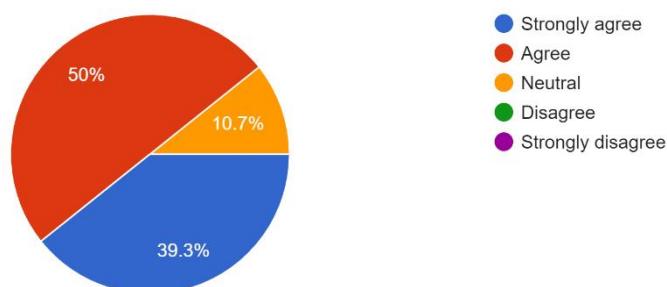


Figure 3.18: Pie chart nursery using mobile apps to make parents easy

Based on figure 3.18, as many as 39.3% of those who strongly agree with the use of telephone applications from the nursery to facilitate their work. Moreover, 50% of them agree with this opinion. Only 10.7% of those felt this opinion was normal.

Do you agree if nursery use mobile app for new registration purposes?
28 responses

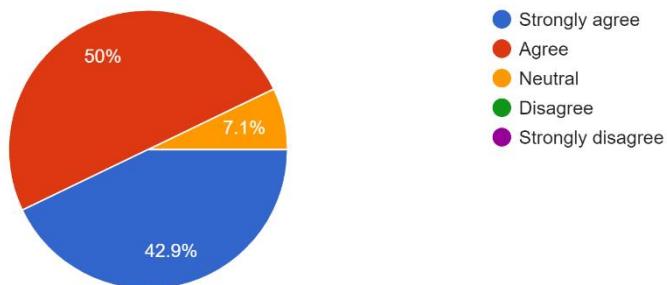


Figure 3.19: Pie chart new registration method

Based on figure 3.19, 42.9% of customers strongly agree if the nursery changes the registration method from manual to phone application. Moreover, as many as 50% of those who agree with this proposal. Another 7.1% felt this suggestion was normal.

Do you agree if the nursery provide a mobile apps that include payment fee function?
28 responses

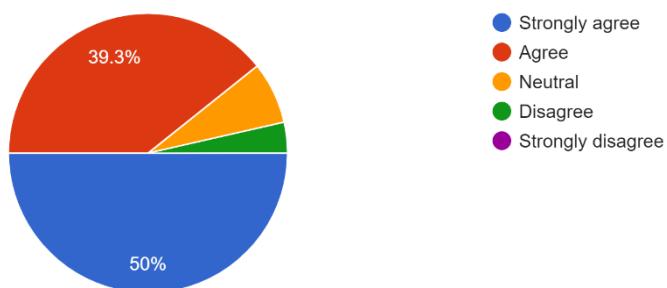


Figure 3.20: Pie chart online payment

Online payment has been suggested to the user and the answer to this question is shown in figure 3.20. As many as 50% of them strongly agree with this proposal. Moreover, 39.3% of them agreed to online payments. Next, 7.1% felt normal with this. However, there are 3.6% of those who do not agree with this proposal.

Do you agree if the apps can be used to record your children daily attendance (Check-in and Check-out)?
28 responses

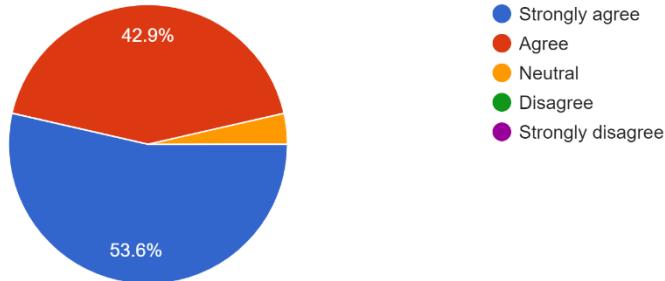


Figure 3.21: Pie chart children attendance

Based on figure 3.21, 53.6% strongly agree with the proposal to improve the method of taking children's attendance by using smartphones. In addition, 42.9% agreed with this proposal and 3.6% of those who felt this proposal was normal.

3.2.1.4 Survey Result

In conclusion, as a whole, this project received approval from all three parties related to this nursery. Judging from the admin's perspective, we can see that he is having a hard time dealing with a lot of information. In addition, the use of physical files can reduce the pleasure in the work environment for the admin and the loss of data will make him feel overwhelmed and scared. So, by providing a website and using the online database will be very helpful to the admin for the problems he faces. As for the staff, we can see that most of them strongly agree with the use of telephone applications that can make it easier for them to take attendance. They also provide good support so that this application can be used in the future. Finally, for customers, the majority of them also agree with the improvements of the system in use today with the system using smartphones. This is because the majority of them are employees who do not have much time to wait long when sending children to kindergarten, taking child attendance, registering manually, and making payments manually.

3.2.2 DESIGN

During this phase, the colour selection and design of this application is made. The use of yellow and blue has been chosen as the main colours in this application. To avoid this application being difficult for users to understand, a less complex design has been chosen. Design plays an important role in ensuring that these applications are customer friendly.

3.2.3 IMPLEMENTATION

In the implementation phase, everything that has been discussed about the requirements and design will be converted into a programming language using the Ionic Framework platform. In this phase as well, the use of Firebase will begin to run. This phase is a challenging phase and will take more time than other phases.

3.2.4 VERIFICATION

Once the implementation phase is complete, this means the application is fully ready. In this phase, the application will be tested by several users. Feedback and comments will be given by users about this application if it does not meet the requirements given in the first phase.

3.2.5 MAINTENANCE

In this phase, all comments and errors found in the application will be corrected before it is launched for real users. This is to ensure the smooth use of this application.

3.3 DATA AND PROCESSING MODEL

3.3.1 ENTITY RELATIONAL DIAGRAM

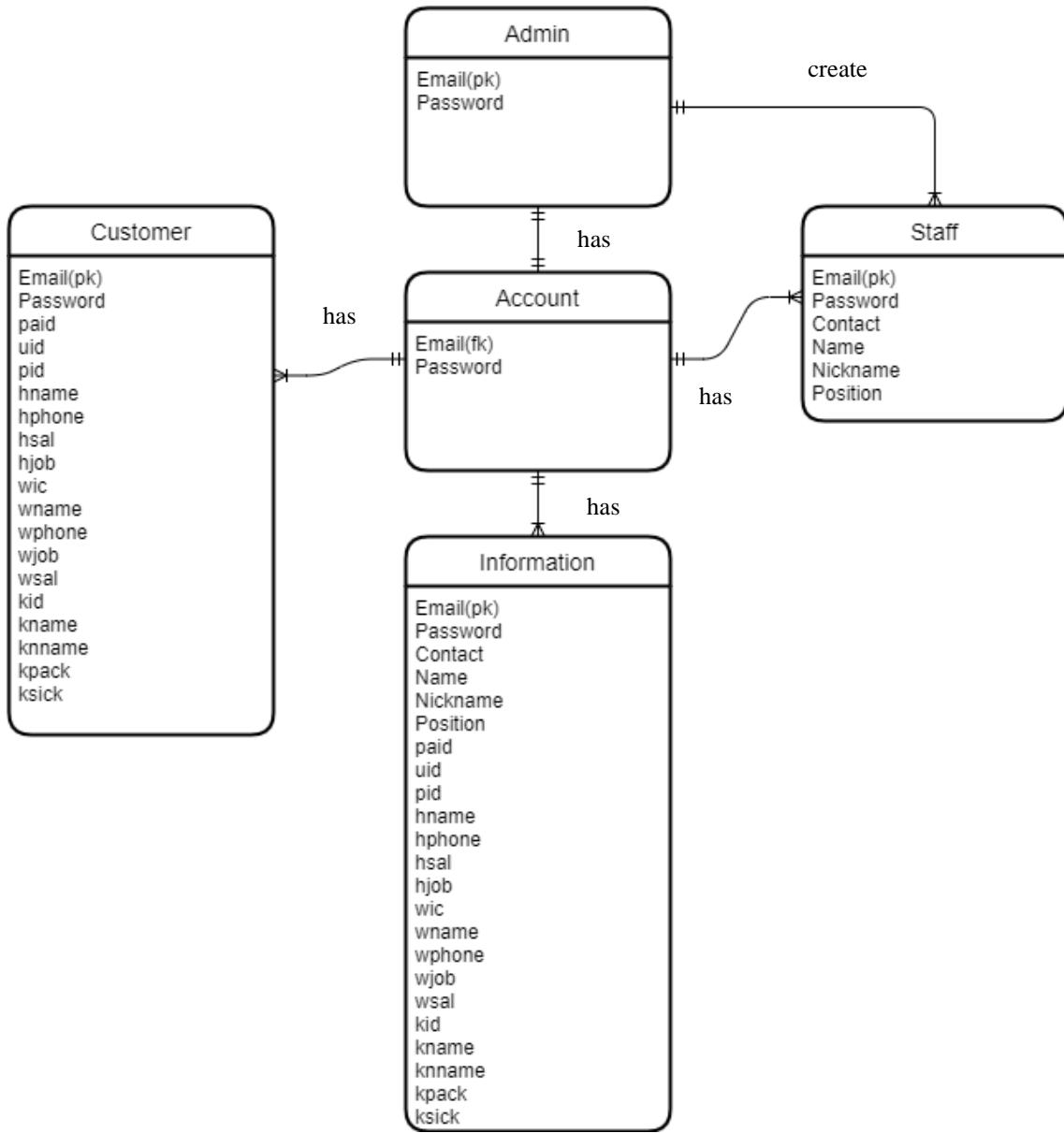


Figure 3.22: Entity Relational Diagram

3.3.2 USE CASE DIAGRAM

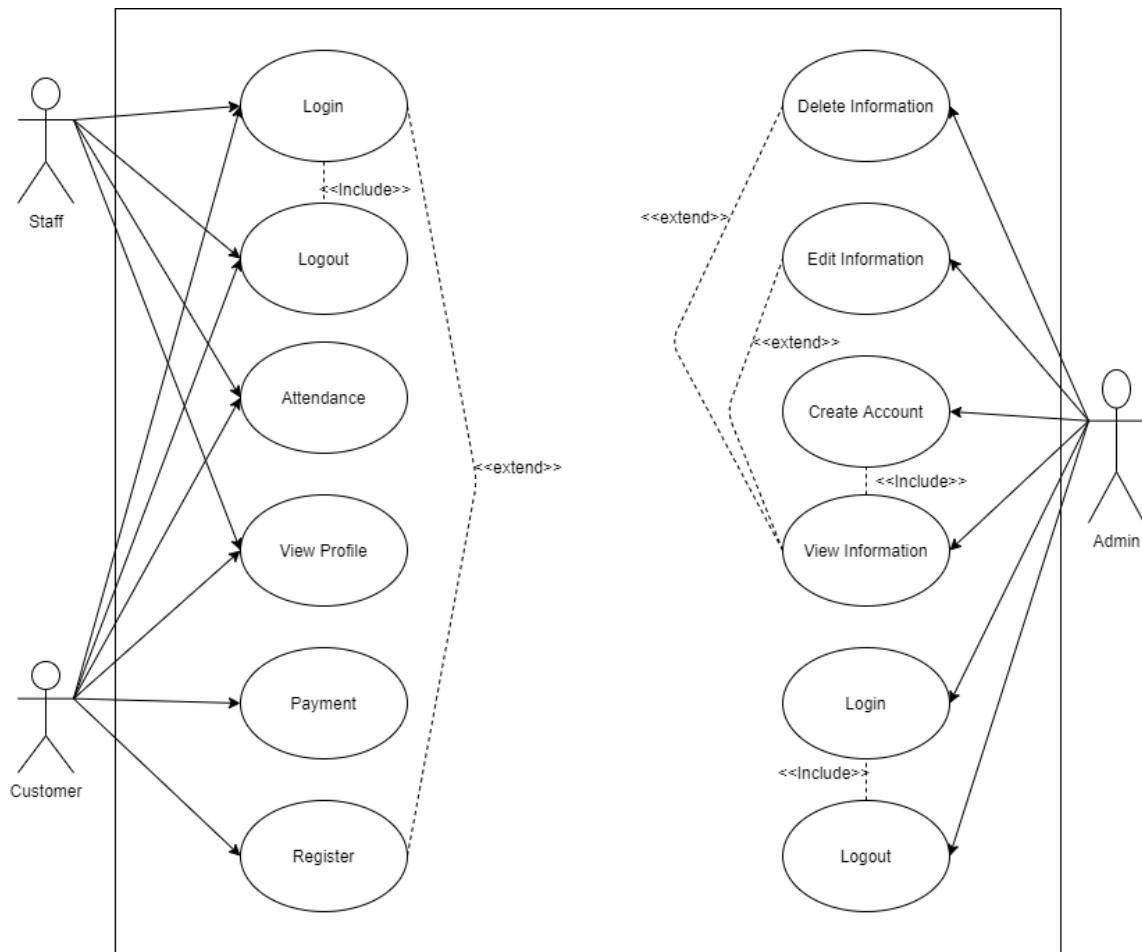


Figure 3.23: Use Case Diagram

3.3.3 APPLICATION FLOW CHART

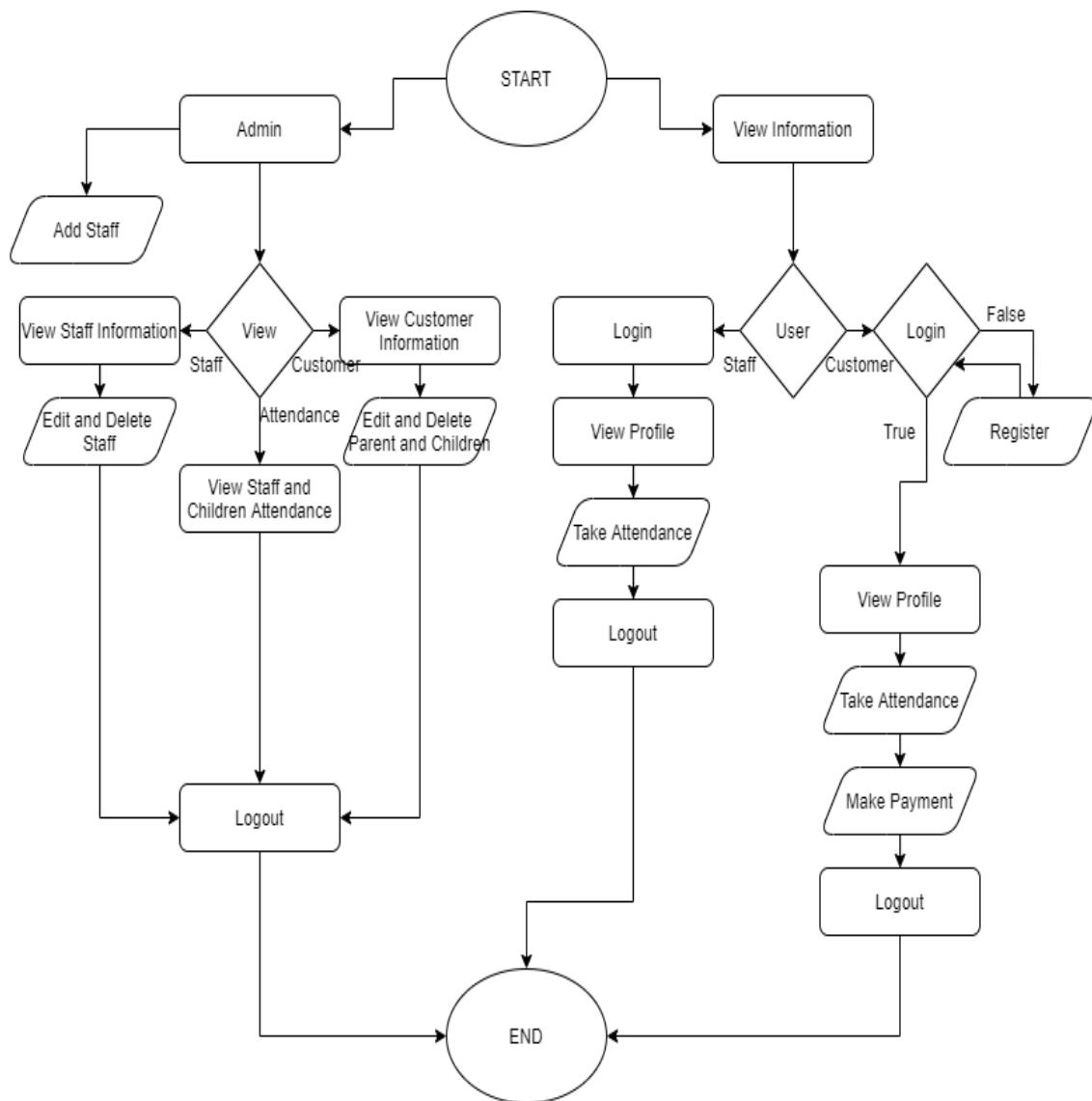


Figure 3.24: Application Flow Chart

3.3.4 DATA DIRECTORY

Field Name	Data Type	Field Size	Null-able	Description	Example
ID	ID	50	No	Randomly generated	XsneOhnKSashJvdqkb
Email	Text	30	No	Email for login	komengahmad96@gmail.com
Password	Password	20	No	Password for login	Komeng96

Table 3.1: Table data dictionary for admin, staff, and customer login

Field Name	Data Type	Field Size	Null-able	Description	Example
ID	ID	50	No	Randomly generated	XsneOhnKSashJvdqkb
Email	Text	30	No	Email for login	komengahmad96@gmail.com
Password	Password	20	No	IC number	960419105687
Contact	Text	20	No	Phone Number	01133133619
Name	Text	20	No	Staff Full name	Mohamad Farhan bin Mohd Fauzi
Nickname	Text	20	No	Staff nickname	komeng
Position	Text	20	No	Position in nursery	teacher

Table 3.2: Table data dictionary for staff signup

Field Name	Data Type	Field Size	Null-able	Description	Example
ID	ID	50	No	Randomly generated	XsneOhnKSashJvdqkb
Email	Text	30	No	Email for login	komengahmad96@gmail.com
Password	Password	20	No	IC number	960419105687
hphone	Text	20	No	Husband phone number	01133133619
hname	Text	30	No	Husband full name	Mohamad Farhan bin Mohd Fauzi
hsal	Text	20	No	Husband salary	3000
hjob	Text	20	No	Husband job	programmer
pid	Text	20	No	Husband IC Number	850123104833
wphone	Text	20	No	Wife phone number	01215488964
wname	Text	30	No	Wife full name	Nur Husna binti Mahmood
wsal	Text	20	No	Wife salary	2000
wjob	Text	20	No	Wife job	teacher
wid	Text	20	No	Wife IC Number	960501134936
Kid	Text	20	No	Mykid number	000206113619
kname	Text	30	No	Kid name	Arfan Ismail bin Hamdan
knname	Text	20	No	Kid nickname	Arfan
kpack	Text	20	No	Package	Baby/Toddler/Kid
ksick	Text	20	No	Sickness	Yes/No
paid	Text	20	No	Registration payment status	Paid/Unpaid
uid	Text	20	No	Username for account	Komeng

Table 3.3: Table data directory for customer

3.4 USER INTERFACE

3.4.1 WEB-BASED SYSTEM

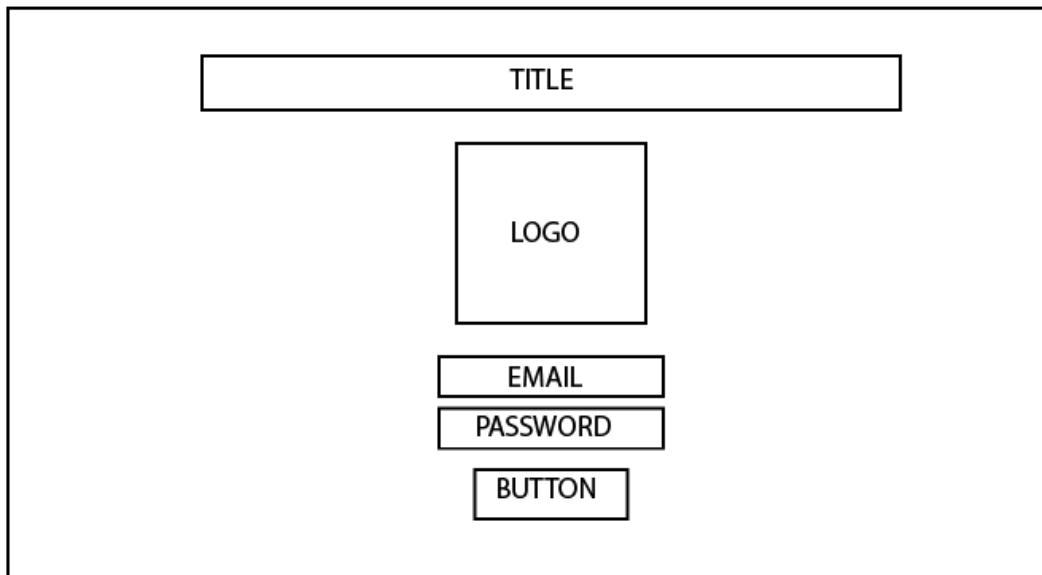


Figure 3.25: Login page

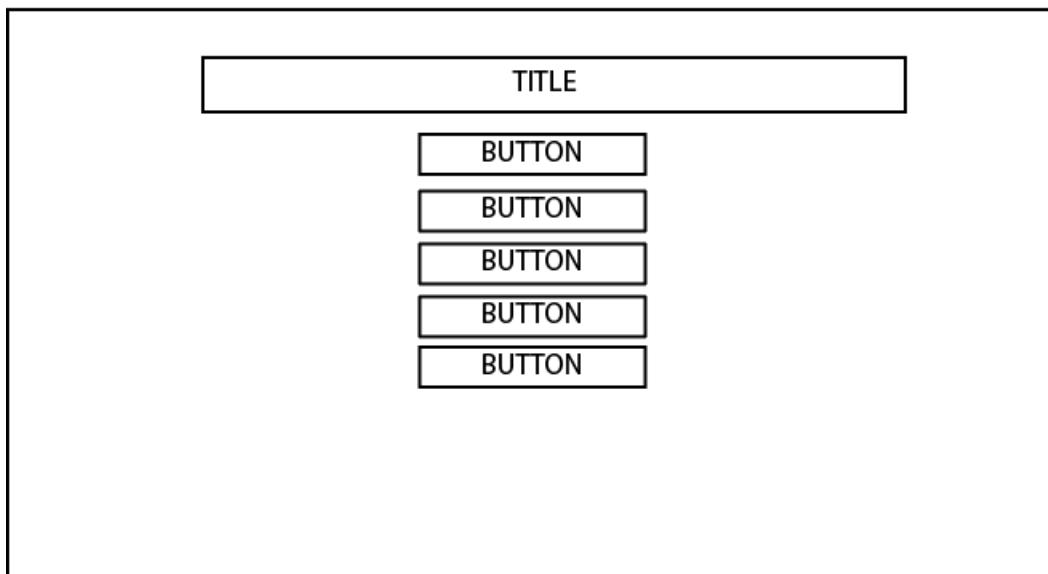


Figure 3.26: Home page

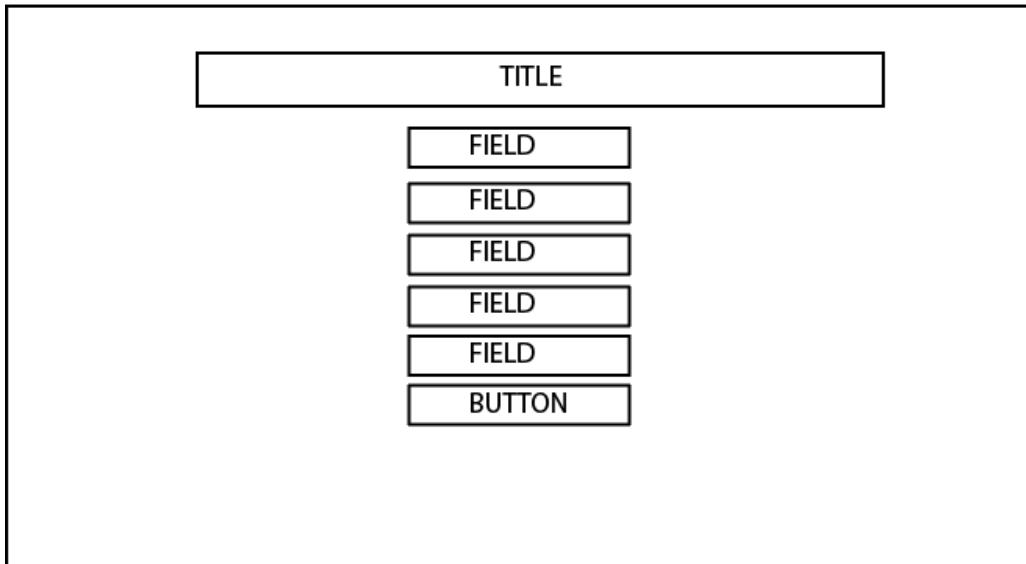


Figure 3.27: Create Staff page

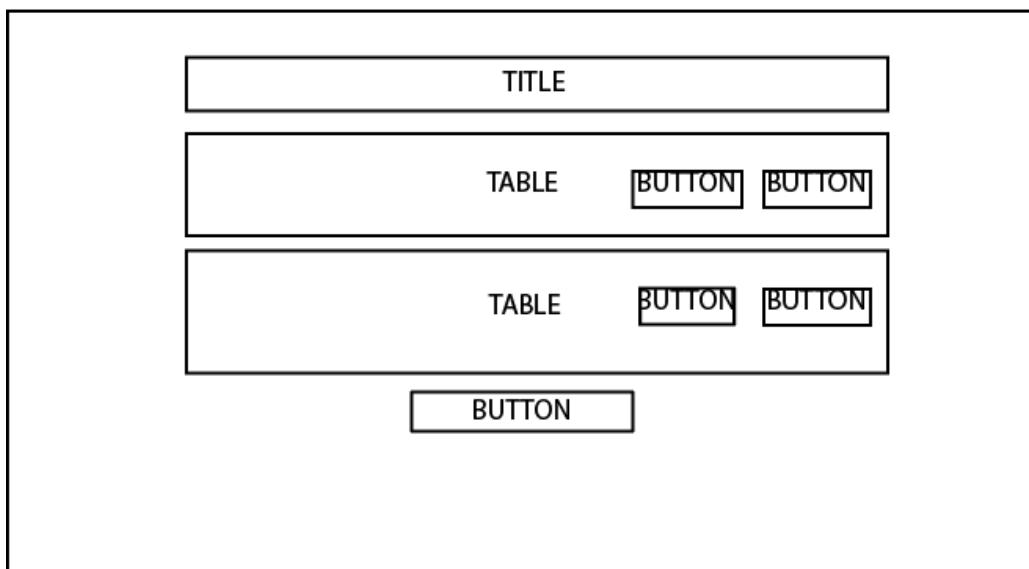


Figure 3.28: View Customer Information page

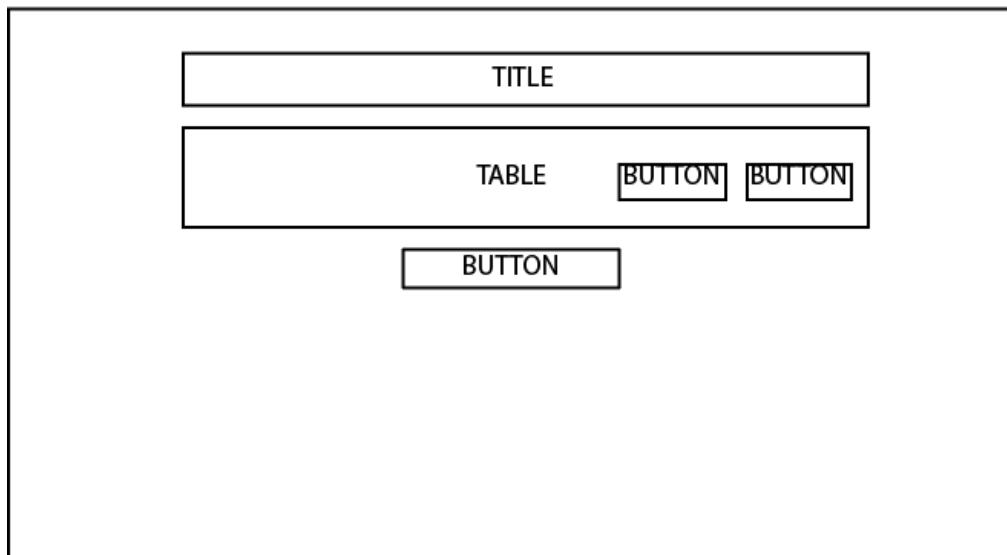


Figure 3.29: View Staff Information page

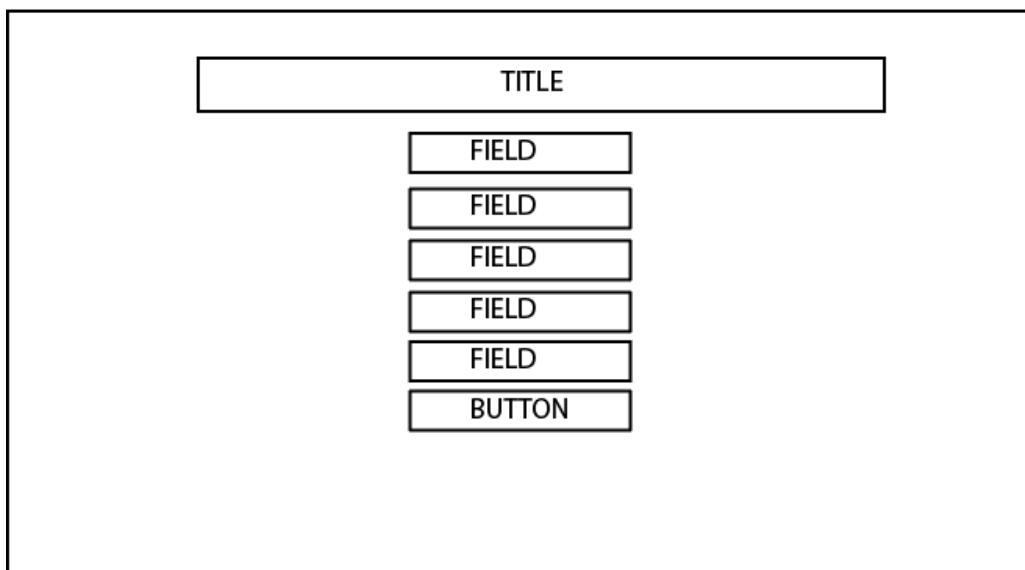


Figure 3.30: Edit Parent, Kid and Staff page

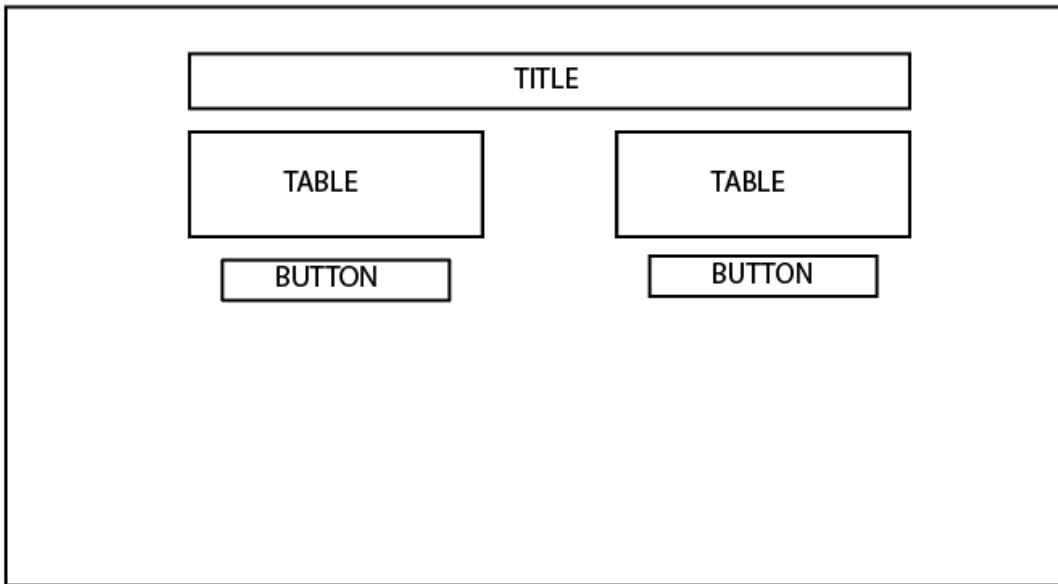


Figure 3.31: Attendance Information page

3.4.2 MOBILE APPLICATION

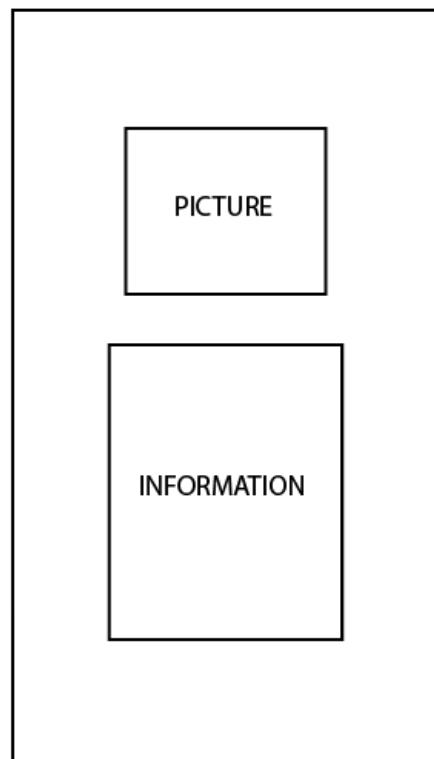


Figure 3.32: Welcome page

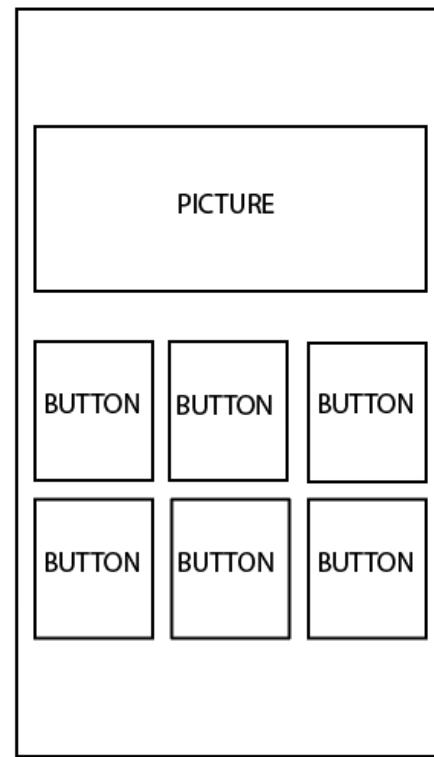


Figure 3.33: Home page

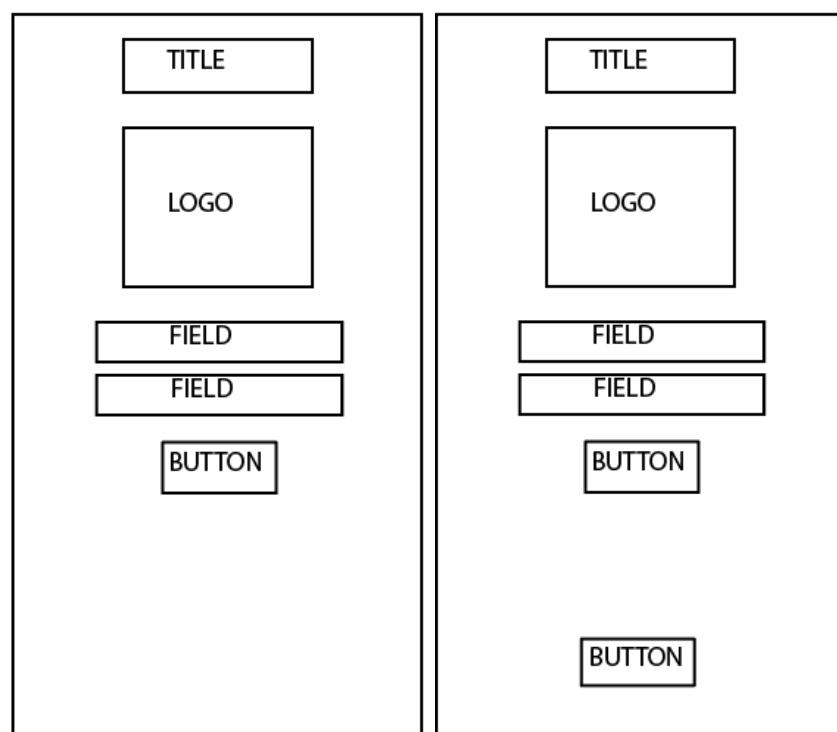


Figure 3.34: Staff and Customer Login page

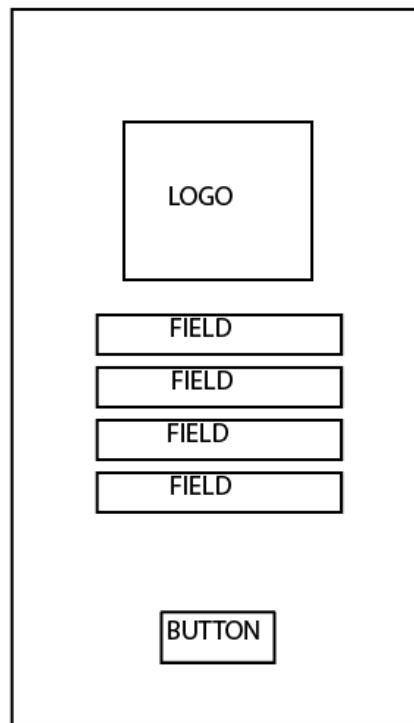


Figure 3.35: Customer Registration page

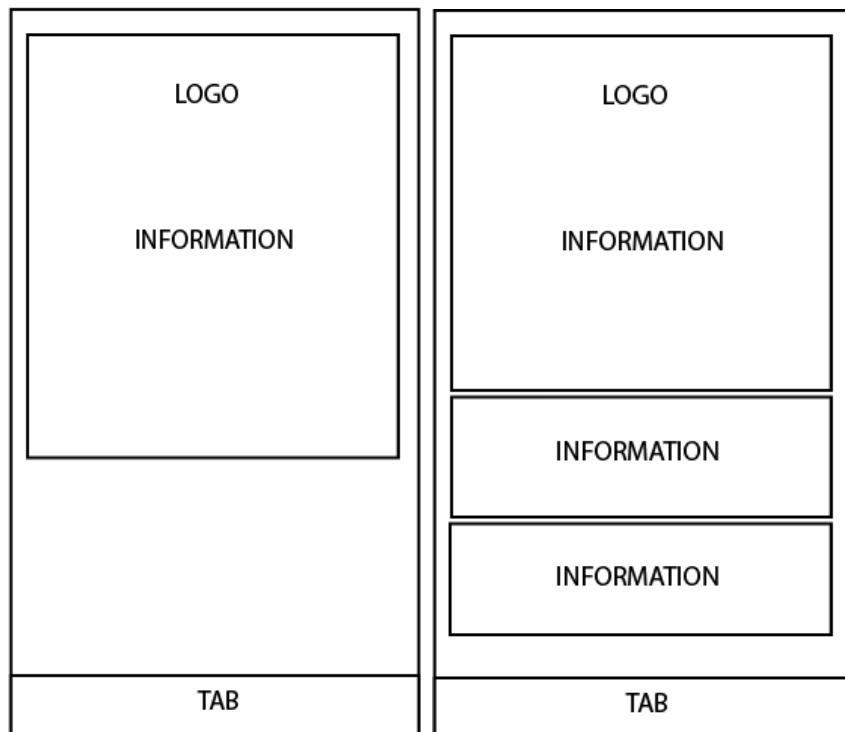


Figure 3.36: Staff and Customer Profile page

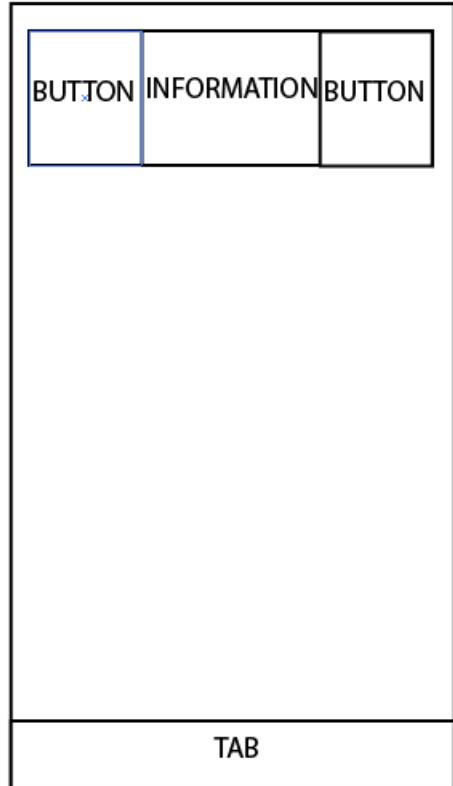


Figure 3.37: Staff and Children Attendance page

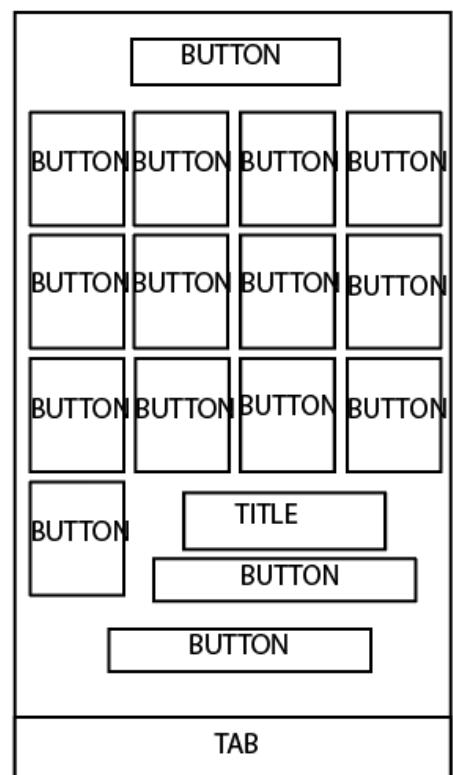


Figure 3.38: Customer Payment page

3.5 CONCLUSION

To conclude this chapter, the use of Waterfall Methodology is the right choice in handling this project because it is suitable for a simple and not too complex system like this project. First, surveys are made and distributed for the purpose of collecting and analysing. Next, in the design phase there were several attempts that failed but were finally accepted by Taska Ibumama. After that, the implementation process is carried out by changing the design that has been provided in the form of applications and websites. A relatively long time is used in this phase. After completing the implementation phase, one video for each user has been provided along with a second survey. This time it is a survey to ensure that they are really satisfied with the application and website. Finally, if there are any defects in the application or website, changes will be made in this phase.

CHAPTER 4

FINDINGS AND RESULTS

4.1 INTRODUCTION

Findings and results are a process in which all data that has been obtained as a result of surveys that have been given to users will be analysed and evaluated. In this chapter, there are three assessments that will be done that is coding evaluation, module evaluation and system evaluation. A total of 35 people answered the questions given and 35 feedback was collected from users.

4.2 SYSTEM EVALUATION

System evaluation in this project will involve coding and modules used. Evaluation in terms of coding is made through feedback on the smoothness when users use this application or system. In terms of module evaluation, it will involve the design used in each page that has been prepared for the user.

4.2.1 Coding Evaluation

To write code in this project, I use the Visual Studio Code platform and for the database I use the Firebase platform. The use of Ionic Framework using Angular is used to write coding for mobile applications. Among the languages used in this development are HTML, JavaScript, and CSS. HTML and CSS are used for the purpose of creating an interface according to the design that has been provided. JavaScript aims to provide functionality to every button in this project. In preparing this project, I went through too many try and errors. This is due to the use of ionic which is different from HTML. In addition, the syntax that needs to be implemented to use firebase is also different from MySQL that I have learned before. Luckily, there are many resources on the internet that are very helpful for me to complete this project. This at the same time can shorten my time for the development process.

4.2.2 Module Evaluation

This project contains many modules that make it a system. Among the modules involved in this system are welcome module, home module, login module, attendance module, payment module, editing and editing module. To ensure the smooth running of this system, each module needs to be tested. If there are any problems with these modules, repair work will be done and the module will be tested again. By doing this, this system will be able to be well prepared and fully functional. Besides that, when the module is developed one by one, there will be no problem at the end of the development since all error and bugs have been fixed earlier.

4.2.3 System Evaluation

A survey for each category of users has been distributed for the purpose of obtaining feedback from users. A total of 35 respondents who have answered this survey question. The results of this survey will be collected and evaluated. Below is the decision for the survey that has been made.

4.2.3.1 User Feedback

Admin

Are you interested to use Taska Ibumama Management System?
1 response

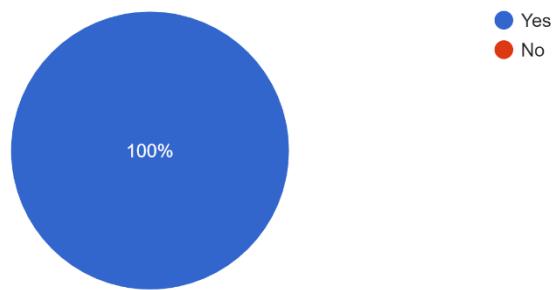


Figure 4.1: Pie chart Feel Interested (Admin)

Figure 4.1 shows that Admin is interested in using the website that has been created in this project.

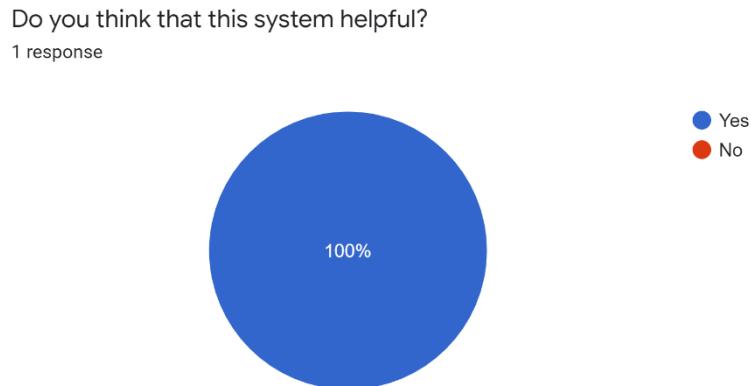


Figure 4.2: Pie chart Helpful (Admin)

Figure 4.2 shows that Admin feels that this website can help him in the work of handling data and information.

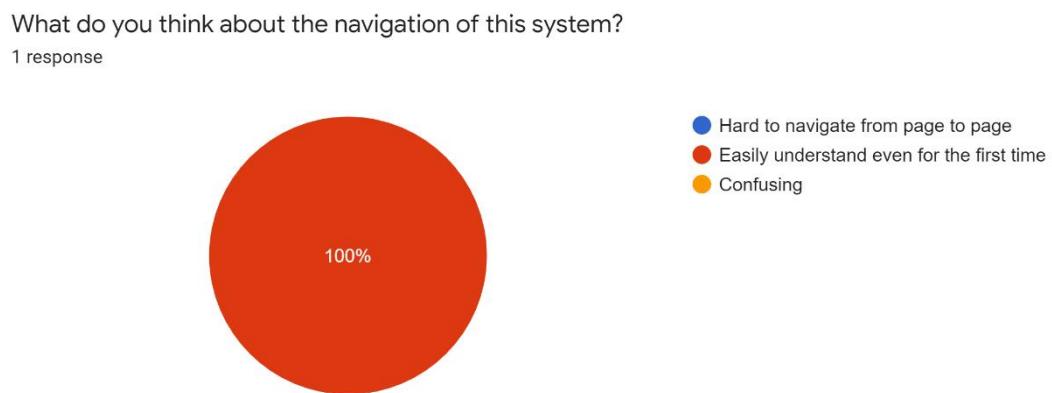


Figure 4.3: Pie chart Navigation (Admin)

Figure 4.3 shows that Admin feels that this website is easy to navigate from one page to another.

Do you think that editing and deleting data will be difficult by using this system?
1 response

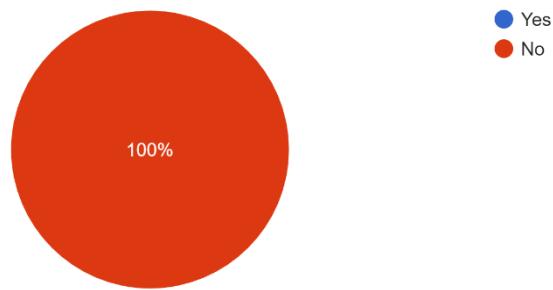


Figure 4.4: Pie chart Edit and Delete

Figure 4.4 shows that Admin feels that by using this website, the work of editing and deleting data is easier.

What do you think about the design of this system?
1 response

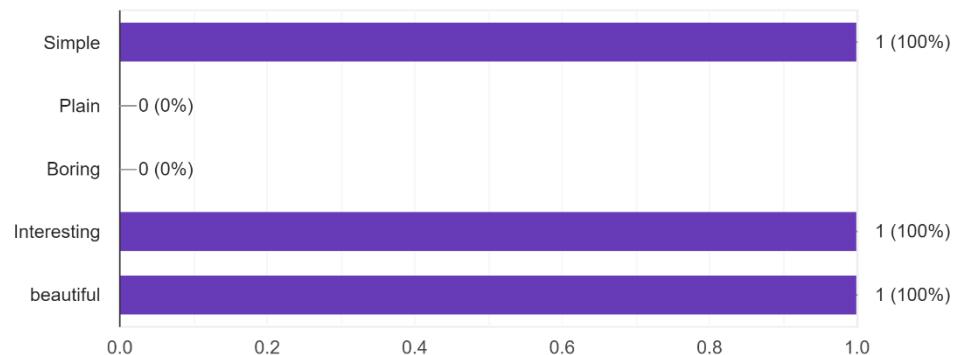


Figure 4.5: Opinion for Design (Admin)

Figure 4.5 shows that Admin feels that the design for this website is simple, interesting and beautiful.

Comment/Feedback for this system.

1 response

Easy to access and friendly user

Figure 4.6: Feedback (Admin)

Figure 4.6 shows the feedback Admin says that this website is easy to access and user friendly.

Staff

Are you interested to use this application?
6 responses

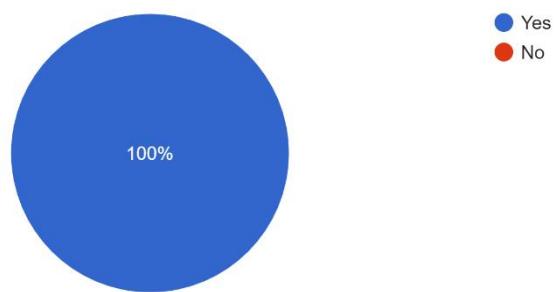


Figure 4.7: Pie chart Feel Interested (Staff)

Figure 4.6 shows that the Staff is interested in using the applications that have been completed through this project.

Do you agree that this application running smoothly?

6 responses

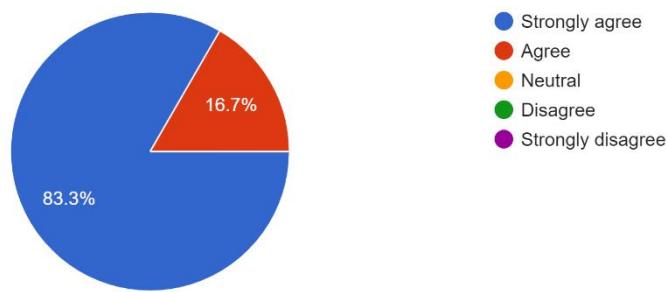


Figure 4.8: Pie chart Smoothness (Staff)

Figure 4.8 shows that 83.3% of them strongly agree that the application runs smoothly. In addition, 16.7% only agree with this statement.

What do you think about the navigation of this application?

6 responses

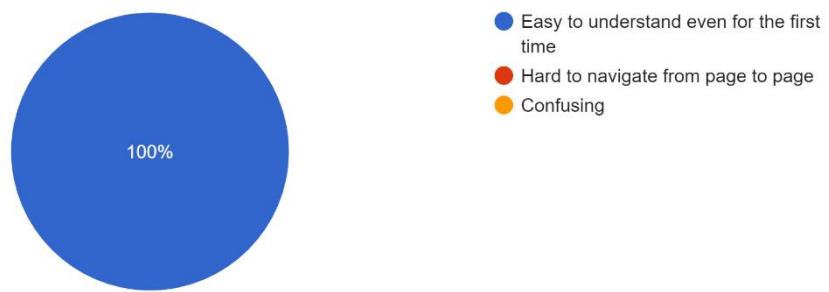


Figure 4.9: Pie chart Navigation (Staff)

Figure 4.9 shows that they all state that this application is easy to understand even when just using it for the first time.

Do you think that this application is user friendly?

6 responses

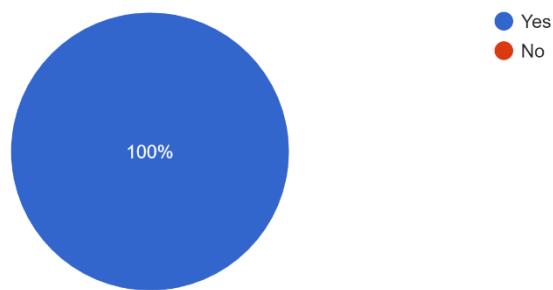


Figure 4.10: Pie chart User Friendly (Staff)

Figure 4.10 shows that they all state that this application is user friendly.

What do you think about the design of this application?

6 responses

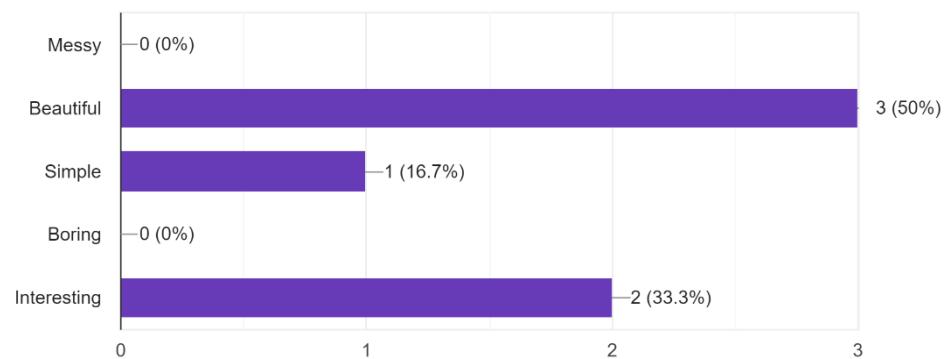


Figure 4.11: Opinion for Design (Staff)

Figure 4.11 shows that 50% of them chose beautiful, 16.7% chose simple, and 33.3% interesting for the design of this application.

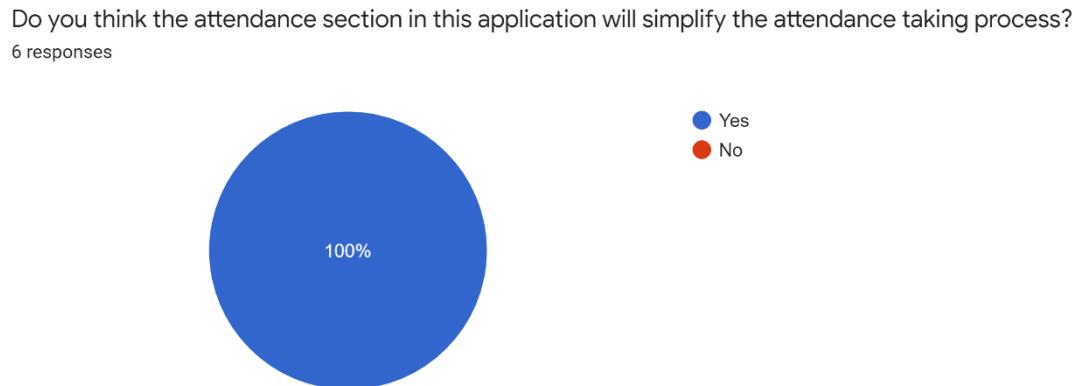


Figure 4.12: Pie chart Attendance (Staff)

Figure 4.12 shows that all staff feel that the attendance section will further facilitate the process of taking their arrival.

Comment/Feedback for this application.

6 responses

Apps is very interesting and easy to log in the attendance for staff

The apps are very useful for teachers. The design also interesting and beautiful.

This app seems like a friendly app for teachers .

This app very helpful and i like the design of this app.

Very interesting and helpful

Figure 4.13: Feedback (Staff)

Figure 4.13 shows the feedback of all staff who are very satisfied with the application that has been provided in this project.

Customer

Are you interested to use this application?
28 responses

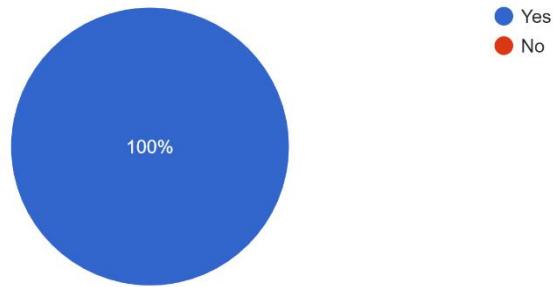


Figure 4.14: Pie chart Feel Interested (Customer)

Figure 4.14 shows that customers feel interested in using the applications that have been provided in this project.

Do you agree that this application running smoothly?
28 responses

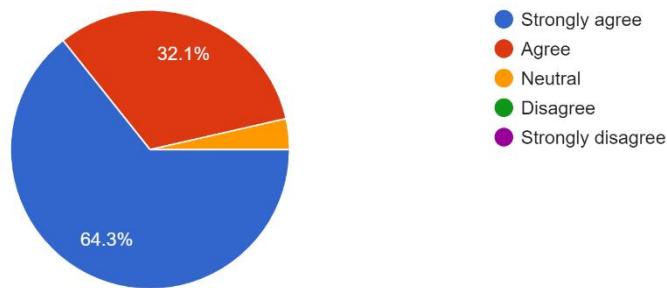


Figure 4.15: Pie chart Smoothness (Customer)

Figure 4.15 shows 64.3% of customers strongly agree that this application runs smoothly. In addition, 32.1% agreed with this statement. Only 3.6% of those felt this was normal.

What do you think about the navigation of this application?
28 responses

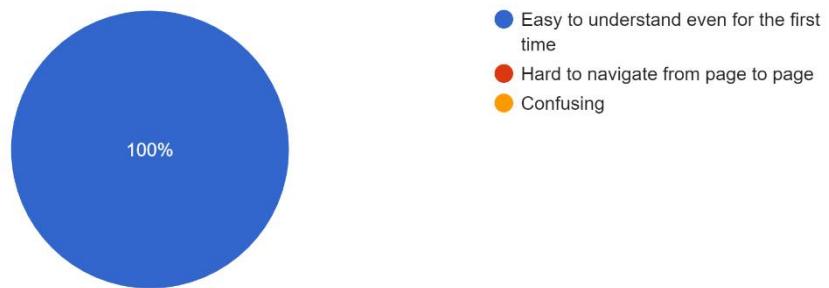


Figure 4.16: Pie chart Navigation (Customer)

Figure 4.16 shows that all customers find the navigation in this application easy to understand even if it is their first time using this application.

Do you think the registration part in this application helpful?
28 responses

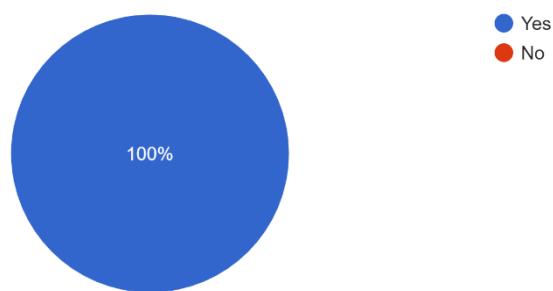


Figure 4.17: Pie chart Registration

Figure 4.17 shows that all customers feel the registration part in this application is very helpful to them.

Do you think that this application is user friendly?

28 responses

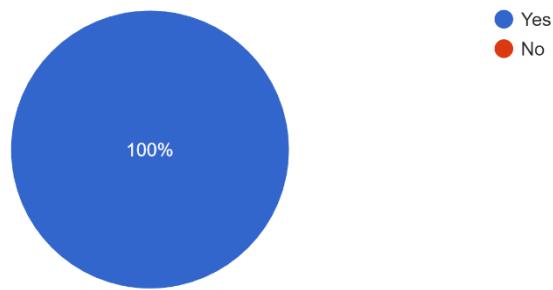


Figure 4.18: Pie chart User Friendly (Customer)

Figure 4.18 shows that all customers agree that this application is a user-friendly application.

What do you think about the design of this application?

28 responses

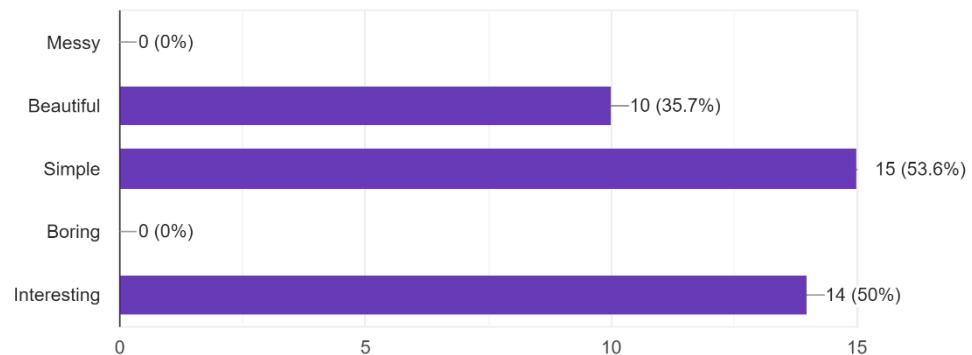


Figure 4.19: Opinion for Design (Customer)

Figure 4.19 shows that 35.7% of them choose beautiful for the design that has been provided. Moreover, 53.6% of them chose simple. Finally, 50% of the respondents received stated that the design of this application is interesting.

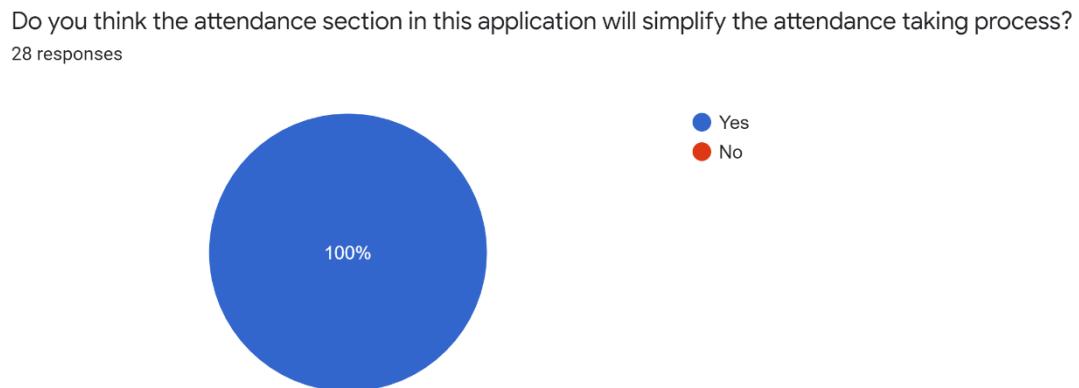


Figure 4.20: Pie chart Attendance (Customer)

Figure 4.20 shows that all of the respondents agreed that this application can facilitate the process of taking attendance.

Comment/Feedback for this application.
28 responses

Good application

Good job. May the new application give easiest for the parents.

1. To have PDPA consent.
2. What about the security of information in this app? Hackers are so creative in stealing the kind of information.
Hope the above will be addressed accordingly.

Nice

Easy to navigate

Interesting app.i love it

1.Maybe this application can attach together with payment statement/Official receipt
2. Invoice and payment statement can available for 1 year ++

Strongly recommended
1. Teacher comment report kids also can attached together based on client performance everyday..not to comment as "active"
mungkin boleh tambahkan option menu utk parent lihat anak makan apa di taska, overall is good
Keep the payment receipt in here too, would be nice
Agree
Really like the payment and clocking in and out function. The maps/socmed/certificate is probably not necessary because as parents we already know this and do not need to access it frequently. What I think is very useful is to have access to info just like the log book (how many diaper change/ naps/ oz baby drinks/ body temperature). This way, we can check in on baby while at work too. Overall, really like the initiative of going digital.
No comments
Keep up the good work
Attractive and reliable.
This Lead to innovation
I love to use this application !
Very interesting
i like the design
having a proper payment gateway will make this app perfect
children report should be in this app too. It might help parents to see our children activity.
good app 

Figure 4.21: Feedback (Customer)

Figure 4.21 shows that the majority of the respondents gave positive feedback. Even so, there are some comments received from users.

4.2.3.2 Analysis of user feedback

All results from this survey have been collected and analysed. This survey really helped me in the process of improving this system based on feedback and comments from users.

Admin

For the analysis of the admin response, he was very interested in using the website that had been prepared for him. In addition, he also thinks that this system can help the smooth work on the part of the nursery. Next, the admin also admits that this website is easy to operate even if you have never used it. The most important part is when the admin is asked about the process of edit and delete using this system is it difficult or not? His answer is no. This means that the system has achieved the objective of making it easier for the nursery to handle data easily. In another part, about the design for this website, the admin stated that the design of this system is simple, interesting and beautiful. The last for admins is comments and feedback. Admin gave good feedback that this website is "Easy to access and user friendly".

Staff

The analysis was made for staff, there were 6 respondents representing staff. For all of them, they are very interested in using this app. Moreover, on the aspect of the smoothness of this application there are 83.3% of them who strongly agree that this application runs smoothly and only 16.7% of them only agree. In terms of navigation, all of them chose that this application is easy to use and understand. Next, in terms of interface, they agree that this application is user friendly. In terms of design, 50% of them said this application is beautiful, 33.3% thought that this application is interesting, and 16.7% of them agreed that this application is simple. For staff, there is an attendance section provided in this application. Therefore, all of them think that this part of attendance can facilitate the process of taking attendance. Finally, there are comments and feedback, among the comments and feedback that have been given reads "These apps are very useful for teachers. The design is also interesting and beautiful", and "This app is very helpful and I like the design of this app".

Customer

The third user category is customers who are registered as customers of this nursery. There were 28 respondents representing the customer. This analysis is made as a result of responses from them via Google Form. All these customers are interested in using this application. In addition, related to the smooth running of this application, 64.3% of them strongly agreed that this application runs smoothly. 32.1% of them chose to agree with the smoothness of this application and only 3.6% of them considered the smoothness of this application at a normal level. Next, regarding the navigation in this application, all customers feel that this application is easy to use even for the first time. On the registration part, all customers are satisfied and certify that the registration part in this application can help and facilitate their work. On the interface, 100% of them agree that this application is user friendly. So, we turn to design, 53.6% of customers who choose this simple application, 50% of them choose interesting, and 35.7% of them choose this beautiful application design. For happy attendance in this application, all customers agree that this section can facilitate the process of taking attendance. Finally, there are a lot of comments and feedback from customers. Among them are, "Maybe this application can attach together with payment statement/Official receipt", "children report should be in this app too. It might help parents to see our children activity.", And "I love to use this application!".

4.3 INSTALLATION AND TESTING

As a result of the pandemic, the testing process could not be carried out as usual. The best alternative I have to test this system is that videos have been created for each user category. This video has been distributed to all three categories of users. for them to gain an overview and experience of using this system.

4.4 CONCLUSION

In conclusion, this chapter discusses how finding and results are carried out. The main focus in this chapter is on system -wide evaluation and analysis including coding evaluation, module evaluation, and system evaluation. In addition, this chapter also evaluates and analyses the results of the survey that has been given to each user. By collecting survey information, analysis can be made more quickly and accurately. With the help of Google Forms as well, this process can be much easier.

CHAPTER 5

CONCLUSION

5.1 INTRODUCTION

In this last chapter, it will be a summary of the entire project that has been carried out for about 3 months. This chapter will discuss the difficulties encountered, recommendations, and future works in this project.

5.2 DEVELOPMENT CONSTRAINTS

Throughout my handling of this project, there were a number of constraints I faced to keep the system running smoothly. Development constraints refers to a limitation that will slow down the work of developers which can cause a serious setback to the development.

5.2.1 Difficulty to find the best design that meets the requirement.

I have difficulty finding the most suitable design that meets the tastes of users from all three categories of users available. This makes me have to take a lot of time to find the best design to use in this system. Design is a very important element to ensure the satisfaction of users who will use this system.

5.2.2 Lack of knowledge

Because this is the first time, I develop a system that combines two mediums, namely web-based system and mobile application, it is quite difficult for me to focus on which is more important. Also, the use of different languages in the coding also made me take some time to learn them. Next, the use of firebase as a database requires a different syntax than the local database. This is also something that is lacking in my knowledge. A lot of things I have learned in developing this project.

5.2.3 Lack of motivation

In handling this project, the mental state also plays an important role. Lack of motivation can have a major impact on the system to be developed. Due to the lack of mental strength, I found that the development work became a bit slow and this made the system could not be completed as perfectly as planned.

5.3 RECOMMENDATIONS AND FUTURE WORKS

After the system is fully ready, the survey is given to the user. There have been many positive comments given to this system. However, there are also recommendations from users who want additions in terms of features that will help them more. This is a good thing because they are concerned about the shortcomings in this system.

5.3.1 Payment gateway

Payment gateway needs to be applied in this system so that customers can make registration and monthly payments more easily. This can also provide a receipt or invoice that can also make it easier for the admin to confirm that the customer has made their payment to the nursery.

5.3.2 Daily Report

Daily Report is also one of the money features suggested by users. This is because these features can help parents to monitor the movements and activities of their children even from a distance. If these features are successfully incorporated into this system, customers' trust in the nursery will also increase.

5.3.3 Advance Authentication Service

The use of advance authentication service is also necessary for the improvement of this system. This is because by using a service like this, it can increase security and ensure the security of user data. Among the examples of advance authentication service is that each registered email will receive an email from the nursery to verify. In addition, the password can also be changed using the user's

email only. It can make it easier for users to change passwords without the involvement of super admins.

5.4 CONCLUSION

In conclusion, I as a developer to this project must always be prepared for any eventuality. By doing so, all existing constraints can be resolved easily. At the same time this project can be completed quickly without interfering with the quality of my work. In addition, for recommendation and future works, it is an idea of improvement to this system. However, as a developer to this project, I have to make sure that the project I am working on has no problems in the future.

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APPENDIX

– APPENDIX A: QUESTIONNAIRE

- Before development.

Admin

Taska Ibumama Management System (Admin)

This survey was made to get feedback from users before this system was created.

Do you agree manage a nursery by using manual system is difficult and unorganized? *

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree if having a system can help in data management work in the nursery? *

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree if you are usually feel overwhelmed by a lot of customer data and information? *

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Can you manage your workplace well if there are too many files of student or customer information? *

- Yes
- No

Do you agree if data is stored in proper and organize manner will make you feel better and easy to work? *

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree if using too much paper to store data and information can be a waste? *

- Yes
- No

Do you feel safe with the way data and information are stored in your nursery now? *

- Yes
- No

If the data and information under your care are lost or stolen, will you feel anxious? *

- Yes
- No

Have you ever searched for existing customer and kid information stored in a file? *

- Yes
- No

If so, do you find the information you are looking for is difficult to be found by using manual search. *

- Yes
- No

Staff**Taska Ibumama Management System (Staff)**

This survey was made to get feedback from users before this system was created.

Do you agree that you are sometime late to punch an attendance card when come to work?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree smartphones is essential device nowadays?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree that sometime you feel overwhelmed if you are required to use your smartphone while working?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree if the staff attendance app that will be used later will use your email address and personal picture?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree by using a mobile application can help to break the chain of COVID-19?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Customer**Taska Ibumama Management System (Customer)**

This survey was made to get feedback from users before this system was created.

Do you agree mobile apps can help people in their daily life routine?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree if nursery use mobile apps to make parent job easier?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree if nursery use mobile app for new registration purposes?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree if the nursery provide a mobile apps that include payment fee function?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Do you agree if the apps can be used to record your children daily attendance (Check-in and Check-out)?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

- After Development

Admin

Taska Ibumama Management System (Admin)

Based on the video that have been provided, this survey created to get some feedback from our user.

Are you interested to use Taska Ibumama Management System? *

- Yes
- No

Do you think that this system helpful? *

- Yes
- No

What do you think about the navigation of this system? *

- Hard to navigate from page to page
- Easily understand even for the first time
- Confusing

Do you think that editing and deleting data will be difficult by using this system? *

- Yes
- No

What do you think about the design of this system? *

Simple

Plain

Boring

Interesting

beautiful

Comment/Feedback for this system. *

Long-answer text

Staff**Taska Ibumama Management System (Staff)**

Based on the video that have been provided, this survey created to get some feedback from our user.

Are you interested to use this application? *

- Yes
- No

Do you agree that this application running smoothly? *

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

What do you think about the navigation of this application? *

- Easy to understand even for the first time
- Hard to navigate from page to page
- Confusing

Do you think that this application is user friendly? *

- Yes
- No

What do you think about the design of this application? *

- Messy
- Beautiful
- Simple
- Boring
- Interesting

Do you think the attendance section in this application will simplify the attendance taking process? *

- Yes
- No

Comment/Feedback for this application. *

Long-answer text

Customer**Taska Ibumama Management System (Customer)**

Based on the video that have been provided, this survey created to get some feedback from our user.

Are you interested to use this application? *

- Yes
- No

Do you agree that this application running smoothly? *

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

What do you think about the navigation of this application? *

- Easy to understand even for the first time
- Hard to navigate from page to page
- Confusing

Do you think the registration part in this application helpful? *

- Yes
- No

Do you think that this application is user friendly? *

- Yes
- No

What do you think about the design of this application? *

- Messy
- Beautiful
- Simple
- Boring
- Interesting

Do you think the attendance section in this application will simplify the attendance taking process? *

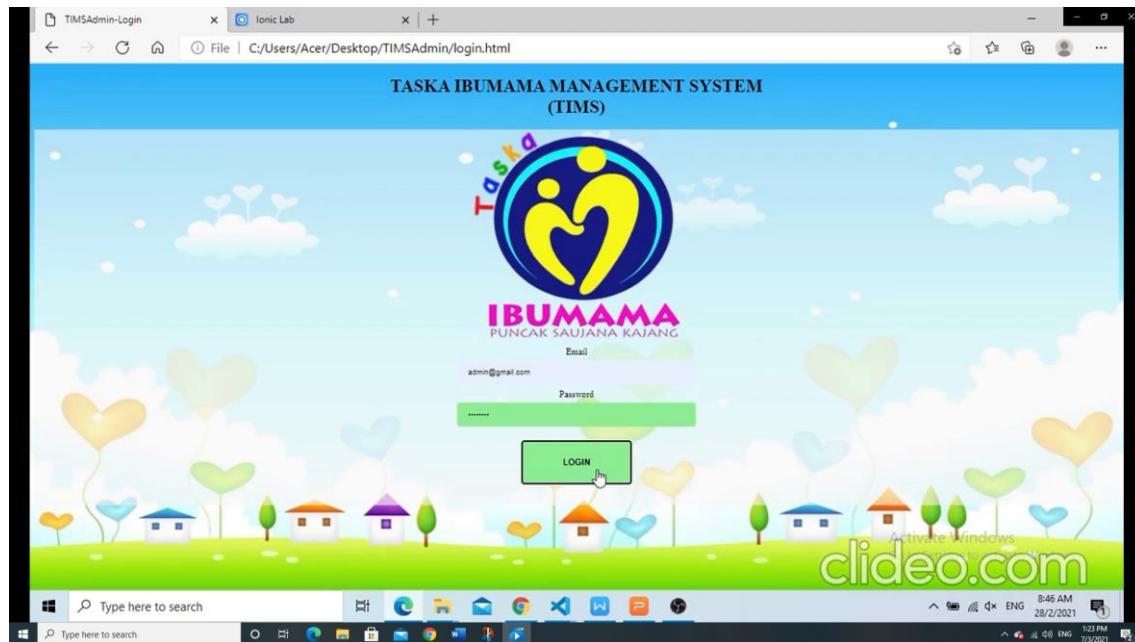
- Yes
- No

Comment/Feedback for this application. *

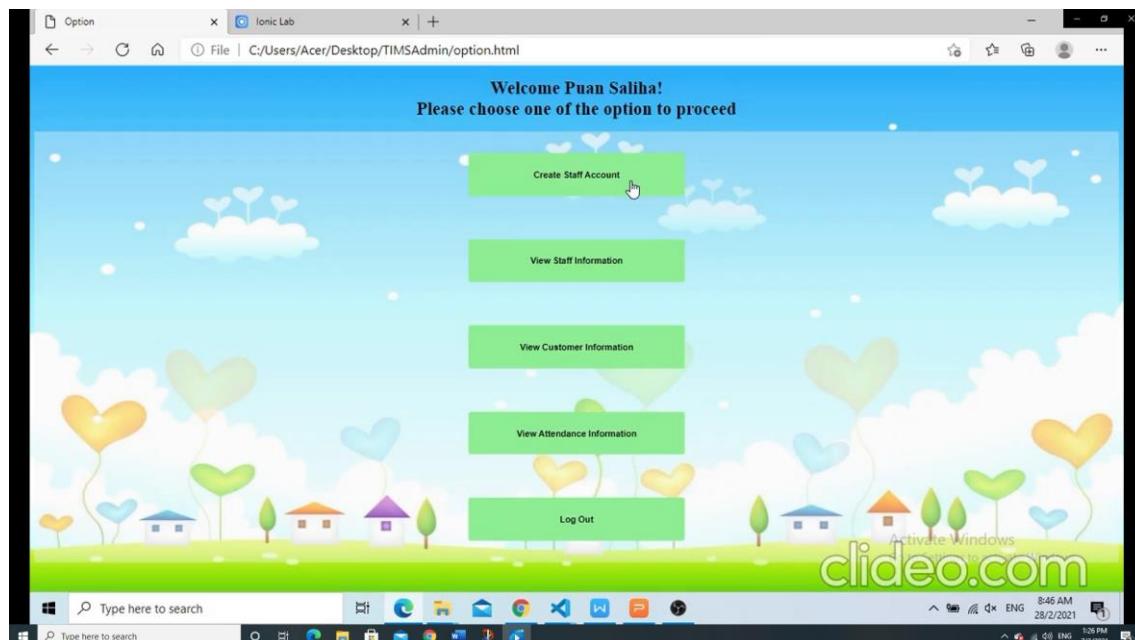
Long-answer text

– APPENDIX B: USER MANUAL

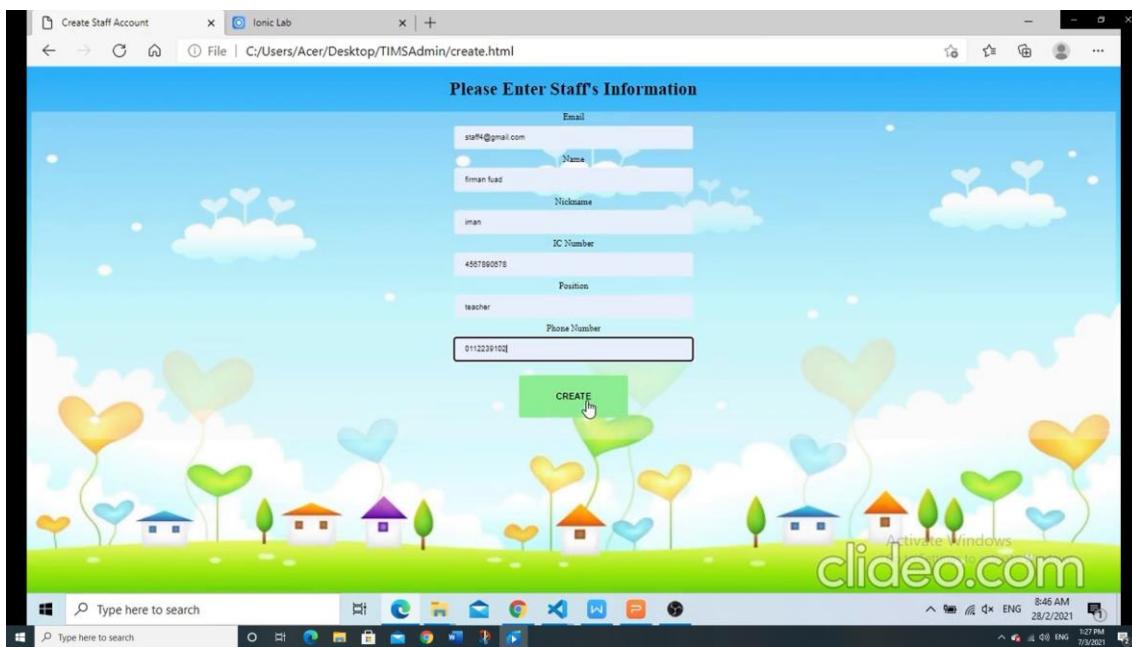
Web-Based System (Admin)



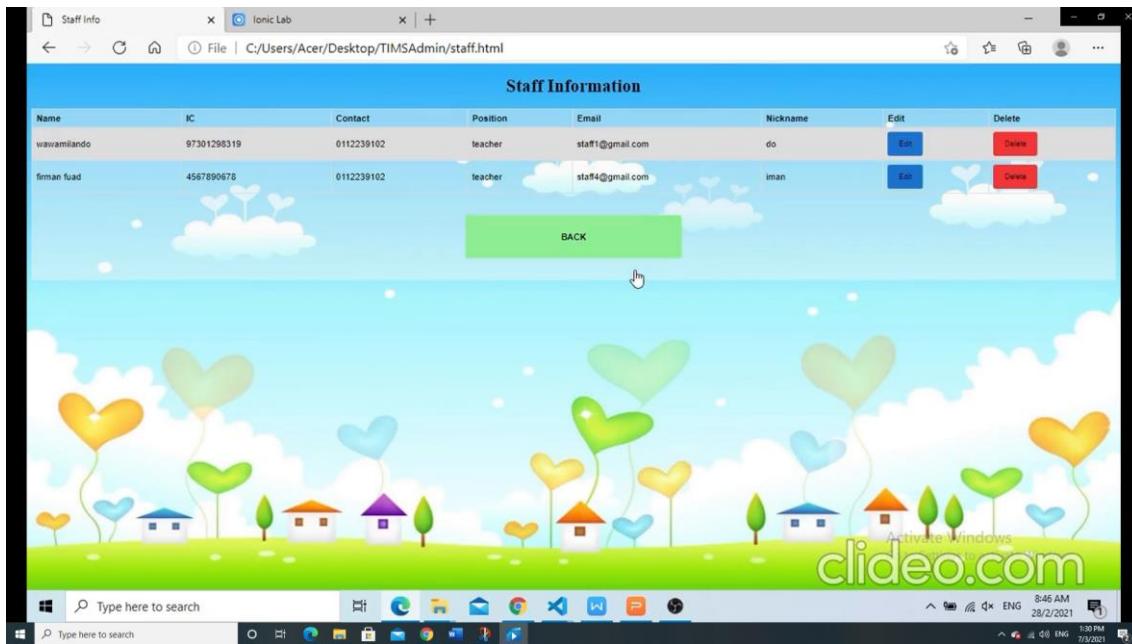
Admin need to enter their Email and Password to login.



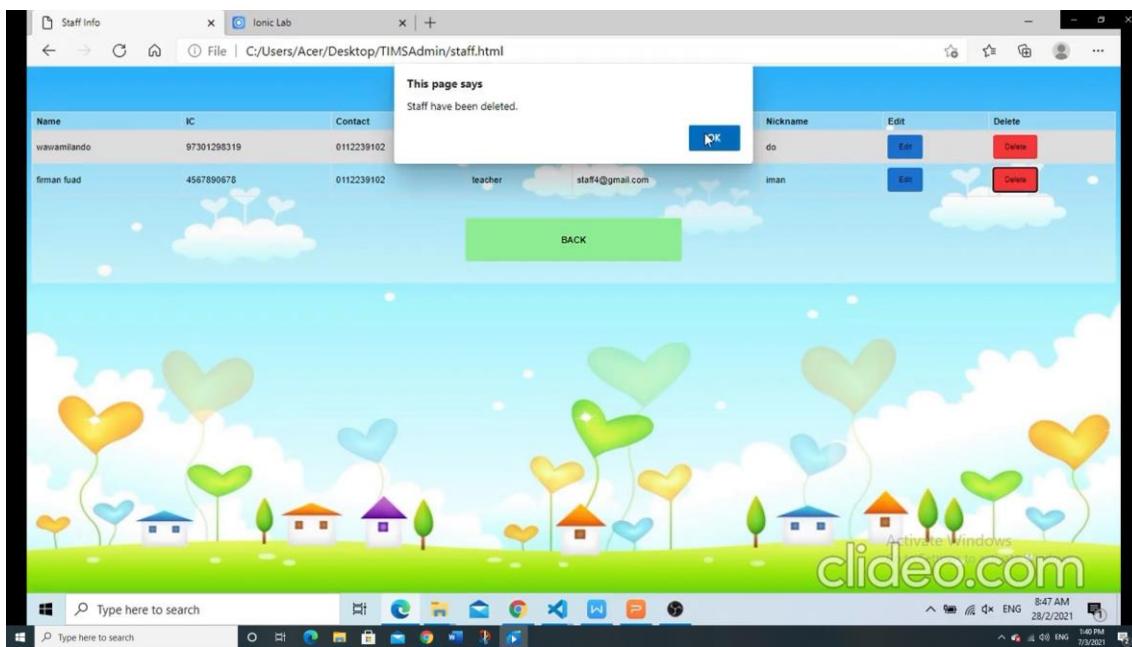
Home page for admin will be appeared after admin done login.



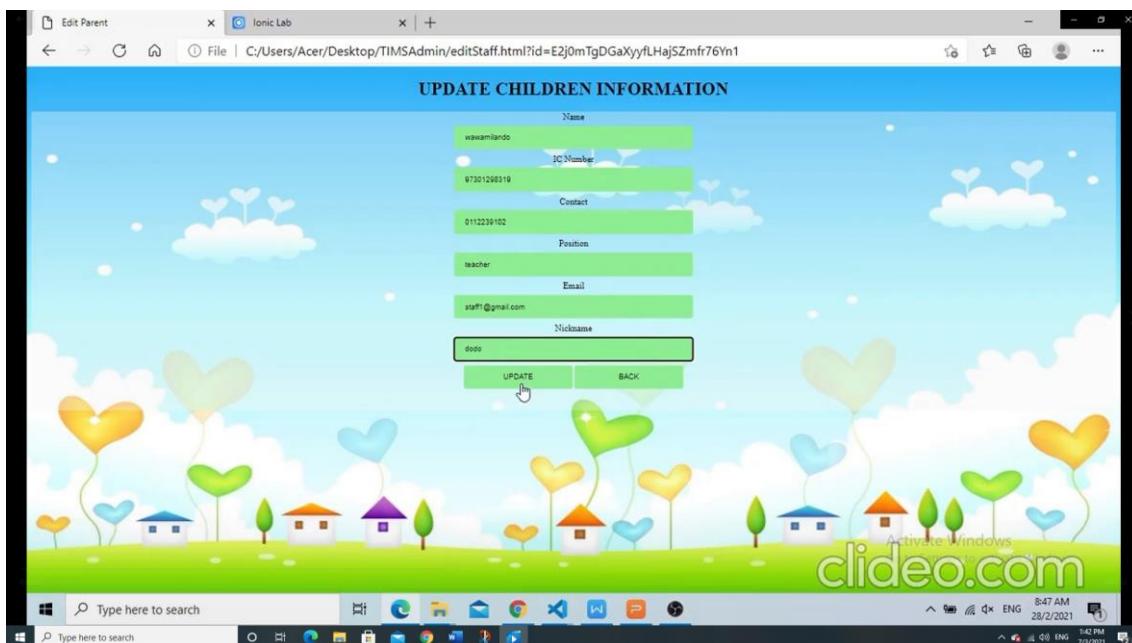
If admin click the “Create Staff Account” button, they can create account for the staff by entering the staff information into the form provided. After that, they need to click “CREATE” button to create it.



When staff click on the “View Staff Information” from the home page, this page will appear. In this page we can see that all the staff information will be shown. The admin can edit and delete the information of those data.



This alert will be shown when admin delete one of the staff.



To update the staff information, admin need to click "Edit" button from the previous page. So, this update form will be appeared. Any changes need to be done in this page. After changing some information, admin need to click "UPDATE" button to save all the changes.

The screenshot shows a web application titled "Customer Information" in a browser window. The main content area is divided into two sections: "Parent Information" and "Children Information".

Parent Information:

Email	Username	Password	Payment	Husb Name	Husb IC	Husb Contact	Husb Job	Husb Salary	Wife Name	Wife IC	Wife Contact	Wife Job	Wife Salary	Edit	Delete
cust1@gmail.com	komeng	komeng96	Paid	fauzi ismail	78493829201	0131127489	programmer	5000	norsabah dawud	873627564269	0127736491	lawyer	10000	<button>Edit</button>	<button>Delete</button>
cust3@gmail.com	sasu	sasatu12	Unpaid	sasatu iham	9803764783	01199082938	driver	8000	ros tahir	98177284617	0123317281	makeup artis	3000	<button>Edit</button>	<button>Delete</button>
cust2@gmail.com	indah	indahkali123	Unpaid	ahmad indah	87283948178	019012343	developer	6000	nur nyaman	87129839801	019837784	teacher	4000	<button>Edit</button>	<button>Delete</button>

Children Information:

Name	Nickname	MyKid	Package	Sickness	Edit	Delete
fauzan fauzi	zan	8329748910	Baby	no	<button>Edit</button>	<button>Delete</button>
sabrina fauzi	ina	86249610708	Kid	no	<button>Edit</button>	<button>Delete</button>
farhan fauzi	aan	98274923798	Toddler	yes	<button>Edit</button>	<button>Delete</button>
filizah sasatu	piljah	6872499666	Baby	no	<button>Edit</button>	<button>Delete</button>
yazid indah	yaz	8782385498	Kid	no	<button>Edit</button>	<button>Delete</button>
fadiah indah	edah	9823094828	Toddler	yes	<button>Edit</button>	<button>Delete</button>

At the bottom of the page, there are "BACK" and "clideo.com" buttons.

Next, for customer information. Admin need to click “View Customer Information” from the home page. All customer data will be appeared here in this page. Same goes to Staff, Admin also can edit and delete the information either for parents or children.

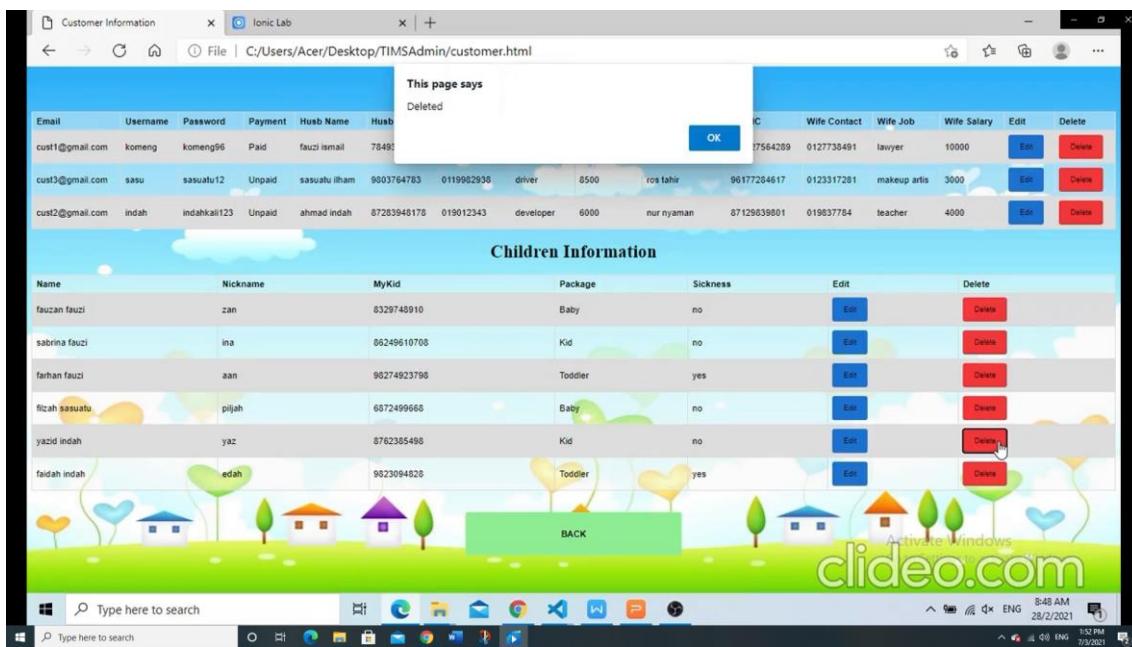
The screenshot shows a web application titled "Edit Parent" in a browser window. The main content area is titled "UPDATE PARENT INFORMATION".

The form fields are as follows:

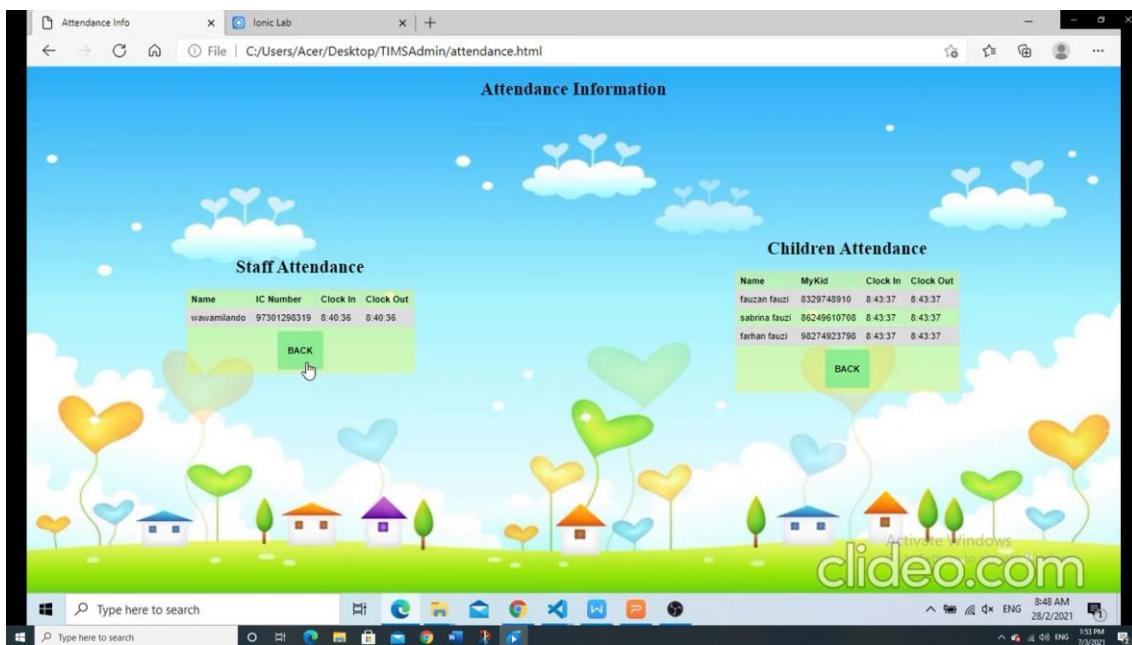
- Husband Name: sasatu iham
- Husband IC: 9803764783
- Husband Phone: 01199082938
- Husband Job: driver
- Husband Salary: 8500
- Wife Name: ros tahir
- Wife IC: 98177284617
- Wife Phone: 0123317281
- Wife Job: makeup artis
- Wife Salary: 3000

At the bottom of the form, there are "UPDATE" and "BACK" buttons.

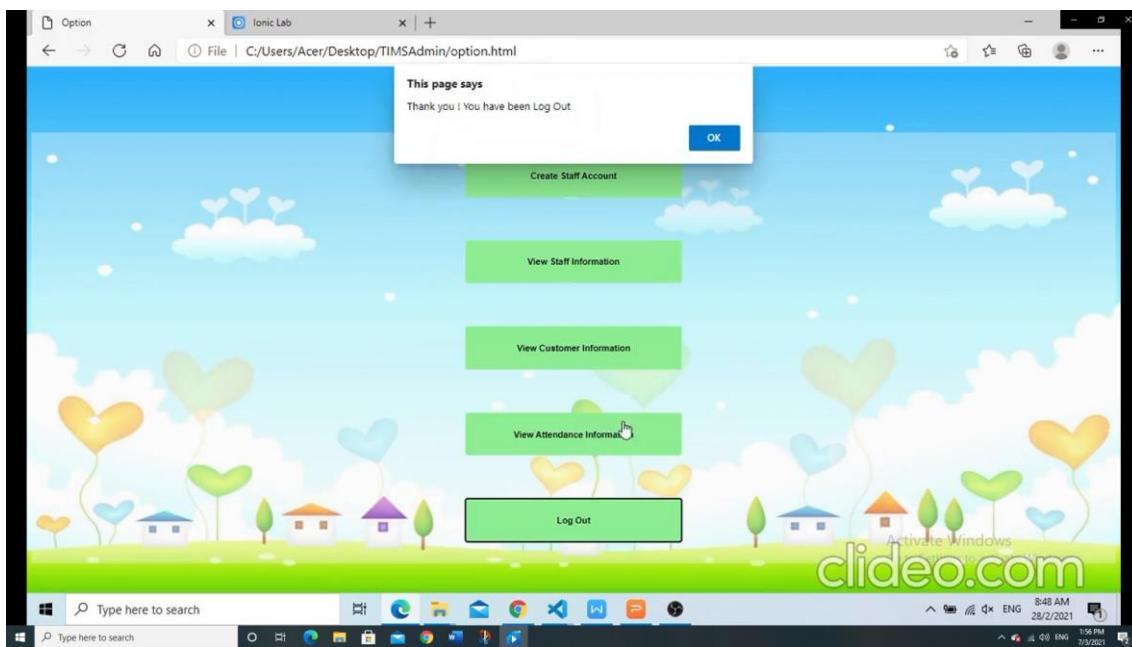
This page is the example of editing parent information.



This is the example of deleting children information.



If admin need to check the attendance information, they need to click on “View Attendance Information” button from the home page. This page will appear for admin to see the information of staff and children information.



Last for admin, after they have done their work for view, deleting and editing all the information. They need to logout by clicking the “Log Out” button.

Mobile Application



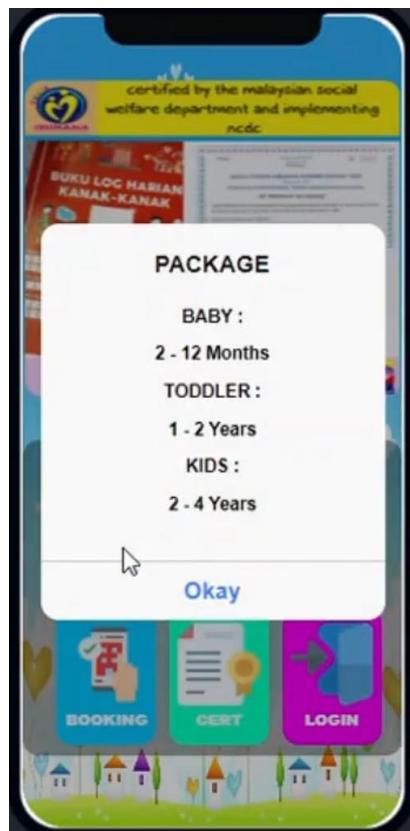
This is the splash screen for this application.



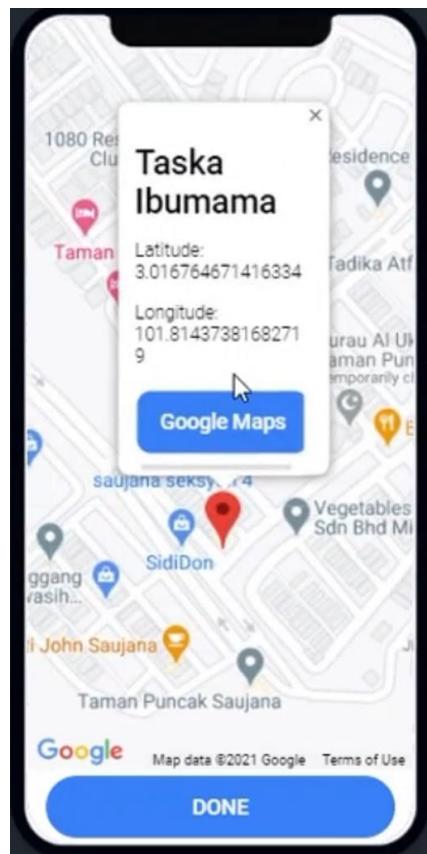
This is the welcome page for this application. This welcome page provides some information that will help the staff and customer to get to know well about this system.



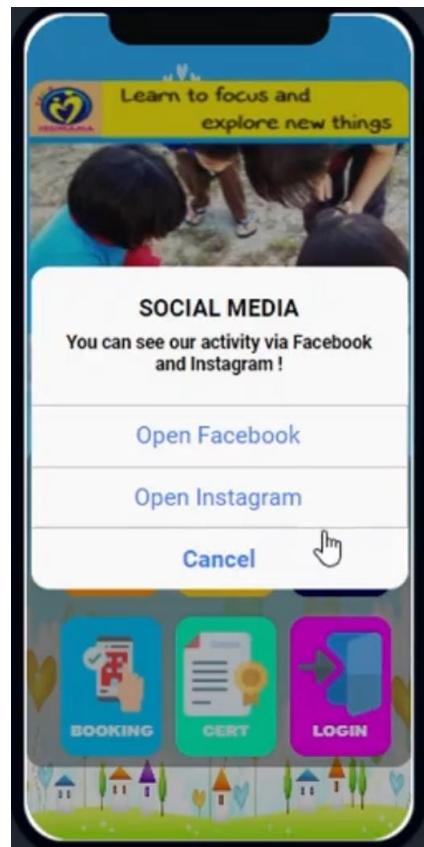
This is the home page of this application. In this page, we can see the picture in slide mode that will show a little bit about the module that have been applied by this nursery. There are 6 buttons in this page that is “PACKAGE”, “MAPS”, “SOCMED”, “BOOKING”, “CERT”, and “LOGIN”.



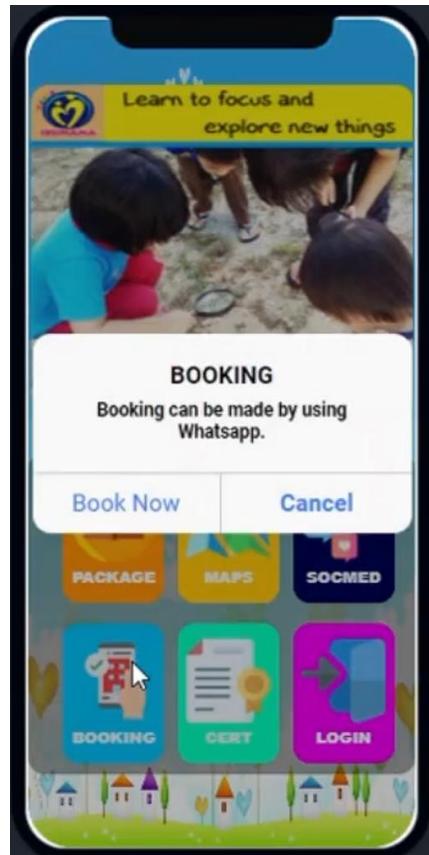
If the user clicked on “PACKAGE” button, this information will be appeared.



When the user clicked the “MAPS” button, the screen will show the location of this nursery. If they want navigation, so they need to click on the “Google Maps” button. Google Maps application will appear to show them the way to go to the nursery.



For the next button, when the users click on the “SOCMED” button, this alert will be displayed. If they want to know about the Facebook and Instagram for this nursery, they can click those buttons to open it. When the user clicks “Open Facebook” button, this application will navigate the user to Facebook application. Same goes to “Open Instagram” button.

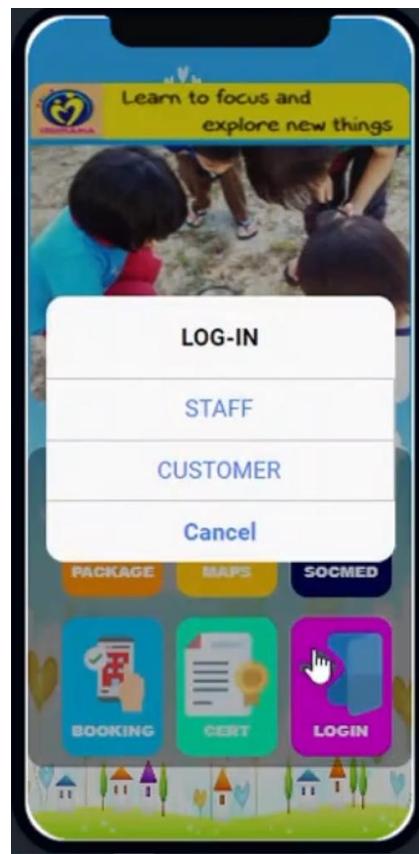


For button “BOOKING”, it will navigate the user to WhatsApp Application because the booking session will made through WhatsApp.



Next, for “CERT” button, if the user clicks on it. It will show the certificate number of this nursery. There are many users that want to know about this for their security.

Mobile Application for Staff



For Staff, the need to choose STAFF button.



After that, they need to login their account that have been created by the admin. They need to enter their email and ic number as password.



After they have successfully login, the first page that they will see is their own profile. In this profile page, their information be displayed. If there are mistake, they need to notify the admin to make corrections.

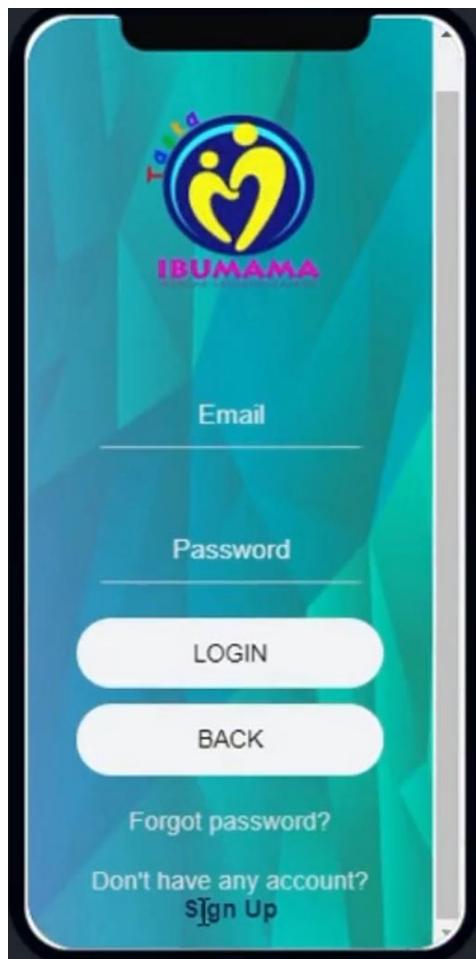


Next, if the staff click on the second tabs below the screen, this application will show them the Attendance page. In this attendance page, they need to swipe their name to the left and click the “Clock In” button to clock in. For clock out, the same thing they need to do. But this time, they need to swipe their name to the right.

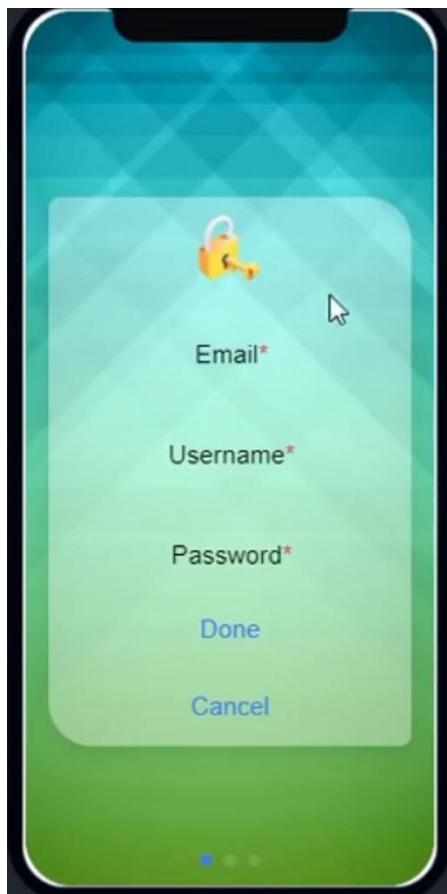


For the last thing for staff, they can log out their account by clicking the “Log Out” tabs in the bottom of their screen.

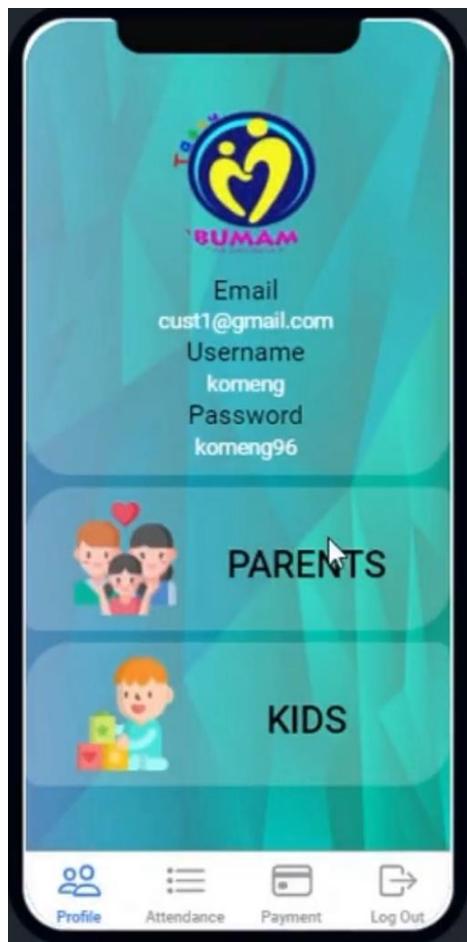
Mobile Application for Customer



For customer, they need to choose “Customer” button. After that, if they have no account yet, they need to scroll down the login page and click on “Sign Up”.



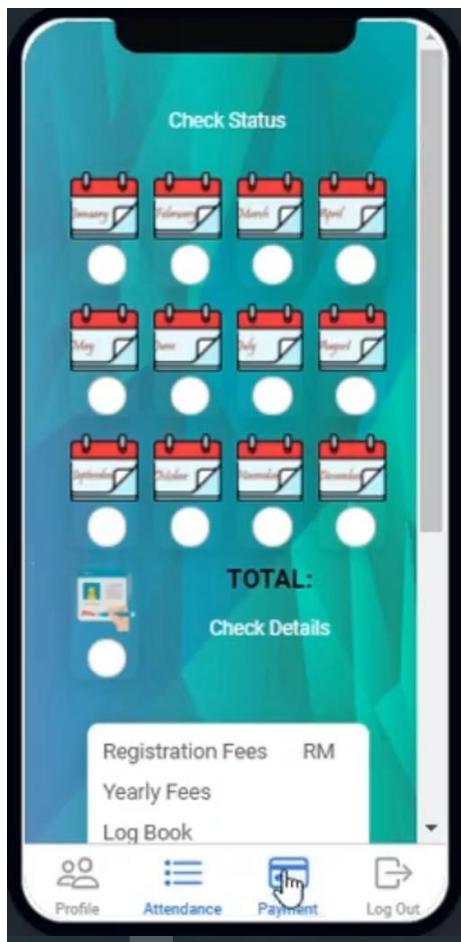
They need to fill all the form provided in this registration session. After they have filled all the form, they need to click on the “Register” button at the last slides of this registration page. Then, they will be navigated to the login page again. This time, they can login their account by enter their email and password.



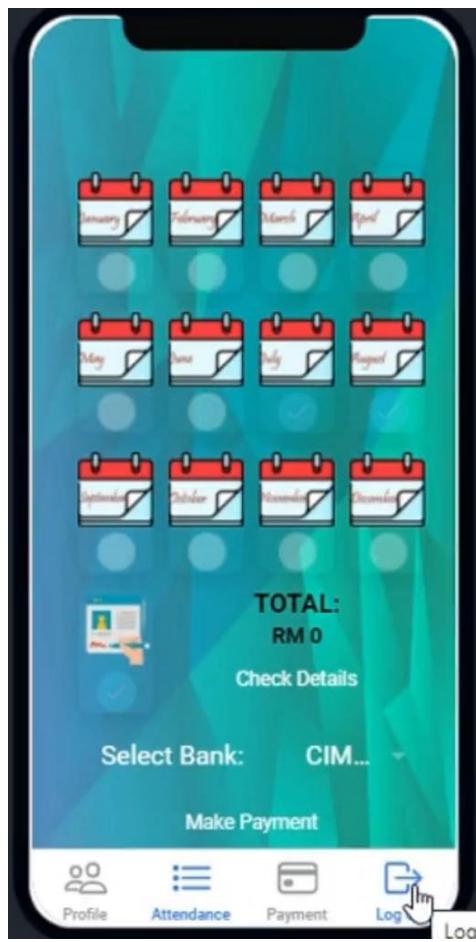
Next, after they have logged in their account, their profile will be displayed. The first part in this profile page will display the customer's account information. The second part is about the parent's information and the last part will display kids' information. They just need to click on the "PARENT" and "KIDS" displayed in their screen to see all the information stated.



Other than that, when they click “Attendance” tabs in the bottom of their screen, this Attendance page will be displayed. The way to use this attendance is to swipe the name displayed either to the left or to the right. If they want to clock in, they child, then they need to swipe the name of their child to the left and click on “Clock In” button. If they want to clock out their child. They need to swipe the name to the right and click “Clock Out” button.



Next, for the payment section, customer can go to Payment page by clicking the “Payment” tabs at the bottom of their screen. In this payment section, they need to check their status of payment first. If the status is Unpaid, its mean that the customer does not made their registration payment yet. So, they need to checked the check-box for registration payment first and then click the month that they want to pay. The total price will be shown. For details, they need to click on “Check Details” button. After they have satisfied with the details, they need to choose the bank that they use. Finally, they just need to click on “Make Payment” button. They will be navigated to the bank login page and they need to make their payment.



For the last part for customer, they can log out their account by clicking the “Log Out” tabs at the bottom of their screen.

– APPENDIX C: TURNITIN

fyp report

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– APPENDIX D: PROGRESS REPORT

KOLEJ UNIVERSITI POLY-TECH MARA KUALA LUMPUR
PROJECT
TSE3214

Project Title : Taska Ibumama Management System (TIMS)

Student Name : Mohamad Farhan bin Mohd Fauzi

Matrix Number: AM 1901004935

Supervisor : Miss Shuhadah binti Othman

Progress Report 01

During the last two weeks, I have started on the production modeling of the story.

Below are some of the things that I have done:

1. Propose my project title for approval.
2. Fill in the registration form.
3. Complete writing the proposal.
4. Consultation with my supervisor regarding the topic for my project.

Above are the tasks I have managed to complete so far. For the next following weeks, I have planned to start design my project.

Prepared by,



(Mohamad Farhan bin Mohd Fauzi)
AM 1901004935

Checked by,



(Miss Shuhadah binti Othman)
Project Supervisor

KOLEJ UNIVERSITI POLY-TECH MARA KUALA LUMPUR
PROJECT
TSE3214

Project Title : Taska Ibumama Management System (TIMS)
Student Name : Mohamad Farhan bin Mohd Fauzi
Matrix Number: AM 1901004935
Supervisor : Miss Shuhadah binti Othman

Progress Report 02

During the last two weeks, I have started on the production modeling of the story.

Below are some of the things that I have done:

5. Analyze user requirement for my project.
6. Draw my project use case diagram, entity relational diagram and flowchart.
7. Design my application and website.
8. Asking my supervisor her opinion about design.
9. Do some research about the previous study case.

Above are the tasks I have managed to complete so far. For the next following weeks, I have planned to start developing my application and website.

Prepared by,



(Mohamad Farhan bin Mohd Fauzi)
AM 1901004935

Checked by,



(Miss Shuhadah binti Othman)
Project Supervisor

KOLEJ UNIVERSITI POLY-TECH MARA KUALA LUMPUR
PROJECT
TSE3214

Project Title : Taska Ibumama Management System (TIMS)
Student Name : Mohamad Farhan bin Mohd Fauzi
Matrix Number: AM 1901004935
Supervisor : Miss Shuhadah binti Othman

Progress Report 03

During the last two weeks, I have started on the production modeling of the story.

Below are some of the things that I have done:

10. Start to develop my project.

11. Draft my chapter one and chapter two for report.

12. Consultation about survey question with my supervisor.

13. Distribute the questionnaire to admin, staff and customer of Taska Ibumama.

Above are the tasks I have managed to complete so far. For the next following weeks, I have planned to start distributed some survey and design my project.

Prepared by,



(Mohamad Farhan bin Mohd Fauzi)
AM 1901004935

Checked by,



(Miss Shuhadah binti Othman)
Project Supervisor

– APPENDIX E: LOGBOOK



FACULTY OF COMPUTING & MULTIMEDIA (FCOM)

COMPUTING PROJECT
(TSE3214 / FYP3014)

LOG BOOK

STUDENT'S NAME :	MOHAMAD FARHAN BIN MOHD FAUZI
ID NO.	: AM1901004935
SUPERVISOR	: MISS SHUHADAH BINTI OTHMAN
PROJECT TITLE	: TASKA IBUMAMA MANAGEMENT SYSTEM

Week		Date	Agenda	Next Agenda	Signature (Supervisor / Coordinator)
23/11/2020 – 27/11/2020	1	Date: 24/11/2020	Preview Seminar - Brainstorming, Introduction to the course and Title selection	Propsal Writing and Assigning Supervisor	
30/11/2020 – 4/12/2020	2	Date: 01/12/2020	Lecture : Proposal Writing, Assigning Supervisor • Title, Scope & Final product Submission of Registration form	Project guide & Project Management Planning	
7/12/2020 – 11/12/2020	3	Date: 08/12/2020	Lecture : Project guide & Project Management Planning - Research methods /Literature Review	Lecture about chapters in report and reference guidelines Submission of Project Proposal	
14/12/2020 – 18/12/2020	4	Date: 15/12/2020	Lecture : Chapters in report and reference guidelines Submission of Project Proposal	Lecture about chapters in report and reference guidelines Update project development	
21/12/2020 – 25/12/2020	5	Date: 22/12/2020	Lecture: Chapters in report and reference guidelines - Update information - Project progress - Project Development & Report Preparation	Project development and report Consultation with supervisor regarding the project	
28/12/2020 – 1/1/2021	6	Date: 29/12/2020	Project Development & Report Preparation	Project development and report Consultation with supervisor regarding the project	
4/1/2021 – 8/1/2021	7	Date: 05/01/2021	Project Development & Report Preparation	Project development and report Consultation with supervisor regarding the project	
9/1/2021 – 17/1/2021	Mid Term Break				

18/1/2021 – 22/1/2021	8	Date: 12/01/2021	Project Development & Report Preparation	Project development and report Consultation with supervisor regarding the project	
18/1/2021 – 22/1/2021	9	Date: 19/01/2021	Project Development & Report Preparation	Project development and report Consultation with supervisor regarding the project	
25/1/2021 – 29/1/2021	10	Date: 26/01/2021	Project Development & Report Preparation	Project development and report Consultation with supervisor regarding the project	
1/2/2021 – 5/2/2021	11	Date: 02/02/2021	Lecture : Workshop on Compiling Final Report & Presentation	Final Presentation	
8/2/2021 – 12/2/2021	12	Date: 09/02/2021	Lecture : Workshop on Compiling Final Report & Presentation	Final Presentation	
15/2/2021 – 19/2/2021	13	Date: 16/02/2021	Project Development & Report Preparation	Submission of final report	
22/2/2021 – 26/2/2021	14	Date: 23/02/2021	Presentation Submission of Final Report	Submission of final report	