POLITEKNIK BANTING SELANGOR

LANDING GEAR LEARNING APPLICATION

NAME	MATRIX NO
1. MUHAMAD HAZIZUL HAKIM BIN NORASRI	24DAM20F2005
2. AHMED HAIKARL BIN MOHD AIDIL FITRY	24DAM21F1004
3. MUHAMAD SHAFIQ IRFAN BIN SOBRI	24DAM21F1032
4. FAUZAN NAIM BIN BOHARI	24DAM21F1017

DEPARMENT OF AIRCRAFT MAINTENANCE

SESSION 1 2023/2024

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A REPORT SUBMITTED TO DEPARTMENT OF AIRCRAFT MAINTENANCE IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR A DIPLOMA ENGINEERING IN AIRCRAFT MAINTENANCE

SUPERVISOR:

MR. MUHD HAFIZUDDIN BIN OTHMAN

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REPORT ENDORSEMENT

This report is being submitted, reviewed, and endorsed to fulfill the conditions and requirements of report writing as specified.

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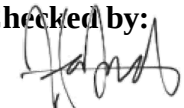
Supervisor' Signature : 

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Politeknik Banting Selangor

Date : 15/12/2023

Endorsed by:

Project Coordinator's Signature : 

Project Coordinator's Stamp : MOHD ZULFAZLI B. RAUB KHAN
PENSYARAH
JABATAN PENYENGGARAAN PESAWAT
POLITEKNIK BANTING SELANGOR

Date : 15/12/2023

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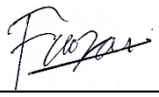
"We hereby declare that this report is the result of our own work, except excerpts that we have outlined its sources, and this project will be the ownership of polytechnic."

SIGNATURE: WRITER 1

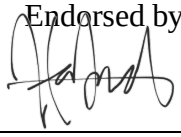
SIGNATURE: WRITER 2



SIGNATURE: WRITER 3

SIGNATURE: WRITER 4

Endorsed by,



(SUPERVISOR'S SIGNATURE)

MUHD HAFIZUDDIN BIN OTHMAN
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SUPERVISOR'S STAMP

DATE: 15/12/2023

ABSTRACT

The purpose of this project is to create a mobile application that educates students about landing gear. Regarding the increasing impact of technology in education, the study aims to develop applications that complement the educational process by providing interactive material and customized features. The study investigates the effects of these applications on student learning outcomes by skillfully incorporating them into the curriculum. The study assesses the efficacy and acceptability of the created mobile applications using surveys and analytics, offering useful information to tech experts and educators. This paper adds to the continuing conversations on how technology and education are changing.

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3.6.1.2 Smartphone

3.6.1.3 Overall Learning App Flow

3.6.3 App Design

3.6.3.1 Appypie designing & customize section

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3.7 PRODUCT TESTING/ FUNCTIONALITY TEST

3.7.1 Overall Learning App Flow

3.8 LIST OF MATERIALS & EXPENDITURES

No	Items	Unit	Price / Unit	Total
1.	**Appypie Software**	**1**	**RM144.00**	**RM144.00**
2.	**Canva**	**1**	**RM 0.00**	**RM 0.00**
3.	**Renderforest**	**1**	**RM 0.00**	**RM 0.00**
4.	**Powerpoint**	**1**	**RM 0.00**	**RM 0.00**
5.	**Microsoft Word**	**1**	**RM 0.00**	**RM 0.00**
GRAND TOTAL				**RM144.00**

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF STUDY

The digital revolution has opened the door for revolutionary changes in teaching methods in today's educational environment. Since smartphones and other mobile devices are so widely available, integrating technology into education is becoming more than just a trend but it is a necessary. The study focuses on the creation of mobile applications specifically intended to improve the learning experience, and it is located within the framework of this changing educational model.

Subscales of mobile learning acceptance	Number	Mean	Standard Deviation	Minimum	Maximum
Ease of use	87	3.30	0.67	1.56	4.78
Usefulness	87	3.07	0.63	1.55	4.25
self-efficacy	87	3.14	0.64	1.67	4.22
Challenges and barriers	87	3.56	0.54	2.00	4.78

Figure 1.1 Descriptive statistics indices for the sample under study- the dimension of "Challenges and Barriers" scores the highest mean value (3.56), and the lowest mean value is attributed to the dimension of "Usefulness" (3.07).

'**Therefore, the results indicate that, from the faculty's point of view, mobile learning entails more challenges than the benefits (ease of use, usefulness, self-efficacy). Among the benefits of mobile learning, usefulness is the lowest subscale, since the faculty members believe that it offers the least benefit in m-learning compared to the "ease of use" and "self-efficacy".** (Front. Educ., 25 February 2020) based on statement above it is stated that mobile learning applications provide the benefits for students to improve their acknowledgment.

Due to their accessibility and ease of use, mobile program, sometimes known as "apps," have grown to be indispensable in our daily lives. These applications provide a unique chance to overcome traditional hurdles in the field of education by presenting a vibrant and engaging learning environment. With the potential impact of educational apps in mind, this study attempts to contribute to the growing body of knowledge on the conception, creation, and application of these apps in educational environments.

The main objective of this research is to create useful mobile apps that are suited for educational usage. By providing interesting information, interactive activities, and individualized learning experiences, these applications aim to act as additional tools that improve the learning process. The goal is to develop apps that support students' varied requirements and learning preferences in order to provide a more welcoming and flexible learning environment.

Innovative solutions that bridge the gap between traditional teaching methodologies and the expectations of digital native students are in high demand as the demands placed on educational institutions evolve. Mobile apps, which provide an adaptive and entertaining medium outside of typical classroom settings, might help to tackle this problem. The goal of this research is to determine how successful these types of apps are in making learning more enjoyable and fulfilling.

This study intends to provide insights that can benefit educators, curriculum makers, and technology specialists by examining the design principles, development processes, and educational outcomes of mobile applications. The study's findings are likely to contribute to the greater discourse about employing technology for educational aims, with an emphasis on the role of mobile applications as sources of positive change in the educational environment. As the field of education develops towards a more digital future, the development and implementation of significant mobile applications is poised to play a critical role in shaping how students engage with and learn from educational resources.

1.2 PROBLEM STATEMENT

Students enrolled in Vocational and Technical Education (VTE) program are prepared for careers in industry, agriculture, commerce, and home economics. It is frequently offered in senior high school or in a lower division of college. The Federal Republic of Nigeria (FRN) (2004) defined technical education as an aspect of education that facilitates the development of theoretical and practical skills, as well as both. It is therefore a topic of study that necessitates the acquisition of practical skills. Technical education falls under the vocational education area. In a similar vein, vocational education may be seen as preparing students for enrollment in higher technical and vocational courses as well as for careers as technicians, sub-professionals, or semi-skilled workers in both existing and new sectors.

Graduates need to have the background and skill set necessary to fit easily into the global economy as soon as they graduate, given the growing globalization of the economy. For these students or graduates to be ready to participate in the global market that promotes the modern economy, they must be innovative and proficient in technology. Program offered by Politeknik Malaysia may teach students useful skills and how to incorporate them into the economy. We developed a mobile learning software specifically for Aircraft Engineering students to help them better understand the landing gear explanation and operation, all while supporting the overall growth of our students. In order to meet the present demand for employees in Malaysia's economy, it is crucial to maintain a balance between practical and theoretical knowledge.

For the aviation industry, most of applications that have been developed or are now available are insufficient. Because they lack originality and movement, students studying aviation engineering find it challenging to learn independently. Insufficient interesting products are on the market to keep young people interested.

1.3 PROJECT OBJECTIVE

1.3.1 GENERAL PROJECT OBJECTIVES

- To develop mobile app for aircraft engineering students
- To measure the acceptance of mobile learning applications
- To incorporate the mobile application into teaching and learning process of landing gear topic

1.3.2 SPECIFIC INDIVIDUAL PROJECT OBJECTIVES

1.3.2.1 Back-end Developer

- To determine the perfect foundation for app development and steps to build the app.
- To develop the apps using open sources application (Appypie)
- To identify problems within the apps and create solutions to mitigate said problems.

1.3.2.2 Content Developer

- To guarantee a consistent flow of content, create a content calendar.
- To create fantastic, attractive, and relevant content.
- To ensure that every piece of content adheres to the brand's values, voice, and rules.

1.3.2.3 Front-end Developer

- Design and implement a user-friendly interface for a new web application using the Appypie platform.
- Ensure seamless navigation and an engaging user experience through the creation of visually appealing interactive elements.
- Optimize the performance of the interface to guarantee responsiveness on a variety of devices and browsers.

1.3.2.4 Full-stack Developer

- Customize the user interface without extensive coding, making it accessible for non-developers.
- Manage databases and handle data storage seamlessly within the platform.
- Work towards ensuring ongoing maintenance is efficient, allowing for updates and improvements with ease.

1.4 PURPOSE OF PRODUCT

The aim of this project is to create, design, and build a mobile application that fulfils educational goals. Specifically, the application will concentrate on the complex topic of landing gear in the context of aviation technology. The main objective is to develop a useful and user-focused mobile application that will enhance conventional teaching strategies and give students an engaging and interactive platform to further their comprehension of landing gear systems.

Regarding aviation studies, landing gear is essential to maintaining the aircraft's operation and safety during takeoff and landing. Acknowledging the complexity of this subject, the mobile application seeks to improve and streamline diploma-level students' educational experience. The product will make use of mobile technology to provide features like interactive simulations, visualization, quizzes, and condensed educational content. This will provide students access to a comprehensive and easily navigable resource.

Beyond basic replenishment, the product seeks to deliver a dynamic and adaptive learning environment. The mobile app's purpose is to enable various learning styles so that students may interact with the information in ways that fit their interests and at their own pace. The ultimate objective is to improve the learning experience by employing an immersive and user-friendly digital interface to reduce and absorb the complexity of landing gear systems.

This meaningful product corresponds with educational technology's greater ambitions, attempting to bridge the gap between theoretical understanding and practical application. This project aims to provide learners, instructors, and aviation enthusiasts with a vital tool that improves comprehension, retention, and application of information in this crucial area of aircraft technology by developing a specialized mobile application focused on landing gear. The product strives to be a catalyst for enhanced learning outcomes and an example of technology integration into specialized educational fields as a result of this initiative.

1.5 SCOPE OF PROJECT

1.5.1 GENERAL PROJECT SCOPES

Firstly, this product only available for Aircraft Engineering student because the content of this product is about the part and usage some part of an aircraft. Then this app only can be available for up-to-date Android. Next this product come with simple, user friendly and colorful interface. Furthermore, this product will run with low graphic and smooth rate for make the product run without lagging. Finally, contents in this product only choose from some topic in Module 11 which is focusing on landing gear.

1.5.2 SPECIFIC INDIVIDUAL SCOPE

1.5.2.1 Back-end Developer

The application that created it is only available for android users only. This app is designed not only for learning purposes but for teaching as well. There are a few parts that will be developed for teaching so that students can achieve better grades for their test, quizzes, assignment, and examination. It is designed with organized information regarding aircraft landing gear and easy for students to access. This software is built to have 24/7 availability which means can be accessed anytime anywhere.

1.5.2.2 Content Developer

Provide a comprehensive content plan, attractive module creation, availability optimization, constant updates, and a mobile learning platform that is available round-the-clock for aircraft landing gear.

1.5.2.3 Front-end Developer

Using the Appypie platform to develop and enhance the user interface. This involves designing and integrating visually appealing interactive components to engage users. This part is also on purpose to optimize the interface's responsiveness and performance across different devices and browsers. Additionally, it is needed to troubleshoot and address any front-end issues that occur during the project's development.

1.5.2.4 Full-stack Developer

The individual scope for a full-stack developer using Appy Pie involves excelling in visual design, mastering back-end proficiency, and honing rapid deployment skills to efficiently create and deploy user-friendly applications with the platform's features.

CHAPTER 2

LITERATURE REVIEW

2.1 GENERAL LITERATURE REVIEW

2.1.1 MOBILE APP INDUSTRY IN MALAYSIA

The mobile app sector, in Malaysia has seen expansion over the few years playing a vital role in the country digital realm. The widespread usage of smartphones and the growing dependence on applications for needs ranging from communication to entertainment and productivity have played a pivotal role in the thriving mobile app industry.

2.1.2 TREND OR DEMAND FOR E-LEARNING

As technology continues to progress the need, for E-learning solutions is on the rise. Mobile applications have emerged as a tool in meeting this demand as they offer interactive platforms for education. Learning through apps has become increasingly popular due to its accessibility and flexibility with the growth of remote and online education.

2.1.3 TYPE OF MOBILE LEARNING APPLICATION

1. Photomath: Photomath is a mobile learning application designed to help users in solving mathematical problems through the use of their device's camera. Instead of manually inputting mathematical equations, users can leverage the app's camera & NBSP; to capture an image of a handwritten or printed math problem.

2. Quizlet: Quizlet is an educational platform that offers a variety of tools and resources to increase the learning experience. It is available both as a website and a mobile app, making it reachable on various devices.

3. ABCmouse: ABCmouse is a learning platform created for young children to make learning enjoyable and attractive. The platform provides a variety of learning games and activities tailored to the needs and attractive of young learners. These games cover a range of subjects, including letters, numbers, shapes, and beautiful image.

4. Duolingo: Duolingo is an attractive and easy way to learn new languages. Instead of traditional lessons, Duolingo uses a game-like format to teach you languages. It feels like you're playing a game with challenges and rewards and learn a new language.

5. Google Translate: Google Translate is a platform that people can use to translate from one language to another language. It also helps people and makes it easier for them to speak in different language.

2.1.4 EVOLUTION OF E-LEARNING

The way education is delivered and used has changed with the growth of online learning. The educational landscape has changed due to the use of technology, moving from traditional classrooms to online learning environments. These advances have been greatly facilitated by mobile applications, which provide flexible and personalized learning opportunities.

2.1.5 MOBILE APP SPECIFICATION

Understanding what a mobile app can do, as well as its restrictions, is key. It's all about checking its specifications. The technical parts of mobile apps matter a lot. These include things like whether the app can work well with the device's operating system, how the app looks and feels to use, and other important aspects.

2.2 SPECIFIC LITERATURE REVIEW

2.2.1 STORYBOARD

When downloading, we provide only two ways to do it: either download the apps inside the Play Store or open an apk that can be shared and provided. After downloading the apps, it will go to the phone's home page. When you click on the apps, it will go to the app's home page, which contains all the documents and the app's features. On the home page, users will see information about landing gear, cidos, feedback, and contact.

If users click the landing gear, then it will display information about the component landing gear, notes, video, test your knowledge, and flash card. Inside the landing gear, the user will see the image that includes the landing gear. Then, inside the notes, users can see two notes in the apps, which are E-Notes PBS and Simple Notes. Other than that, there is video about the landing gear inspection, gift landing gear operation, and animation. Then, users can also test their knowledge when they click the test your knowledge button. Pressing start will start and

users must answer all the multichoice questions. After answering all the questions, users will be ranked. It will state the placement, name, and score. We also provide the flash card.

Next feature is "CIDOS." By clicking this button, users will be shown the Polyccidos website. On the website, users can find information about the landing gear notes. Furthermore, after users use the apps, they can click the feedback button to answer all questions, and they can also give their opinions on how we can improve the apps. The final feature is about the contact. Inside the contact, users will see information about the app's name, contact number, email, Cidos link, and address.

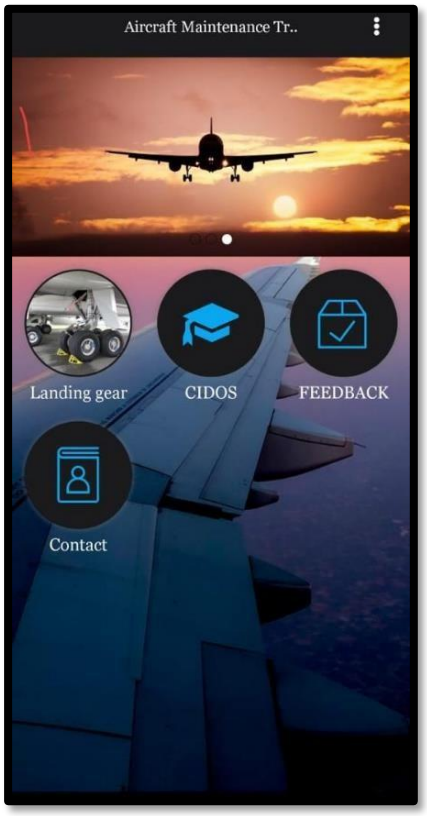


Figure 2.1: Storyboard

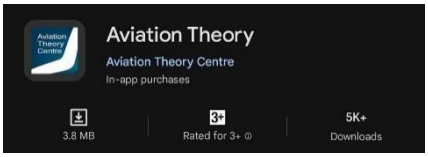
2.3 REVIEW OF RECENT RESEARCH AND RELATED PRODUCT

2.3.1 RECENT MARKET PRODUCT

2.3.1.1 Product A

NO	MARKETED PRODUCT	PATENT SUMMARY
1.		Product name: Aviation eLearning LMS Published Date:25 Mac 2021 Inventor: Danish software company Description: Using this app, users can access courses and even download them for offline viewing

2.3.1.2 Product B

NO	MARKETED PRODUCT	PATENT SUMMARY
2.		Product name: Aviation Theory Published Date: 19 July 2017 Inventor: Aviation Theory Centre Description: Provide the aviation industry with the highest quality training manuals

2.3.1.3 Product C

NO	MARKETED PRODUCT	PATENT SUMMARY
3.		Product name: Avcon Jet eLearning Published Date: 29 February 2021 Inventor: Universal Training LTD Description: The training platform of technology and aviation experts

2.3.1.4 Product D

NO	MARKETED PRODUCT	PATENT SUMMARY
4.		Product name: AeroBuddy Published Date: 05 July 2020 Inventor: Luke Collister Description: Platform for students to improve the overall standard of general aviation student

2.4 : COMPARISON BETWEEN RECENT RESEARCH AND CURRENT PROJECT

2.4.1 Product A vs Our Product

Product	AVIATION ELEANING LMS	LANDING GEAR LEARNING APP
Design		
Data usage	YES	YES
Purpose	Provide online courses, procedure trainers, custom learning management system and English language proficiency test for airliner, aircraft and flight school.	Tell about aircraft landing gear and the landing gear mechanism.
Features	Video explanation and Wording explanation.	Video explanation and Wording explanation.
Target	Everyone	MRO Politeknik Banting
Platform	Ios	Android

Table 2.3.2.1 Product A vs Our Product

2.4.2 Product B vs Our Product

Product	AVIATION THEORY	LANDING GEAR LEARNING APP
Design		
Data usage	YES	YES
Purpose	Provide the notes about theory of aircraft and helicopter but need to pay for every single module	Provide notes, component image and animation about landing gear after install the application for free
Features	Wording explanation	Video explanation, image and wording explanation
Target	Aviation industry	Student diploma in aircraft maintenance at Politeknik Banting
Platform	Android & Ios	Android

Table: 2.4.2 Product B vs Our Product

2.4.3 Patent C vs. Product C vs. Our Product

Product	AVIATION THEORY	LANDING GEAR LEARNING APP
Design		
Data usage	YES	YES
Purpose	Provide map, video and operational and can get for free	Provide notes, quiz and animation about landing gear after install the application for free
Features	Video explanation, image, wording explanation and map	Video explanation, image with description and wording explanation
Target	Everyone	Student diploma Aircraft Maintenance at Politeknik Banting
Platform	Android and IOS	Android

Table: 2.4.3 Product C vs. Our Product

2.4.4 Patent D vs. Product D vs. Our Product

Product	AEROBUDDY	LANDING GEAR LEARNING APP
Design		
Data usage	YES	YES
Purpose	Provide online courses, tutorial, and news section	Provide notes, quiz and animation about landing gear after install the application for free
Features	Wording explanation	Video explanation, image with description and wording explanation
Target	All aviation and ground school students	Student diploma Aircraft Maintenance at Politeknik Banting
Platform	IOS	Android

Table 2.3.2.4 Product D vs Our Product

CHAPTER 3

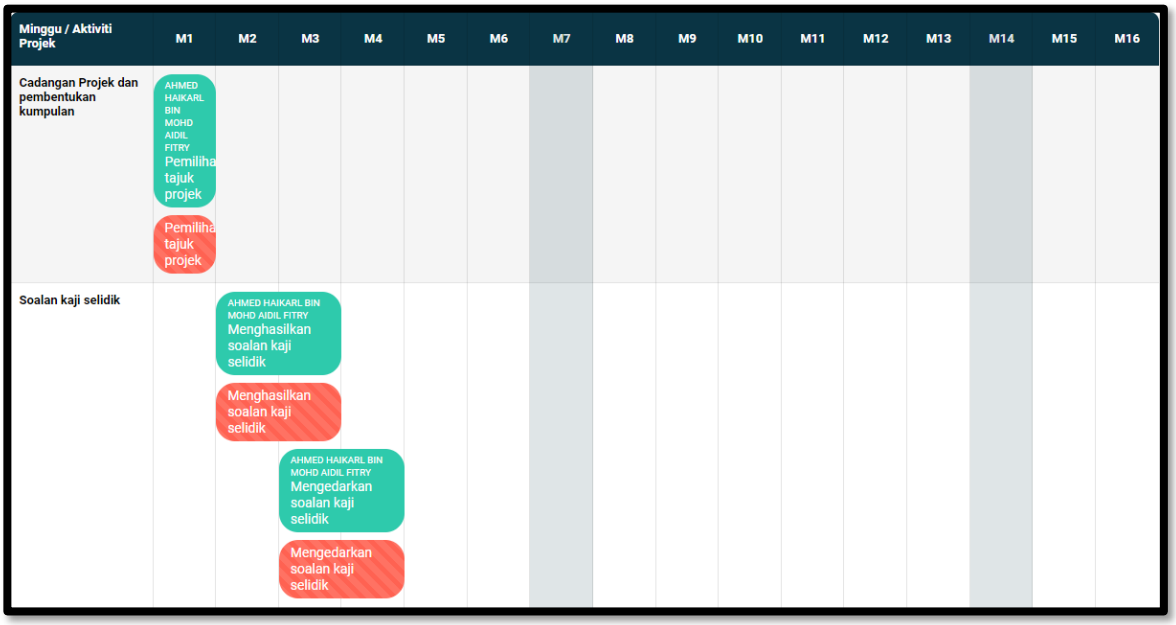
RESEARCH METHODOLOGY

3.1 PROJECT BRIEFING & RISK ASSESSMENT

In this research methodology chapter, we will be explaining about our application and a various step in order to make it a successfully work and accessible to everyone to achieve our project objective. During this course, a few stages involved on the production of our app. Some stage included designing, editing, developing and testing.

3.2 OVERALL PROJECT GANTT CHART

3.2.1 : GANTT CHART FOR AEM



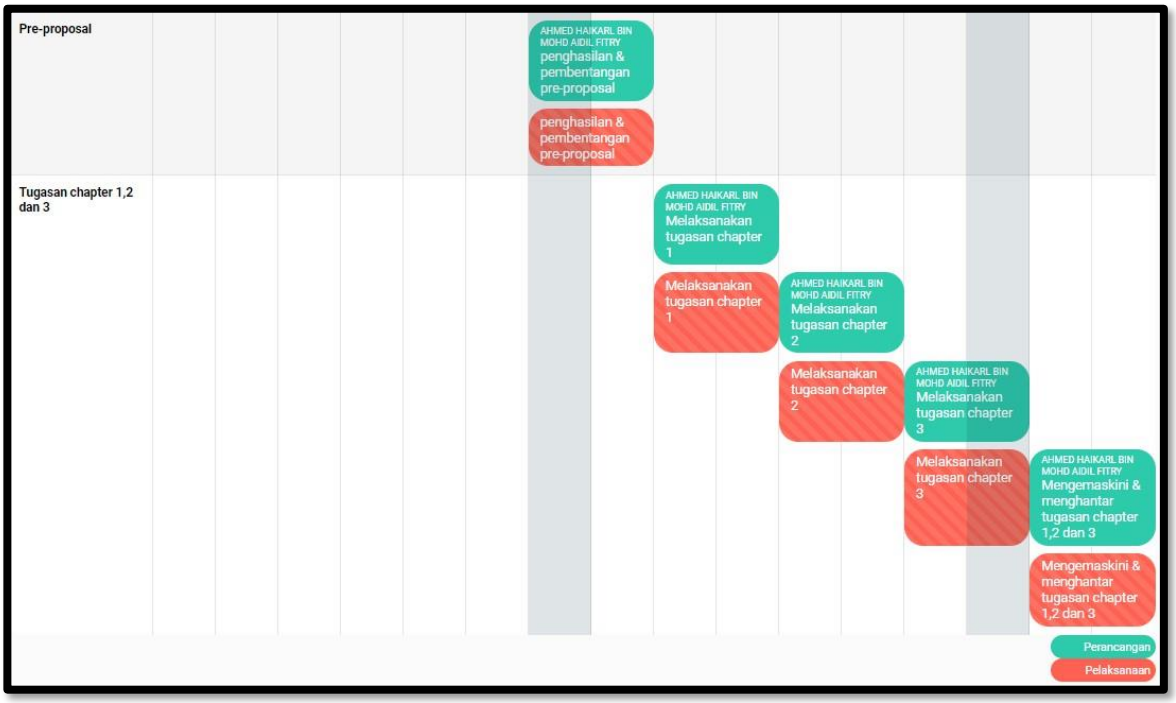
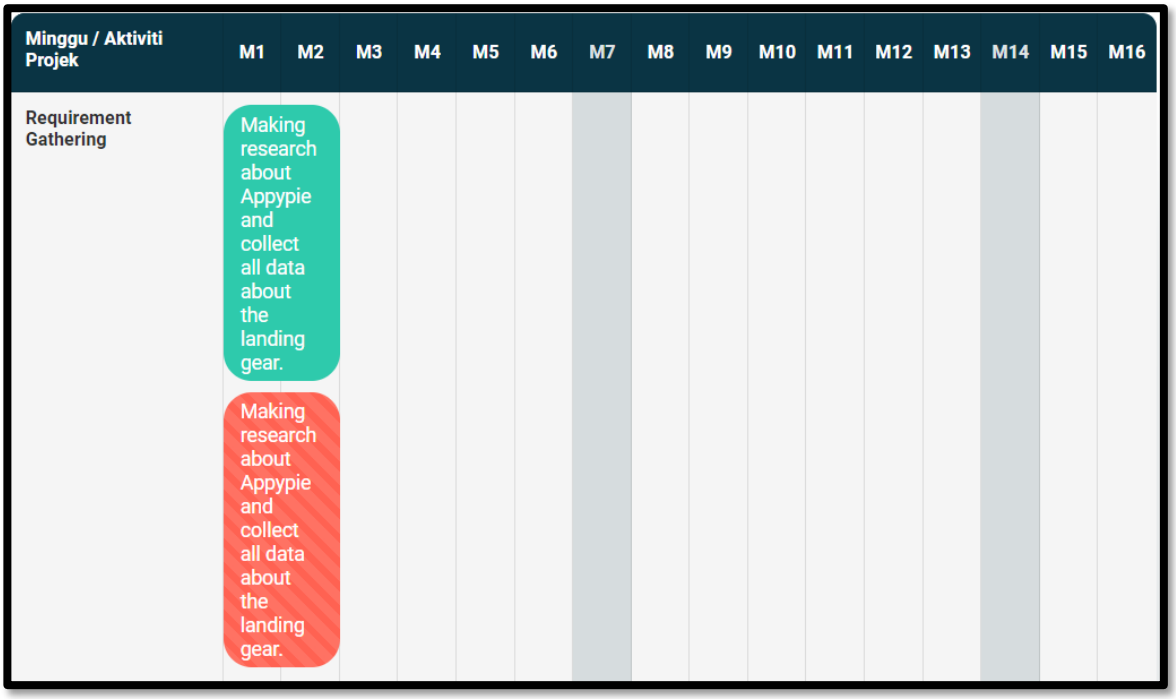


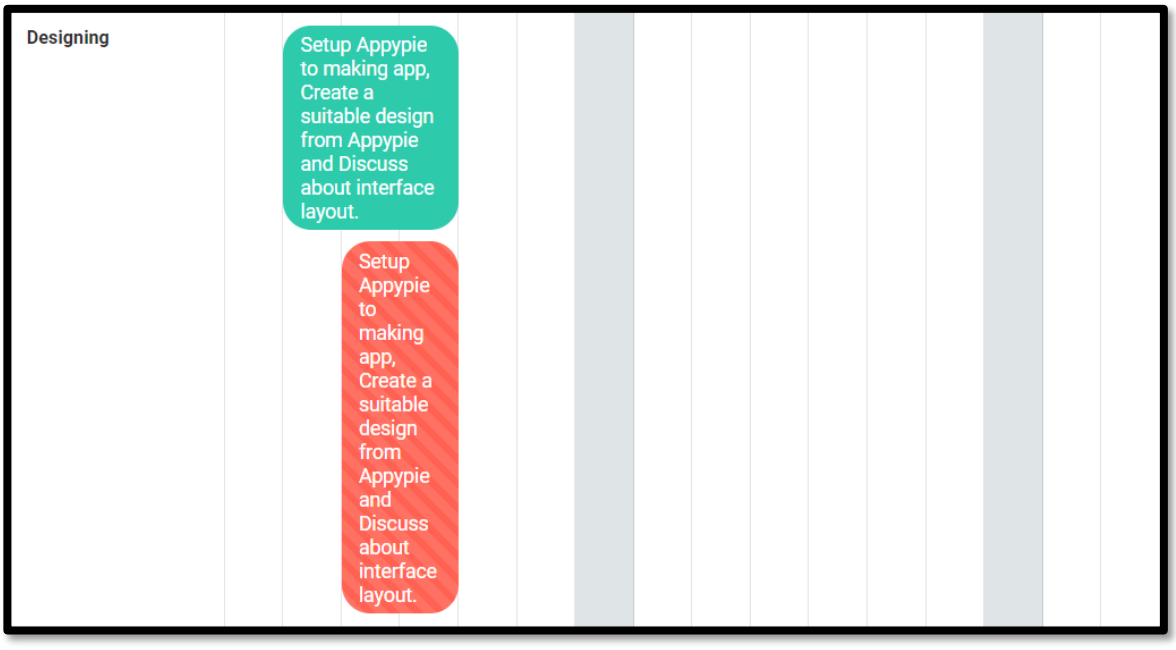
Table 3.1: Gantt Chart for AEM

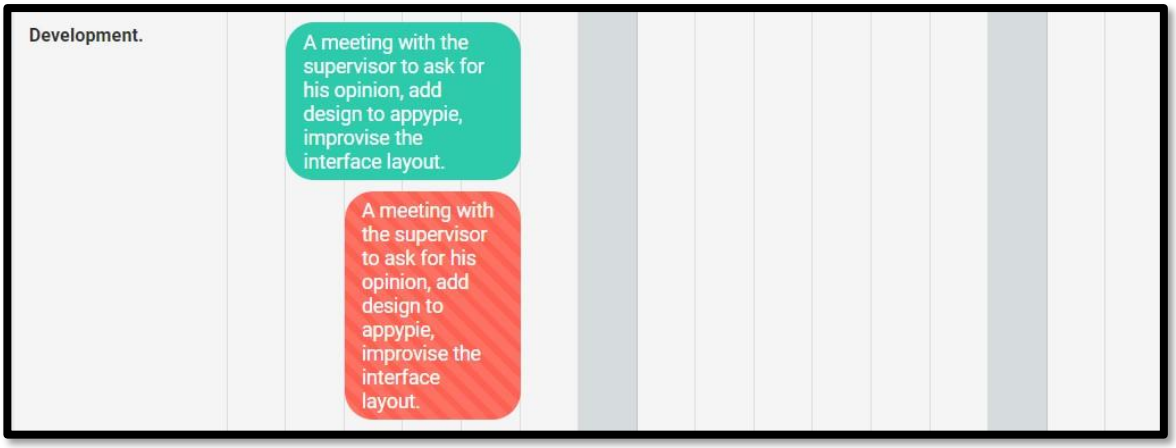
3.2.2 : GANTT CHART FOR AEP

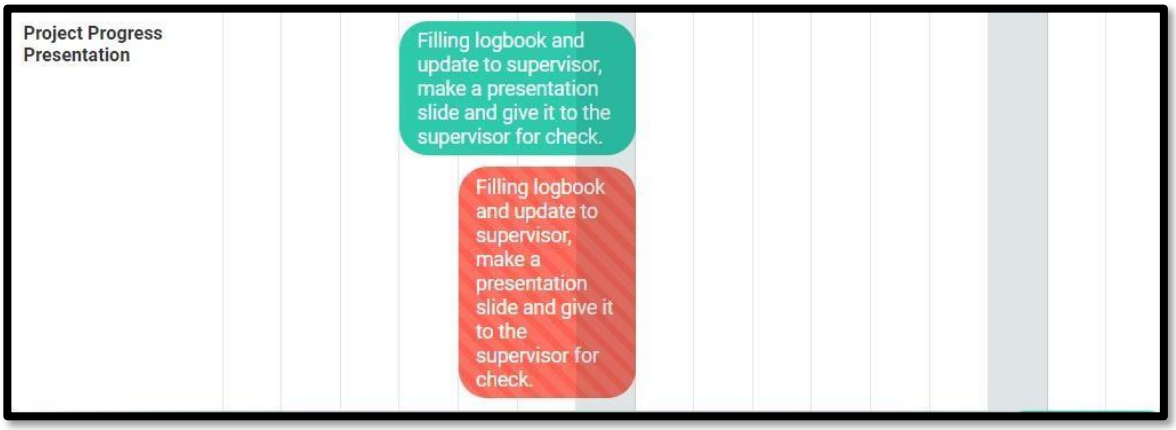
CARTA GANTT : PERANCANGAN DAN PELAKSANAAN PROJEK PELAJAR

SESI : 1 : 2023/2024
JABATAN: JPP
KODKURSUS: DWM50313
TAJUK PROJEK : LANDING GEAR LEARNING APP






Development.
A meeting with the supervisor to ask for his opinion, add design to appypie, improvise the interface layout.
A meeting with the supervisor to ask for his opinion, add design to appypie, improvise the interface layout.


Project Progress Presentation
Filling logbook and update to supervisor, make a presentation slide and give it to the supervisor for check.
Filling logbook and update to supervisor, make a presentation slide and give it to the supervisor for check.

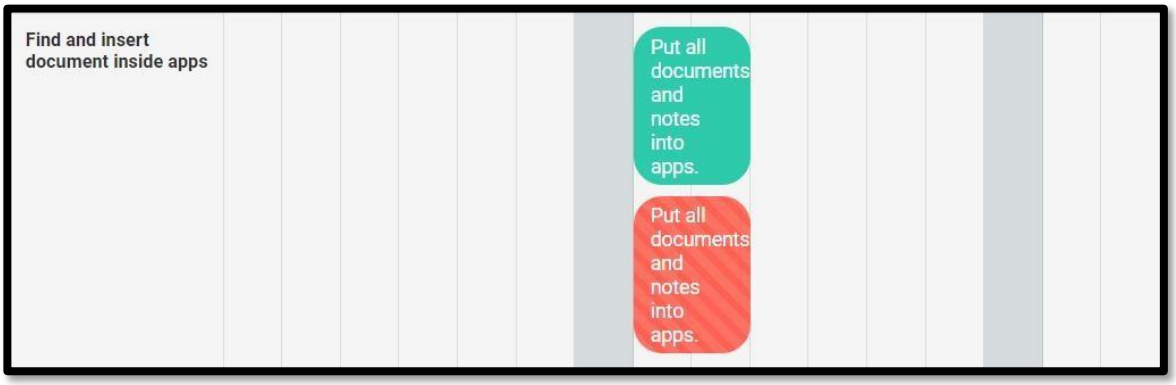

Find and insert document inside apps
Put all documents and notes into apps.
Put all documents and notes into apps.

Table 3.2: Gant Chart for AEP

3.3 PROJECT FLOW CHART

3.3.1 OVERALL AEM PROJECT FLOW CHART

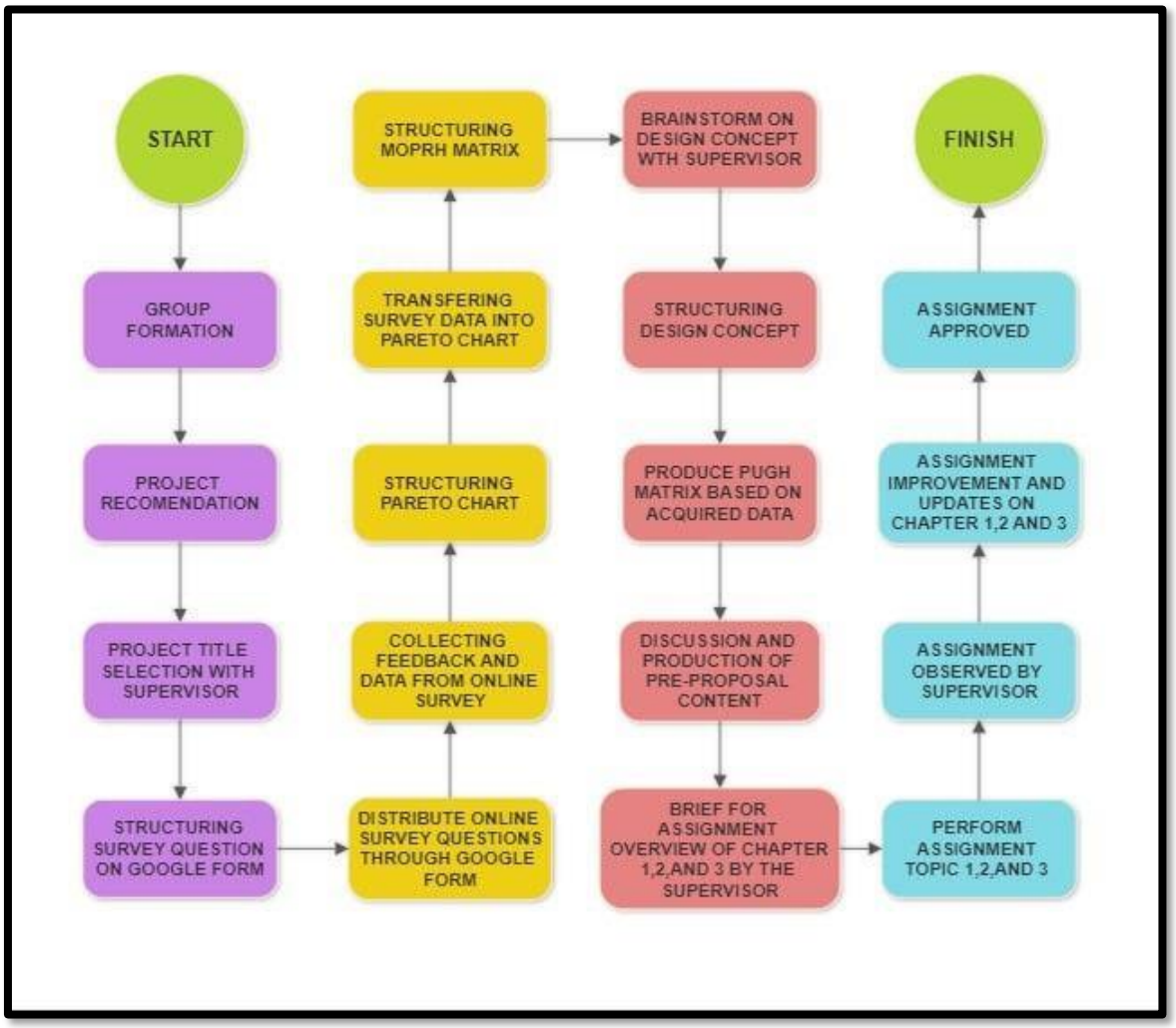


Figure 3.1: AEM Project Flow Chart

3.3.2 OVERALL AEP PROJECT FLOW CHART

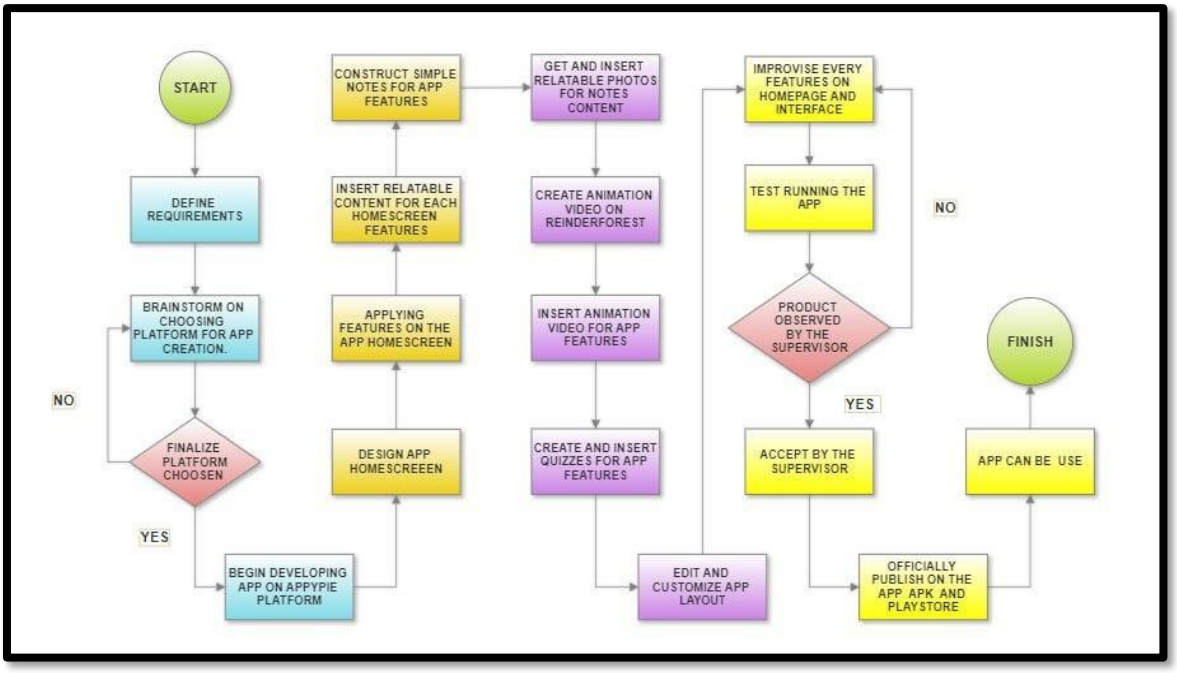


Figure 3.2: AEP Project Flow Chart

3.4 DESIGN ENGINEERING TOOLS

3.4.1 Design Requirement Analysis

3.4.1.1 Questionnaire Survey

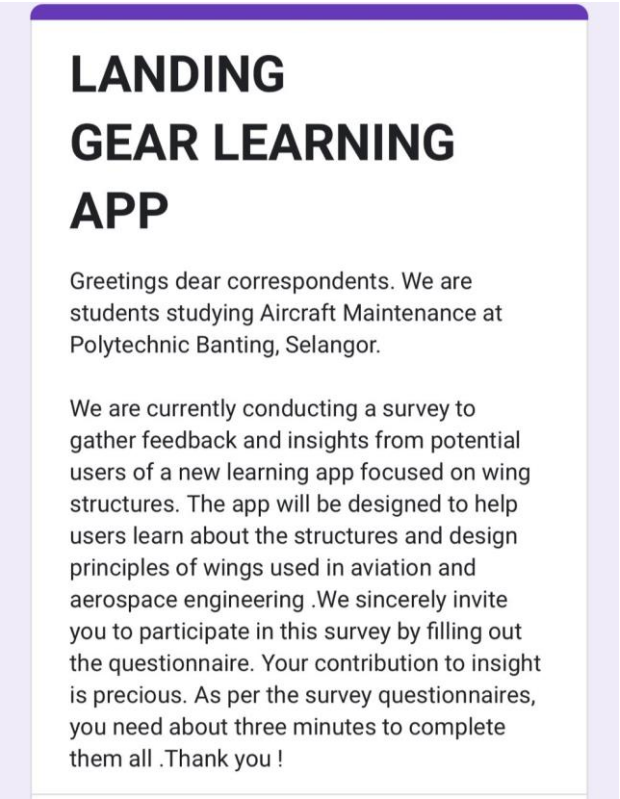
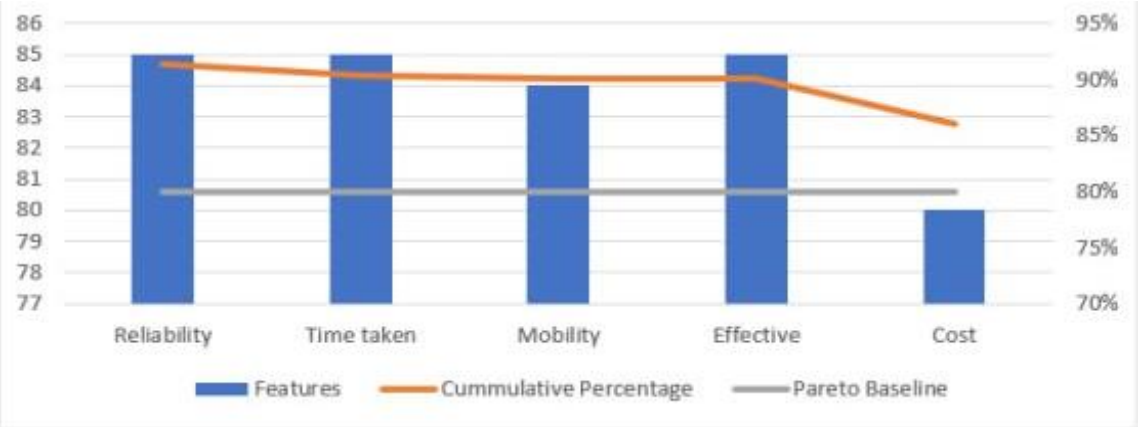


Figure 3.3: Questionnaire Survey

3.4.1.2 Pareto Diagram: Landing Gear Learning App

Features	Frequency	Cummulative Percentage	Pareto Baseline
Reliability	85	91%	80%
Time taken	85	90%	80%
Mobility	84	90%	80%
Effective	85	90%	80%
Cost	80	86%	80%
GRAND TOTAL	419		

Table 3.3: Pareto Diagram



3.4.2 Design Concept Generation

3.4.2.1 Function Tree

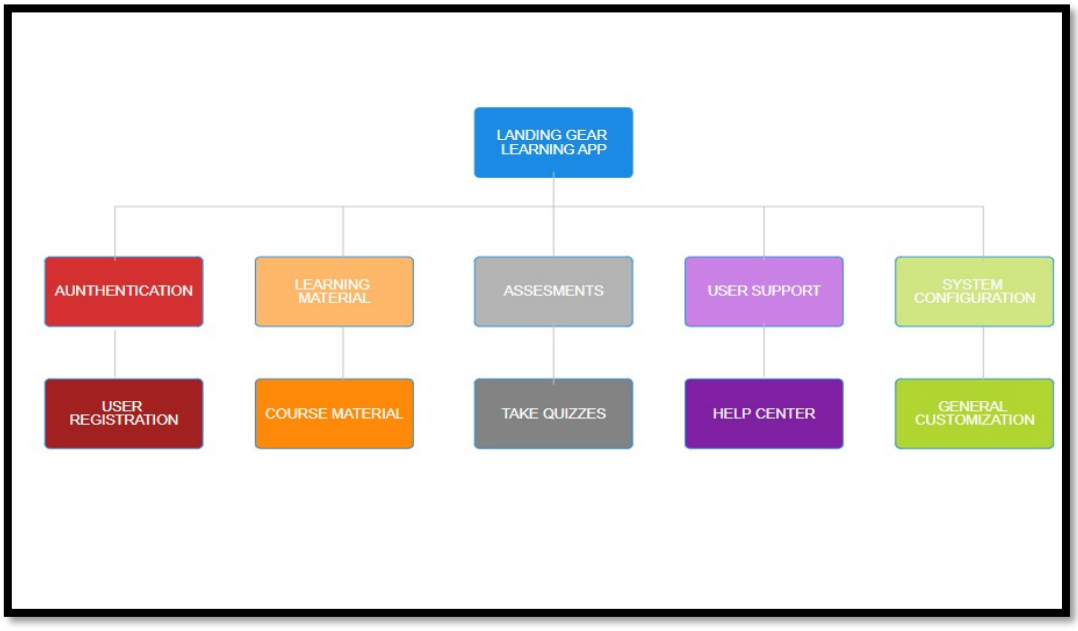


Table 3.4 Function Tree

3.4.2.2 Morphological Matrix

FUNCTION	IDEA 1	IDEA 2	IDEA 3
FONT	ARIAL	CAVOLINI	TIMES NEW ROMAN
VIDEO	YOUTUBE	RECORDING	YOUTUBE
THEME	VARIATION	DARK	LIGHT
EXPLANATION	INFOGRAPHIC	PHOTO	VIDEO
SOFTWARE	APPYPIE	SUBLIME	PHYTON

Table 3.5: Morphological Matrix

3.4.2.3 Proposed Design Concept 1

FUNCTION / SUB-FUNCTION	CONCEPT 1	JUSTIFICATION
FONT	ARIAL	CONTEMPORARY SANS SERIF DESIGN, SOFTER AND FULLER
VIDEO	YOUTUBE	BEST WAYS TO COMMUNICATE WITH USERS ON PROVIDING INFORMATION
THEME	VARIATION	ATTRACT READER BY CREATE MORE INTEREST AND VARIETY
EXPLANATION	INFOGRAPHIC	BETTER RESOURCES AND EASY TO UNDERSTAND OVERVIEW OF A TOPIC
SOFTWARE	APPYPIE	FREE AND OPEN SOURCE CROSS PLATFORM WEB SERVER SOLUTION STACK PACKAGE

Table 3.6: Proposed Design Concept 1

3.4.2.4 Proposed Design Concept 2

FUNCTION / SUB-FUNCTION	CONCEPT 2	JUSTIFICATION
FONT	TIMES NEW ROMAN	THIN,SHARP SERIFS WITH SHORT BRACKETS
VIDEO	YOUTUBE	BEST WAYS TO COMMUNICATE WITH USERS ON PROVIDING INFORMATION
THEME	LIGHT	INFORMATION DISPLAY IS CLEAR AND MORE VISUAL WAY
EXPLANATION	VIDEO	EXPLANATION VIDEO WILL ATTRACT USERS TO BE MORE UNDERSTANDABLE
SOFTWARE	PHYTON	EASIEST WAY USED TO CREATE A VARIETY OF DIFFERENT PROGRAMS

Table 3.7: Proposed Design Concept 2

3.4.3 Evaluation & Selection of Conceptual Design

3.4.3.1 Pugh Matrix

CRITERION	FACTOR	CONCEPT 1	CONCEPT 2	CONCEPT 3
Reliability	0.2	D	2	2
Time taken	0.2	A	2	2
Mobility	0.2	T	2	2
Effective	0.2	U	2	1
Cost	0.2	M	1	1
TOTAL SCORE	1.0		1.8	1.6
RANKING	-	-	1	2

Table 3.8: Pugh Matrix

3.5 INTERFACE LAYOUT

3.5.1 General Product Interface Layout

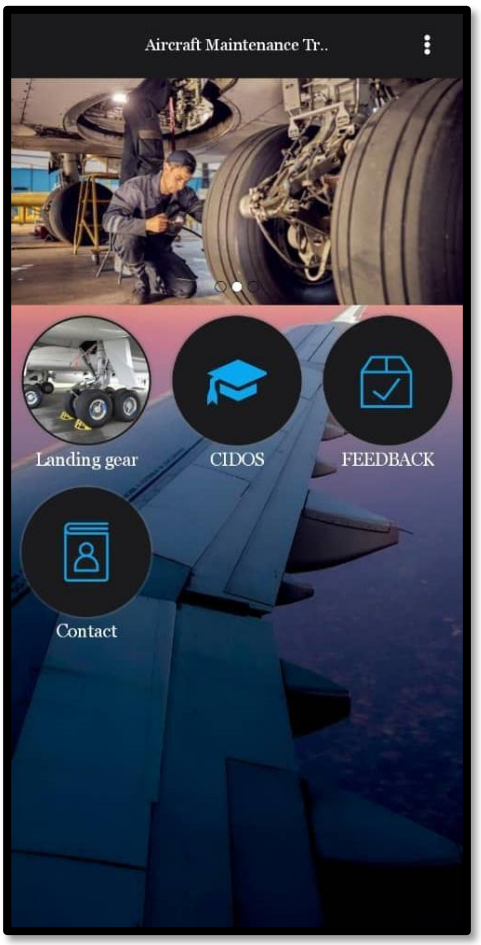


Figure 3.4: General product interface layout

After accessing our app, this interface will show you and give option what do you want to choose to access our app. There is a option of our app, it is landing gear, cidos, feedback and contact.

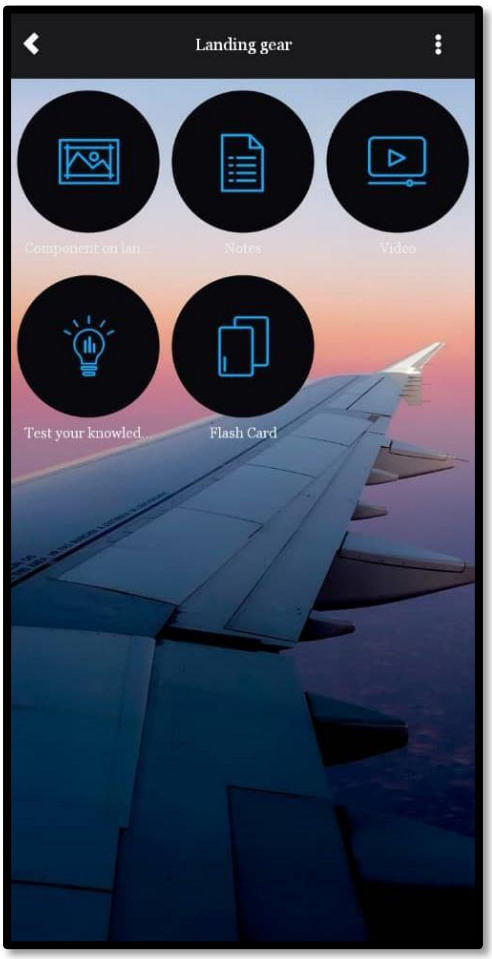


Figure 3.5: Landing gear detail

After you pressed the landing gear option, this interface will show what is in the landing gear option. There is component on landing gear, notes, video, test your knowledge and flash card.

Figure 3.6: Cidos detail

Then, if you pressed the cidos option, this website would go out and you can login the cidos website by using your email to access the cidos learning system.

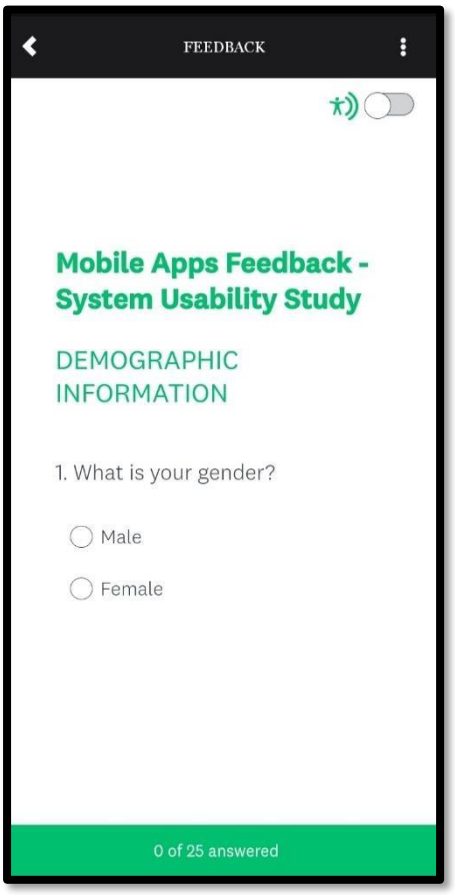


Figure 3.7: Feedback Detail

If you pressed the feedback option, this interface would go out. This survey can be answered by user to give the feedback about our app.

Figure 3.8: Contact Detail

Lastly, if you choose the contact option, this interface will go out. This interface are show the name of our app, contact number, email, address and website.

3.6: DEVELOPMENT OF PRODUCT

3.6.1: Material Acquisition

Description	Material
Appypie is the open sources software that we use to editing and develop our app.	
A platform that we used to create the notes and picture.	
A platform that we used to editing the figure to describe about the component on the landing gear.	

A website we used to create the video explanation about maintenance inspection procedure.	
A platform that we used to create the simple notes.	

Table 3.9: Material Acquisition

3.6.2 DEVICES

3.6.2.1 Personal Laptop

Figure 3.9: Personal Laptop

To develop this app, we have used this laptop for designing, editing, entered the sources that we collected such as notes and figure because using this device is easier than using the mobile phone for done the task. Besides, we use this device to access a website such as Microsoft PowerPoint, Canva, Microsoft Word and Renderforest. The website above were used to creates notes, editing the figure component of aircraft for the description. So that this device is important for use during the development of our application. Additionally, the specification detail for this device is being used include:

- Processor: 11th Gen Intel(R) Core (TM) i5-1135G7 @ 2.40GHz 2.42 GHz
- Ram: 8.00 GB
- System type: 64-bit operating system, x64-based processor
- Window edition: Windows 11 Home Single Language
- Screen display: 1920x1080, 60.16 Hz

3.4.3.5 Smartphone

Figure 3.10: Smartphone

Mobile smartphone that we are used to test run our application and checking for any error. This is because by using the smartphone is easier to access. Through to our testing we found that the phone that need to used must not be older 3-4 years from the current year. It is because there are some hardware issues that cannot be resolved by software solutions. Besides, we used to test run the app and identify for any failure before we jump to the next part which is publishing the application.

3.6.3 APP DESIGN

3.6.3.1 APPYPIE DESIGNING AND CUSTOMIZE SECTION

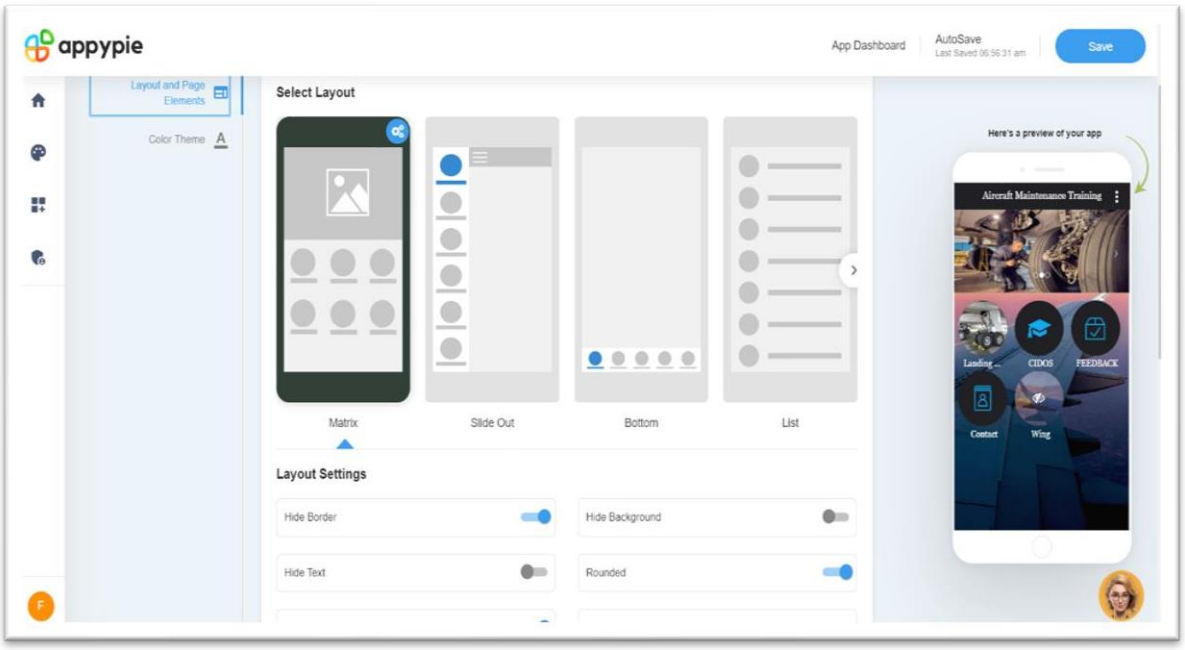


Figure 3.11: App editing from Appypie

The application interface has been designed from the Appypie website automatically set on the application. Designing and customize all the features and elements to make the app look more appealing for users. For the reasons, Appypie platform is more accessible and clearly meet our satisfaction.

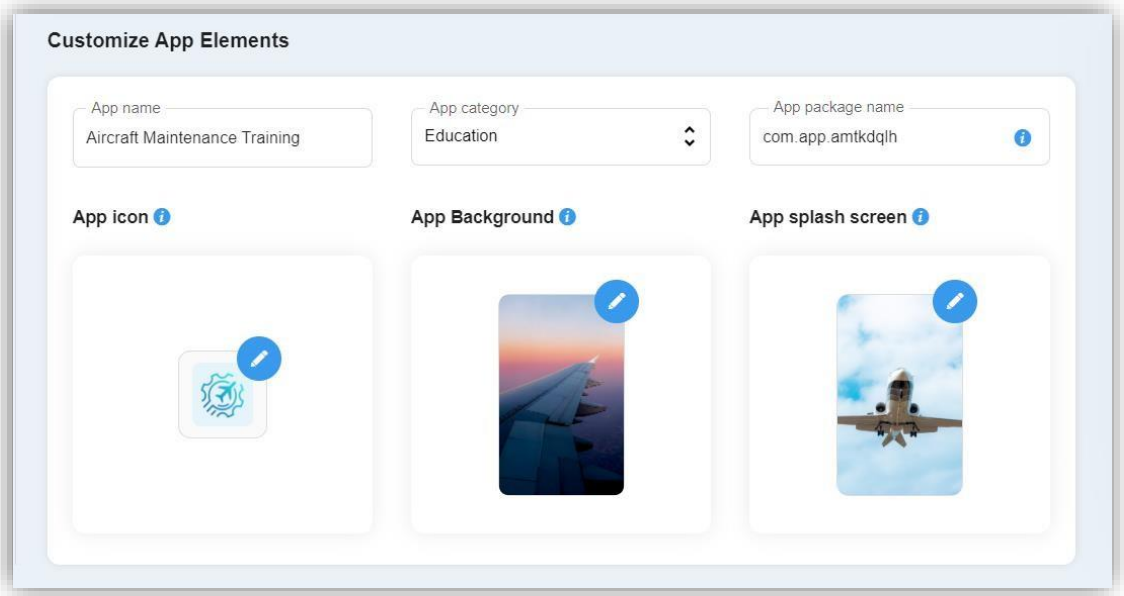
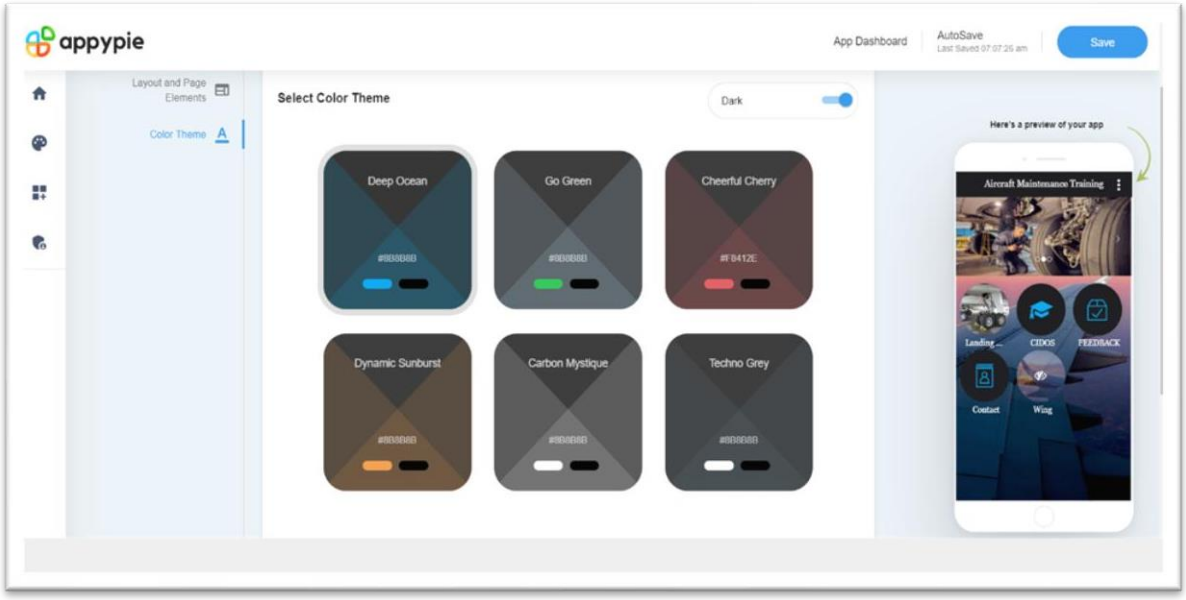


Figure 3.12: Customize App elements

This section is to develop the element Within Appy Pie, a section of the platform that allows us to customize a flexible and easy-to-use interface to access the functional and graphic elements of our apps. This section probably contains settings for modifying the application's splash screen, name, icon, background, and other interface elements. Real-time previews and testing features may be available in this section to help us customize and optimize the look and feel of our app to meet our different requirements and preferences.



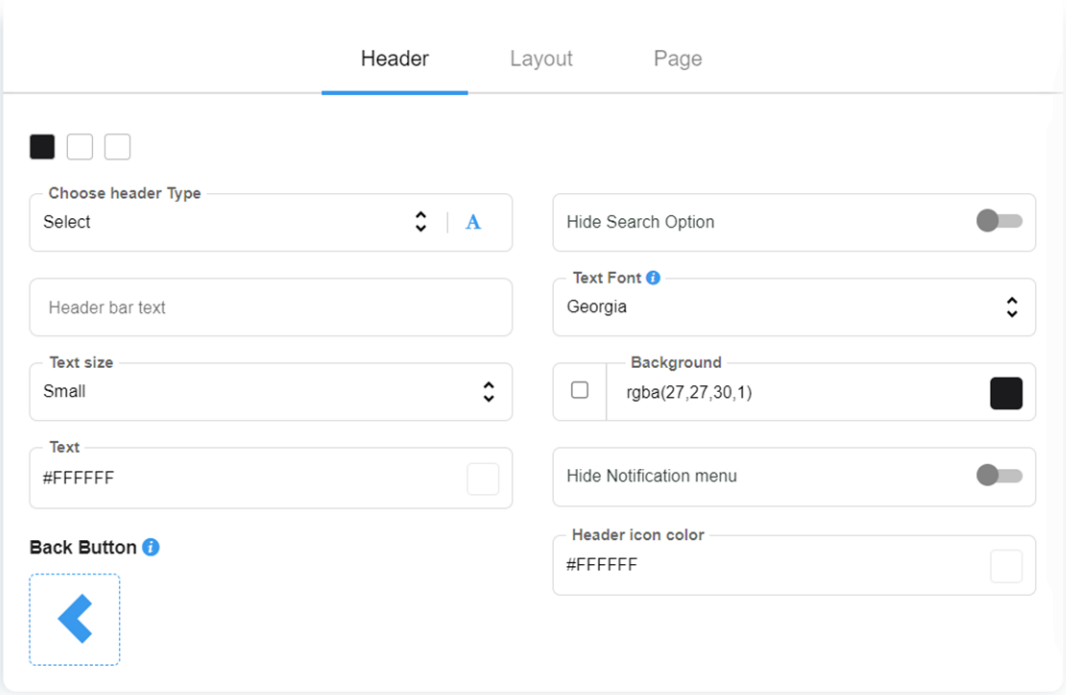


Figure 3.13: Colour and Theme customization section

This section gives us the ability to develop stylish elements for the application. In this section, we have customized the colour for the theme to merge the app's visual design. All the headers, layouts, and page elements have also been modified in this section based on our creativity to meet user satisfaction.

3.7 PRODUCT TESTING/ FUNCTIONALITY TESTS

3.7.1 Overall Learning App Flow

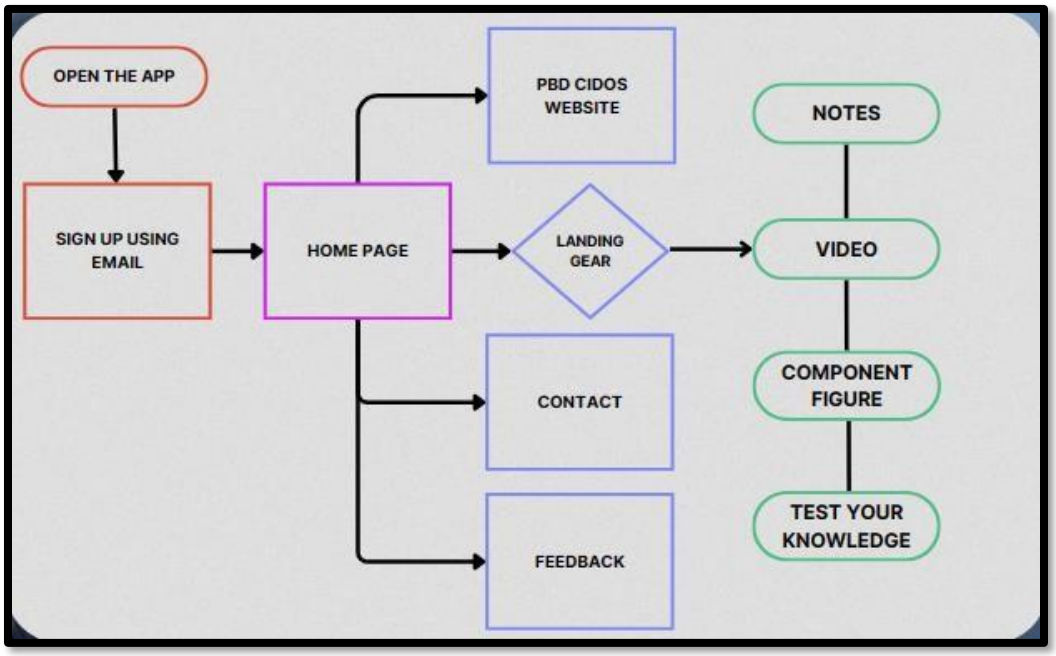


Figure 3.14: Overall Learning App Flow

3.8 LIST OF MATERIALS & EXPENDITURES

	Items	Unit	Price / Unit	Total
1.	Appypie Software	1	RM144.00	RM 144.00
2.	Canva	1	RM 0.00	RM 0.00
3.	Renderforest	1	RM 0.00	RM 0.00
4.	Powerpoint	1	RM 0.00	RM 0.00
5.	Microsoft Word	1	RM 0.00	RM 0.00
GRAND TOTAL				RM 144.00

List of Table 3.10: List of Materials & Expenditures

CHAPTER 4

RESULT AND DISCUSSION

4.1 PRODUCT DESCRIPTION

4.1.1 GENERAL PRODUCT FEATURES & FUNCTIONALITIES

For aircraft maintenance student that have a training module, there is an application that called Landing Gear Learning App. This application serves the features that include pictures component of landing gear with description, landing gear notes from Politeknik Banting, simplify notes about landing gear, video explanation, linked that connected to cidos website and quizzes. We discovered that there aren't many applications like our idea on the market. To complete development of this application some element from others application were used. We hope that our presentation will provide clearly understanding about our project.

Figure 4.1: App home screen

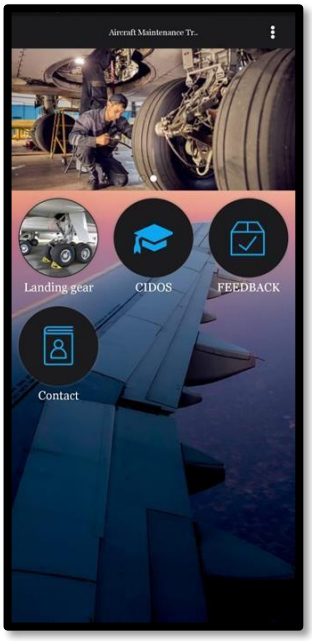


Figure 4.2: App home screen

4.1.2.1 Product Structure

The mobile app on aircraft landing gear is designed for a user-friendly experience. It features a home screen for easy navigation and interactive educational content explaining landing gear components. The app includes maintenance checklists and procedures that serve in animation video. Users can gain knowledge with the notes provided, which are easier to understand.. These functions are really helpful for student especially during their workshop sessions.

1. Landing Gear

In this option we provide the notes from Politeknik Banting about aircraft landing gear, figure of component on landing gear with description, video animation and operation of landing gear and quizzes to test student understanding. Users can use this information to fully understand about the landing gear.

2. Cidos

We provide the link that can connected directly to Polycc Cidos website. Using this option, it can help student to access Polycc Cidos using their account easier. This option is provided because the website is the main source that include assessment such as quizzes, test, and notes for Politeknik Banting student.

3. Feedback

Users can give feedback and suggestions about our app by answering the questions. Through this method we can check the acceptance for our application, and we can improve if there is any suggestion for our application.

4. **Contact**

In this feature, we provide the information about our application name, contact number and email of publisher so that users can contact us when they encountered any problems during the operation of our application.

5. **Project ideas & Inspiration**

This application can provide inspiration to learn about landing gear function, as well as a compilation of ideas for creative applications and educational projects. Users can investigate these ideas to pique their imagination, practise improvisation, and broaden their understanding of landing gear.

6. **User-friendly interface**

The application offers a user-friendly interface with intuitive navigation, well-organized content, and quick access to several functions. This makes learning easier and enhances the user's overall experience.

4.1.2.2 Product Mechanism

Landing Gear Learning Application has combinations of technology, data management and user interaction to deliver its functionality. Common product mechanism for app includes of:

1. **User interface**

The applications user-friendly layout makes it simple for users to access a wide range of features and move between different parts. The goal while designing the user interface was to make it easy to use, visually attractive, and interactive.

2. **Backend infrastructure**

Data processing, retrieval, and archiving are managed by a dependable back-end infrastructure supporting the application. These infrastructures often comprise servers, databases, APIs (application programming interfaces), and additional parts needed to Ensure connection and seamless functioning.

3. **Landing gear option**

This app provides a comprehensive note on landing gear that can help user to understand it easily on the particular topic and can help students during workshop sessions. The figure of component of landing gear provide full information about the name of component and student can identify the component through the picture. The animation that we provide can give students knowledge about the procedure maintenance of landing gear with the explanation.

4. **Cidos**

The website of Polycc Cidos will directly open in this feature and students of Politeknik Banting can access the website using their registered email.

4.1.2.3 Interface Layout

Accessories and finishing products for the Landing Gear Learning Application refer to complementary elements that enhance the user experience, aesthetics, and functionality of the app. This includes:

1. **App icon**

A high-quality and eye-catching icon is applied when user installed the app. It will help users more easily to locate the application with the help of attractive icon.

2. **User interface (UI) design**

A well-designed interface that prioritizes usability, intuitive navigation, and aesthetics. This includes designs, colour schemes, typefaces, buttons, and other graphic elements used throughout the entire application.

3. Accessibility features

Features that facilitate accessibility let those with impairments use an application more easily and inclusively. Screen reader compatibility, source size adjustability, colour contrast choices, and alternate text for pictures are some of the features mentioned here.

4. Responsive design

A method for creating responsive designs that guarantees your programme will work on screens of all sizes and shapes. Users may now seamlessly switch between devices, such as tablets and smartphones, and still access their apps.

5. Illustration and graphic

Illustrations and images that are customized to improve the visual attractiveness of the application's content, lessons, or tool instructions. These graphic features help in the explanation of complicated topics, give visual clues, and enhance the learning process with creativity and pleasure.

4.1.3 GENERAL OPERATION OF THE PRODUCT

Through a user-friendly interface, the smartphone app is intended to give a full grasp of aircraft landing gear. When the app is launched, users are greeted with a home screen that acts as a primary center for accessing crucial functionality. The notes section provides users with thorough information and explanations on landing gear components. Users may go through instructive articles to learn more about the delicate features of aircraft landing gear.

The figure components provide users with interactive diagrams and 3D models of various landing gear components for a more visual learning experience. This graphic illustration enhances comprehension of the physical structure and operation of each component. Users may receive extensive explanations by tapping on specific components, enabling an entertaining and instructive review.

Users may also see animated explanations of landing gear operations in the app dynamic video animation feature. These animations provide a dynamic and engaging learning experience by providing a visual description of how landing gear works during various phases of flight. This multimedia method improves critical idea comprehension and recall.

For better learning, the quizzes function presents users with interactive landing gear assessments. Users may put their knowledge to the test using several quiz styles, such as multiple-choice questions and interactive scenarios. Immediate feedback ensures a productive learning process.

The app entire flow encourages users to advance from acquiring basic information via notes and visual exploration to a more interactive and applied understanding via animations and quizzes. The app's straightforward navigation and audiovisual aspects combine to an engaging educational experience, making it a wonderful resource for aviation enthusiasts, students, and anybody interested in learning more about aircraft landing gear.

4.1.4 OPERATION OF PRODUCT FEATURES

4.1.4.1 Landing gear

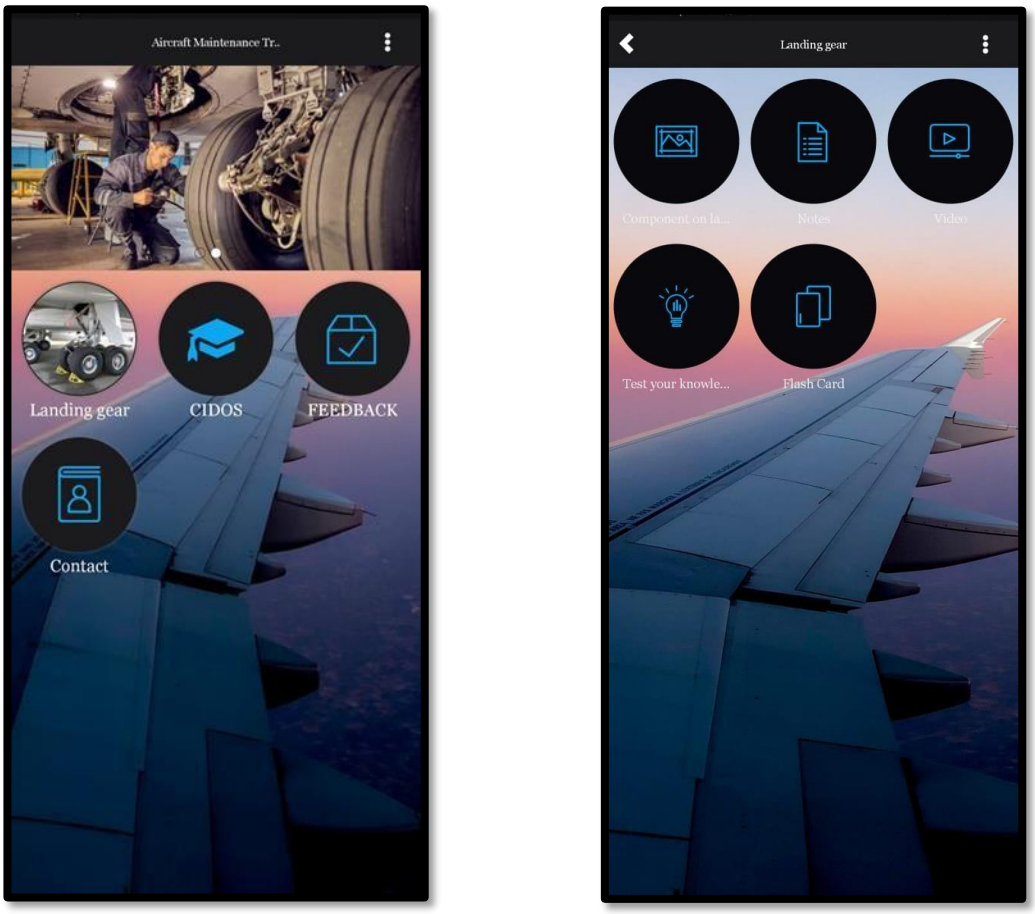


Figure4.3: Landing gear features

The training application landing gear menu provides complete information and specifics on landing gear. allows users to obtain extensive information regarding landing gear notes, figures, animation, and quizzes.

Key functions:

1. Component of landing gear

When choosing this section, it will provide the figure of the landing gear and the description about the component and users can identify through the figure.

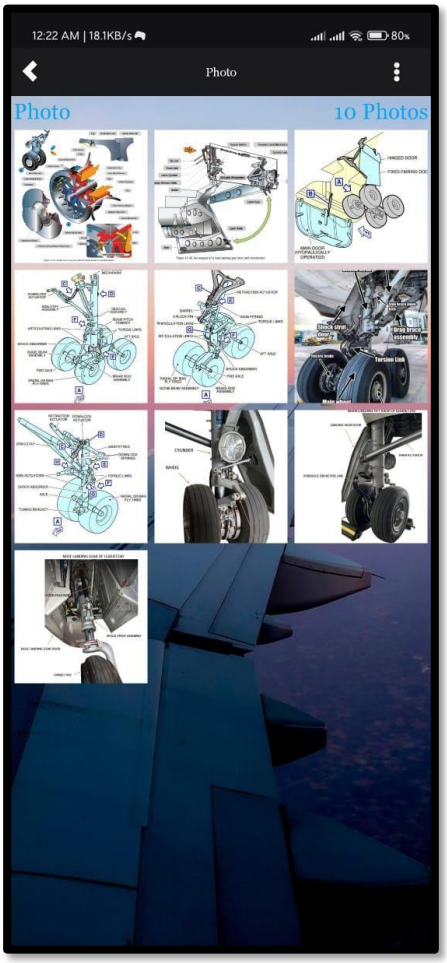


Figure 4.4: Image component of landing gear

2. Notes

In this section, users will be provided with notes from Politeknik Banting about landing gear and simplify notes to make users easy to understand. This note can be opened by using third party apps such as pdf reader and wps office for mobile phone.

Figure4.5: Notes provided in application.

Figure 4.6: Notes from Politeknik

3. Animation

The video about 3D animation, landing gear transition and maintenance procedure about landing gear is provided to increase users' attraction when using the application and improve information about landing gear.

Figure 4.7: Video provided in the application

4. Quiz

For better learning, the quizzes function presents users with interactive landing gear assessments. This quizzes provide multiple-choice questions and interactive scenarios. On this section we can ensures a productive learning process.

Figure 4.8: Quizzes provided in application

4.1.4.2 Cidos

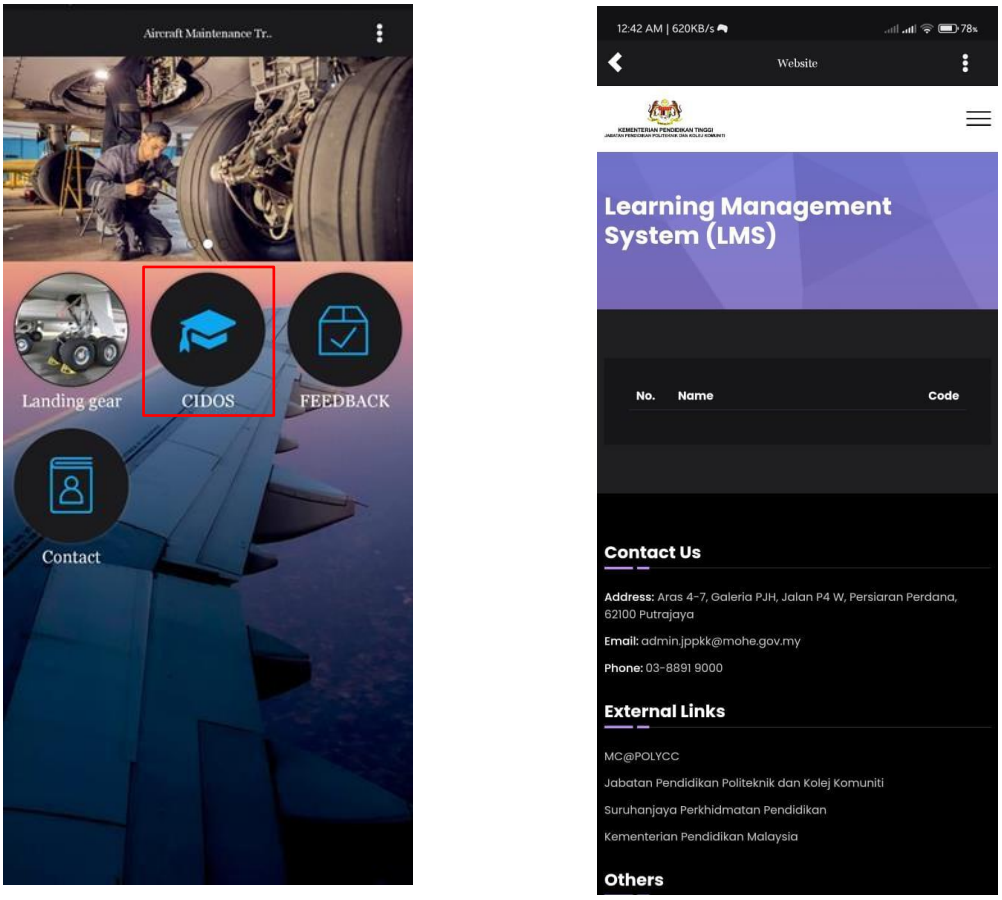


Figure 4.9: PBS Cidos website

Furthermore, after clicked the option cidos on this interface. Then, Then, it will go directly to the Polycc Cidos website, where students can access more information that they need. This website is the main platform for Politeknik Banting's students because it provided with quizzes, assessments and tests.

4.1.4.3 Contact

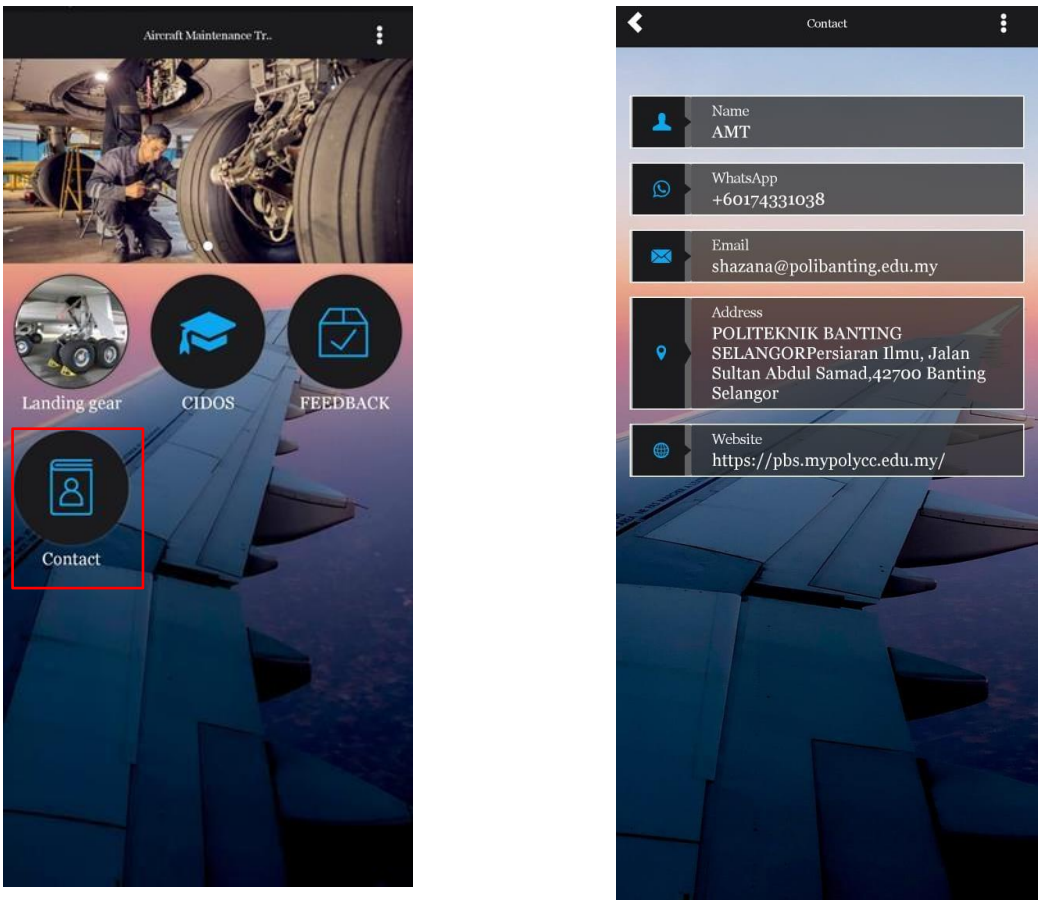


Figure 4.10: Contact feature provided in the application

Finally, if users choose the contact option, this interface will go out. This interface will show the name of our app, contact number, email, address, and website. So that, users can contact us through the information given if they face any problems during the operation of our apps.

4.2 PRODUCT OUTPUT ANALYSIS

No.	Parameters	Remarks	Analysis
1.0	**Market Target**		
	Only aim for Politeknik Banting MRO students	**The content on this product is provide by the facilities that we have in Politeknik Banting**	
2.0	**Learning Curve**		
	Focusing subtopic on Module 11: Turbine Aeroplane, Aerodynamics, Structures And Systems	**Covered on landing gear subtopic**	**Too many subtopics covered in Module 11 will take more time to insert all the notes.**
3.0	**Operating System**		
	For now, this application can only be use for Android users	**Can only be operated on Android phone system**	**Need to upgrade the platform more to unlock all the features**

Table 1: Product Output Analysis

4.3 PROJECT IMPACT/PURPOSE OF PRODUCT

The Landing Gear Learning Application for Android mobile phones promises to change the way aviation students and enthusiasts interact with and learn landing gear systems. This complete programme contains notes, statistics, videos, and quizzes to enhance the learning experience, giving users with an engaging and dynamic platform.

Educational Advancement:

1. **Enhance learning experience**

The Landing Gear Learning Application will provide users a comprehensive learning experience. Users may interact with the information in a number of ways by incorporating textual notes, graphical figures, instructional videos, and interactive quizzes, appealing to a wide range of learning preferences.

2. **Accessibility**

The mobile application format assures user accessibility, allowing them to learn landing gear systems whenever and wherever they choose. This adaptability promotes self-paced learning by allowing users to modify their study sessions to their schedules.

3. **Visual help for learning**

The incorporation of graphics and films within the programme improves visual learning. Complex topics relating to landing gear systems can be visualised more effectively using dynamic images. which help in knowledge retention and application.

Technological Impact:

1. Mobile learning revolution

The initiative adds to the current transition towards mobile-based learning. Because the Android platform is extensively utilised, the application is broadly accessible, reaching a bigger audience and disrupting the old educational paradigm.

2. Integration of multimedia

Using multimedia components such as films and figures not only improves comprehension but also links with current teaching trends. The use of multimedia content in the application illustrates the incorporation of cutting-edge technology in instructional aids.

Practical Implications:

1. Assesment and progress Tracking

The usage of quizzes helps users to evaluate their knowledge of the information. The tracking mechanism built into the programme gives feedback on progress, allowing users to discover areas for development and reinforcing a sense of accomplishment.

4.4 ANALYSIS OF PROBLEM ENCOUNTERED & SOLUTIONS

4.4.1 BACK-END DEVELOPER

• Problem: Without a thorough grasp of the unique needs and features of your project, selecting the appropriate software might be difficult.

Solution: Start by carefully examining the features, scalability requirements, and performance demands of your learning application. Make a thorough list of the features that are both necessary and desirable. This will act as a guide to help you choose software that complements the objectives of your project.

• Problem: It can be difficult to make sure the selected software works with other tools and platforms.

Solution: Examine whether the software choices you have for your learning app are compatible with other platforms or technologies that it might need to integrate with. Select software that has a track record of successful integrations, well-documented application programming interfaces and robust community support.

• Problem: Choosing software that doesn't meet the requirements for a seamless learning experience or that might not scale well as the user base grows.

Solution: Examine each software option's performance and scalability options. Think about solutions that maintain performance even in the face of possible increases in users and content. To make sure the selected software satisfies the performance requirements for your app, undertake load testing.

4.4.2 CONTENT DEVELOPER

• Problem: Inconsistent a note and misunderstanding might result from a lack of a clear content strategy.

Solution: Create a comprehensive content plan that is in line with the app's objectives. Establish your target audience, tone of content, and important messaging. Review and adjust the strategy as needed on a regular basis.

• Problem: Users may want additional formatting choices for their notes than just plain text.

Solution: Enhance the note editor with capabilities like as rich text formatting, bullet points, numbered lists, and the ability to integrate multimedia material. This gives consumers more freedom in expressing their opinions.

4.4.3 FRONT END DEVELOPER

• Problem: Slow loading to access websites causes poor experience

Solution: Use browser caching, minify, and concatenate Chrome, optimize images, and consider slow loading for images. For performance analysis, make use of programs like Appypie

• Problem: Limited features that can only be use for mid-price subscriptions

Solutions: Prioritize responsive design, use media queries, and consider a mobile-first approach during development. Test in different device and emulators.

4.4.4 FULL-STACK DEVELOPER

- Problem: low connection to access the Appy pie

Solution: went to the library to get a better connection for accessing Appy pie. Furthermore, we also need a backup connection, which is mobile hotspot.

- Problem: team members' ineffective cooperation and communication, particularly when working on various areas of the stack.

Solution: make sure that everyone is aware of the objectives and specifications of the project.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 ACHIEVEMENT OF AIM AND OBJECTIVES OF THE RESEARCH

5.1.1 GENERAL ACHIEVEMENT OF THE PROJECT

Our product worked smoothly as we wanted, referring to our aim and objectives. The app interface option makes it easier for users to access any features that we have already provided inside the app. The app was designed for aircraft engineering students to give them easier access to learn about landing gear. Then, we also design the app to make sure it is user-friendly. The interface is easy to navigate, and students can quickly find the information in the note that we provided. The app also offers compatibility across various devices, making it accessible for students to learn about the landing gear.

5.1.2 SPECIFIC ACHIEVEMENTS OF PROJECT OBJECTIVES

5.1.2.1 Product Structure

Our objectives were to design an app for aircraft engineering students to easily learn about landing gear. To complete this app, we need to identify students' problems regarding Module 11. Our product was designed to make it easy to learn about landing gear, user-friendly, and give students new learning experiences through our mobile app.

5.1.2.2 Accessories and Finishing

Our market value for the app is user-friendly, which indicates that users can easily understand the operation of our product, which is why we make it easy to use. After that, we completed our project by finalising the functionality and interface of our app. Furthermore, we develop our software Appypie and Quizizz in the app interface to increase the project's value

5.2 CONTRIBUTION OR IMPACT OF THE PROJECT

The contribution of our project to give aircraft engineering students opportunities to learn more about landing gear continuosly. Then, the app was created to make it easier for students to enhance their knowledge about landing gear. The impact of our app on students is to increase knowledge, create engaging learning experiences, and facilitate learning anytime, anywhere.

5.3 IMPROVEMENT AND SUGGESTIONS FOR FUTURE RESEARCH

5.3.1 PRODUCT STRUCTURE

The improvement that we aim for in the future is adding more features and content. It takes someone who is creative to make the content very attractive. Many features can be added if the existing ones are not enough. The suggestion for our future research is to develop an app that has augmented reality so that students can scan the landing gear mechanism and the information will come out.

5.3.2 ACCESSORIES AND FINISHING

To make our app more attractive, we can collaboration with a quiz platform, for example, Quizizz to attract student’s attention to enhance and test their knowledge about aircraft landing gear.

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APPENDIX A: TASK SEGREGATION

MUMAHAD HAZIZUL HAKIM BIN NORASRI	
1.1	BACKGROUNG OF STUDY
1.2	PROBLEM STATEMENTSS
1.3.1	GENERAL PROJECT OBJECTIVE
1.3.2.1	BACK-END DEVELOPER
1.4	PURPOSE OF PRODUCT
1.5.1	GENERAL PROJECT SCOPES
1.5.2.1	BACK-END DEVELOPER
2.3.1.2	RECENT MARKET PRODUCT (PRODUCT B)
2.4.2	COMPARISON PRODUCT B vs OUR PRODUCT
4.1.1	GENERAL PRODUCT FEATURE &FUNTIONALITIES
4.1.2	SPECIFIC PART FEATURES
4.1.2.1	PRODUCT STRUCTURE
4.1.2.2	PRODUCT MECHANISM
4.1.2.3	INTERFACE LAYOUT
4.1.3	GENERAL OPERATION OF THE PRODUCT
4.1.4.1	LANDING GEAR
4.1.4.2	CIDOS
4.1.4.3	CONTACT
4.3	PROJECT IMPACT/PURPOSE OF PRODUCT
4.4.1	BACK-END DEVELOPER

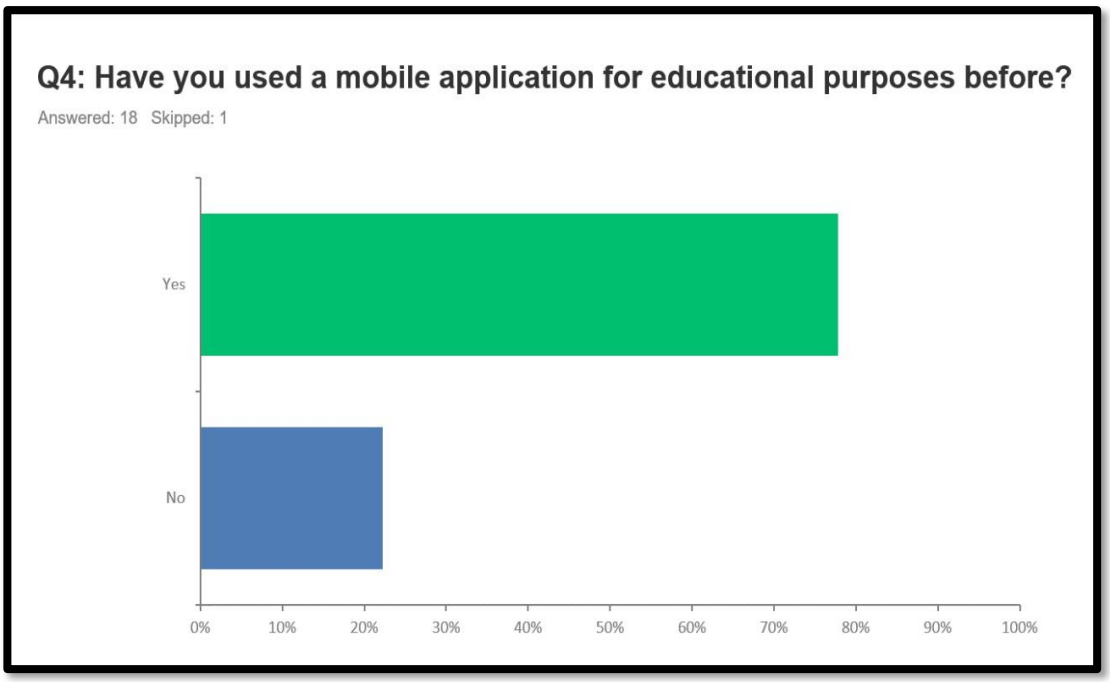
FAUZAN NAIM BIN BOHARI	
1.3.2.4	FULL-STACK DEVELOPER
1.5.2.4	FULL-STACK DEVELOPER
2.3.1.3	PRODUCT C
2.4.3	PRODUCT C VS. OUR PRODUCT
3.1	PROJECT BRIEFING & RISK ASSESSMENT
3.2	OVERALL PROJECT GANTT CHART
3.2.1	GANTT CHART FOR AEM
3.2.2	GANTT CHART FOR AEP
3.4	DESIGN ENGINEERING TOOLS
3.8	LIST OF MATERIALS & EXPENDITURES
3.5	INTERFACE LAYOUT
3.5.1	GENERAL PRODUCT INTERFACE LAYOUT
3.6	DEVELOPMENT OF PRODUCT
3.6.1	MATERIAL ACQUISITION
3.6.2	DEVICES
3.6.2.1	PERSONAL LAPTOP
3.6.2.2	SMARTPHONE
3.6.2.3	OVERALL LEARNING APP FLOW

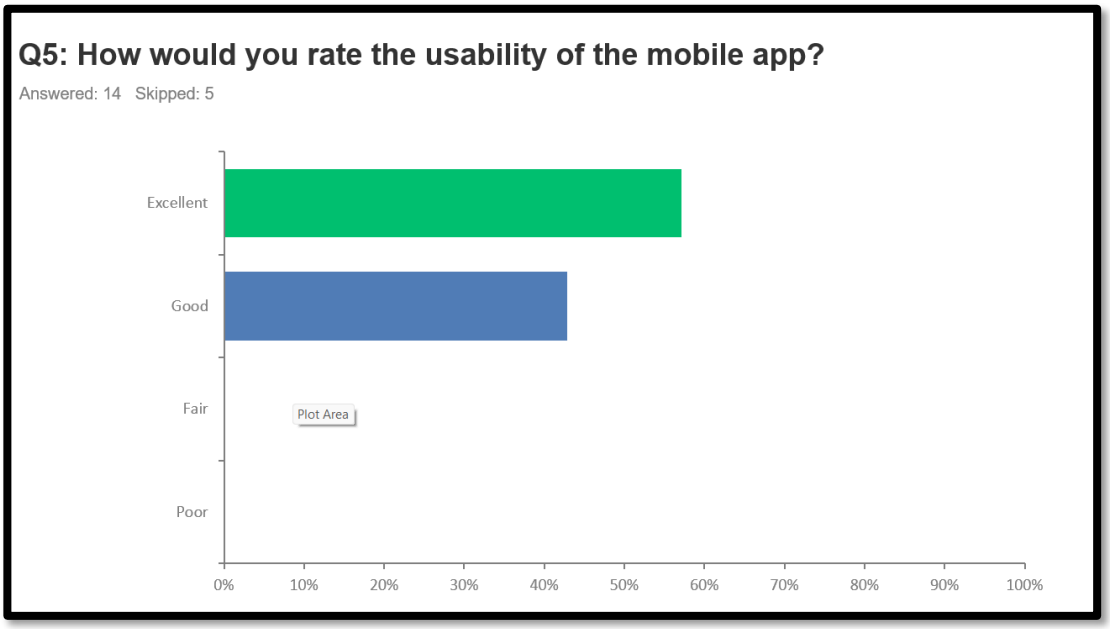
4.4.4	FULL STACK DEVELOPER

AHMED HAIKARL BIN MOHD AIDIL FITRY	
1.3.2.3	FRONT-END DEVELOPER
1.5.2.3	FRONT-END DEVELOPER
2.3.1.4	PRODUCT D
2.4.4	PRODUCT D VS. OUR PRODUCT
3.3	PROJECT FLOW CHART
3.3.1	OVERALL AEM PROJECT FLOW CHART
3.3.2	OVERALL AEP PROJECT FLOW CHART
3.6.3	APP DESIGN
3.6.3.1	APPYPIE DESIGNING AND CUSTOMIZE SECTION
5.2	CONTRIBUTION OR IMPACT OF THE PROJECT
5.3	IMPROVEMENT AND SUGGESTIONS FOR FUTURE RESEARCH
5.3.1	PRODUCT STRUCTURE
5.3.2	ACCESSORIES AND FINISHING
2.3	REVIEW OF RECENT RESEARCH AND RELATED PRODUCT
2.3.1	RECENT MARKET PRODUCT
2.3.1.1	PRODUCT A
3.7	PRODUCT TESTING/FUNCTIONALITY TEST
4.4.3	FRONT-END DEVELOPER

MUHAMAD SHAFIQ IRFAN BIN SOBRI	
1.3.2.2	CONTENT DEVELOPER
1.5.2.2	CONTENT DEVELOPER
2.1	GENERAL LITERATURE REVIEW
2.1.1	MOBILE APP INDUSTRY IN MALAYSIA
2.1.2	TREND OR DEMAND FOR E-LEARNING
2.1.3	TYPE OF MOBILE LEARNING APPLICATION
2.1.4	EVOLUTION OF E-LEARNING
2.1.5	MOBILE APP SPECIFICATION
2.2	SPECIFIC LITERATURE REVIEW
2.2.1	STORYBOARD
2.4	COMPARISON BETWEEN RECENT RESEARCH AND CURRENT PROJECT
2.4.1	PRODUCT A VS OUR PRODUCT
4.2	PRODUCT OUTPUT ANALYSIS
4.4.2	CONTENT DEVELOPER
5.1	ACHIEVEMENT OF AIM AND OBJECTIVES OF THE RESEARCH
5.1.1	GENERAL ACHIEVEMENT OF THE PROJECT
5.1.2	SPECIFIC ACHIEVEMENTS OF PROJECT OBJECTIVES
5.1.2.1	PRODUCT STRUCTURE
5.1.2.2	ACCESSORIES AND FINISHING

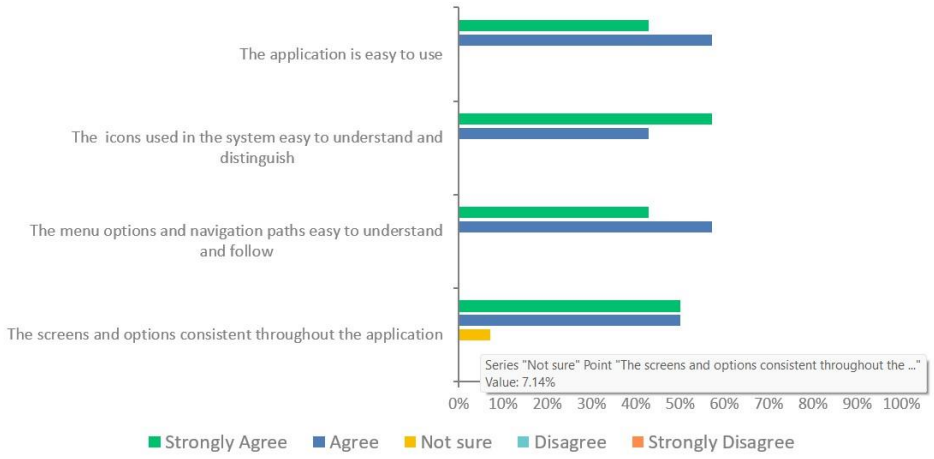
APPENDIX B: POST SURVEY





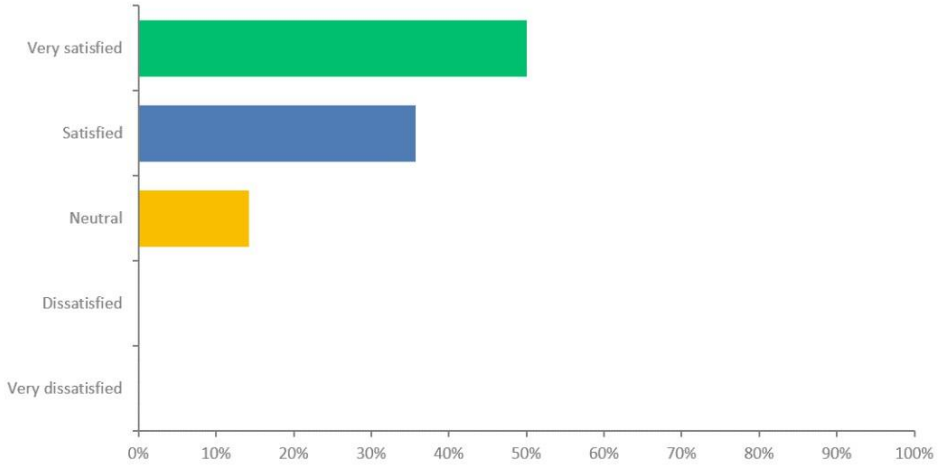
Q6: Please rate the following based on the accessibility of the apps:

Answered: 14 Skipped: 5



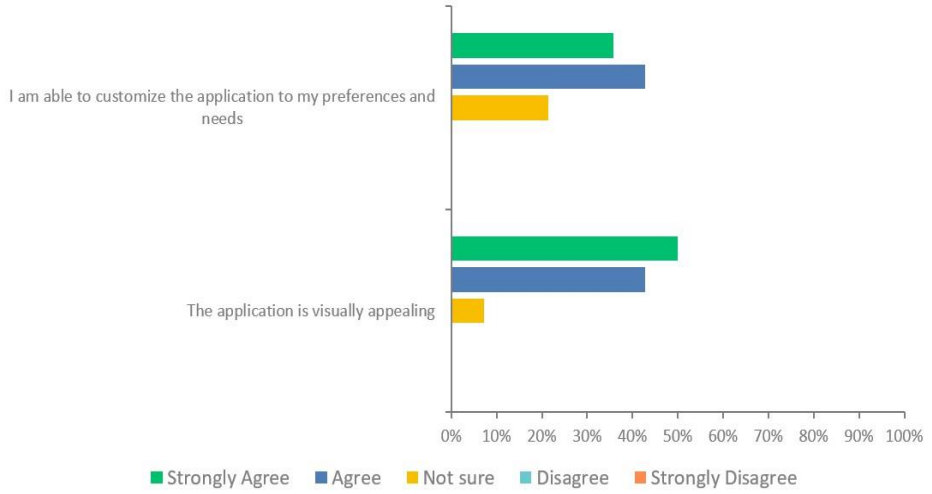
Q7: How satisfied are you with the mobile app?

Answered: 14 Skipped: 5



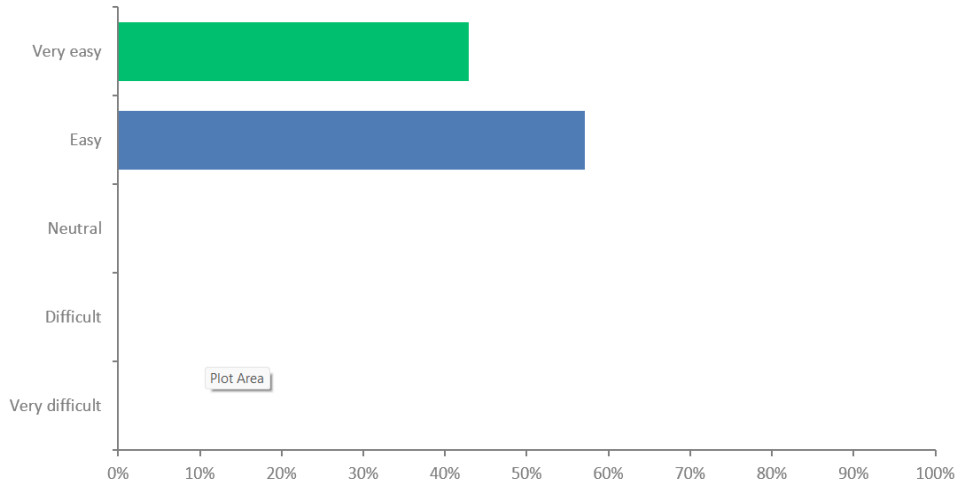
Q8: Please rate the following based on the satisfaction of using the apps:

Answered: 14 Skipped: 5



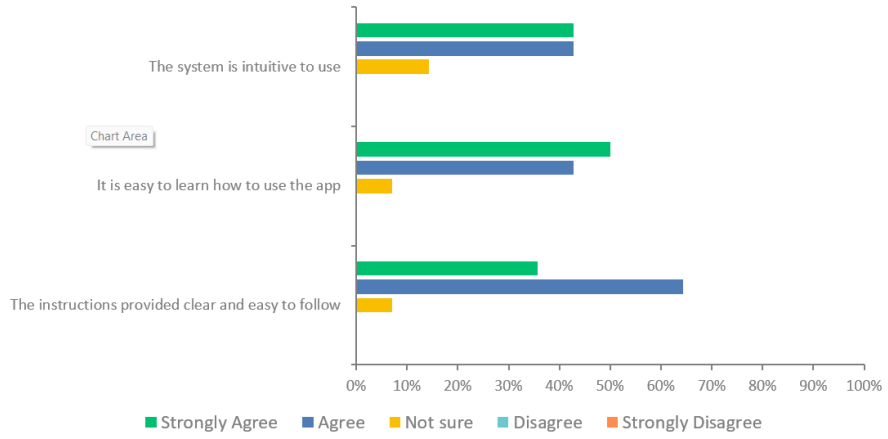
Q9: How easy was it for you to learn how to use the mobile app?

Answered: 14 Skipped: 5



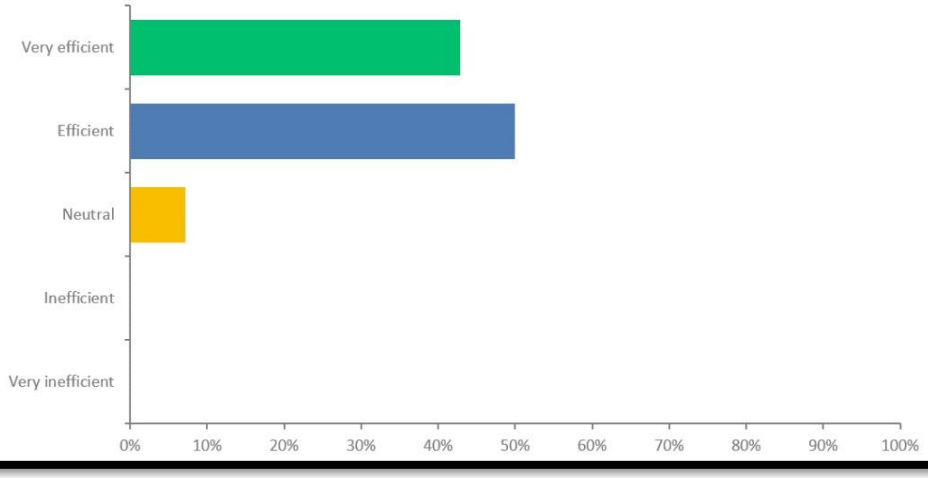
Q10: Please rate the following based on the learnability while using the apps:

Answered: 14 Skipped: 5



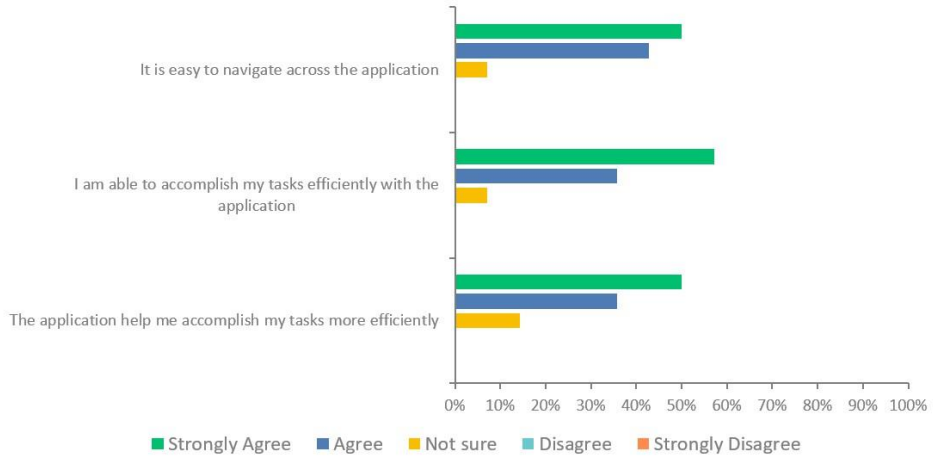
Q11: How efficient is the mobile app in helping you accomplish tasks?

Answered: 14 Skipped: 5



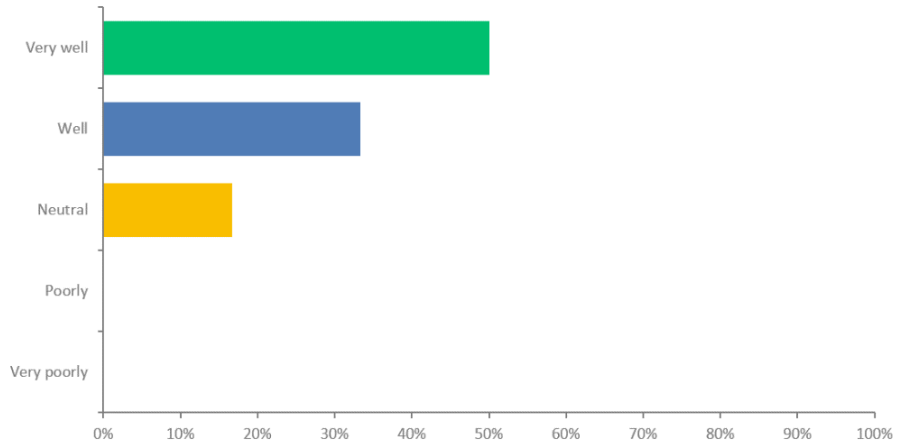
Q12: Please rate the following based on the efficiency of the apps

Answered: 14 Skipped: 5



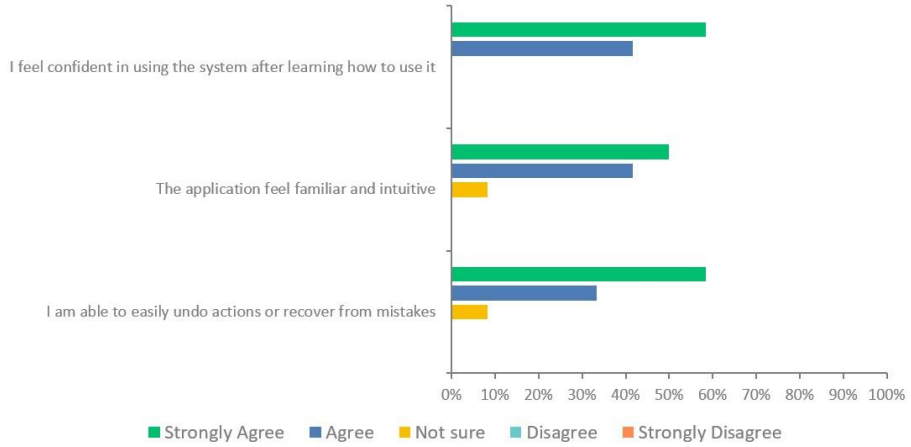
Q13: How well do you remember how to use the mobile app after a period of not using it?

Answered: 12 Skipped: 7



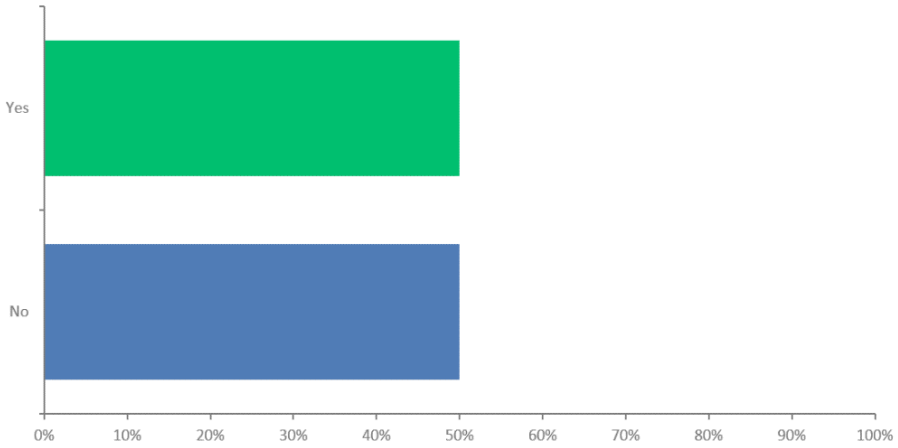
Q14: Please rate the following based on the memorability while using the apps

Answered: 12 Skipped: 7



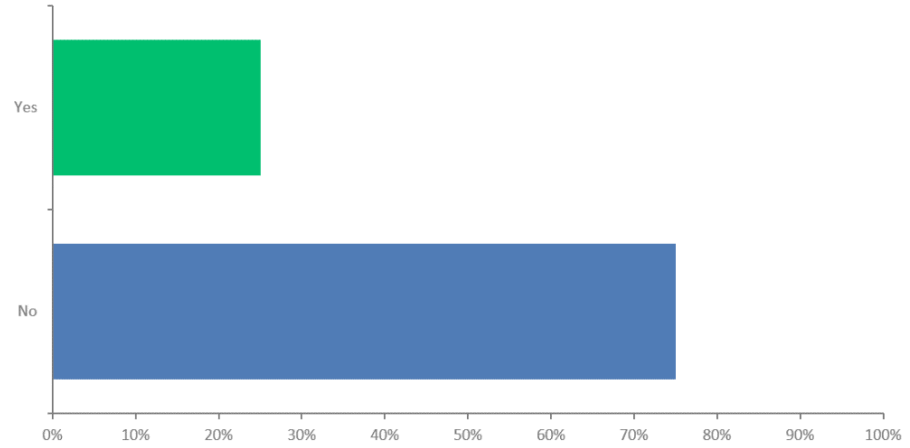
Q15: Have you encountered any errors or issues while using the mobile app?

Answered: 12 Skipped: 7



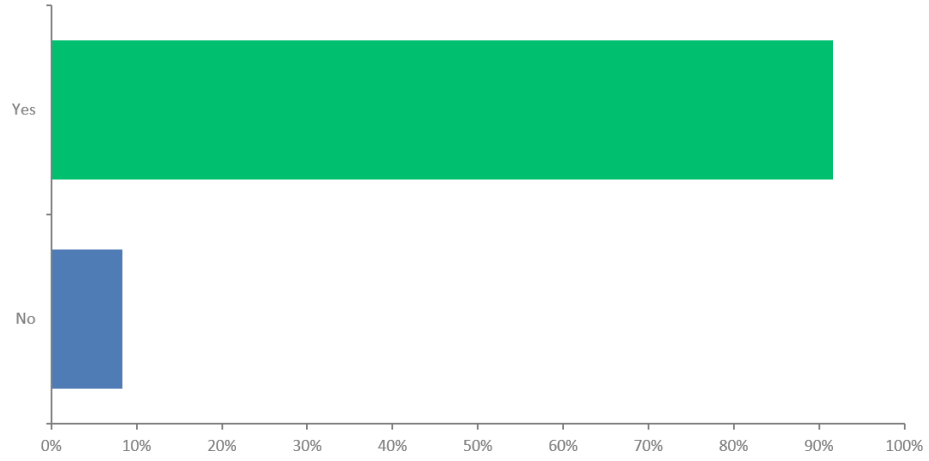
Q17: Did you have any difficulty finding what you were looking for in the system?

Answered: 12 Skipped: 7



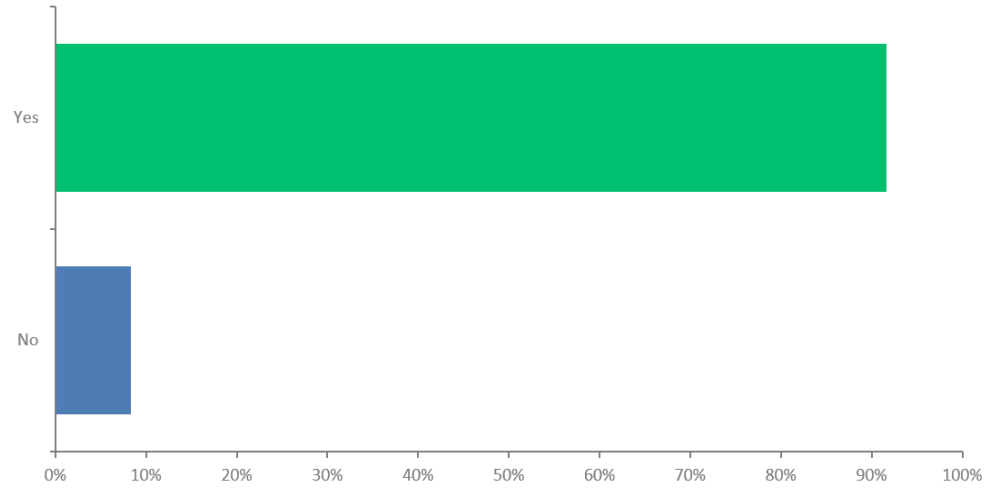
Q18: Did the application perform all the tasks that you expected it to?

Answered: 12 Skipped: 7



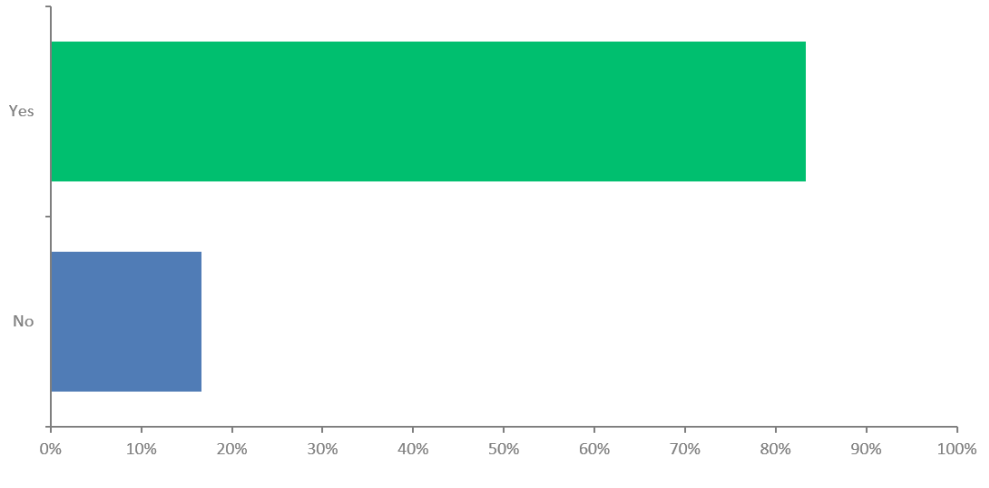
Q19: Did the application have all the features and functions that you needed?

Answered: 12 Skipped: 7



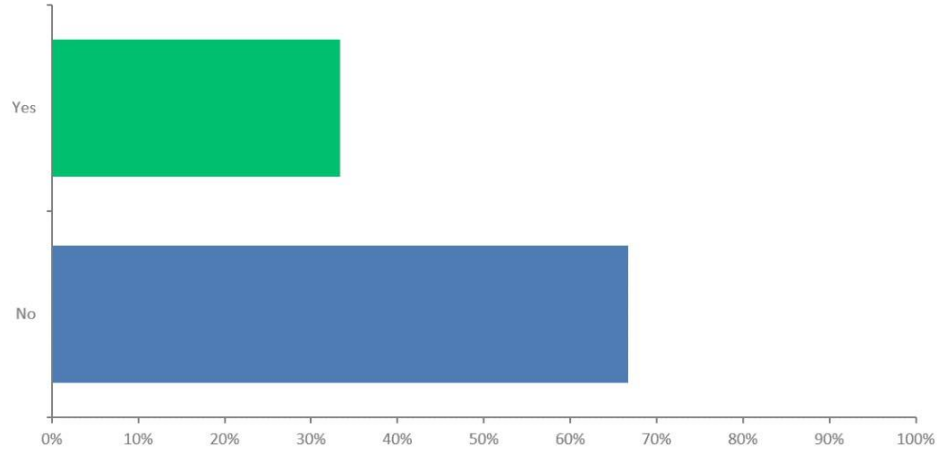
Q20: Did the application offer different ways to accomplish the same task?

Answered: 12 Skipped: 7



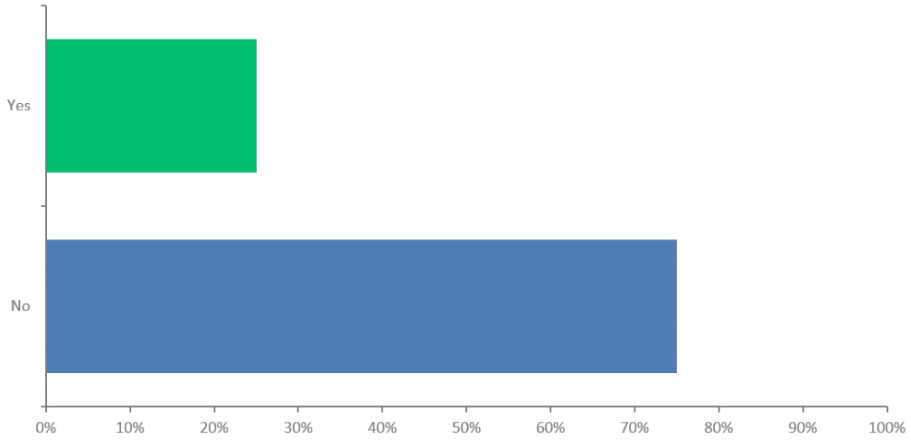
Q21: Were there any errors or issues encountered while using the application?

Answered: 12 Skipped: 7



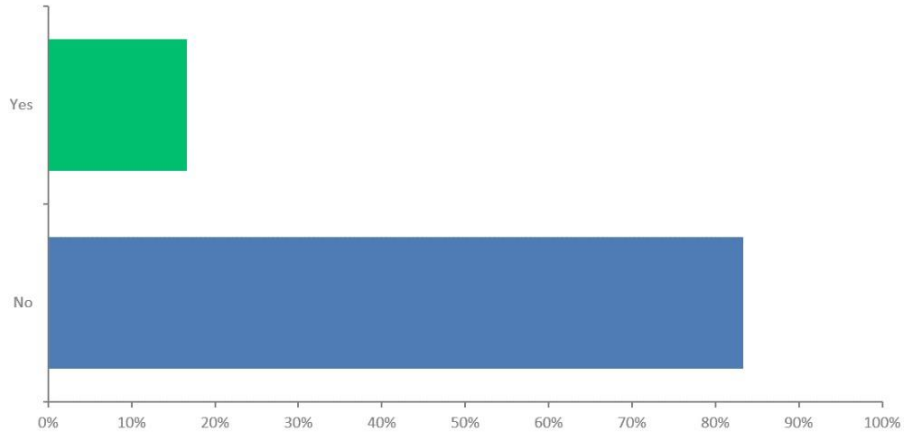
Q22: Were there any problems with the application's performance?

Answered: 12 Skipped: 7



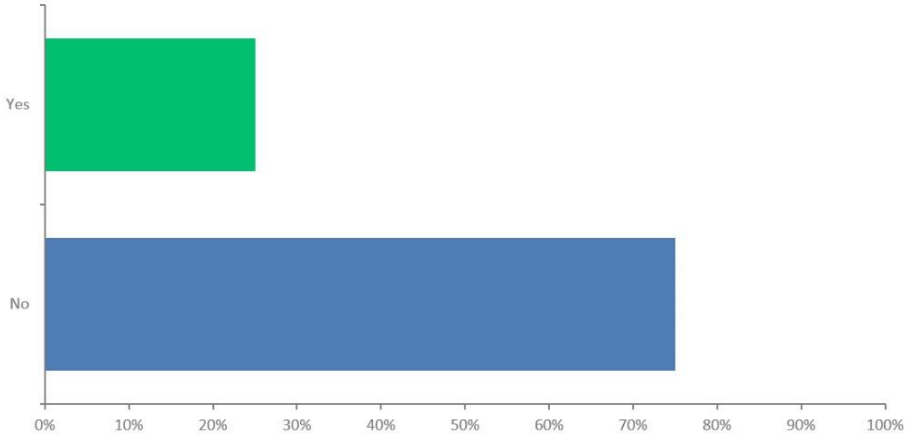
Q23: Were there any aspects of the application that you found confusing or unclear?

Answered: 12 Skipped: 7



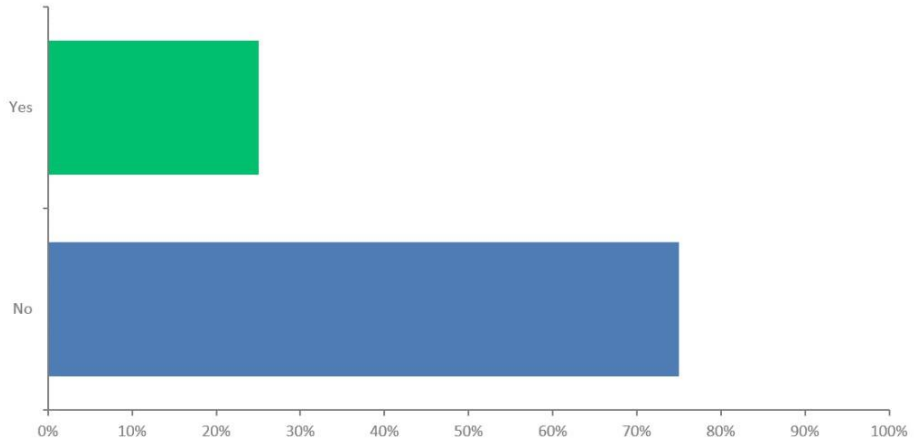
Q24: Were there any areas where the application did not meet your expectations?

Answered: 12 Skipped: 7

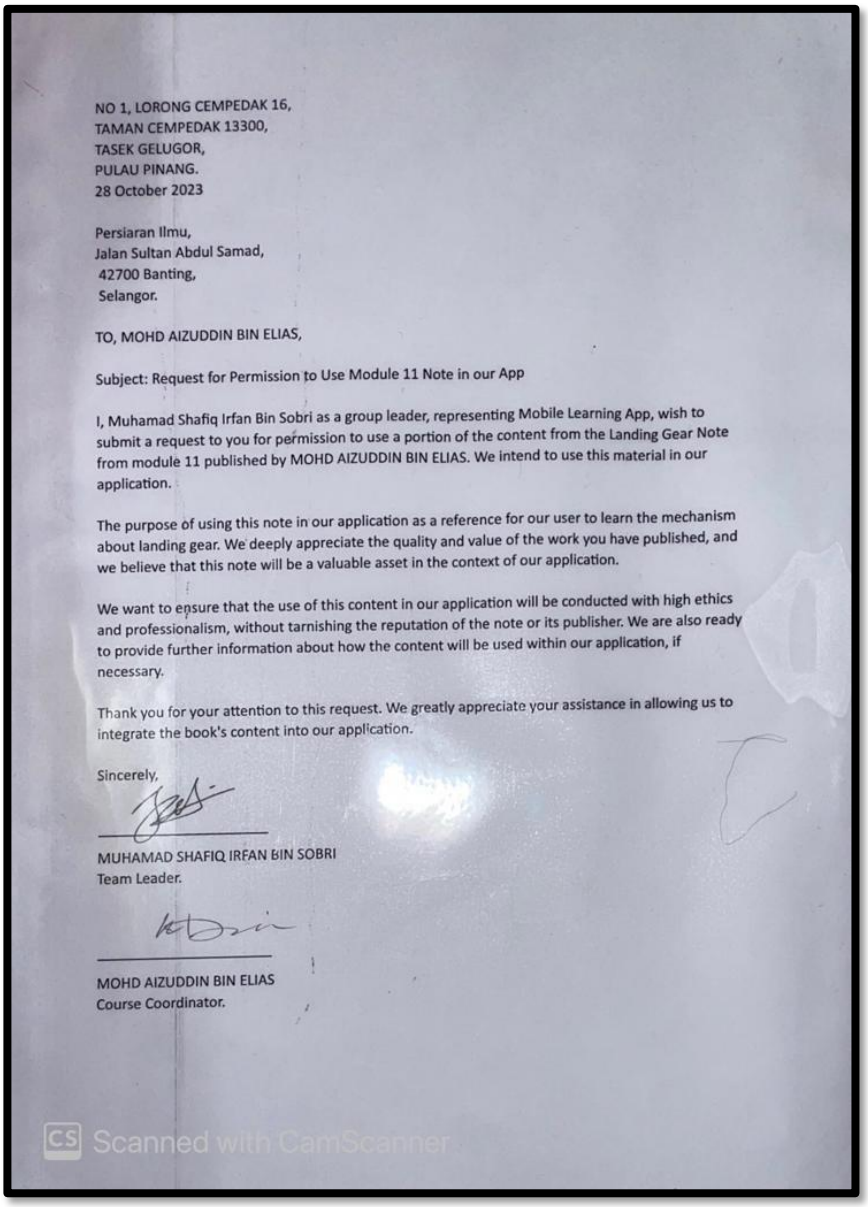


Q25: Were there any features or functions that you found unnecessary or redundant?

Answered: 12 Skipped: 7



APPENDIX C: PERMISSION USING POLITEKNIK NOTES



NO 1, LORONG CEMPEDAK 16,
TAMAN CEMPEDAK 13300,
TASEK GELUGOR,
PULAU PINANG.
28 October 2023

Persiaran Ilmu,
Jalan Sultan Abdul Samad,
42700 Banting,
Selangor.

TO, MOHD AIZUDDIN BIN ELIAS,

Subject: Request for Permission to Use Module 11 Note in our App

I, Muhamad Shafiq Irfan Bin Sobri as a group leader, representing Mobile Learning App, wish to submit a request to you for permission to use a portion of the content from the Landing Gear Note from module 11 published by MOHD AIZUDDIN BIN ELIAS. We intend to use this material in our application.

The purpose of using this note in our application as a reference for our user to learn the mechanism about landing gear. We deeply appreciate the quality and value of the work you have published, and we believe that this note will be a valuable asset in the context of our application.

We want to ensure that the use of this content in our application will be conducted with high ethics and professionalism, without tarnishing the reputation of the note or its publisher. We are also ready to provide further information about how the content will be used within our application, if necessary.

Thank you for your attention to this request. We greatly appreciate your assistance in allowing us to integrate the book's content into our application.

Sincerely,

MUHAMAD SHAFIQ IRFAN BIN SOBRI
Team Leader.

MOHD AIZUDDIN BIN ELIAS
Course Coordinator.

landing gear learning app

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