



**DEPARTMENT OF COMMERCE**

**KIKEN APPLICATION**

**DIPLOMA IN INSURANCE  
SESSION 2 2022/2023**

| <b>NAME</b>                                 | <b>MATRIC NUMBER</b> |
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| <b>NAJMI HARRAZ BIN MOHD KHALIL</b>         | <b>08DIN20F2013</b>  |



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This report is submitted to the Department of Commerce in partial of fulfilment of requirement for Diploma In Insurance.

# DECLARATION OF ORIGINALITY

**TITLE: KIKEN APPLICATION**

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2- MUHAMMAD SAPUTRA BIN NURDIN (08DIN20F2007)  
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are a final year students of **Diploma In Insurance, Department of Commerce, Politeknik Sultan Salahuddin Abdul Aziz Shah**, which is located at Persiaran Usahawan, 40150 Shah Alam, Selangor.

2. We acknowledge that the "project on" and the intellectual property included in it are our original works and do not violate or copy any third parties' intellectual property rights.
3. We agree to release the project's intellectual properties to the above said polytechnic in order to fulfil the requirement of being awarded a **Diploma In Insurance**.

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In the presence of,

SIR MOHD NOR HAFIZ BIN SALEH

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As the project supervisor

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(SIR MOHD NOR HAFIZ BIN SALEH)

## LETTER OF AUTHORIZATION

We declare that the work in this final year project paper was carried out in accordance with the regulation of Polytechnic. It is original and is the result of our own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any diploma or qualification.

We, hereby, acknowledge that we have been supplied with the Academic Rules and Regulations for Undergraduate, Polytechnic, regulating the conduct of my study and research.

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Not forgetting, we are very grateful & appreciate the services of those who are involved directly or indirectly in implementing this project. Support from classmates & also family members are very encouraging, it also helped us to build and strengthen our spirit in completing this project.

## ABSTRACT

Safety applications (safety apps) is a type of technological innovation that provides peace of mind and can help us in our life in an emergency. Currently, there are no safety apps to detect road hazards. The Waze app only provides directions but does not notify the users about road hazards such as potholes or sandy roads. KIKEN was developed to detect hazards in the polytechnic area to prevent injuries among students. This safety app was designed to help the community, especially for polytechnic students, to reduce the occurrence of injury when students are in the polytechnic. Our safety app features include notifications to users on road hazards, complaint channels, and pictures of hazards road. Students may utilize these safety apps to report any potential road hazard in the polytechnic area. KIKEN was tested among Polytechnic Sultan Salahuddin Abdul Aziz Shah students and received very good feedback. They were satisfied with the app because they can help them to be extra cautious about risks surrounding them. In addition, this safety app will be a one-stop platform where they can access CIDOS, SPMP, and also the student portal. With KIKEN app, we hope that we can reduce risks happen in polytechnic and to make the polytechnic as secure and in control

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 INTRODUCTION**

This chapter consist of background of the project, problem statement, objective of the project, project questions, scope of the project, SWOT, and operational definition.

### **1.2 BACKGROUND OF PROJECT**

The title product of our project is Kiken Apps. It is an application that has various functions, such as the location of the hazard and reporting area, to locate the hazard around the Polytechnic area.

Kiken apps is an application that has several different functions, such as the location of the hazard, report features, and a link about the polytechnic portal that makes it easier for the student to use. All these features are combined into one application.

The main purpose of this product is to help the student avoid injury and make the student safer around the polytechnic.

### **1.3 Problem Statement**

There have been several accidents in the parking lot at the polytechnic area. Hazard Application is important to help people in Polytechnic Campus to detect hazard that have in polytechnic. The purpose of this hazard app is to introduce risks or impediments located in the polytechnic region. When students and polytechnic personnel come home late at night to prepare for work, they are exposed to the risk of danger when driving a vehicle, particularly if they are riding a motorcycle. This is due to the uneven roads, potholes, and dark road conditions that expose students and employees to danger. This programme can assist users in identifying any dangers located in the polytechnic area. This programme also allows users to file complaints by photographing potential hazards in the vicinity of the institution.

## **1.4 OBJECTIVE**

The purpose of This Kiken Application is to help the student feel safe around the polytechnic and can be in the polytechnic even at night, so this application can locate and can give notifications about hazards around the polytechnic especially in the student parking area. These are the project's major objectives: -

**OB1.** To design and develop product is affordable for student and easy to use.

**OB2.** To evaluate and test innovative smart application that can provide all.

## **1.5 PROJECT QUESTIONS**

Three project questions are posed to aid the researcher in achieving the project objectives.

The project questions are as follows:

**Question 1:** How to make an application that can provide all the necessary information?

**Question 2:** How to minimize the cost of production?

**Question 3:** How to produce the application, what is needed to produce the application such as coding?

## 1.6 SCOPE OF PROJECT

The goal of our project is to produce an application that can help students that can avoid from injury in the polytechnic area and this application also provide that link and portal about education that have in PSA such as cidos ,spmp and official website PSA

Currently, in the market, there are only the application, which only provide about the traffic, So we want to make our product that can provide hazard locations and report areas to give info and notification to the user

The project also aims to make an application that provides all information, not only about the location but also about hazards to prevent risk from occurring.

## 1.6 SIGNIFICANCE OF PROJECT

### 1.7.1 SWOT ANALYSIS

|   |  |
|---|--|
| <b>STRENGTH</b> <ul style="list-style-type: none"><li>• Not Available in the market</li><li>• Easy to find</li><li>• Portable</li><li>• Have multifunction in one app</li></ul> | <b>WEAKNESS</b> <ul style="list-style-type: none"><li>• Need strong internet connection</li><li>• Complicated to use</li></ul>                                   |
| <b>OPPORTUNITIES</b> <ul style="list-style-type: none"><li>• Well-known</li><li>• People comfortable using it</li><li>• Suitable for all student in PSA</li></ul>               | <b>THREAT</b> <ul style="list-style-type: none"><li>• Innovative Application with multifunctional features</li><li>• Easy to use although for new user</li></ul> |

## **1.8 OPERATIONAL DEFINITION**

We named this project "KIKEN" application because we want to help student in PSA to avoid hazard around polytechnic area. Hazard means in this project is a situation with the potential for harm in terms of human injury or ill-health, damage to property, damage to the environment, or a combination of these. With this application all student in PSA will be able to know the risks in the polytechnic area. Therefore, the combination of 'hazard' and 'application' is a good combination of the projects we produce due to the functionality and convenience that we have to produced application.

## **1.9 SUMMARY**

In conclusion, at the end of this project we were expected to produce KIKEN Application to avoid risk in polytechnic area. At the same time, we expected to able to reduce the risk around polytechnic area and reduce accident among student in polytechnic.

# CHAPTER 2

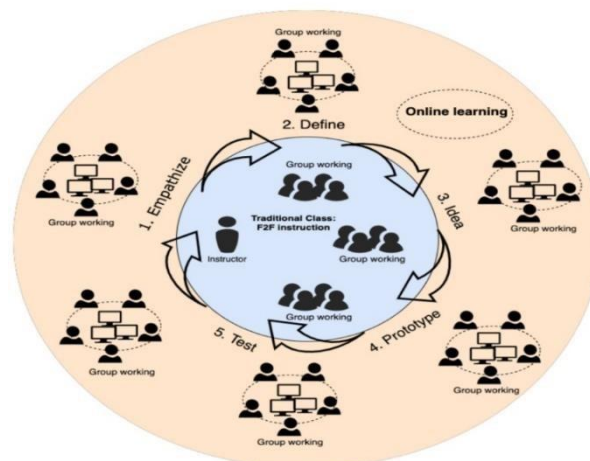
## LITERATURE REVIEW

### 2.1 INTRODUCTION

This chapter covers the relevant literature and gives a detailed discussion of previous studies, as well as a basic overview of the hazards that exist in polytechnic Shah Alam. The design thinking process offers a problem-solving strategy that is focused on human needs. It involves developing and testing the idea while creating it to the greatest possible level and employing a method to overcome the problems. It focuses on the elements that influence the hazards encountered by its users. This programme will be used by users to avoid dangers from occurring.

Hazard means a dangerous phenomenon, substance, human activity, or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage adapted from UNISDR's terminology of disaster risk reduction. While application means a computer software package that performs a specific function directly for an end user or, in some cases, for another application. An application can be self-contained or a group of programs. The program is a set of operations that runs the application for the user (by Alexander S. Gillis)

Design thinking is a five-step process, where each step focuses on a specific goal. Each of the steps is independent of the next step but is borne out of the previous step. Design thinkers are expected not to think of the following steps when working on one step.



## **2.2 Design Thinking process**

Rim Razzouk, Valerie Shute, Review of educational research 82 (3), 330-348, 2012 - Design thinking is a general term for an analytic and creative process that involves a person in opportunities to experiment, create and prototype models, gather feedback, and redesign. The literature has identified several characteristics (e.g., visualisation, creativity) that a good design thinker should have. The primary goal of this article is to summarise and synthesise design thinking research in order to (a) better understand its characteristics and processes, as well as the differences between novice and expert design thinkers, and (b) apply the findings from the literature to our educational system. The authors' overarching goal is to identify the characteristics and features of design thinking and discuss its importance in promoting students' problem-solving skills in the twenty-first century.

### **I. Empathize**

Deana McDonagh, Joyce Thomas

Australasian Medical Journal 3 (8), 458-464, 2010

- Background The material landscape we create in our personal lives and inherit in public spaces has a significant impact on our daily lives. They have an impact on our productivity, happiness, and sense of social connection. Products that provide a positive user experience have the potential to empower people while also contributing to a healthy environment. Products that do not meet the functional or emotional needs of the product user can erode a person's sense of independence.

## **II. Define**

Eurasian Journal of Educational Research 96 (2021) 30-50

- Teachers can consider asking students use fishbone diagram to aid in brainstorming and categorizing ideas to identify potential causes of a problem. A fishbone diagram is a graphic representation of cause and effect. It is a more formal solution than any of the other problem-solving methods on the market (e.g., the 5-Whys tool). Root cause-analysis is a structured team process that assists in identifying underlying factors or causes of an adverse event and understanding the contributing factors or causes of a system failure

## **III. Idea**

Brainstorming is the one most used technique used in team activities. However, brainstorming sessions often encounter problems when the ideas are discrete; they go too far from the problem or there are too many opposing opinions. No one accepts anyone's ideas as everyone actively defends their opinions. To ensure the effective use of brainstorming tasks in the class, teachers could set the rules like following:

- Warm up and introduce the problem: Present the issue and the fishbone diagram so that everybody can appreciate the important facts. This is critical for the idea to progress in the right direction and address the key issues
- Gather suggestions: On a sticky note, students write down all the ideas that come to mind. The aim is to collect as many ideas as possible, regardless of their consistency or appropriateness
- Discussion: Students will stick ideas on the board in each region at this stage, with each area containing ideas that are similar or identical. Subsequently, they will conduct discussions on each idea in turn and choose 1-2 ideas that are most optimal. This is a time for free judgment and offer a rationale. Controversial ideas will be set aside
- Evaluation: Following the selection of the best ideas. This step will re-evaluate the best solutions to come up with. Any ideas that continue to be contentious and inconsistent will be removed. At this stage, the goal is to narrow down to 1-2 ideas or a group of the best and most relevant ideas

#### **IV. Prototype**

GianPaolo Di Bona, Vincenzo Duraccio, Alessandro Silvestri, Antonio Forcina Proceedings of the IASTED international conference on modelling, identification, and control, MIC, 284-290, 2014

- RAMS (Reliability, Availability, Maintainability, and Safety) refers to the use of critical methodologies for designing and managing complex systems. The current work proposes some guidelines for conducting a proper analysis and, as a result, allocating the Safety parameter. The process of identifying and allocating Safety requirements assigns these requirements to each part and subsystem, allowing the entire system to reach the pre-designed Safety target. The analysis of the allocation techniques presented in the literature serves as the starting point. Starting with the application fields, benefits, and drawbacks of the aforementioned techniques, the work proposes a new methodology called "Integrated Hazards Method." The IHM method will be applied systematically and economically to the pre-design phase of complex systems, as well as the subsequent phases of development and management.

#### **V. Test**

Johnathon P Ehsani, Karen E Seymour, Theresa Chirles, Neale Kinnear  
Journal of safety research 73, 303-309, 2020

- The inability of novice drivers to anticipate and respond to hazards has been linked to their increased crash risk. Our goal was to create a driving hazard prediction task that could distinguish between novice and experienced drivers using naturalistic videos from the US context. Method: We identified a sample of 1034 videos for further review using the query builder on the SHRP 2 InSight Data Access Website. These were reduced by task criteria to 30 videos of near-crash events, which were divided into event and non-event segments and used to develop the driving hazard prediction task (task).

#### **2.3 Previous study**



With the growing numbers of students in polytechnic in shah alam, various impacts on the environment and hazards in relation to the study place will rise. Therefore, understanding the hazardous process is crucial in the development of effective control measures. Hazard Identification, Risk Assessment, and Control measures (HIRAC) act as an effective tools of prevent risk and hazard.

The aim of the study was to identify all the possible hazards at the different polytechnic areas, so we want to calculate the risk rating based on the risk matrix, and compare the risk rating before and after the control measures.

Based on our research, they a lot of hazards were Identified. Even though we have implemented risk control in the polytechnic area, the risk still occurs, and this is very worrying for us and the polytechnic, so this time we would like to take this opportunity to introduce our project, “KIKEN” application, to the community and polytechnic students. This is because we are confident that our project will reduce risk and hazard in this polytechnic because it is an application that can provide information about the dangers around us and can also give complaints to other users about the hazards there.

In addition, based on our monitoring, the current risk assessment is somehow less effective because it is still using old and not up-to-date techniques such as still using signboards as a tool to provide information about the dangers around. as we know, technology is advancing and many people have switched to smartphones, so we want to take this opportunity to introduce our application to the public

## **2.5 Summary**

This chapter's literature analysis provides us with a comprehensive picture of the significance of the apps that do exist. Based on the investigations, we have a notion that can be transformed into the new features application that we would like to produce. With this literature review, we hope to have met all of the users' needs and generated interesting suggestions. The content used in this new feature application will be enhanced.

Design thinking combines investigations into ambiguous elements of the problem with rational and analytical research—the scientific side, in other words. This magical concoction reveals previously unknown parameters and helps uncover alternative strategies that lead to truly innovative solutions.

The scientific activities analyse how users interact with products and investigate the conditions under which they operate. They include tasks that include:

- Research the users' needs.
- Pool experience from previous projects.
- Consider present and future conditions specific to the product.
- Test the parameters of the problem.
- Test the practical application of alternative problem solutions.

Once you arrive at a few potential solutions, the selection process is then underpinned by rationality. To encouraged to analyse and falsify these solutions to arrive at the best available option for each problem or obstacle identified during phases of the design process.

## **CHAPTER 3**

### **PRODUCT METHODOLOGY**

#### **3.1 INTRODUCTION**

The methods chapter discusses the steps that can be done to tackle any problems. The choice of a building methodology is a key step in ensuring that the project is structured and rigorous. This chapter will detail the techniques for resolving every issue with the "KIKEN" application. This application was developed as a result of group members' proposals and debates. This application is beneficial to teenagers and students, particularly those who are required to stay at the polytechnic until late at night due to an event or study. As a result, there is a high level of risk and hazard in the polytechnic region. As a result, we pledged that our apps would be simple, userfriendly, and multifunctional.

#### **3.2 FLOWCHART**

- A flowchart is a graphical representation of steps. It was originated from computer science as a tool for representing algorithms and programming logic but had extended to use in all other kinds of processes. Nowadays, flowcharts play an extremely important role in displaying information and assisting reasoning. They help us visualize complex processes, or make explicit the structure of problems and tasks. A flowchart can also be used to define a process or project to be implemented.

### 3.3 FLOWCHART DESIGN THINKING PROCESS

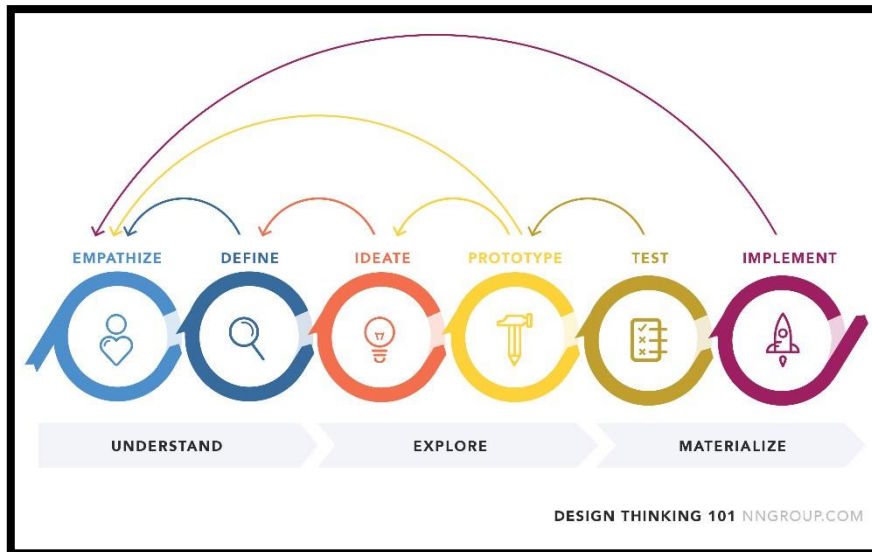


Figure 1.2 : Flow Chart Of Design Thinking Process

### 3.4 STEPS OF DESIGN THINKING PROCESS

#### Step 1 : Empathize

- Had some face to face interviews among polytechnic's students, lecturer and staff. Through these interviews, get to know how they involves in an accidents in parking area and cause of the accident. So in this level, we give some questions to the student, lecturer and staff how they feel around this polytechnic. Majority answered that they felt unsafe in the polytechnic because of the bad road conditions.

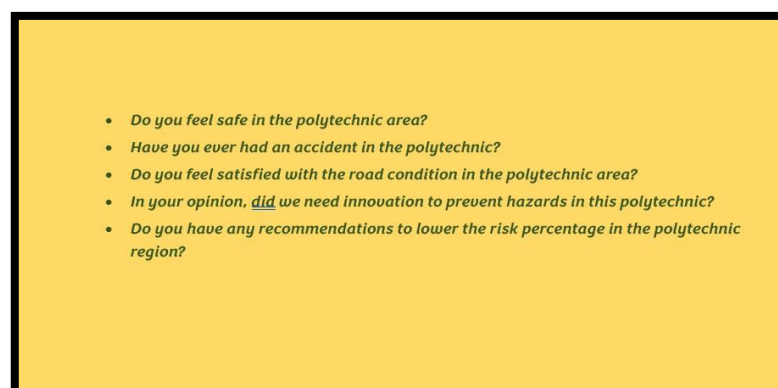


Figure 1.3 : Questionnaire To Respondents

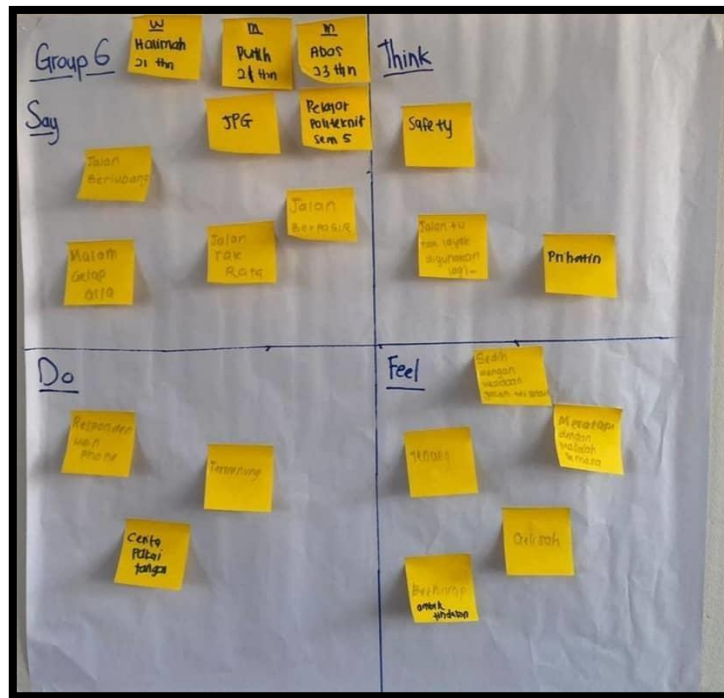


Figure 1.4 : Results After Interview Session

## Step 2 : DEFINE

- After empathize process, next is to try to gather all findings from different aspects such as staffs, students, and lectures. Some of the problems faced are uneven roads, potholes, and dark road conditions that endanger students and employees. So in this level, get detect and found that their main problem is the very bad condition of the road which makes them feel unsafe even inside the polytechnic especially at night.

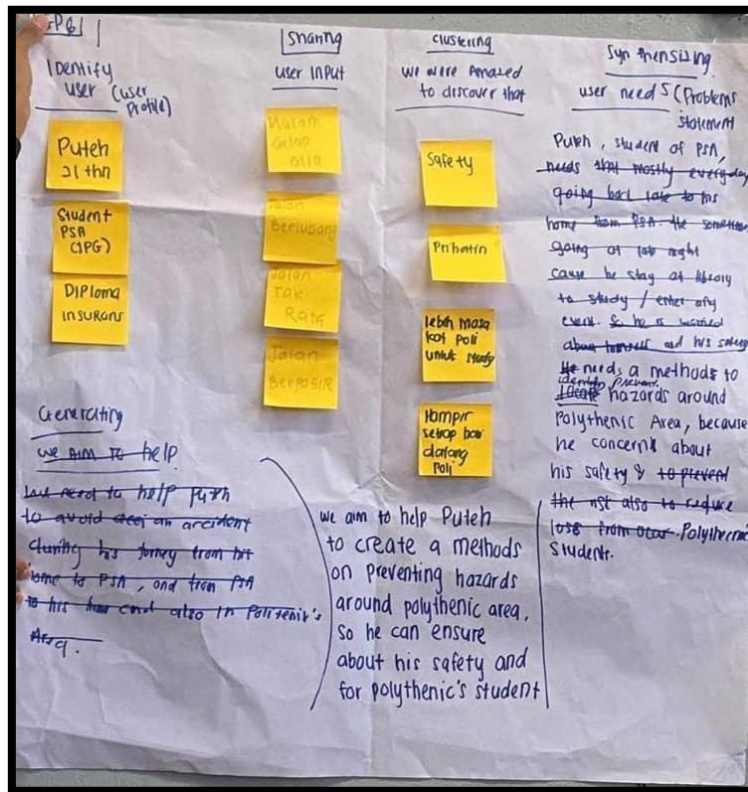


Figure 1.5 : Gathering All The Findings After Empathize Phase

### Step 3 : IDEATE

- After the problems is clearing framed, Next is start to search the methods to solve it by brainstorming and mind-mapping. Try to explore as many as we can to come out the solution to handle the problem. After that, we shortlist the best solutions for the problems and leave the rest is try to produce a good prototype for our user. So in this stage, we study some ways to overcome the problem we are facing by using brainstorm and mind map methods to find the best solution to overcome the problem.

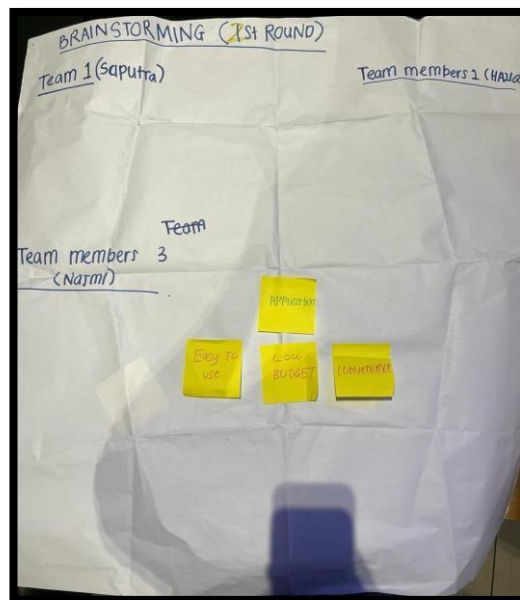
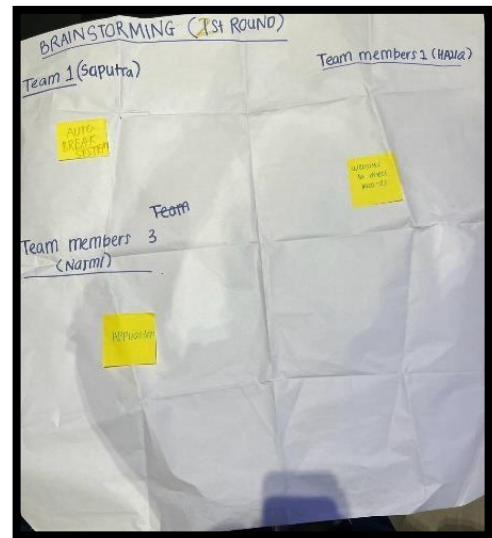
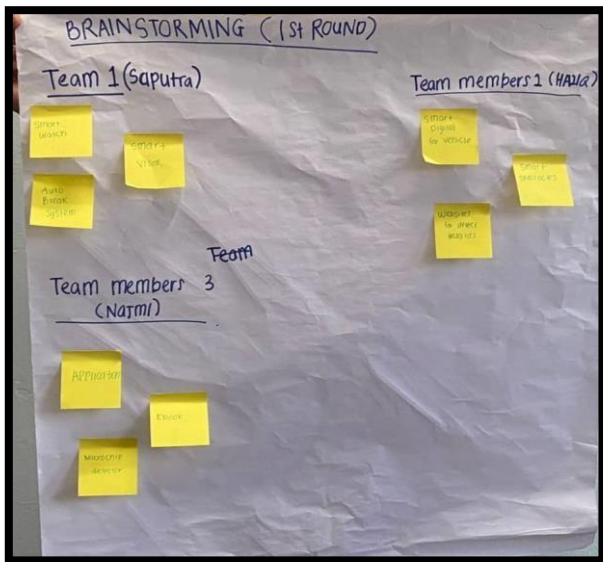


Figure 1.6 : Process Of Choosing The Best Idea From The Brainstorming

#### Step 4 : PROTOTYPE

- After get the solution, start to bring out the solution into version by design an applications for students. Get idea to created a rough prototypes named KIKEN by putting in the solutions to the test and highlighting any constrains and flaws. In our prototype we have 6 step after get download the KiKEN apps. We also provide some teaching techniques in the app for students, lecturer and staff to learn how to use KIKEN



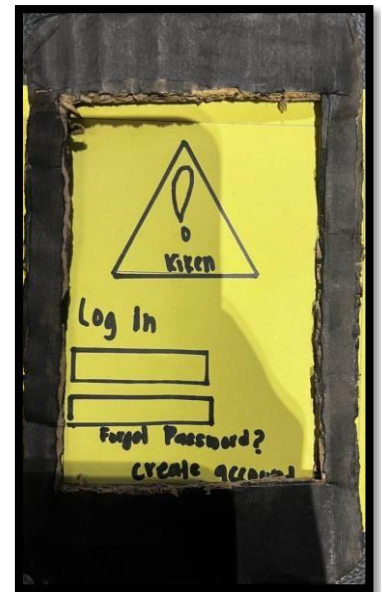
apps. So in this stage we found that the application is the best way to overcome problems that happen in the polytechnic. So we choose apps as our prototype.



Step 1 : Kiken Apss Home Page



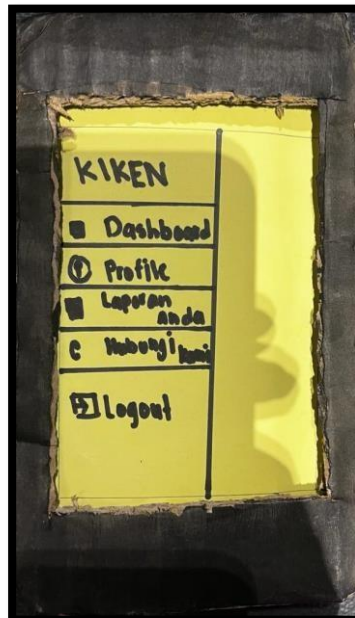
Step 2 : Create An Account



Step 3 : Log In To Apps



Step 6 : Kiken Application User Report Input



Step 5 : Others Details & Features In Kiken Apps



Step 4 : Main Page After Log in To Apps

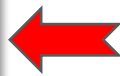


Figure 1.7 : Prototype Process



### **Step 1 : Kiken Apps Home Page :**

- After downloading the Kiken application to their device, the user's screen displays the application's home page. When users access this Kiken application to report or track risks in the polytechnic area, the home page will be displayed before the user signs into their account to use this application.

### **Step 2 : Create an Account :**

- To utilise this application, users must first sign in to their account and register their id. To login to this programme, a new user must provide their full name, phone number, email address, and password. After completing all of the questions, the user must click the sign up button, and all user data will be saved in this programme.

### **Step 3 : Log in to apps :**

- After registering and filling out their personal information, the user must log back into the programme using the email address and password they provided during the account sign up process. If the user has forgotten their password, they can reset it by clicking the forget password button below.

### **Step 4 : Main page after log in to app :**

- The user will be taken to the Kiken hazard application's home page. After successfully logging into the Kiken programme, the user will be taken to the main page. At this level, the user can report a breakdown by uploading a photo of the breakdown at the site where the user is now standing.

### **Step 5 : Other details an features in Kiken Apps :**

- Users can see the additional features available in Kiken Apps here, which means that users can access the official portals of Sultan Salahuddin Abdul Aziz Shah Polytechnic, such as SPMP, CIDOS, and the PSA official portal, to assist students and lecturers in continuing to access the PSA official portals.

### **Step 6 : Kiken application user report input :**

- In this phase, if the user wants to file a complaint about a hazard he perceives, he must provide the name of the occurrence, the coordinates of the incident, and the relevant type of damage. Making this hazard damage report can assist other users in determining the location of risks around the Polytechnic area, thereby preventing an accident or injury.

### **3.5 SUMMARY**

- In producing our project, Kiken apps, the design thinking method plays a very big role because design thinking is the most efficient and accurate method to achieve the objectives of our project. In addition, there are no more apps in the current market that prioritize hazards in their products. so with this initiative, hope this kiken project was well received by all parties, especially students, lecturers and staff of Polytechnic Sultan Salahuddin Abdul Aziz shah. Actually, there are many factors that influence to production of this project. including cost and answers from respondents. Based on the survey that has been done, this kiken apps project is the solution the best that all parties hope for to reduce risk in the environment

## **CHAPTER 4:**

### **4.1 INTRODUCTION**

This chapter discussed the data collection of the Kiken Application for the testing result by the user. This also includes the preparation and execution of innovation to create a hazard application to prevent a risk from occurred. As we did a survey among the polytechnic region community, they feel this applications give a benefit to them to prevent the injury from happen by see the history report in the Kiken Apps.

### **4.2 SAMPLES AND PROFILES**

Samples and profiles better known as the respondent's demographic profile contain the information of the respondents. In the respondent's demographic profile, the questions given were about gender, age, race, department and semester. This section of the samples is important as they provide the information needed about the respondent's behaviour and appraises how representative the sample is among the students of PSA. Table 4.2.1 until

Table 4.2.4 below

#### 4.3 DESCRIPTION ANALYSIS

### RESULT FINDINGS AND DISCUSSION

#### Pre-Survey Question

| GENERAL QUESTION                                       | FREQUENCY  | NUMBER   | PERCENTAGE  |
|--|--|--|---|
| DO YOU KNOW ABOUT HAZARDS?                             | <ul style="list-style-type: none"> <li>• YES</li> <li>• NO</li> </ul>  | <ul style="list-style-type: none"> <li>• 17</li> <li>• 1</li> </ul>  | <ul style="list-style-type: none"> <li>• 94.4%</li> <li>• 5.6%</li> </ul>   |
| DO YOU KNOW HOW TO DETECT HAZARDS?                     | <ul style="list-style-type: none"> <li>• YES</li> <li>• NO</li> </ul>  | <ul style="list-style-type: none"> <li>• 10</li> <li>• 8</li> </ul>  | <ul style="list-style-type: none"> <li>• 55.56%</li> <li>• 44.44%</li> </ul>  |
| WHAT FEATURES DO YOU LIKE IN HAZARD APPLICATIONS       | <ul style="list-style-type: none"> <li>• APPS CAN DETECT HAZARD</li> <li>• CAN DETECT HAZARD</li> <li>• HAVE A MAP FOR THE USER</li> <li>• HAZARD LOCATER</li> <li>• MAP FOR USER</li> <li>• REPORT</li> <li>• SIGNAL</li> <li>• NOTIFICATION</li> </ul> | <ul style="list-style-type: none"> <li>• 2</li> <li>• 1</li> <li>• 3</li> <li>• 1</li> <li>• 6</li> <li>• 1</li> <li>• 2</li> <li>• 2</li> </ul> | <ul style="list-style-type: none"> <li>• 11.11%</li> <li>• 5.56%</li> <li>• 16.67%</li> <li>• 5.56%</li> <li>• 33.33%</li> <li>• 5.56%</li> <li>• 11.11%</li> <li>• 11.11%</li> </ul> |
| IF WE INVENT HAZARD APPLICATION DO YOU WANT TO USE IT? | <ul style="list-style-type: none"> <li>• YES</li> <li>• NO</li> </ul>  | <ul style="list-style-type: none"> <li>• 17</li> <li>• 1</li> </ul>  | <ul style="list-style-type: none"> <li>• 94.4%</li> <li>• 5.6%</li> </ul>   |
| HOW DO YOU FEEL ON YOUR ROAD IN THE POLYTECHNIC AREA?  | <ul style="list-style-type: none"> <li>• A LOT OF POTHOLES IN THE PARKING</li> <li>• HIGH RISK</li> <li>• MODERATE</li> <li>• NOT SAFE FOR THE USER</li> <li>• SATISFIED</li> <li>• UNSAFE FOR STUDENTS TO USE</li> <li>• UNSAFE ROAD</li> </ul>         | <ul style="list-style-type: none"> <li>• 2</li> <li>• 1</li> <li>• 3</li> <li>• 6</li> <li>• 1</li> <li>• 3</li> <li>• 2</li> </ul>              | <ul style="list-style-type: none"> <li>• 11.11%</li> <li>• 5.56%</li> <li>• 16.67%</li> <li>• 33.33%</li> <li>• 5.56%</li> <li>• 16.67%</li> <li>• 11.11%</li> </ul>                  |

|  |   |  |  |
|--|---|--|--|
| <p>ON YOUR ROUTE TO THE POLYTECHNIC THESE ARE POSES ISSUES</p>           | <ul style="list-style-type: none"> <li>• A LOT OF HOLES IN THE PARKING AREA</li> <li>• HIGH BUMPER</li> <li>• SANDY ROAD</li> <li>• NOTHING</li> <li>• POTHOLE</li> </ul>   | <ul style="list-style-type: none"> <li>• 2</li> <li>• 2</li> <li>• 4</li> <li>• 3</li> <li>• 7</li> </ul>              | <ul style="list-style-type: none"> <li>• 11.11%</li> <li>• 11.11%</li> <li>• 22.22%</li> <li>• 16.67%</li> <li>• 38.89%</li> </ul>                 |
| <p>CAN YOU THINK OF WAYS TO MAKE ROADS IN THE POLYTECHNIC AREA SAFER</p> | <ul style="list-style-type: none"> <li>• DO IT APPS THAT CAN SHOW HAZARD</li> <li>• MAKE A SIGN</li> <li>• MAKE A SIGNBOARD FOR STUDENT</li> <li>• PUT HAZARD LAMP</li> <li>• PUT A WARNING SIGNBOARD</li> <li>• REPAIR THE ROAD</li> </ul> | <ul style="list-style-type: none"> <li>• 2</li> <li>• 1</li> <li>• 3</li> <li>• 1</li> <li>• 3</li> <li>• 8</li> </ul> | <ul style="list-style-type: none"> <li>• 11.11%</li> <li>• 5.56%</li> <li>• 16.67%</li> <li>• 5.56%</li> <li>• 16.67%</li> <li>• 44.44%</li> </ul> |

### Feedback Question

|   |  |   |   |
|---|--|---|---|
| DO YOU LIKELY RECOMMEND THE KIKEN APP TO A FRIEND                                       | <ul style="list-style-type: none"> <li>• YES</li> <li>• NO</li> </ul>  | <ul style="list-style-type: none"> <li>• 32</li> <li>• 0</li> </ul>   | <ul style="list-style-type: none"> <li>• 100%</li> <li>• 0</li> </ul>   |
| ON A SCALE OF 0 (UNLIKELY) TO 5 (VERY LIKELY), HOW SATISFIED ARE YOU WITH THE KIKEN APP | <ul style="list-style-type: none"> <li>• EXTREMELY UNLIKELY</li> <li>• UNLIKELY</li> <li>• NEUTRAL</li> <li>• LIKELY</li> <li>• EXTREMELY LIKELY</li> </ul>  | <ul style="list-style-type: none"> <li>• 0</li> <li>• 0</li> <li>• 1</li> <li>• 10</li> <li>• 21</li> </ul> | <ul style="list-style-type: none"> <li>• 0%</li> <li>• 0%</li> <li>• 3.13%</li> <li>• 31.25%</li> <li>• 65.63%</li> </ul> |
| HOW LIKELY WOULD YOU BE TO RECOMMEND KIKEN APPS TO FRIENDS?                             | <ul style="list-style-type: none"> <li>• EXTREMELY NOT RECOMMEND</li> <li>• NOT RECOMMEND</li> <li>• NEUTRAL</li> <li>• RECOMMEND</li> <li>• EXTREMELY RECOMMEND</li> </ul>  | <ul style="list-style-type: none"> <li>• 0</li> <li>• 0</li> <li>• 1</li> <li>• 10</li> <li>• 21</li> </ul> | <ul style="list-style-type: none"> <li>• 0%</li> <li>• 0%</li> <li>• 3.13%</li> <li>• 31.25%</li> <li>• 65.63%</li> </ul> |
| DO YOU FIND KIKEN APP EASY TO USE?  | <ul style="list-style-type: none"> <li>• YES</li> <li>• NO</li> </ul>  | <ul style="list-style-type: none"> <li>• 32</li> <li>• 0</li> </ul>   | <ul style="list-style-type: none"> <li>• 100%</li> <li>• 0</li> </ul>   |
| HAVE YOU EXPERIENCED ANY ISSUES WITH THESE FEATURES WHEN USING KIKEN APP?               | <ul style="list-style-type: none"> <li>• YES</li> <li>• NO</li> </ul>  | <ul style="list-style-type: none"> <li>• 27</li> <li>• 5</li> </ul>   | <ul style="list-style-type: none"> <li>• 84.38%</li> <li>• 15.63%</li> </ul>  |
| ON A SCALE OF 1-5, HOW USEFUL IS THE KIKEN APP TO YOU                                   | <ul style="list-style-type: none"> <li>• VERY NOT USEFUL</li> <li>• NOT USEFUL</li> <li>• MODERATE</li> <li>• USEFUL</li> <li>• VERY USEFUL</li> </ul>   | <ul style="list-style-type: none"> <li>• 0</li> <li>• 0</li> <li>• 1</li> <li>• 12</li> <li>• 19</li> </ul> | <ul style="list-style-type: none"> <li>• 0</li> <li>• 0</li> <li>• 3.13%</li> <li>• 37.5%</li> <li>• 59.38%</li> </ul>    |
| IF YOU COULD IMPROVE ONE THING IN THE KIKEN APP, WHAT WOULD IT BE                       | <ul style="list-style-type: none"> <li>• CAN USE OFFLINE</li> <li>• NO DELAY</li> <li>• INTERNET CONNECTION</li> <li>• ADD MORE FEATURES TO THIS APP</li> <li>• NOTHING</li> <li>• IMPROVE IN NAVIGATION</li> <li>• ADD SUITABLE FEATURES FOR STUDENT</li> <li>• ADD CALENDAR IN THIS APP</li> </ul> |   | <ul style="list-style-type: none"> <li>•</li> </ul>   |

#### **4.4 SUMMARY**

The implementation method to prevent hazards among Students in the PSA. This project are use the design thinking method, which is more suitable to achieve our product goals. This Kiken Apps are made for prevent a hazard among polytechnic region to reduce a risk. Therefore, careful implementation and research are required in the production by making this application. In addition, the response from this respondent can facilitate the production of Kiken Application in reducing risk and avoiding injury from occurring around the polytechnic area cause of the hazardous.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATION**

#### **5.1 INTRODUCTION**

In this topic, we will brief about the conclusion, recommendation, and limitation of the project. This is to ensure that 'KIKEN' (THE HAZARD APPS) that we produced can reach the objectives and purposes set up. We will cover all the limitation we face during the project and conclude the recommendation to make further improvement of 'KIKEN' (THE HAZARD APPS) in the future.

#### **5.2 CONCLUSION**

To summarize this final year project, which is titled with 'KIKEN' (THE HAZARD APPS), we have achieved all of the objective and solving the issues staff and students of Polytechnic Shah Alam. Hazard app which name 'KIKEN' (THE HAZARD APPS) was developed to detect hazards in the polytechnic area to prevent injuries among students and staffs. . With the idea of 'KIKEN' (THE HAZARD APPS), we get many positive comments from the respondent through the questionnaire as evidence. Besides that, through this final year project, we get to tackle many problems that we face ourselves. We also learn ways to keep ourselves calm too. Finally, 'KIKEN' (THE HAZARD APPS) not only to detect hazards, but it also will be one stop platform where they can access CIDOS, SPMP and student portal.

Besides that, through this final year project, we collected many precious data, and it also helps us in improving the 'KIKEN' (THE HAZARD APPS). Next, this safety app was designed to help the community, especially for polytechnic students to reduce the occurrence of injury when the students are in polytechnic. In conclusion, this app can reduce risks happen in polytechnic and make the polytechnic as secure and in control.



### 5.3 RECOMMENDATION

Based on all the research we have done to create this application; we recommend that research can be done better in the future to anyone who will do a similar study like us on the hazard's application. Based on all the research we have done to create this application we recommend that research can be done better in the future to anyone who will do a similar study like us about hazards and ways to reduce it. The research done by us has found some obstacles in terms of lack of resources and knowledge about furniture manufacturing and time limitations. To make an innovative application may take a long time because many things need to be looked at from various angles. So, we suggest that any researcher who wants to research and innovate application to plan their time well.

There are also many other things that need to be looked at better to improve the application such as design, safety use, & features. These things are among the important aspects that need to be studied longer by doing more research so that the product produced becomes a quality product.

Based on the questionnaire that we distributed to the students who use this application, there were 32 respondents who responded to our questionnaire about product improvement ideas that we could do to make the 'KIKEN' (THE HAZARD APPS) more attractive. Among the suggestions from respondents is add chatting channel, add music in this application, and can be download directly from Google Play and Apps Store. We will take note of all suggestions to improve the product from time to time. Due to lack of time, 'KIKEN' (THE HAZARD APPS) have a certain limitation surely, we can improve the features in the future.

Finally, we'll consider all the positive and negative recommendation and comments regarding 'KIKEN' (THE HAZARD APPS), and we were happy to make an improvement to our application based on the responses given.

## 5.4 LIMITATIONS OF THE STUDY

There will always be advantages and disadvantages because that's how successful application are developed. .As a result, there are some restrictions that arise during the development of application, and we can see that these restrictions may alter, which could have an adverse effect on how our application is used. Listed here are a few restrictions:

1. Limitation in time
2. Limitation in user satisfaction
3. Limitation in programming languages

The first restriction, a lack of time to finish our application and give to student to test this application. The given less than 14 weeks to solve the problem, finish develop application and run the test before presenting this project.

It is quite important that the app that has been developed is capable to provide user satisfaction. Otherwise, the concerned user may regard your app as bloatware or freeware that is incapable of any use. For any application to become successful it is important that the app can solve the real-world problem. You need to satisfy the user of the app usage. The app needs to have a high degree of user satisfaction.

There are a variety of programming languages available that developers may use to create a wide range of mobile apps. Among these, Java and Kotlin are the most popular programming languages for developing Android apps. Although Java is the oldest programming language, it requires more lines of code, whereas Kotlin does not. Both languages come with features that make it easier to create error-free mobile apps faster. Choosing which one to start with is therefore another one of the common mobile app development challenges for developers.

## **5.5 SUMMARY**

To summarize our project, we have found out the limitation and recommendation while doing the final year project. Besides that, while working on our final year project, we must use time carefully in development of the 'KIKEN' (THE HAZARD APPS) able to optimize the function and features. This is because our target user are students and staffs of polytechnic to prevent accident occur. As according to 'KIKEN' (THE HAZARD APPS), we get to maximize their satisfaction of 'KIKEN' (THE HAZARD APPS). As evidence, we get many positive comments from the questionnaire distributed regarding the application.

**APPENDIX**

**Gantt Chart Project**

| WEEK   |        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|--|--------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|
| ACTIVITIES   | PLAN   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
|  | ACTUAL |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
| SUPERVISOR SELECTION   | PLAN   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
|  | ACTUAL |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
| IDEA AND PROJECT SEARCH                                      | PLAN   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
|  | ACTUAL |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
| PROPOSAL DEVELOPMENT   | PLAN   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
|  | ACTUAL |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
| TITLE SELECTION  | PLAN   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
|  | ACTUAL |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
| PROPOSAL PRESENTATION  | PLAN   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
|  | ACTUAL |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
| METHODOLOGY RESEARCH/SURVEY ON PRESENT INDUSTRY(FEASIBILITY) | PLAN   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
|  | ACTUAL |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
| FINAL PRESENTATION   | PLAN   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |
|  | ACTUAL |   |   |   |   |   |   |   |   |   |    |    |    |    |    |



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