TROUVAILLE INFORMATION APPLICATION

NUR ASYIQIN BINTI SHAKRI

BACHELOR OF COMPUTER SCIENCE

UNIVERSITI MALAYSIA PAHANG

UNIVERSITI MALAYSIA PAHANG

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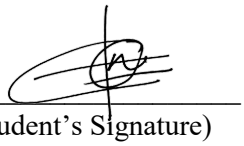

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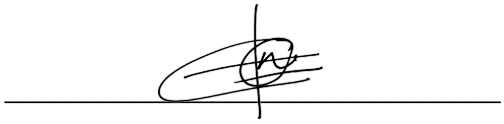

(Student's Signature)

Full Name : NUR ASYIQIN BINTI SHAKRI

ID Number : CB15031

Date : 01 JANUARY 2019

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NUR ASYIQIN BINTI SHAKRI

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ABSTRAK

Malaysia adalah salah satu destinasi pelancongan terbaik di Asia Tenggara, yang mempunyai pelbagai tarikan dan aktiviti yang tidak berkesudahan yang memenuhi keperluan peminat alam, peminat sejarah, pembeli kosmopolitan dan peminat budaya. Berdasarkan perbincangan dengan klien, beberapa kenyataan masalah mereka telah diberikan. Masalah bermula ketika pelancong ingin melancong ke tempat lain yang masih menggunakan proses manual seperti menggunakan peta dan meminta petunjuk orang di sekitar tempat tersebut. Atas sebab itu, kajian ini melibatkan tiga objektif iaitu untuk mengenal pasti keperluan untuk "*Trouvaille Information Application"*, untuk membangunkan "*Trouvaille Information Application"*, dan untuk menilai fungsi permohonan yang dicadangkan. Oleh itu, "*Rapid Application Development (RAD)"* telah digunakan untuk memendekkan proses membangunkan "*Trouvaille Information Application"*. Hasil yang diharapkan dari "*Trouvaille Information Application"*ini dapat menjadi salah satu aplikasi "*mobile travel"* yang dapat digunakan oleh pelancong. Disamping itu, makna kepada projek ini adalah aplikasi yang akan memaparkan maklumat tempat kepada pengguna berdasarkan lokasi yang dipilih pengguna, memberi cadangan sebagai merancang pelancongan kepada pengguna dan aplikasi akan memaparkan lokasi pengguna lain. Skop projek ini adalah untuk membina dan membangunkan aplikasi mudah alih yang berkaitan dengan "*Trouvaille Information Application"*. Oleh itu, ia boleh menggambarkan sebagai aplikasi akan dibangunkan untuk klien menyediakan aplikasi yang dapat membantu pelancong untuk melawat tempat baru.

ABSTRACT

Malaysia is one of Southeast Asia's best travel destinations, possessing an endless range of attractions and activities that cater for the nature-lover, historical buff, cosmopolitan shopper and cultural enthusiast. Based on discussion with the client, their a few problem statements have been given. The problems starter when the tourist wants to tourism other place that are still using the manual process such as the using map and ask people around about new place. For that reason, this study embarks on three objectives which are, to identify the requirement for Trouvaille Information Application, to develop Trouvaille Information Application, and to evaluate the functionality of the proposed application. Hence, Rapid Application Development (RAD) method had been used to shorten the process of developing the Trouvaille Information Application. The expected result of this Trouvaille Information Application is can be one of the travel mobile application that can be use by tourist. Moreover, the significances of this project are the application will display the place information to the user based on their location and searching, provide the suggestion as planning tourism to user and the application will display another user location. The scope of this project is to build and develop a mobile application that related to Trouvaille Information Application. Therefore, it can be describing as the application will be developed for client to provide an application that can help the tourist to tour the new place.

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LIST OF ABBREVIATIONS

IDE	Integrated Development Environment
MIT	Massachusetts Institute of Technology
RAD	Rapid Application Development
SDD	Software Design Development
SRS	Software Requirement Specification
TIA	Trouvaille Application Information
UAT	User Acceptance Testing

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Malaysia is one of Southeast Asia's best travel destinations, possessing an endless range of attractions and activities that cater for the nature-lover, historical buff, cosmopolitan shopper and cultural enthusiast. Divided into Peninsular Malaysia in the West and East Malaysia, part of the Borneo archipelago, the country will allure you with the shopping experience of its modern cities, the splendour of its cultural arts and natural heritage of rich flora and fauna beaches ("Tourism | Malaysia | Tourism Malaysia | Tourism in Malaysia,"). In the top of Asia lie a portion of the world's excellent shorelines, with shimmering sand and precious stone waters. It would be an impossible task to describe every one of Malaysia's thousands of beautiful beaches ("Tourism | Malaysia | Tourism Malaysia | Tourism in Malaysia,").

Multiculturalism has not just made Malaysia a gastronomical heaven, it has additionally made Malaysia home to many beautiful celebrations. It's no big surprise that we cherish celebrating and mingling. As a people, Malaysians are very laid back, warm and friendly (Malaysia, 2003). Geologically, Malaysia is as differing as its way of life. One of Malaysia's key attractions is its extreme contrasts. For the perfect holiday full of surprises, eclectic cultures and natural wonders, the time is now, the place is Malaysia (Malaysia, 2003). Figure 1.1 and Figure 1.2 show the overview of the tourism in the Malaysia has been increase in the end of year 2017.

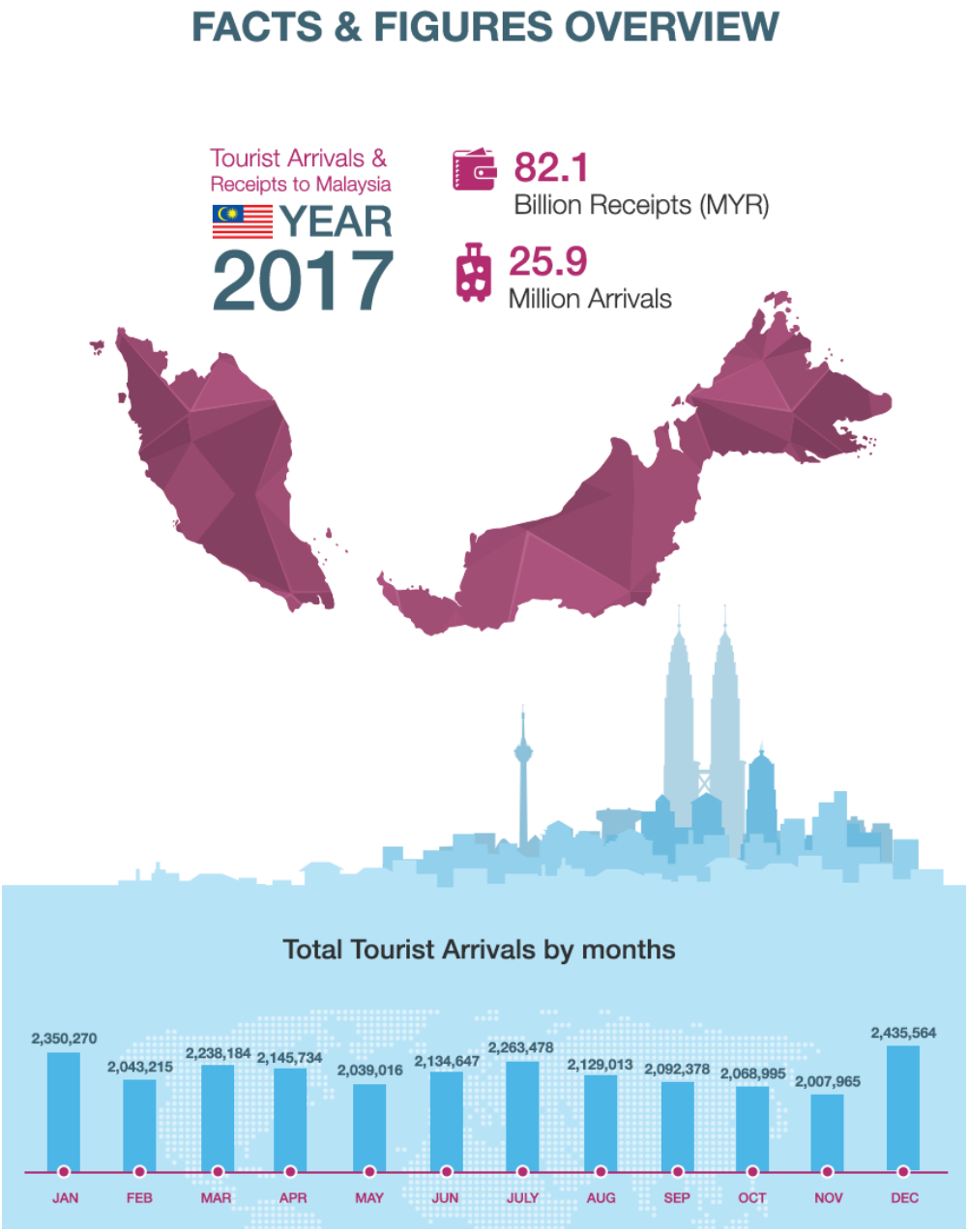

Figure 1.1 Total Tourist Arrivals by months 2017 ("Tourism Malaysia,")

Figure 1.2 Tourist Arrivals and Receipts to Malaysia by Year from 2007 – 2017 ("Tourism Malaysia,")

"Mobile tourism" represents a relatively new trend in the field of tourism and involves the use of mobile devices as electronic tourist guides (Kenteris, Gavalas, & Economou, 2009). While a great part of the fundamental innovation is as of now accessible, there are yet open the opportunity into usability, functionality, portability, implementation and design aspects. Most existing "mobile tourism" solutions either represent of-the-shelf applications with rigidly defined content or involve portable devices with networking capabilities that access tourist content with the requirement of constant airtime, for example, continuous wireless network coverage (Kenteris, Gavalas, & Economou, 2009). This project presents the design and implementation of a "mobile tourism" (Kenteris, Gavalas, & Economou, 2009).

Hence, this project has been proposal from client to develop Trouvaille Information Application. The Trouvaille can be define as a something lovely discovered by chance, a lucky find or valuable discovery. In this application, it be able to share

information about places in Kuala Lumpur by using mobile device as electronic tourist guide. Moreover, this application is able to improve mobile tourist in the future.

1.2 PROBLEM STATEMENT

Based on discussion with the client, their a few problem statements have been given. The problems starter when the tourist wants to tourism other place that are still using the manual process such as the using map and ask people around about new place.

Other than that, users are difficult to planning tourism based on budget have been prepared. This is because not all Tourist Application provide an information about fare for visit the museum or another place that need to pay for visit that place. This issue makes the user lost interest to go for a tour.

Moreover, the growth of information give effect to tourist to buy the tourism information. For instances, the tourist would have problem to locate the location about the bookstore that sell about tourist information manual and, also will lead them to buy the tourist information far from their original place. This effect will cost the tourist more than them planning to tourism that place.

1.3 OBJECTIVES

The project conducts to achieve the following objectives:

i. To identify the requirement for Trouvaille Information Application.
ii. To develop Trouvaille Information Application.
iii. To evaluate the functionality of the proposed application.

1.4 PROJECT SIGNIFICANCE

The project consists of following significances:

i. The application will display the place information to the user based on their location and searching.
ii. Provide the suggestion as planning tourism to user.
iii. The application will display another user location.

1.5 SCOPE

The scope of this project is to build and develop a mobile application that related to Trouvaille Information Application. It can be describes as following:

i. The application will be developed for client. The purpose is to provide an application that can help the tourist to tour the new place.
ii. The owner of this application is the client and the target user are the local and international tourist who going to travel in Kuala Lumpur.
iii. The environments of this system based on mobile-based application focus on android user.
iv. The tourist needs to register before using the system.

1.6 REPORT ORGANIZATION

This report organization consists of five chapters. In chapter one that should discuss briefly the introduction of this project, problem statements, objectives and the scope of the project. For chapter two is literature review that should discuss the existing technology, existing applications, making comparisons and identify the limitation to be overcome. Chapter three is for methodology that should discuss the overall approach and framework of the project-based. Next, chapter four is implementation to collect and record the data and results of the project together with the discussion. Lastly, chapter five conclusion which is should be conclude and summarize the results and research on this project-based.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter explain in detail about existing hardware, technology or tools that related to Trouvaille Information Application, which are suitable to be adapted in related development. The purpose of this chapter is to identify and analyse the feature and concept of the existing system before it will be applied on the application that will be develop.

In recent years, tourism information for each place is important part to tourist travel other place to another place. The are many book stores that sell manual guideline or map about that place for tourist to understand and learn the location that the tourist be travel. Hence, a few applications already be implemented as guideline for tourist. However, the applications have disadvantages for the tourist. Since that, there are technology that can be combine and implement together in Trouvaille Information Application to make it more reliable.

2.2 EXISTING TECHNOLOGY

In this subchapter, it briefly discussed about the existing technology that had been use in recent years.

2.2.1 Android Studio

Android Studio is one of the developing tools for mobile application as shown in Figure 2.1 and Figure 2.2. Based on IntelliJ IDEA, the official Integrated Development Environment (IDE) for developing Android application is Android Studio. Android Studio offers even more features that can improve your productivity when building

Android apps. For some features, android studio can to develop for all android devices based on the type of android version, can connect direct to Google Cloud Platform such as Firebase and Google Map Console. Furthermore, it can instant run to push changes to your running app without building a new APK, code templates and GitHub integration to help you build common app features and import sample code. The programming language that can be apply in Android Studio are Java, Kotlin, C++ and XML.

Figure 2.1 Android Studio Logo

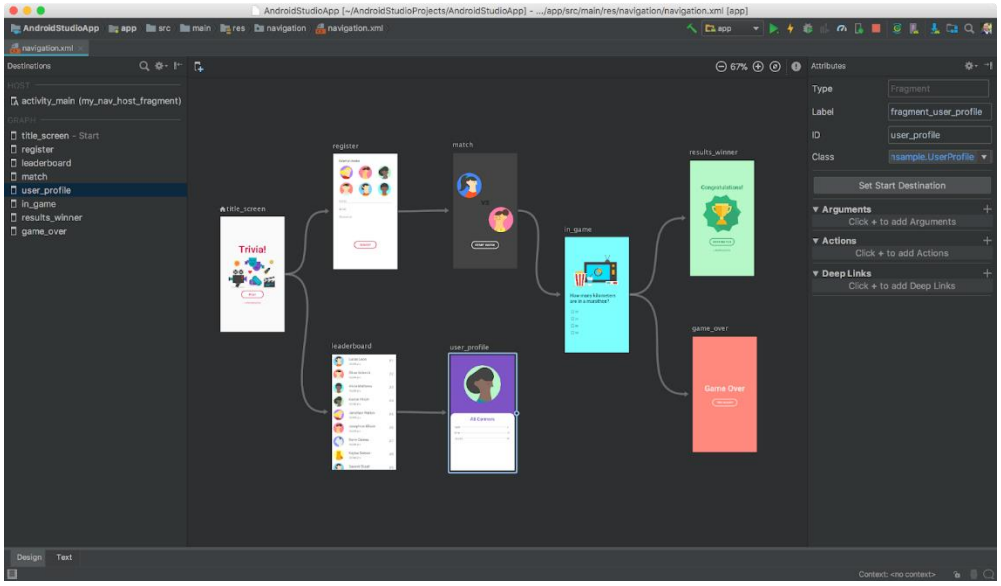

Figure 2.2 Android Studio Platform

2.2.2 Xamarin

Besides than other tools, Xamarin also one of tool for develop mobile application as shown in Figure 2.3 and Figure 2.4. Xamarin can be describe as unique in this space

by offering a single language such as C#, class library, and runtime that works across all three mobile platforms of Windows Phone, Android, and iOS. Hence, for each of these platforms has a different feature set and each varies in its ability to write native applications that is, applications that compile down to native code and that interop fluently with the underlying Java subsystem. Some platforms only allow apps to be built in HTML and JavaScript, whereas some are very low-level and only allow C or C++ code is one of example of it. Some platforms don't even utilize the native control toolkit ("Microsoft Docs,"). The advantages for developer to using Xamarin tool is that in a single test it can validate the code in the platform, also as that it tends a result fewer bug.

Figure 2.3 Xamarin Logo

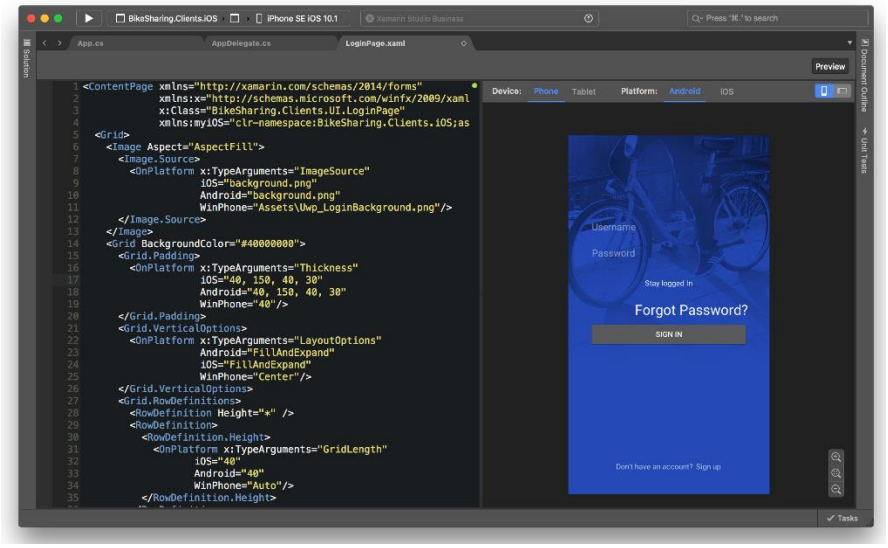

Figure 2.4 Xamarin Platform

2.2.3 Ionic Framework

Ionic Framework can be described as the open source SDK that developers can build performant, high-quality mobile apps using familiar web technologies such as JavaScript, HTML and CSS as shown in Figure 2.5. Moreover, Ionic also focused mainly on the look and feel, and UI interaction of developer application. That means developer aren't a replacement for PhoneGap or favourite JavaScript framework. Instead, Ionic simply fits in well with these projects in order to simplify one big part of your application in the front end. Ionic is completely free and open source, released under the permissive Massachusetts Institute of Technology (MIT) license, which means you can use Ionic in personal or commercial projects for free. For example, MIT is the same license used by such popular projects as jQuery and Ruby on Rails ("Ionic Framework,"). However, some package in ionic need to pay for the developer used.

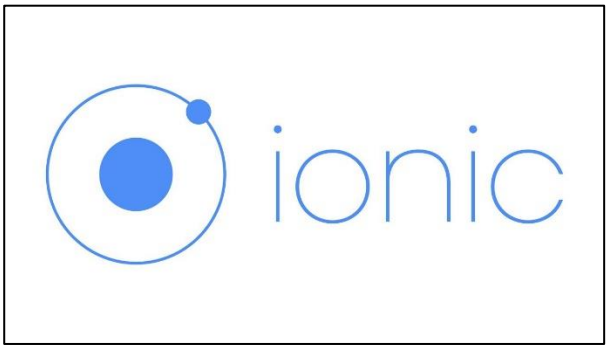

Figure 2.5 Ionic Framework Logo

2.3 EXISTING APPLICATIONS

In this part, it briefly discussed about the existing application that had been develop by other software programmer and researcher are based on different approach. Therefore, the purpose of comparing the existing application are to analyse the functions and technology that was applied. Therefore, three exiting application that related to the tourist information application have been choosing to enhance the proposed application to make it more effective and organize.

2.3.1 Kuala Lumpur Guide by Triposo

The Kuala Lumpur Guide application is a up to date and complete city manage. It is able to works in disconnected or offline, that the user doesn't need bother for an internet connection. Bookmark interesting places in the sightseeing section with all the monuments. The user also be able to pick the ideal restaurant in the eating out section containing the best restaurants. Use the detailed offline map of Kuala Lumpur to simply find out where the user is and see what's around. The complete background information can be an interesting read on the road to your next adventure or at home. It is useful to user when the application have variety of functionality such as phrasebook for Malay, currency converter, directions on how to get to a place by public transport, weather forecast be updated when online, book hotels and tours in Kuala Lumpur directly from the application is connect with internet ("Google,").

Figure 2.6 and Figure 2.7 shows the interface of Kuala Lumpur Guide by Triposo.

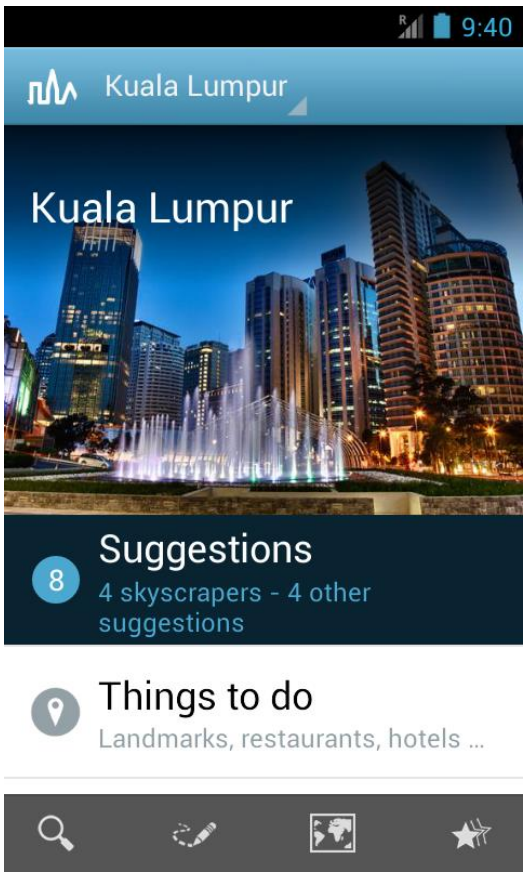

Figure 2.6 Interface Kuala Lumpur Guide by Triposo

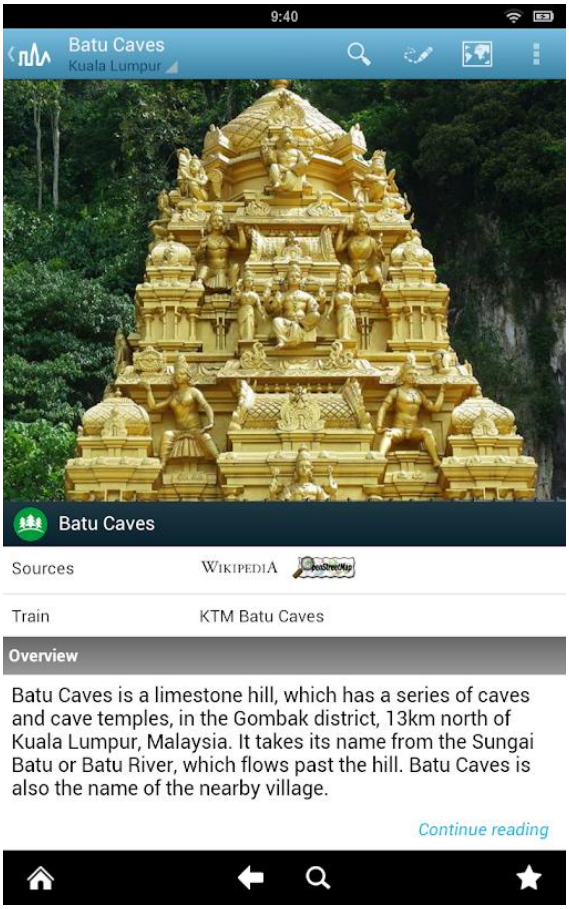

Figure 2.7 Interface Kuala Lumpur Guide by Triposo part description

Strength for Kuala Lumpur Guide by Triposo can be description such as:

i. The Kuala Lumpur Guide application allow the user to using as map offline.
ii. The Kuala Lumpur Guide application allow user to search attractive place.

Weakness for Kuala Lumpur Guide by Triposo can be description such as:

i. The Kuala Lumpur Guide application do not allow the user to share the experience to social media.
ii. The Kuala Lumpur Guide application do not allow user to add new attractive place.

2.3.2 Kuala Lumpur by PocketGuide

PocketGuide is one of the world's leading audio city guide application, it gives the tour by using voice, tell the interesting stories about visited place, able to communicate and show the top of interesting places among 100 major cities and most visited place among tourist. This app will help you from touching your smartphone and read from the screen by determines your location and one of the recording of your personal tour guide will describes where you are and give you the choice of nearby interesting places. And it will give the best nearby cafes and restaurant if the tourist tired. The recording has been made from local experts who well known their place very well. PocketGuide can record your trip by click the record button where you can create the 3D video of your travels. The voice tour can be enable by enable the GPS and it free to use it as long there has internet connection. This application can be use in offline by pay for the services and it cost just a little amount of money. Along with that, it will give free use of the 3D tour ("Google,").

Figure 2.8 Interface Kuala Lumpur by PocketGuide part list of places

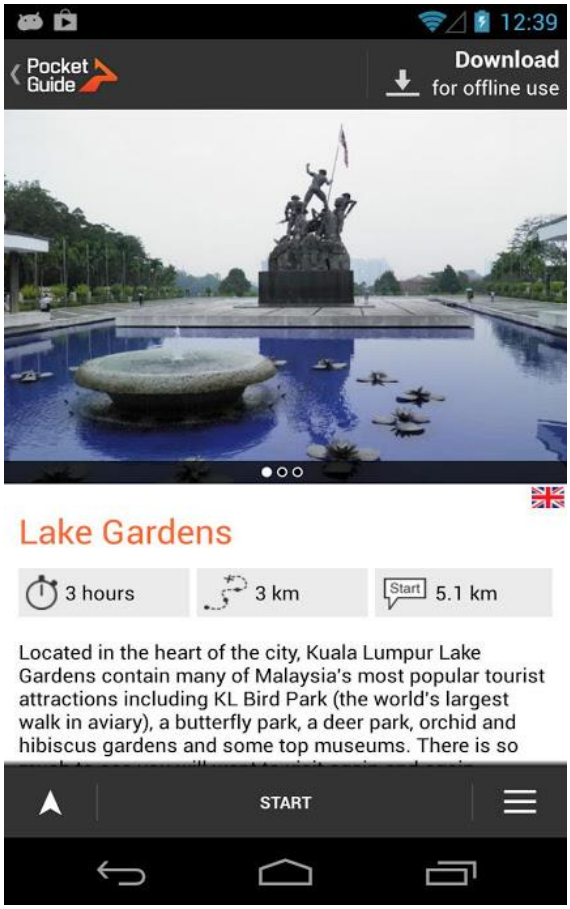

Figure 2.9 Interface Kuala Lumpur by PocketGuide part description

Strength for Kuala Lumpur by PocketGuide can be description such as:

i. The Kuala Lumpur by PocketGuide application tour the tourist by voice.
ii. The Kuala Lumpur by PocketGuide application allow user to search attractive place.

Weakness for Kuala Lumpur by PocketGuide can be description such as:

i. The Kuala Lumpur by PocketGuide application request the user to pay for offline map function.
ii. The Kuala Lumpur by PocketGuide application do not allow user to add new attractive place.

2.3.3 Trip Planner Application

Next is Trip Planner application that allows users to plan their own trips by business or personal. A one-stop shop for trip planning activities. Users is allowing to share their trip summary data be sharing apps, via email or by upload it on Google Drive. This app already covered all the aspect of all trip. Other function that has provided in this application are for trip list include Current, Old and Achieved Trips listing. The detail about the trip such as to-do, stay, mate, trip mode, trivia, expense, odometer, destination route and summary where user can define or view trip details after tapping listed trip. Set application configuration as per requirement. And lastly which is help function that available for every function of this app. Click '?' to view relevant help screen ("Google,").

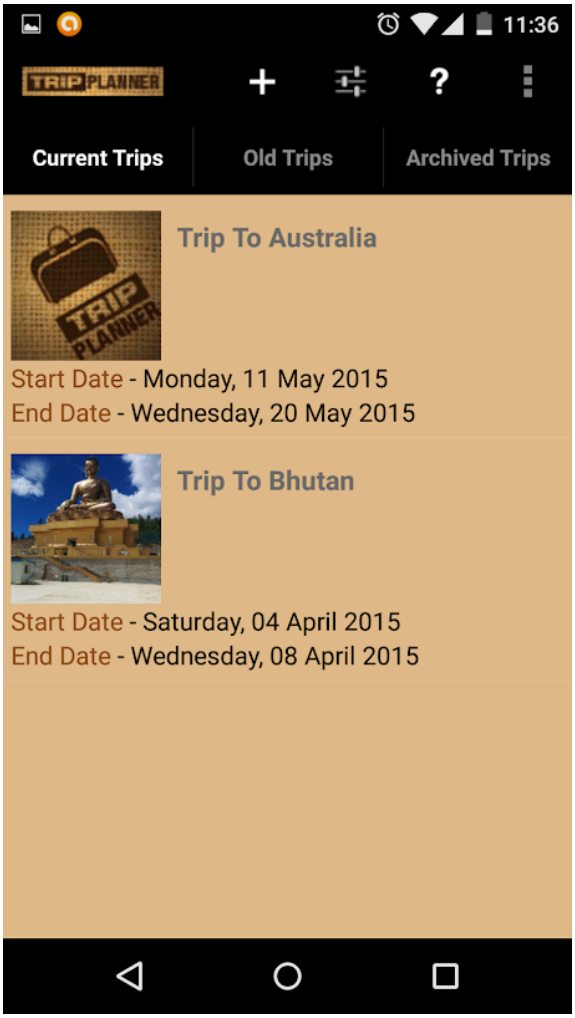

Figure 2.10 Interface Trip Planner Application part planning the trip

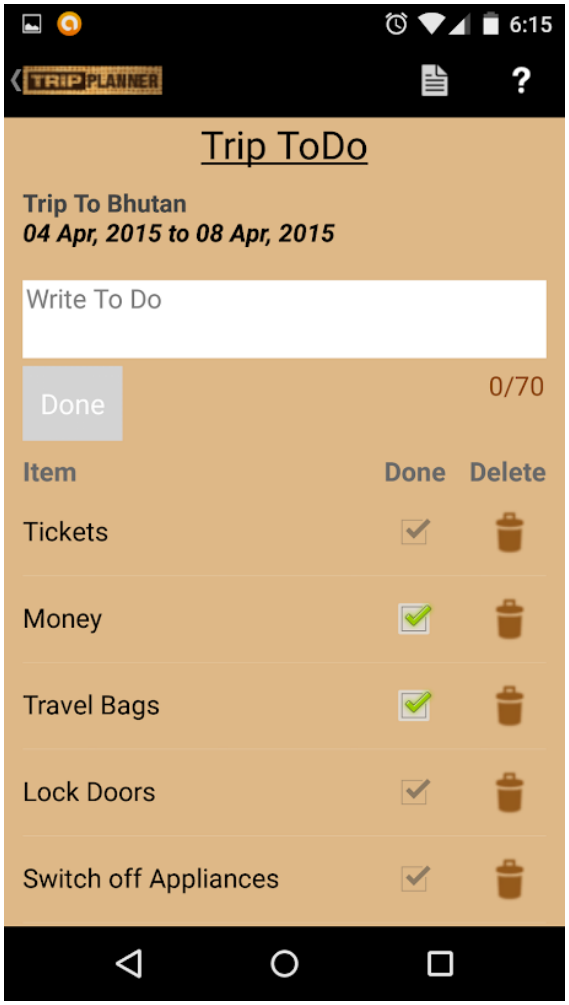

Figure 2.11 Interface Trip Planner Application in part Trip ToDo

Strength for Trip Planner can be description such as:

i. The Trip Planner application allow the user to plan their own trip.
ii. The Trip Planner application allow user to manage the reminder their own trip.

Weakness for Trip Planner can be description such as:

i. The Trip Planner application do not allow the user to review information of the place.
ii. The Trip Planner application is not including the map of place.

2.4 COMPARISON BETWEEN EXISTING APPLICATIONS

This section will compare about the three existing applications that have been studied based on technology used and available features provided in the applications as shown an Table 2.1.

Table 2.1 Features and Technology Used

Features / Technology	**Kuala Lumpur Guide by Triposo**	**Kuala Lumpur by PocketGuide**	**Trip Planner**	**Trouvaille Information Application**
Platform	Mobile-based Application	Mobile-based Application	Mobile-based Application	Mobile-based Application
Google Maps	Yes	No	No	Yes
Information of Place	Yes	Yes	No	Yes
Travel Planning	No	No	Yes	Yes
Search Travel Place	Yes	Yes	No	Yes
Travel Checklist	No	No	Yes	Yes

2.5 DISCUSSION ON EXISTING APPLICATION

Based on review the existing applications that have been compared, the idea to develop the mobile applications can be gather together in order to fulfil the application requirements. In previous application, all the method that have been use are same. That is system will load the login page. Different with Trouvaille application, the first load page is the splash logo of application then continues to login page. After user success login their username and password, it will appear the main page of the application.

For features, in google maps features. From previous existing system that have been choose, it is not provides the mapping function for users to review distance between the current of user and selection place. Furthermore, for planning features which only Trip Planner application is provided travel plan for users that make a planning for their travel that will be apply to Trouvaille application that different than other tourism information application.

With all this previous application, most common feedback from their user that the information may not be review correctly, the interface can be crack sometime and the limitation of information. With all problems that occur, Trouvaille will use their problem as a functionality of the application as improvement in tourist information application.

2.6 CONCLUSION

Based on reviewed on the existing application above it could be seen that each existing application has its own functionality that some of them are different with the others. From the analysis this existing technology of that have been state above such as Android Studio, Xamarin and Ionic Framework are having their different type of build that developer can use to do the project. Besides that, by using this tool, which already have the template and guideline to build in smartphones, would be a great solution for the developer that has lack knowledge for developing mobile application.

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CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

This chapter will explain the detail about selected methodology used in developing Trouvaille Information Application. The purpose of this chapter is to explain in detailed the process involve in Trouvaille Information Application use case and interfaces.

As year passing, using a standard step of methodology are become beneficial in an organization. Furthermore, process in developing an application used methodology framework which is structure, plan and control. Rapid Application Development (RAD) methodology is methodology that will be used for development Trouvaille Information Application.

3.2 METHODOLOGY

The chosen methodology in developing this application is Rapid Application Development (RAD).

3.2.1 Rapid Application Development (RAD)

RAD methodology is a type of incremental model. Based on the iterative development with no specific planning involved is the meaning of Rapid Application Development (RAD) model. Through iterative development, integration from the beginning solves some of other integration issues, and of course saves more time for development process (Beynon-Davies, Carne, Mackay, & Tudhope, 1999).

The reason RAD model is chosen as suitable methodology for this project are because RAD model can help the developer to develop project faster. The developer can

re-implement one step back before analysis phase if one of the methods implement the project does not meet user requirement. Moreover, the objective of choosing RAD methodology is for rapid delivery to the user as well as for the customer and their involvement during development cycle.

i. Requirements Planning: Figure out the requirements
ii. User Design System: Build prototype
iii. Construction: Get user feedback
iv. Cutover: Test the application

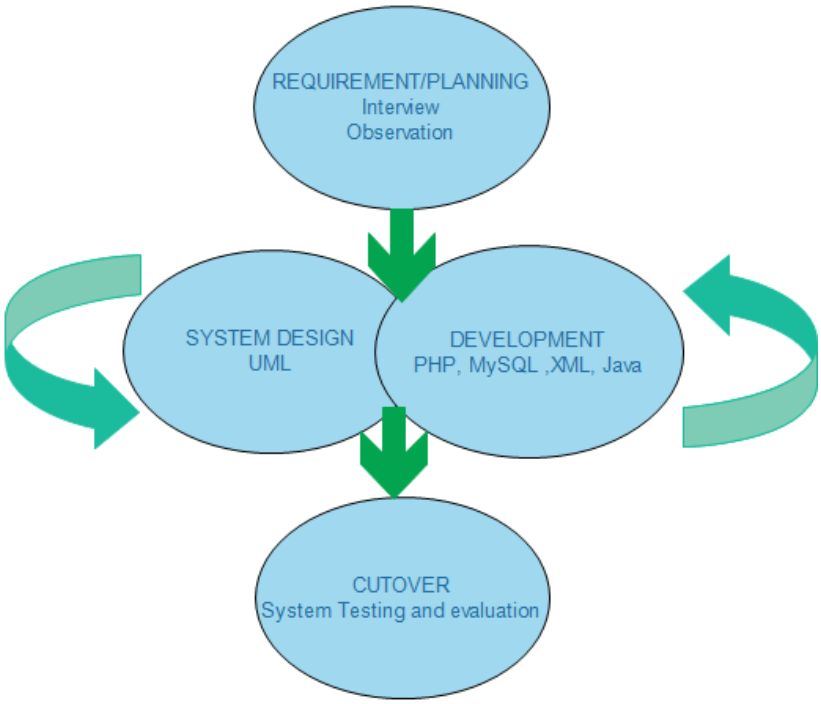


Figure 3.1 The Rapid Application Development (RAD)

3.2.1.1 Requirement Planning: Planning and Analysis

In this phase, the user, developer and designer need to discuss clearly the problem, scope, constraints, objective and system requirement (Shelly & Rosenblatt, 2010). During this phase, all arrangement is needs to plan carefully. All the necessity requirement has been discussed and finalize before the project start. During this phase also, the problem, scope, and objective are been identified. Next, the requirement has been identifying by having discussion with the client. Then, create a Gantt chart to estimate the project timeline is on track. During this phase, the research about the application such as the

existing technology and existing applications will be used were done. All the data then is documented.

3.2.1.2 User Design: Prototype

During this phase, when the requirement and deadline are been figured out, the prototypes are will be making and creating. Hence, will be improve until the finished model product is prepared. Clients will give collaboration during this phase to make the prototype, changes and modify when the requirement are not accomplished. The Software Requirement Specification (SRS) and Software Design Development (SDD) also are documented during this phase.

3.2.1.3 Construction: User Feedback

In this RAD methodology, user need to be comfortable and familiar with large portion of the finished product before the project complete. This stage also needs to include the coding using the programming language that been selected to develop this project. After the application and documentation are complete, the feedback from user about interface to the functionality are collected. If the feedback is not satisfied, will be repeated until the requirements are satisfied in step User Design: prototype. The prototype will then be modified until the user is satisfied with all the requirement.

3.2.1.4 Cutover: Testing the system

The cutover phase is include the data conversion, testing, change over to the new application, and user training (Shelly & Rosenblatt, 2010). Before publishing the application, this is the last phase in RAD to apply it. Clients or end user will test the application to make sure all the requirements are meet. The test is documented in User Acceptance Testing (UAT) documentation. The application will be going test by developer, end user, and clients repeatedly before publishing this application.

3.2.2 Context Diagram

Context diagram is an outline that characterizes that limit between the condition and a part of a framework that shows the interaction of the entities. Figure 3.2 shows the interaction between user and the application.

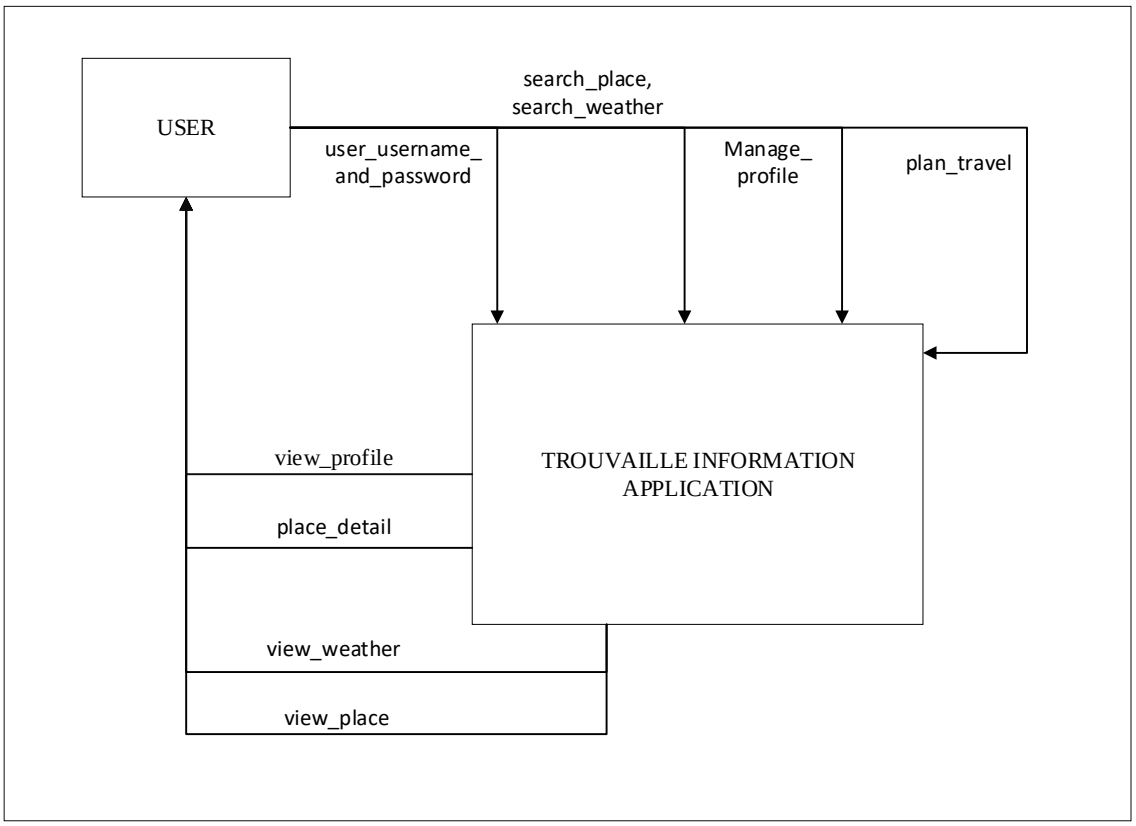


Figure 3.2 Context Diagram for Trouvaille Information Application

3.2.3 Use Case Diagram

Use case diagram are normally specify as behaviour diagrams to define the actions that the application should perform. It gives the general explanation of interaction between entity involves in Trouvaille Information Application as shown in Figure 3.3.

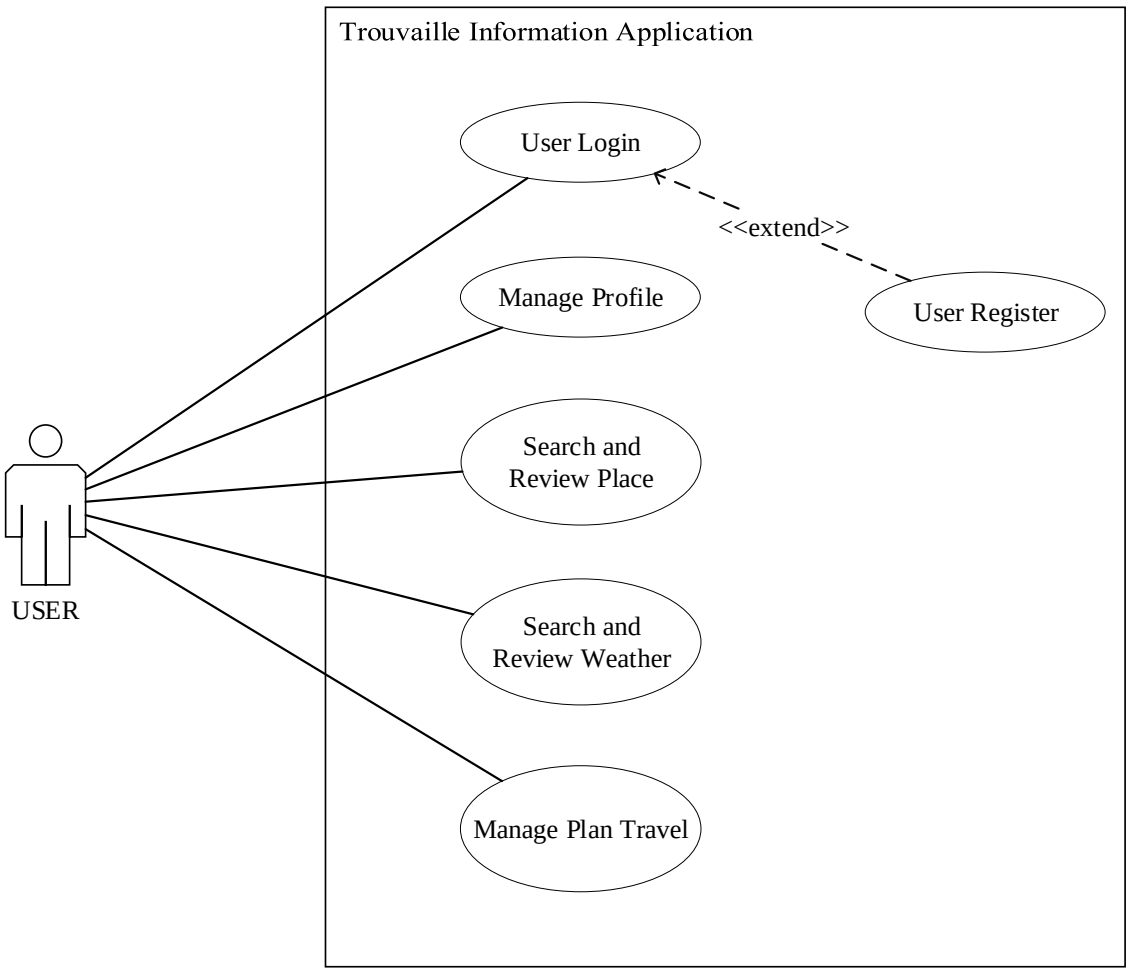
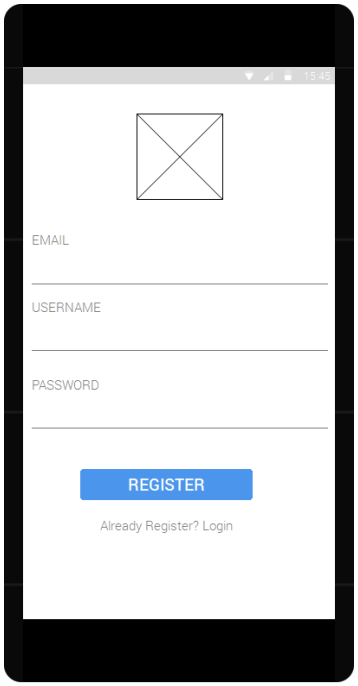
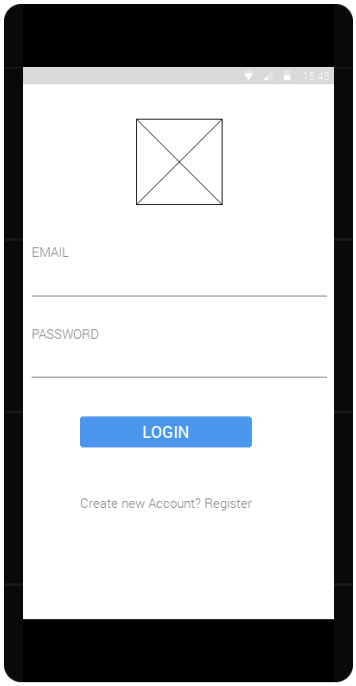


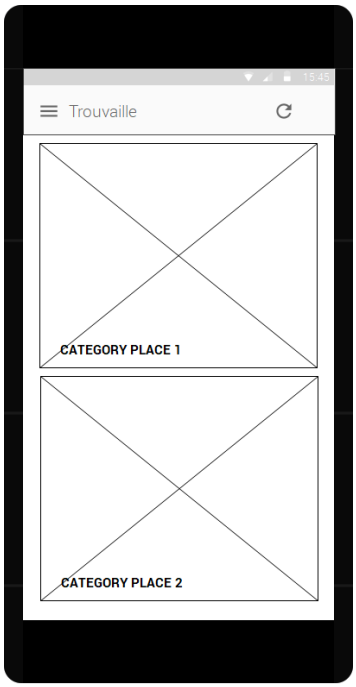
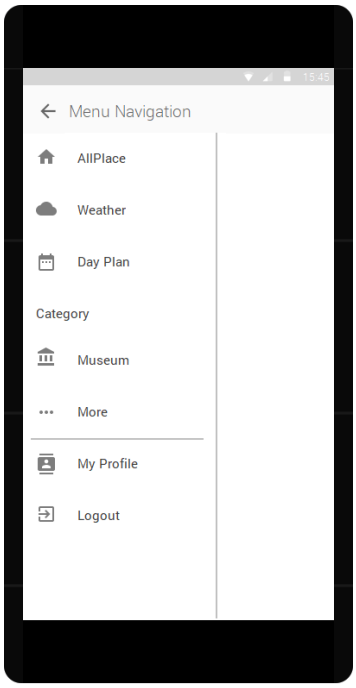
Figure 3.3 Use Case Diagram for Trouvaille Information Application

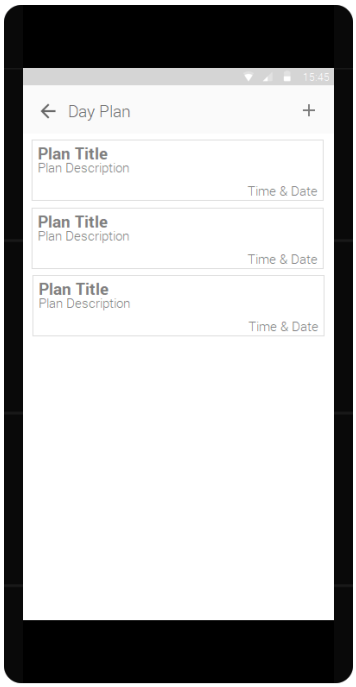
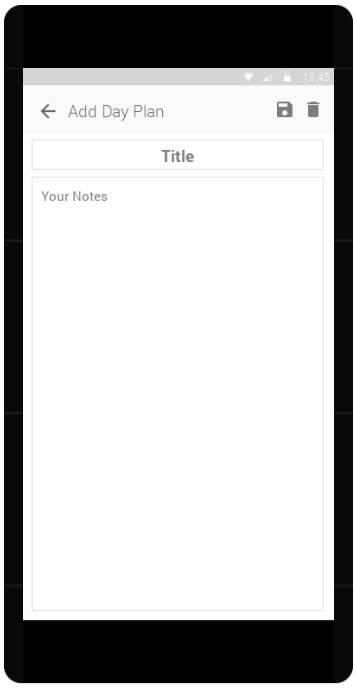
3.2.4 User Interfaces

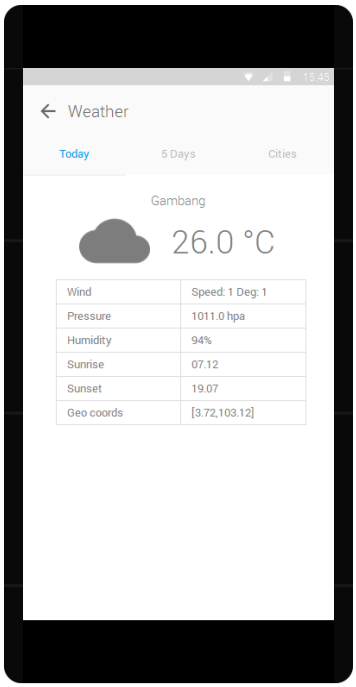
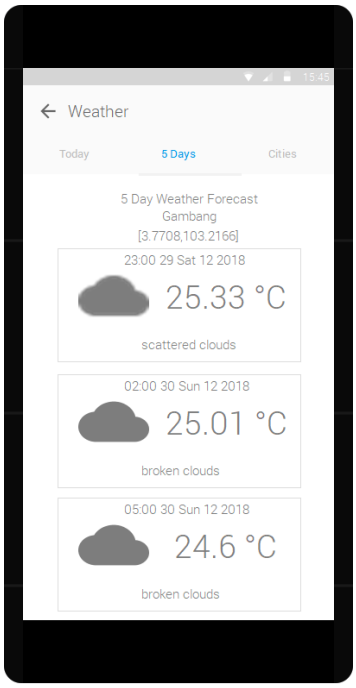
Table 3.1 show user interfaces for Trouvaille Information Application.

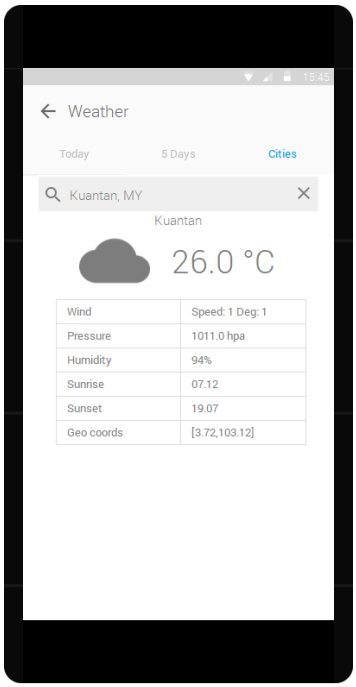
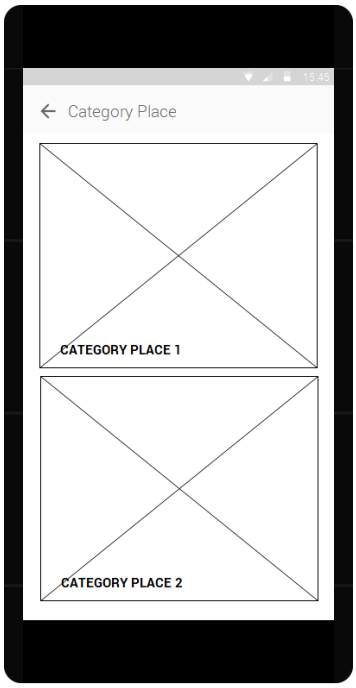
Table 3.1 User Interfaces for Trouvaille Information Application

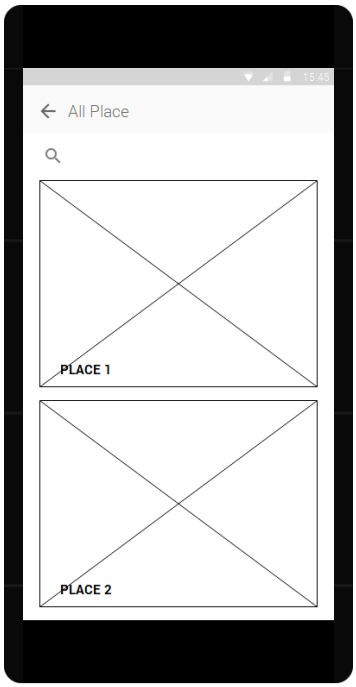
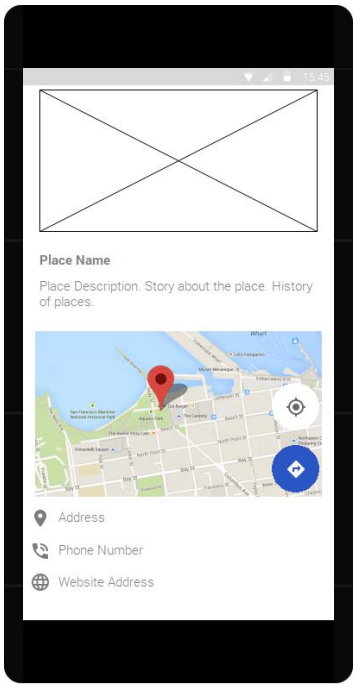
Interfaces Name	User Interfaces	Description
Sign Up		User register email and password to access the application.
Login		User shall key-in their email and password in review current location another user.

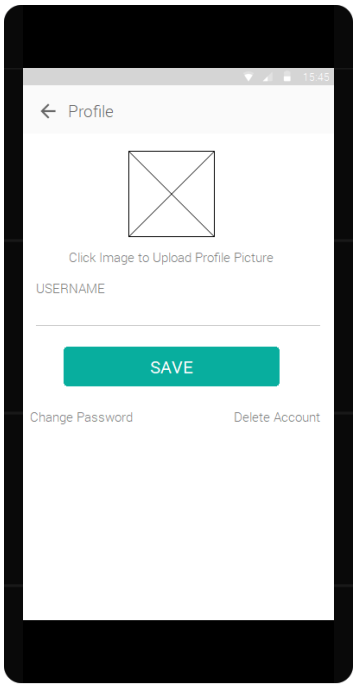
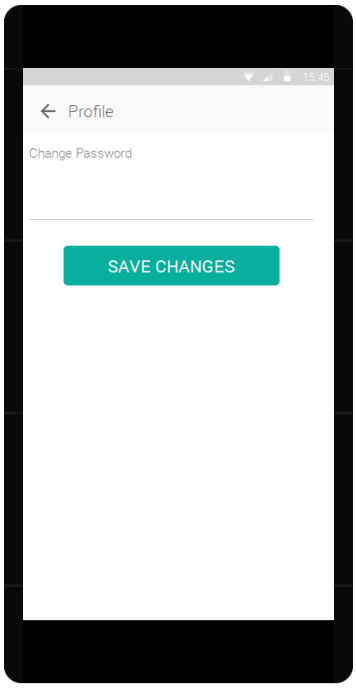
Home		User can view place based on category.
Home: Menu Slide		User be able to find other function based on menu slide.

Day Plan List		User be able view list their plan.
Add Day Plan		User be able to add plan for their travel.

Weather: Today		User be able view weather in current place.
Weather: 5 Days		User be able view weather in current place for future days.

Weather: Cities		User be able view weather in search city that their select.
Category List		User be able view category list of places.

All Place List		User be able to view all place and search place in Kuala Lumpur.
Place Detail		User be able to view detail each place in their selection

Profile: Upload & Username		User be able to upload and change username.
Profile: Change Password		User be able to change password.

3.2.5 General Architecture

Figure 3.4 show the general architecture of Trouvaille Information Application.

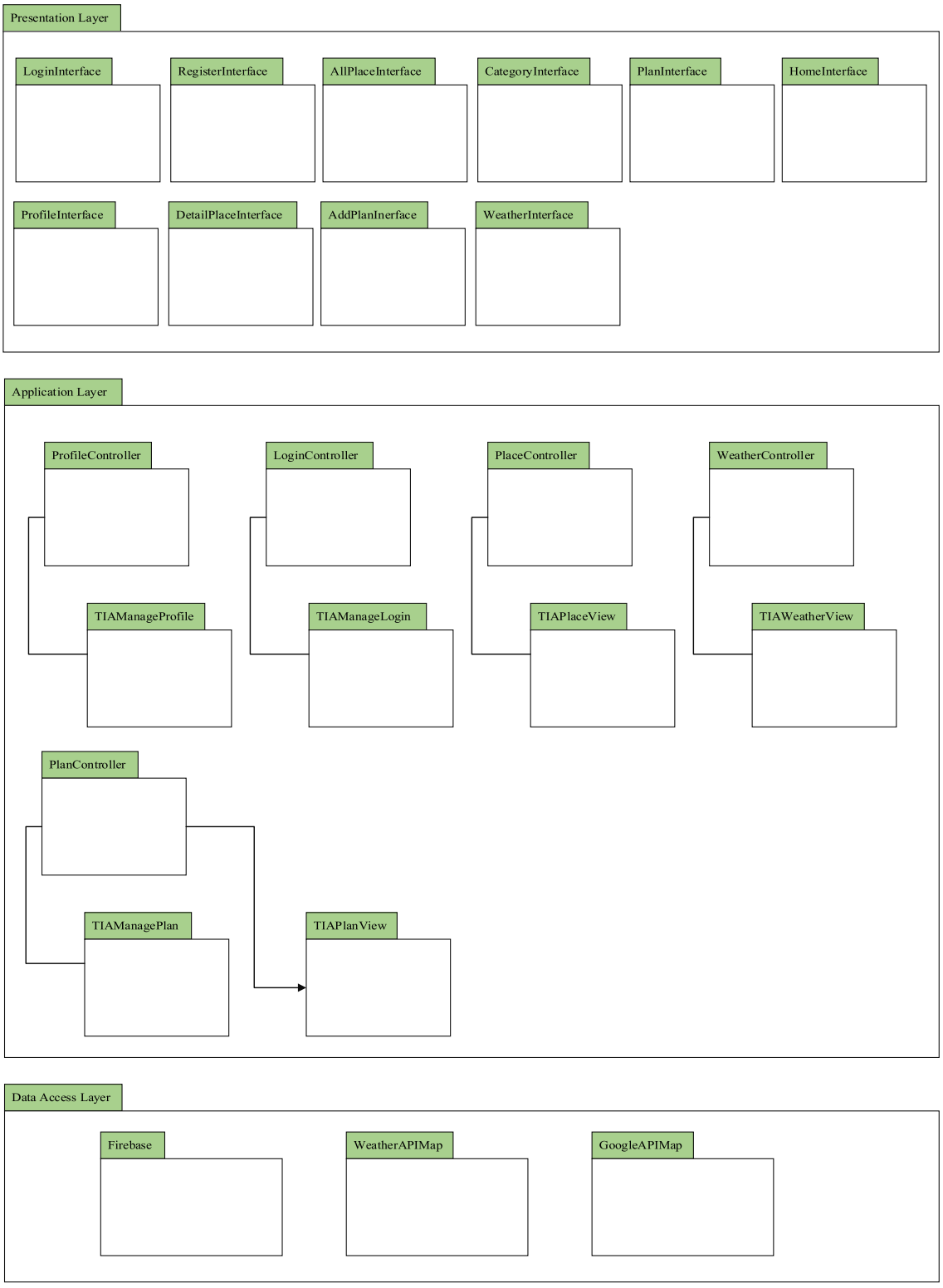


Figure 3.4 General Architecture of Trouvaille Information Application

3.2.6 Package Module

Figure 3.5 show the package module of Trouvaille Information Application.

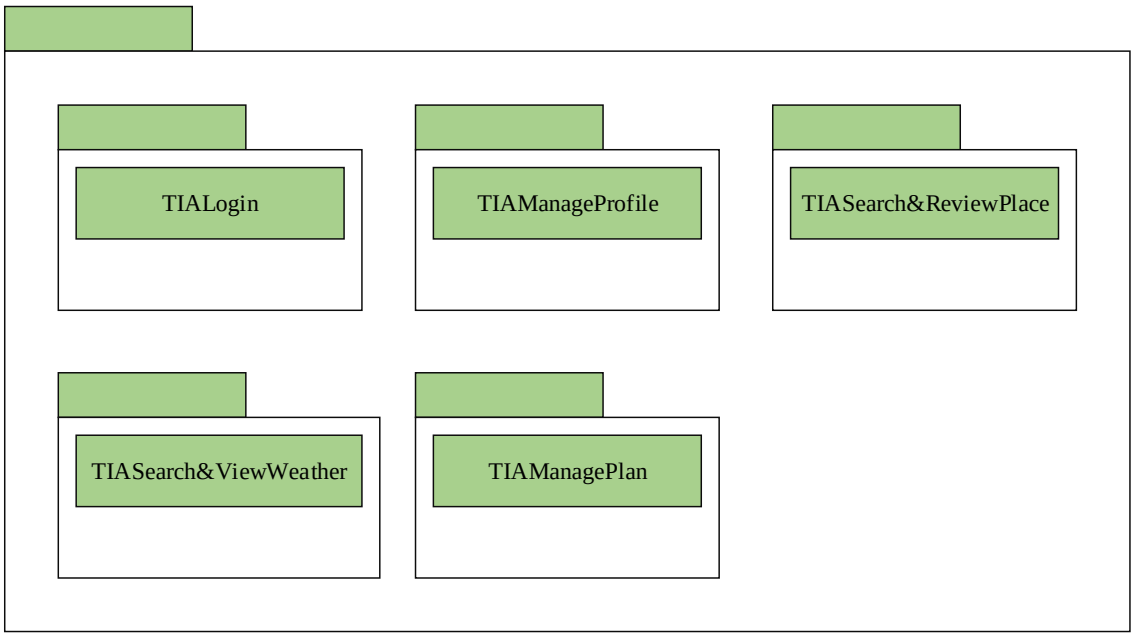


Figure 3.5 Package Module of Trouvaille Information Application

3.2.6.1 TIALogin

This TIA is responsible to differentiate each user.

3.2.6.2 TIAProfile

This TIA is responsible to information each user.

3.2.6.3 TIAManagePlan

This TIA is managing the plan that be apply by each user.

3.2.6.4 TIASearch&ViewWeather

This TIA will display weather information based on user current information and searching location.

3.2.6.5 TIASearch&ReviewPlace

This TIA will display all place information in Kuala Lumpur.

3.2.6.6 TIA Checkout

This package to inform all the users' checkout from the system.

3.2.7 Software Requirement Specification (SRS)

Software Requirement Specification (SRS) can be describe as documentation about the requirement of Trouvaille Information Application and ensure that each requirement is completely satisfied. The detail will be on SRS document. The SRS document can be refer in Appendix A.

3.2.8 Software Design Document (SDD)

Software Design Document (SDD) description is the design aspect that will be develop in Trouvaille Information Application. The detail will be on SDD documentation. The SDD document can be refer in Appendix B.

3.3 SOFTWARE AND HARDWARE REQUIREMENT

This part clarifies the software and hardware that are being used throughout in this project-based. The software and hardware tools used should be suitable and compatible with this project-based.

3.3.1 Software Development

Software is the tools in inside hardware that being used to develop this project-based and also to perform the documentation for this project. For example, using Microsoft Word, My EndNote, Edraw Max or Microsoft Visio, Microsoft Project, Excel, Window 10 and etc as shown Table 3.2.

Table 3.2 Software Development

Microsoft Word 2016	The point this software is to save and write all the documentation about these researches.
EndNote	Automatically insert or input the citation of all research has been referred into the Microsoft Word 2016 by using EndNote.
Edraw Max or Microsoft Visio 2016	To create the flow chart of the research and algorithm based on the all the data information.
Microsoft Project 2016	This software capable to make a good Gantt chart and based on the baseline.
Window 10	Platform of operating system.
Google scholar	To search the related research or suitable research for these researches.
Google image	To search any image that suitable with research or related to these researches.
Google chrome	To search any extra information about these researches on the website page.
Android Studio	To develop the application.
Firebase	Database for application.
Google API Map	To get API Map.
Weather API Map	To get weather API Map.
JustInMind	To design storyboard for Trouvaille Information Application.

3.3.2 Hardware Development

Hardware is the tools, physical components or peripheral devices that will be used to develop this project and, be able to help to manage all the information and data in hardware such as computer, printer, hard disk and pen drive as shown Table 3.3.

Table 3.3 Hardware Development

Computer / Laptop	Using a computer to do and write the general idea or discussion about CBSD. In addition, it for search all the information about the research-based using a computer.
Hard disk / Pen drive	Collect the data or information that being collect in others laptop or computer.
Printer	To print out the documentation that being done in your computer or laptop by using printer.
Smartphone	To connect the application have been develop to android smartphone.

3.4 GANTT CHART

Refer to Appendix C.

3.5 TESTING PLAN

In testing plan, development Trouvaille Information Application will be tested and reviewed according to the requirement. User acceptance test will be conduct base d on the requirement traceability. This requirement traceability is constructed based on the application requirement on functional requirement and non-functional requirement.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 INTRODUCTION

Chapter 4 will discuss about the implementation and the result of Trouvaille Information Application. In addition, this chapter show how each function of the application be works during development process.

The application use the Google Map technology as locate each use when their travel in Kuala Lumpur. The user be able to find the attractive place went their tourism. This application is implemented by using Android Studio 3.0.1 and database is stored in Firebase.

Trouvaille Information Application use Android Studio in Java as the language to build the application. The interface of the application will be explained clearly in this chapter.

4.2 DEVELOPMENT OF APPLICATION

Trouvaille Information Application is developed by using Android Studio in java language that is connected to Firebase database.

4.2.1 Implementation Process

For this application, two main things that must be considered are hardware and software installation. There are more than two components that must be installed correctly so that the process of the implementation can be run smoothly.

4.2.2 Hardware Functionality

The hardware that are used in this application are smartphone that operating system as Android for the output of application. This mobile application can be developed and implement by using laptop or PC.

4.2.3 System Functionality

The next stage, software implementation that using hardware to run the application. The application is as mobile application that named as “Trouvaille”. The overall application is be develop by using Android Studio.

4.2.3.1 Splash

Figure 4.1 shows the splash for Trouvaille. Splash as the main page for loading the Trouvaille Application.

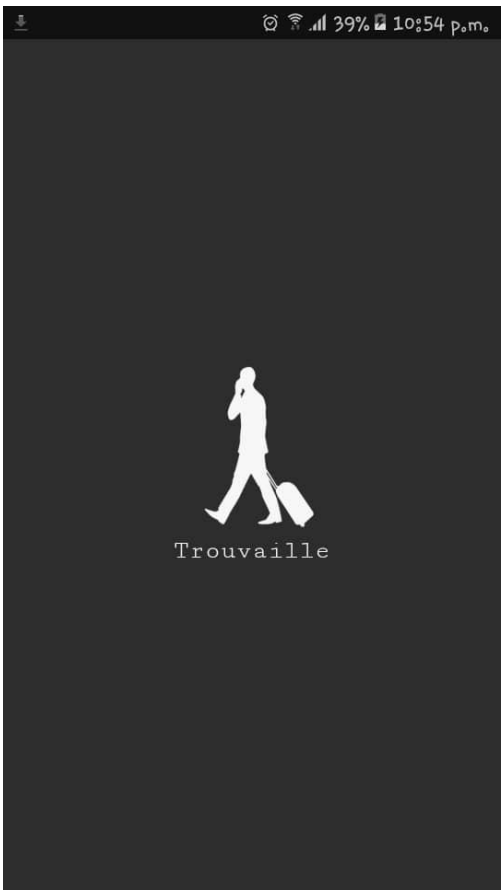


Figure 4.1 Splash Interface

4.2.3.2 Login and Register

Figure 4.2 shows the login interface for user. User need to register email, username and password before login if user don't have account yet as shown in Figure 4.3. if the entered input is wrong or empty, there will alert message to show that email and password is wrong or empty.

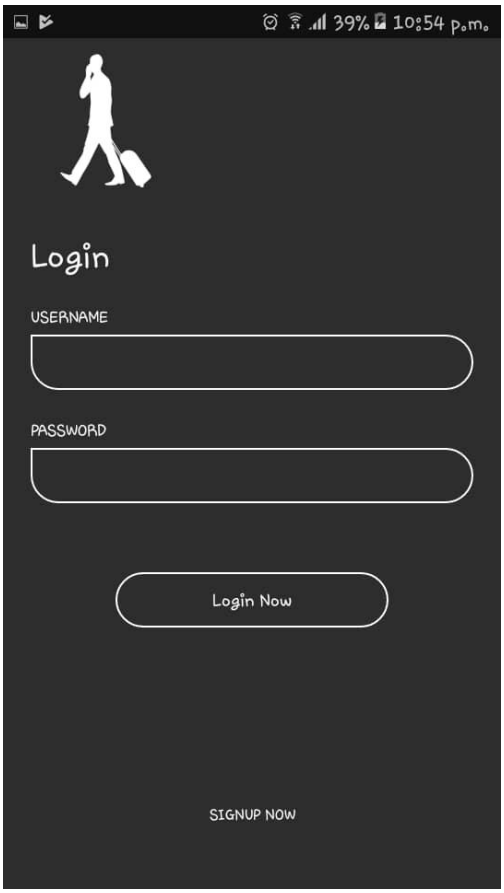


Figure 4.2 Login Interface

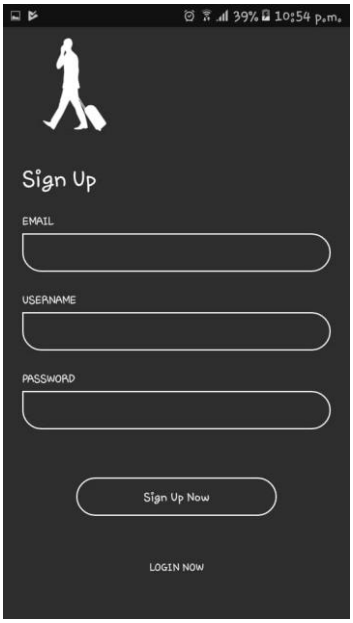


Figure 4.3 Register Interface

4.2.3.3 Home Interface

Figure 4.4 and Figure 4.5 shows the Home for user. In this home of side menu as guideline to user to find the place, category place and profile manage.

Figure 4.4 Home Interface

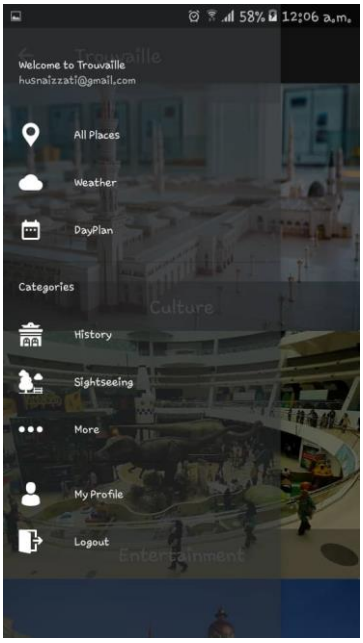


Figure 4.5 Side Menu Interface

4.2.3.4 All Place Interface

Figure 4.6 shown that user be able to view all place and search place in Kuala Lumpur.

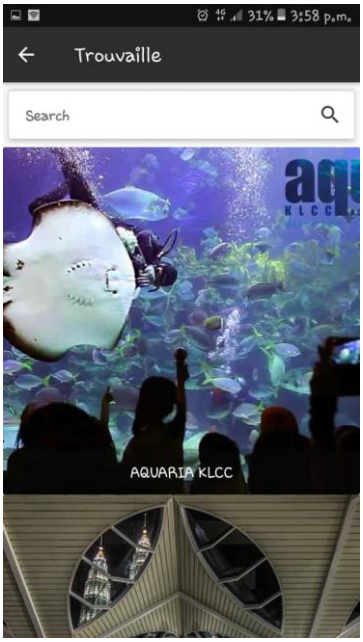


Figure 4.6 All Place Interface

4.2.3.5 Weather Interface

Figure 4.7 show that user be able view weather in current place and Figure 4.8 show that user also be able view weather in current place for future weather for 5 days. Hence, user also be able view weather in search city that their select as shown in Figure 4.9.

Figure 4.7 Weather: Today Weather Interface

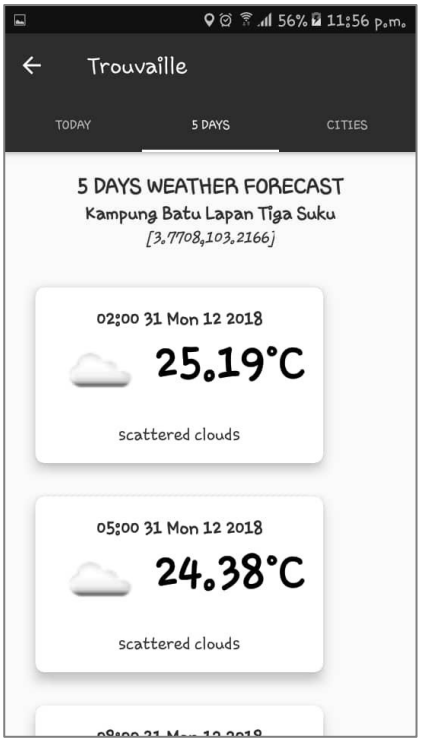


Figure 4.8 Weather: 5 Days Weather Interface

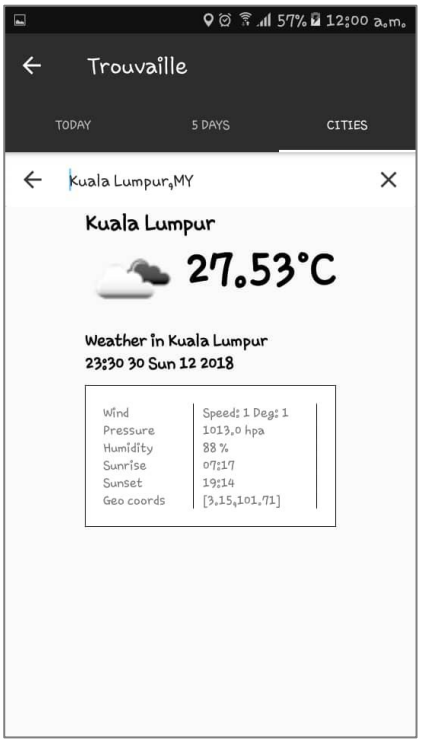


Figure 4.9 Weather: Cities Interface (Search)

4.2.3.6 Category Interface

User be able to view place based on the category list of places as show in Figure 4.10. The user be able view the sort list each category.

Figure 4.10 Category Interface

4.2.3.7 Place Detail Interface

Figure 4.11 and Figure 4.12 show that user be able to view detail each place in their selection. In this interface, user can view picture and information about the selection place.

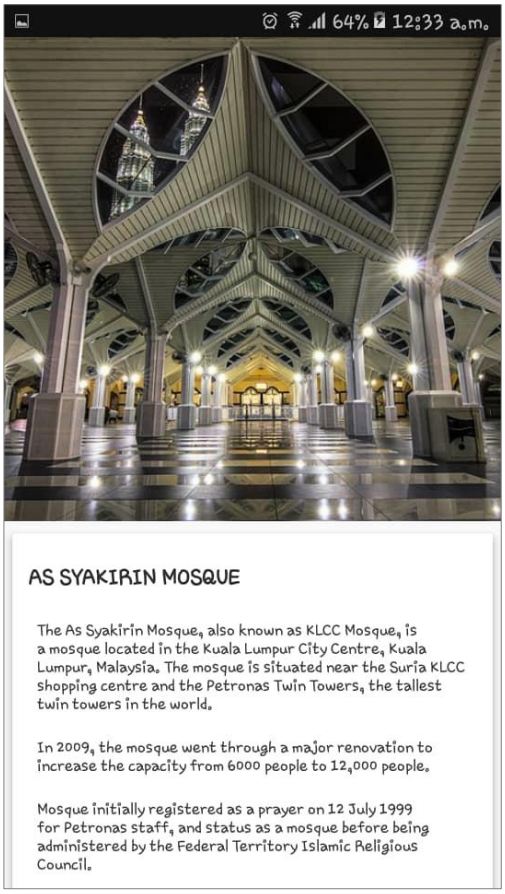


Figure 4.11 Place Detail Interface: Top

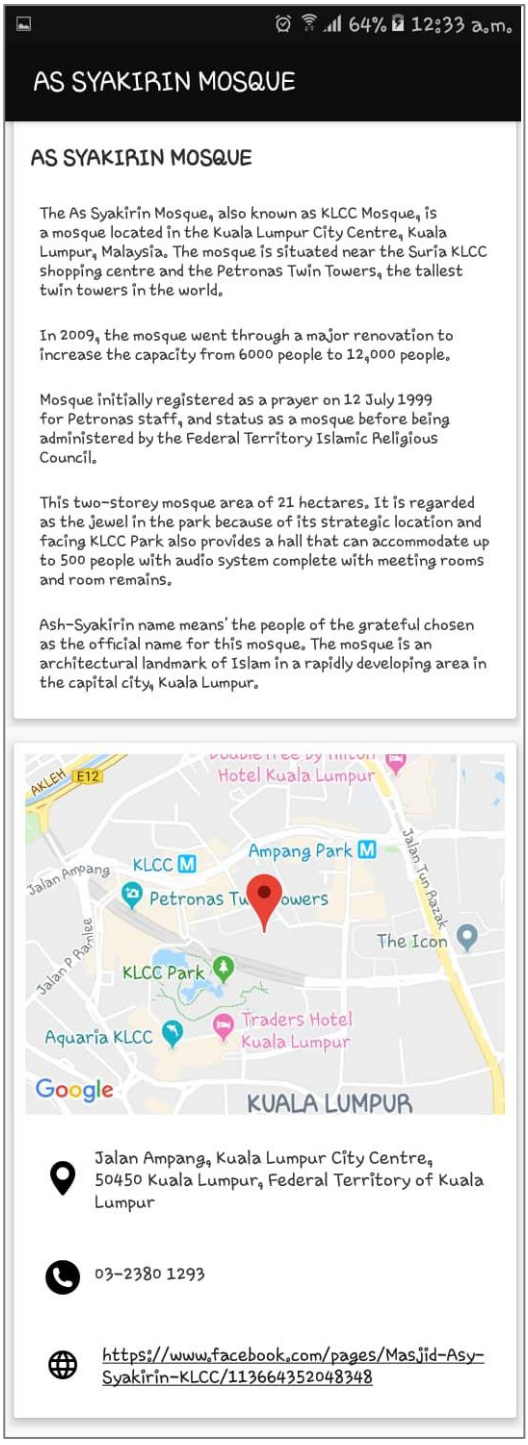


Figure 4.12 Place Detail Interface: Bottom (After Scroll)

4.2.3.8 Plan Interface

Figure 4.13 show that user be able view list their plan that have been create. This plan be able to delete and edit as shown in Figure 4.14.

Figure 4.13 Day Plan Interface

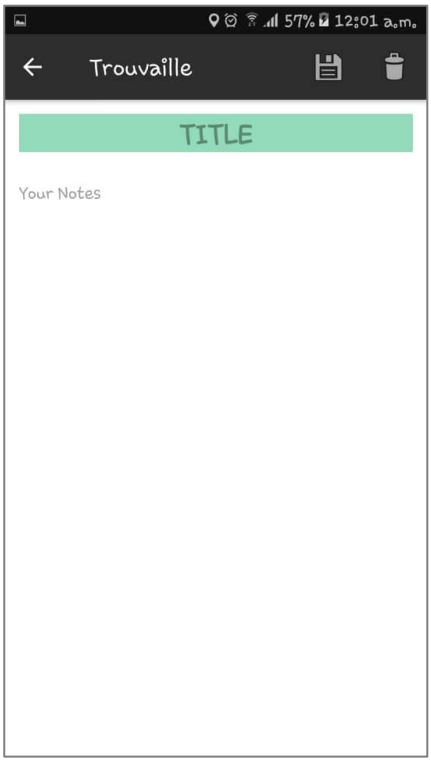


Figure 4.14 Add Day Plan Interface

4.2.3.9 Profile Interface

Figure 4.15 shows my profile for user to manage. In this interface user change or upload photo and change username. Also, for change password as shown in Figure 4.16 and delete account as shown in Figure 4.17.

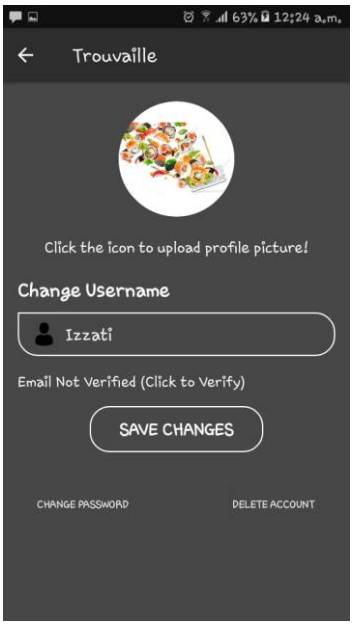


Figure 4.15 Profile Interface

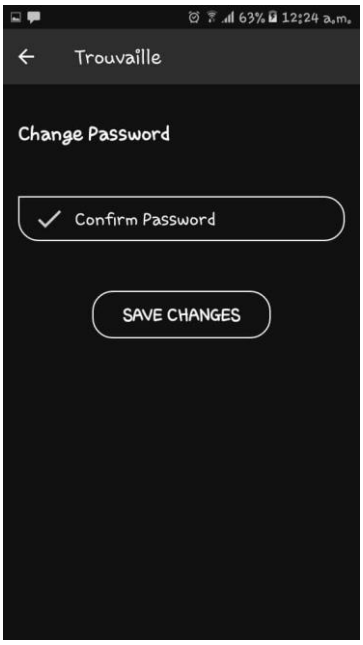


Figure 4.16 Profile Interface: Change Password

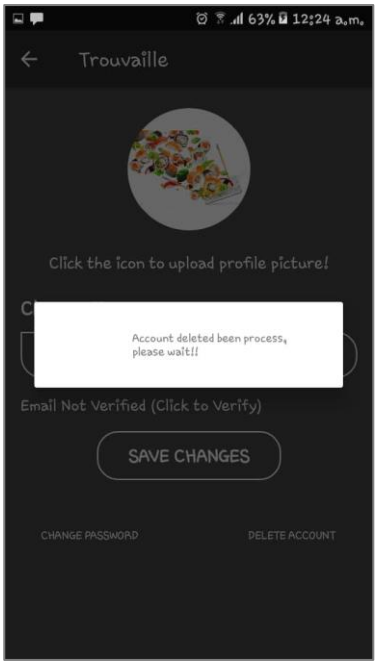


Figure 4.17 Profile Interface: Delete Account Alert Messege

4.2.4 Application Database

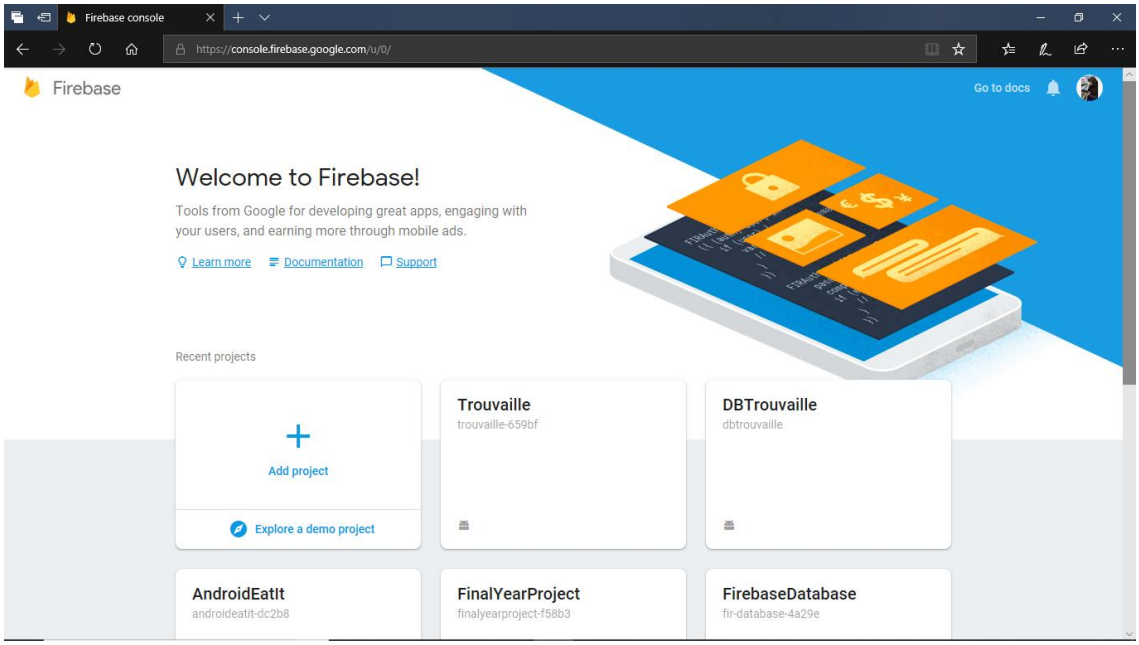


Figure 4.18 Database using Firebase: Name database “Trouvaille”

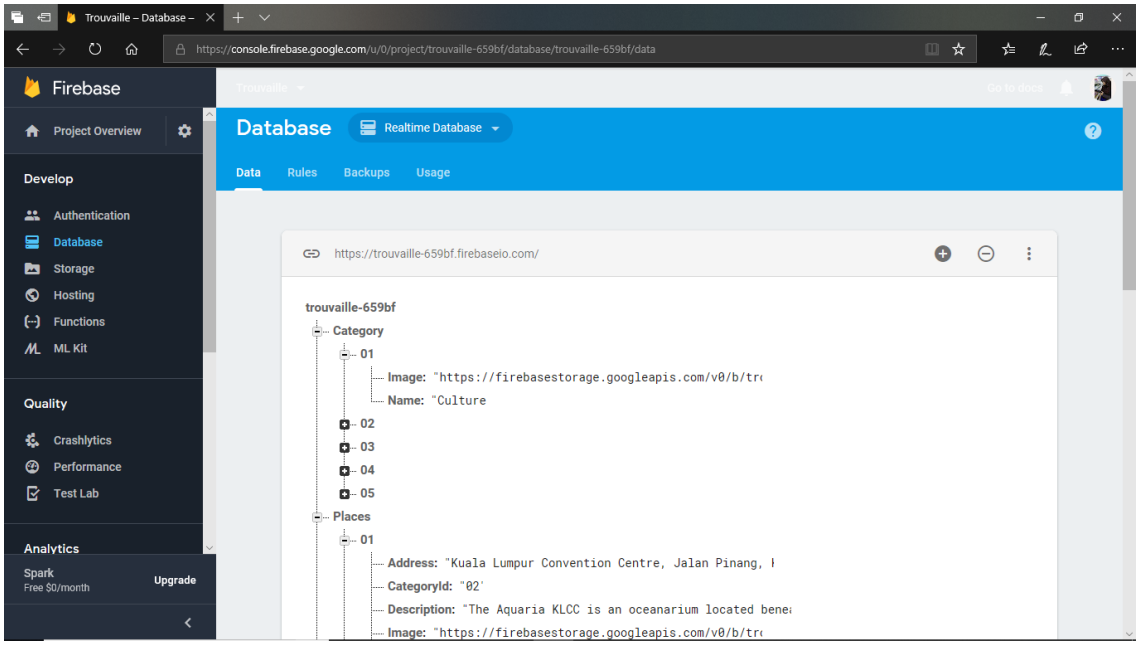


Figure 4.19 Table in database “Trouvaille”

4.3 TESTING AND RESULT DISCUSSION

Testing process is needed after developing an application for checking the usability and quality of the system. Hence, two strategies which are system testing and user acceptance testing (UAT) are utilised in testing this application. System testing is used to check the complete integrated product while UAT is carried out to test the functionality and ensure application requirements meet user needs.

After the application is successfully installed on the device, the application can be open by tab on the icon. A unity splash screen will appear and followed by Trouvaille application splash screen. The splash scene will last for 2 seconds and the screen will be a switch to main menu scene.

4.3.1 Unit Testing

Unit testing is being conduct to each test of Trouvaille Information Application components. Every component is being testing after the component has been completed. Hence, the objective of unit testing is to test the internal components aspects without the interaction with another component. To ensure that the unit testing objects implements the specified functionality completely and correctly is the most important part.

4.3.2 Integration Testing

The objective of this test is to detect defects or errors in the interaction between the component. This integrating testing is used after the component are being integrate with another components. Therefore, the defect between the relate component can be detected.

4.3.3 User Acceptance Testing (UAT)

This UAT is being conduct before this application being deployed. The objective of UAT is to access it is functionality for the intended use. Perform in the acceptance environment of the end user, in which there are directly involved with the application is the acceptance testing. The UAT document can be refer in Appendix D.

4.4 USER MANUAL

Refer to the Appendix E.

CHAPTER 5

CONCLUSION

5.1 INTRODUCTION

In conclusion, the Trouvaille Information Application is purposely to help the tourist especially for who that familiar with the place that tourist to tour in Kuala Lumpur. In our real life now, mobile tourism application plays an important role to help tourist or people to plan their travel trip in Kuala Lumpur without go to the shop and manual guideline.

During the design and development of this application, the crucial and important effort was focus on designing and developing the application in order to achieve all the objectives that have been state from the earlier of the proposal. The three objectives stated in the early of this project are achieve successfully. This study embarks on three objectives which are, to identify the requirement for Trouvaille Information Application, to develop Trouvaille Information Application, and to evaluate the functionality of the proposed application.

Methodology is the most important method in a development of a project. A suitable methodology has been using to smooth the process of the project in the development of this project that is Rapid Application Development (RAD). RAD consists of four phases, which are Requirements Planning: Figure out the requirements, User Design System: Build prototype, Construction: Get user feedback and Cutover: Test the application. Therefore, each process will run smoothly without any major problems and could be complete within the time required. A proper planning and following the phase is very important to evade delay on the project.

5.2 PROJECT CONSTRAINT

Constraint for this project are:

i. Limited Resource

The resources for the Trouvaille Information Application are limited to find for based on the requirement that have be done.

ii. Limited Cost

To make this application more advance, it required some cost for hardware device. Therefore because of the budget in high.

iii. Limited Time

To implement the application that used different character, it is quite hard and not have much time to explore more information and done the advance application.

5.3 FUTURE WORK

Several enhancements can be carried out for the future improvement of this Trouvaille Information Application:

i. In future, this application can be more advance with the technique of the planning the travel plan.

ii. Implement this application in mobile-based application with platforms Android and iOS make more suitable for user to use different device.

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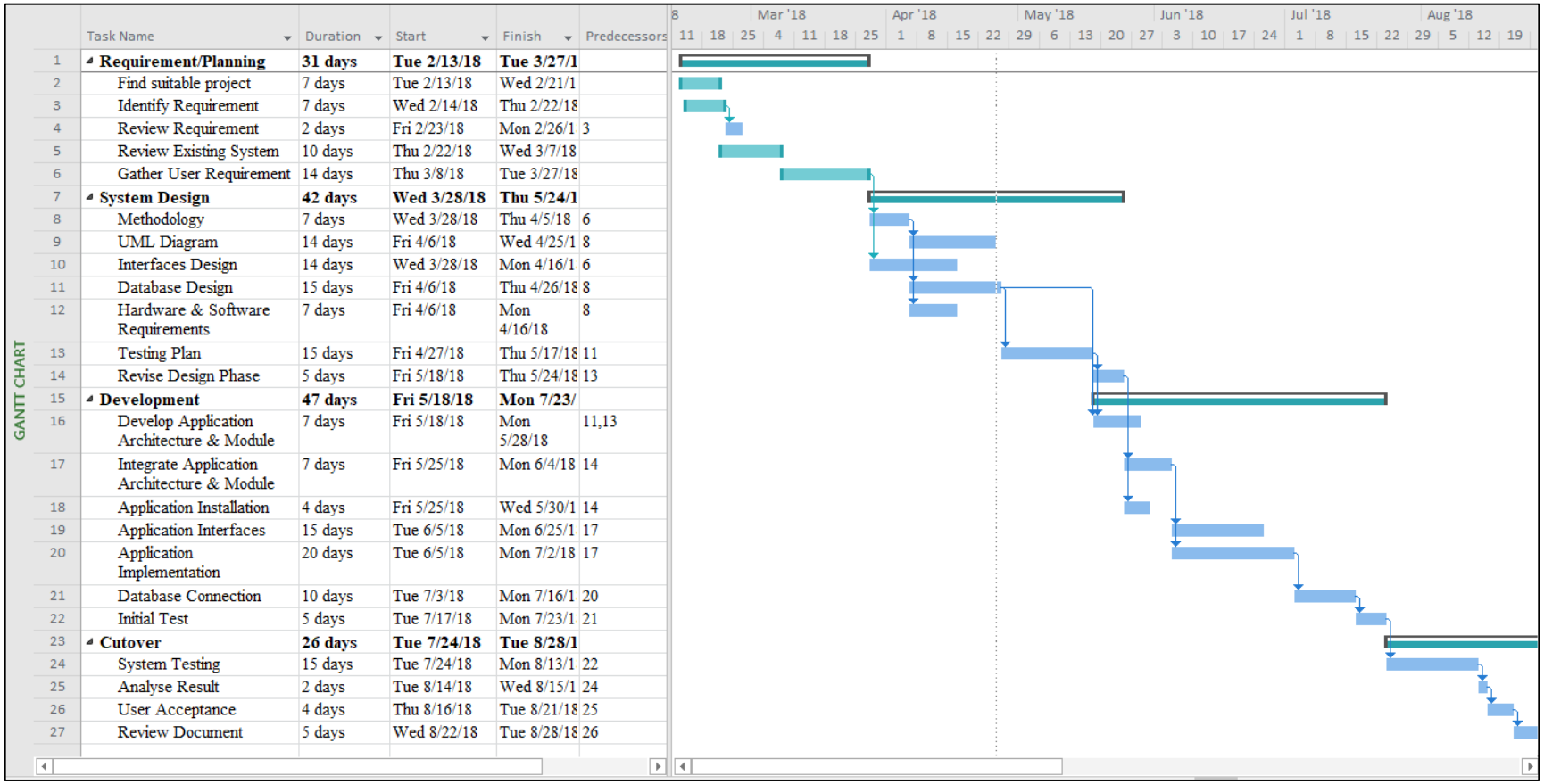
APPENDIX A
GANTT CHART



GANTT CHART

	Task Name	Duration	Start	Finish	Predecessors
1	**Requirement/Planning**	**31 days**	**Tue 2/13/18**	**Tue 3/27/1**	
2	Find suitable project	7 days	Tue 2/13/18	Wed 2/21/1	
3	Identify Requirement	7 days	Wed 2/14/18	Thu 2/22/18	
4	Review Requirement	2 days	Fri 2/23/18	Mon 2/26/1	3
5	Review Existing System	10 days	Thu 2/22/18	Wed 3/7/18	
6	Gather User Requirement	14 days	Thu 3/8/18	Tue 3/27/18	
7	**System Design**	**42 days**	**Wed 3/28/18**	**Thu 5/24/1**	
8	Methodology	7 days	Wed 3/28/18	Thu 4/5/18	6
9	UML Diagram	14 days	Fri 4/6/18	Wed 4/25/1	8
10	Interfaces Design	14 days	Wed 3/28/18	Mon 4/16/1	6
11	Database Design	15 days	Fri 4/6/18	Thu 4/26/18	8
12	Hardware & Software Requirements	7 days	Fri 4/6/18	Mon 4/16/18	8
13	Testing Plan	15 days	Fri 4/27/18	Thu 5/17/18	11
14	Revise Design Phase	5 days	Fri 5/18/18	Thu 5/24/18	13
15	**Development**	**47 days**	**Fri 5/18/18**	**Mon 7/23/**	
16	Develop Application Architecture & Module	7 days	Fri 5/18/18	Mon 5/28/18	11,13
17	Integrate Application Architecture & Module	7 days	Fri 5/25/18	Mon 6/4/18	14
18	Application Installation	4 days	Fri 5/25/18	Wed 5/30/1	14
19	Application Interfaces	15 days	Tue 6/5/18	Mon 6/25/1	17
20	Application Implementation	20 days	Tue 6/5/18	Mon 7/2/18	17
21	Database Connection	10 days	Tue 7/3/18	Mon 7/16/1	20
22	Initial Test	5 days	Tue 7/17/18	Mon 7/23/1	21
23	**Cutover**	**26 days**	**Tue 7/24/18**	**Tue 8/28/1**	
24	System Testing	15 days	Tue 7/24/18	Mon 8/13/1	22
25	Analyse Result	2 days	Tue 8/14/18	Wed 8/15/1	24
26	User Acceptance	4 days	Thu 8/16/18	Tue 8/21/18	25
27	Review Document	5 days	Wed 8/22/18	Tue 8/28/18	26

APPENDIX B
SOFTWARE REQUIREMENT SPECIFICATION

Version

1

TROUVAILLE INFORMATION APPLICATION (TIA)

Faculty Computer System & Software Engineering (FSKKP)

Software Requirement Specification (SRS)

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LIST OF FIGURES

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1.0 PRODUCT DESCRIPTION

1.1 USER CHARACTERISTICS

This subsection of the SRS will describe those general characteristics of the intended users of TII including educational level, experience and technical expertise.

Table 1.1 User Characteristic

User	Education level	Background experience
User should have the ability to use the application and related technology to interact with the User Interface (UI) of the system.	There is no range of educational level are needed in order to use this system.	User should have basic knowledge of using smartphone, mobile application and GPS.

1.2 CONSTRAINTS

Table 1.2 Type of constraints

Type of constraints	Descriptions
Internet connection	Users cannot access to the application if there is no internet connection.
Location permission	Users cannot view location in application if they do not allow permission in user phone.
User	Users cannot access to the application if they do not have smartphone.

2.0 INTERFACES REQUIREMENTS

2.1 USER INTERFACE

Table 2.1 show the user interface in Trouvaille Information Application.

Table 2.1 User Interface

User Interface Name	Descriptions
Login	In this page, the users need to login their email and password in order to proceed to the home page. The user can click the signup button to register.
Register	For those who doesn't have account yet, they need to fill in the form provided. They need to fill in their email, username and password. After that, it will automatically go to the home.
Home	This page contains tab layout that divide by explore and today weather.
Day Plan	This page allow user to put do the plan to travel in Kuala Lumpur.
Weather	This page allow user to check today weather in other place and view weather in 5-day future in current place.
Category Place List	This page contains list of place category.
All Place List	This page contains list of places.
Place Detail	This page contains information based on the selection place to view.
Profile	This page allow user to edit their profile. This page also can allow user to put their picture profile.

2.2 HARDWARE INTERFACE

Not Available

2.3 SOFTWARE INTERFACE

Table 2.2 show the software interface used in Trouvaille Information Application.

Table 2.2 Software Interface

Software Interface	**Function**
Firebase	This work as database to access and store data in here. The Global Positioning System (GPS) will send the data to be store in database.
Google Map Console	This work as console to locate the longitude and latitude of both user and make all the function on the map working.
Open Weather Map	This work as console to locate the longitude and latitude of current weather and forecasts in place.
Operating System	This work to make the application run smoothly in the smartphone.

3.0 SOFTWARE PRODUCT FEATURES

3.1 USE CASE – LOGIN & REGISTER

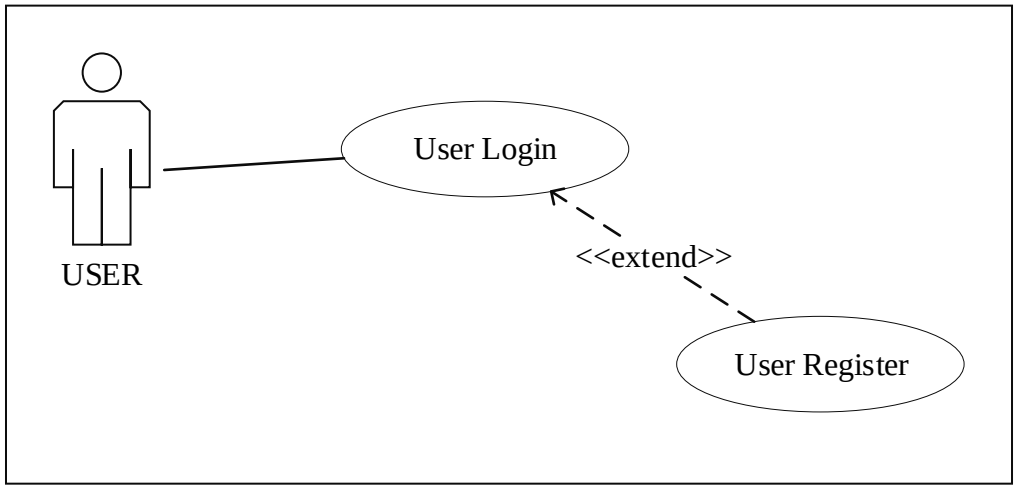


Figure 3.1 Use Case for Login & Register

Table 3.1 Login & Register Use Case Description

Use Case ID	TIA_ UC01
Use Case Name	LOGIN & REGISTER
Brief Description	This use case is used by user to login to the application.
Actor	User
Pre-Conditions	1_ The users manage to see the login page. 2_ The users already register to the system.
Basic Flow	Login: 1_ The use case begins when the users open the application via smartphone. 2_ User fill in the email and password to login [E1] [E2]. 3_ User click either login or signup button. 4_ End Use Case. Register: 1_ The use case begins when the users open the application via smartphone. 2_ User fill in the form given which are name, email and password. 3_ User click Register button to enter to register account. 4_ End Use Case.
Alternative Flow	N/A
Exception Flow	[E1]: Login error 1_ Email or password wrong. 2_ Message “email or password wrong” will be displayed. 3_ Continue to step basic flow 3.
Post-Conditions	1_ Users will enter the application and can use it. 2_ Account created. 3_ Users will enter the application and can use it.
Rules	N/A
Constraints	N/A
Sequence Diagram	Refer Appendix A-1: Activity Diagram

3.2 USE CASE – MANAGE PROFILE

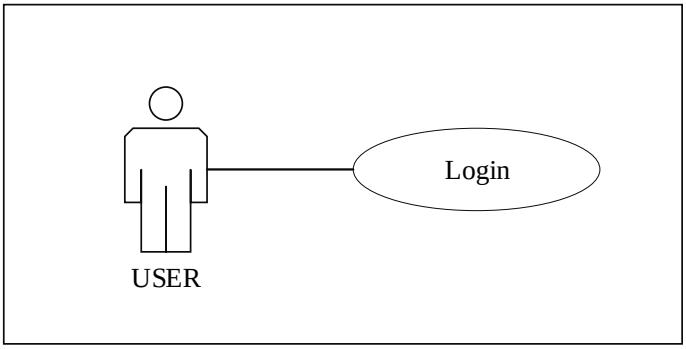


Figure 3.2 Use Case for Manage Profile

Table 3.2 Manage Profile Use Case Description

Use Case ID	TIA _ UC02
Use Case Name	MANAGE PROFILE
Brief Description	This use case is use by users to edit their profile.
Actor	User
Pre-Conditions	Users already logged in to the application.
Basic Flow	1_ Application will display the profile page. 2_ Users will be able to upload their profile picture and edit their profile. 3_ Users also able to change the username or password. 4_ Message “Profile updated” will appear. 5_ End Use Case.
Alternative Flow	N/A
Exception Flow	N/A
Post-Conditions	The profile will be updated.
Rules	N/A
Constraints	N/A
Sequence Diagram	Refer Appendix A-2: Activity Diagram

3.3 USE CASE – SEARCH & REVIEW PLACE

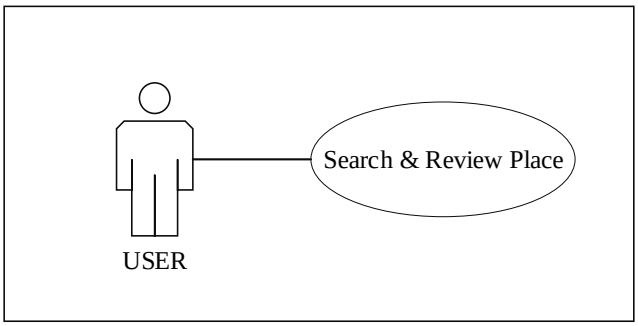


Figure 3.3 Use Case for Search & Review Place

Table 3.3 Search & Review Place Use Case Description

Use Case ID	TII _ UC03
Use Case Name	SEARCH & VIEW PLACE
Brief Description	This use case is to search and view the places in TIA place
Actor	User
Pre-Conditions	The users manage to see the main page.
Basic Flow	1_ User Key in the key word and click search icon in the search bar. 2_ The system checks for list place in the database. 3_ System will display the place list according to the key word key in by the user from the database. 4_ If there is no name of place found according to the key word entered by the user. [E1]. 5_ End Use Case.
Alternative Flow	N/A
Exception Flow	[E1] Error Message 1_ Pop up a message that no matches found. 2_ Go to basic flow step 5.
Post-Conditions	The place that the user looks for is being displayed.
Rules	N/A
Constraints	N/A
Sequence Diagram	Refer Appendix A-3: Activity Diagram

3.4 USE CASE – SEARCH & REVIEW WEATHER

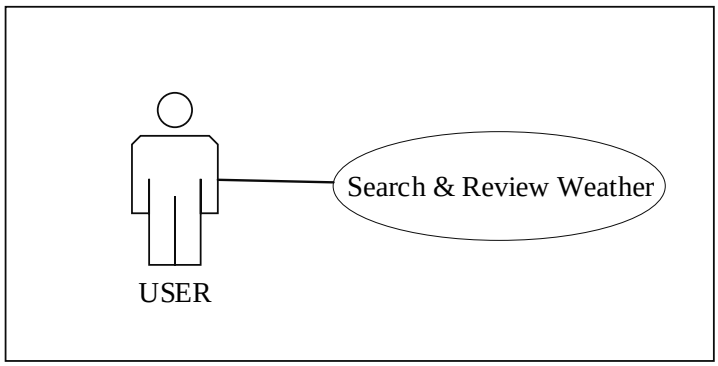


Figure 3.4 Use Case for Search & Review Weather

Table 3.4 Search & Review Weather Use Case Description

Use Case ID	TII _ UC04
Use Case Name	SEARCH & VIEW WEATHER
Brief Description	This use case is to search and view the weather in TIA weather
Actor	User
Pre-Conditions	The users manage to see the weather page.
Basic Flow	1_ User Key in the key word and click search icon in the search bar. 2_ The system checks for list of Json and connect using weather API. 3_ System will display the weather according to the key word key in by the user. 4_ If there is no name of place found according to the key word entered by the user. [E– 1]. 5_ End Use Case.
Alternative Flow	N/A
Exception Flow	[E– 1] 1_ Pop up a message that no matches found. 2_ Go to basic flow step 5.
Post-Conditions	The weather that the user looks for is being displayed.
Rules	N/A
Constraints	N/A
Sequence Diagram	Refer Appendix A-4: Activity Diagram

3.5 USE CASE – MANAGE PLAN TRAVEL

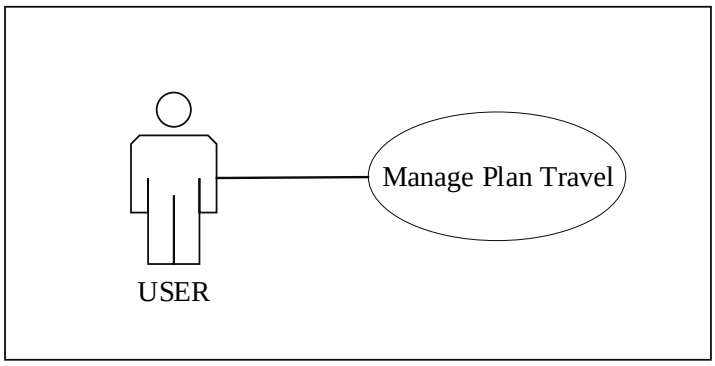


Figure 3.5 Use Case for Manage Plan Travel

Table 3.5 Manage Pan Travel Use Case Description

Use Case ID	TII _ UC05
Use Case Name	MANAGE PLAN TRAVEL
Brief Description	This use case is to manage plan travel that user input.
Actor	User
Pre-Conditions	The users manage to see the DayPlan page.
Basic Flow	1_ User click add button to create new plan. 2_ User Key in the information for day plan. 2_ User click save button [A1]. 3_ System will display the list day plan according to the user create. 4_ End Use Case.
Alternative Flow	[A1] Cancel 1_ User click button close or cancel. 2_ Pop up an alert message for confirmation from user. 3_ Go to basic flow step 3.
Exception Flow	N/A
Post-Conditions	The information user create is being displayed.
Rules	N/A
Constraints	N/A
Sequence Diagram	Refer Appendix A-5: Activity Diagram

4.0 REQUIREMENTS TRACEBILITY

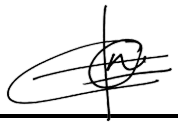
This section shall contain:

a. Traceability from each software unit identified in this SRS of the system requirements allocated to it.
b. Traceability from each system requirement for the software units to which it is allocated.

Table 4.1 Requirement Traceability

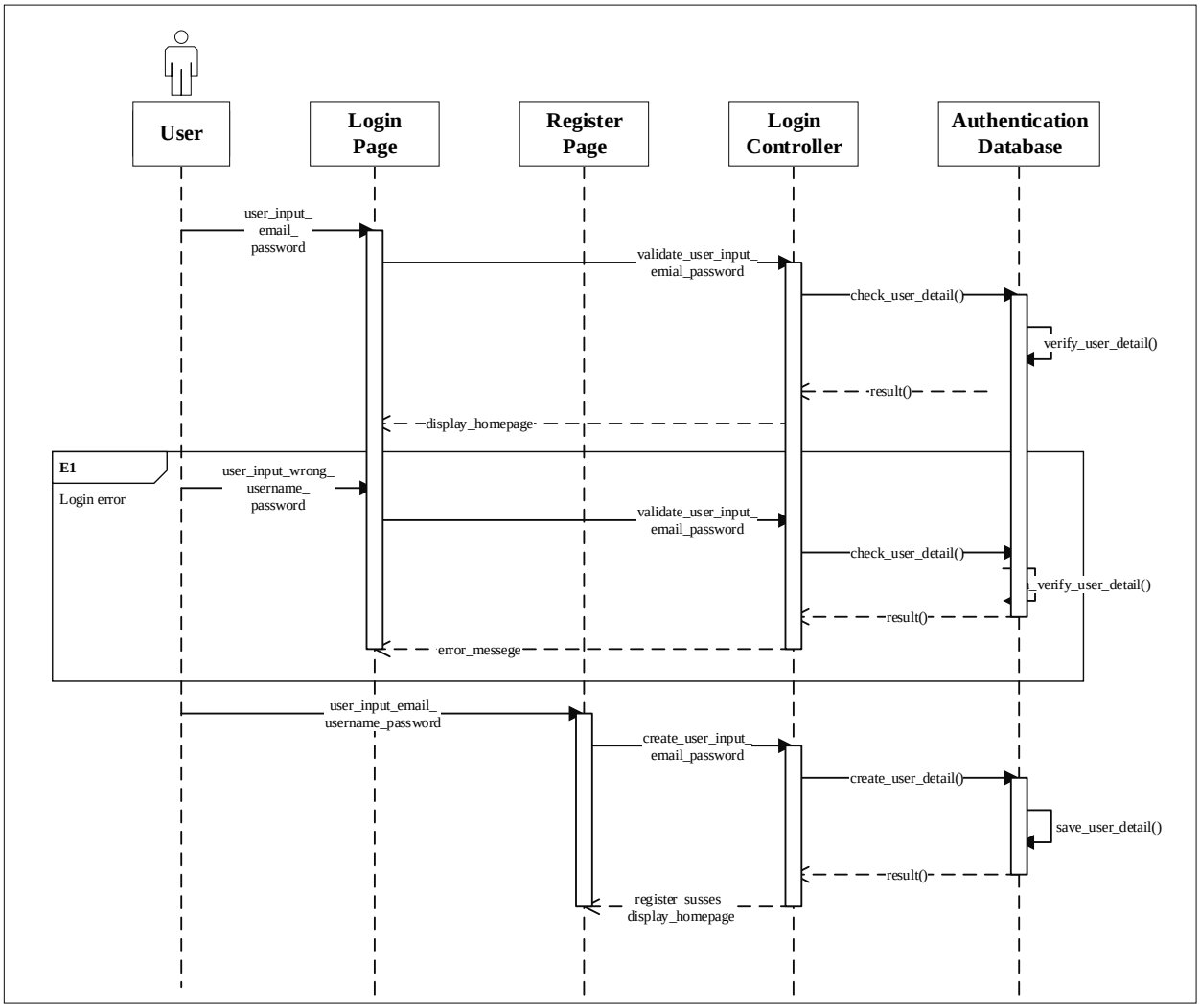
Requirement ID	Requirement Details
TII _ UC01	Users able to login and register to the application.
TII _ UC02	User can update their profile information.
TII _ UC03	User can search and view the place.
TII _ UC04	User can search and view the current weather.
TII _ UC05	User can create plan travel.

5.0 SYSTEM REQUIREMENTS APPROVAL

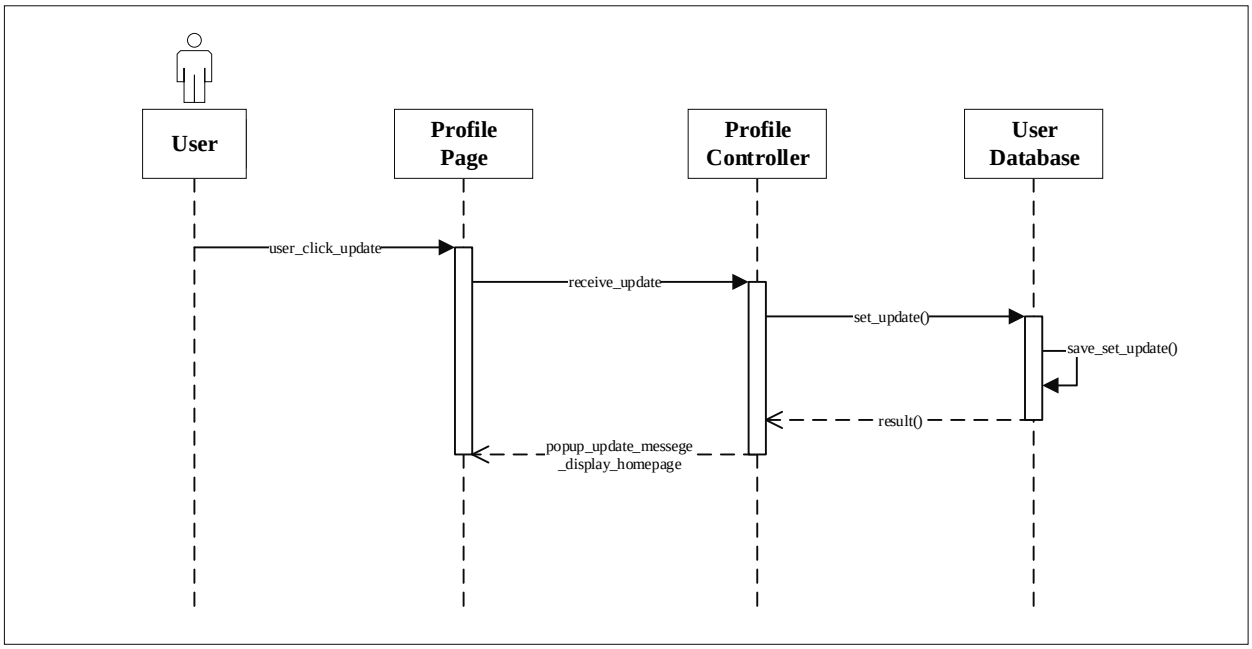
	Name	Date
Authenticated by:  Developer	NUR ASYIQIN BINTI SHAKRI	12/12/2018
Approved by: Client	WAN NOR ASHIKIN WAN AHMAD FATTHI Lecturer ashikin763@uitm.edu.my Department of Mathematics, Universiti Teknologi MARA Cawangan Selangor, Kampus Dengkil 43800 Dengkil, Selangor, Malaysia	12/12/2018

APPENDIX

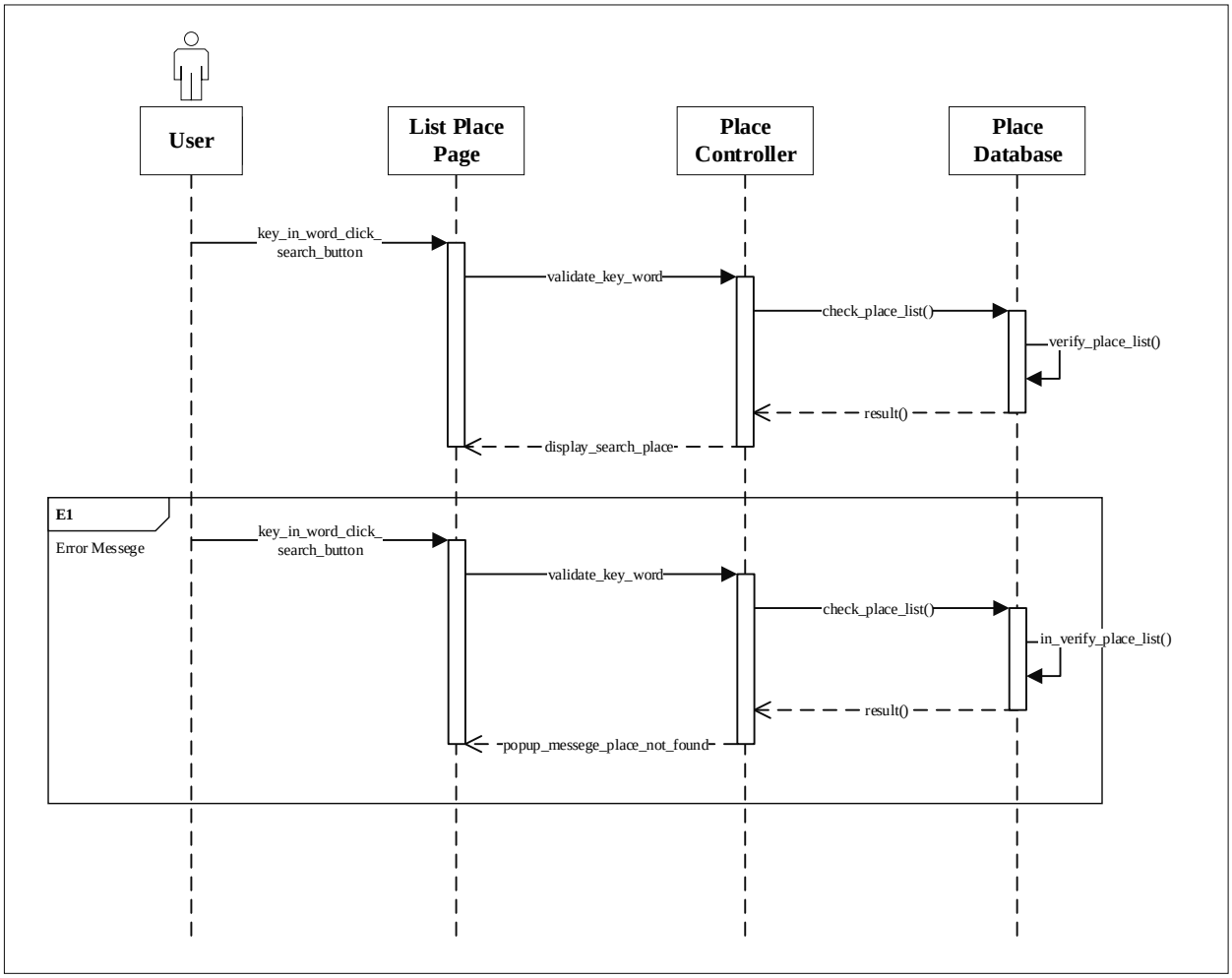
A-1: ACTIVITY DIAGRAM (LOGIN & REGISTER)



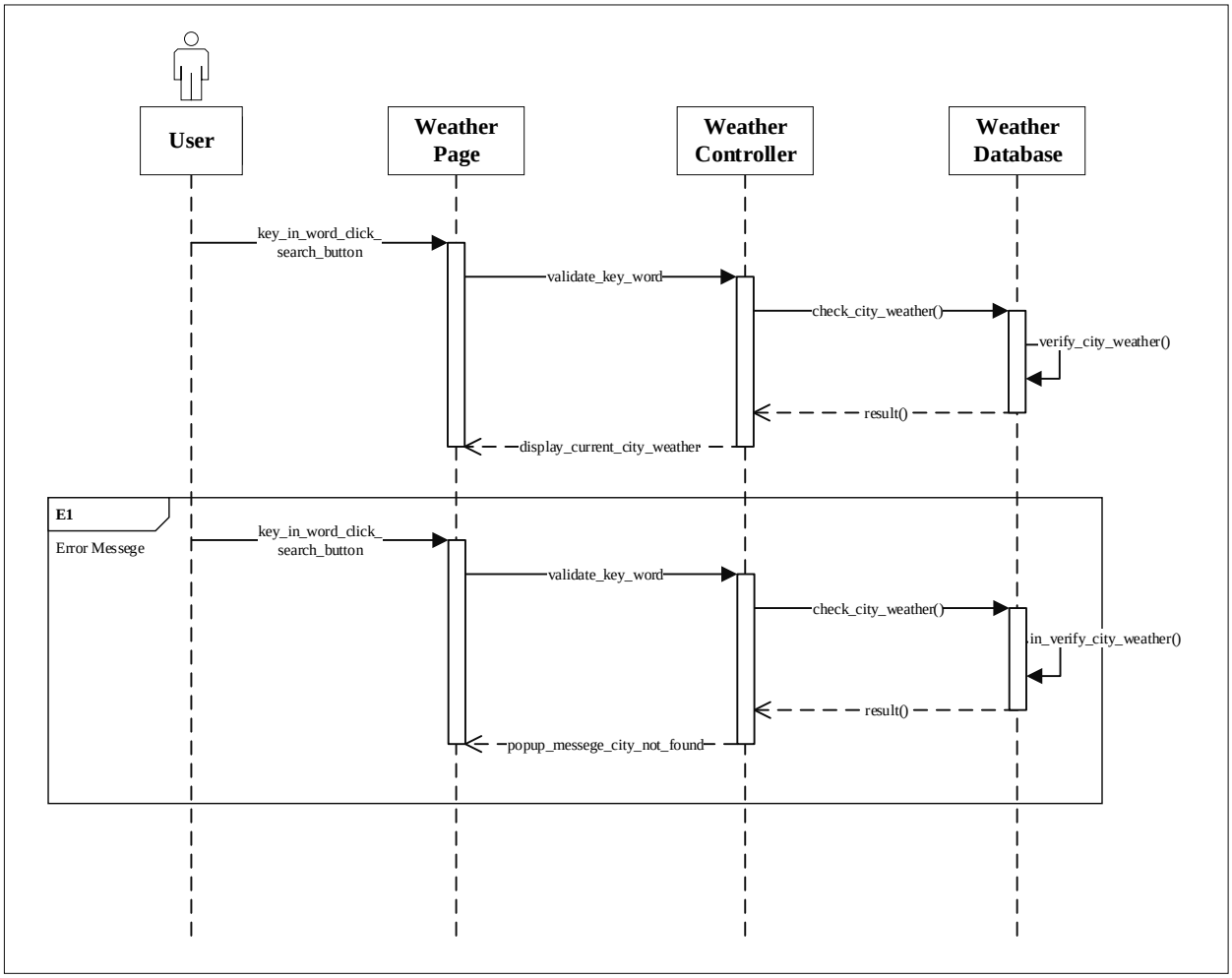
A-2: ACTIVITY DIAGRAM (MANAGE PROFILE)



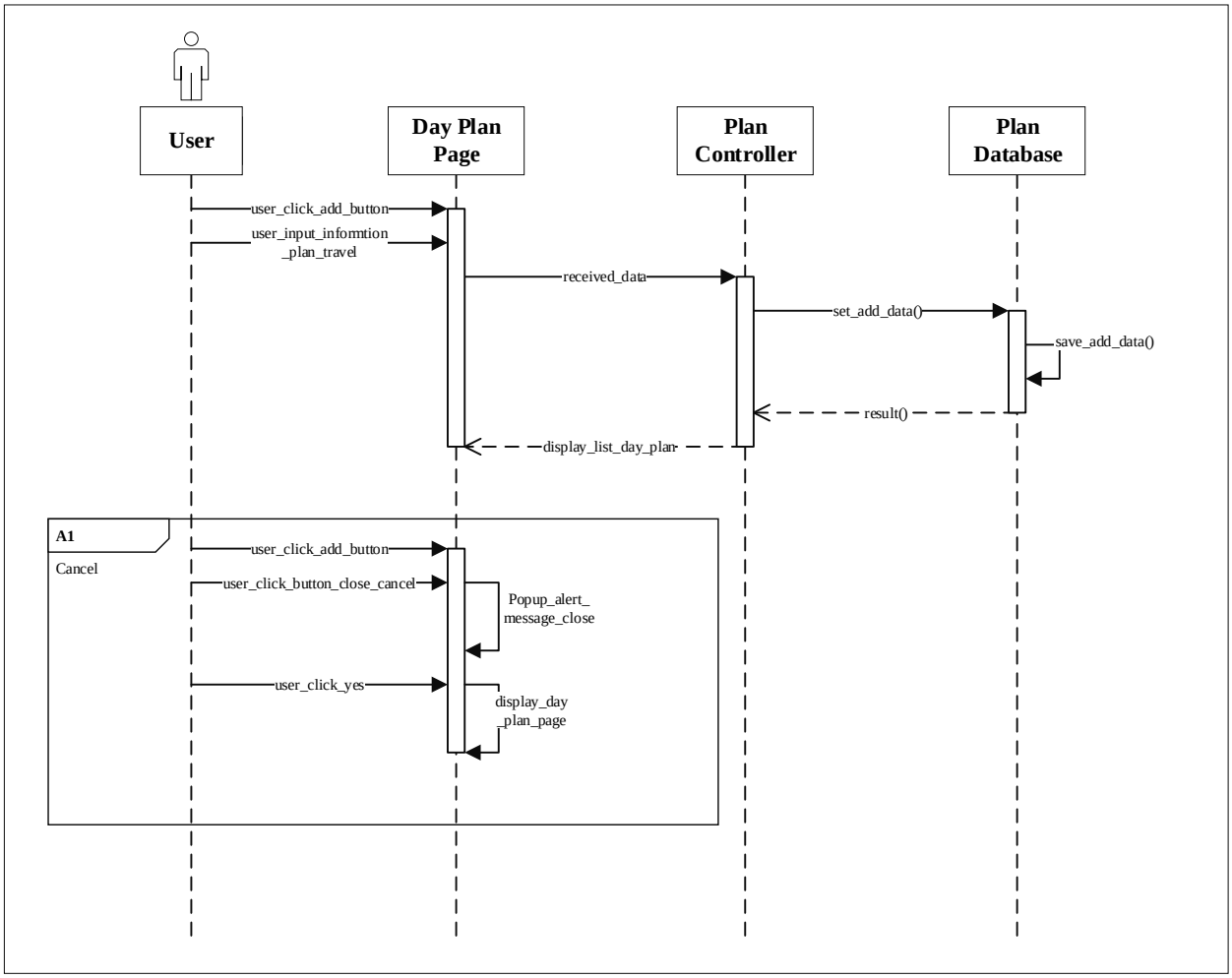
A-3: ACTIVITY DIAGRAM (SEARCH & REVIEW PLACE)



A-4: ACTIVITY DIAGRAM (SEARCH & REVIEW WEATHER)



A-5: ACTIVITY DIAGRAM (MANAGE PLAN TRAVEL)



APPENDIX C
SOFTWARE DESIGN DOCUMENT

Version

1

TROUVAILLE INFORMATION APPLICATION (TIA)

Faculty Computer System & Software Engineering (FSKKP)

Software Design Document (SDD)

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1.0 DATA DICTIONARY

Table 1.1 show data dictionary of Tourist Information Intelligent Application.

Table 1.1 Data Dictionary of Tourist Information Intelligent Application

Entity Name	Field Name	Description	Data Type	Constraint
Authentication	Identifier	Email User	Varchar (50)	-
	Providers	-		-
	Created	Date the user created	Date	-
	Signed In	Date the user latest Login	Date	-
	User UID	User ID is auto generated	Varchar (50)	Primary Key
Database: User	User UID	User ID	Varchar (50)	Primary Key, Foreign Key
	Email	Email of User	Varchar (50)	-
	Username	Username of User		
Database: Category	ID	Category ID	Varchar (50)	Primary Key
	Image	Image of the category place	Varchar (50)	-
	Name	Name of the category	Varchar (50)	-
Database: Place	ID	Place ID	Varchar (50)	Primary Key
	Name	Name of city	Varchar (50)	-
	Description	History of place	Varchar (150)	-
	Phone	No phone office place	Varchar (50)	-
	Address	Address of place	Varchar (50)	-
	URL	The official website	Varchar (50)	-

	Latitude	Checkpoint place	Varchar (50)	-
	Longitude	Checkpoint place	Varchar (50)	-
	Image	Image of that place	Varchar (50)	-
	Category ID	ID category based on the category table	Varchar (50)	Foreign Key
Database: DayPlan	ID	ID of travel plan	Varchar (50)	Primary Key
	Place ID	ID place in travel plan	Varchar (50)	Foreign Key
	Transport	Type of Transport	Varchar (50)	-
	Budget	Budget Transport	Varchar (50)	-
	Date	Date to go	Date	-

2.0 PRELIMANARY DESIGN

2.1 System Architecture

This paragraph is defining the internal organizational structure of the Trouvaille Information Application (TIA). The relationship among the system and subsystem will be described.

2.1.1 Static Organization

Figure 2.1 shows the static organization for Trouvaille Information Application (TIA).

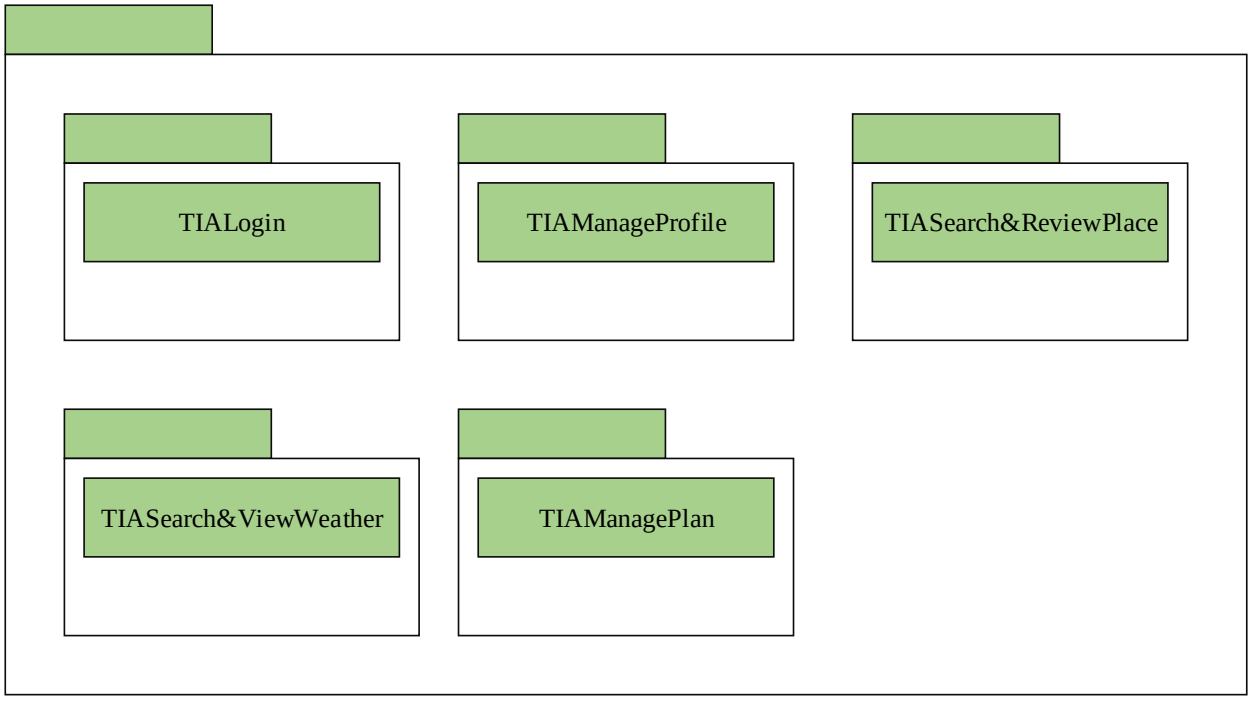


Figure 2.1 Static Organization of Trouvaille Information Application (TIA)

1. TIALogin

This package is responsible to manage user account. It consists of the following class:

a) LoginClass

b) RegisterClass

2. **TIAManageProfile**

This package is responsible to manage user account. It consists of the following class:

a) ProfileClass

3. **TIAManagePlan**

This package is responsible to manage user travel plan. It consists of the following class:

a) DayPlanClass

b) AddDayPlanClass

4. **TIASearch&ReviewWeather**

This package is responsible to search and review weather. It consists of the following class:

a) TodayWeaterClass

b) CityWeatherClass

c) ForecastsWeatherClass

5. **TIASearch&ReviewPlan**

This package is responsible to search and review plan. It consists of the following class:

a) CategoryListClass

b) PlaceListClass

c) PlaceDetailClass

6. **TIADatabase**

This package does not consist of any classes. This package just only acts as reuse database that consist many tables.

3.0 DETAIL DESIGN

3.1 TIA Login

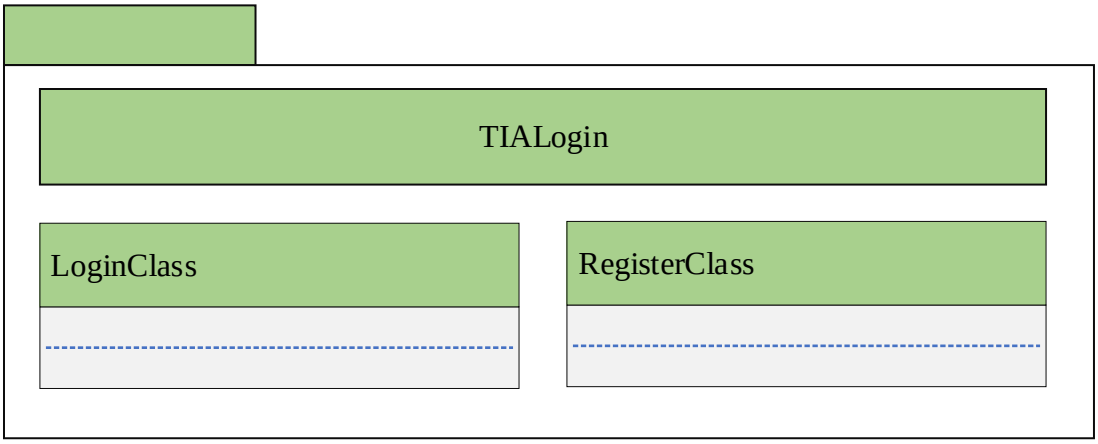


Figure 3.1 TIALogin Package

3.1.1 LoginClass

Class Type : Model Class

Responsibility : This class is responsible to search list related to the day_plan_class table in database.

Attributes	: Email	: String
	Password	: String
Methods	: voidLogin	: To login user account

3.1.2 RegisterClass

Class Type : Model Class

Responsibility : This class is responsible to search list related to the place_info table in database.

Attributes	: Email	: String
	Username	: String
	Password	: String
Methods	: voidRegister	: To register new account for user

3.2 TIA Manage Account

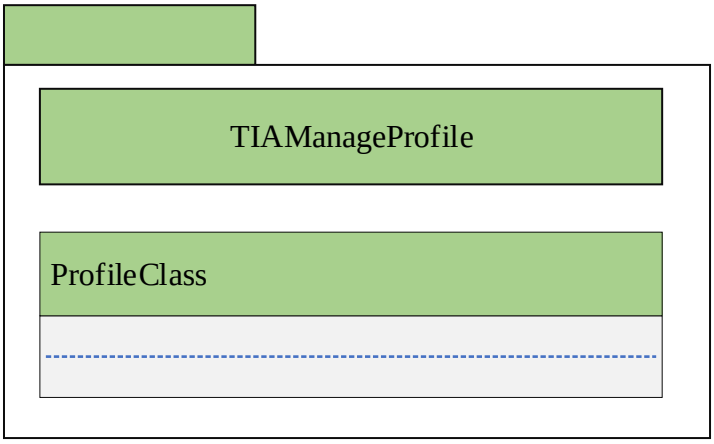


Figure 3.2 TIAManageAccount Package

3.2.1 ProfileClass

Class Type : Model Class

Responsibility : This class is responsible to search list related to the profile_class table in database.

Attributes	: Image	: String
	Email	: String
	Username	: String
	Password	: String
Methods	: voidLogin	: To different the user
	voidRegister	: To create new user.
	voidUpdate	: To update the information that have been change

3.3 TIA Manage Plan

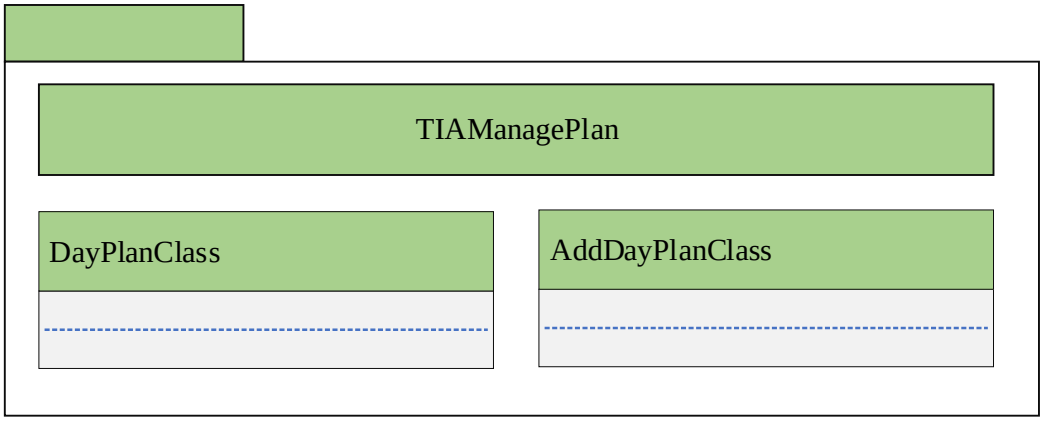


Figure 3.3 TIAManagePlan Package

3.3.1 DayPlanClass

Class Type : Model Class

Responsibility : This class is responsible to search list related to the day_plan_class table in database.

Attributes	: Name	: String
	Transport	: String
	Date	: String
	Budget	: String
Methods	: voidAddDayPlan	: To add new travel plan.

3.3.2 AddDayPlan (Create) Class

Class Type : Model Class

Responsibility : This class is responsible to search list related to the place_info table in database.

Attributes	: Name	: String
	Transport	: String
	Date	: String
	Budget	: String
Methods	: voidSave	: To save the new data of travel plan
	voidCancel	: To cancel from create the travel plan

3.4 TIA Search & Review Weather

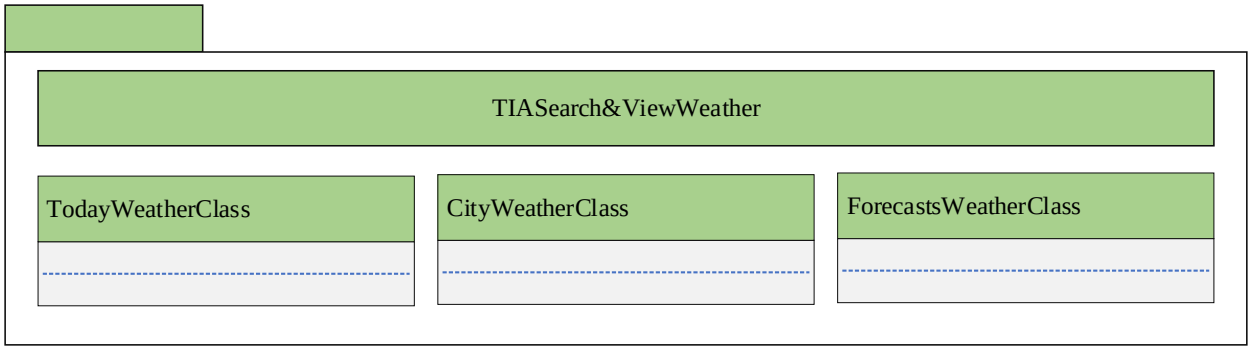


Figure 3.4 TTIASearch&ReviewWeather Package

3.4.1 TodayWeaterClass

Class Type : Model Class

Responsibility : This class is responsible to search list related to the today_weather_class table in database.

Attributes	: City	: String
	Temperature	: String
	Date	: String
	Session	: String
Methods	: voidView	: To view weather current place.

3.4.2 CityWeatherClass

Class Type : Model Class

Responsibility : This class is responsible to search list related to the city_weather_class table in database.

Attributes	: City	: String
	Temperature	: String
	Date	: String
	Session	: String
Methods	: voidSearch	: To search weather to another city

3.4.3 ForecastsWeatherClass

Class Type : Model Class

Responsibility : This class is responsible to search list related to the place_info table in database.

Attributes	: City	: String
	Temperature	: String
	Date	: String
	Session	: String
Methods	: voidFuture	: To view weather in 5 day in future

3.5 TIA Search & Review Place

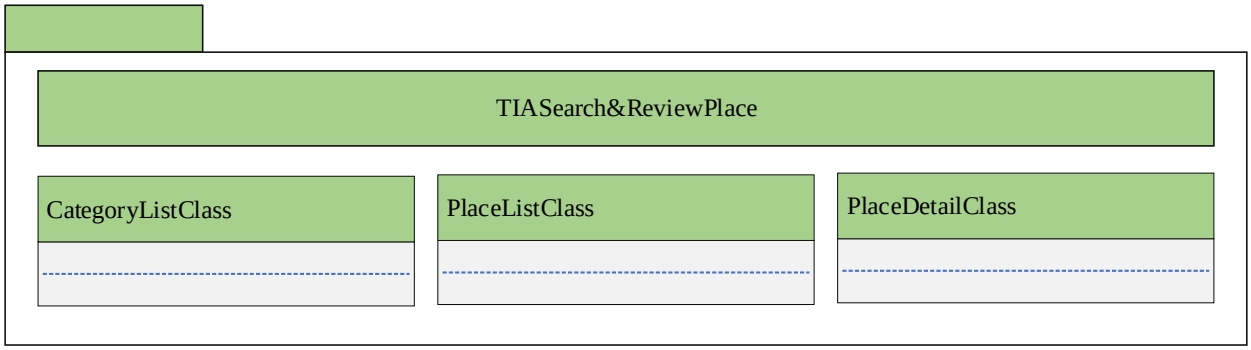


Figure 3.5 TTIASearch&ReviewPlace Package

3.5.1 CategoryListClass

Class Type : Model Class

Responsibility : This class is responsible to search list related to the category_list_class table in database.

Attributes	: Name	: String
	Image	: String
Methods	: voidView	: To view list of category place.

3.5.2 PlaceListClass

Class Type : Model Class

Responsibility : This class is responsible to search list related to the place_list_class table in database.

Attributes	: Name	: String
	Image	: String
Methods	: voidView	: To view list of places
	voidSearch	: To search select of place

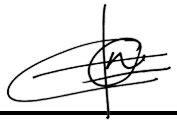
3.5.3 PlaceDetailClass

Class Type : Model Class

Responsibility : This class is responsible to search list related to the place_detail_info table in database.

Attributes	: Name	: String
	Image	: String
	Description	: String
	Latitude	: String
	Longitude	: String
	Phone	: String
	Address	: String
	URL	: String
Methods	: voidView	: To view detail of selection place
	voidMap	: To view location of selection place

4.0 SYSTEM DESIGN APPROVAL

	Name	Date
Authenticated by:  Developer	NUR ASYIQIN BINTI SHAKRI	12/12/2018
Approved by: Client	WAN NOR ASHIKIN WAN AHMAD FATTHI Lecturer ashikin763@uitm.edu.my Department of Mathematics, Universiti Teknologi MARA Cawangan Selangor, Kampus Dengkil 43800 Dengkil, Selangor, Malaysia	12/12/2018

APPENDIX D
USER ACCEPTANCE TESTING

Version

1

TROUVAILLE INFORMATION APPLICATION (TIA)

Faculty Computer System & Software Engineering (FSKKP)

Unit Acceptance Test (UAT)

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1.0 TESTING REPORT

The purpose of this section is to shows the result of the User Acceptance Test (UAT) process for Trouvaille Information Application (TIA).

1.1 AUTHENTICATION

Table 1.1 Authentication Functionality

Test Case ID	Test Item	Test Parameters	Test Data	Test Type	Expected Result	Actual Result	Pass/Fail
TC_AUTH_01	Register	Email: Username: Password:	izzati@gmail.com izzati 12345678	Normal	Registered Successfully	Registered Successfully	Pass
TC_AUTH_02	Register	Email: Username: Password:	husnaizzati izzati 12345678	Erroneous	Email badly formatted	Email badly formatted	Pass
TC_AUTH_03	Register	Email: Username: Password:	 izzati 12345678	Erroneous	Please fill in all the information	Please fill in all information	Pass
TC_AUTH_04	Register	Email: Username: Password:	izzati@gmail.com izzati 1234	Erroneous	Please fill in the password min 6 characteristic	Please fill in the password min 6 characteristic	Pass
TC_AUTH_05	Register	Email: Username: Password:	12izzati@gmail.com Izzati 123456	Erroneous	Email badly formatted	Registered Successfully	Fail
TC_AUTH_06	Login	Email: Password:	izzati	Erroneous	Please fill in all the information	Please fill in all the information	Pass
TC_AUTH_07	Login	Email: Password:	izzati@gmail.com 12345678	Erroneous	Login Successfully	Login Successfully	Pass

TC_AUTH_08	Login	Email: Password:	izzati@gmail.com 12345578899	Erroneous	Email and Password does not match	Email and Password does not match	Pass
TC_AUTH_09	Login	Email: Password:	12izzati@gmail.com 123456	Erroneous	Email badly formatted	Login successful	Fail
TC_AUTH_10	Login	Email: Password:	husnaizzati@gmail.com 23456789	Erroneous	Email are not registered	Email are not registered	Pass

1.2 MANAGE PROFILE

Table 1.2 Manage Profile Functionality

Test Case ID	**Test Item**	**Test Parameters**	**Test Data**	**Test Type**	**Expected Result**	**Actual Result**	**Pass/Fail**
TC_PRO_01	Upload Image	Folder image:	Picture from device storage.	Normal	The image already be upload	The image already be upload	Pass
TC_PRO_02	Change Username	Username:	Husna Izzati	Normal	The username has been updated	The username has been updated	Pass
TC_PRO_03	Change Password	New Password:	1984572	Normal	The password has been changed	The password has been changed	Pass

1.3 SEARCH & REVIEW PLACE

Table 1.3 Search and Review Place Functionality

Test Case ID	**Test Item**	**Test Parameters**	**Test Data**	**Test Type**	**Expected Result**	**Actual Result**	**Pass/Fail**
TC_PLA_01	Search	Search:	Suria KLCC	Normal	The list of places will be Suria KLCC only	The list of places will be Suria KLCC only	Pass
TC_PLA_02	Search	Search:	Pasir Puteh	Erroneous	Pop up message this place not match.	Pop up message this place not match.	Pass
TC_PLA_03	View Detail	Click List Place	National Museum	Normal	View the detail place Page of National Museum	View the detail place Page of National Museum	Pass

2.0 SYSTEM TESTING APPROVAL

	Name	Date
Authenticated by:  Developer	NUR ASYIQIN BINTI SHAKRI	12/12/2018
Approved by: Client	WAN NOR ASHIKIN WAN AHMAD FATTHI Lecturer ashikin763@uitm.edu.my Department of Mathematics, Universiti Teknologi MARA Cawangan Selangor, Kampus Dengkil 43800 Dengkil, Selangor, Malaysia	12/12/2018

APPENDIX E
USER MANUAL

Version

1

TROUVAILLE INFORMATION APPLICATION (TIA)

Faculty Computer System & Software Engineering (FSKKP)

User Manual

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1.0 GENERAL INFORMATION

1.1 System Overview

This project is to specify the requirement for Trouvaille Information Application. This system is a mobile application based. This system user only for user. This system is applied in Kuala Lumpur place.

1.2 Organizational of the manual

This user manual is divided into two parts; first part is about general information of the system. Second part of this manual is application summary while user guideline is the last part of this manual.

2.0 SYSTEM SUMMARY

2.1 System Configuration

Trouvaille Information Application is the mobile application based. This mobile-based application requires connection to internet in order to run the application.

2.1.1 User Access Level

Table 2.1 User Access Level for Trouvaille Information Application

User Access Level on	User
Home	/
Register	/
Home: Side menu	/
Login	/
Place Detail	/
List of Place	/
List of Category	/
Weather: Today	/

Weather: 5 Days	/
Weather: Cities	/
Profile	/
Profile: Change Password	/

2.1.2 User Interfaces

2.1.2.1 Splash

Figure 2.1 shows the splash for Trouvaille. Splash as the main page for loading the Trouvaille Application.

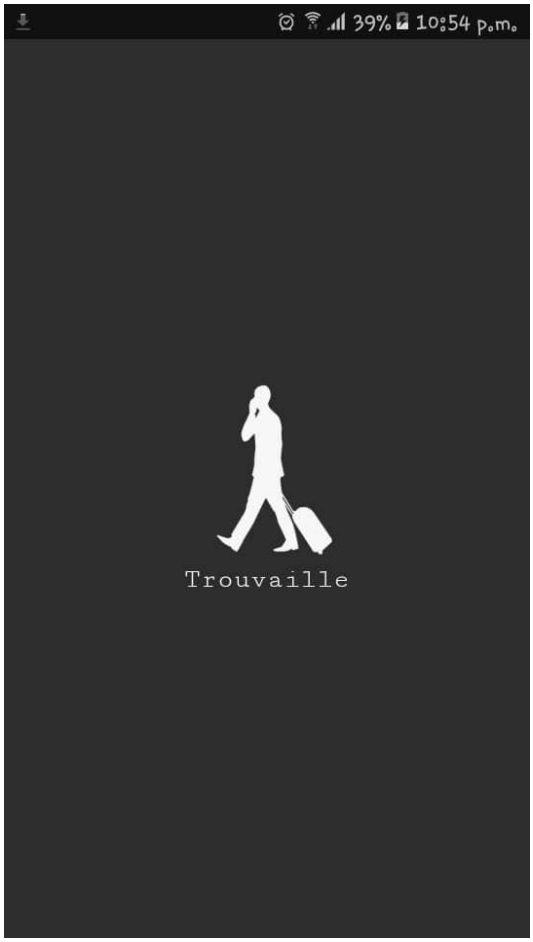

Figure 2.1 Splash Interface

2.1.2.2 Login and Register

Figure 2.2 shows the login interface for user. User need to register email and password before login if user don't have account yet as shown in Figure 2.3. If the entered input is wrong or empty, there will alert message to show that email and password is wrong or empty.

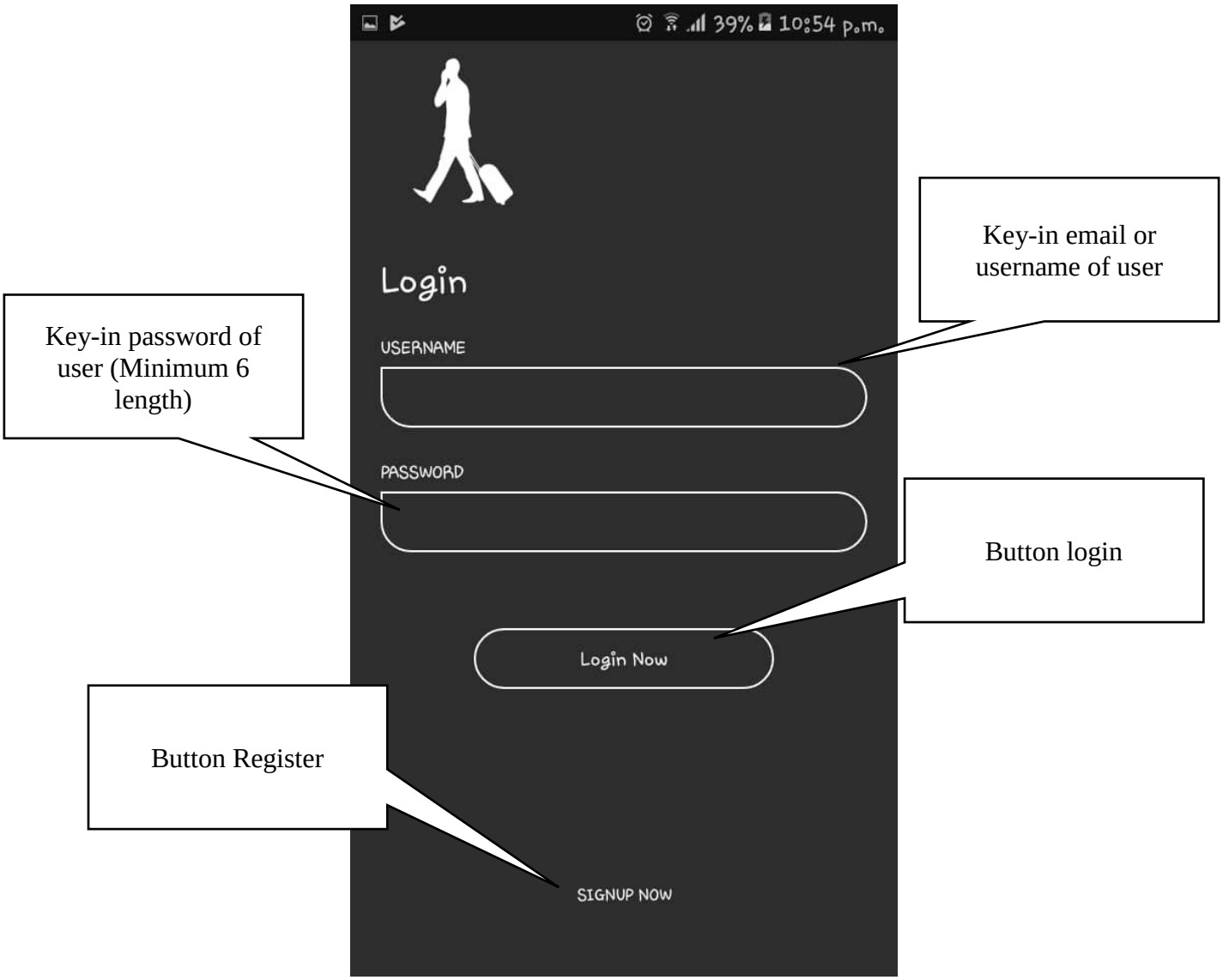

Figure 2.2 Login Interface

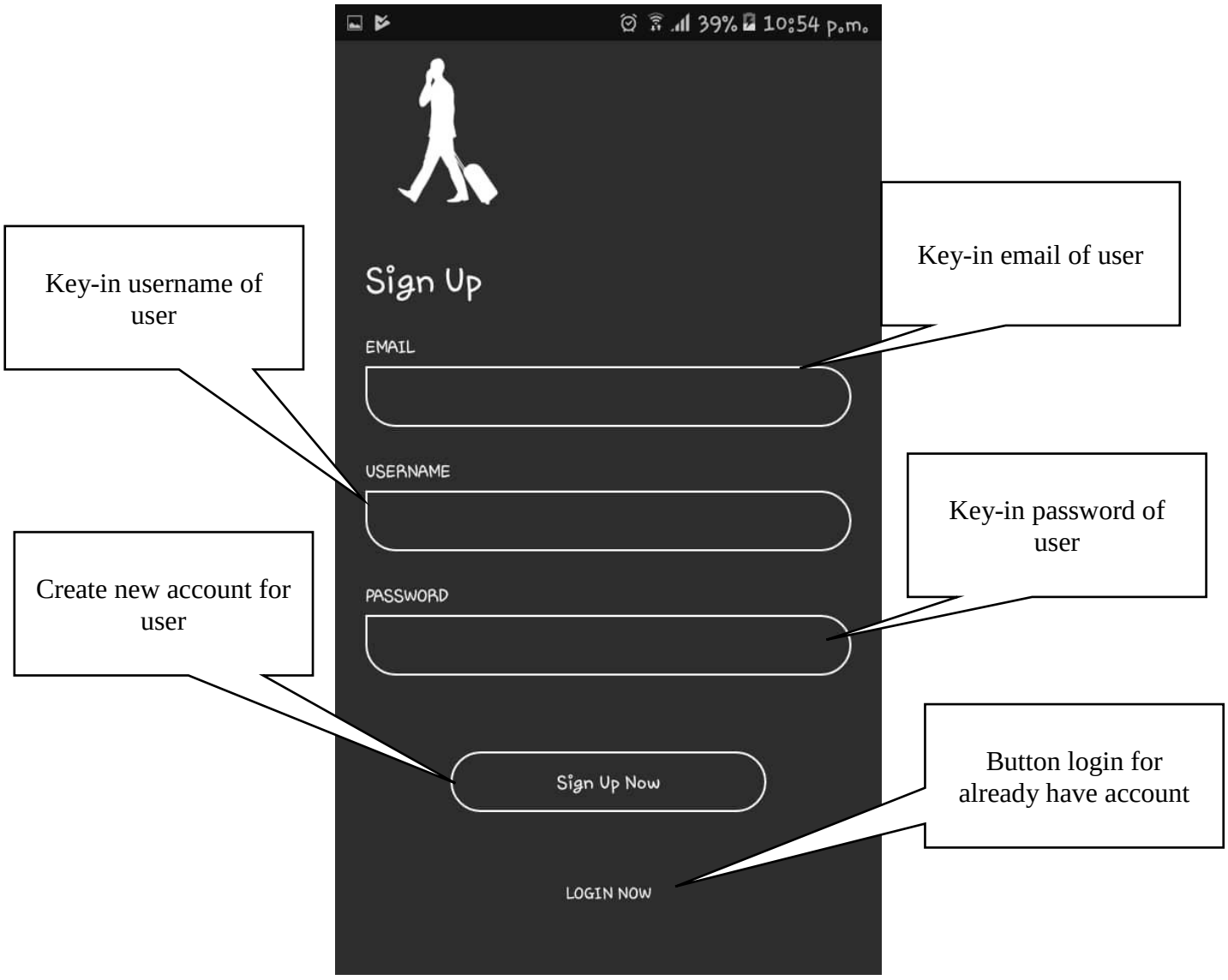

Figure 2.3 Register Interface

2.1.2.3 Home Interface

Figure 2.4 and Figure 2.5 shows the Home for user. In this home of side menu as guideline to user to find the place, category place and profile manage.

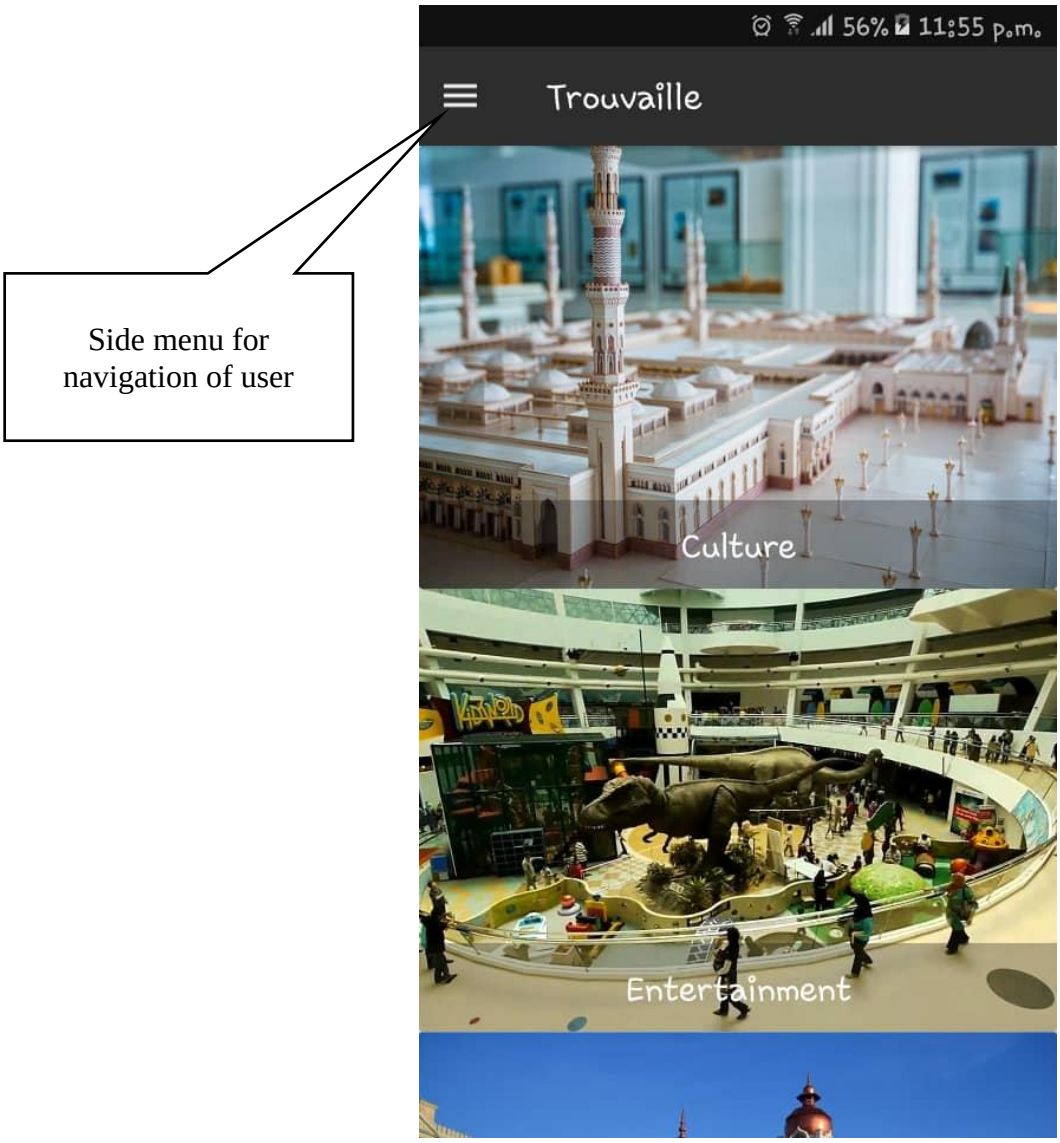

Figure 2.4 Home Interface

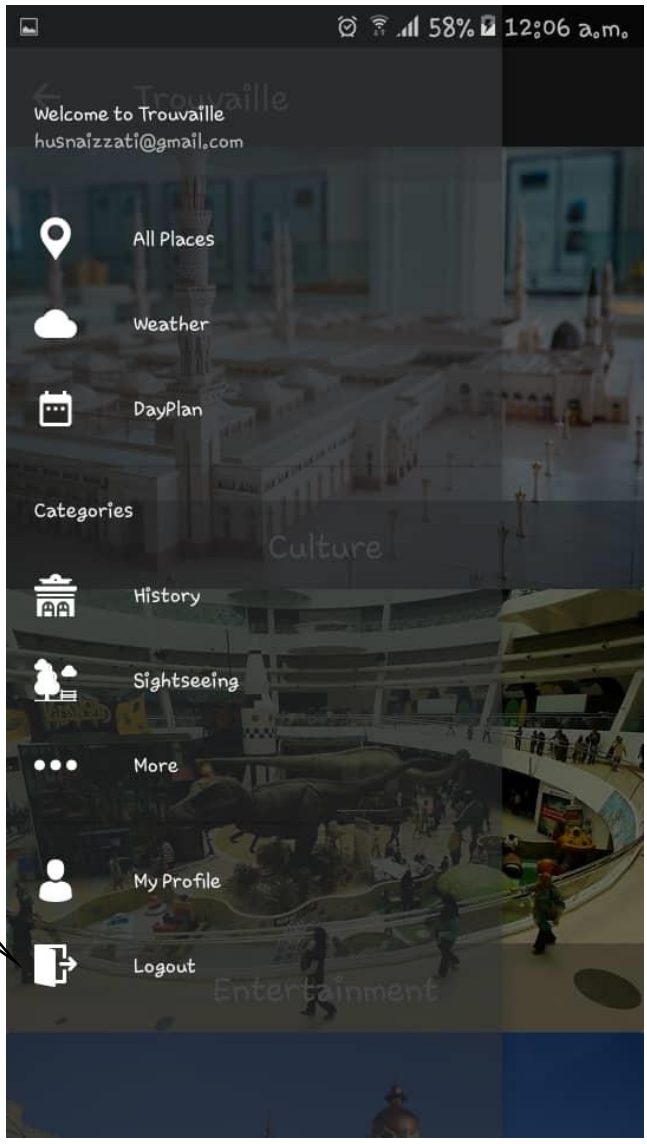

Figure 2.5 Side Menu Interface

2.1.2.4 All Place Interface

Figure 2.6 shown that user be able to view all place and search place in Kuala Lumpur.

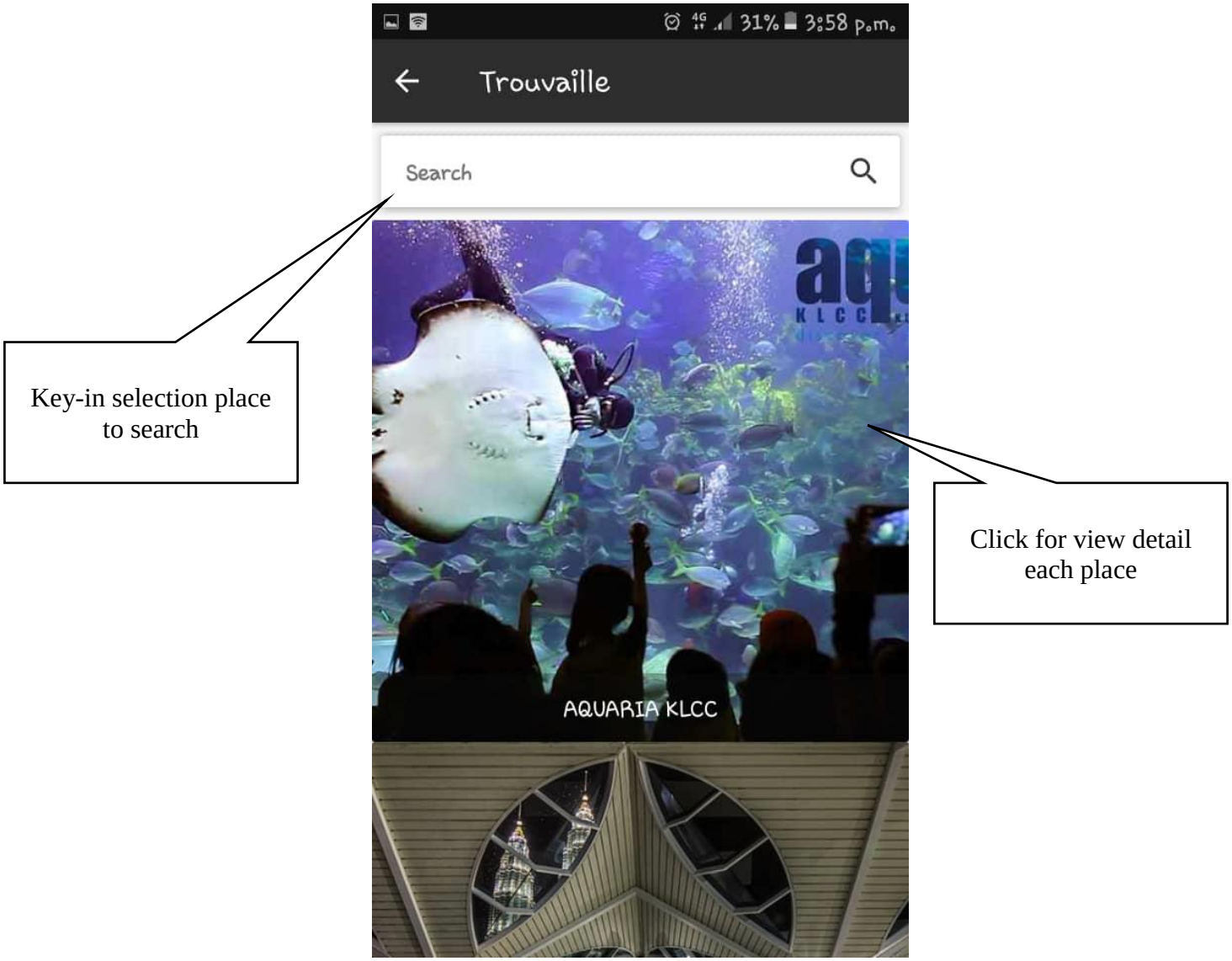

Figure 2.6 All Place Interface

2.1.2.5 Weather Interface

Figure 2.7 show that user be able view weather information in current place and Figure 2.8 show that user also be able view weather in current place for future weather for 5 days. Hence, user also be able view weather in search city that their select as shown in Figure 2.9.

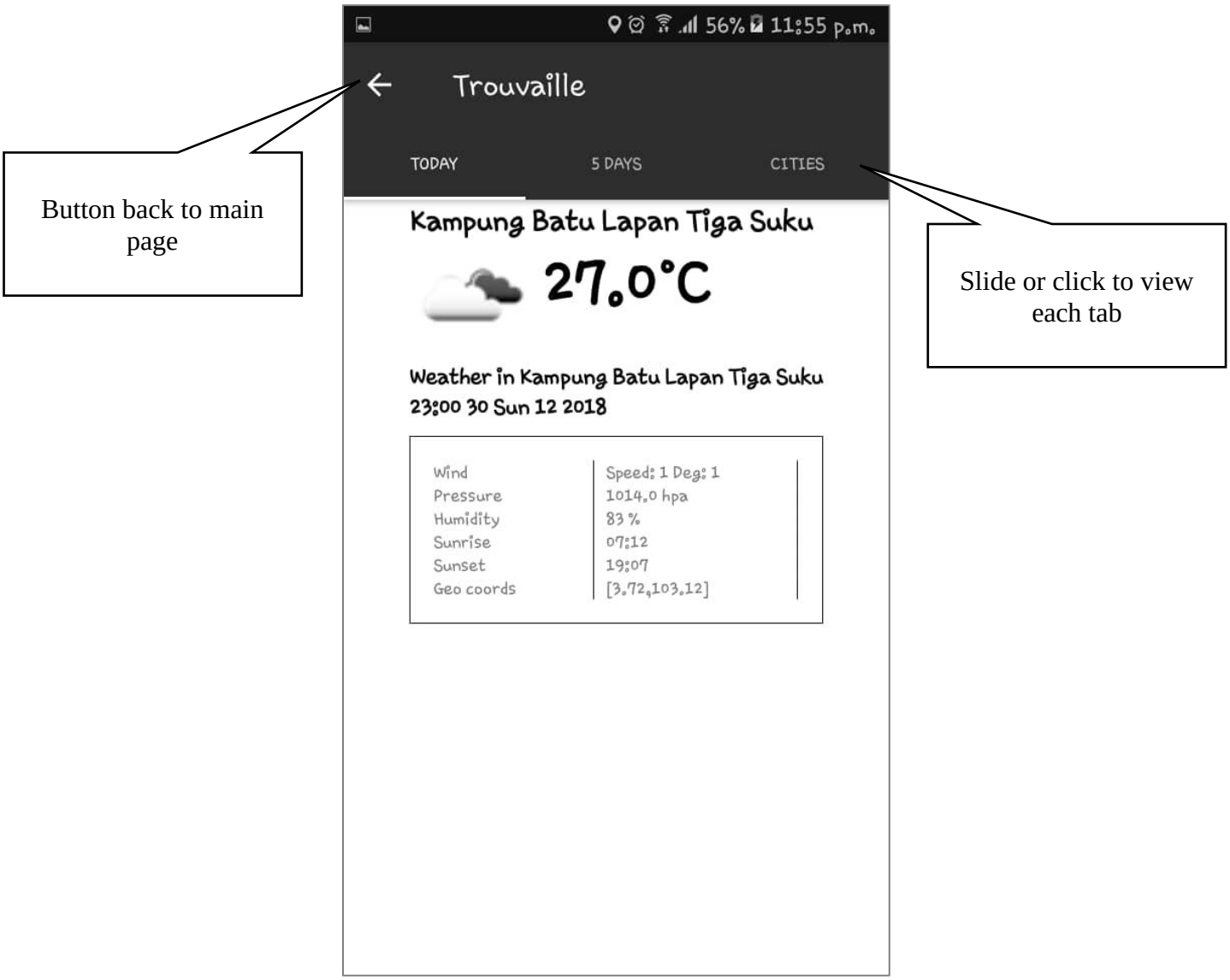

Figure 2.7 Weather: Today Weather Interface

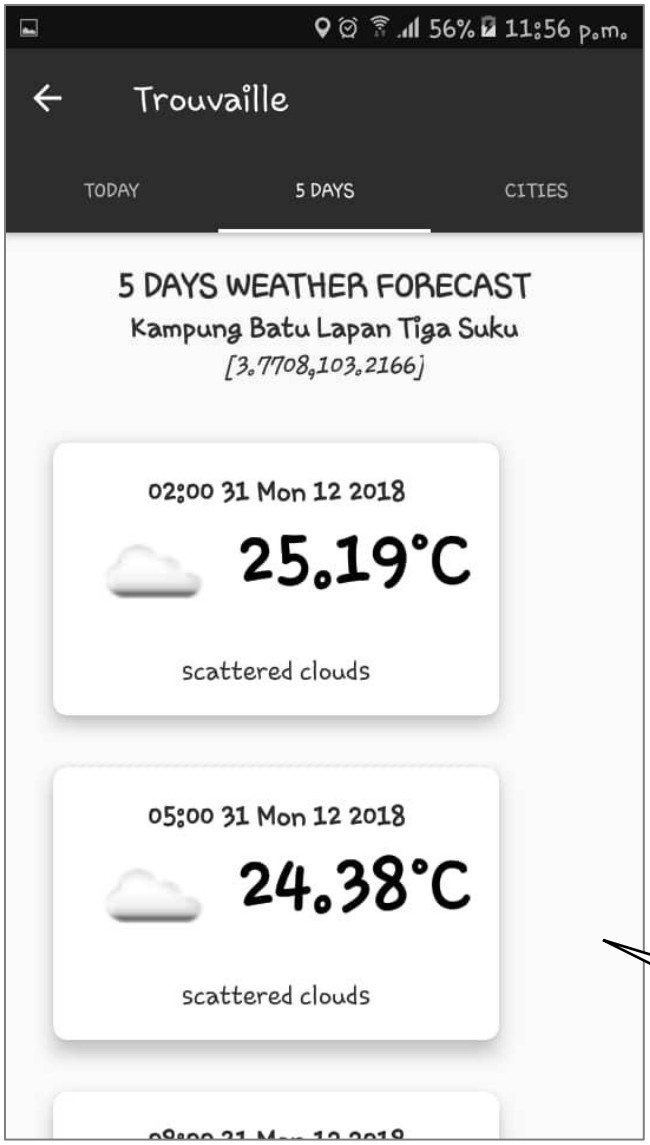

Figure 2.8 Weather: 5 Days Weather Interface

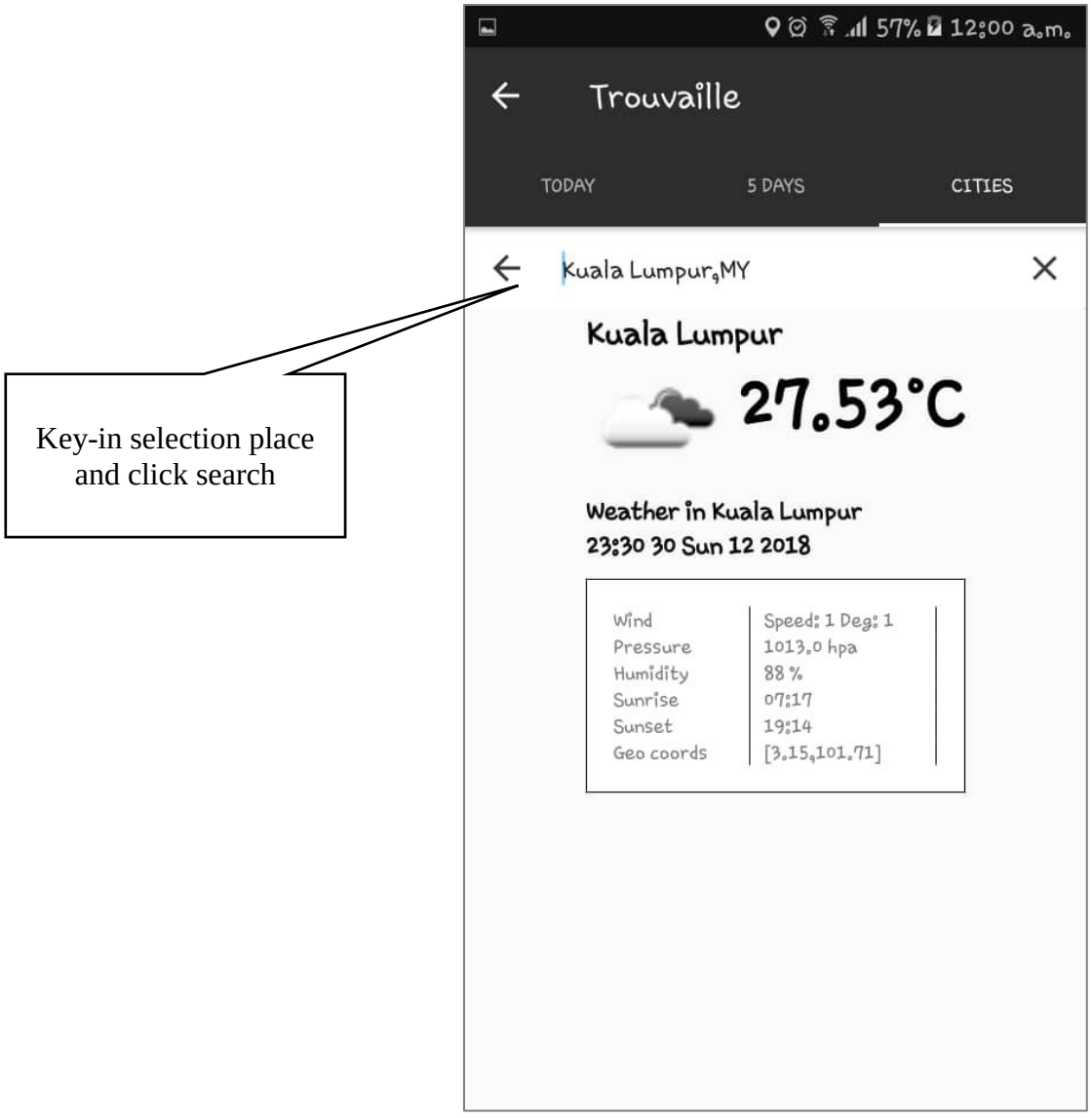

Figure 2.9 Weather: Cities Interface (Search)

2.1.2.6 Category Interface

User be able to view place based on the category list of places as show in Figure 2.10. The user be able view the sort list each category.

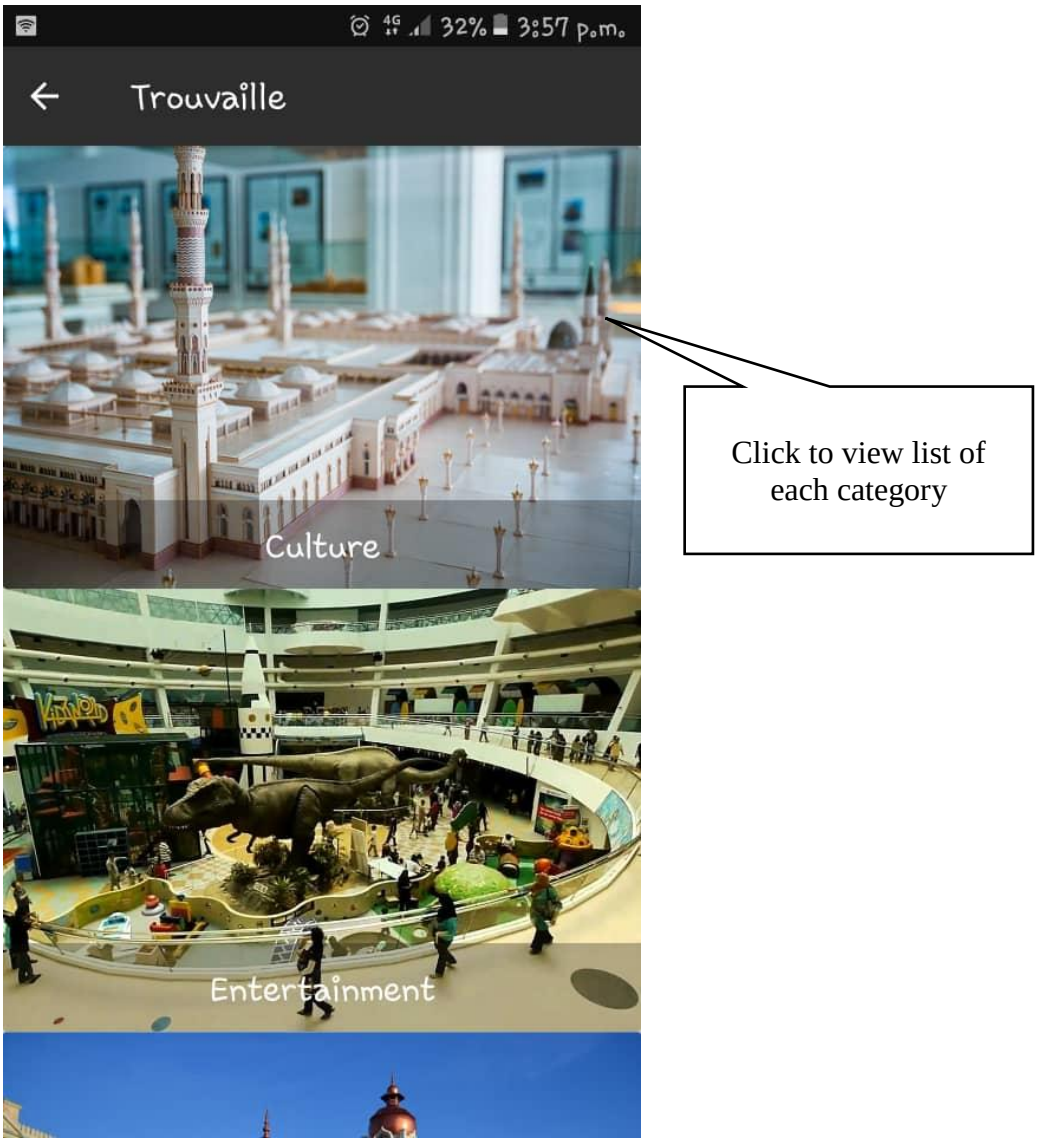

Figure 2.10 Category Interface

2.1.2.7 Place Detail Interface

Figure 2.11 and Figure 2.12 show that user be able to view detail each place in their selection. In this interface, user can view picture and information about the selection place.

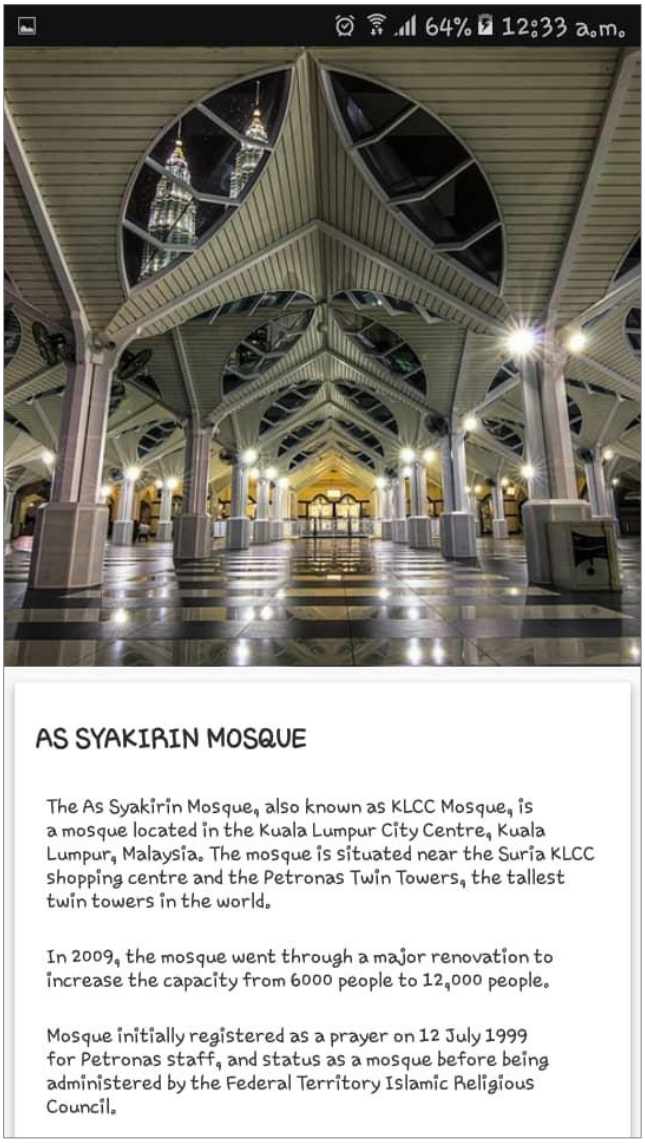

Figure 2.11 Place Detail Interface: Top

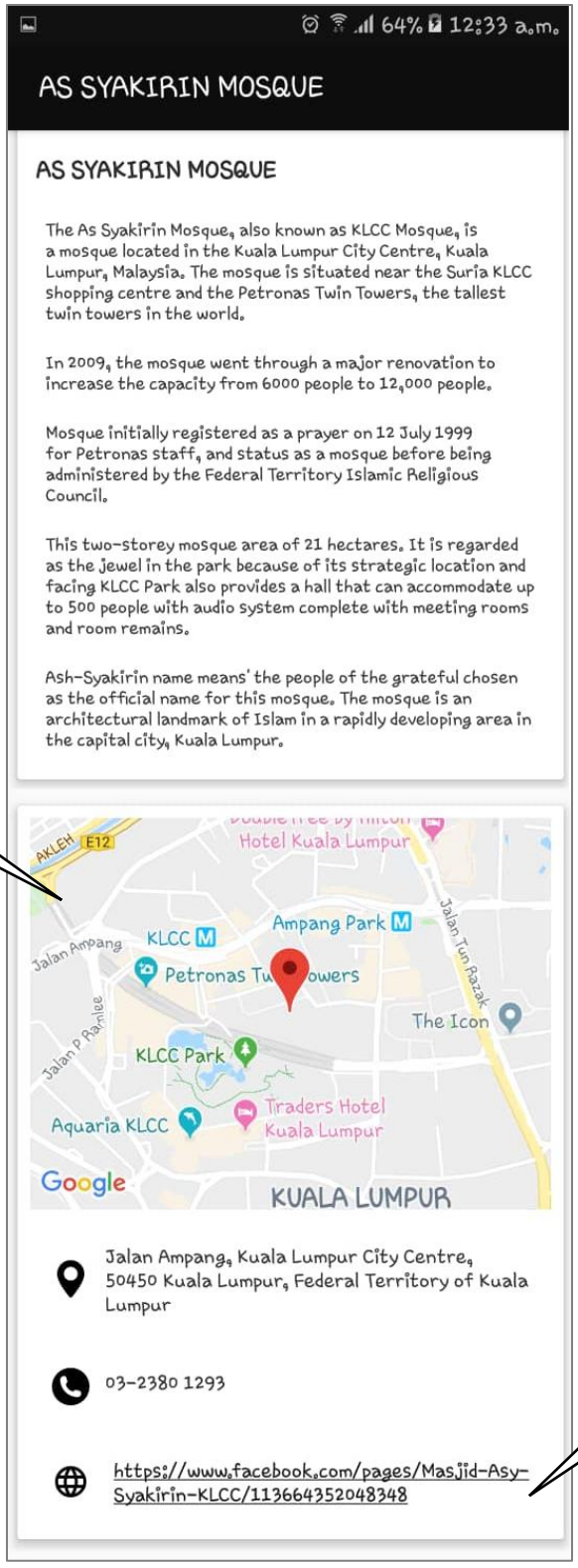

Figure 2.12 Place Detail Interface: Bottom (After Scroll)

2.1.2.8 Plan Interface

Figure 2.13 show that user be able view list their plan that have been create. This plan be able to delete and edit as shown in Figure 2.14.

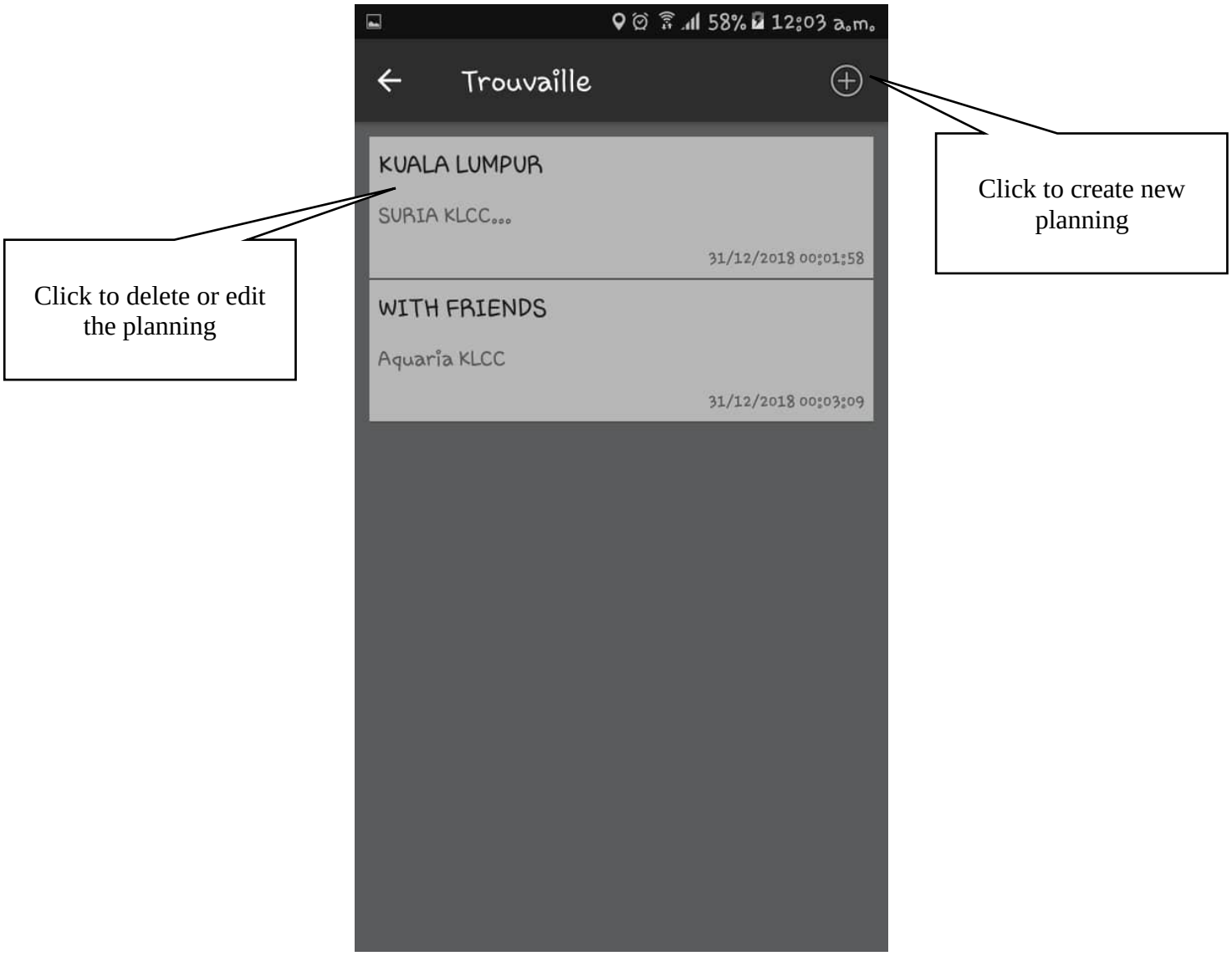

Figure 2.13 Day Plan Interface

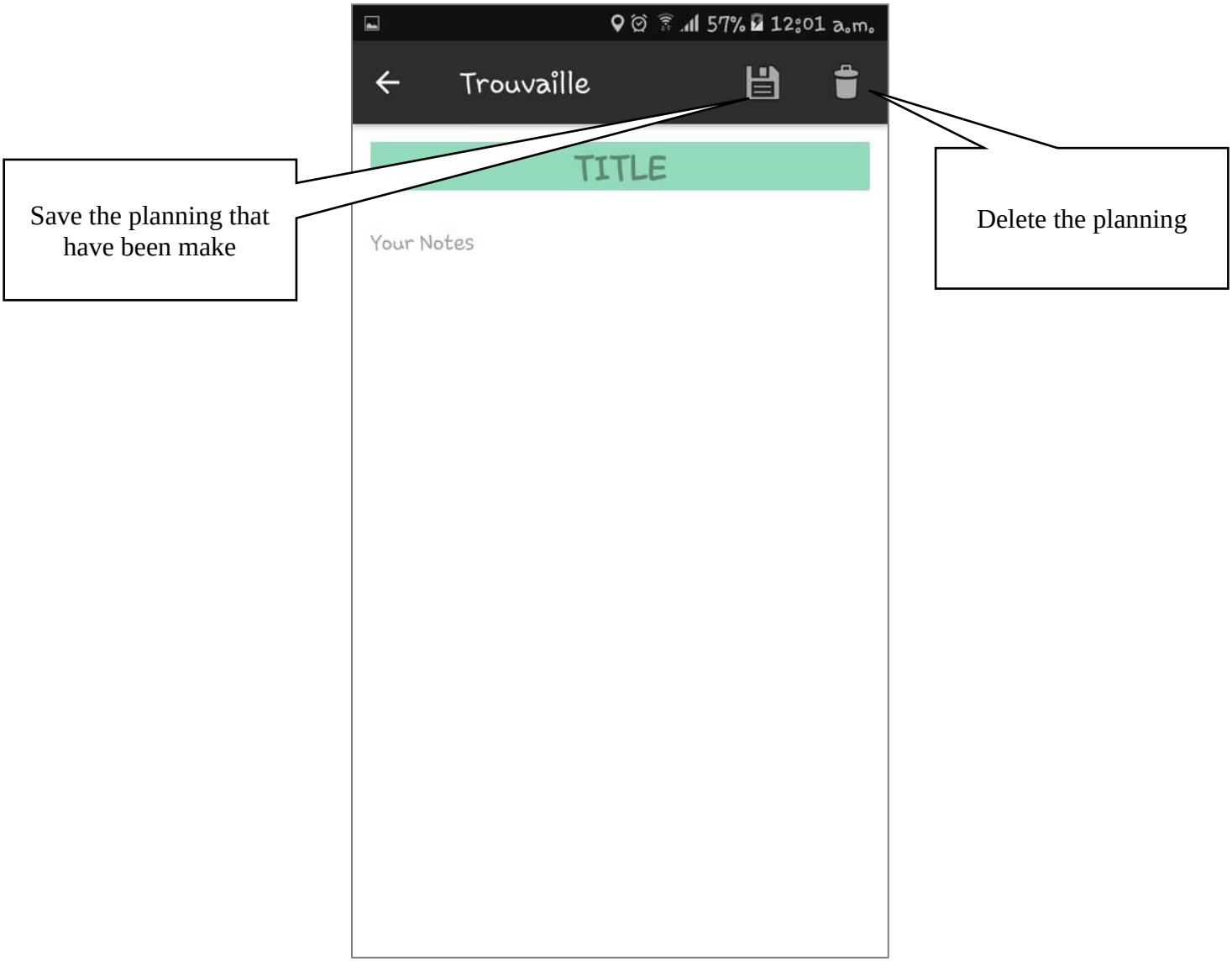

Figure 2.14 Add Day Plan Interface

2.1.2.9 Profile Interface

Figure 2.15 shows my profile for user to manage. In this interface user change or upload photo and change username. Also, for change password as shown in Figure 2.16 and delete account as shown in Figure 2.17.

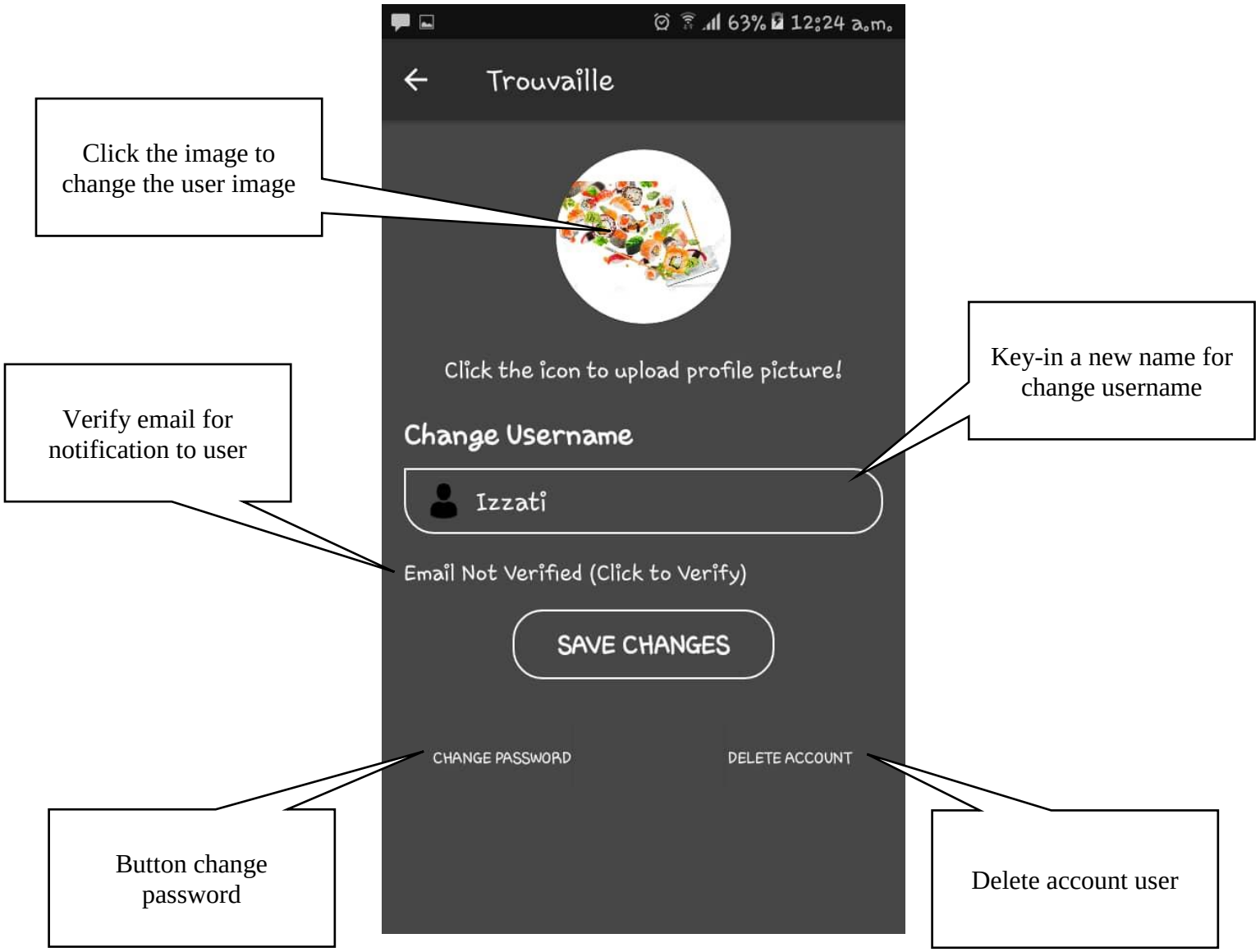

Figure 2.15 Profile Interface

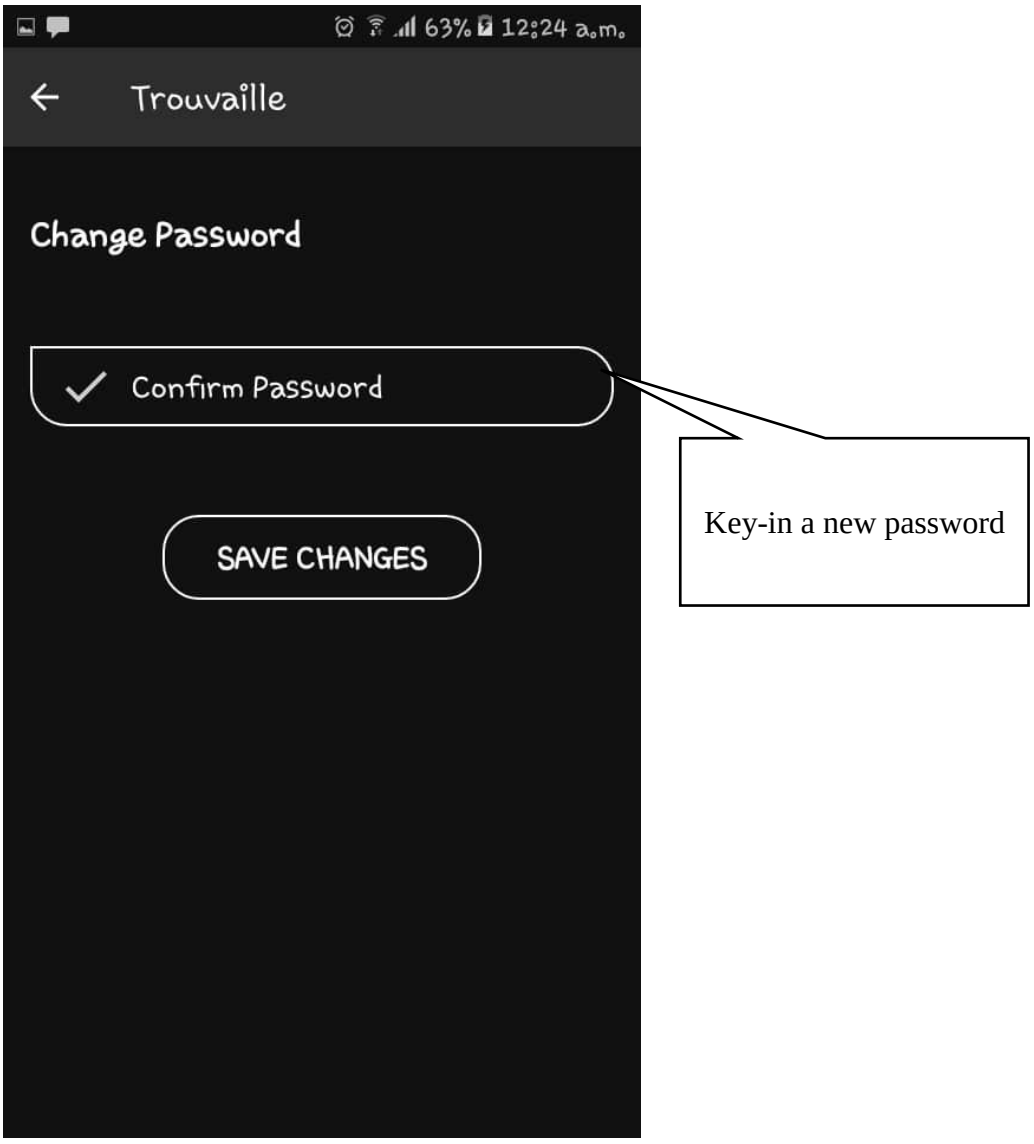

Figure 2.16 Profile Interface: Change Password

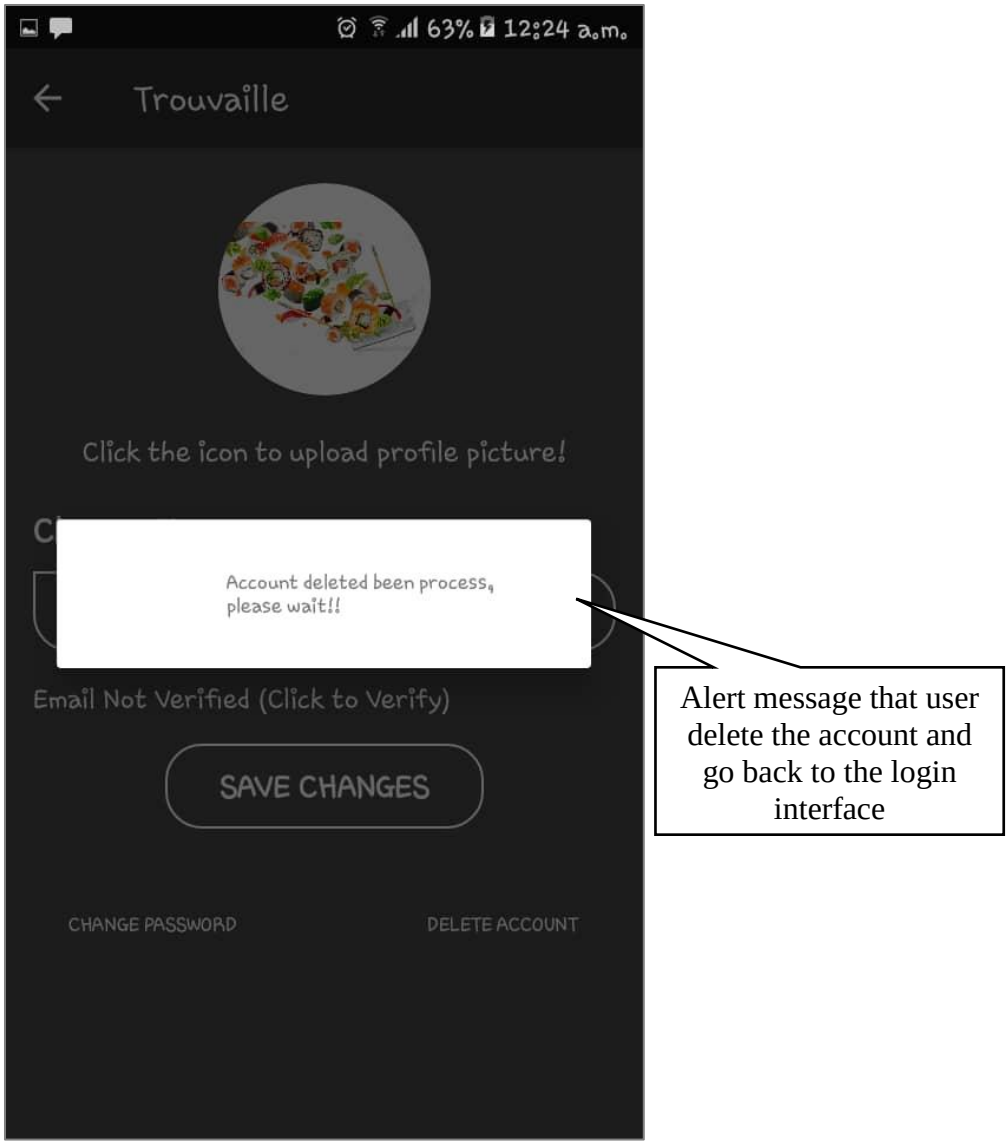

Figure 2.17 Profile Interface: Delete Account Alert Messege