
Development of Trippi as a Mobile Application for Hangout, Create Plans, Places, and Add Events Using Android Studio

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ABSTRACT

This paper describes the development of a Hangout application as a mobile application using Android Studio with Java. This application will also be developed for Android and iOS. As we know that almost all students in every university are nomads. They do not know every single good place to hangout with their friends. This is the main motive of building Trippi as a mobile base hangout application. Trippi helps to make plans hangout, people can share their hangout plans with other people by using this application. In addition to the community, Trippi also provides convenience to the event organizer and the owner of a hangout spot in publicizing the event as well as a hangout place so it can be widely known to the public. With this application, hangout with friends will be easier and more fun.

Keywords: Android Studio, Trippi, Hangout.

1 INTRODUCTION

In this digital age, technology is developing very rapidly. The use of technology is already widely used by people in their everyday lives. Many things that we can get by using technology. One example is to look for places that we do not know well for a tour, search for addresses, and others. Technology allows us to know the various locations somewhere that there is in this world very quickly. But there is one problem, the results of data on a given location have not been filtered properly in accordance with our criteria and the data displayed a complete lack of which makes us have to search again repeatedly to get the information we want is complete.

Every human being must require entertainment and hangout with friends. But to create a schedule that fits hang out in accordance with the time and cost which is owned not easy to reverse the palms. We have to figure out what the ideal place to be a place to hangout of the Google search engine and other travel apps, then record the name of the place in the notes and determine a suitable time. Or maybe if we wanted entertainment in the form coming into place to hold events such as a concert or bazaar, we should look for more information and determine an appropriate timetable.

Especially as we know that in Jakarta in particular, especially in the areas of the campus very much immigrants-immigrants who come from outside Jakarta. Most of them do not know a lot of nice places to relax better and better places that are located close to their residence or far, so as wanted out but did not know his place. Many of the contemporary society increasingly lazy to survey the road itself where the nice places that can be visited and used as a place to relax even though they really want to go out to relax.

This problem can be seen from the opportunities that can be taken to build a business that can assist people in making it easier to find and schedule hangouts anywhere and anytime with just one click. Thus came the solutions we offer are Trippi. Trippi itself is an application that specializes in technology, particularly in the form of a website where our company provides services to enable people to make plans to hangout. In addition to making plans hangout, people can also share their hangout experience to other people by using this website. Trippi also provides convenience to the event organizer and the owner of a hangout spot in publicizing the event and hangout places that can be known by the public at large. This idea was inspired because of the many young people today who want to hangout but do not know who wants to go and when the time is suitable. This app certainly will help solve these problems with quality places and has been reviewed by many people.

2 METHOD

The application which is discussed in this journal is hangout application whose name is Trippi. Trippi is an application that is engaged in technology, especially in the form of mobile applications. This application is useful to make it easier for people to make a hangout plan. Besides making a hangout plan, people can also share their hangout experiences with others using the application. Trippi also provides convenience to event organizers and owners of hangout places in publishing events and hangout places so that they can be known to the public at large.

Trippi has 4 main functions:

1. Users can make hangout planning easily
2. Users can share the hangout plan that has been made to other users
3. User can easily publish an event to the application
4. User can easily publish a hangout place to application

For the development of Trippi the platform used is android, the language used is JAVA and XML and the IDE used is Android Studio. In General, the process of making this application will be divided into 3 stages:

1. Stage of Idea Discussion and Refinement

At this stage, the objectives that must be achieved are enhanced requirements/criteria. The concept of the application that is carried out will be discussed in detail to determine the requirements needed for implementation needs and technical requirements such as what programming language is used and other things in question. The results of this stage are a list of the requirements/features that exist in the application, tools, and materials needed, division of tasks, and schedule of activities.

2. Stage Design User Interface

To design a User Interface Requirements are needed which are discussed in the first stage. This design stage is very important for this application. How this application can attract users and also provide efficient and effective functionality. The User Interface will be designed using the Adobe XD program which can be downloaded for free from Adobe's official website. With the help of this program, the User Interface can be designed in detail and can show the functionality of this application project. The results of this stage are a description of the User Interface which will then be used as a guideline at a later stage.

3. Application and Testing Making Phase

At this stage, the application creation process will begin. The Trippi application will be created with the help of Android Studio with the Java programming language. The basic Android operating system used to develop the Trippi Application is the 7.0 operating system Android Nougat. This operating system is a basic operating system because based on the data obtained by the Android operating system, the most widely used is Android version 7.0 Nougat. After the application creation process is complete, an application will be tested to see whether the application works as expected or not. If there is an error, the application will be re-evaluated.

The following is the use case, activity diagram and class diagram of Trippi application

2.1. Use Case Diagram

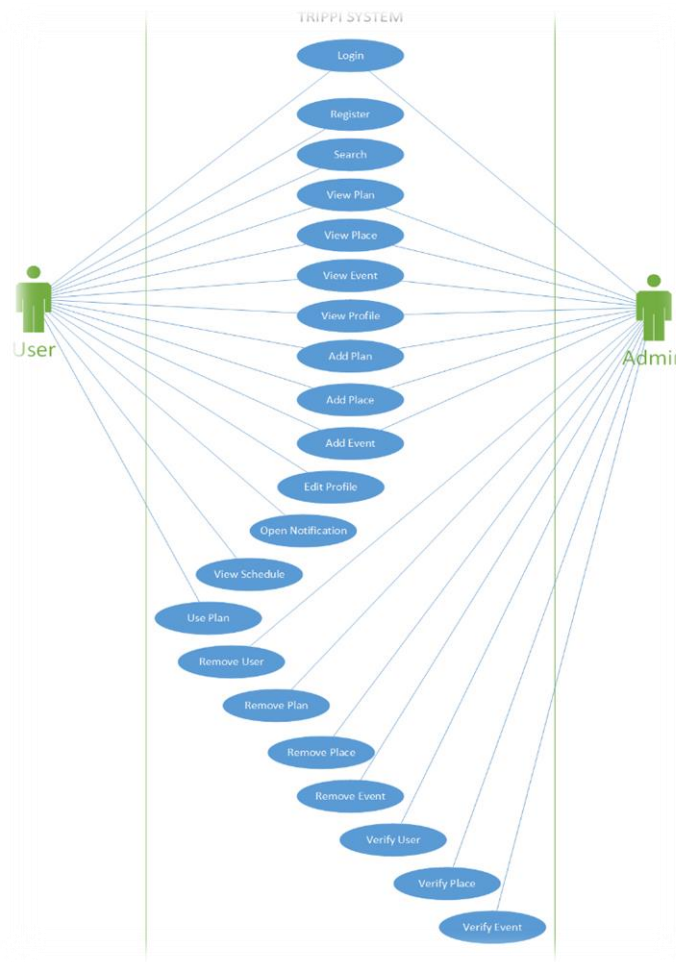


Figure 1. Use Case Diagram

A UML use case diagram is the primary form of system/software requirements for a new software program underdeveloped. Use cases specify the expected behavior (what), and not the exact method of making it happen (how). In this application, users will be divided into 2: ordinary users and admin.

2.2 Activity Diagram

Activity diagram is another important behavioral diagram in the UML diagram to describe dynamic aspects of the system. Activity diagram is essentially an advanced version of flow chart that modeling the flow from one activity to another activity. The following figures are Trippi's activity diagram for each case:

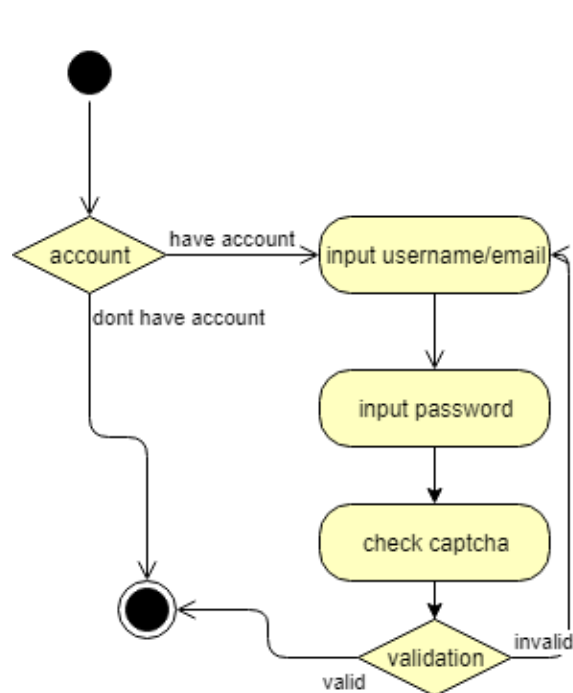


Figure 2. Login Activity

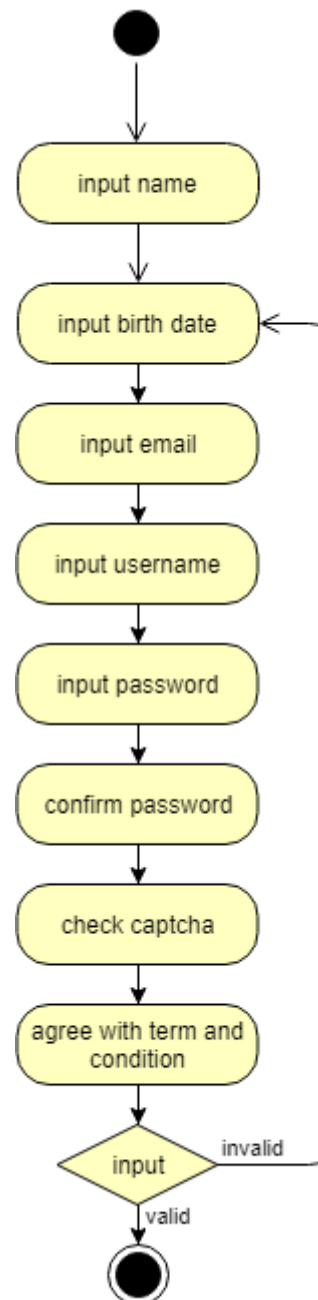


Figure 3. Register Activity

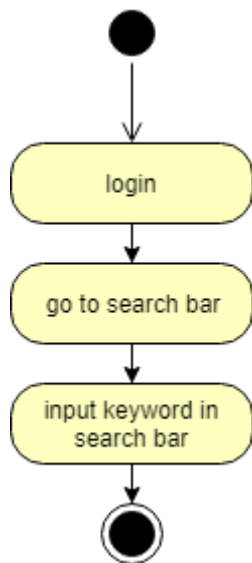


Figure 4. Search Activity

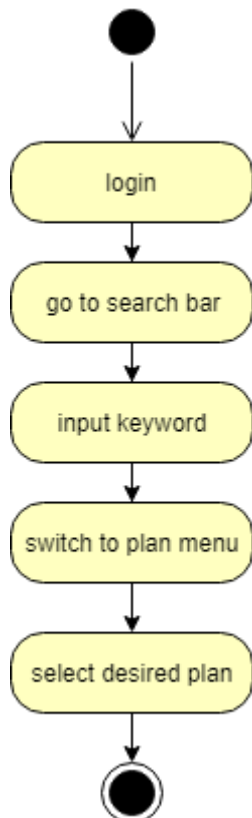


Figure 5. View Plan Activity

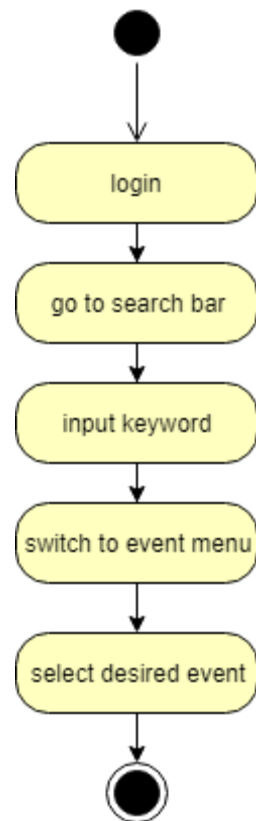


Figure 6. View Event Activity

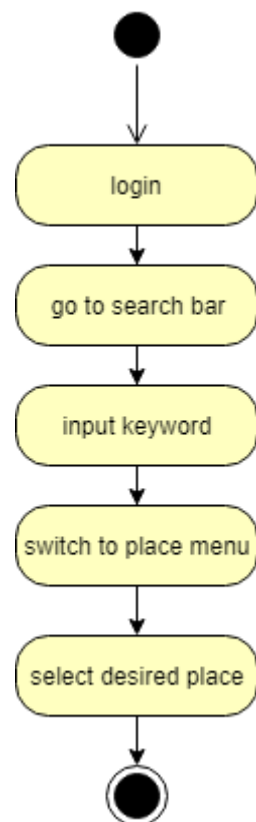


Figure 7. View Place Activity

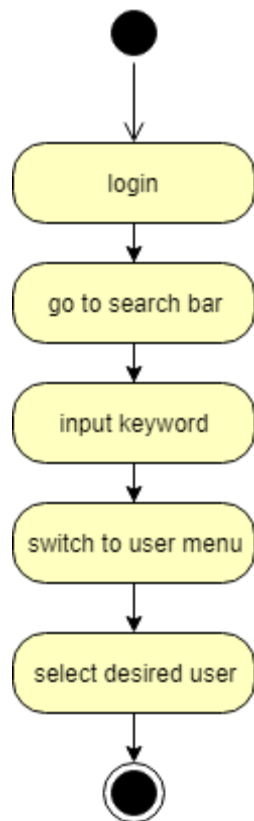


Figure 8. View User Activity

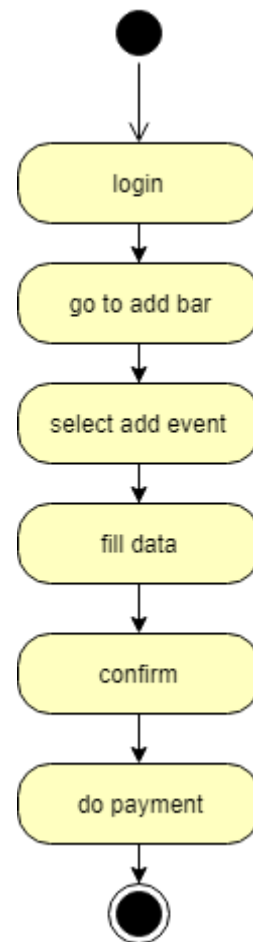


Figure 10. Add Event Activity

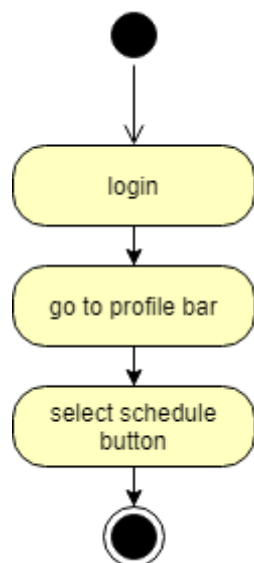


Figure 9. View Schedule Activity

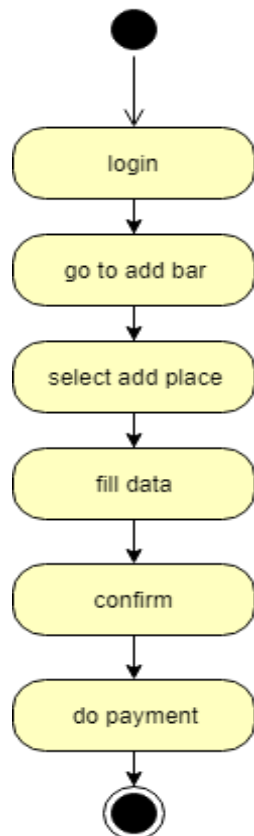


Figure 11. Add Place Activity

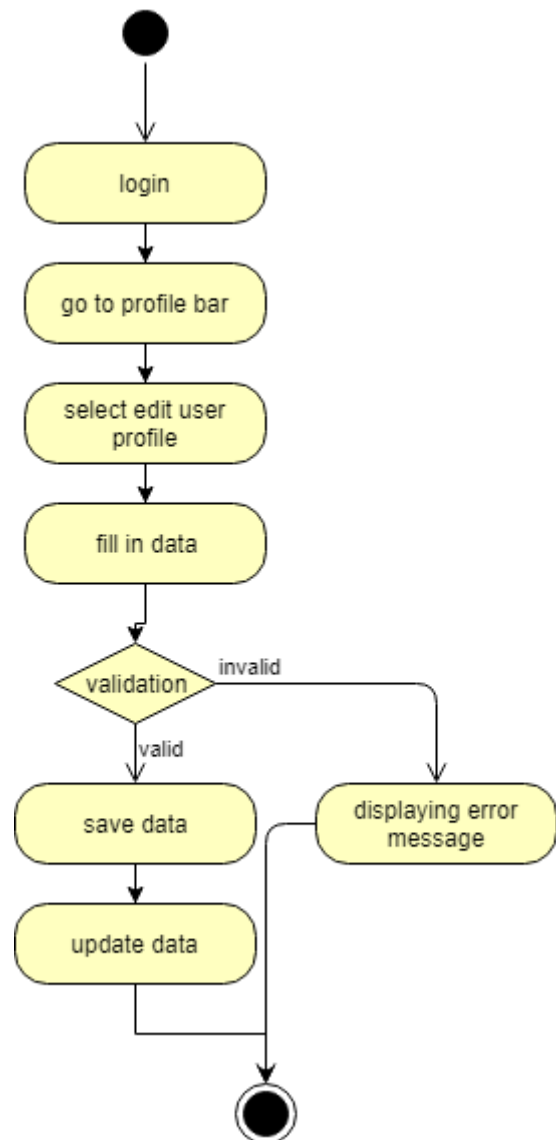


Figure 13. Edit Profile Activity

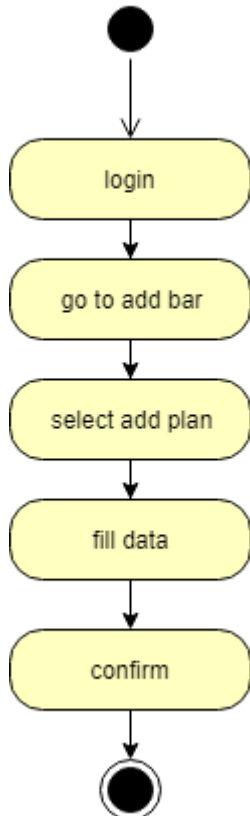


Figure 12. Add Plan Activity

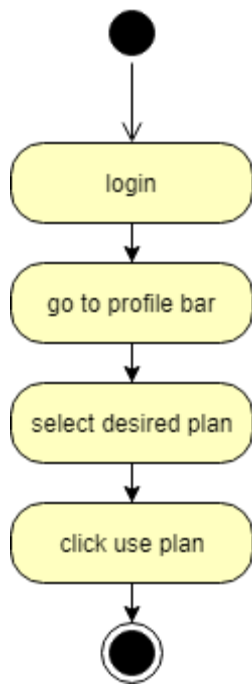


Figure 14. Use Plan Activity

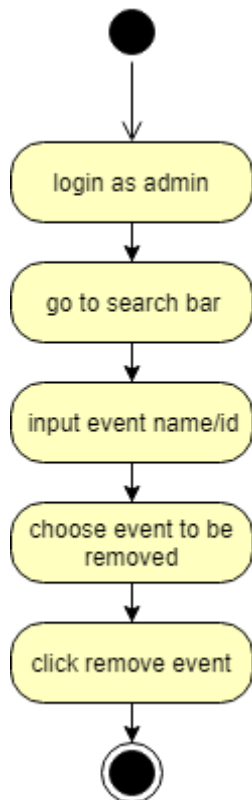


Figure 15. Remove Event Activity

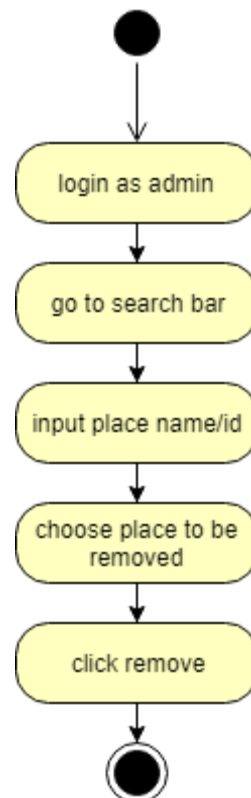


Figure 16. Remove Place Activity

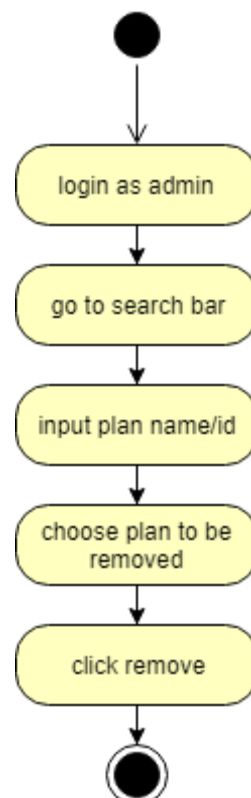


Figure 17. Remove Plan Activity

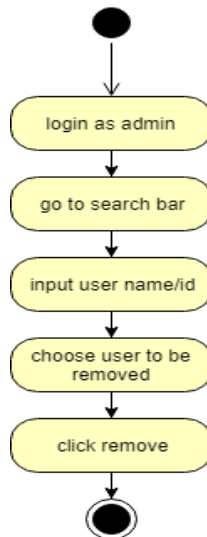


Figure 18. Remove User Activity

2.3. Class Diagram

In software engineering, a class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects. The following figure is Trippi's class diagram for each case:

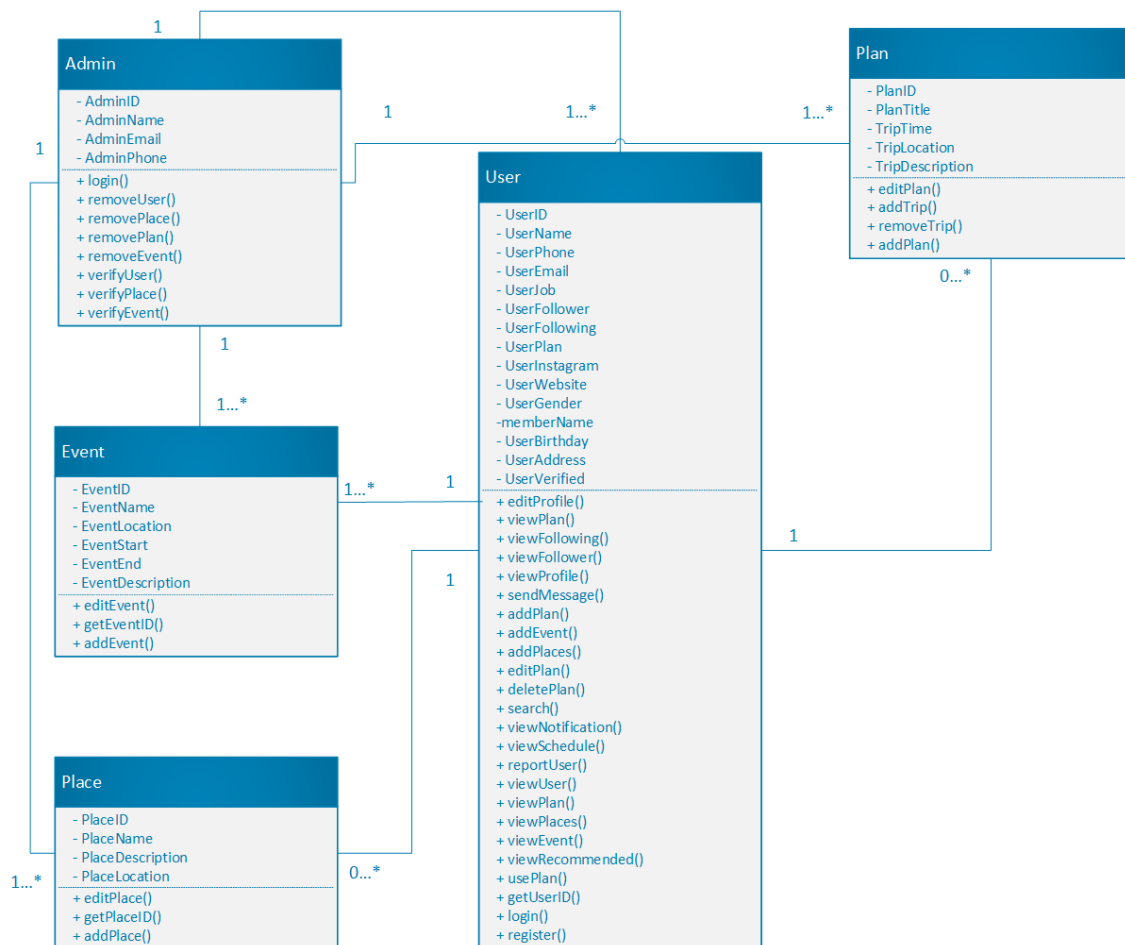


Figure 19. Class diagram

3 RESULTS

Application is divided into 2 phrases: User and Admin.

3.1. USER SIDE :

The user side includes: Login, Home Screen, Search, Add, Message, Profile, View Plan, View Place, and View Event.

LOGIN

The following figure is the first page after the landing page animation. On this page, user has to input email or phone number and password to log in. If the user forgot the password there is an option “forgot password”. If the user hasn’t registered yet, the user can select the option “register”.

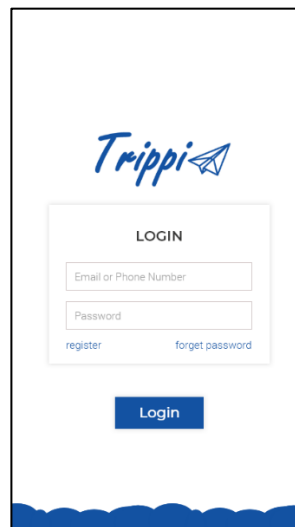


Figure 20. Login Screen

HOMESCREEN

The page will be shown after Login. On this page, there are lists of latest plans added by the people who followed by the user (timeline). Users can view the plan and can use it too. There is a navigation bar on the bottom of the screen. There are 5 menus: Home, Search, Add, Message and Profile. This navigation bar will be included on every page.

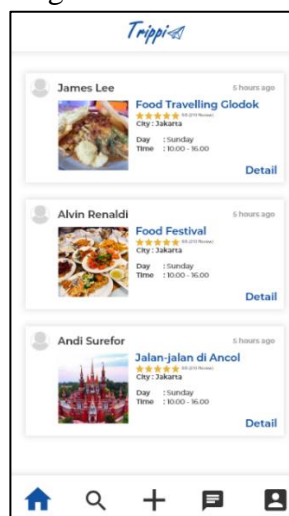


Figure 21. Home Screen

SEARCH

On this page, the user will be able to search for places, events, plans, and users. There will be 4 bar/options that can be chosen on top of the page. This page will also consist category menu (can be accessed by arrow button on the left), sorting option, and Add to List menu (menu on the right). Add to list menu will contain all the place and event that added by the user through the “Add to List” button on every place and event. Users can make a new plan from the added place and event.

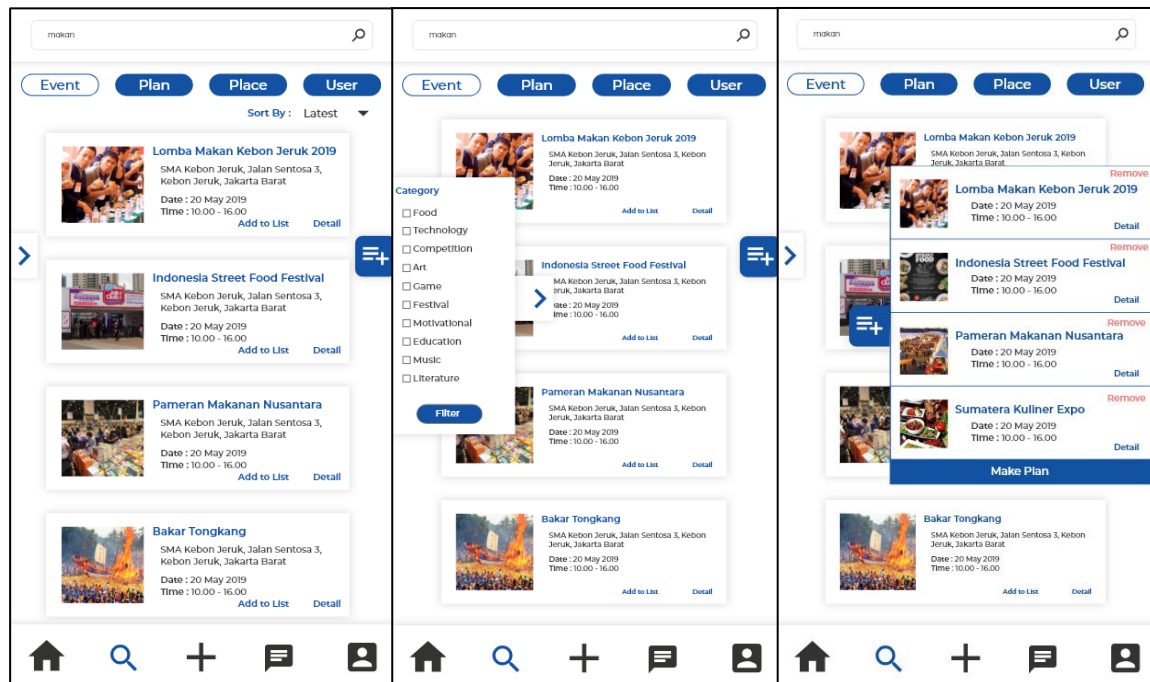


Figure 22.1 Search

Figure 22.2 Category filter

Figure 22.3 Selected trips

ADD

On this page, the user will be able to add a place, event, plan, and payment. For adding the place and event will require payment. This payment is to make sure that the added place and event are legit, not false place or event. The following figures will show how the design of each features will be shown to user:

Add Plan

Figure 23.1 Add Plan

Figure 23.2 Prompt to publicize or keep the plan private

Add Event

Figure 24.1 Add Event

Figure 24.2 Prompt event payment

Figure 24.3 Payment event confirmation

Add Place

The screenshot shows the 'ADD' screen with three tabs: 'Event', 'Plan', and 'Place'. The 'Place' tab is selected. The form includes fields for 'Place Name', 'Place Description', 'Physical Address', and 'Map Address'. Below these is a map view. At the bottom, there are two buttons for 'Upload Image (poster, banner etc) About Event': 'Upload from gallery' and 'Upload from Gdrive'. A 'Next Page' button is at the very bottom.

Figure 24.1 Add Place

This screenshot shows the same 'Add Place' form as Figure 24.1, but with a modal overlay. The overlay text reads: 'Payment is require to add place', 'This payment is intended for make sure the added place is legit', and 'Are you want to proceed?'. There are 'Yes' and 'No' buttons in the overlay.

Figure 24.2 Prompt place payment

The screenshot shows a 'PAYMENT' confirmation screen. It displays the amount 'Rp 50.000'. Below this, it shows the 'Detail of Added Place' with fields for 'Place Name' (Rumah Makan Bahagia), 'Place Description' (Rumah makan ini terletak di gang kecil sebelah toko bangunan. Makan disini enak dan murah. Penjualnya juga ramah dan baik. Kondisi rumah makan juga bersih dan rapi.), 'Physical Location' (Gang Bahagia No. 22, Kebon Jeruk), and 'Map Address' (Gang Bahagia No. 22, Kebon Jeruk). There is a 'Payment Method' dropdown menu set to 'BCA VIRTUAL ACCOUNT'. At the bottom of the overlay are 'Continue' and 'Back' buttons.

Figure 24.3 Payment place confirmation

Payment

The screenshot shows the 'Payment' screen. It has tabs for 'Event', 'Plan', and 'Place'. The 'Place' tab is selected. The screen displays 'BCA VIRTUAL ACCOUNT' and the account number '85954 - 084565659898'. Below the account number, it states: 'You have 24 hours to do the payment. If the time limit is exceeded than the payment will be cancel. Payment confirmation will send to your inbox.' The bottom navigation bar is visible.

Figure 25. Payment

MESSAGE

In Message, Users will be able to view messages from another user, chat with other user and view messages and notification from Trippi.

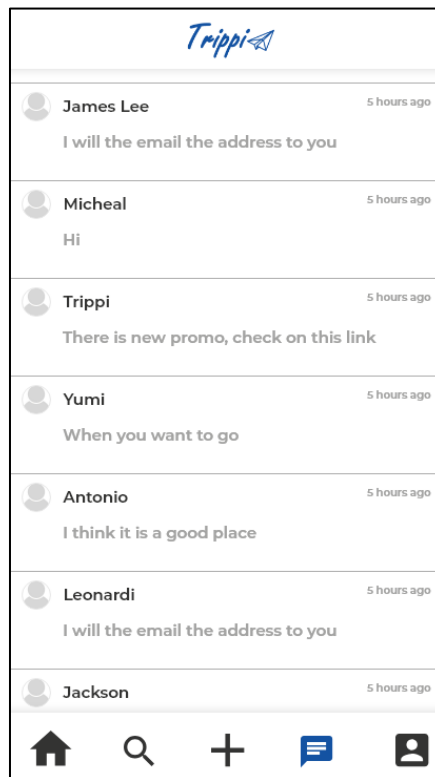


Figure 26. Message

PROFILE

In Profile, Users will be able to view their profile, plan, and schedule. There will be a profile photo, numbers of plans, numbers of followers, numbers of following, basic information, all the plans that have been made, schedule and stats.

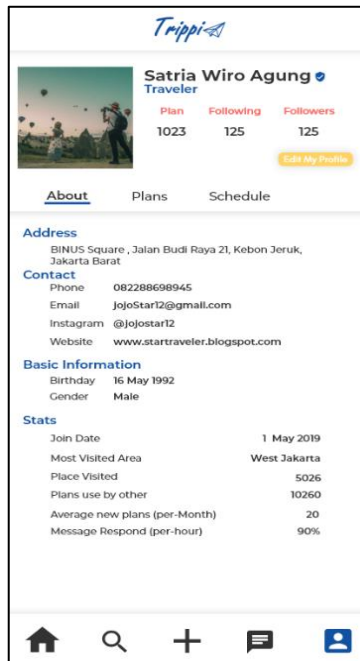


Figure 27.1 Profile details

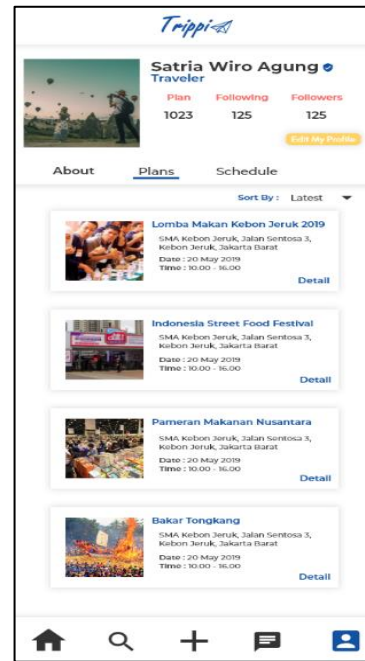


Figure 27.2 User's plans

VIEW PLACE

User can view place detail by clicking “detail” on the right corner of place block. Place detail includes description, address, photo, and video.

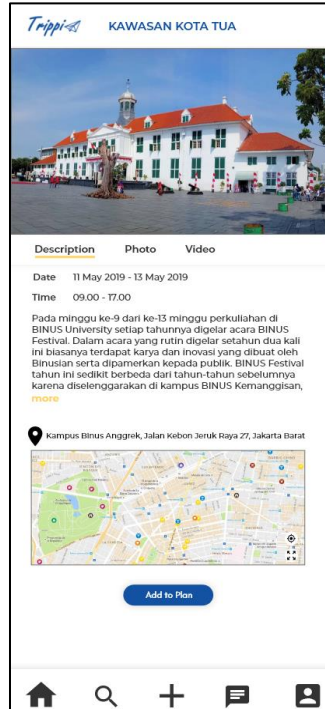


Figure 28. View Place

VIEW EVENT

Users can view event detail by clicking “detail” on the right corner of the event block. event detail includes description, address, time, date photo and video.



Figure 29. View Event

VIEW PLAN

Users can view their plan details and other user plan detail. Each plan will contain the plan's title, date, time and detail of every trip. For their plan, the user can add a new trip and can change the status.

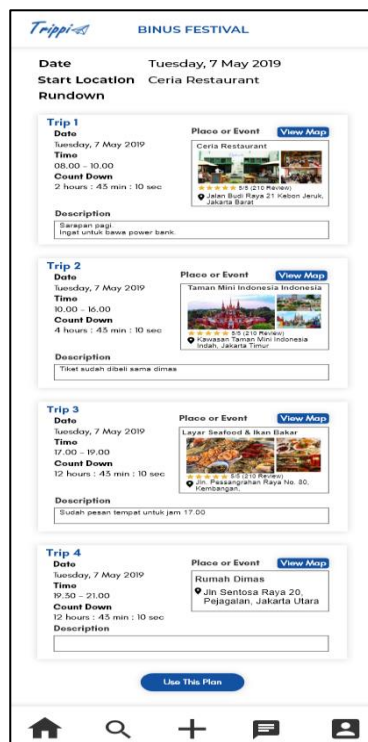


Figure 30.1 View public plans

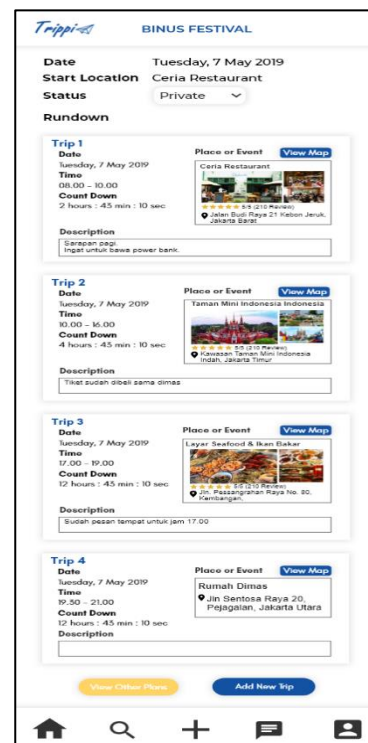


Figure 30.2 View private plans

3.2. ADMIN SIDE :

Admin will have their version of the application that will allow them to perform a specific task that only admin can do like remove place, remove events, remove users, remove plans, verify users, verify plan and verify place. But Admin will have to login first to access those features.

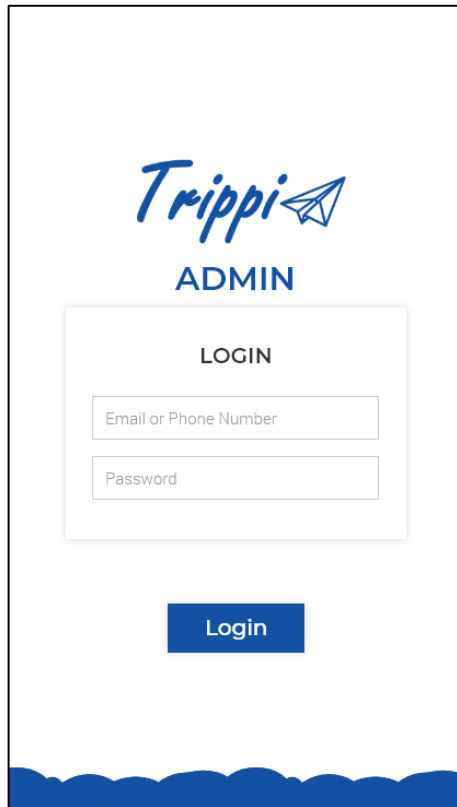


Figure 31.1 Admin login page

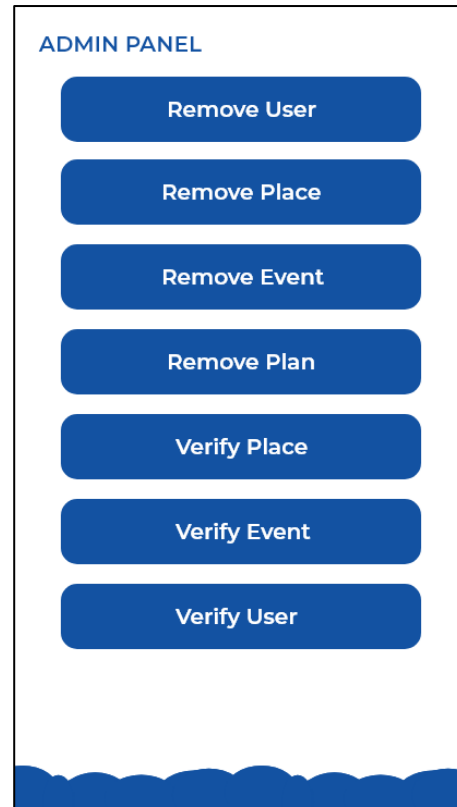


Figure 31.2 Admin utility page

4 DISCUSSION

In this digital age, technology is developing very rapidly. The use of technology is already widely used by people in their everyday lives. Many things that we can get by using technology. One example is to look for places that we do not know well for a tour, search for addresses, and others. Technology allows us to know the various locations somewhere that there is in this world very quickly. But there is one problem, the results of data on a given location have not been filtered properly in accordance with our criteria and the data displayed a complete lack of which makes us have to search again repeatedly to get the information we want is complete.

This problem can be seen from the opportunities that can be taken to build a business that can assist people in making it easier to find and schedule hangouts anywhere and anytime with just one click. Thus came the solutions we offer are Trippi. Trippi itself is an application that specializes in technology, particularly in the form of a website where our company provides services to enable people to make plans to hangout.

The team used the following steps to solve the above mentioned issues in order to complete the system in a successful manner

1. Stage of Idea Discussion and Refinement.

2. Stage Design User Interface.
3. Application and Testing Making Phase.

For the development of Trippi the platform used is android, the language used is JAVA and XML and the IDE used is Android Studio.

5 RELATED WORK

The novelty of our work is that we clarified the following:

- Best platform to implement Trippi application to gain as much advantage as possible;
- Best platform to start a software based business application;
- Market condition for Trippi application's platform;
- Trippi application's effect in society;

Existing studies have concluded that mobile-based application is the most suiting platform to start a software-based business and application that requires users' current location in order to deliver the best service that the application allows. For the mobile's market condition, most of the mobile company has own mobile application markets like Appstore application for iOS-based mobile devices and Google Playstore for Android-based mobile devices. From those available online markets, mobile users can download many mobile applications with much variation of its categories like games, lifestyle, entertainment, etc which indicates its large and growing potential to do business in.

In "Mobile Application and Its Global Impact" journal created by Rashedul Islam, Rofiqul Islam, and Tohidul Arafhin Mazumder indicates that In a year-round a large number of a smartphone being sold, so mobile application development is one of fastest-growing business. Business in this context is not about the business of earning money by developing or sale mobile applications, the business in this context is all about earning money by providing a service. Trippi is an application which allows users to easily make plans and or schedule. Thus Trippi won't be earning money by selling the application, but Trippi will earn revenue from other sources like partnership and advertisement.

Rashedul Islam, Rofiqul Islam, and Tohidul Arafhin Mazumder also mention the effect of mobile application in society from its ethical perspective. A mobile application allows the user to create a simple and easy to use communication that does not depends on the geographical location of one another. Mobile application also allows the user to do their daily works like check emails, contact with business partners, etc any time and almost everywhere so that the users can save up a lot of time to use the mobile device rather than booting up a pc or laptop just to do simple things and also increases the productivity of society.

In "Mobile Application Development: All the Steps and Guidelines for Successful Creation of Mobile App: Case Study" by Kishore Baktha mentions that the number of mobile apps is growing at a rapid rate, which leads into a big competition in business perspective since the competition for successful app creation is high. A successful app development refers to more downloads, more users and less faulty bugs.

6 CONCLUSION

Trippi made life as nomads more easier. With this application, we all can find places that match our needs to hangout with friends. We also can add our own places, plans, and events with only using one application. We can even use or join other people's plans to join them. Trippi is a "one-click" application that gives us all the thing that we need to have fun.

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