

The Application Development of Online Rental Housing Based Android

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Abstract— The use of technology and information in the development of a business is very necessary in this day and age, if there is a touch of technology then the business or business can survive and grow for the better. While those who still survive with the manual system will be eroded by the advancement of technology itself, one example of digital business development is the use of digital information systems such as the Marketing of rental houses through the android platform we can promote rental houses in the Medan region, so this system exists rental house owners can market their rental houses through the developed system. This system offers facilities for rental house seekers to rent, as well as house owners, so it is easy to market rental houses so that they can be rented by rental house seekers. This information system provides a clear picture to the rental house seekers in choosing the house they see through the Android Platform according to the tastes and needs of their respective tenants.

Keywords: Online rental house, Android, Kodular

I. INTRODUCTION

A rental house is a building that functions as a residence that is used or utilized by paying rent where there is an agreement between the lessor and the lessee in which the lessor hands over the goods to be rented to the lessee to be fully enjoyed and then the leased goods can be collected from the rental party on the condition that the rent is paid by the user to the owner according to the previously agreed upon agreement.

The importance of rental houses in life in the city of Medan is very influential for the community because the community needs rental houses for temporary residence or is not yet able to buy a permanent house and in the search for rental houses, the community is looking for rental house information more inclined to individual information.

A survey conducted on some of the community in the city of Medan to find out the problems faced by respondents in the search for a rental house. In addition, knowing the expected solution plan for existing problems or problems and the results of the survey is a current solution to reduce the difficulty of the community in finding a rental house.

Based on the results of a survey with 100 respondents, it was found that some of the Medan community chose rental houses (75%), due to the limited cost of buying a permanent house. people

look for information through individuals (78%), draining energy (22%) and wasting time (80%). In addition to the existing rental house criteria taken based on the existing survey about the rental period that respondents are interested in such as 1 year, half a year, 2 years and per 1 month.

Based on the problem above, the writer will design an android-based application that is equipped with several rental features, see whatsapp, see the phone, and see maps.

"An application is the application of a system design to process data that uses the rules or provisions of a specific programming language". (Andi Juansyah; 2015: 2)

WhatsApp Messenger is an internet-based application that allows each user to share a variety of content with each other in accordance with its supporting features. WhatsApp also has various features that can be used to communicate with the help of internet services. (Jumiatmoko ; 2016)

A rental house is a building that functions as a residence that is used or expressed by paying rent where there is an agreement between the party providing and the provider. With the condition of payment of rent to the user to the owner as agreed previously. (Meidy Pratama; 2020).

Google Maps is a web mapping service developed by Google, this service provides satellite

imagery, road maps, 360-degree panoramas, traffic conditions, and route planning to travel by foot, car, bicycle (beta version), or public transport. (Wikipedia; 2020)

Android is a mobile operating system based on the Linux operating system. Android was first developed by a startup company in California is called Android, Inc., which is headed by Andy Rubin, Rich Miner, Nick Sears, and Chris White. In 2005, Google bought Android and took over its development process to this day. Google released the beta version of the Android SDK (System Development Kit) in November 2007. (Hansun, Seng, 2018 : 1) Android offers a comprehensive approach in application development. This means that an Android application that is developed can run on various devices that use the Android operating system, be it smartphones, smartwatches, tablets, and other devices. The rapid development of Android technology also cannot be separated from the role of AOSP (Android Open Source Project) which is responsible for the development of the Android operating system and is led directly by Google (Hansun, Seng; 2018: 1).

Mobile applications can be interpreted as a product of mobile computing systems, namely computing systems that can be easily moved physically and whose computing capabilities can be used while they are being moved. Examples are personal digital assistants (PDA), smartphones and cell phones. Based on the type of mobile application is divided into several groups namely Short Message Service (SMS), Mobile Websites, Mobile Web Application and Native Application (Lius Boyke Panjaitan; 2017).

II. RESEARCH METODHS

1. Problem Analysis

A rental house is a building that functions as a residence that is used or utilized by paying rent where there is an agreement between the lessor and the lessee in which the lessor hands over the goods to be rented to the lessee to be fully enjoyed and then the leased goods can be collected from the rental party on the condition that the rent is paid by the user to the owner according to the previously agreed upon agreement.

The importance of rental houses in life in the city of Medan is very influential for the community because the community needs rental houses for temporary residence or is still unable to buy a permanent house and in the search for rental

houses, the community looking for information on rental houses is more inclined to individual information.

2. Strategy for Solving Problem

Based on the problem above, the author plans to present information on android-based media to provide convenience in the presentation of information and to provide convenience in searching because it does not go to the location first and does not waste time and energy. The author will provide some rental features, see whatsApp, see phone, information features, and see maps in this Application.

In testing this application, the author tested several features such as rental features, WhatsApp chat features, phone features, and maps features and some of them. And the author hopes that this research will be useful for the community in the city of Medan in looking for a rental house and seeing the rental house facilities through android without having to spend a lot of time and without having to dive into the space in looking for a rental house.

3. Design System

Further in the system design in general, this activity is intended to design the system with systematic work levels, starting from data collection to analyzing the material (data) and information that has been collected to plan and perfect the system design.

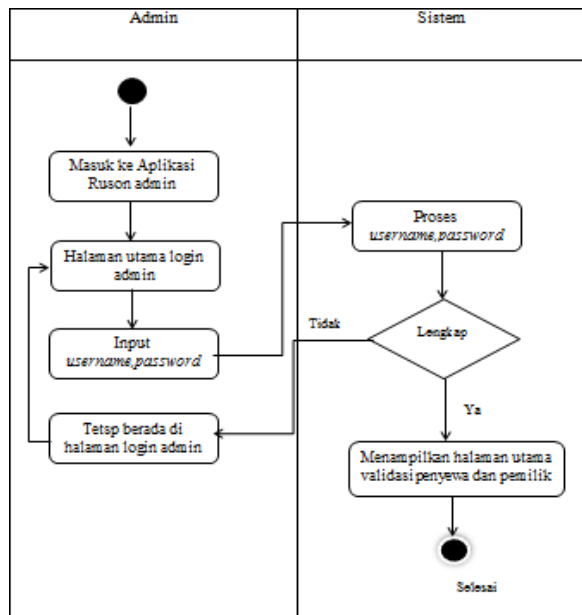
a. Use Case Diagram

As for the parts of the use case diagram of the Online Rental House Application is as follows:

- Admin is in charge of validating when tenants and rental owners register.
- The rental owner registers and after the admin validates the register data, then the rental owner can have access rights to login. The rental owner can upload info or the identity of the rental house they want to market and the rental owner can see a notification when the order is available.
- In the same way, the tenant registers and after the admin validates the tenant's data, the tenant gets access rights to login and the tenant is also given access rights to view rental house info such as house facilities, house address, rental price. Tenants can access house reservations and can directly communicate with the owner

of the house.

b. Activity Diagram



2.1. Activity Diagram of Login Admin

c. Class Diagram

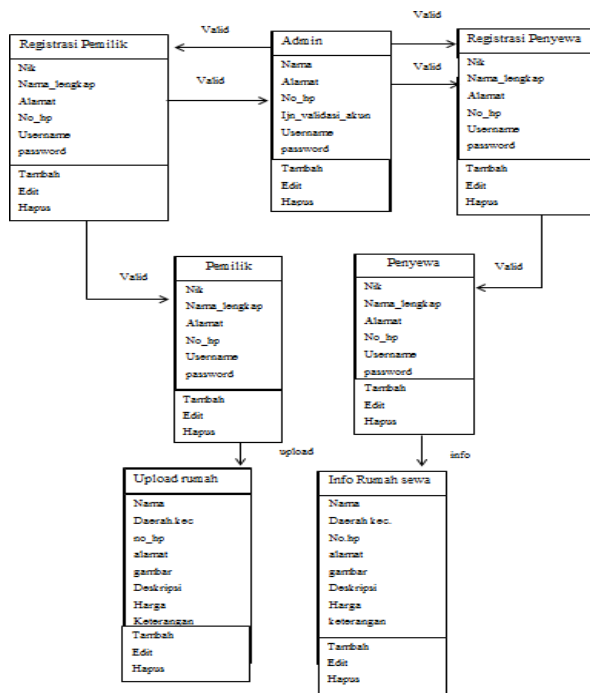


Figure 1. Class Diagram of Online Rental Housing Based Android

d. Desain of User Interface

Here is the initial design of the Online rental house:

- Welcome Apk.Rusion (Rental House Online) is a TextView.
- Please select is TextView, copyright company TextView.
- The rental owner is a Button that works to enter the Registration page and the tenant is a Button that works to enter the registration page.

III. RESULTS AND ANALYSIS

1. Initial view of the application

This view is the first view when the user opens the application. As seen in Figure III.2. the following:



Figure 2. Initial View of the Application

2. Admin Login Menu Display

This login display is the first display when the admin opens the application. As seen in Figure III.3.

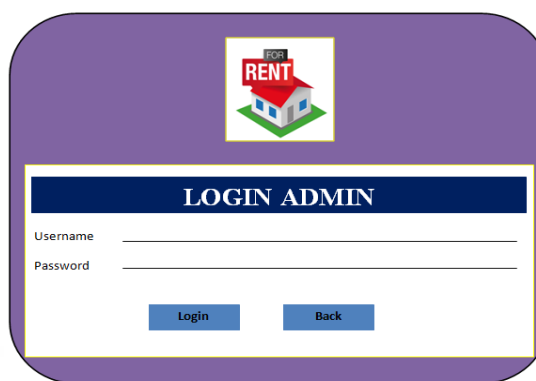


Figure 3. Admin Login Menu Display

3. Rental Owner Login Menu Display

This Login view is the first view when the Rental Owner opens the application. In this view, users can log in if they already have an account, and if they don't have an account, they must register first. Can refer to Picture III.3



Figure 4. Rental Owner Login Menu Display

4. Rental Owner Registration Menu Display

This Registration Display is a display where the user creates an account so that the user can log in to the application. As seen in Figure III.5.



Figure 5. Rental Owner Registration Menu

5. Tenant Registration Menu Display

This Registration Display is a display where the user creates an account so that the user can log in to the application. As seen in Figure III.6

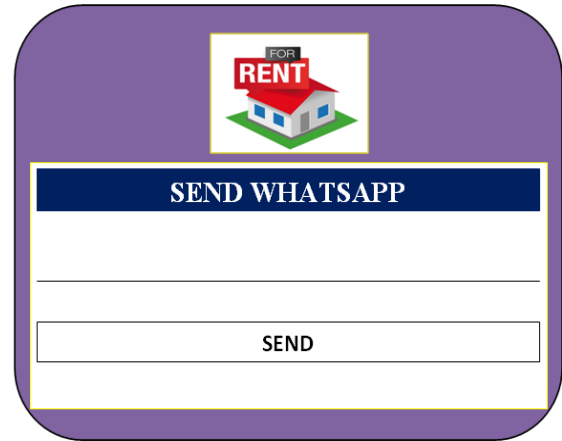


Figure 6. Tenant Registration Menu Display

6. Home Data List Menu Display

The Home Data List Menu display is the first display that appears when the user logs in from the Login form. The Home Data List Menu display image can be shown in Figure III.7.

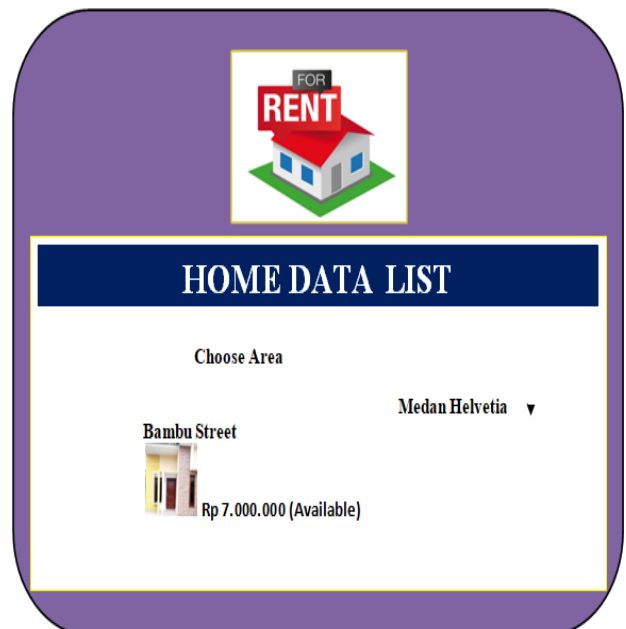


Figure 7. Home Data List Menu Display

The conclusions that can be drawn from this research are as follows:

By creating this application, it can help the parties involved, including home owners who provide information online through the Ruson application (Online Rental Houses), and rental house seekers or tenants who can search according to their needs without having to spend time, energy and money just to find a rental house. which is usually done manually.

1. The system is designed with an attractive and easy-to-use display for people in the city of Medan.
2. Android-based Ruson application (Online Rental House) is designed using the Webbase-based Kodular.io application.
3. This application is equipped with quite interesting features, namely this system provides WhatsApp Chat, Telephone, and Google Maps features so that people can easily contact rental owners and make it easier to search for rental house addresses.
4. This application is made online and also interactive, which means that this system needs help from the rental owner who is in charge to fill it out.

THANK -YOU NOTE

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