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Website-Based Boarding Rental Information System Design

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Abstract. Boarding houses or indekos are services that offer rooms or apartments with a certain amount of payment for a certain period of time (usually monthly or annual payments). The purpose of this research is to create a web-based boarding house information application to develop a boarding house rental service business. To support the research, we use the waterfall method, namely needs analysis, system design, implementation, testing, and testing in making boarding applications. The final result of this research is the creation of a web-based information system that can be used for seekers and providers of boarding rooms. This system will attract the interest of boarding house tenants because this system makes it easy for boarding house seekers to get the boarding house specifications as desired. Likewise, boarding house providers will easily offer their rental services so that they can be rented and occupied by boarding house seekers. It can be concluded that this information system helps in finding suitable boarding houses that can be done online and makes it easy for boarding house owners to promote their place to the fullest.

Keywords: Information System Design, Boarding House, Website.

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1. Introduction

Recently, web-based information systems (WBIs) have gained significant interest among business process practitioners as a flexible and low-cost solution for distributed collaborative work [1]. The information system is a system in an organization that fulfills daily transaction processing needs, supports operations, is managerial in nature, uses an organization's strategic activities, and provides reports that are expected to certain outside parties. A site or website can be defined as a collection of pages that provide information about text data, animation

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data, still or moving image data, sound, video, or a combination of these. with the network page [2]. The activity of renting a building with a certain number of rooms or what can be called a boarding house, activity aims to be occupied temporarily, which is formed from the primary needs of the community, especially students in finding a place to live temporarily due to the demands of work or education. easy and efficient, one way is to use service offerings through the website [3].

In a previous study with the title Design of a Point of Sale (POS) Information System Software with the Web-Based Waterfall Method. Based on the research results, the researchers succeeded in designing a point-of-sale system and conducting tests. Point-of-sale systems can help administrators and cashiers (entrepreneurs) to manage their business operations [4]. In addition, several subsequent researchers have conducted research on the development of information systems using the Waterfall methodology whose research results have succeeded in creating a tested system [5]. The results of the research on the development of a boarding house search information system using the Waterfall method, and the functional requirements of the search system resulted in a system that has 3 users, namely Admin, Boarding Owners, and Prospective Tenants. Meanwhile, the functional requirements needed are managing house dormitories, registering boarding house owners, managing boarding house owners, boarding details, rental transactions, tenant registration, and managing tenant data [6]. And the design is based on the facilities needed by boarding house seekers and hostel managers, for example, a boarding list equipped with detailed boarding description information, boarding house type, owner's boarding cell phone number, price per room, facilities, location, as well as pictures as instructions for searching boarding house for booking boarding rooms [7].

The purpose of this research is to create a web-based boarding house information application to develop a boarding house rental service business. The method we use is the waterfall method, namely data requirements analysis, system design, implementation, and testing in making boarding applications.

2. Method

The research method used in this study is the Waterfall method. The Waterfall method is one of the methods in System Development Life Cycle (SDLC) which has the characteristics of working on each phase in the waterfall that must be completed before moving on to the next phase. In the Waterfall Method, the phases must be carried out sequentially which must be completed one by one and may move to the next phase only when the previous phase has been fully completed [8,9]. The Waterfall method can be seen in Figure 1 below.

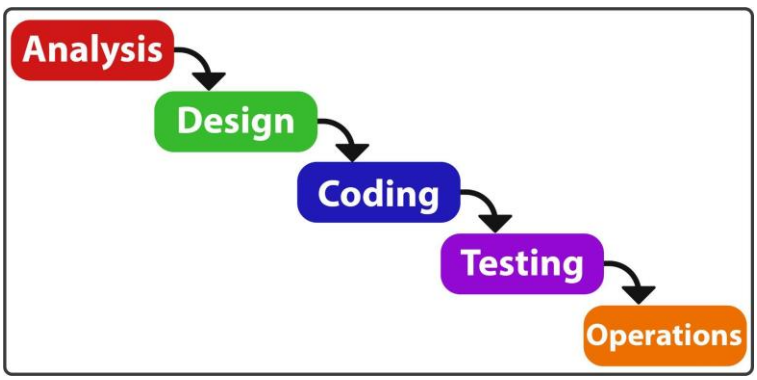

Figure 1. Waterfall Modeling Process

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The Waterfall method consists of five phases [10].

A. Requirements - analysis of the business requirements, as well as thorough feature documentation

B. Design - choosing the required technologies, and organizing the entire software architecture and interactions

C. Coding - Utilizing the schematics and blueprints from the design phase, resolve all issues, improve all proposed solutions, and execute every element outlined in the requirements phase.

D. Testing - extensive testing of all implemented features and components and troubleshooting occurred

E. Operations - arrangement to the generation environment

With this method, the construction of the boarding house information system can be completed perfectly.

3. Results and Discussion

3.1 Identifying Requirement

Almost all boarding house seekers find it difficult to find a boarding house that is suitable for them because the search method is not optimal so they only get little information about the boarding house they are going to occupy. We made this application because we did not find the features that users need in applications that are already widespread on the internet, therefore we made this application.

3.2 Developing Early Prototypes

When the user accesses the system for the first time, they will be directed to the Main page. On the main page, there are several features that can be used including the Search Box, Filter panel, register and login, Recommendation Section, and Add Ads (see Figure 2).

Figure 3 shows the information on the name of the boarding house, a detailed description of boarding information, type of boarding house, cell phone number of the owner's boarding house, price per room, facilities, location, as well as pictures of the selected room. and some additional features, namely find boarding house location, auto direct message, and pick-up feature.

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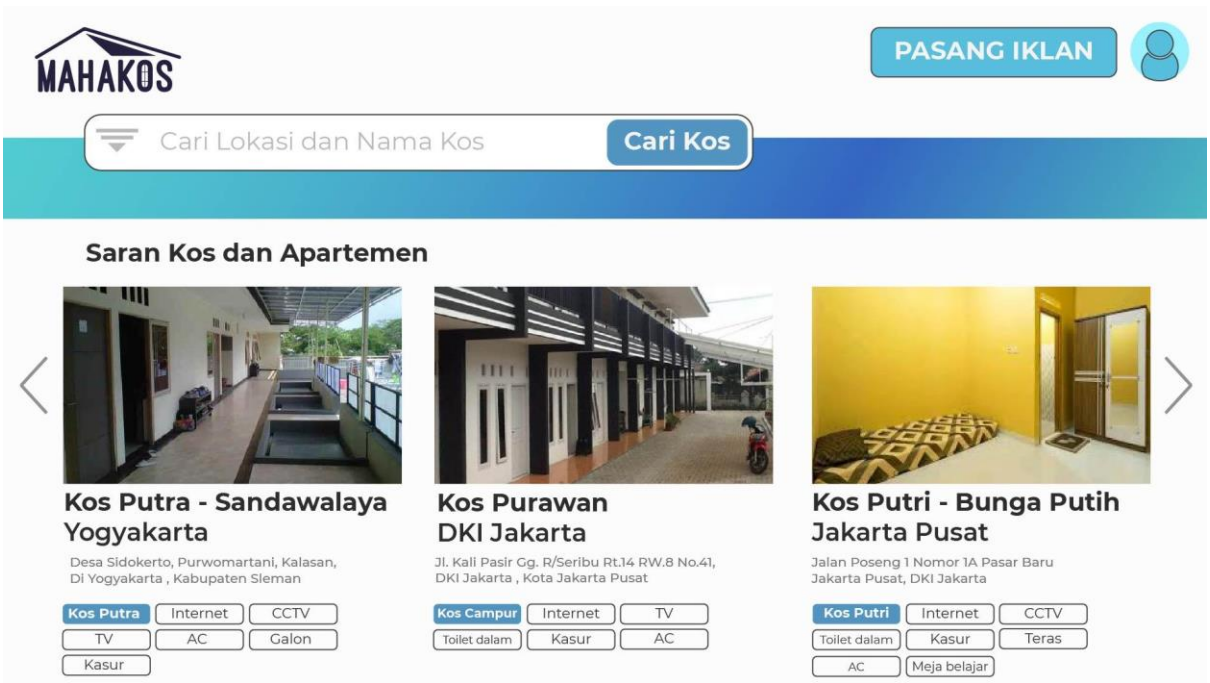

Figure 2. Home

Figure 3. Indekos Details

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3.3 Testing the Prototype

This is a picture of the page for clients to enroll on the indekos website. On the off chance that the client as of now has an account, they can specifically enter their name and password on this page, at that point press Login. On the off chance that you do not have an account however, you'll tap "Buat Akun" at the foot cleared out and after that fill in your individual data. In the event that you disregard your account or watchword, you'll tap "Lupa Akun?" at that point take after the prompts (see Figures 4 and 5).

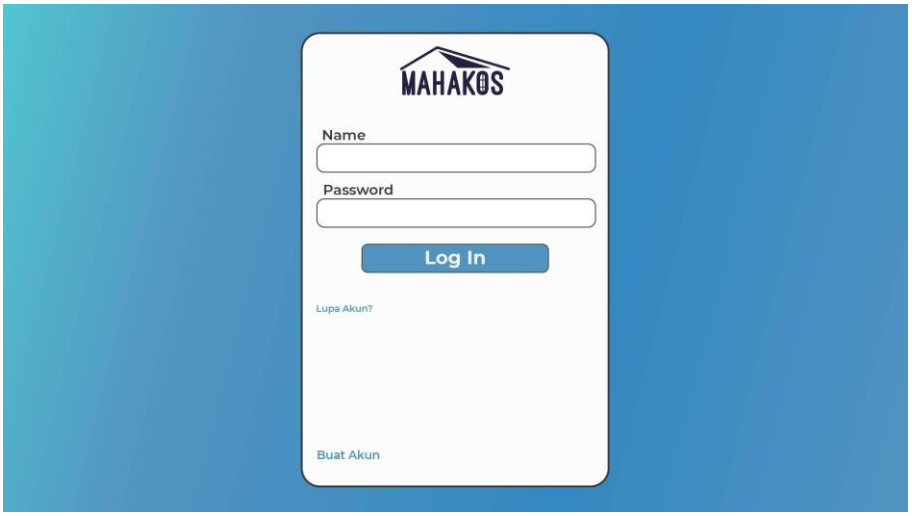

Figure 4. Sign-up Page.

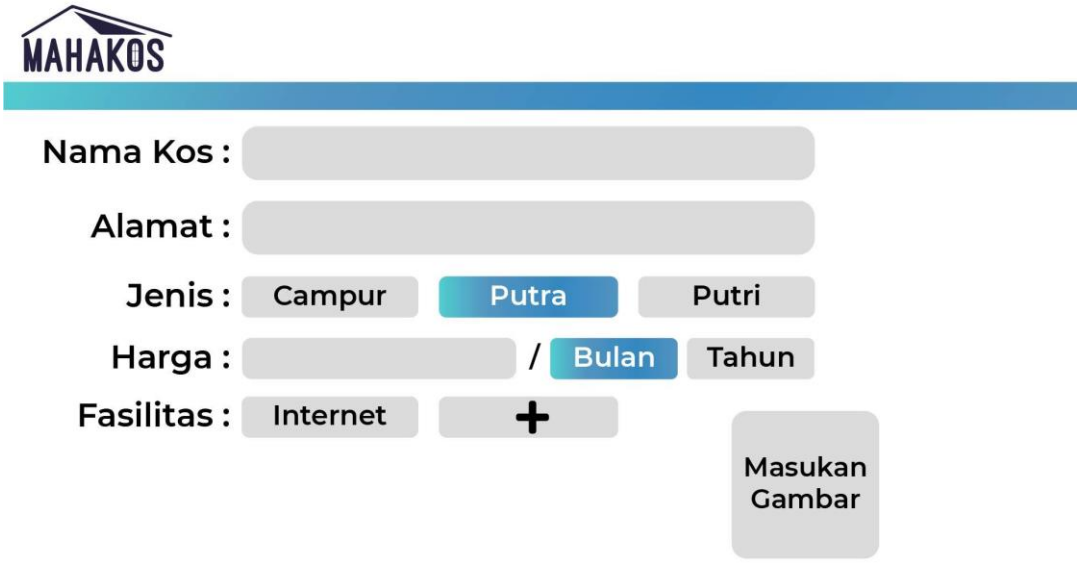

Figure 5. Add an Advertisement

This feature is specifically for boarding house owners who want to advertise their boarding house so that boarding house marketing is more effective because it is on the website and becomes easy to find, the feature contains data from the boarding house which will be

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advertised when finished adding ads will be directly installed on the boarding house website (see Figure 6).

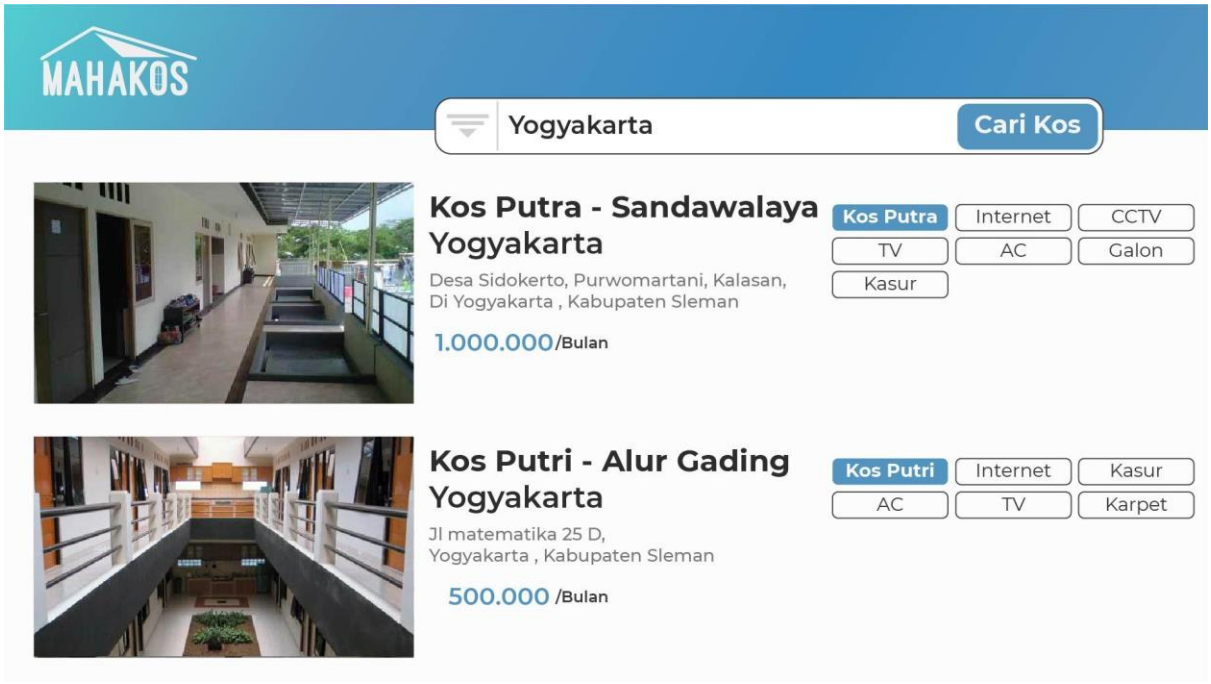

Figure 6. Search Bar.

The search box is used to find boarding houses that match what you want. the user enters keywords such as the boarding house name, owner, city area or boarding house address in the dancing box section, after that click "Cari Kos" then the system will display results according to the entered search key (see Figure 7).

Figure 7. Panel Filter.

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The filter panel is used to sort the boarding house search data by category. You can search for the city you want to live in, a special room for girls, boys, or mixed, you can also add an estimate for the cost of the room you will rent. per month or year. This feature is next to the search bar on the left (see Figure 8).

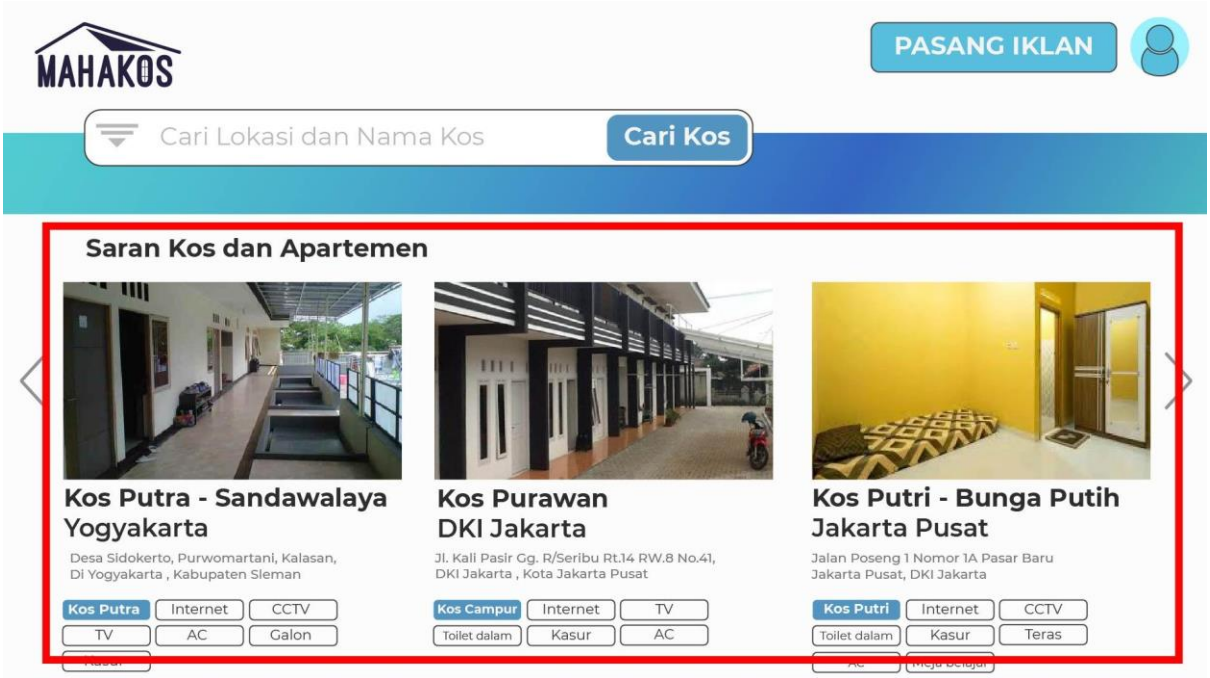

Figure 8. Recommendation Section.

The Recommendation Section displays the recommended costing advertisements of the most sought-after choices by many people. Recommendation Section feature displays the boarding house, name, address, and facilities of the recommendations for each boarding house (see Figure 9).

In the details of the boarding house, there is a location icon, this icon is a feature to find the location of the boarding house via maps. After the user clicks the location icon, it will move to a map page that shows the point where the boarding house is located. With this feature, the searcher does not need to search for a location on the map application because this application has directed the searcher's location to the boarding house location automatically (see Figure 10).

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Figure 9. Find Indekos Location.

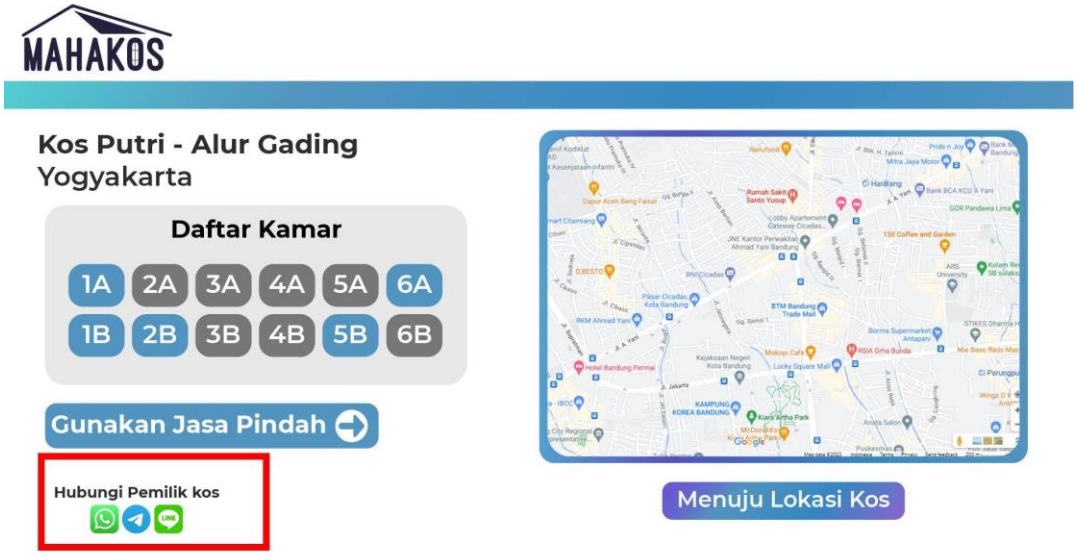

Figure 10. Auto Direct Message

In the pattern of the boarding house, there is a WhatsApp contact icon, this icon is also a feature to direct directly to the WhatsApp number of the boarding house owner. when you click on the phone number/contact icon for the boarding house owner, the system will direct you to the boarding house owner's WhatsApp. with this feature searchers don't have to bother to copy the owner's WhatsApp number manually, just click on the WhatsApp number icon (see Figure 11).

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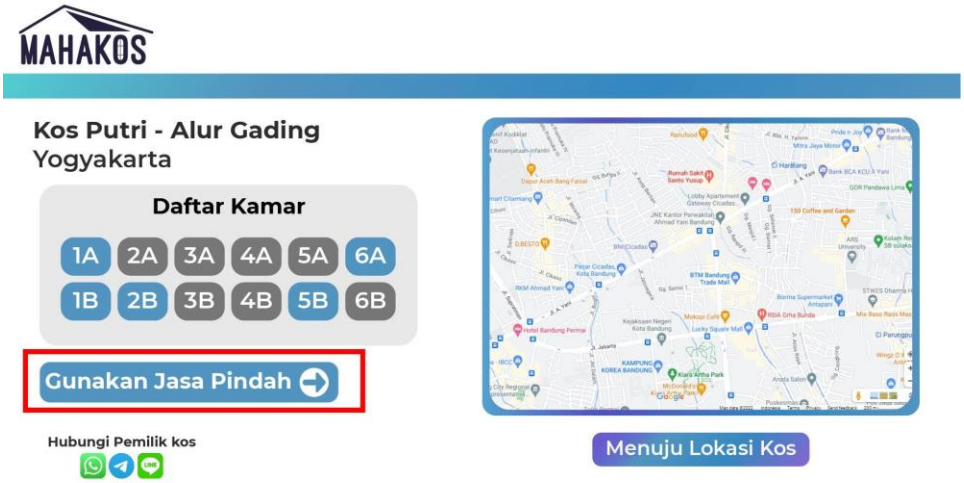

Figure 11. Pick-up Service.

This optional feature can help customers to prepare to move to a boarding house after the booking process is complete. if the user clicks "Use Moving Services" the system will directly connect the goods transportation service, then a transport car will come to carry the goods to the boarding room.

4. Conclusion

The number of people who migrate because of education or work makes the housing rental business sector such as boarding houses grow rapidly, the more seekers, the more variations in boarding specifications ranging from facilities, area of the place, and others.The growth of this business sector also makes boarding house owners compete to provide the best and most varied places according to the needs of boarding house seekers, therefore finder boarding houses is increasingly difficult because of the many different choices. The design of this website-based application has been completed and can help searchers to get the right boarding house for what they want. Thus the purpose of designing this application has been achieved.

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