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Analysis and Rental of Boarding House Information System In Tangerang City

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Abstract

For remote workers, overseas students, who have business outside the city, the need for a boarding house is very important to stay for a long time at an affordable cost. Looking for a boarding house can be done by asking friends, owners of nearby boarding houses or visiting adjacent areas from the area visited, so that the information obtained by kostan seekers is less efficient and effective, this results in a lack of information obtained and not fitting according to the ability of the pocket. The purpose of this system can provide data containing kostan information, which is packaged in detail, complete with the location of the boarding house and available facilities. In building this system using PHP and MySQL. Here using the waterfall methodology, this method of logging runs gradually through having to wait for the completion of the previous stage and walks down from the beginning of the development of the system starting from the planning to the final part of the system development is the maintenance stage. The result is a website that contains available boarding house information to make it easier for customers to choose the boarding house they want, and this website can make customers as boarding house owners can promote or add their boarding houses on this website, on this website can also make rental transactions which makes it easier for customers from outside the city to make transactions anywhere and anytime.

I. INTRODUCTION

The rapid development of technology, especially technology in Indonesia, information technology is needed in normal human life. Today's rapid development greatly affects economic growth, so many new business ideas have emerged, be it services, trade. The development of information technology today has affected all aspects of human life. The development of technology makes people think about creating technology that can help make business easier. Business actors must innovate in the competition in order to survive and develop.[1]

Information systems are a combination of information technology and human activities that use these technologies to support operations and management. In a broader sense, information systems are often used to show interactions between people, processes, algorithms, data, and technologies. [2]

The web is a method of presenting information on the Internet in the form of text, images, sound or interactive video with the ability to connect one document with another (hypertext). The advantage is that it can be accessed through a web browser.[3]

Using the right technology can deliver the results needed for quick decision making. In this case, it can be put to good use through many things, for example, the process that is done manually becomes computerized, which can speed up and simplify the work. In the business field, technology is a very useful means of learning and exchanging information for service providers and users. In the real estate sector, particularly hostels, the goal is to facilitate access to practical and effective information about hostels. [4]

Kostan is a place to live that is rented by the owner with facilities provided at varying prices. Boarding houses are often used as accommodation because most of them are rented out for a longer period of time than hotels or hostels. (Study et al. 2020). People working in remote areas, students and rural workers with limited resources, and those living near schools and universities have long been needed. The question is how can you find a suitable dormitory

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because there are many obstacles such as: B. You do not know the way to the area or do not have a suitable roommate. [5]

Looking for a boarding house can be by asking a friend, meeting directly with the owner of the boarding h8ouse or visiting an area not far from the area, in this way the information obtained by the searcher is less efficient, misinformation due to difficulties in finding the boarding house. Boarding house owners often find it difficult to promote their own boarding house, the owner only relies on the boarding house sign in front of the fence or uses pamphlets and booklets installed in the area around the boarding house.[6]

In this context, what is needed is an easy-to-use tool such as an online device such as a website. The website may contain information that provides data containing boarding houses, which are packaged in detail about the location of boarding houses and public facilities in the boarding house area in a map .[7]

In this research, we needed a system that supports the boarding house information search system. This is intended to make it easier for customers to find a boarding house so that they can easily find the right boarding house. The system designed by the author uses a web-based system.[8]

The system used based on the above problems is 'This waterfall model is a model used for the development stage. The bsia waterfall model is considered a traditional model or a classic model. The waterfall model is also known as the classic row or linear row model. This waterfall model provides a step-by-step, step-by-step approach to the software lifecycle phases of analysis, design, coding, testing, and support. [9]

II. METHODS

The waterfall method or waterfall method is a classic life cycle, the name of this model is "Sequential Linear Model" which describes a sequential and systematic approach to software development, with specifics The description of user needs continues throughout the phases of planning and modeling. modeling), building (build), but also conveying the system to the end user (supply) and supporting the resulting software. Around 1970, Winston Royce first introduced the waterfall model. So. models are often considered obsolete. However, this waterfall model is very well known and is often used in software engineering (SE). This development model takes a systematic and sequential approach. [10]

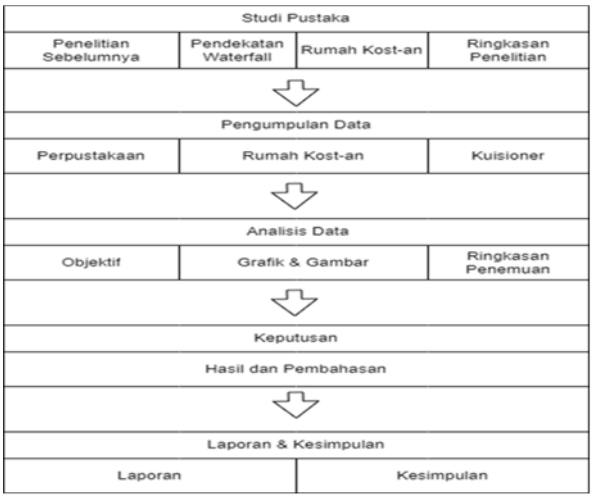

Fig. 1 Research Diagram

Literature Study :

The results of data collection come from literature and the internet that have been collected to take data, in this case it covers the main criteria in the information to be compiled.

Data Collection Techniques :

Data collection is carried out using data collection methods, namely interviews, literature studies, and observations. Interviews are conducted by visiting one of the boarding house owners to get the information needed, literature studies are carried out in libraries, and the internet is in the form of previous skipsi and journals. Observations are made to find out the exact state of the field and make the necessary adjustments.

Data Analysis :

Data analysis focuses on 5 parts of the problem at hand, focuses on the main problem then the collection of data needed for system creation. When all the necessary data has been compiled, it is continued with the creation of a system blueprint that will be created.

Result:

The result of creating a system at this stage is a test of the system that has been made from the initial to the final stage on this boarding house search website. Then create a system capable of displaying the appropriate data.

Decision:

Decision making is carried out based on the consideration of data that has been processed and compiled, if there are other considerations and decisions can be done by taking into account the existing situation and conditions.

Report And Conclusion :

A report is given to evaluate the boarding house website system. Existing reports can also be a reference for the system to run smoothly. With this report, it simplifies the process of repairing and adding the system according to user requests.

This waterfall model is the model used for the development stage. The bsia waterfall model is considered a traditional model or a classic model. The waterfall model is also known as the classic row or linear row model. This waterfall model provides a step-by-step, step-by-step approach to the software lifecycle phases of analysis, design, coding, testing, and support.[6]

The approach used in the study is deductive. Qualitative approach model.As for application development using a waterfall approach model, where the process of the waterfall is as follows:

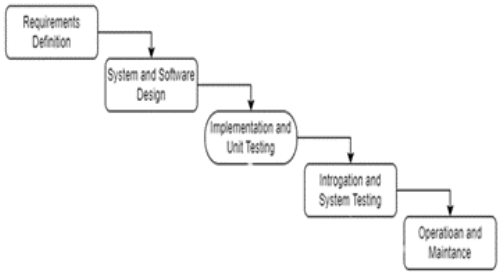

Fig. 2 Framework of Thought

There are five stages of the Waterfall method, namely:

1. Analysis of software needs
   in needs analysis, collect data from observations to see how the system is running, then collect data through library searches looking for references from various reliable sources, from books, scientific papers and journals. With the collected references, there are some problems of pension holders and pension seekers, of which this section is the essence of this thesis.

2. Design
   This design stage designed a large and interesting system using a wizard to design programs using Xampp, Visual Studio Code, Laravel, Php, Css, Laravel, Reactjs, Javascript and designing programs in the system model using Entity Relationship Diagrams (ERDs).

3. Program creation
   This stage is used php programming language to create program code with visual studio code application program to design the program to be created. The design needs to be converted into software, the output of this step is a computer program that corresponds to the design created at the design stage.

4. Testing
   Focusing on the software in terms of logic and functionality, this ensures all parts are tested to minimize errors and ensure the output of the desired match.

5. Supporters
   As of this writing, the software does not prevent changes in the implementation. Device changes can occur because bugs are discovered and not detected during testing, and software must adapt to the new environment. The support phase can be repeated from the development process to new software changes

Research Activities

Fig. 3 Research Activities

Defining a title

Description: This step begins with a field assessment to identify the problem or focus of the research. This step includes details: defining the context of the problem, the purpose of the study, the scope of the research and the methodology to be used.

This process determines what needs are needed in the program to be developed. At this stage, the author will define the user object (target user), user needs (need user), user role (user role) in the developed system as a use case.

The authors collect data such as pension information, agents look for pension funds, then analyze the data to suit the needs. There are 2 types in the search for pensions, pension providers and pension seekers.

The main actors in this system are administrators and users, administrators are responsible for creating and monitoring the activities of the internship search provider site, while the user is responsible for finding a boarding school-level provider that meets his needs, and then making a deal. Users must register/have an account to book boarding and transact there. This system also has admins who can manage sites with CRUD access, admins can access the list of pensions that exist in the Tangerang area.

Taking theory from literature

Description: In this phase, the researcher collects data according to the problem and the purpose of the study. This aims to collect data if it can prove the authenticity of the data obtained through the research carried out.

Problem analysis

Description: This phase discusses the basic principles of data analysis which include background, topic finding, and problem formulation. All information obtained from the library was collected during the study. Data analysis consists of collecting data, categorizing and checking the main data to get their meaning.

Finding facts (Observation / Interview)

Description: An interview is a meeting of people who exchange information and ideas through a question and answer session so that it can be concluded the meaning of a topic.

Data analysis (qualitative)

Description: The data obtained for this study uses qualitative data analysis techniques that are often subjective. In qualitative research, survey methods and data collection through interviews and field observations. Researchers collect data from a variety of sources, so that the results are detailed and accurate.

Description: this research requires a support system to support the dormitory information system with the aim of making it easier to find pension funds, and aims to make it easier to find prospective retirees who cannot find suitable pension funds. And what is stated in the purpose of this study as;

1. 1.Information system about the available boarding house. With the existence of this system helps provide information on boarding houses that are well available.

2. 2.Information system that helps the process of ordering boarding transactions. With the system, it helps the customer transaction process if there are customers from outside the city who want to make transactions to the owner of the boarding house

3. 3.Using a website-based boarding house information system to facilitate the transaction process and boarding house promotion. With a website-based so that users / customers do not need to download the application anymore, just enter the website which is complete with the transaction process and is good so that the time spent is more efficient.

Protype testing

Description: in the testing process there are several scanario consisting of:

1. The home website display is useful for displaying the start page on the website.
2. The login menu is useful for entering the website so that you can make transactions.
3. The appearance of the tenent or renter registration menu is useful for displaying 2 levels to the user to choose from.
4. Tenant registration menu, displaying the tenant registration menu.
5. Renter registration menu, displaying the renter registration menu.
6. The shop menu is useful for displaying boarding house products that are marketed.
7. User product admin menu for the user menu adds the products he has as a renter on the website.
8. The admin user report menu is useful for receiving incoming transaction data.
9. Client menu / transaction report, see the user who is making transactions on the website.
10. The profile menu is useful for displaying user information.

Publication

Description: Producing publications in the form of scientific journals published in bit – tech published in December 2022.

III. RESULTS

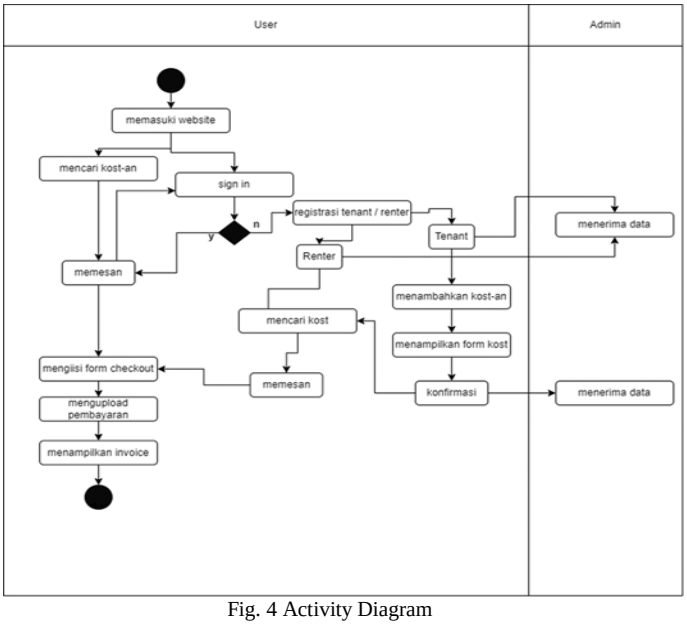

Fig. 4 Activity Diagram

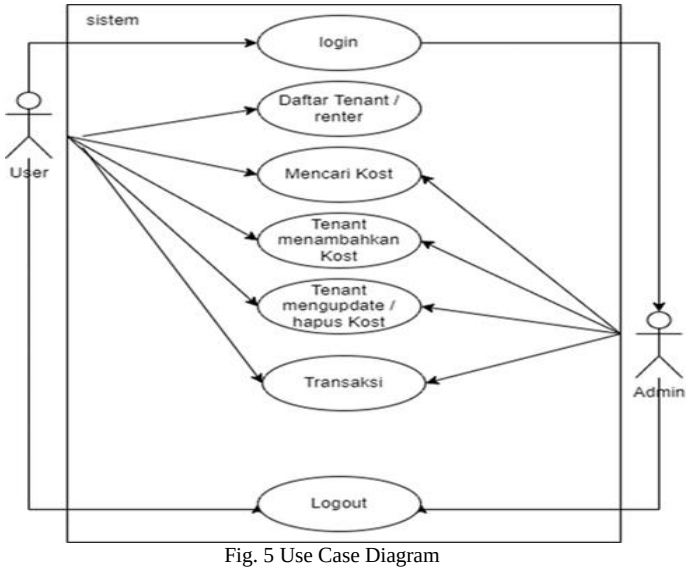

Fig. 5 Use Case Diagram

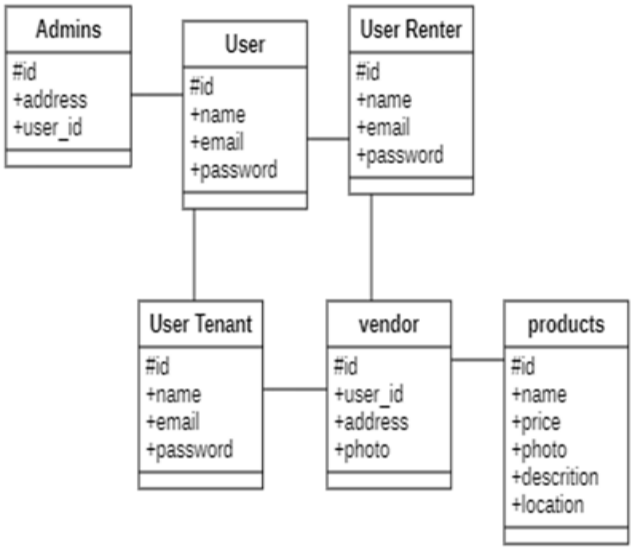

Fig. 6 Class Diagrams

Program View

Fig. 7 Initial View

Fig. 8 Login view

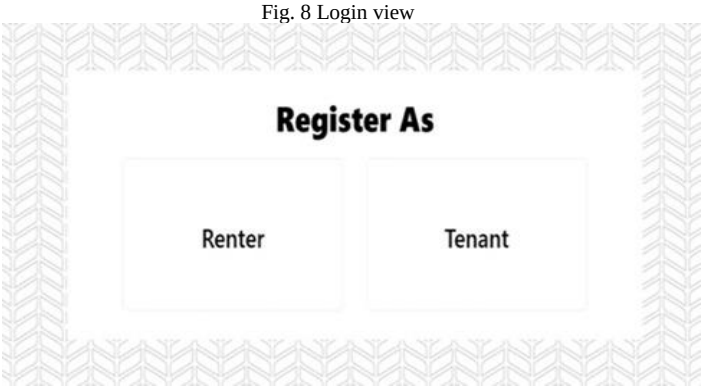

Fig. 9 Registration Display

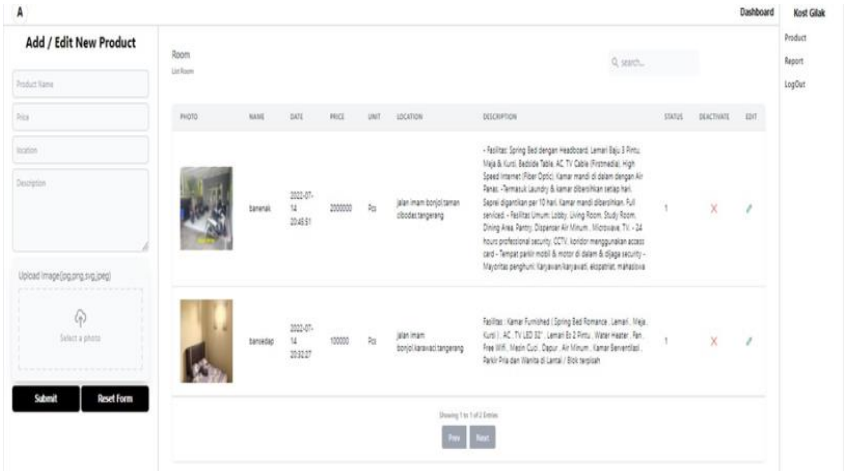

Fig. 10 Input display

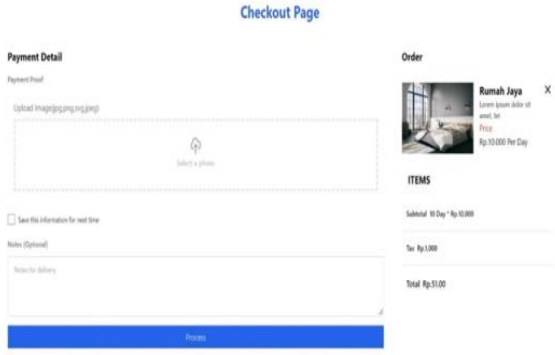

Fig. 11 Checkout View

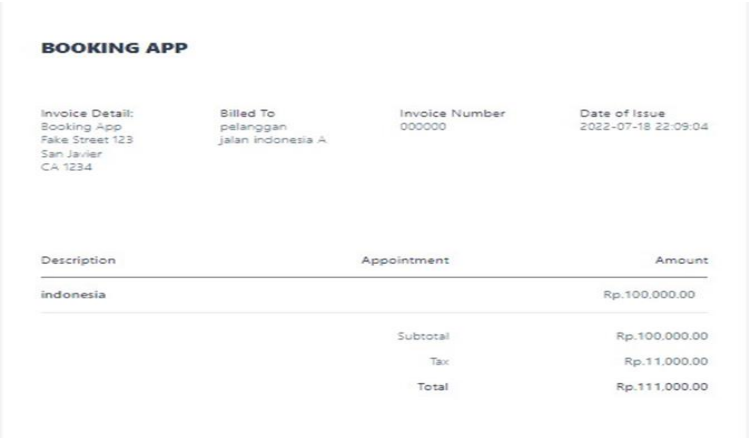

Fig. 12 Invoice Display

Testing Documentation Software Scenario

Software Scenario Testing Documentation

RAM	: 8 GB
OS	: Win 10 64-bit
Minimal S/W	:
Framework	: Laravel 9
	: ReachJS 18.2
Language	: Es2021

: php 7.4
Database : *MySQL* 8
Database Tools : Http Server | Apache 2.4.52
Developer Tools : Php Myadmin 5.2.0
: Visual Studio Code 1.6.8

TABLE 1
Scenario List

Code	Scenario Name	Description
010	Home view	Displaying the initial view on the website
110	Menu Login	Do the login process first when you want to make transactions on the website
112	Tenant registration menu	Tenant registration form menu
113	Renter regitration menu	Renter registration form menu
120	Shop menu	Display existing products on the website
101	Product renter admin menu	Menu for users to add boarding house products that he has
102	Renter report admin menu	Menu for users to receive incoming transaction data
105	Tenant menu/transaction report	User menu to see transactions that are being made
109	Profile menu	Display user information

TABLE 2
Positif Scenario

No.	Code	Information	Step	Expected Result	Actual Result	Pass/ Fail
1	010	Already opened the website	Entering a website link	Website display appears	A view appears	Pass
2	110	have clicked the sign in menu on the start page	Clicking sign in	Display the sign in form	- Appears - Can login	Pass
3	112	Already opened the Registration menu	Clicking the tenant registration option	Display the tenant registration form	- Appear - Can register	Pass
4	113	Already opened the Registration menu	Clicking on the renter registration option	Display the renter registration form	- Can Register - Appear	Pass
5	120	User is logged in	Clicking the shop menu	Display the product page for transactions	- Can transaction - Appear	Pass
6	101	Already logged in as a Renter user	Clicking the renter product menu	Display a form page for adding products	- Can transaction - Appear	Pass

7	102	Already logged in as a Renter user	Clicking the report renter menu	Displaying the transaction form	- Appear - Can transaction	Pass
8	105	Already logged in as a Tenant user	Clicking the tenant report menu	View transaction history	- Appear	Pass
9	109	Already logged in as a user	Clicking the profile menu	Displaying renter or tentant personal data	- Appear	Pass

TABLE 3
Negative Scenario

No.	Code	Information	Step	Negative Condition	Expected Result	Actual Result	Pass/ Fail
1	010	The website has been opened	Entering the link address to the browser's search menu	No internet network	Unable to access the website	Error page	Pass
2	110	User in the login menu	Clicking the sign-in menu on the website	Entering the wrong email and password. Don't enter your email or password or just one of them.	The appearance of a login error pop up	Can't log in	Pass
3	112	User opens tenant registration form	Have selected the user level as the Tenant	Do not fill in according to the provisions of the form that has been provided. One of the forms is not filled in.	There was a rejection and pop up error to recharge	Unable to register	Pass
4	113	User opens the renter registration form	Have chosen the user level as Renter	Do not fill in according to the provisions of the form that has been provided. Do not fill out all the available forms.	There was a rejection and pop up error to recharge	Registration failed	Pass
5	120	User opens shop page	Users who have logged in/ registered can access	There is no internet network. The database is corrupted. Product database errors.	The page will be blank. An error code appears on the website page.	Error page	Pass

No.	Code	Information	Step	Negative Condition	Expected Result	Actual Result	Pass/ Fail
6	101	User admin renter in the product menu	Registered as a Renter user	Filling out the form is not appropriate. Nominal numbers have no punctuation. Can't enter a photo. The address and description are too long.	Inappropriate product data will be rejected and pop up an error. Difficulty understanding the amount.	Not showing data	Pass
7	102	User admin renter opens transaction report	Registered as a Renter user	No internet connection/disconnection with the server. There is no detail menu. There are no purchase notifications.	The outputted data will be error. Can't see in big detail the transactions that have already occurred. The purchase is delayed if the vendor has not approved the purchase.	- Empty website - No notif	Pass
8	105	User tenant opens the transaction history menu	Registered as a Tenant user	The purchase has not been accepted by the seller. The buyer does not know the purchase has been received by the vendor.	Will not show purchase data.	No transaction	Pass
9	109	User in profile menu	Already have an account	The account is not registered.	Unable to log in.	Not open	Pass

IV. CONCLUSIONS

Conclusion

Based on the research that has been carried out, the author concludes that:

1. This information system can make it easier for customers to find boarding houses anytime and anywhere, just through this website.
2. Produce complete and accurate information about the boarding house data to be selected.
3. Providing benefits to boarding house owners because they are better known in the wider community through the internet.

Advice

In implementing this website, there are still many shortcomings. here are the things that need to be developed in the future:

1. Increase the appearance of being user friendly and contemporary.

2. Expand various payment options.
3. It is necessary to add an accurate and updated maps feature to make it easier for customers to know the location of the boarding house to be selected.

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