MOBILE WEB-BASED INFORMATION SYSTEM AS INFORMATION FOR SEARCHING FOR BOARDING HOUSES FOR STUDENTS

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ABSTRACT
Boarding houses or often called boarding houses are a necessity for the community, especially students and pupils, who are looking for a temporary place to live for those who are completing their education. Information about boarding houses usually comes from word of mouth and people don't yet know complete information about the boarding house. To overcome the problems that occur, this mobile web-based boarding house information system is useful for helping students and pupils in finding boarding house information that suits their wishes and making it easier for owners to market boarding houses. The method used to build a boarding house information system is to use the SDLC (System Development Life Cycle) method with the MySQL programming language as a database on XAMPP. This system is also supported by Google Maps which makes it easier for searchers to find the location of the desired boarding house. The final result of designing and building a mobile web-based boarding house information system can make it easier for students and students to find boarding houses.

Keywords: Information Systems, Boarding House, Mobile Web, System Development Life Cycle

1. INTRODUCTION
In today's age of globalization, technological advances make people always want to innovate into something new by using information technology that can provide ease in finding information (Islamiyati, 2020; Syam, 2021). There are rules relating to cost houses that are regulated in the Decision of the Pringsewu Governor of the Province of Lampung No. 2 of the year 2019 on maintenance of Cost houses according to the Regulations of the District of Prangsewu District (Pringsewukab, 2007). Kost houses or often called kostan is one of the needs of society especially students and students to find a temporary home for those who are completing their education. Information about the cost house is usually obtained as information from mouth to mouth and not knowing the complete information about the house's cost.

With the advancement of information technology, this mobile web-based home information system is useful to help students in finding information easily (Avenouglu, 2005; Kurnia & Wijaya, 2024). The system offers ease for students and students to find costs to suit their wishes as well as makes it easy for owners to market cost houses without having to install brochures.
Based on the Likert scale analysis method of the results of the questionnaire that has been carried out 30 people cost searchers obtained an average score of 3.3 who felt very satisfied and 10 people cost owners stated an average satisfaction result of 3.05 who were categorized as satisfied in terms of promotion and made the booking of the room house cost in the Android-based Cost Place Search Information System (Rahmawati & Bachtiar, 2018). The Cost House Information System in Bandar Lampung Web can make bookings/customers in particular students do not have difficulty finding a house cost that meets the criteria (Ridwan et al., 2016). Cost owners can check their cost location by registering as owners in the system and the system's response facilities are available through short message service (SMS) (Euis Mustika P, 2017).

Based on the results of previous research, the system used is using a geographic information system (GIS), and short message service (SMS). In this research, the system used is using a combination of mobile web-based information systems with Google Maps. So it can be easy to search for locations and book cost houses. This mobile web-based information system will manage cost data and provide detailed information and accurate location in using Google Maps. It is hoped that this application will help students and students in finding cost houses. The problem to this day is that it's hard to find a home. Usually, information about the house cost is obtained by asking his friends or the community around, come places cost to find information about cost, in this way can take up a lot of time and energy, so the search for a place becomes a peculiar obstacle for someone or a student because it has to go around to find an empty house cost, then from that it is necessary to design a system capable of solving the existing problems. The intended system is to create a human Kost information system through a mobile web-based application that can help and make it easier for students and students to find a Kost house.

With this research, a mobile internet-based Kost house information system can be used to facilitate booking in search of a Kost place and provide detailed information about cost overview. This application can be utilized in promoting and managing kost places online for kost owners as well as can provide a variety of recommendations in the selection of kost places. With this mobile web-based application, it is hoped that students and students will not have any difficulty in finding the place they want. The urgent issue in this study is how to build a cost home information system based on the web model. The goal is to make it easier for students and students to find a home. The method used in this research is using the SDLC method (System Development Life Cycle).

2. THEORY
2.1 System Concept
A system has the meaning of a group of components that have elements of connection between one and the other (Aprilia, 2024). Information systems are a collection of business components or organizations involved in the process of generating and disseminating information (Perrina, 2021). A system can be understood as a unity of components that are interrelated to each other to a certain goal. The main characteristics of a system are as follows: 1. A system has a specific purpose 2. To a goal, a system has certain functions 3. To move a function, a system must be supported by various components (Riadi, 2021; Geograf, 2023).
2.2 Information Definition

Information is data that is processed into a more useful and meaningful form for the recipient (Benoit, 2019; Rowley, 1998). Information is also known as processed data or meaningful data (Diffen, 2008; Malak, 2023). Information is data that has been processed in such a way as to increase the knowledge of the people who use it (Singh, 2024). Decision-makers understand that information is an important factor in determining the success or failure of a business area (Saputra, 2024; Thabroni, 2022). Any system without information will be useless because it will encounter obstacles and eventually stop working (Ratnasari et al., 2018). Information is data that has been classified processed or interpreted for use in decision-making (Effendy et al., 2023). The primary function of information is to increase knowledge or reduce user uncertainty of information (Effendy et al., 2023; Sutabri, 2012). The information sent to the user may be the result of data entered and processed by a decision model (Yusmaida et al., 2020).

2.3 Information systems

An information system is an organized combination of people’s hardware, software, communication networks, and data resources that collect, modify, and disseminate information within an organization (Sitorus & Malau, 2017; Rainer et al., 2020). An information system is a set of components that work together and are used to record data, process data, and present information to decision-makers so that they can make good decisions (Buckland, 1991; Supriyanti et al., 2018). An information system is an organizational system that meets the needs of managing daily transactions, supports the operational, managerial, and strategic activities of an organization, and provides specific external parties with the required reports (Yusmaida et al., 2020).

2.4 Definition Boarding House

Kost is a kind of room rented (booking) for a certain period of time according to the agreement of the owner of the room and the agreed price (Alghofar, 2022; Novriadi, 2024). But there are those who rent for one month, three months, and six months so the rent periods are annual, monthly, tri-weekly, and half-yearly. In contrast to kos-kosan, contract houses are a form of rental houses that are rented to the public in particular for students and students who live around the campus, for a certain period of time according to the rental agreement and the agreed price (Hadiansyah, 2020).

2.5 Mobile Web Applications

Mobile web is a web application that allows to develop of applications that can run across smartphone devices using web technologies such as HTML, CSS, and JavaScript (Anendya, 2023; Hanif, 2024; Management, 2024). The application can also be accessed on web servers and standard URLs through the device's web browser (Taivalsaari et al., 2008; Jazayeri, 2007; Lymberopoulos et al., 2012). The mobile web has been adapted for use on these devices, such as browsing and searching for various information displayed on the mobile display screen, which is held in the hands of the user (Anderson et al., 2001; Cui & Roto, 2008). So many web
owners redesign their web pages on separate mobile web to optimize and facilitate browsing activity through mobile devices (Pratiwi & Muslihudin, 2018).

### 2.6 Google Maps

Google Maps is an online mapping service from Google that offers road maps, satellite imagery, 360-degree panoramic views (Street View), real-time traffic conditions, and route planning for walking, driving, cycling, or using public transportation (Maps, 2015; Mehta et al., 2019; Svennerberg, 2010). With this service, users can find locations, get directions, monitor traffic conditions, and discover local business information such as restaurants and hotels. Google Maps also provides a feature to save maps for offline access and allows users to mark their favorite locations (Rahmanda & Nurhadi, 2024; Syahrial, 2022). Google Maps is a free service provided by Google and is very popular. Google Maps is a map of the world that we can use to see a region. In other words, Google Maps are maps that can be viewed through a browser. We can add Google Maps functionality to the websites we create or to our paid or free blogs, even with the Google Maps API (Hadiansyah, 2020).

### 2.7 Use Case Diagram

A use case diagram is a UML diagram used to depict the interaction between actors (users or external systems) and the developed system, showing the functions or services provided by the system (Maulana, 2022; Dharwiyanti & Wahono, 2003). This diagram consists of actors, use cases (functions or services), relationships between actors and use cases, and the system boundary (Setiyani, 2021). Using case diagrams helps in understanding user requirements and how the system should function to meet those needs, often used in the analysis and design phases of system development (Lesmono, 2024).

### 3. METHOD

In this section, we discuss the methods used in this research. The methods used to collect data are as follows:

1) Observation method, at this stage of observation the researcher performs a direct observation of the information on the house cost by arriving at the location of the home cost in Pringsewu in particular, which is located around the campus area. From the results of the observation, the researchers know the state of the houses cost and the scientists take a picture of house cost and determine the coordinate point of location of cost.

2) Interview method, In this stage the researcher performs an approach to the owner of the property which is in the territory of Pringsewu which is the object of research to obtain some information and data needed to facilitate students and students in finding the desired house cost. Interviews are conducted to get all the information needed in the system. In this phase, researchers also use the method of library or library study, which is the process of collecting data as references from previous research books and journals concerning information about the house cost. In this case, researchers search and gather information and data relevant to the problems faced by students and students who will be looking for houses.

Information System Development Method means a framework used to plan the process of an information system. (Lestari et al., 2017) System Development Life Cycle or SDLC is a
methodology used to develop a system. SDLC is a logical process used by system analysts to develop information systems that include system requirements, validation, training, and ownership. The SDLC is like a waterfall development technique as its steps descend from top to bottom. Here are the stages of the System Development Life Cycle:

1) Initiation/Planning is the stage in which a system is globally described with the objectives to be planned for the system to be developed. This phase is identical to the phase of analysis. At this stage, planning is done in building a mobile web-based information system by learning MySQL, PHP, and other programming languages related to the creation of this mobile web application.

2) Requirement Gathering and Analysis, at this stage the analysis tries to deduce the system problem and describes it into some diagrams to describe the ongoing situation, then at this phase, the analysis is also trying to design the solution that will be given to the user. At this stage, what the researchers are doing is finding out what material will be needed by the user and how to create this mobile web-based cost-home system.

3) Design, at this stage the solutions that have been described globally at the requirement gathering and analysis stage are described in detail either in the form of diagrams, layouts, business rules as well as other documentation required. At this stage, what the researchers do is design a system that will be used and make plans in the process of making a mobile web.

4) Build or Coding, at this stage the system begins to be built or developed. This step is similar to creating a system-supporting application program. At the coding stage, researchers try to develop a mobile web application program in a different way than others, namely by building a system that has been built in such a way that students can easily find home costs with the mobile web.

5) Testing, at this stage, systems that have been built or developed are tried by both testing and user teams. In the test phase where the design is started to build the system so that there are no mistakes. The researchers conducted tests to find out if the mobile web application program that has been built is good or not so that it can be useful for students and students in search of cost houses.

The research framework in this study explains the stages or procedures in the creation of a cost home information system using a mobile web application system that aims to make it easier for students and students to find a cost home as a temporary residence without having to come to the location first. The following is a flow of research that is described through the flow diagram that starts from the preparation in determining the purpose of the research carried out to the final stage of the study.
In designing this system, the author designed a system to produce a model or entity representation which will later be built using several tools that explain the data collection process. The stages in this process are as follows:
In Figure 2, Use Case diagrams depict the relationships between users and the various user cases involved.

![Use Case Diagram]

Figure 3. Data Flow Diagram

In image 3, the Data Flow Diagram is a method or approach for designing a system to represent the flow of data that then moves through the system.

4. RESULTS AND DISCUSSION

The results of implementing a mobile web-based information system as comment search information for students are as follows:

![Front Page Image]

figure 6. front page

In Figure 6 front page is the main page of the boarding house information system which displays the main menu.
In figure 7 admin login is the administrator page for entering the boarding house information system application in Pringsewu.

In figure 8 admin page this is a page where the admin can change or add data to the boarding house information system application in Pringsewu district.

Figure 9 boarding house data this is a page that displays data on boarding houses in Pringsewu.
Figure 10. Boarding House Information

Figure 10 Boarding house information this page displays detailed information on boarding houses in Pringsewu, consisting of the name of the boarding house, boarding house owner, number of boarding rooms, room size, facilities, telephone number of the boarding house owner, price and a map image used to display a map of the boarding house’s location. And shows the road from our current location, the comment button is used to add comments.

Figure 11. Location of boarding house on Google Maps

In figure 11 location of the boarding house on Google Maps, this page displays details of the location of the boarding house by displaying it on Google Maps.

Figure 12. Price of boarding house
In Figure 12, this page displays information on boarding house prices. From all the research results and implementations conducted by the author, the analysis of the research results aligns with the expected outcomes. The research results can be explained as follows: the login menu of this program performs the login process to access the main page according to the admin's access rights. The menu page will be tested to see if the menus programmed by the web application can run properly or not. If the application program can be run as initially desired, it means that the testing and analysis conducted by the author were successful. This website can facilitate students in finding information about boarding houses in Pringsewu, especially in the areas around schools and campuses. The website system intended by this program can perform internet access processes to enter the website application page, which can be accessed on smartphones or Android devices. This website can provide information about boarding houses in Pringsewu.

5. CONCLUSIONS AND SUGGESTIONS
Based on the analysis and design that has been carried out in creating a mobile web-based boarding house information system application in Pringsewu, several conclusions can be drawn as follows: Mobile web-based boarding house information system application in Pringsewu, from the results of this research, can make it easier for students and pupils to find boarding houses. This mobile web-based boarding house information system application in Pringsewu can also provide information for students and pupils in searching for boarding house locations. Additionally, the mobile web-based boarding house information system application in Pringsewu can provide promotional media information for boarding house owners.

A mobile web-based information system for searching for boarding houses for students could be a very useful solution. Here are some suggestions for building such a system: Map integration can help users understand the location of the boarding house visually and make navigation easier. Make sure the map displays relevant information, such as the location of the boarding house, nearby public transportation, and surrounding facilities. Provide detailed information about each boarding house, including price, available facilities (such as en suite bathrooms, Wi-Fi access, shared spaces, etc.), resident policies, and owner contacts. Add a feature for users to provide reviews and ratings of the boarding house they previously lived in. These reviews can help other users make better decisions. Ensure that user data security is well maintained, especially because the system will store user personal information such as telephone numbers and addresses.

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