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TOURISM RESERVATION INFORMATION SYSTEM BASED ON THE PENTAGO CASE STUDY WEBSITE RIVERSIDE GARDEN

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ABSTRACT

This research is entitled Website-Based Tourist Attraction Reservation Information System by conducting a case study at Pentago Garden Riverside, located in Central Aceh, Bener Meriah. The aim of this research is to design and build a tourist reservation information system to make it easier for visitors to make reservations about the facilities available at Pentago Garden Riverside, as well as designing a conventional reservation system with a more modern approach. The research and development method using the waterfall method used is a descriptive approach by collecting data through observation, interviews and literature studies. This system design uses the UML (Unified Modeling Language) design model, and was developed using the PHP programming language and for storage using a MySQL database. The result of this research is a website-based tourist reservation information system that allows visitors to make online reservations easily. Users can access information about tourist attractions, make reservations by selecting facilities and determining the date of visit, and make payments online. Admin can manage visitor and transaction data, generate income reports. In conclusion, this website-based tourist attraction reservation information system provides convenience and comfort for visitors and managers of Pentago Garden Riverside. With this system, it is hoped that ordering and data processing will become smoother, provide a better experience for visitors, and support the development of tourist attraction businesses.

Keywords: Information Systems, Reservations, Places, Tourism

INTRODUCTION

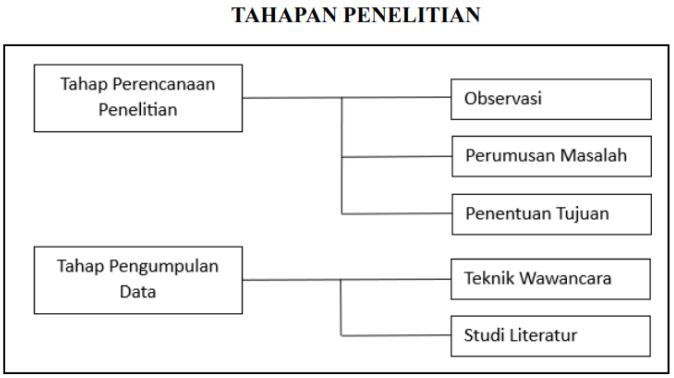
One of the attractive tourist attractions is Pentago Garden Riverside, which is located in Blang Tampu Village, Bukit District, Bener Meriah Regency, Central Aceh. This place has been operating since 2011. According to Lamuddin, peak visits occurred in 2019, with the number of visitors reaching more than a thousand people. Pentago Garden Riverside's popularity will

increase and go viral on social media in 2023, especially after the development of the Distori camping ground (2024). After carrying out large-scale development including the camping area, the concept of this area is increasingly modern with very complete facilities. This makes Pentago Garden Riverside increasingly attract the attention of visitors. After development, the number of tourists coming has increased drastically, up to more than 50% compared to previous years. In 2022, Pentago Garden Riverside recorded more than 150,000 visitors, and in 2024 this number is expected to continue to increase, with peak visits predicted to be reached in 2024, with more than 200,000 visitors. However, despite the rapid development, Pentago Garden Riverside still faces obstacles in the reservation process which is currently still done manually. This often makes it difficult for tourists to make reservations, especially during weekends or national holidays which are usually accompanied by an increase in the number of visitors. Data shows that the tent occupancy rate reached 40% in October 2023, an increase of 8% compared to the previous month. Therefore, a modern reservation system is needed that not only simplifies the booking process but also provides complete information about the facilities available. Based on data from the Aceh Central Statistics Agency (BPS) (2023), the number of domestic tourist visits to Aceh continues to increase every year, reaching more than 1.71 million visitors in 2022, supported by data on the room occupancy rate (TPK) of star hotels in Aceh, which reached 39.47% in October 2023, experienced an increase of 5.83% compared to the previous month (BPS ACEH). Great potential requires efficient and effective information system support, especially in terms of reservations at Pentago Garden Riverside. As a tourist destination, Pentago Garden Riverside really needs information media to increase the interest of visitors who plan to visit the place. Nowadays, almost anything can be promoted through information media. One form of information media that can be used to communicate this information is a website, because it provides easy access anywhere. Therefore, the author created a website system, namely "Website-based Tourist Attraction Reservation Information System at Pentago Garden Riverside", where this website will contain reservations for camping facilities, payments and also contain updated information about Pentago Garden Riverside. By implementing a website-based information system, Pentago Garden Riverside is expected to increase the number of visitors by up to 20% per year, which will have a direct impact on local economic growth. This system also supports sustainability by reducing the use of paper in the reservation process and manual recording.

METHODS

The research method is a step taken in order to collect information or data by deepening the data that has been obtained. The purpose of conducting

research is to gain new knowledge and discoveries, as well as to be able to prove or test the truth and new or existing knowledge. In this research, the research method used to cover and create the system is the waterfall method. The Waterfall method is a method used for software development. The sequence in the Waterfall Method is serial, starting from the process of planning, analysis, design and implementation of the system. This method is carried out with a systematic approach, starting from the system requirements stage then moving on to the analysis, design, coding, testing/verification and maintenance stages (Sufri et al., 2023). In an effort to produce a new product that is widely accepted by society, it is necessary to test the effectiveness or quality of the new product. In this research, testing on product quality was carried out in the usability section (ease of use).



Gambar 3.1 Struktur Tahapan Penelitian

RESULTS AND DISCUSSION

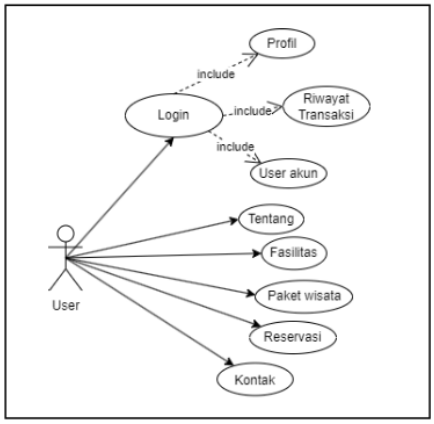
The system that will be built is a reservation information system for Pentago Garden by utilizing data related to available tourist facilities and web-based technology. This system is designed to provide various information that can be accessed by users, such as information about camping areas, supporting facilities (such as deck locations, tour packages and outdoor activities), as well as details of additional services offered. By building this system, it is hoped that Pentago Garden can more easily promote the natural tourism it offers, become the main choice for tourists, and make it easier for visitors to get information and make reservations practically and efficiently. In the modeling and design stages of a system, there are several stages of design modeling that need to be created. Namely as follows:

Use Case Diagrams

Stage of creating a use case diagram from needs analysis. The following is a use case diagram for the Admin page, where the Admin can log in, view

reports, manage travel master data, news, users and categories. Users can also log in to view the history of travel transactions and services.

a. *Use case diagram* User



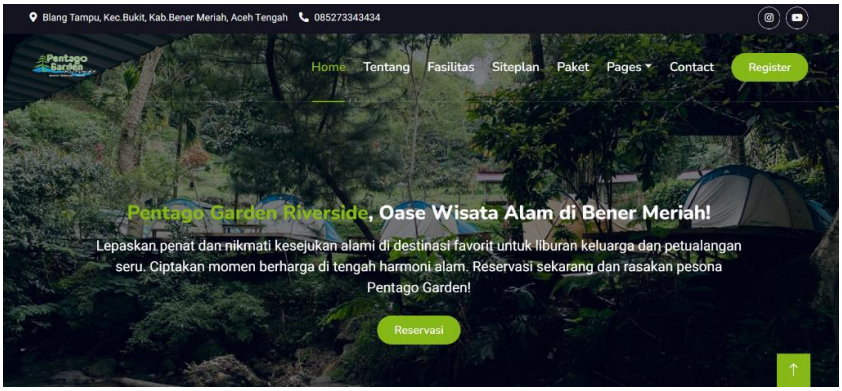
Gambar 4.1 *Use case Diagram* User

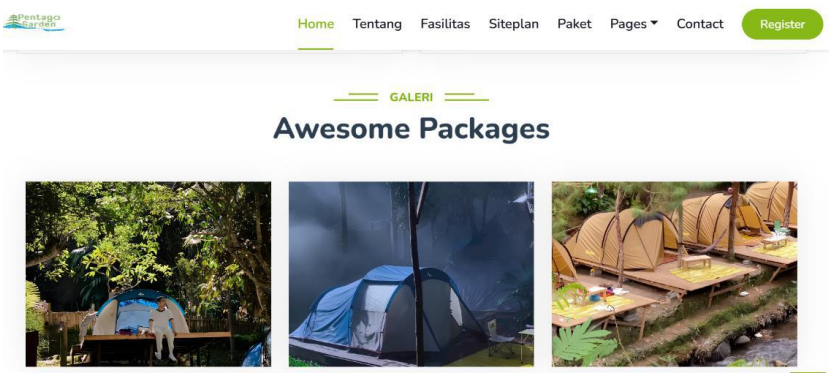
The data structure in the web-based Pentago Garden Riverside Information System is organized in database tables that store information related to various elements in the system. This database structure includes tables used to store visitor data, camping package data, reservation data, and visitor profiles that support system workflow. The following is an explanation of the database structure and related tables: This table stores data related to booking tour packages by users. Each row in the table represents one order transaction.

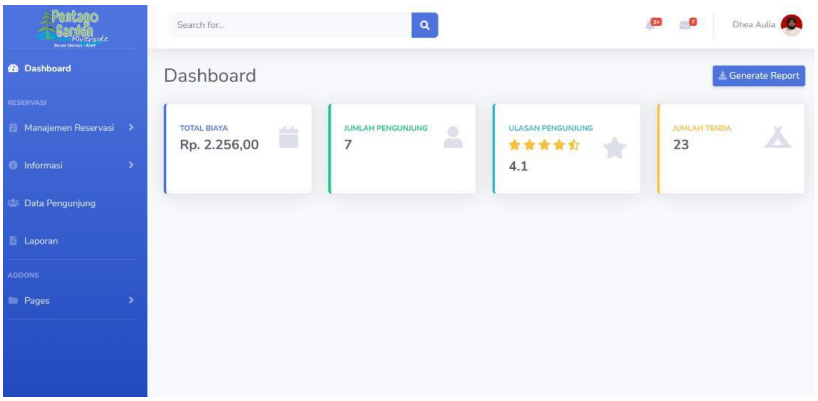
Tabel 4.1 Tabel Data Reservasi

Nama Columns	Tipe Data	Keterangan
id	Int (11)	Primary key
Nama_pemesan	Varchar (100)	Nama Pemesan
Nomor_hp	Varchar (15)	Nomor telepon
Email_pemesan	Varchar (100)	Email pemesan
Tanggal_checkin	Date	Tanggal reservasi
Deck_tersedia	Int (11)	Ketersedian tenda
Paket_wisata_harga	Int (11)	Paket camping
Tambahan	Text	Alat/bahan tambahan
Total_biaya	Varchar (255)	Total biaya
Bukti_transaksi	Varchar (255)	Bukti pembayaran

The system display is a form of result from a system that has been developed in accordance with the system design stages. In this research there are two levels of information system users, namely admin and user. The admin acts as the main manager of the system, such as adding, editing or deleting information, as well as monitoring system activity and responding to reviews, while the user is the party who accesses tourist information, including location descriptions, photo galleries, facilities, and makes online reservations. The system is designed to be responsive for a variety of devices with a user-friendly interface, intuitive navigation and attractive visuals that reflect Pentago Garden Riverside's identity. The following is a display of the tourist information system for Pentago Garden Riverside as follows:







From the results of testing the Pentago Garden Riverside reservation information application, it can be concluded that testing using the black box testing method is very necessary, so that each software is tested first to test the system error level. And a system that runs optimally will facilitate the performance of the user, without any problems experienced by the system, therefore testing is really needed to determine whether the system that will be used later is suitable or not.

CONCLUSION

Based on the discussion of the design and creation of a tourist attraction reservation information system based on the Pentago Garden Riverside website, the following conclusions can be drawn:

1. The Pentago Garden Riverside tourist attraction reservation information system has been tested using the black box testing method, which focuses on testing the main functions of the system. Test results show that most of the features, such as the reservation process, selecting tour packages, and managing reservation data, have run according to the designed specifications. However, several areas were still found that required improvement and development, especially regarding the optimization of certain processes to improve user experience.

2. Designing a web-based information system has proven to be an effective solution for increasing the efficiency of the reservation process and delivering real-time information. By using this system, tourists can easily access information regarding tourist destinations, facilities and available tour packages, as well as make reservations quickly without having to meet face to face. This system makes it easy for visitors both from outside the region and locally.

3. This web-based information system is designed not only for reservation management purposes, but also functions as an effective promotional media to introduce Pentago Garden Riverside to the wider community. Through this system, information about facilities, tour packages and interesting activities can be conveyed clearly and interestingly. This is expected to increase visitor interest and provide a more refreshing holiday experience, so that it can better support the management and promotion of tourist destinations at Pentago Garden Riverside.

5.2 Suggestions

The suggestions that the author can give are as follows:

1. It is hoped that future developers will be able to add a payment gateway feature that supports various payment methods such as e-wallet, bank transfer or credit card to make it easier for visitors to make payments practically and safely.

2. Looking at the information presented, it may not be completely perfect, therefore we need to add more complete information.

3. In the future, this information system can be developed based on Android or other mobile applications so that visitors can more easily access Pentago Garden Riverside reservation and information services anytime and anywhere.

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