

Design of Online Ticket Information System on Ara Garden Tour in Bahtera Makmur Village

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ABSTRACT

Has several interesting tours, one of which is Ara Garden Tourism, a place in the form of an artificial tourist park located in Bagan Batu, Riau, Bagan Sinembah District, Rokan Hilir Regency. However, ticket purchases can only be made by buying directly on the spot when entering the tourist spot. This can make it difficult to order tickets because of the large number of visitors. So here the e-ticket application design will be made using the RAD method to analyze and design applications for online ticket booking at Ara Garden Tourism. In this design using dart and flutter programming languages as application development, using VCS (Microsoft Visual Studio Code) as a code editor in creating the application. Therefore I use a database that functions to store and manage data through SQL commands or queries, applications that have more complex data processing are PostgreSQL. The Ara Garden tourist ticket application has been created and the prototype of the application was tested by sending a questionnaire to 20 respondents with an average score of 4.021 and most of the responses from potential users said that the ticket prototype was easy to understand and use. So here we will try to create an e-ticket application design. E-tickets can make it easier for buyers or visitors to get them because they don't need to come directly to the tourist attraction.

Keyword : E-Ticket, Android Application, Information System



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1. INTRODUCTION

Tourist destinations are places that have tourist attractions that can be enjoyed by people who visit there, either alone or with friends and family. Currently, there are many tourist attractions in various places and even countries. One of them is tourism in Bagan Batu, which is located in Rokan Hilir district, Riau. Tourism potential is a resource owned by various places, which can be utilized to make money. There are many interesting places in Bagan Batu, one of which is Ara Garden, an artificial tourist park with entertainment such as Swimming Pool, Villa, and Camping Area. This is a great place for a vacation with family and friends.

However, tickets can only be purchased directly at the location when entering the tourist attraction. Due to the large number of visitors, ticket reservations can be a problem. With the increasingly widespread internet network today, human activities have become easier, especially in terms of booking and purchasing tourist tickets. Ticket purchases have changed from buying tickets physically to buying tickets online, which allows the use of the internet anytime and anywhere quickly, effectively, and efficiently. Here I will design an application system that is useful for purchasing tourist tickets online. Using the dart and flutter programming languages as application development, using VCS (Microsoft Visual Studio Code) as a code editor in creating applications. Therefore, I use a database that functions to store and manage data through SQL commands or queries, applications that have more complex data processing are PostgreSQL.

The author created an application that makes it easier to sell tourist tickets. This application can help managers to make it easier to sell or order tourist tickets online.

2. RESEARCH METHOD

The type of examination used in this study uses quantitative with a clear form. In-depth analysis of the data and facts found is emphasized in this type of research, which is then expanded into research and presented without engineering. Graphic examination can be used for research on an event, thought, condition, article, or status in the future. Bahtera Makmur Village, Bagan Batu City Village, Bagan Sinembah District, Rokan Hilir Regency, Bagan Batu City, Riau, became the location of the research. It is located at the North Sumatra-Riau Intersection. The research time for designing an online ticket information system for Ara Garden tourism in Bahtera Makmur village is planned to start from March 2023 to December 2023.

3. RESULTS AND DISCUSSION

A. Results

This segment will show the continued impact of the framework plan that has been built, specifically the Framework Application. Online Ticket at Ara Garden Tourism. The implementation of the Information System used in making this online ticketing system is designed based on Android. The output that will be shown is a consequence of the display of the framework connection points that have been done as well as the consequences after testing the completed framework.

1) Interface Display Results

The Ara Garden Online Ticket System application is equipped with a display that aims to facilitate its use, and the results of the interface display are a stage where the system or application is ready to be operated in actual conditions according to the results of the analysis and design that has been done. That way it will be known whether the system or application built can produce an achieved goal. The purpose of the interface is to receive application input and display output. The interface that has been built on the decision support system produces the following results:

- User Account Registration Form Display
- User Login Form Display
- User Dashboard View
- Display of Create Order Form
- Display of Order Received by Admin
- Display Order Rejected by Admin
- Admin Registration View
- Admin Login Form Display
- Admin Dashboard View
- Order Data Display
- Account Data Display
- User Ticket Print View
- Order Cancellation View

B. Application Testing Results

The purpose of this test is to find out whether the Ara Garden online ticket application is functioning properly or there are still problems that need to be fixed. The following is an application testing scenario.

1) Application Testing Scenario

The following is a comprehensive testing scenario for a travel ticket purchase Android app. These scenarios cover various aspects to guarantee the app runs well and provides a satisfactory client experience.

a. Register with email

- Step: Open App, Register here, Enter email, Password, Username, Click sign up.
- Expected result: user is registered and redirected to the main page.

- b. Login with email
 - Steps: Open the application, select login, enter email and password, click - sign in.
 - Expected result: User successfully logged in and redirected to the dashboard page.
- c. Ordering by user
 - Steps: click the plus sign, enter the order information, order name, mobile number, account name, account number, bank name, select tour, determine the number of visitors, select the destination account for transfer, upload proof of payment, create an order.
 - Expected result: Order successfully entered, waiting for the order to be processed by the admin.
- d. Order accepted/rejected by admin
 - Steps: Open the application, select login, enter email and password, click - sign in, click order, click order data, click accepted/rejected.
 - Expected result: Order information will be entered into the user account.
- e. Ordering Proses
 - Steps: Open the application by admin, select login, enter email and password, click - sign in, click order, click order data, click accepted/rejected.
 - Expected results: Order information enters the user account after being processed by the admin.

Through this test scenario, the Android application for purchasing tourist tickets can be evaluated thoroughly. The test results will provide an overview of the performance, reliability, and user satisfaction of the application.

2) Unit Testing Scenario

The buttons of the Ara Garden Online Ticket application were tested to see if they function properly. The test results for the Online Ticket application buttons are as follows.

a. Registration Page Testing

There is a test scenario in the registration page test, namely the Sign up button, when the user and admin have filled in data in the form of email, password, username.

Table 1. Registration Page Testing

Kelas uji coba	Skenario uji	Hasil yang diHarapkan	Kesimpulan	Gambar
Halaman Pendaftaran User/Admin	Memilih tombol <i>Sign in</i> setelah mengisi formulir pendaftaran	Sukses dan menampilkan menu dashboard	Sukses	

b. User Dashboard Page Testing

There are 5 test scenarios in testing on the user dashboard, namely the pending menu, Accepted, Rejected, Add order, and logout. In the add order menu, users can fill in:

- Booking information containing: Booking Name, Mobile Number.
- Account Information containing: Account Name, Account Number, and Bank Name.
- Select a tour that contains available objects such as pools, villas, camp areas.
- Select Recipient Account (Admin)
- Upload Proof of Payment
- Create Order

- Cancel Order

Table 2. User Dashboard Page Testing

Kelas uji coba	Skenario uji	Hasil yang diharapkan	Kesimpulan	Gambar
Halaman Dashboard User	Memilih Menu Pending	Menampilkan pesanan yang belum di konfirmasi oleh admin	Sukses	
	Memilih Menu Diterima	Menampilkan pesanan yang sudah di konfirmasi oleh admin yang sudah di terima		
	Memilih Menu Ditolak	Menampilkan Pesanan yang Ditolak oleh Admin		
	Memilih Tombol Tambah	Menampilkan formulir pesanan tiket		
	Memilih Tombol Batalkan	Menampilkan data pesanan yang dibatalkan		

c. Admin Dashboard Page Testing

In testing the admin dashboard page, there are several menus and buttons, including: Menu for searching for order data, pending, Accepted, Rejected, icon, order data menu, account data menu, travel data.

Table 3. Admin Dashboard Page Testing

Kelas uji coba	Skenario uji	Hasil yang diharapkan	Kesimpulan	Gambar
Halaman Dashboard Admin	Memilih Menu Pending	Menampilkan pesanan yang menunggu konfirmasi oleh admin	Sukses	

	Memilih Menu Diterima	Menampilkan pesanan-pesanan yang sudah diterima oleh admin	Sukses	
	Memilih Menu Ditolak	Menampilkan pesanan-pesanan yang di tolak	Sukses	
	Memilih Menu Cari Data dari Nama User	Menampilkan data user sesuai dengan dicari	Sukses	
	Icon +	Menampilkan Formulir tiket untuk pengunjung yang ingin memesan secara offline	Sukses	
	Icon ≡	Menampilkan menu Data pesanan, Data rekening, Data Wisata	Sukses	

	Data Rekening	Menampilkan data rekening admin	Sukses	
	Icon + pada Data Rekening	Menampilkan formulir untuk menambahkan metode pembayaran oleh bank tertentu	Sukses	
	Data Wisata	Menampilkan data wisata yang ada di aragarden	Sukses	
	Icon + pada Data Wisata	Menampilkan formulir nama wisata, harga wisata. Yang bisa di tambahkan oleh admin	Sukses	

	Data Pesanan	Menampilkan data pesanan-pesanan yang sudah di buat oleh user	Sukses	
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4. CONCLUSION

Based on the research and observations that have been carried out, and from the description of the overall discussion, it can be concluded that the web-based ticket management application can function to manage ticket sales that are inputted by the manager in the transaction menu which can then be printed as a report in the ticket recap menu and also among others as follows: Ease of Access: Online tickets allow visitors to easily access attractions without having to queue at a physical location. This can save time and reduce crowds at tourist attractions. Time Flexibility: With online tickets, visitors can often choose their own visit time, which can enhance their travel experience. Price Transparency: Online tickets often clearly state prices, including any discounts or promotions available. This helps visitors to better plan their travel budget. Reduced Physical Contact: Online tickets can also help reduce physical contact between ticket officers and visitors, which can be relevant in a pandemic or health emergency. Tracking and Verification: Tourist attraction management can more easily track the number of visitors and verify tickets electronically, which can improve the security and management of tourist attractions. Technological Advances: The use of online tickets also reflects technological advances in the tourism industry, which opens up opportunities for other innovations, such as digital tour guides, tour guide apps, and so on. Possibility of Fraud: However, it is important to remember that there is a risk of fraud in purchasing tickets online. Visitors should be careful and ensure that they purchase tickets from trusted and authorized sources..

REFERENCES

- [1] Margaretha, J., & Voutama, A. (2023). Perancangan Sistem Informasi Pemesanan Tiket Konser Musik Berbasis Web Menggunakan Unified Modeling Language (UML). JOINS (Journal of Information System), 8(1), 20-
- [2] Hutasoit, R., & Silalahi, M. (2022). Percanangan Sistem Informasi Penjualan Tiket Kolam Renang Yonif 136 Berbasis Website. Computer and Science Industrial Engineering (COMASIE), 6(4), 134–140.
- [3] Juliansyah, F., Utomo, S., Rachmanto, A., & Budiarto, S. (2022). Aplikasi Quiz Dengan Konsep Gamification Berbasis Web Menggunakan Ruby on Rails & React.Js. Jurnal Teknologi Informasi Dan Komunikasi, 11(2). <https://doi.org/10.56244/fiki.v11i2.425>
- [4] Munawaroh, S. (2005). Mengeksplorasi Database PostgreSQL dengan PgAdmin III. Jurnal Teknologi Informasi DINAMIK, X(2), 103–107.
- [5] Saepudin, S., Pudarwati, E., Warman, C., Sihabudin, S., & Giri, G. (2022). Perancangan Arsitektur Sistem Pemesanan Tiket Wisata Online Menggunakan Framework Zachman. Jurnal Sisfokom (Sistem Informasi Dan Komputer), 11(2), 162–171. <https://doi.org/10.32736/sisfokom.v11i2.1415>
- [6] Safira, I. M., & Rakhman, A. (2019). Rancang Bangun Aplikasi E-Ticketing Travel Antar Kota Berbasis Android Dengan Menggunakan Metode Waterfall. Prosiding SENIATI, 5, 141–147. <http://ejournal.itn.ac.id/index.php/seniati/article/download/2509/1567>
- [7] Satria, E., Sutedi, A., & Permatasari, P. (2022). Rancang Bangun Aplikasi Edukasi Pariwisata Garut Berbasis Android Menggunakan Metode Multimedia Development Life Cycle. Jurnal Algoritma, 19(1), 202–209. <https://doi.org/10.33364/algoritma/v.19-1.1050>
- [8] Sukamto, P. (2019). Bab II Landasan Teori. Journal of Chemical Information and Modeling, 53(9), 1689–1699.

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- [9] Tjandra, S., & Chandra, G. S. (2020). Pemanfaatan Flutter dan Electron Framework pada Aplikasi Inventori dan Pengaturan Pengiriman Barang. *Journal of Information System, Graphics, Hospitality and Technology*, 2(02), 76–81. <https://doi.org/10.37823/insight.v2i02.109>
 - [10] Hutasoit, R., & Silalahi, M. (2022). Perancangan Sistem Informasi Penjualan Tiket Kolam Renang Yonif 136 Berbasis Website. *Computer and Science Industrial Engineering (COMASIE)*, 6(4), 134-140.
 - [11] Setyawati, E., Wibowo, A., Candrasari, D. M., & Martins, R. (2020). Pengukuran Fungsionalitas, Keandalan, Efisiensi, dan Kegunaan pada Pengembangan Sistem Informasi Pemesanan Tiket Wisata Online pada Lokal Wisata Hutan Pinus Limpakuwus Banyumas. *Jurnal HUMMANSI (Humaniora, Manajemen, Akuntansi)*, 3(2), 50-55.