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Information Systems

Design and Construction of a Website-Based Bus Ticket Booking Information System

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A B S T R A C T

In the business world, generally users and owners of companies need something innovative to help support performance and facilitate the use or search for product data. The presence of this website-based internet will make it easier for all groups to access all forms of information, including utilizing the media to be able to connect the relationship between customers and the company's products, namely one of which is ordering bus tickets. Based on the various conveniences and uses of the internet, a "Utilization of Information Systems in Ordering and Digitizing Bus Tickets Based on Websites" was developed. This system is made with PHP, MySQL and Bootstrap software. This Information System is designed to provide convenience in terms of ticket ordering services and obtaining other information needed by customers

INTRODUCTION

Buses are land vehicles designed to transport many passengers. Buses can have a capacity of up to 300 passengers. Buses have many types. Starting from midibuses and minibuses to large buses. Large buses are usually used for long-distance services. There are also many types of large buses, such as urban transit buses and intercity buses that are attractive and there are also school buses or campus buses that do not always charge fares. Buses can be used for scheduled urban, scheduled long-distance travel, schools, rentals, or tourism. In general, bus ticket sales are still widely carried out in the classic way, namely by going to the bus stop and ordering bus tickets directly at the bus terminal. Or many also buy them through bus agents [1].

At this time, technological developments have been very rapid. Everything can be done with technology, including bus ticket reservations. Moreover, with the emergence of the Covid-19 pandemic, technology has become the only way for all activities to continue running. The use of technology in ordering bus tickets can be very helpful. With technology as a booking medium, people do not need to queue for long or even jostle to buy bus tickets. People only need a good internet network, then open the online bus ticket booking website, and then book bus tickets. Even with the online booking feature, people can book bus tickets in advance so they don't run out of tickets. The purpose of writing

this journal is to make people aware that technology can also make it easier for us to book bus tickets [2].

METHOD

System Analysis

The stage of analyzing the basic things needed in implementing an application creation or development project.

This stage is the initial stage in system development, the things that are done are:

1. Defining general problems in detail.
2. Compiling alternative decisions or choices to be chosen.
3. Determining the criteria or comparison of decisions that are important to be executed according to needs.
4. Determining the priority level of each decision that has been made

System Development

The stage where the data/problem solving of the application that has been designed is translated into a predetermined programming language [13]. The sequence of steps taken are:

1. Building a system on the user side and a system by the cashier
2. Determining the priority order of decisions based on user needs
3. Translating each design that has been made into a programming language.

Writing Program Code

Writing program code or coding is a form of translation of the design and development of the system that we have designed into a language that can be recognized by the computer. This time we translate the transactions requested by the user. This stage is the real stage in working on a system. In the sense that computer use will be maximized in this stage. After the coding is complete, testing of the system that has been created will be carried out. The purpose of testing is to find errors in the system and then they can be fixed [14].

System Testing

Program testing is the final stage where the new system is tested for its capabilities and effectiveness so that system deficiencies and weaknesses are found which are then reviewed and improved to make the application better and more perfect [15].

RESULTS AND DISCUSSION

Home Page

This page is the initial display for users who want to order and see information about the available bus companies.



Figure 1. Main Page Image

About Us Page

This page explains about the bus companies that are currently operating and find the ticket discount interface.



Figure 2. About Us Page

Bus Ticket Facility Page

This page will explain what facilities will be provided by the bus company.



Figure 3. Bus Facilities Page

Customer Testimonial Page of Bus Users

This page will explain the testimonials given directly by the users of the bus website.

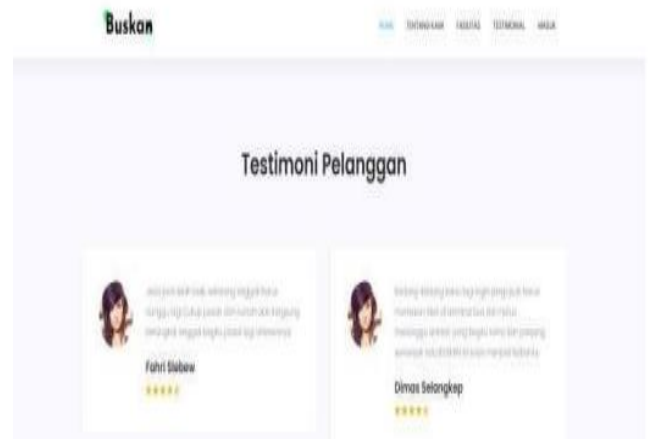


Figure 4. Customer Testimonial Page

Login Page

This page is for logging in before making a booking to provide identity for the ticket.

Figure 5. Login Page

Bus Ticket Booking Page

This page is used to make reservations for bus tickets, users will be able to make reservations according to the desired route required by the customer.

Jumlah Kursi	Tanggal Berangkat	Waktu Keberangkatan	Asal	Tujuan	Waktu Tiba	Pesan Tiket
10	2021-12-15	06:40:00	ITC BSD	LMH	07:45:00	Pesan
10	2021-12-15	08:40:00	Halte Terminal Duren Tiga	LMH	07:45:00	Pesan
10	2021-12-15	07:30:00	Duren Tiga	LMH	07:45:00	Pesan
10	2021-12-15	11:00:00	LMH	ITC BSD	12:05:00	Pesan
10	2021-12-15	11:30:00	LMH	Duren Tiga	11:45:00	Pesan
10	2021-12-15	11:30:00	LMH	Halte Terminal Duren Tiga	12:35:00	Pesan
10	2021-12-15	17:10:00	LMH	ITC BSD	18:20:00	Pesan

Figure 6. Bus Ticket Booking Page

Bus Ticket Page

This page can see what tickets have been ordered by the user with very complete details, even for each ticket a QR CODE will be provided to digitize the ticket without having to carry the conventional method, namely hard.

Bus ID	Rute ID	Tanggal Berangkat	Waktu Berangkat	Asal	Tujuan	Waktu Tiba	Nomor Kursi	Tiket Digital
51	1212	2022-06-23	06:40:00	Medan	Padang	07:45:00	1	Lihat
4	1111	2022-06-22	06:40:00	Medan	Jakarta	07:45:00	1	Lihat
4	1111	2022-06-22	06:40:00	Medan	Jakarta	07:45:00	2	Lihat
9	1515	2022-06-22	11:30:00	Medan	Uksekmaura	12:35:00	1	Lihat

Figure 7. Bus Ticket Page

CONCLUSIONS

With the existence of a bus ticket booking website, the booking system can make it easier for people to book bus tickets. With the existence of information technology, purchasing or booking bus tickets becomes safer. Booking tickets through the website also helps reduce the spread of the corona virus. Tickets that used to be printed conventionally in the form of tickets are often lost. With this qr-based ticket booking website, it will make it easier for customers to scan tickets to continue their journey.

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