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Designing a Web-Based Yakuza Music Studio Booking System

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Abstract

Service digitization has become a primary need to improve efficiency and quality, including in the entertainment industry such as music studios. Yakuza Music Studio currently uses a manual booking system that is prone to recording errors and scheduling conflicts. To address these issues, a web-based music studio room booking system was designed using the Rapid Application Development (RAD) method. The RAD method was chosen because of its ability to accelerate the system development process through prototype iterations that directly involve users. This system is designed with key features such as room booking, payment confirmation, promotions, a studio gallery, schedule management, musical instrument inventory, and an admin dashboard for data management. Test results show that the developed system is able to increase the speed and accuracy of the booking process and provide convenience for users and admins. By implementing the RAD method, system development becomes more flexible and responsive to user needs.

Keywords: *booking system, music studio, web-based, Rapid Application Development, service efficiency.*

1. Introduction

In today's digital age, the need for fast and efficient services is increasing, especially in creative industries such as music. Music studios have become an important facility for musicians, composers, and producers to record and produce their work[1]. Currently, the music industry is gaining significant interest from people, particularly teenagers, and even children are now familiar with and able to play various musical instruments such as guitars, pianos, drums, and other musical instruments. The rapidly evolving music industry has opened up opportunities for music studio businesses. Music studios are still in high demand for producing professional recordings and as practice spaces, keeping business opportunities open[2]. A music studio is a room or space (facility) used for music practice. Most music studios are equipped with complete musical instruments such as drums, guitars, keyboards, bass guitars, amplifiers, mixers, and microphones. Most people use music studios as practice facilities, while others use them for recording. Many people around us set up music studios as rental spaces[3]. Rentals at Yakuza Music Studio are currently still handled manually, and transactions often encounter issues, such as during the booking process, where customers must visit the studio in person to reserve a studio room. Due to a lack of information, customers may not know that the desired booking time is already fully booked or reserved by another customer. This is certainly very inconvenient for customers who have come but cannot book because the desired booking schedule is already full or occupied. At the Yakuza studio, there is one studio room. Studio 1 is equipped with musical instruments such as 1 keyboard, 1 drum set, 1 bass guitar, 1 electric guitar, 1 mixer, and 2 microphones. They also provide drumsticks. Yakuza Studio has rules such as requiring players to replace damaged drum equipment at a predetermined price, including drumsticks, cymbals, snares, and toms. They also allow customers to bring their own musical instruments and drumsticks. For payment, customers can pay directly at the studio or via bank transfer[4]. Therefore, a web-based studio booking system is needed to simplify the process, provide valid studio information, and prevent the studio from incurring losses when bands cancel their bookings. The system should not only provide schedule and rental information but also details on studio costs or rates, enabling bands to obtain information and complete the studio rental process quickly and accurately without visiting the studio. This system would be more efficient for the community.Based on the above background, the researcher aims to address the research title “Designing a Web-Based Studio Room Booking System for YAKUZA Music Studios Using the RAD (Rapid Application Development) Method.”

2. Research methods

The analysis process for the Music Studio Booking Website, which will be built using the Rapid Application Development (RAD) method, covers several aspects, including analysis of the existing system, analysis of work processes using the RAD method, and system modeling. The objectives of the system analysis in this study will be divided into three stages, namely: Running System Analysis can be analyzed that the running system starts from the user coming to the studio to ask for information on the schedule and availability of studios related to ready studios. Then the admin provides information to the user and the user chooses the schedule and availability of the studio. Then the admin records the schedule and availability of the desired studio. Then the user makes a payment. Then the admin creates a payment receipt

and the user receives proof of payment receipt, second is the Proposed Method Analysis and third is the proposed system analysis. To carry out the proposed system modeling process, a use case diagram will be used as a tool as explained in the figure below.

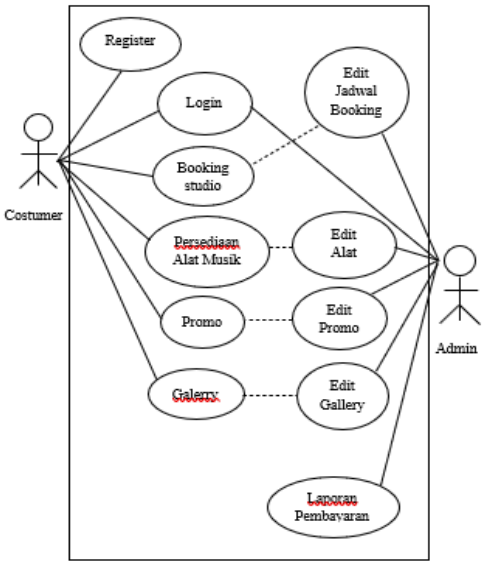

Fig. 1: Use case diagram

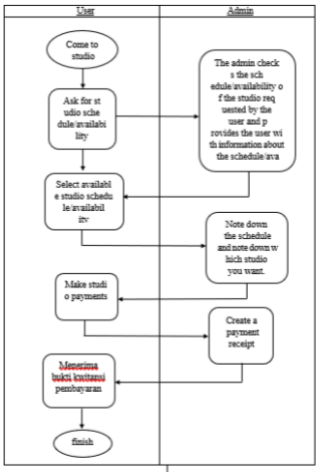

Fig. 2: Yakuza music studio activity diagram

3. Results and discussion

The appearance of the music studio room booking website using the Rapid Application Development method consists of three types of displays, namely the display for customers and the display for admins.

Fig. 3: index page display before login

1. User registration page view

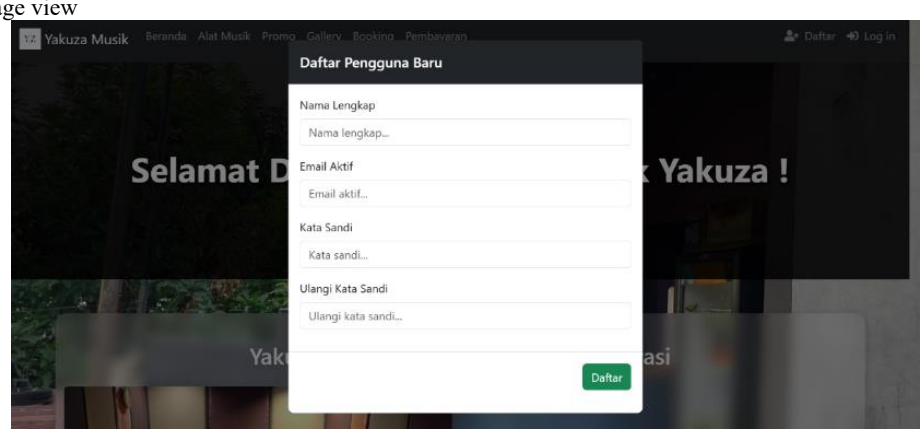

Fig. 4: Registration page view

2. page view Login

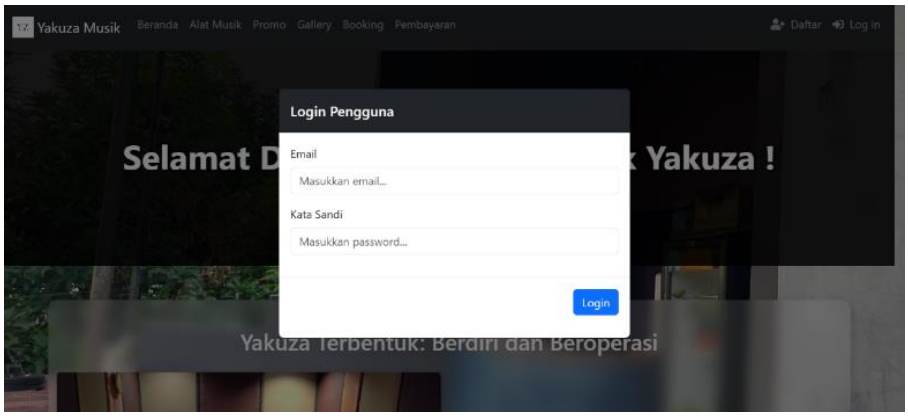

Fig. 5: Page view login

3. Home page display

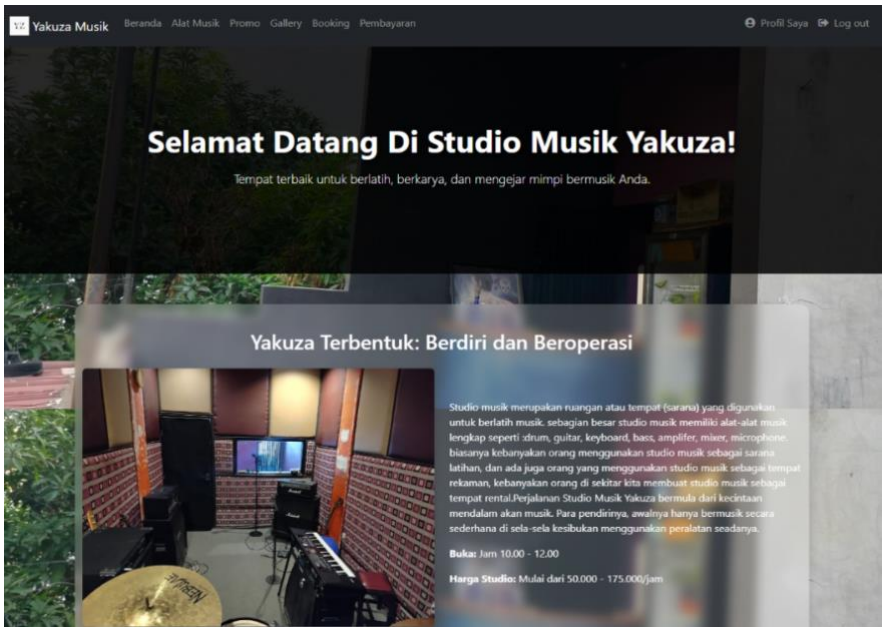

Fig. 6: Home page display

4. Display of musical instrument inventory

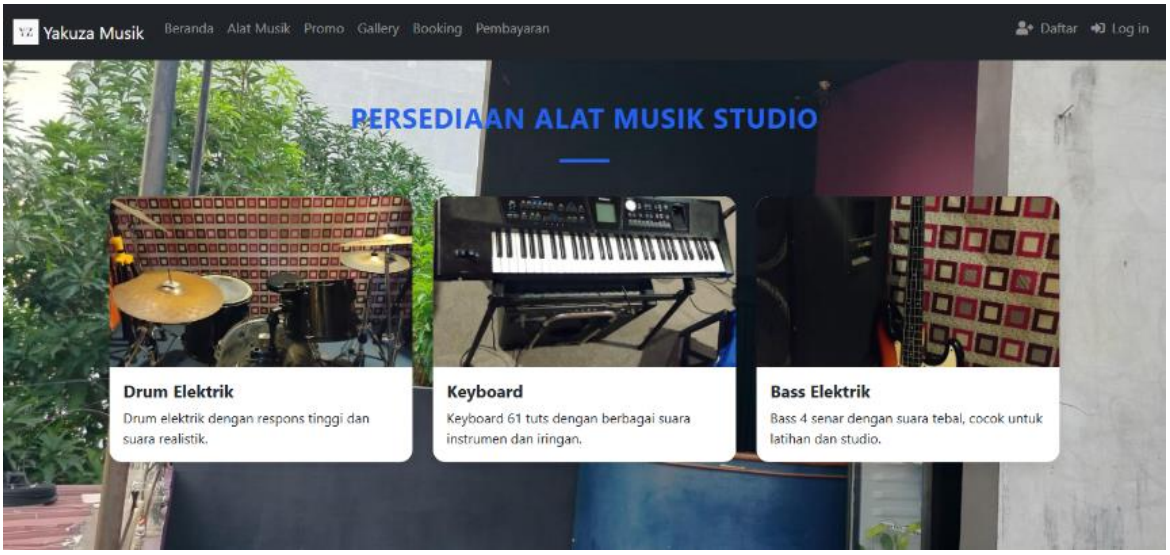

Fig. 7: Display of musical instrument inventory

5. Tool ordering promo display page

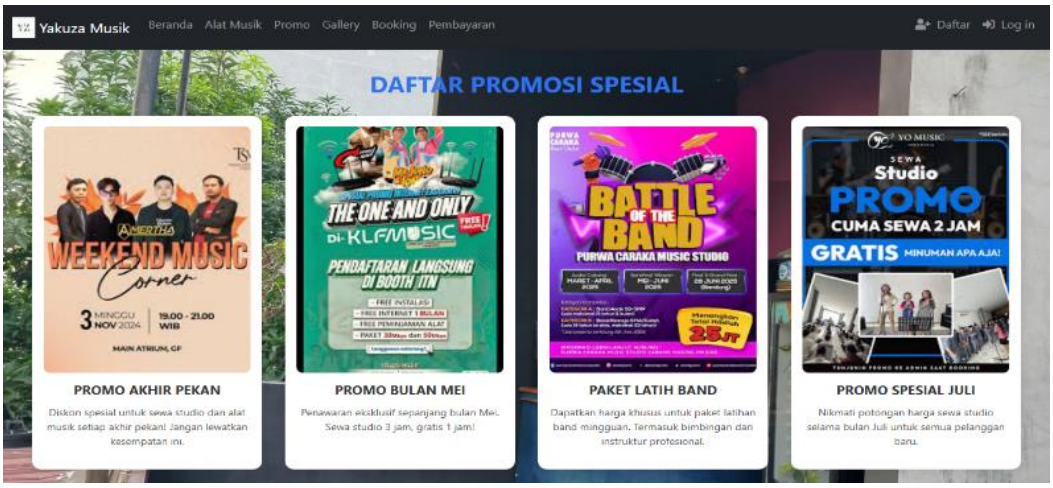

Fig. 8: Promo display

4. Conclusion

Based on the research, design, and implementation of a web-based Yakuza Music Studio room reservation system using the Rapid Application Development (RAD) method, the following conclusions can be drawn, The developed information system facilitates users in quickly and simply booking Yakuza music studio rooms and User administrators have the ability to add and delete previously saved information.

5. Suggestions

The author suggests that the Yakuza music studio can continue the system that has been designed to a further development stage and the author also suggests further research, so that this website booking system can be made online.

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