



Designing A Service Registration System at AHHAS Honda Ilham Motor Kepahiang

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Abstract: In the automotive world, organized and efficient service registration services are very important to support workshop operations and improve customer satisfaction. This process includes recording customer data, service schedules, and the types of services required, so a system design is needed that can serve the motor vehicle service registration process and make it easier for customers to service their vehicles. This study aims to design and develop a digital-based service registration system prototype at AHHAS Honda Ilham Motor Kepahiang. The system is designed to replace the manual registration method previously used, which often caused long queues and inefficiency in managing service schedules. With this prototype, customers can register for service online, choose available schedules, and receive automatic confirmation notifications. The system also includes features for managing customer data and vehicle service history, which help the workshop improve operational efficiency. The implementation of this prototype is expected to provide a more comfortable experience for customers and support the workshop in addressing challenges in the digital era.

Keywords: Design, Prototype, Registration, Service

Introduction

Service registration is the first step in the vehicle maintenance process, ensuring optimal vehicle condition. In the automotive world, an organized and efficient service registration process is crucial to support workshop operations and increase customer satisfaction (Yulia and Yulisma Aisyah, 2022). This process includes recording customer data, service schedules, and the types of services required. Currently, many workshops still use conventional registration methods, such as manual registration or on-site registration. This method often faces various obstacles, such as long queues, the risk of data loss, and inefficient waiting times. This can reduce customer comfort and reduce workshop productivity (Zulfa and Hasanah Nurul, 2022). In this study, a prototype design of a service registration system will also be built at AHHAS Honda Ilham Kepahiang. This design is intended to facilitate the development of a more complex system that can facilitate AHHAS and users in servicing vehicles. vehicle service registration process is a crucial aspect of customer service provided by authorized workshops like AHHAS Honda Ilham Motor Kepahiang. However, in practice, this process is often still carried out manually, which can lead to various obstacles, such as

long queues, time inefficiencies, and the risk of errors in customer data recording. This can impact customer satisfaction levels and workshop operational effectiveness (Mulawarman and Jatmiko Jati, 2023) .

With the advancement of information technology, the need for a more modern and efficient service registration system is becoming increasingly urgent. Digital-based systems not only enable more structured data management but also make it easier for customers to register independently, anytime, anywhere. Thus, the implementation of a technology-based registration system can be a strategic solution to improve service quality.

This research aims to design a prototype of a service registration system at AHHAS Honda Ilham Motor Kepahiang. With this system, it is hoped that a system that can be used for service registration will be created. It is hoped that the development of this system will also create a more integrated, faster, and more accurate registration process, thereby providing a better experience for customers while supporting the operational efficiency of the workshop.

Based on the above explanation, this study aims to develop a prototype service registration system at AHHAS Honda Ilham Motor Kepahiang. The main problem is that AHHAS Honda Ilham Motor Kepahiang currently faces several significant challenges in its manual service registration system. The conventional registration process results in long queues with waiting times reaching 45-60 minutes during peak hours, as well as a high level of error in recording customer data and vehicle details. The paper-based system also makes it difficult to track service history and does not provide transparent information regarding estimated costs or repair progress to customers.

Methodology

Problem Analysis

In creating a *prototype for designing a motorcycle service registration system* at AHHAS Honda Ilham Kepahiang, there are several main problems that need to be analyzed and resolved. One of the main problems is the lack of adequate technological infrastructure. Additionally, resistance to change from internal parties, such as administrative staff who are not yet familiar with using digital systems, can be a challenge. customer interviews , an urgent need for a digital system that provides *online registration, real-time notifications* , and computerized queue management was identified. To address this issue, a *prototype system with online registration and service status tracking features* was planned , designed interactively through a *prototype design approach* to ensure compliance with user needs and existing infrastructure limitations.

System Design Method

prototyping method focuses on building a simplified version of a system containing core features, then gradually refining it based on user feedback (Aldy Nifratama and Tri Suratno, 2024) . This approach is suitable for projects with unclear user needs or requiring direct validation, such as a repair shop *service registration system* . The following are the stages of the *prototype development model*:

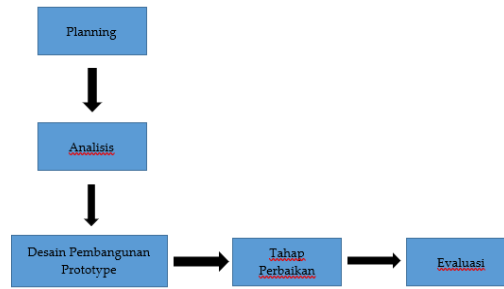


Figure 1. Prototype Development Model

Result and Discussion

The results of this research produced a *prototype design for a service* registration system at AHHAS Honda Ilham Kepahiang. Where the system design is intended to simplify the development of a better system, so that when this system is completed it will make it easier for the workshop to view customer data, *spare part usage* and financial reports from existing system activities. For consumers with the system, they can also *service* their vehicles by accessing the system and can schedule when to service *their* vehicles and can see the estimated costs .

Discussion

In this discussion chapter, *a prototype will be created for the service* registration system design at AHHAS Honda Ilham Kepahiang. This *prototype* will later create several designs and features needed for *service registration*. The *prototype* starts from the homepage until the customer receives a notification that the vehicle has been *serviced*. The *prototype* design is as follows:

Home Page

The homepage is the initial page accessible to consumers to register for services and for administrators to perform their work. The homepage appears as follows:



Figure 2. Home Page for Service Registration Design

On this homepage, there are *Home*, *Consumer*, *Admin*, and *Contact* buttons. These buttons are intended to access the next *form* . The *Consumer* button contains *service registration* , the *Admin* button contains a series of admin access rights to the design system, and the *Contact* button contains contact information for the AHHAS Honda Ilham Kepahiang workshop admin.

Consumer Page

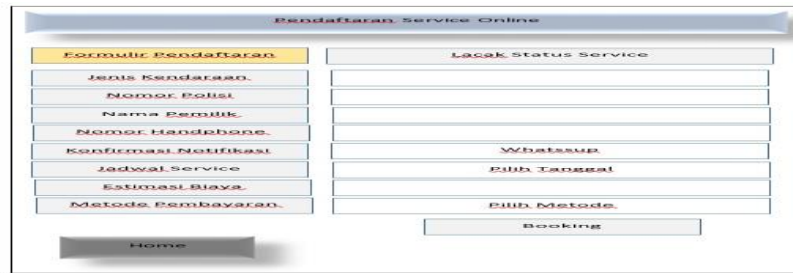


Figure 3. Consumer Page

On the customer page, customers are required to fill out a registration *form* by entering their vehicle type, license plate number, owner's name, mobile phone number, confirm notification via WhatsApp, schedule *the service* , view the estimated cost, and select a payment method. Customers then need to click the "Book" button to register for *service* . Customers will be notified when the vehicle has been *serviced* .

Admin Login Page



Figure 4. Admin Login Page

login page is intended for admins to be able to access the activities in the *service* registration system design *prototype* . By entering the login *username* and *password*.

Admin Home Page

After *logging in* , the admin will be redirected to a page where they can perform activities. This page can be seen in the following image.



Figure 5. Admin Home Page

On this page, there are six buttons titled "*service* management " These include *service* schedule management , customer and vehicle data management, spare parts management, reports and analysis, payment integration, and the *home* button .

Service Schedule Management Page

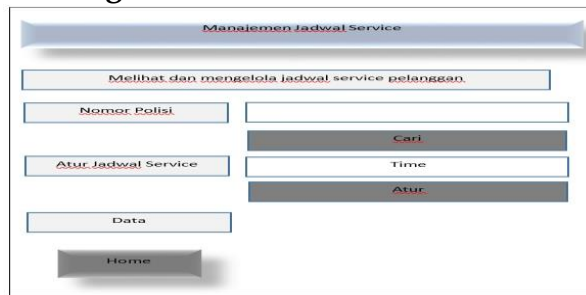


Figure 6. Service Schedule Management Page

On the *service schedule management page* , the admin can manage activities and schedule *service schedules* for customers who have made *bookings* or ordered *service registrations*.

Customer and Vehicle Data Page

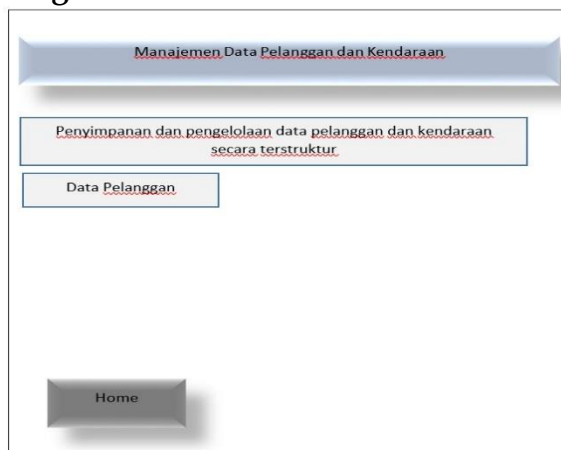


Figure 7. Customer and Vehicle Data Page

This page is where customer data and vehicle data are stored.

Spare Parts Management Page

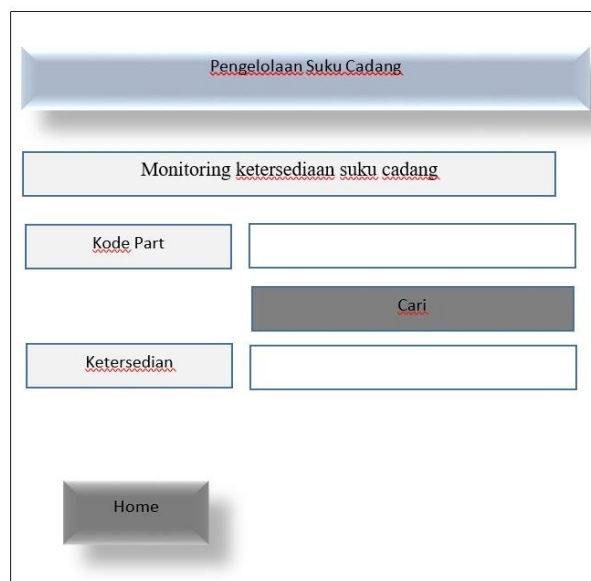


Figure 8. Spare Parts Management Page

On the spare parts management page, it is the admin's job to enter goods for workshop needs by entering the goods or *spare part code* and can also see the availability of stock of goods or spare parts at the workshop.

Report Page



Figure 9. Admin Login Page

On the report page, there is a form of activity that has been carried out. This report can later be accessed based on date, month and year, making it easier for the workshop to make bookkeeping.

Payment Page

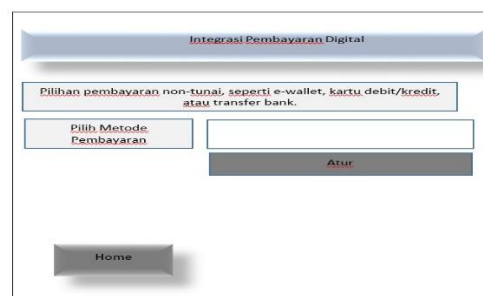


Figure 10. Payment Page

On this page, the admin's activity is to set the type of payment used so that in the customer registration *form*, they can choose what payment method they will use. With the *prototype design stage process for the service registration system*, it is hoped that there will be continued development aimed at the owner of the AHHAS Honda Ilham Kepahiang workshop so that it can be implemented.

Conclusion

This research succeeded in creating a *prototype design of a service registration system* at Ahhas Honda Ilham Motor Kepahiang which is equipped with features for customers that make it easier to register vehicles to be *serviced*, customers can also see estimated costs and choose payment methods and can receive notifications of vehicles being *serviced*. This design also makes it easier for the AHHAS Honda Ilham Kepahiang workshop to manage the workshop. With this design, the *service registration process* becomes more efficient which can overcome the problem of manual queues, recording errors, and slow service processes by providing *online registration features*, vehicle data recording, and *service status tracking*. The evaluation results show that this design can function according to needs and provide a better experience than the manual system.

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