

Design Build System Information Rental Bus Tourism Using the Agile Method

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Abstract. The development of information technology has had a significant impact on the transportation sector, particularly in improving service quality and customer satisfaction. One example of this is the development of a web-based tourist bus rental information system, which can overcome various obstacles in manual systems such as recording errors, information delays, and inefficient schedule management. PO Hariono Trans, a bus company operating in Sidoarjo, currently still uses conventional methods in managing fleet rentals. To address this challenge, this study proposes the development of a web-based information system using the Agile method. The Agile approach was chosen for its flexibility in responding to changing needs and its ability to improve collaboration and system development efficiency. Based on the results of testing using the Black Box Testing and User Acceptance Testing (UAT) methods, the system showed good performance with a 100% success rate in functionality testing and obtained a satisfaction score of 93% from 15 respondents. Thus, the developed system has proven to be effective in improving operational efficiency and providing easier and more responsive rental services for PO Hariono Trans customers.

Keywords: Bus rental, Information systems, Web applications, Tourist buses, Agile

1 Introduction

Current developments in information technology have had a major impact on various sectors, including transportation and services, with 63.1% of customer satisfaction influenced by service quality, price perception, trust, and information quality [1]. One way in which technology is being utilized is through the development of information systems that simplify business processes, such as in tourist bus rental systems. The rental process, which was previously done manually, can now be simplified through a web-based platform that can be accessed anytime and anywhere [2]. Manual rentals often cause delays in recording, errors in renter data, and difficulties in managing fleet availability schedules in real-time [3].

As public interest in traveling increases, so does the need for comfortable and efficient transportation such as tourist buses[4]. PO Hariono Trans, as one of the bus companies, plays an important role in meeting this transportation need. The company is owned by H. Hariono is located at Dusun Kemprengr RT 28 RW 04, Tanjungsari Village, Taman District, Sidoarjo Regency. Currently, PO Hariono Trans has a fleet of five large buses and provides rental services with routes covering Java and Bali. In its operations, PO Hariono Trans still uses a conventional system for bus rental management, manual record-keeping, and communication via telephone or direct messages. This has led to errors in record-keeping, limited information, and customer dissatisfaction. In facing business challenges in today's digital era, an adaptive and responsive approach to system development is needed to meet changing needs[5]. Through the implementation of a web-based information system developed using the Agile method, it is hoped that PO Hariono Trans can improve service quality, operational efficiency, and reach a wider market [6]. The Agile method was chosen for this system development because of its ability to handle changing needs quickly and flexibly. Compared to methods such as Waterfall, which tend to be less flexible to change, the Agile approach offers advantages in terms of rapid adaptation, more intensive team collaboration, and continuous system refinement according to user needs[7].

Several previous studies have been conducted on bus rental systems, such as Pangestu (2023) entitled "Designing a Website-Based Tourist Bus Rental Management Information System" [9], which focuses on the digitization of the rental process. However, this study has not applied the Agile method and does not accommodate additional features such as fleet maintenance monitoring and user review features. The gap in this research lies in a more adaptive system development approach using the Agile method and the addition of functional features such as fleet maintenance management and a customer review system to improve overall service quality.

Based on this background, the author is interested in creating a web-based tourist bus rental information system by applying the Agile method as a case study at PO Hariono Trans. It is hoped that this system can make a positive contribution to improving the efficiency of PO Hariono Trans and providing convenience for customers.

2 Method

2.1 System Development Method

The method used in this study is *Agile Development*, which is an iterative and flexible software development approach. The *Agile* method emphasizes collaboration between developers and users, and allows for changes in requirements during the process [11]. Unlike linear models such as *waterfall*, the *Agile* method divides the development process into several short cycles that allow for continuous evaluation and improvement of the system [12]. In this study, the *Agile* Method was used to build a web-based tourist bus rental information system at PO Hariono Trans quickly, efficiently, and according to user needs.

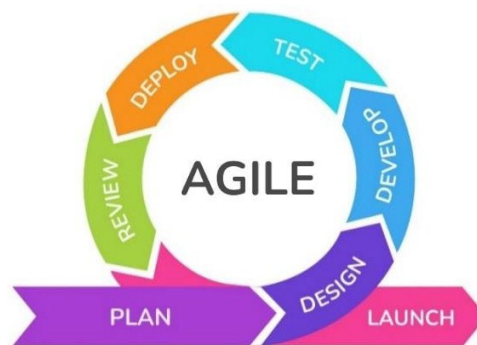


Figure 1 Agile Method Adi Susanto 2023

The use of the Agile method includes the stages of Requirements Planning, Design, Development, Testing, and Evaluation. In this study, the Agile method was applied to build a tourist bus rental information system that suits the operational needs of PO Hariono Trans. Development was carried out in stages through the following main stages:

- a. Planning
 As shown in Figure 1, the initial stage was carried out to identify user needs through interviews and documentation studies. The results became the basis for formulating the functional and non-functional requirements of the system.
- b. System Design
 At this stage, as shown in Figure 1, the system interface and database are designed. The design is made simple and flexible so that it can be easily adjusted in each iteration.
- c. Development
 Referring to Figure 1, development is carried out in stages based on priority. Each iteration produces features that can be immediately tested by users.
- d. Testing
 As shown in Figure 1, the developed features are tested using the black-box method to ensure the functionality and stability of the system meet user requirements.
- e. Evaluation and Revision
 Referring to Figure 1, the test results and user feedback were used as the basis for revisions and improvements in the next iteration until the system met all requirements.

2.2 System Development Flowchart

The flowchart in Figure 2 illustrates the stages of system development in the PO. Hariono Trans Bus Rental System project, which follows a phased software engineering approach. The process begins with Literature Research to understand relevant theories and technologies, followed by Observation and Interviews to collect data directly from users and stakeholders. The data obtained is then used for Software Requirements Analysis, which will determine the features and functions that must be included in the system. The results of this analysis form the basis for Software Design, which includes interface design and system architecture. Once the design is complete, the process continues with Software Implementation, namely coding and application development. The developed system then goes through the Software Testing stage to ensure its functionality is in accordance

with the specifications before finally drawing conclusions to assess the success of the project and ensure that the research objectives have been achieved [13].

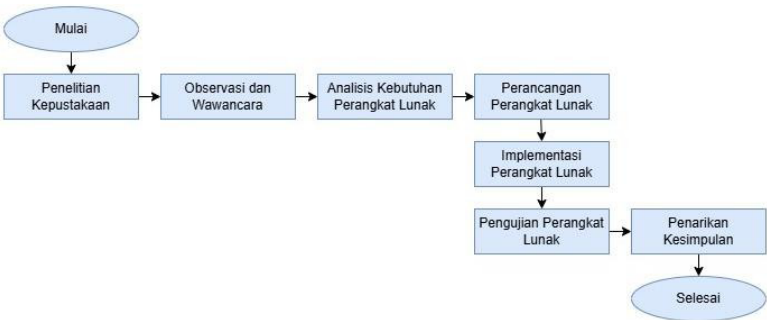


Figure 2. System Development Flowchart

2.2.1 Admin Flowchart

The Admin Flowchart in Figure 3 illustrates the Admin workflow in the PO. Hariono Trans Bus Rental System. The process begins when the Admin logs into the system, followed by checking incoming orders. After that, the system will verify whether the proof of payment uploaded by the user is valid. If the proof of payment is invalid, the system will reject the order and notify the user. However, if the proof of payment is valid, the process continues to the Payment Validation stage. Next, the Admin manages the bus and driver data that will be used to fulfill the order, as well as ensuring the condition of the bus through maintenance management. After all these stages are complete, the Admin updates the order status. This process will continue until the Admin selects the Logout option to end the system usage session, and the flow ends at the Completed point [13].

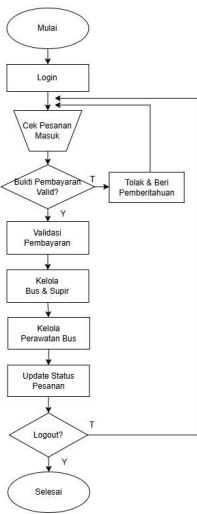


Figure 3 Admin Flowchart

2.2.2 User Flowchart

The flowchart in Figure 4 illustrates the user activity flow in the PO. Hariono Trans Bus Rental System. The process begins by displaying the Login menu to the user. After the user enters their login details, the system will verify them. If the login fails, the user will be redirected back to the login page. However, if the login is successful, the user will be directed to the Dashboard Page, which displays the main features of the system. From this page, users can proceed to the Booking process to select the desired bus, then continue to the Payment stage as a form of booking confirmation. After payment is made, the system will wait until the user selects the Logout option. When the user logs out, the system usage session will end and the process is complete [14].

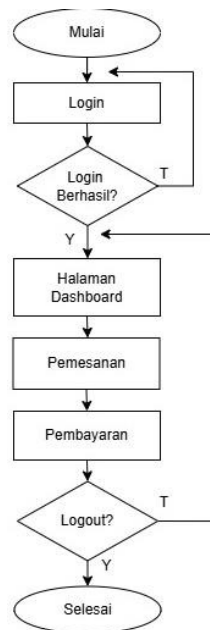


Figure 4. User Flowchart

2.3 Use Case Diagram

The use case diagram in Figure 5 illustrates the interaction between actors (User and Admin) and the PO bus rental system. Hariono Trans. There are two main actors, namely User and Admin, each of which has different access rights and functions in the system. The User has use cases for logging in, making reservations, which includes filling in reservation details and uploading proof of payment, and checking reservation status. In addition, the User can also log out after completing their activities. Meanwhile, the Admin has a more complex role, including logging in, validating payments, managing orders, managing buses, managing drivers, maintenance, and managing user data. The relationship between use cases is marked with <<include>>, which indicates that a process is part of another process, and <<extend>>, which indicates that an activity is an extension of the main activity. This diagram provides a comprehensive overview of the roles of each actor in executing the overall functionality of the system [4].

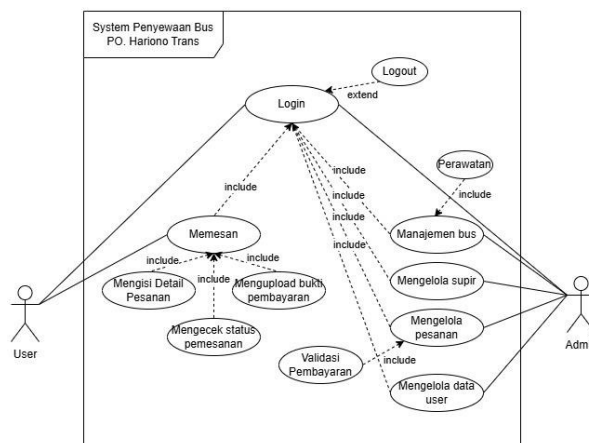


Figure 5 Use Case Diagram

2.4 Data Flow Diagram

Figure 6 shows the Level 0 Data Flow Diagram (DFD) of the PO. Hariono Trans Bus Rental System, which illustrates the data flow between the system and two external entities, namely Admin and User. At this level, the system is represented as one main process that manages all data interactions in general without detailing internal processes. Admin has full authority in managing bus data, including adding, editing, and deleting data, as well as accessing transaction information, transaction receipts, and order status. Meanwhile, Users can log in, select

buses, make transactions, view bus data, access transaction receipts, and monitor order status. Each entity is connected to the system through data flows that describe the input and output of information required in the bus rental process. This Level 0 DFD serves to provide an overview of the system's limitations and the main interactions that occur between external actors and the system, which can then be developed in more detail at the next DFD level [9].

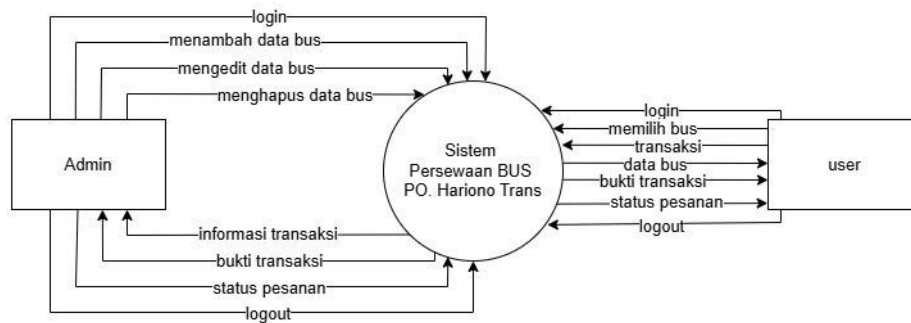


Figure 6. Data Flow Diagram

2.5 Activity Diagram

Figure 7 activity diagram illustrates the flow of activities in the PO. Hariono Trans bus rental system, which involves three main components, namely the user, the system, and the administrator (admin). The process begins when the user and admin access the website's main page and log in. If the login is successful, the system will display the dashboard page as the starting point for further interaction. On the user side, the activity continues with the selection of a bus and the filling in of booking details, which include the pick-up location, destination, departure time, departure date, and arrival date. After that, the user makes a payment and uploads proof of payment, which is then processed by the system and generates proof of transaction. Meanwhile, the admin has the authority to manage user data, bus data, bus maintenance schedules, and driver data. The admin also receives booking data from the system and is responsible for validating payments. All of these activities are concluded with a logout process for each role. This diagram provides a systematic visualization of the interactions and workflows between users, the system, and the admin in supporting the operational aspects of digital bus rental services [15].

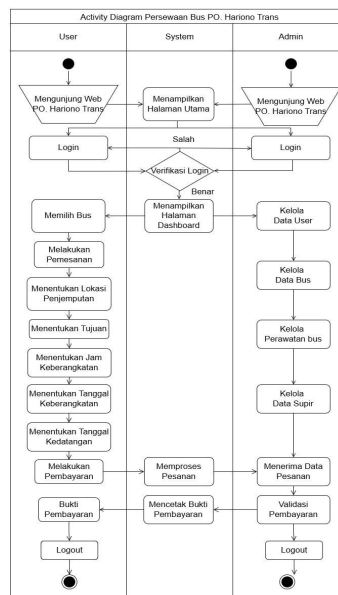


Figure 7.Activity Diagram

3 Results And Discussion

3.1 Interface Design

The system interface is designed using the Agile method approach, which emphasizes a gradual and flexible development process. Each iteration allows for rapid evaluation and design adjustments, so that the system's appearance can evolve dynamically in line with needs and conditions in the field. The interface design is structured so that each component, such as ordering, fleet scheduling, and bus maintenance features, can be efficiently integrated into each development cycle. This approach facilitates testing, maintenance, and the addition of new features in the future. With the Agile principle, the system interface is not rigid, but rather open to continuous improvement to remain relevant and support optimal operational processes [10].

Please login your account

Username

Password

☐ Remember Me

Sign In

Figure 8. Login Page

Figure 8 shows the login page interface of the web-based tourist bus rental system at PO. Hariono Trans. This page serves as an entry point for administrators to access available features according to their respective access rights. The login form consists of username and password fields that must be filled in by the administrator and a main "Sign In" button for the authentication process. This interface design supports ease of use and security in managing access to the PO. Hariono Trans bus rental system.

PO. HARIONO TRANS

Login with Google



HARIONO

TRANS

Mengapa Memilih PO. HARIONO TRANS

Kami menyediakan layanan bus pariwisata untuk memenuhi permintaan Anda berwisata.

Aman & Nyaman

Kendaraan kami dilengkapi dengan bus yang nyaman dan pengemudi kami merupakan profesional yang berpengalaman.

Jaminan Harga Terbaik

Kami menawarkan harga yang kompetitif tanpa mengorbankan kualitas dan layanan.

Dukungan 24/7

Tim layanan kami siap membantu Anda 24 jam untuk memastikan Anda nyaman.

Jadwal

Atas jadwal operasional kendaraan kami secara real-time.

Jadwal

Uraian jadwal operasional kendaraan kami secara real-time.

<

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Juli 2025

Start End

Mn	Sen	Sel	Rab	Kam	Jum	Sab
Tersedia 4	Tersedia 5	Tersedia 5	06-05-2025 06-05-2025 Tersedia 5	Tersedia 4	Tersedia 5	Tersedia 5
0	1	2	3	4	5	6
Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5
7	8	9	10	11	12	13
Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5
14	15	16	17	18	19	20
Tersedia 5	06-05-2025 Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5
21	22	23	24	25	26	27
06-05-2025 Tersedia 4	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5
28	29	30	31	1	2	3
Tersedia 5	Tersedia 5	Tersedia 5	06-05-2025 Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5
4	5	6	7	8	9	10
Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5	Tersedia 5

Tanggal Keberangkatan

dd/mm/yyyy

Tanggal Pengembalian

dd/mm/yyyy

Pesan Sekarang

Figure 9. Dashboard Page

Figure 9 shows the design of the main page of PO. Hariono Trans' web-based tourist bus rental system, which displays general information about the services offered. At the top of the page is an image of the bus fleet and the company logo, which serve as visual identity elements. There is also information on why users are advised to choose PO. Hariono Trans, highlighting three main advantages, namely vehicle safety and comfort, guaranteed best prices, and 24-hour customer service. At the bottom of the page, users can see the vehicle operating schedule in the form of an interactive calendar that displays fleet availability in real-time. This calendar allows users to select departure and return dates and make reservations directly through the provided button. This display aims to make it easier for users to obtain information and carry out the rental process efficiently through an integrated system.

663

Figure 10. Order Page

The PO. Hariono Trans booking web page is designed to facilitate users in making online transportation service bookings with a simple and functional display as shown in Figure 10. This booking form consists of two main sections, namely Personal Information and Travel Details. In the Personal Information section, users are asked to fill in their full name, email address, and phone number. Meanwhile, in the Travel Details section, users can specify the number of travel destinations (one to more than three destinations), the destination, the pickup location, the departure time, the departure and return dates, and the number of passengers. The system also provides a feature for agreeing to the terms and conditions as a form of validation before users can save their orders. In addition, this page provides additional information about the capacity of the vehicles provided, which is a maximum of 60 passengers per vehicle. If the number of passengers exceeds the capacity, two vehicles will automatically be allocated. With a responsive design and clear flow, this page supports a more efficient and structured transportation service booking process.

Figure 11. Upload Proof of Payment

Figure 11 shows the payment proof upload page on the PO. Hariono Trans ordering system. This page interface displays a pop-up window titled "Upload Payment Proof" that allows users to upload image files as proof of transfer. The system only accepts image files (.jpg, .jpeg, .png) with a maximum size of 2MB. The main components consist of a "Choose File" button to select files from the user's device and an "Upload" button to send files to the system. Information on file type and size restrictions is explicitly displayed below the upload field to prevent input errors. This feature strengthens accountability in the payment process and improves the efficiency of digital transportation service order administration.

Invoice

Selesai

Order No : DE-2025-6472

Informasi Pelanggan

Nama	Email	Telp
tiwi lrichanti	teawee86@gmail.com	085730002535

Informasi Sewa

Tgl Keberangkatan	Tgl Pengembalian	Tujuan / Wisata
2025-07-24	2025-07-24	Kebun Teh Malang

Detail Tagihan

Deskripsi	Qty	Harga	Jumlah
Sewa Bis	1	1.000.000	1.000.000
Jumlah Tagihan			1.000.000

Pembayaran

No Rekening: 7689 0100 9901 531 A/N Fitriya BRI

Tgl Pembayaran	Status	Catatan	Nominal
04 Jul 2025	Diterima	Pembayaran Lunas	1.000.000

Figure 12 Order Invoice

Figure 12 shows the invoice page as proof of digital transaction on the PO ordering system. Hariono Trans. This invoice includes several main components, namely customer information, rental information, billing details, and payment details. Customer information contains basic identity details such as name, email, and telephone number. Rental information includes departure date, return date, and travel destination. The billing details display the service description, quantity ordered, unit price, and total bill. The payment section displays the transfer destination account information, payment date, payment status, and the amount paid. All of these elements are arranged systematically to ensure transparency and ease of verification for both users and administrators.

PO. HARIONO
TRANS

Hi, Super Admin

Landing Page

Dashboard

Pengaturan

Data

Content

Transaksi

Logout

Dashboard

Total Kendaraan

5

Total Customer

9

Total Transaksi

11

Driver

5

<

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Juli 2025

today

Min	Sen	Sel	Rab	Kam	Jum	Sab
Tersedia: 4	Tersedia: 5	Tersedia: 5	DE-2025-1630 DE-2025-1630 Tersedia: 2	Tersedia: 2	Tersedia: 4	Tersedia: 5
Tersedia: 6	Tersedia: 7	Tersedia: 8	Tersedia: 9	Tersedia: 10	Tersedia: 11	Tersedia: 11
Tersedia: 13	DE-2025-1739 Tersedia: 3	Tersedia: 5	Tersedia: 5	Tersedia: 5	Tersedia: 5	Tersedia: 5
DE-2025-6229 Tersedia: 4	Tersedia: 4	Tersedia: 5	Tersedia: 5	Tersedia: 5	Tersedia: 5	Tersedia: 5
Tersedia: 27	Tersedia: 28	Tersedia: 29	DE-2025-7104 Tersedia: 3	Tersedia: 3	Tersedia: 3	Tersedia: 3
Tersedia: 3	Tersedia: 4	Tersedia: 5	Tersedia: 5	Tersedia: 5	Tersedia: 5	Tersedia: 5

Buat Pemesanan

Tanggal Keberangkatan

dd/mm/yyyy

Tanggal Pengembalian

dd/mm/yyyy

Buat Pemesanan

Figure 13. Admin Dashboard Page

The admin dashboard page in the PO. Hariono Trans system in Figure 13 is designed to present important information in a concise and organized manner. At the top, statistics on the number of vehicles, total customers, total transactions, and the number of drivers are displayed to help admins monitor the overall performance of the system. The interactive calendar in the middle of the page shows the vehicle rental schedule and availability, making it easier to manage schedules. In addition, on the right side, there is a quick booking feature that allows the admin to input departure and return dates more efficiently. All components in this display serve to support operational effectiveness and real-time decision making.

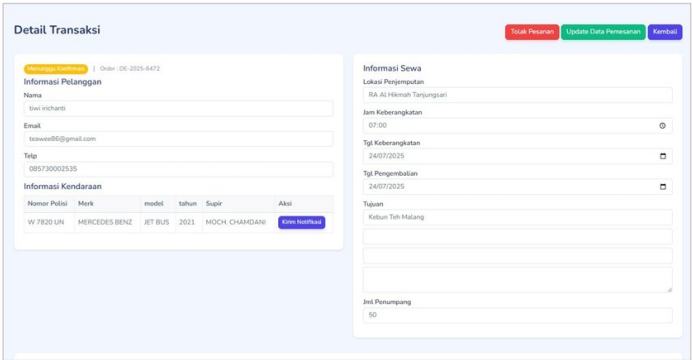


Figure 14. Transaction Details Page

The Transaction Details view in Figure 14 provides complete information about the customer's booking. On the left side, there is customer data such as name, email, and phone number, as well as vehicle details, including license plate number, make, model, year, and driver's name. The admin can send notifications directly using the button provided. Meanwhile, the right side of the screen displays rental details such as pickup location, departure and return times and dates, destination, and number of passengers. At the top of the page, there are action buttons to reject orders, update order data, or return to Previous page. This feature is designed to make it easier for administrators to verify and manage transactions comprehensively and efficiently.

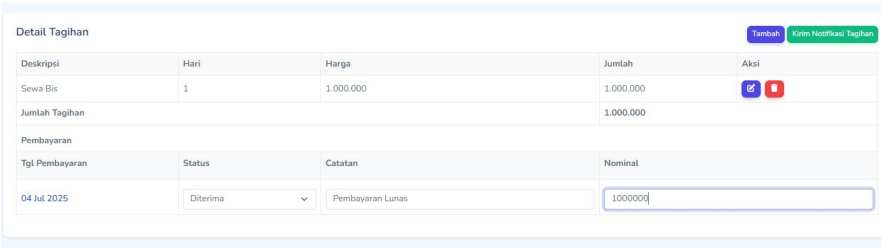


Figure 15. Invoice Details Page

Figure 15 shows the Billing Details page used by administrators to manage customer payment information. In this view, administrators can see rental details including service descriptions, number of rental days, price per day, and total amount due. This information is presented concisely but clearly enough to facilitate the verification process. In addition, there is a section for inputting payment data, such as the payment date, payment status, additional notes, and payment amount. These features are designed to ensure that the transaction recording process can be carried out systematically and well documented. With this page, the system not only helps administrators track payments, but also minimizes potential errors in financial records. This is important for maintaining transparency and efficiency in managing vehicle rental transactions.

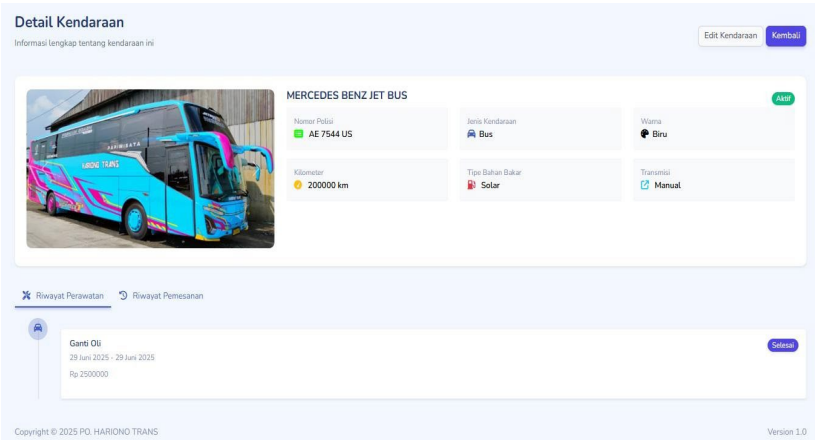


Figure 16. Vehicle Details Page

The Vehicle Details Page in Figure 16 displays complete information about the maintenance, identity, and condition of vehicles in the PO Hariono Trans fleet management system. At the top of the page, users can see data such as the vehicle brand and type, vehicle type, color, number of kilometers traveled, type of fuel used, and transmission system. The vehicle status is also displayed, for example, if it is in active condition. Additionally, there are buttons to edit vehicle data or return to the previous page, making it easier for administrators to manage vehicle data.

On the Order History tab, the system displays order data in a timeline format that includes the name of the person who placed the order, the date of the order, the date of use, and the destination of the trip, if available. Each entry also includes the order status, such as "Cancelled" or "Rejected," which helps users understand the final status of each service request. This format allows administrators or management to systematically and efficiently track fleet usage history and serves as a reference for vehicle operational evaluations.

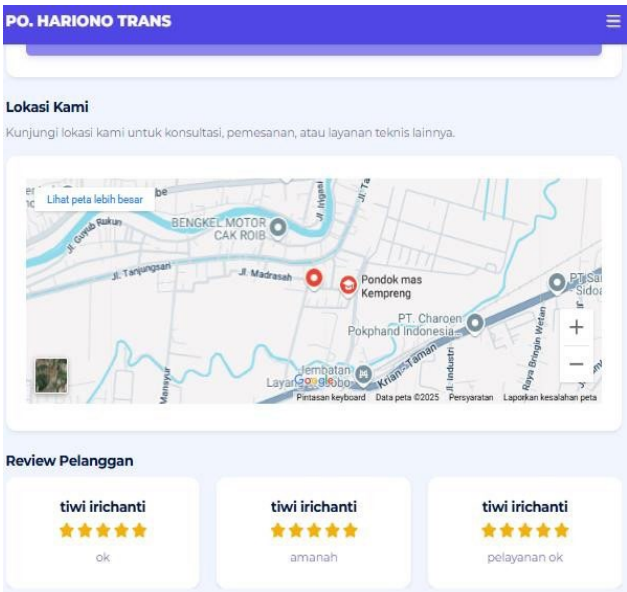


Figure 17. Bus Maintenance Page

Figure 17 shows a page containing location information and customer reviews, located at the bottom of the PO. Hariono Trans website dashboard. This section is designed to make it easy for users to access company location information and get an idea of service quality based on other users' experiences. Location information is presented through an interactive map integrated with Google Maps, allowing users to see the location of PO. Hariono Trans workshops and offices directly, as well as providing the option to open a full-size map view to support navigation needs. Directly below the map is a customer review column that displays user identities and star ratings. These reviews serve as an indicator of customer satisfaction, while also reinforcing the image of professionalism and credibility of the services offered.

3.2 Black Box Testing

Blackbox testing is used to ensure that every function in the tourist bus rental information system at PO Hariono Trans works according to user needs. This method focuses on testing inputs and outputs without looking at the program structure inside. Testing is carried out based on key scenarios such as login, bus data management, search, and report generation [13]. The aim is to verify that the system responds to each input correctly and produces the appropriate output, so that the system can run properly before it is fully implemented. The following is the Blackbox Testing at PO Hariono Trans as shown in Table 1:

Table 1. Black Box Testing

No	Testing Scenarios	Input	Expected Results	Result Test	Status
1	Login	Valid username and password	The system displays the dashboard according to the role	Success	Pass
2	Authentication	Username is	Error message appears	Success	Pass

	Failed	empty	"Username must be filled in"		
3	Registration User New	Name, email, Password	User data saved and redirected to login	Success	Pass
4	Order Bus	Name, email, phone number, date, destination	Order details saved and displayed	Successful	Pass
5	Validation Booking	Number Passengers > 60	in list Automatic system Split into 2 buses	Successful	Pass
6	Upload Proof	JPG file < 2MB	File successfully uploaded and saved	Success	Pass
7	Payment Upload Failed	PDF file	Error message "Format file not supported"	Successful	Pass
8	View Invoice	Click on the invoice in transaction list	Displaying details invoice information	Success	Pass
9	Dashboard Admin	Admin login	Complete Display statistics and calendar rental	Success	Pass
10	Details Transaction	Click one transaction	Display complete information rental	Success	Pass
11	Invoice Input	Description, amount day, price	Total bill calculated	Successful	Pass
12	Details Vehicle	Click data vehicle	Automatic and saved Display vehicle information and usage history	Success	Pass
13	Edit Vehicles	Change color vehicles	Vehicle data successfully updated	Success	Pass
14	Maintenance	Maintenance input	Maintenance data displayed	Successful	Pass
15	Bus Review	periodic Fill in the review and rating	in the system Reviews appear in dashboard page	Success	Pass

This Black Box testing was conducted by the author and two representatives from PO Hariono Trans who will be responsible for administering the system's operations. The presence of actual users in this testing helped to ensure that the system was in line with the actual workflow in the field. Based on the results of testing using the Black Box Testing method, all scenarios tested showed results in line with the expected output, with each test achieving a successful status. This indicates that all the main functions in the system, from the login process, booking, data management, to reporting, are running well and stably according to user needs. Thus, it can be concluded that the developed tourist bus rental information system has met the functionality aspects and is ready for use in the operational environment of PO Hariono Trans.

3.3 User Acceptance Testing

In the final stage of system development, User Acceptance Testing (UAT) is conducted as shown in Table 2 as a form of testing for the completed system. This testing aims to ensure that the developed web-based tourist bus rental information system is in accordance with user needs and expectations. UAT focuses on testing from the perspective of end users, namely service users and system administrators at PO Hariono Trans who will use this application in their daily operations. The UAT process was conducted using a questionnaire distributed to 15 respondents, consisting of 13 prospective users and 2 people from PO Hariono Trans who had tried the

system firsthand.

The questionnaire instrument was designed to evaluate various aspects, including ease of use of the interface, clarity of menus and navigation buttons, completeness of information displayed, and ease of bus booking for customers and data management for administrators. The questionnaire instrument was compiled using a Likert scale with a range of values from 1 to 4, which was used to measure the level of agreement of respondents to each statement. The details of the scale are as follows:

1 = Strongly Disagree

2 = Disagree

3 = Agree

4 = Strongly Agree

Table 2 User Acceptance Testing

Respondents	Number of Evaluators Score							
	1	2	3	4	5	6	7	8
1	4	4	4	4	4	4	4	3
2	4	4	4	4	4	4	4	4
3	4	4	4	4	4	4	4	4
4	4	4	4	4	4	4	4	3
5	3	3	4	4	4	4	4	3
6	4	4	3	3	4	3	4	4
7	3	4	3	4	3	4	3	4
8	3	3	3	4	4	3	3	4
9	4	4	4	4	3	4	4	4
10	4	4	4	4	4	4	4	4
11	4	4	3	3	3	3	3	3
12	4	4	4	4	4	3	4	3
13	4	4	4	4	4	4	3	4
14	4	4	3	4	4	4	4	4
15	3	4	2	4	3	3	4	4
Total	56	58	53	58	56	55	56	55
Total Score	447							
Maximum Score	480							
Percentage	93 %							

$$\%UAT = \frac{Total\ Score}{ScoreMax} \times 100\%$$

$$\%UAT = \frac{447}{480} \times 100\% = 93\%$$

Based on the results of the UAT that has been conducted, all statements received a satisfactory score of 93% from 15 respondents. This shows that the developed system has successfully fulfilled all aspects tested, in terms of ease of use, clarity of information, and smoothness of operational processes. Therefore, it can be concluded that this tourist bus rental information system is ready to be implemented in the operational environment of PO Hariono Trans.

4 Conclusion

The development of a web-based tourist bus rental information system at PO Hariono Trans has been successfully implemented using the Agile method, which allows the development process to run flexibly and adaptively to user needs. This system is designed to overcome various obstacles in conventional systems, such as recording errors, delays in information delivery, and inefficient schedule management. Testing using the Black Box method showed that all main functions of the system ran as expected with a success rate of 100%. In addition, the User Acceptance Testing (UAT) results showed a high level of satisfaction from users, with a score of 93% based on assessments from 15 respondents consisting of customers and administrators. Thus, this bus

rental information system has proven to be capable of improving operational efficiency and providing convenience and comfort for users. Therefore, this system is suitable for implementation as a digital solution to support bus rental services at PO Hariono Trans.

Acknowledgements

The author would like to express his gratitude to Allah SWT for the grace and ease given so that this article could be completed successfully. The author would also like to thank PO Hariono Trans for the opportunity and cooperation given during the system development and testing process. The author would also like to thank all those who have helped directly or indirectly in supporting the smooth writing of this article.

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