



Development of a Wedding Organizer Information System to Improve the Efficiency of Wedding Service Management

Donaya Pasha*✉

Computer Engineering, Institut Teknologi Dan Sains Nahdlatul Ulama Lampung,
 Bandar Lampung, Indonesia

ABSTRACT

Keywords:

Wedding
 Organizer
 Information
 System
 CodeIgniter
 Web-Based System
 System
 Development

The management of wedding services involves various interconnected activities, including customer management, wedding package selection, booking, vendor coordination, event scheduling, payment management, and reporting. Manual and fragmented management processes can result in data duplication, inconsistent information, difficulties in retrieving records, and inefficient administrative activities. This study aims to develop a web-based Wedding Organizer Information System using the CodeIgniter framework to improve the efficiency and organization of wedding service management. The research adopts a system development approach consisting of problem identification, data collection, requirements analysis, system design, system implementation, system testing, and system evaluation. The developed system integrates customer, wedding package, vendor, booking, payment, scheduling, and reporting functions within a centralized platform. Black-box testing was conducted to evaluate the functionality of the developed system using 16 test scenarios involving Administrator, Customer, and Vendor functions. The testing results achieved a 100% success rate, indicating that all tested functions operated according to the defined requirements. System evaluation further showed that the application supports improved information accessibility, data consistency, booking monitoring, payment tracking, scheduling, and report generation. The developed system provides an integrated technological solution that can assist Wedding Organizers in reducing administrative workload, improving information management, and supporting more efficient wedding service operations.

I. Introduction

The wedding service industry is a service sector with complex operational characteristics because it involves various customer requirements, service types, resources, and stakeholders that are interconnected within a single series of activities[1], [2]. A Wedding

*Corresponding Author: donayapasha@itsnulampung.ac.id (Donaya Pasha)

DOI: <https://doi.org/10.67449/jcoda.v1i1.4>

Copyright © 2026 The Authors.

This is an open access article licensed under the Creative Commons Attribution-ShareAlike (CC BY-SA) license.
[\(https://creativecommons.org/licenses/by-sa/4.0/\)](https://creativecommons.org/licenses/by-sa/4.0/)



Organizer (WO) plays an important role in assisting couples in planning, managing, and executing various wedding-related requirements, including initial consultations, event concept selection, wedding package selection, vendor management, scheduling, budget management, and coordination during the event. Each customer may have different needs, preferences, and expectations, requiring Wedding Organizers to provide accurate information and adapt their services accordingly. In this context, information management is an important factor that can influence service quality. Customer information, wedding packages, vendor data, event schedules, payment records, and specific event requirements need to be managed systematically to support operational activities continuously. As the number of customers and events increases, the volume of information that must be managed by a Wedding Organizer also increases. Without an appropriate information management mechanism, the increasing number of transactions and operational activities can make administrative processes more complex, increase the risk of errors, and make it difficult for managers to obtain the required information efficiently.

In practice, Wedding Organizer service management may encounter various challenges when administrative activities are performed manually or through separate and unintegrated information media. Customer data may be recorded in documents or spreadsheets, booking information may be communicated through messaging applications, while payment records, vendor information, and event schedules may be stored in different locations. Such data fragmentation can make it difficult for managers to search, update, verify, and synchronize information. Problems may also arise when changes to packages, schedules, payment amounts, or customer requirements are not immediately reflected across all related records. These conditions can lead to inconsistent data, duplicate records, scheduling errors, delayed payment confirmation, and difficulties in monitoring the progress of each booking. Furthermore, preparing operational and transaction reports manually requires additional time because managers must collect, compare, and consolidate information from multiple sources. These challenges indicate the increasing need for an integrated information management system to support Wedding Organizer operations, particularly when the number of customers, service packages, vendors, and events continues to grow.

The development of information technology provides an opportunity to develop a system capable of integrating various Wedding Organizer service management activities into a single platform[3]-[5]. An information system can be designed to support business processes ranging from customer data management, wedding package management, vendor management, service booking, event scheduling, and payment recording to report generation[6]-[8]. Through such integration, data can be stored in a centralized database, allowing information to be maintained from a consistent source and updated in a more controlled manner. The system can also provide an interface that enables managers to obtain operational information without searching through multiple separate documents or applications. For customers, the system can provide information about available wedding packages, service details, prices, booking status, and payment information. For managers, the system can support booking monitoring, schedule management, payment verification, and systematic vendor information management. Therefore, an information system is not merely a data storage tool but can also



serve as an integrated mechanism for managing business processes and connecting various activities involved in delivering wedding services.

Efficiency is an important aspect that needs to be considered in the development of a Wedding Organizer information system because many operational activities involve data processing and coordination among multiple parties. Repetitive data entry can be reduced through digital forms and an integrated database, while information retrieval can be accelerated through search and data management features. Information regarding booking status, event schedules, payments, service packages, and vendors can be presented according to operational requirements, allowing managers to avoid checking multiple information sources manually. The system can also provide notifications or status indicators to support the monitoring of booking and payment processes. In terms of scheduling, event dates and times can be organized systematically so that managers can identify ongoing and upcoming events more efficiently. In terms of transaction management, payment information can be associated with booking records, enabling the payment status of each customer to be monitored more easily. Such integration has the potential to reduce the time required for administrative activities, improve data accuracy, and allow managers to focus more on customer service and event coordination. Therefore, an information system designed according to business process requirements can serve as an important approach to improving the efficiency of Wedding Organizer service management.

In addition to administrative activities, the development of a Wedding Organizer information system needs to consider process integration and the information requirements of different users. Managers, customers, and vendors require different types of information, meaning that the system should provide access rights and functions based on each user's role. Managers may require access to manage wedding packages, customer information, vendors, event schedules, payment verification, and reports, while customers primarily require access to package information, booking processes, payment status, and selected service details. Vendors may require access to relevant schedules and service requirements associated with confirmed bookings. Organizing system functions according to user roles can limit access to irrelevant information while improving data management and security. The system should also consider usability, data consistency, access security, and the ability to generate information that supports operational activities. A user- and business-process-oriented development approach is important to ensure that the resulting system is not only technically functional but also applicable to the actual operational needs of Wedding Organizers. An integrated system can also improve communication and coordination among stakeholders by ensuring that relevant parties work with consistent and up-to-date information, thereby reducing the potential for errors caused by information discrepancies[9]-[11].

Based on these conditions, there is a need to develop a Wedding Organizer Information System capable of integrating various wedding service management processes into a structured platform. This study focuses on developing a system that incorporates customer management, wedding package management, vendor management, booking management, event scheduling, payment management, and reporting, allowing service-related information to be managed centrally. The development is intended to address problems associated with manual record-keeping and the use of separate information media, particularly in data retrieval, information updating, booking monitoring, schedule management, and report preparation. The proposed system is expected to provide users with faster, more accurate, and better-organized information according to their



respective requirements. The effectiveness of the developed system can subsequently be evaluated based on its ability to support business processes, usability, data management accuracy, and the efficiency of operational activities. Thus, this research is not limited to developing an application for digitizing Wedding Organizer administrative activities but also aims to provide an integrated information management mechanism that supports improvements in the quality and efficiency of wedding services. The results are expected to provide a practical solution for Wedding Organizers in managing increasingly complex service operations and serve as a reference for information system development in other service sectors with similar business process characteristics.

II. Methodology

This study employs a system development research approach to develop a Wedding Organizer Information System designed to improve the efficiency of wedding service management[12]-[14]. The research focuses on identifying existing operational problems, analyzing system requirements, designing the proposed system, implementing the system, and evaluating its effectiveness. The development process is structured to ensure that the resulting system corresponds to the operational needs of Wedding Organizers and provides integrated support for customer management, package management, booking, vendor management, scheduling, payment recording, and reporting.

The research consists of several sequential stages, namely problem identification, data collection, requirements analysis, system design, system development, system testing, and evaluation. The stages are interconnected, where the results of each stage serve as the basis for the subsequent development process. The overall research workflow is presented in Figure 1.

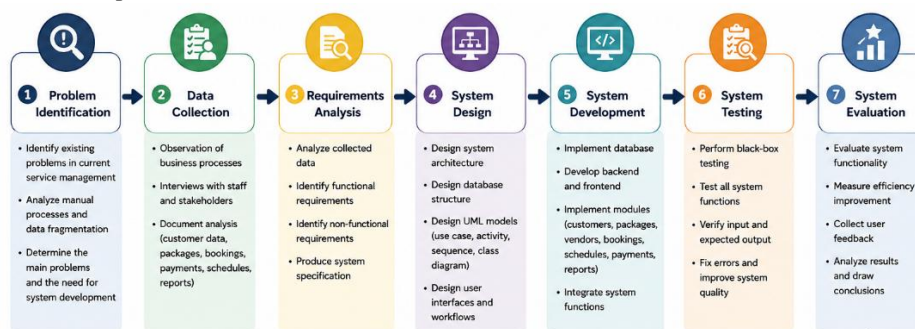


Figure 1. Research Stages

1. Problem Identification

The first stage identifies problems occurring in the existing Wedding Organizer service management process. The identification focuses on administrative activities, customer data management, wedding package management, booking processes, vendor coordination, event scheduling, payment recording, and report preparation. Problems such as fragmented data, repetitive data entry, difficulty in retrieving information, scheduling



conflicts, delayed payment monitoring, and inefficient reporting are documented as the basis for determining the system requirements.

2. Data Collection

Data collection is conducted to obtain information regarding the existing business processes and operational requirements of the Wedding Organizer. The data are obtained through observation, interviews, and document analysis. Observation is conducted by examining the workflow of customer registration, package selection, booking, payment, scheduling, and event management. Interviews are conducted with Wedding Organizer staff and relevant stakeholders to identify their needs, difficulties, and expectations regarding the proposed system. Existing documents, such as customer records, wedding packages, booking forms, payment records, and event schedules, are also analyzed to identify the information required by the system.

3. Requirements Analysis

The collected data are analyzed to determine the functional and non-functional requirements of the system. Functional requirements include customer management, package management, vendor management, booking management, event scheduling, payment management, user management, and report generation. Non-functional requirements include usability, data security, system reliability, performance, and accessibility. The requirements are then translated into system specifications that serve as the basis for the design and development stages.

4. System Design

The system design stage translates the identified requirements into a technical and functional model. The system architecture, database structure, user interfaces, and application workflows are designed according to the identified business processes. Unified Modeling Language (UML) can be used to represent the system through use case diagrams, activity diagrams, sequence diagrams, and class diagrams. The database is designed to establish relationships among customers, wedding packages, vendors, bookings, schedules, payments, and other relevant entities. User interface designs are also developed to ensure that the system can be accessed and operated according to the roles and requirements of each user.

5. System Development

The proposed system is implemented based on the specifications and designs produced in the previous stage. The development process includes database implementation, backend development, frontend development, authentication and authorization, and integration of the main system modules. The system is developed to provide interconnected functions for managing customers, packages, vendors, bookings, schedules, payments, and reports. Data validation mechanisms are also implemented to reduce input errors and maintain data consistency throughout the system.

6. System Testing

System testing is conducted to determine whether the developed system operates according to the specified requirements. Black-box testing is applied to examine the functionality of each system feature based on input and expected output without considering the internal source code. Testing covers user authentication, customer management, package management, vendor management, booking, scheduling, payment recording, and report generation. Each function is tested using predefined test scenarios, and the results are compared with the expected system outputs.



7. System Evaluation

The final stage evaluates the system from both functional and user perspectives. The evaluation aims to determine whether the developed system can improve the efficiency of Wedding Organizer service management. Evaluation indicators may include data processing time, information retrieval time, administrative workload, data accuracy, and user satisfaction. User evaluation can be conducted using a questionnaire involving Wedding Organizer staff and other relevant users. The results are analyzed to determine the extent to which the developed system addresses the problems identified during the initial stage.

III. Result and Discussion

The development of information technology has created opportunities for service-based businesses to improve the way operational activities are managed, including the wedding service industry[15]. Wedding Organizers handle various interconnected activities, such as customer management, wedding package selection, booking, vendor coordination, event scheduling, payment processing, and reporting, which require accurate and timely information. When these activities are managed manually or through separate information media, data duplication, inconsistent records, delayed information retrieval, and inefficient administrative processes may occur. Therefore, an integrated information system is needed to support the management of wedding services through centralized and structured information processing. The development of a Wedding Organizer Information System can provide a digital platform that connects customers, administrators, and vendors while supporting the management of the entire service process. This study focuses on developing a web-based Wedding Organizer Information System using the CodeIgniter framework to integrate essential operational functions and improve the efficiency, accuracy, and organization of wedding service management.

3.1. Requirements Analysis

The requirements analysis stage was conducted to identify and define the functional and non-functional requirements of the Wedding Organizer Information System based on the operational problems and user needs identified during the data collection stage. The analysis focused on understanding the existing business processes, including customer registration, wedding package management, vendor management, booking, event scheduling, payment recording, and report generation. The identified requirements were then translated into system specifications that served as the foundation for the system design and development stages. This process was necessary to ensure that the proposed system addressed the actual operational needs of the Wedding Organizer rather than simply digitizing existing administrative activities.

The analysis identified three main user roles in the proposed system, namely administrator, customer, and vendor. The administrator



is responsible for managing the overall system, including customer data, wedding packages, vendor information, bookings, schedules, payments, and reports. Customers can register or log in to the system, view available wedding packages, select a package, submit booking information, monitor booking status, make payments, and view event schedules. Vendors are provided with access to information related to assigned services and event schedules, allowing them to prepare and update the status of services they are responsible for. The separation of roles is intended to ensure that each user can access functions relevant to their responsibilities while maintaining appropriate control over system information.

The functional requirements were defined based on the main activities performed by each user. The administrator requires functions for authentication, customer management, package management, vendor management, booking verification, schedule management, payment monitoring, and report generation. The customer requires functions for account registration, login, package browsing, booking submission, booking status monitoring, payment submission, and schedule viewing. Meanwhile, the vendor requires functions for viewing assigned events and updating service status. These functions are interconnected through the system database. For example, a customer booking is associated with a selected wedding package, while the confirmed booking can be connected to a payment record, event schedule, and assigned vendor. This relationship allows information to flow between modules and reduces repetitive data entry. The main functional requirements identified during the analysis are presented in Table 1.

Table 1. Functional Requirements Identified

No.	User	Functional Requirement	Description
1	Administrator	Login	Authenticate administrator access to the system.
2	Administrator	Customer Management	Add, view, update, and delete customer information.
3	Administrator	Package Management	Manage wedding package names, descriptions, prices, and availability.
4	Administrator	Vendor Management	Manage vendor information and service categories.
5	Administrator	Booking Management	Review, verify, approve, and manage customer bookings.
6	Administrator	Schedule Management	Manage event dates, times, venues, and schedules.
7	Administrator	Payment Management	Monitor and verify customer payment information.
8	Administrator	Report Generation	Generate reports related to customers, packages, bookings, payments, and schedules.
9	Customer	Registration and Login	Create an account and access the system.



10	Customer	View Packages	Browse available wedding packages and their details.
11	Customer	Make Booking	Select a package and submit booking information.
12	Customer	Check Booking Status	Monitor the status of submitted bookings.
13	Customer	Make Payment	Submit payment information for confirmed bookings.
14	Customer	View Schedule	View event schedules associated with the customer's booking.
15	Vendor	View Assigned Events	View events and services assigned to the vendor.
16	Vendor	Update Service Status	Update the status of services provided for an assigned event.

In addition to functional requirements, several non-functional requirements were identified to ensure that the system can be used effectively and reliably. Usability is required so that users with different levels of technical knowledge can operate the system without extensive training. Performance is required to ensure that common operations such as viewing packages, retrieving customer data, processing bookings, and generating reports can be completed within an acceptable response time. Security is required to protect customer, payment, and operational information through authentication and role-based access control. Reliability is required to ensure that data remain consistent and available during normal system operation. Maintainability is also considered so that system functions can be modified or extended when the Wedding Organizer introduces new packages, services, vendors, or operational procedures.

The requirements analysis also identified several important relationships among the system processes. A customer can create multiple bookings, while each booking is associated with a specific wedding package. A booking can have one or more payment records depending on the payment mechanism, while confirmed bookings are associated with an event schedule. The booking can also involve one or more vendors according to the services included in the selected package. These relationships form the basis for the database structure and UML models developed in the subsequent system design stage. The analysis therefore provides a clear representation of how users interact with the system and how operational data are related.

3.2. System Design

The system design stage translates the requirements identified in the previous stage into a structured model for developing the Wedding Organizer Information System. This stage focuses on defining the system architecture, user interactions, data structure, process flow, and interface design based on the operational requirements of administrators, customers, and vendors. The design integrates the main components of the system, including customer management, wedding package management, vendor management, booking, scheduling, payment, and reporting. The system design also establishes the relationships between these components to ensure that information can flow consistently across



the different processes. The overall system design is presented in Figure 2.

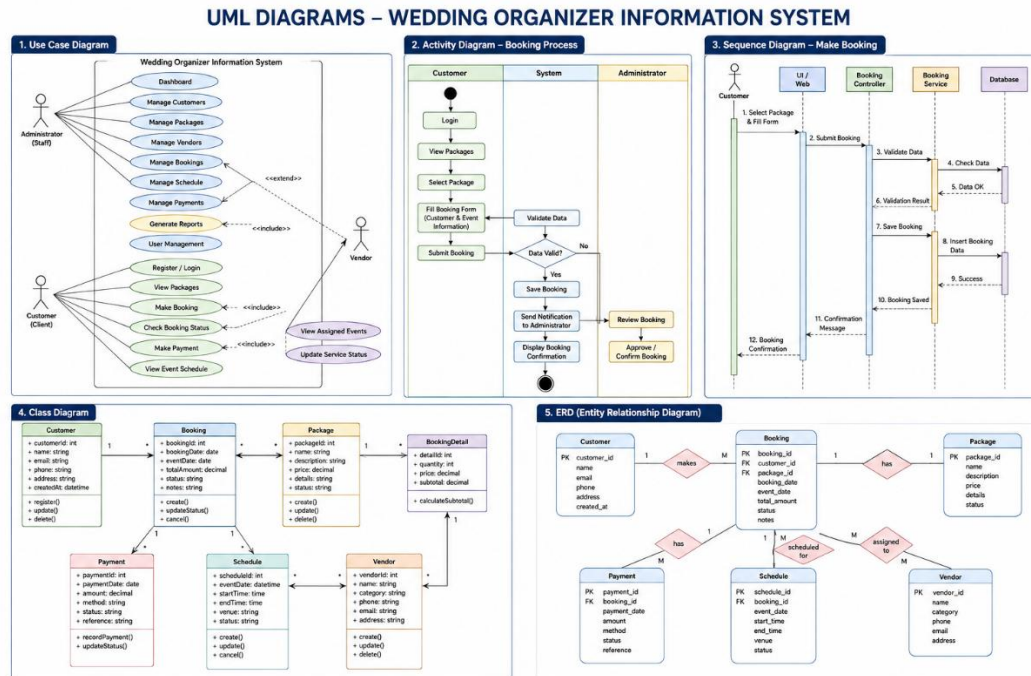


Figure 2. System Design

The system design of the proposed Wedding Organizer Information System is represented using several UML models, including the Use Case Diagram, Activity Diagram, Sequence Diagram, Class Diagram, and Entity Relationship Diagram (ERD). These models provide complementary views of the system, covering user interactions, business processes, communication between system components, data structures, and relationships among database entities. The combination of these models provides a comprehensive representation of the proposed system before the implementation stage.

The Use Case Diagram illustrates the interaction between three main actors, namely the Administrator, Customer, and Vendor. The Administrator is responsible for managing the main operational functions, including the dashboard, customer data, wedding packages, vendors, bookings, schedules, payments, reports, and user management. The Customer can register or log in, view available wedding packages, make bookings, check booking status, make payments, and view event schedules. Meanwhile, the Vendor can view assigned events and update the status of the services provided. The use case model establishes the functional boundaries of the system and clarifies the responsibilities of each user.

The Activity Diagram describes the workflow of the booking process from the customer's perspective to the administrator's confirmation. The process begins when the customer logs into the system and views the



available wedding packages. After selecting a package, the customer completes the booking form containing personal and event information and submits the request. The system then validates the submitted data. If the data are valid, the booking is stored and a notification is sent to the administrator. The administrator reviews the booking and confirms the request. The system subsequently displays the booking confirmation, completing the main booking workflow.

The Sequence Diagram provides a more detailed representation of the communication sequence during the booking process. The interaction involves the Customer, Web Interface, Booking Controller, Booking Service, and Database. The customer selects a package and submits the booking form through the web interface. The request is then forwarded to the booking controller and booking service for validation. The system communicates with the database to verify and store the booking information. Once the booking has been successfully saved, the confirmation is returned through the application interface to the customer. This model demonstrates the chronological interaction between users, application components, and the database.

The Class Diagram represents the structural design of the system and identifies the main classes required to support the Wedding Organizer operations. The primary classes consist of Customer, Booking, Package, BookingDetail, Payment, Schedule, and Vendor. The Customer class manages customer information, while the Booking class represents transactions made by customers. The Package class stores information about wedding packages, and BookingDetail provides detailed information about services included in a booking. The Payment class manages payment transactions, whereas Schedule manages event dates, times, and venues. The Vendor class stores information about service providers involved in wedding events. The relationships among these classes allow the system to connect customer bookings with packages, payments, schedules, and vendors.

The Entity Relationship Diagram (ERD) further describes the database structure and relationships among the main entities. A customer can create multiple bookings, while each booking is associated with a specific package. A booking can have multiple payment records and is connected to an event schedule. The booking can also be associated with vendors responsible for providing particular services. Primary keys are used to uniquely identify each record, while foreign keys establish relationships between related entities. This relational structure supports centralized data management and helps maintain consistency among customer, booking, package, payment, schedule, and vendor information.

Overall, the UML and database models provide a structured representation of the proposed Wedding Organizer Information System from both functional and structural perspectives. The Use Case Diagram defines user interactions, the Activity Diagram describes business process workflows, the Sequence Diagram explains system interactions over time, the Class Diagram defines the software structure, and the ERD establishes the database relationships. These models serve as the technical



foundation for system implementation and help ensure that the developed system corresponds to the functional requirements identified during the requirements analysis stage.

3.3. System Implementation

The implementation of the Wedding Organizer Information System resulted in a web-based interface developed using the CodeIgniter framework to support the operational activities of administrators, customers, and vendors. The interface is designed to provide access to the main system functions, including dashboard monitoring, wedding package management, customer and booking management, payment monitoring, event scheduling, and vendor coordination. Each interface is organized according to the user's role and system requirements to ensure that operational information can be accessed and managed effectively. The following figure presents the implemented interface of the Wedding Organizer Information System.

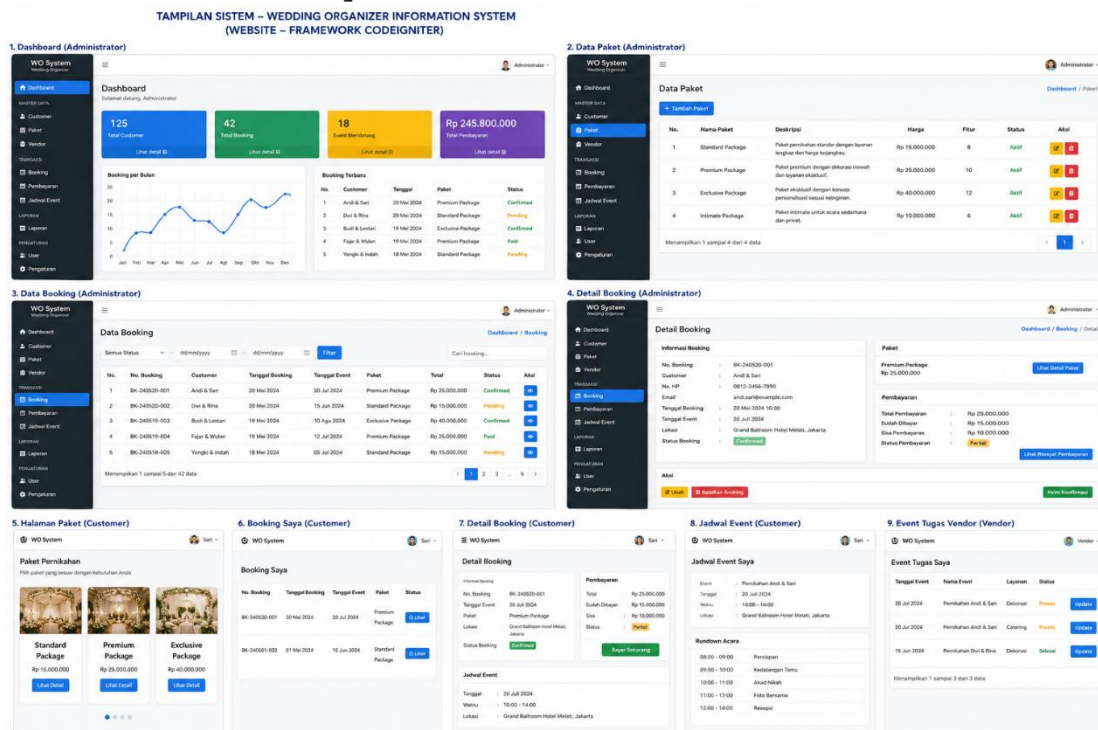


Figure 3. Implementation System

The implemented Wedding Organizer Information System is presented as a web-based application developed using the CodeIgniter framework. The interface adopts a clean and structured dashboard layout, with a navigation sidebar on the left and the main content area on the right. The system uses a consistent interface structure across administrator, customer, and vendor pages, allowing users to access functions according to their respective roles.



The Administrator Dashboard provides an overview of the main operational information. Several summary cards display the total number of customers, bookings, upcoming events, and total payments. A booking chart is provided to visualize booking activity over time, while a recent booking table displays information such as customer name, booking date, selected package, and booking status. This dashboard allows administrators to monitor the overall condition of Wedding Organizer activities without accessing each module separately.

The Package Management page is used by administrators to manage available wedding packages. The interface presents package information in a table containing the package name, description, price, features, status, and available actions. Administrators can add new packages, modify existing information, and delete packages. This functionality allows package information presented to customers to be maintained directly through the system.

The Booking Management page provides administrators with a structured list of customer bookings. The page includes filtering and search functions to help administrators find specific booking records. Each record contains the booking number, customer, booking date, event date, selected package, total amount, and booking status. Administrators can access the detailed information of each booking to review customer information, event location, payment status, and other booking details before confirming or managing the transaction.

The Customer interface provides access to wedding packages and customer-specific booking information. On the package page, customers can view available packages along with images, package names, prices, and options for viewing further details. The Booking Saya page displays the customer's submitted bookings, including booking numbers, booking dates, event dates, selected packages, and booking status. Customers can access the booking details to view payment information and event-related information.

The Booking Detail page presents more comprehensive information about a customer's transaction. The page combines booking information, selected package details, payment status, and event scheduling information within a single interface. Customers can monitor the total payment, amount already paid, remaining balance, and payment status. The interface also provides a payment action that allows customers to proceed with the required transaction.

The Event Schedule page provides customers with information about their scheduled wedding events, including the event name, date, time, location, and event rundown. This feature helps customers monitor the preparation and execution schedule of their wedding. By presenting the schedule in an organized format, the system reduces the need for customers to rely on separate communication channels to obtain event information.

The Vendor interface is designed to help service providers monitor their assigned wedding events. The Event Tugas Vendor page presents information such as the event date, event name, assigned service, and



service status. Vendors can update the status of their assigned tasks through the available action button. This functionality supports coordination between the Wedding Organizer and vendors and allows administrators to monitor the progress of services associated with each event.

Overall, the implemented interface demonstrates the integration of the main Wedding Organizer business processes into a single web-based platform. The use of the CodeIgniter framework supports the implementation of the application's backend structure, database interaction, routing, and business logic, while the web interface provides accessible functions for administrators, customers, and vendors. The integration of dashboards, package management, booking, payment, scheduling, and vendor management allows operational information to be managed centrally and contributes to more organized and efficient wedding service management.

3.4. System Testing

System testing was conducted to verify whether the developed Wedding Organizer Information System operates according to the functional requirements identified during the requirements analysis stage. The testing focused on the main functions available to the Administrator, Customer, and Vendor, including authentication, customer management, wedding package management, booking, payment, event scheduling, vendor management, and report generation. The Black-Box Testing method was applied by examining the system based on input, process, and expected output without evaluating the internal source code. Each function was tested using several scenarios to determine whether the system could produce the expected response under normal and invalid conditions. The testing results are presented in the following Table 2.

Table 2. System Testing

No.	User	Function Tested	Test Scenario	Expected Result	Result
1	Administrator	Login	Enter valid username and password	Administrator successfully enters the dashboard	Pass
2	Administrator	Customer Management	Add, edit, view, and delete customer data	Customer data are successfully managed	Pass
3	Administrator	Package Management	Add and update wedding package information	Package data are successfully stored and updated	Pass
4	Administrator	Vendor Management	Add and update vendor information	Vendor data are successfully stored and displayed	Pass
5	Administrator	Booking Management	Review and confirm	Booking status is successfully updated	Pass

*Corresponding Author: donayapasha@itsnulampung.ac.id (Donaya Pasha)

DOI: <https://doi.org/10.67449/jcoda.v1i1.4>

Copyright © 2026 The Authors.

This is an open access article licensed under the Creative Commons Attribution-ShareAlike (CC BY-SA) license. (<https://creativecommons.org/licenses/by-sa/4.0/>)



6	Administrator	Payment Management	customer booking Verify customer payment	Payment status is successfully updated	Pass
7	Administrator	Schedule Management	Add and modify event schedule Generate booking and payment reports	Event schedule is successfully stored and displayed	Pass
8	Administrator	Report Generation	Register and log in using valid account information	Reports are successfully generated	Pass
9	Customer	Registration/Login	Select an available wedding package	Customer successfully accesses the system	Pass
10	Customer	View Package	Complete and submit the booking form	Package details are displayed correctly	Pass
11	Customer	Booking	View submitted booking	Booking is successfully recorded	Pass
12	Customer	Booking Status	Submit payment information	Current booking status is displayed	Pass
13	Customer	Payment	View confirmed event schedule	Payment data are successfully recorded	Pass
14	Customer	Event Schedule	View assigned wedding event	Event date, time, and location are displayed	Pass
15	Vendor	Assigned Event	Update assigned service status	Assigned event information is displayed	Pass
16	Vendor	Service Status		Service status is successfully updated	Pass

The testing results show that all tested functions produced outputs according to the defined requirements. The authentication process successfully restricted access based on valid user credentials, while the management functions allowed administrators to perform the required data operations. The booking process was also successfully connected with package, customer, payment, and scheduling information, demonstrating that the system can support the main Wedding Organizer business workflow. Customer functions operated as expected, allowing users to browse packages, submit bookings, monitor booking status, and access payment and event information. Similarly, vendors were able to access assigned events and update service status.

Based on the results of the Black-Box Testing, the developed system achieved a 100% functional test success rate, with all 16 tested scenarios categorized as

*Corresponding Author: donayapasha@itsnulampung.ac.id (Donaya Pasha)

DOI: <https://doi.org/10.67449/jcoda.v1i1.4>

Copyright © 2026 The Authors.

This is an open access article licensed under the Creative Commons Attribution-ShareAlike (CC BY-SA) license. (<https://creativecommons.org/licenses/by-sa/4.0/>)



Pass. These results indicate that the implemented functions operate according to the specified requirements and that the system is ready to proceed to the evaluation stage. However, functional testing primarily verifies whether system features work as expected. Further evaluation can therefore be conducted to assess other aspects, such as usability, user satisfaction, processing efficiency, system performance, and security, to obtain a more comprehensive assessment of the developed Wedding Organizer Information System.

3.5. System Evaluation

The system evaluation was conducted to determine the extent to which the developed Wedding Organizer Information System can support operational activities and improve the efficiency of wedding service management. The evaluation was performed after the system passed the functional testing stage and focused on several aspects, including usability, information accessibility, data accuracy, processing efficiency, and user satisfaction. The evaluation involved users who interact directly with the system, particularly administrators, customers, and vendors. The assessment was intended to determine whether the implemented system could address the problems identified during the initial analysis and provide practical benefits in the management of wedding services.

The evaluation focused on the comparison between the conventional management process and the process supported by the developed system. In the conventional process, customer data, package information, booking records, payment information, and event schedules may be managed using separate documents or communication media. This condition requires users to perform repeated data searches and manual data updates. After implementation, these activities are integrated into a centralized system. Users can access the required information through dedicated modules, while related information such as customer, booking, package, payment, schedule, and vendor data can be connected automatically through the database. The evaluation indicators used to assess the system are presented in the following Table 3.

Table 3. System Evaluation

No.	Evaluation Aspect	Evaluation Indicator	Expected Improvement
1	Usability	Ease of learning and operating the system	Users can operate the system with minimal assistance
2	Information Accessibility	Ease and speed of retrieving information	Information can be accessed more quickly
3	Data Accuracy	Consistency and correctness of stored information	Reduction of recording errors and duplicate data
4	Process Efficiency	Time required to perform administrative activities	Reduction in processing time
5	Data Management	Ease of adding, updating, and searching data	More structured data management

*Corresponding Author: donayapasha@itsnulampung.ac.id (Donaya Pasha)

DOI: <https://doi.org/10.67449/jcoda.v1i1.4>

Copyright © 2026 The Authors.

This is an open access article licensed under the Creative Commons Attribution-ShareAlike (CC BY-SA) license. (<https://creativecommons.org/licenses/by-sa/4.0/>)



6	Booking Management	Ease of monitoring customer bookings	Faster booking verification and monitoring
7	Schedule Management	Ease of managing event schedules	Reduction in scheduling conflicts
8	Payment Monitoring	Ease of monitoring payment status	Faster identification of outstanding payments
9	Reporting	Ease of generating operational reports	Reduction in manual report preparation
10	User Satisfaction	User perception of system usefulness and convenience	Increased satisfaction with the service management process

The evaluation results indicate that the developed system provides improvements in the management of Wedding Organizer activities. Centralized data storage allows administrators to retrieve customer, booking, package, payment, and schedule information without searching through multiple separate records. The integration of these data also improves consistency because information related to a booking can be connected directly with the corresponding customer, package, payment, event schedule, and vendor. This condition reduces the potential for data duplication and minimizes errors caused by repeated manual recording.

The implementation of the booking management module also improves the monitoring process. Customer bookings can be reviewed and updated through a dedicated interface, while the booking status provides information about the current stage of each transaction. Payment information can be associated with the relevant booking, allowing administrators to identify the payment status without manually matching separate transaction records. Similarly, the event scheduling module provides structured information regarding event dates, times, and locations, which supports better coordination between administrators, customers, and vendors.

From the customer perspective, the system provides easier access to wedding package information, booking status, payment information, and event schedules. Customers no longer need to depend entirely on direct communication with the administrator to obtain basic information about their bookings. Vendors can also access information about assigned events and update the status of their services through the system. These functions improve the flow of information among the stakeholders involved in the wedding service process and provide a more organized mechanism for coordinating activities.

Overall, the system evaluation demonstrates that the developed Wedding Organizer Information System can support the main operational requirements and contribute to more efficient service management. The integration of customer, package, booking, payment, schedule, vendor, and reporting functions reduces fragmented information management and simplifies administrative activities. Combined with the 100% functional success rate obtained during Black-Box Testing, the evaluation results indicate that the system is functionally suitable for supporting Wedding



Organizer operations. Further evaluation involving a larger number of users and quantitative measurements of processing time before and after implementation can be conducted in future research to provide stronger empirical evidence regarding the system's impact on operational efficiency.

IV. Conclusion

This study successfully developed a web-based Wedding Organizer Information System using the CodeIgniter framework to support the management of wedding services in an integrated and structured manner. The system integrates the main operational processes, including customer management, wedding package management, vendor management, booking, payment, event scheduling, and reporting. The integration of these functions provides a centralized platform for managing operational information and reduces the dependence on separate documents and manual administrative processes.

The results demonstrate that the developed system can improve the accessibility, consistency, and organization of Wedding Organizer information. Customers can access wedding packages, submit bookings, monitor booking status, view payment information, and access event schedules, while administrators can manage operational data and monitor bookings, payments, schedules, and vendors. Vendors can also access assigned events and update their service status. These functions support better coordination among stakeholders and provide a more structured workflow for managing wedding services.

System testing using the Black-Box Testing method resulted in a 100% functional success rate, with all 16 tested scenarios successfully producing the expected outputs. The system evaluation further indicates that the developed application can support improvements in information accessibility, data management, booking monitoring, payment tracking, scheduling, and report generation. Therefore, the developed system provides a practical technological solution for improving the efficiency and effectiveness of Wedding Organizer service management. Future development can focus on integrating online payment gateways, automated notifications, calendar synchronization, customer feedback, vendor performance evaluation, and intelligent recommendation features to further enhance the functionality and decision-support capabilities of the system.

CRedit Authorship Contribution Statement

D. Pasha: Writing - original draft, Writing - review & editing, Writing - original draft, Validation, Software, Methodology, Conceptualization.



Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Declaration of Generative AI and AI-assisted Technologies in The Writing Process

The authors used Generative AI to improve the writing clarity of this paper. They reviewed and edited the AI-assisted content and take full responsibility for the final publication.

References

- [1] M. Heindari, D. Diana, and E. T. Asmoro, "Rancang Bangun Sistem Administrasi Pengolahan Data Wedding Organizer Menggunakan Metode Fountain Berbasis Web," *J. Ilm. SIKOMTEK*, vol. 14, no. 1, pp. 16-26, 2024.
- [2] R. Ristiana and Y. Jumaryadi, "Sistem Pendukung Keputusan Pemilihan Paket Wedding Organizer Menggunakan Metode SAW (Simple Additive Weighting)," *J. Sisfokom (Sistem Inf. dan Komputer)*, vol. 10, no. 1, pp. 25-30, 2021, doi: [10.32736/sisfokom.v10i1.946](https://doi.org/10.32736/sisfokom.v10i1.946).
- [3] Widiawati and H. K. Siradjuddin, "Perancangan Website Sistem Seleksi Siswa Baru menggunakan Framework CodeIgniter Pada Madrasah Aliyah Alkhairaat Kalumpang Kota Ternate," *J. Ilm. Ilk. - Ilmu Komput. Inform.*, vol. 3, no. 2, pp. 76-87, 2020, doi: [10.47324/ilkominform.v3i2.105](https://doi.org/10.47324/ilkominform.v3i2.105).
- [4] Ade Indah Permataasri and T. Ardiansah, "Aplikasi Pembelajaran Pengenalan Nama Dan Fungsi Anggota Tubuh Bagi Anak Usia Dini," *J. Data Sci. Inf. Syst.*, vol. 1, no. 2, pp. 57-64, May 2023, doi: [10.58602/dimis.v1i2.45](https://doi.org/10.58602/dimis.v1i2.45).
- [5] Z. Zhu, Y. Bai, W. Dai, D. Liu, and Y. Hu, "Quality of e-commerce agricultural products and the safety of the ecological environment of the origin based on 5G Internet of Things technology," *Environ. Technol. Innov.*, vol. 22, p. 101462, 2021, doi: [10.1016/j.eti.2021.101462](https://doi.org/10.1016/j.eti.2021.101462).
- [6] S. Gupta, T. Tuunanen, A. K. Kar, and S. Modgil, "Managing digital knowledge for ensuring business efficiency and continuity," *J. Knowl. Manag.*, 2022, doi: [10.1108/JKM-09-2021-0703](https://doi.org/10.1108/JKM-09-2021-0703).
- [7] H. Faqih, A. B. Hikmah, and W. Azizah, "Implementasi Metode Rapid Application Development Pada Pengembangan Aplikasi e-Fin Mosque Z," *Indones. J. Softw. Eng.*, vol. 8, no. 1, pp. 83-91, 2022, doi: [10.31294/ijse.v8i1.13007](https://doi.org/10.31294/ijse.v8i1.13007).
- [8] R. Nuari, "Sistem Informasi Pendaftaran Siswa Baru Menggunakan Extreme Programming," *J. Data Sci. Inf. Syst.*, vol. 1, no. 4, pp. 166-174, 2023, doi: [10.58602/dimis.v1i4.79](https://doi.org/10.58602/dimis.v1i4.79).
- [9] L. U. P. Lia and R. Yesputra, "Decision support system for evaluation of honorary employees' performance with the weighted product method," *J. CoSciTech (Computer Sci. Inf. Technol.)*, vol. 5, no. 3, pp. 547-554, Dec. 2024, doi: [10.37859/coscitech.v5i3.8234](https://doi.org/10.37859/coscitech.v5i3.8234).
- [10] T. Mazhar et al., "Analysis of Challenges and Solutions of IoT in Smart

*Corresponding Author: donayapasha@itsnulampung.ac.id (Donaya Pasha)

DOI: <https://doi.org/10.67449/jcoda.v1i1.4>

Copyright © 2026 The Authors.

This is an open access article licensed under the Creative Commons Attribution-ShareAlike (CC BY-SA) license. (<https://creativecommons.org/licenses/by-sa/4.0/>)



- Grids Using AI and Machine Learning Techniques: A Review," *Electron.*, vol. 12, no. 1, 2023, doi: [10.3390/electronics12010242](https://doi.org/10.3390/electronics12010242).
- [11] K. Ghasemi, M. Behzadfar, K. Borhani, and Z. Nouri, "Geographic information system based combined compromise solution (CoCoSo) method for exploring the spatial justice of accessing urban green spaces, a comparative study of district 22 of Tehran," *Ecol. Indic.*, vol. 144, p. 109455, 2022, doi: [10.1016/j.ecolind.2022.109455](https://doi.org/10.1016/j.ecolind.2022.109455).
- [12] Siska Narulita, Ahmad Nugroho, and M. Zakki Abdillah, "Diagram Unified Modelling Language (UML) untuk Perancangan Sistem Informasi Manajemen Penelitian dan Pengabdian Masyarakat (SIMLITABMAS)," *Bridg. J. Publ. Sist. Inf. dan Telekomun.*, vol. 2, no. 3, pp. 244-256, 2024, doi: [10.62951/bridge.v2i3.174](https://doi.org/10.62951/bridge.v2i3.174).
- [13] J. Tupayachi, H. Xu, O. A. Omitaomu, M. C. Camur, A. Sharmin, and X. Li, "Towards Next-Generation Urban Decision Support Systems through AI-Powered Construction of Scientific Ontology Using Large Language Models—A Case in Optimizing Intermodal Freight Transportation," *Smart Cities*, vol. 7, no. 5, pp. 2392-2421, 2024. doi: [10.3390/smartcities7050094](https://doi.org/10.3390/smartcities7050094).
- [14] D. Abdul, J. Wenqi, A. Tanveer, and I. M. Sharaf, "Analyzing the sustainability factors to prioritize sustainable energy source: A novel integrated MCDM model," *Energy*, vol. 337, p. 138637, 2025, doi: [10.1016/j.energy.2025.138637](https://doi.org/10.1016/j.energy.2025.138637).
- [15] Amik Herningsih, A. F. O. Pasaribu, and Y. Rahmanto, "Aplikasi Panduan Wisata dan Toko Oleh-Oleh di Provinsi Lampung Menggunakan Google Street View dan Game Engine," *J. Data Sci. Inf. Syst.*, vol. 1, no. 2, pp. 65-76, May 2023, doi: [10.58602/dimis.v1i2.47](https://doi.org/10.58602/dimis.v1i2.47).