



# Wedding Organizer Design Using Android-Based RAD at Dekorqu

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## Abstract

Wedding is a sacred and highly significant lifecycle event that involves elaborate planning and coordination of diverse elements. Busy schedules in modern social classes make it difficult for families and couples to personally manage all wedding preparations, prompting high demand for professional Wedding Organizer (WO) services. This research develops a Wedding Organizer Information System for Dekorqu Wedding Organizer in Bandar Lampung to address manual operational challenges, such as the requirement for customers to visit physical offices and paper-based booking records in ledgers which are prone to data loss and transcription errors. Utilizing the Rapid Application Development (RAD) method, which consists of Requirements Planning, Design Workshop, and Implementation phases, this system accelerates the software development lifecycle to achieve functional delivery. The system was developed using PHP, Apache Web Server, and MySQL database, configured to manage transactions, customer profiles, product catalogs, and automate report generation. Testing was conducted using the Black-Box Testing methodology to verify that all functional interfaces and data exchange operations perform successfully according to user requirements.

**Keyword:** Wedding Organizer, Rapid Application Development, PHP, MySQL, Information System.

## 1. Introduction

Marriage is a formal union established by two individuals to solemnize their bond in accordance with religious and legal norms. Wedding ceremonies vary widely depending on tradition, ethnicity, religion, nationality, culture, and social class, and are regarded as significant, sacred life events. In the modern era, most engaged couples host wedding celebrations to mark this sacred occasion; however, wedding preparations require meticulous attention to a multitude of details and requirements (Hakim et al., 2025); (Lalo et al., 2025).

Wedding Organizers (WOs) provide professional services that assist couples and their families in planning and supervising the execution of the entire wedding event according to a set schedule (Hakim et al., 2025); (Nadiyah & Mansoor, 2022). These services are particularly beneficial for couples with demanding careers who struggle to find sufficient time to plan and prepare the diverse array of wedding necessities



themselves. The WO assumes full responsibility for the smooth execution of the entire event, including decoration, catering, documentation, and other supporting aspects.

One such wedding organizer in Bandar Lampung City is Dekorqu Wedding Planner. However, the company's business processes still face various operational challenges. Customers wishing to obtain information on wedding packages or place a booking must visit the Dekorqu Wedding Planner office in person. Internally, the administration of booking transactions remains rudimentary, relying on manual handwritten entries in a ledger. Consequently, data regarding customer bookings, payment transactions, and event schedules are poorly organized; this results in lengthy retrieval times, a high risk of data entry errors, and the potential loss of important records. Addressing these issues, this research focuses on designing an information system to digitize the booking and reporting processes at Dekorqu Wedding Planner.

Based on the background of the problem and direct observations, the problem formulation for this research is as follows:

1. Prospective brides and grooms lack the time and connections to search for, survey, and negotiate directly with professional wedding service providers.
2. How to assist prospective brides and grooms in selecting from a variety of wedding vendors distributed across the Bandar Lampung City area.
3. How to provide prospective brides and grooms with adequate insight into the detailed elements included in their chosen wedding packages.
4. How to design an information system application that bridges the gap and facilitates communication and transactions between prospective brides and grooms and wedding organizers.

To maintain the research focus, the scope of the study is defined as follows:

1. The research area is limited to the administrative region of Bandar Lampung City.
2. The research object and case study focus specifically on Dekorqu Wedding Planner.
3. The application is designed to be accessible via smartphones running the Android operating system.
4. Wedding package services are limited to standard components, including: bridal attire, makeup, and accessories; documentation (pre-wedding photos, event coverage photos, and video); stage and bridal room decorations, tents, and lighting; venues (buildings, halls, open fields, gardens, or hotel ballrooms); food and beverages (catering service); wedding cakes; and wedding invitations.

The objectives of this research are to:

1. Design and develop an application featuring a catalog of wedding packages from various vendors across a wide price range, ensuring ease of use for all prospective brides and grooms.
2. Assist prospective brides and grooms in sorting and selecting the wedding packages that best suit their needs.
3. Enable prospective brides and grooms to quickly and directly book wedding packages through the application, overcoming geographical barriers.

This research is expected to provide the following practical contributions:

- For Prospective Couples  
To produce an interactive application that facilitates an effective wedding planning process without requiring in-person meetings with the wedding organizer (WO), particularly for couples facing time or geographical constraints.
- For Wedding Organizers  
To streamline the processing, retrieval, and storage of booking transaction data within the company's organized electronic database.

## **2. Literature Review**

### **2.1 Businesses in the Wedding Sector**

Business entities operating in the wedding services sector are diverse and can be broadly classified into three main categories:

1. Wedding Organizer

A wedding organizer provides comprehensive services to prospective couples, ranging from event concept planning and budget preparation to coordinating with various wedding vendors in accordance with client requests (Azizah, 2022). The WO is also responsible for assembling and managing the wedding committee, including assigning family members to specific roles within that structure (Lalo et al., 2025).

## 2. Wedding Vendor

Wedding vendors are business entities that focus on selling or developing their own specific products and services (Semesta et al., 2020). These vendors include: Bridal services (managing the couple's appearance, such as suits, gowns, shoes, makeup, and hairstyling); and Documentation services (pre-wedding photography, full event recording, cinematic videos, short video trailers, same-day edits, and photo booth facilities) (Howard, 2000).

## 3. Wedding Venue

A wedding venue refers to the location where the wedding takes place—such as a private residence, open field, event hall, garden, or hotel ballroom—where the venue provider typically has an existing partnership with a specific catering service (Tourism, 2006).

### 2.2 System Design and Development

System design and development combines two technical procedures: the design process and the construction process (Evbuomwan & Anumba, 1998). Design is defined as a series of procedures for translating system analysis results into programming language to describe in detail how system components are to be implemented (Davis & Yen, 2019). System development (or construction) is the concrete activity of creating a new system, or replacing and improving an existing system—either wholly or partially—based on approved design specifications (Wasson, 2015).

An information system itself consists of systematically organized methods for collecting, inputting, processing, storing, controlling, and reporting information, enabling an organization to achieve its established operational goals (Altarawneh & Tarawneh, 2023); (Pertiwi & Linda, 2025).

### 2.3 Applications and Websites

An application is software created to perform specific tasks that are useful to computer users (Gould et al., 1991). Applications facilitate data storage, task management, and the implementation of solutions within new media environments without compromising the fundamental value of the data itself (Karmila., & Zulhajji, 2025) (Raptis et al., 2019).

Meanwhile, a website (or site) is defined as a collection of interconnected pages used to display information—such as text, images, audio, or animations—that can be either static or dynamic and accessed by computers connected to the internet (Janne, 2024); (McEnery, 1995).

### 2.4 PHP (Hypertext Preprocessor) Programming Language

PHP is a server-side scripting language used to generate HTML documents dynamically and on the fly (Tatroe & MacIntyre, 2020). PHP scripts are processed on the web server before the output is sent to the user's web browser (such as Chrome, Firefox, or Internet Explorer), resulting in the display of engaging and interactive web pages (Nixon, 2021).

### 2.5 Rapid Application Development (RAD)

Rapid Application Development (RAD) is a linear-sequential software development process model that emphasizes very short development cycles (Fatimah et al., 2018). This approach utilizes component-based construction to accelerate the workflow, enabling development teams to produce a fully functional system within a very short timeframe—typically ranging from 60 to 90 days. The RAD model (Pratiwi et al., 2022) consists of three main phases:



1. Requirement Planning

This is the phase where users and system analysts meet to identify application objectives and determine the information requirements derived from those objectives to address the company's problems.

2. Design Workshop

This is the phase for visually designing and refining the system, during which analysts and programmers present representations of workflows and system interfaces to users for further refinement.

3. Implementation

This is the final phase where the approved new system is built, rigorously tested, and subsequently introduced into the organization.

The primary advantages of RAD include project time savings, reduced operational costs, minimized human resource requirements, and the ability to rapidly adapt to design changes. However, a drawback lies in the risk of rushing the project, which could potentially lead to overlooking important organizational details.

## 2.6 MySQL and Databases

MySQL is a relational Database Management System (DBMS) software distributed free of charge under the GPL (GNU General Public License) (Wahyudi et al., 2022). SQL queries in MySQL are categorized into three main groups:

- DDL (Data Definition Language): Queries used to define the database structure, such as CREATE, DROP, and ALTER.
- DML (Data Manipulation Language): Queries used to manipulate data within defined tables, including SELECT, INSERT, UPDATE, and DELETE.
- DCL (Data Control Language): Queries used to control user access rights, such as GRANT and REVOKE.

A database is a collection or set of interrelated data groups organized in such a way that they can be utilized again quickly, easily, and accurately.

## 3. Method

### 3.1 Method of Collecting Data

The data collection process for this study was designed to accurately capture all of the system's functional requirements through three primary methods:

1. Literature Review

Conducted by reading, citing, and taking notes from various reference materials, journal literature, and credible online articles regarding wedding organizer functions, the history of wedding cakes, and Android SDK installation.

2. Observation

A direct site visit to the Dekorqu Wedding Organizer office located at Jalan Yos Sudarso, Srengsem, Panjang, Bandar Lampung. Observations revealed that the wedding packages offered come in three price tiers: the Silver Package (IDR 34,000,000), the Gold Package (IDR 39,000,000), and the Platinum Package (IDR 44,000,000).

3. Interviews

Direct discussions with key informants to identify variables influencing the total cost of wedding packages, such as the choice of venue, the type of photographer, and the number of invited guests.

### 3.2 Analysis of Running Systems and Problems

Analysis reveals that the current wedding package booking process relies on conventional procedures. Customers must visit the physical office in person, where a cashier provides a paper brochure, records the order in a ledger, and manually checks booking availability one by one. Once a slot is confirmed as open, the customer pays a down payment, and administrative staff issue a handwritten receipt.

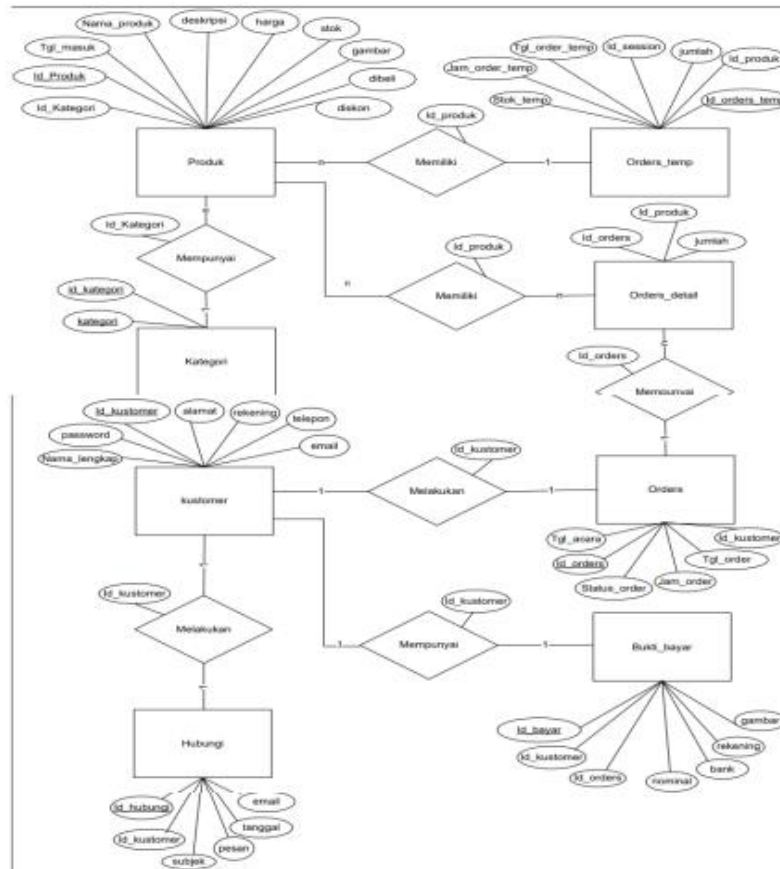


Figure 1. ERD One-to-Many and Many-to-Many Layout

This manual method gives rise to five key issues: wasted customer time; the use of promotional brochures that easily get dirty or lost; a high risk of errors in recording orders; difficulty in retrieving organized booking history; and delays in compiling periodic booking reports for company management.

### 3.3 System Architecture Design (DFD and ERD)

The computerized system design employs structured modeling—specifically data flow modeling using Data Flow Diagrams (DFD). The proposed Context Diagram identifies four external entities interacting with the system: Consumers, Customers, Admins, and Owners. These data flows are detailed in the Level 0 DFD, which breaks down system activities into eight primary functional processes: (1.0) Registration, (2.0) Login, (3.0) Data Processing, (4.0) Ordering, (5.0) Order Cart, (6.0) Order Transaction, (7.0) Payment Proof Upload, and (8.0) Order Report Printing.



Table 1. Structure of the Customer Table (customer)

| Field            | Type    | Size | Details                 |
|------------------|---------|------|-------------------------|
| id_customer (PK) | Integer | 5    | Unique Customer ID      |
| full_name        | varchar | 100  | Customer's Full Name    |
| password         | varchar | 50   | Encrypted Password      |
| Address          | Text    | -    | User's Shipping Address |
| Email            | varchar | 100  | Email Address           |
| bank_account     | varchar | 25   | Bank Account Number     |
| Phone            | varchar | 20   | Customer Contact Number |

(Source: System Database Design Document)

The logical data structure is modeled using an Entity-Relationship Diagram (ERD). The designed database schema integrates ten relational entities: admins, payment\_proof, contact, categories, customers, modules, orders, order\_details, order\_temp, and products. Relationships between entities are defined using One-to-Many and Many-to-Many cardinalities (see Figure 1). The ERD transformation yields a physical relational database design with the following table specifications on structure of the customer (see table 1) and product (see table 2).

Table 2. Product Table Structure

| Field            | Type    | Size | Description                    |
|------------------|---------|------|--------------------------------|
| product_id (PK)  | integer | 5    | Unique Product/Package ID      |
| category_id (FK) | integer | 5    | Link to Category Table         |
| product_name     | varchar | 100  | Wedding Package/Equipment Name |
| description      | text    | -    | Package Component Description  |
| Price            | integer | 20   | Rental or Package Price        |
| Stock            | integer | 5    | Unit Stock Availability        |
| date_added       | date    | -    | Product Entry Date             |
| Image            | varchar | 100  | Catalog Image Filename         |
| Purchased        | integer | 5    | Total Number of Orders         |
| Discount         | integer | 5    | Discount Percentage            |

(Source: System Database Design Document)

## 4. Results and Discussion

### 4.1 Discussion of Test Results

The implementation and testing phases were conducted after the entire program coding process was completed. System testing aimed to ensure that the application runs stably with minimal errors and that its functionality aligns with the requirements analysis designed during the planning phase.

Figure 2. Login Page Layout

## 4.2 Administrator-Side System Interface

The administrator user interface is designed as the operational data control center for Dekorqu Wedding Organizer. Key administrator pages include:

1. Admin Login Page: Provides a credential input form (username, password, and authorization level) to securely verify user access rights (see Figure 2).

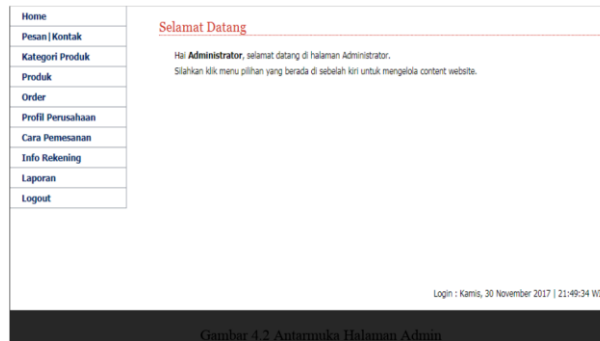


Figure 3. Dashboard Page Layout

2. Admin Dashboard Page: Displays the main navigation menu, comprising options to manage messages, product categories, products, transaction orders, company profile, ordering instructions, bank account details, reports, and logout (see Figure 3).



Figure 4. Product Category Layout

3. Product Category Page: Displays a list of categories for items available for rent. Administrators have full functionality to add new categories, rename them, or delete categories from the MySQL database (see Figure 4).



Figure 5. Product Management Wedding Organization Layout



- Product and Add Product Page: Displays a summary of all product data, including product name, price, discount, stock units, and entry date. The "Add Product" form is used to input new product data, including price specifications, text descriptions, and image file uploads (see Figure 5).

Figure 6. Order Product Management Layout

- Order Management Page: Lists incoming customer orders. Information presented includes the order number, customer name, order date and time, and order status, along with action buttons to verify payments based on transfer proof submitted by customers (see Figure 6).

Figure 7. Report Output Page Layout

- Report Output Page: Provides visual summaries of daily, weekly, monthly, and yearly order transaction reports, ready for printing and direct submission to management (see Figure 7).

Table 3. Summary of System Black Box Testing Results

| No | Interface Module  | Test Scenarios                                                  | Expected Results                                                               | Status    |
|----|-------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------|-----------|
| 1  | System Login      | Enter a valid email and password on the customer login form.    | The system automatically redirects the user to the customer profile page.      | Compliant |
| 2  | Package Catalog   | Select a wedding package on the category page.                  | The page correctly displays rental price details and item details.             | Compliant |
| 3  | Shopping Cart     | Add an item to the cart and adjust the quantity.                | The system accurately recalculates the order subtotal.                         | Compliant |
| 4  | Payment Upload    | Upload an image file of the transfer proof on the payment form. | The image file is saved to the server folder, and the order status is updated. | Compliant |
| 5  | Report Management | Filter reports by a specific date range.                        | Displays a printable summary of the order transaction data.                    | Compliant |

(Source: Black Box Test Scenario Recapitulation Results)

#### 4.3 System Feasibility Evaluation Using Black Box Testing

The system's functional feasibility was rigorously evaluated using the Black Box Testing method. Test scenarios focused on verifying input and output functionality across all system interface components. A summary of the test results is presented in Table 3.

Comprehensive testing demonstrates that the fully integrated program successfully accepts data input, accurately processes it via database queries, and generates consistent information output without any functional errors.

### 5. Conclusion

Based on the entire process—ranging from analysis, design, and implementation to the testing phase—of the wedding organizer information system for Dekorqu Wedding Organizer, the following conclusions are drawn, et: 1) This research successfully developed a web-based wedding organizer booking information system utilizing PHP, a MySQL relational database, and the Apache web server. 2) The developed system has proven reliable in automatically processing all operational administrative data—including booking details, customer profiles, user authorization, and package/product classifications—as well as automating the generation of wedding package booking transaction reports. 3) The implementation of this system successfully transformed Dekorqu Wedding Organizer's conventional business model into a digital one, enabling customers to conveniently book wedding packages without visiting the office, while simultaneously enhancing the efficiency and accuracy of the company's financial reporting.

Although the system is functioning well, there are certain limitations that could be addressed in future research, et: 1) Periodic Content Updates: Administrators at Dekorqu Wedding Organizer are advised to update the website content regularly—reflecting evolving decoration trends and market prices—to ensure consumers always have access to up-to-date information. 2) Administrator Training: Periodic, specialized technical training is required for the administrators managing the system to ensure the integrity and security of daily operational data are consistently maintained. 3) Addition of a Testimonial Feature: Future versions of the application could incorporate an interactive testimonial feature to facilitate feedback from past clients, thereby enhancing the credibility of Dekorqu Wedding Organizer's services and building trust among prospective customers.

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