

# Implementation of the RAD Method in Designing a Web-Based Information System for Traditional Clothing as an Icon of the Indonesian Archipelago

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ARTICLE INFORMATION	ABSTRACT
Received : 10 – 01 – 2026 Revised : 18 – 01 – 2026 Published : 22 – 04 – 2026	The Traditional Clothing Information System as an Icon of the Archipelago is designed to help communities throughout Indonesia overcome the obstacles in recognizing and learning about traditional clothing, its historical value and meaning in this digital era. Development is carried out according to the RAD principle, including Requirements Planning, System Design, Development Process and Feedback Collection, and Product Implementation and Completion. Testing using blackbox testing and questionnaires shows that this application is easy to use, effective, and attractive to the community. A web evaluation with 10 respondents was also conducted. The results show that respondents gave a positive assessment of the ease of use and design of the application. Of the 50 answers, 48% of respondents stated "Strongly Agree", 40% "Agree", 12% "Neutral", and 0% for "Disagree" and "Strongly Disagree". The average rating is 4.5 on a scale of 5.
Keywords: Traditional Clothing Information System Website Rapid Application Development	

## I. Introduction

Indonesia is a country rich in cultural and traditional diversity. One form of Indonesia's cultural richness is traditional clothing, which represents the identity and local wisdom of each region. Traditional clothing not only reflects the uniqueness and beauty of each ethnic group but also contains profound historical and philosophical values. However, with the advancement of technology, knowledge and appreciation of traditional clothing tend to decline, especially among the younger generation.

In today's digital era, the internet has become one of the most effective media for disseminating information. The use of information technology, particularly web-based information systems, can be a solution for preserving and introducing traditional clothing as an icon of Indonesian culture to the wider community. Digital media, which has the potential to erode cultural heritage, can be utilized as a tool to continue preserving it. Through web-based information systems, the development of information systems regarding traditional clothing can be presented in an attractive, interactive, and easily accessible manner to anyone, anytime, and anywhere. [1]

Several methods can be used to develop information systems. This research used the Rapid Application Development (RAD) method because of its high level of dynamism and the ability to adapt to time and budget constraints. The process of designing a traditional clothing information system using the RAD method makes it easier for users and the wider community to conduct personal and interactive research. [2] Research related to the creation of information systems using the RAD method includes research conducted by [3] on the creation of a system search application information system, research conducted by [4] on the development of a shop data information system, and research conducted by [5] on the design of a Smartmaps complaint data request information system. For example, this Acehese traditional clothing is called Ulee Balang. [13]

One solution that can be applied is implementing the RAD method. This method is used by researchers to emphasize the completion of small-scale projects, as the RAD modeling feature focuses on the reuse of templates, tools, processes, and code. [6]

Based on the aforementioned problems, researchers will create a web-based information system for traditional clothing as an icon of the archipelago using the RAD method to serve as a reference for recognizing and studying Indonesian traditional clothing. It can also increase pride and love for local culture, and strengthen national identity in the digital era.

## II. Method

This study uses the Rapid Application Development Method because it has a high level of dynamism, able to adjust to time constraints and development budget. The process of designing a traditional clothing information system using the RAD method makes it easy for users and the wider community to conduct research personally and interactively. The website was built using the Visual Studio Code application with the programming languages HTML, CSS, PHP and MySQL as data storage [7]. reducing errors (human error) and making it easier to view sales reports [8]. reducing time inefficiency and reducing errors in processing data [9]. Static Websites, are websites whose content is rarely changed. The programming language used is HTML and does not utilize a database. For example, an organizational profile website, and others [10]. An information system is a collection of interconnected information components that collect or obtain, process, store and distribute information [11].

### 1. Requirements Planning

This stage is the initial stage in system development, where problem identification and data collection are carried out from users or user stakeholders with the aim of identifying the ultimate purpose or goal of the system and the desired information needs. This component is very important for the system as a whole to have high validation and integrity[12].

### 2. System Design

In the system design phase, user involvement is crucial to achieving the objectives. This is where the design process and design improvements are repeated if the design still does not meet the user needs identified in the previous phase. This phase involves developing software specifications, which generally encompass the organization of the system.

### 3. Development Process and Feedback Collection

At this stage, the system design that has been created and agreed upon is transformed into a beta version of the application and eventually the final version. During this stage, programmers must continuously develop and integrate with other components, taking into account user or client feedback.

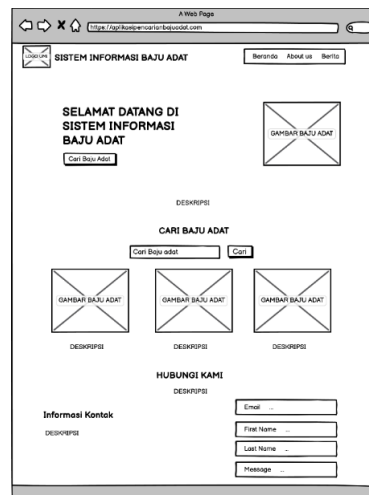
### 4. Product Implementation or Completion

This stage is where the programmer implements the system design approved in the previous stage. Before the system is implemented, the program is tested to detect any errors in the system being developed. This stage typically provides feedback on the system and obtains approval.

Rapid Application Development is an incremental software development process model, particularly for short development times.[14] This stage typically provides feedback on the system and obtains approval.[15]

#### A. User Interface Design

The user interface design below represents the homepage, which provides primary access to the various features and information available within the application or platform. This view presents users with several key options to guide their experience. The main options available on this homepage are.



**Figure 1.** User Interface

1. Home page  
This button directs the user back to the main page of the website or platform, containing the content that has been provided.
2. About us  
This option provides information including a description, the purpose of the owner or manager of the website or platform.
3. News  
This section presents the latest news features related to traditional clothing in Indonesia, such as competitions, championships and exhibitions related to traditional clothing.
4. Contact us  
This section allows users to jump to the section below to contact the website administrator. This section provides various communication methods.
5. Search for Traditional Clothes  
This button will take users directly to the search bar for the traditional clothing they're looking for, by typing in the province or the name of the traditional clothing for each province. Alternatively, users can go directly to this page and select one of the three traditional clothing options to access that specific clothing without having to use the search button provided above.

### III. Results and Discussion

#### A. Research Results

##### User Display Results

- Home Page

This page displays all the links on the website. It also serves as the website's homepage, presenting several key options to guide users. The main options are located in the top right corner, including home, profile, and news. There's also a "search for traditional clothing" button to help users quickly get started exploring traditional clothing. This interface is designed to create a minimalist and accessible learning experience for the community.



**Figure 2.** Home Page

- Information Page

This page displays information related to various explanations and content presented on this website. It also displays several traditional costumes. Clicking on one will take you directly to that particular costume's page.

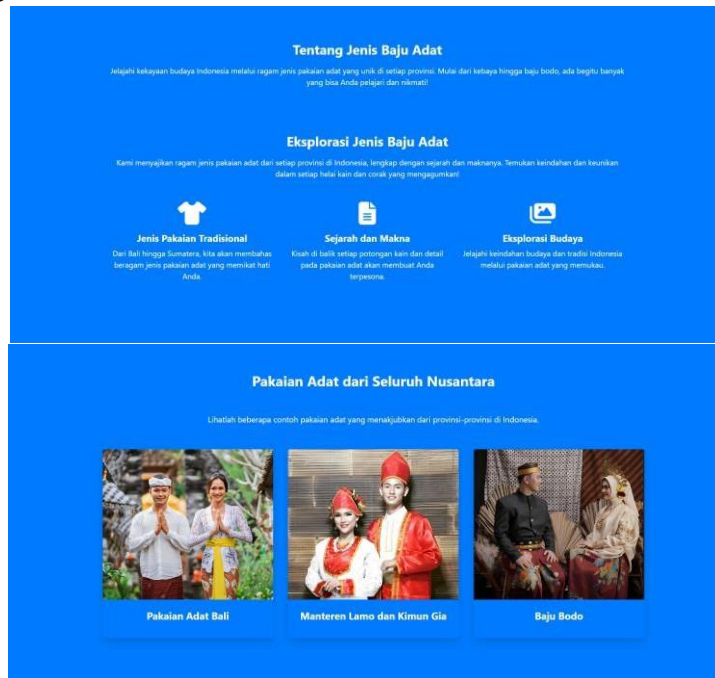


Figure 3. Information Page

- About Us

The "About Us" section of this traditional clothing information system provides information about the website's developer. This information includes their educational background and experience in software development. It also explains the essence and philosophy behind the website's development.



Figure 4. About US

- Search for Traditional Clothes

The website's "Search Traditional Clothing" page invites users to begin an educational journey. People can browse and choose traditional clothing from various regions across Indonesia.



**Figure 5.** Search for Traditional Clothes

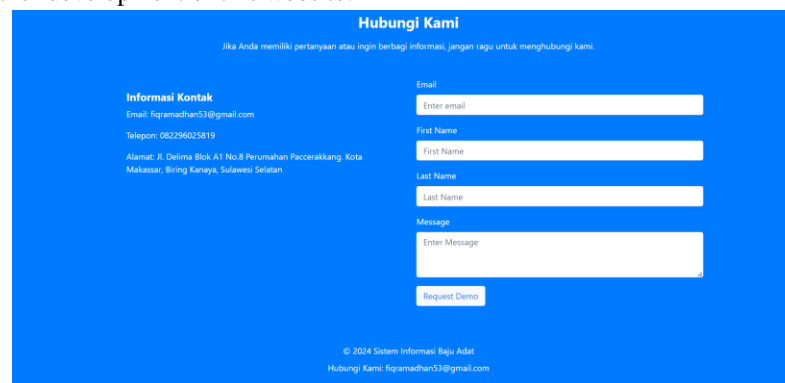
- News

This News page displays news related to traditional clothing, including the latest news and announcements about traditional clothing in Indonesia, including competitions, championships, achievements, and exhibitions. Visitors can simply select the desired news item by clicking "read more."

**Figure 6.** News

- Contact US

This page allows users to contact the website owner or developer if they have questions, complaints, or need further assistance. It also provides an option to facilitate third parties who wish to collaborate on the further development of this website.

**Figure 7.** Contact Us

## B. Discussion

This research has successfully designed a website information system for traditional clothing as an icon of the Indonesian archipelago, implementing the Rapid Application Generation Method, which consists of four stages: Requirements Planning, System Design, Development Process and Feedback Collection, and Implementation or Product Completion. The stages of Rapid Application Development include:

- 1) Requirements Planning

At this stage, the author has re-identified the main problem that is the focus of the research, namely that many people, especially the younger generation, do not understand the meaning and historical value of traditional clothing because education about the importance of traditional clothing in culture and national identity may be less emphasized, in addition to globalization and easy access to foreign cultures through social media and the internet makes people more interested in international fashion trends. This makes traditional clothing look less relevant and not trendy. As a result, some traditional clothing designs may be considered less attractive or less in line with modern fashion tastes and the lack of innovation to promote each traditional clothing in Indonesia tends to be ineffective in popularizing traditional clothing.

- 2) System Design

At this stage, the developer has designed and modeled the website using UML and designed the entire appearance and redesign of the Traditional Clothing Information System website using Figma and Canva. Then, they wrote the code in Visual Studio Code.

3) Development Process and Feedback Collection


At this stage, the developer has designed and modeled the website based on the previously developed system design. Next, the developer tested the Traditional Clothing Information System website using unit testing with a blackbox testing approach.

4) Product Implementation and Completion


At this stage, a trial run using the blackbox testing method will be conducted first. The testing process is carried out to determine whether the entered data meets the user's expectations. Based on the test plan, the following tests can be performed:

a. Blackbox

1. Home Page


Normal Trial	
Input Data	Accessing the Traditional Clothing Information System
Target	Display the Home page
Observation result	Results as expected
Conclusion	In accordance
Figure	

2. Search for Traditional Clothes


Normal Trials	
Input Data	Clicking the Search Button for Traditional Clothes
Target	Displaying the Traditional Clothing Selection Page
Observation result	Results as expected
Conclusion	In accordance
Figure	

3. Looking for Traditional Clothes in the Original Choice

Normal Trial	
Input Data	Clicking the South Sulawesi Selection Button
Target	Showcasing the Traditional Clothing Features of South Sulawesi

Observation result	Results as expected
Conclusion	In accordance
Figure	

#### 4. Looking for Traditional Clothes

Normal Trial	
Input Data	Click the button and type the province or name of the traditional dress in the search
Target	Displaying the Traditional Clothes Display Feature you are looking for
Observation result	Results as expected
Conclusion	In accordance
Figure	

#### b. Blackbox (Beta)

In addition to black box testing, researchers also conducted testing by distributing respondent questionnaires about the use of this website, the process of calculating the results of the questionnaire is attached, a summary of the calculation results can be seen in the following table:

**Table 1.** Summary of Questionnaire Results

No.	Question	Evaluation					IS	Criteria
		SD	D	N	A	SA		
1	Do you agree that the overall traditional clothing information system website is interesting?	0	0	0	5	5	4.5	Strongly Disagree
2	Do you agree that the menu layout for the traditional clothing information system is easy to see and understand?	0	0	0	10	0	4.0	Agree
3	Apakah anda setuju penggunaan warna, font, dan background pada aplikasi sudah sesuai?	0	0	0	10	0	4.0	Agree
4	Apakah fitur cari baju adat dalam button pencarian sudah berjalan dengan benar?	0	0	0	0	10	5.0	Strongly Agree
	Apakah anda setuju website	0	0	0	2	8	4.8	Strongly

No.	Question	Evaluation					IS	Criteria
		SD	D	N	A	SA		
5	sistem informasi baju adat memberikan kemudahan dalam proses pengenalan baju adat sebagai ikon nusantara di Indonesia?							Agree

Description:

SD: Strongly Disagree

D: Disagree

N: Neutral

A: Agree

SA: Strongly Agree

IS: Interpretation Score

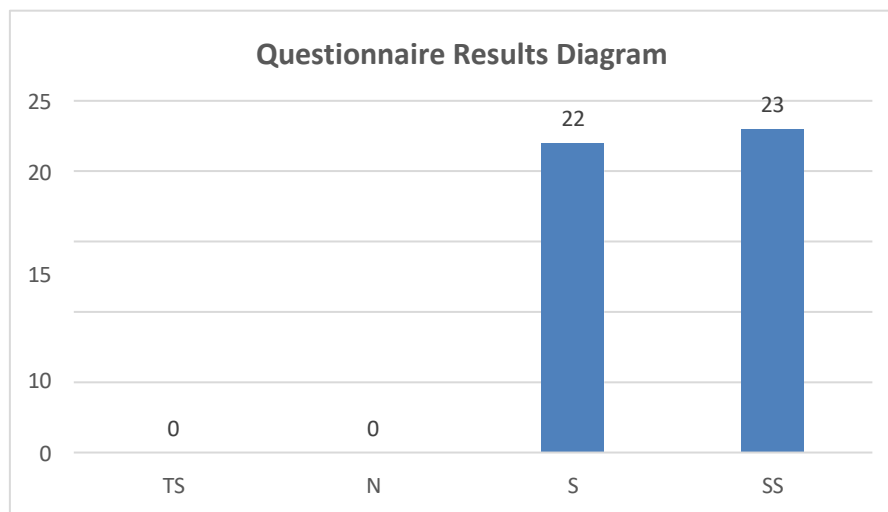


Figure 8. Questionnaire Results Diagram

**IV. Conclusion**

Based on the results of this research, a website for the information system of traditional clothing, a symbol of the Indonesian archipelago, has been successfully designed for the public, using the Rapid Application Development (RAD) model. This website demonstrates the author's commitment to preserving one of Indonesia's cultural traditions from the threats to its sustainability caused by rapid modernization and globalization. Many young people lack familiarity with and appreciation for traditional clothing due to the influence of foreign cultures and changing lifestyles. By utilizing the website, information about the history, meaning, and beauty of traditional clothing can be effectively documented and disseminated, thereby reaching a wider and more diverse audience. This website has been implemented in the community, and it is hoped that the Traditional Clothing Information System website will help increase public interest and understanding, especially among young people, of one of Indonesia's cultural traditions: traditional clothing.

Based on the results of this testing, there are still many shortcomings. Future developers are expected to add interactive, more varied, and engaging features, such as traditional clothing trivia, interactive quizzes about traditional clothing, and perhaps a traditional clothing buying and selling feature. Enriching the website content to adapt the traditional clothing information system with the latest content will provide a more personalized and interactive experience for the public.

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