



# Design and Construction of a Web-Based Tourism Information System at Pamela Fantasy in Kubu Raya Regency

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## ABSTRACT

This study aims to design and build a web-based tourism information system at Pamela Fantasy in Kubu Raya Regency. With the development of information technology, the need for fast and accurate access to information is very important, especially in the tourism sector. Pamela Fantasy, as one of the tourist destinations in Kubu Raya, requires an effective information system to improve promotion and service to tourists. The research methods used include needs analysis, system design, implementation, and testing. The needs analysis stage is carried out through interviews and questionnaires to Pamela Fantasy managers and visitors to identify the features needed in the system. The system design is carried out using the Unified Modeling Language (UML) approach to describe the workflow and structure of the system. Implementation is carried out using the PHP programming language and the Laravel framework, as well as the MySQL database for data storage. System testing involves functionality testing and user testing to ensure the system runs as expected. The results of this study are a web-based tourism information system that makes it easier for managers to manage information related to tourist destinations, as well as making it easier for tourists to access information about Pamela Fantasy. This system is expected to increase the effectiveness of promotion and service quality, as well as provide a better experience for visitors.

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## 1. INTRODUCTION

The tourism industry in Indonesia has proliferated in recent decades, becoming one of the significant economic sectors and contributing substantially to the country's GDP (Doe and Smith, 2020). The government's strategic initiatives and investments in infrastructure, combined with the country's rich cultural heritage and diverse natural landscapes, have propelled the tourism sector forward. Various regions across Indonesia have witnessed a surge in both domestic and international tourist arrivals, highlighting the nation's increasing global appeal as a travel destination.

One such region, Kubu Raya Regency, located in the province of West Kalimantan, exemplifies this growth with its remarkable tourism potential. The area boasts a variety of natural, cultural, and man-made tourist destinations that attract visitors seeking unique experiences (Abdul and Rosa, 2021). The pristine beaches, lush forests, and vibrant local traditions provide captivating attractions. Moreover, Kubu Raya Regency is home to emerging destinations like Pamela Fantasy, a recreation park that has started gaining recognition. This park offers a wide range of rides and attractions designed to cater to families and adventure seekers, enhancing the region's appeal as a tourism hotspot. The development of such destinations not only diversifies the tourism offerings but also stimulates local economies and fosters community development.

Pamela Fantasy is one of the leading tourist attractions in Kubu Raya Regency, and it has great potential to attract both local and foreign tourists. The park features a variety of attractions, including amusement rides, cultural performances, and themed areas that cater to visitors of all ages. Its strategic location and unique offerings make it a compelling destination for those looking to explore the diverse experiences that West Kalimantan has to offer. The potential for growth and increased visitor numbers is substantial, especially with the rising interest in regional tourism and the desire for new recreational spaces.

However, like many other tourist destinations, Pamela Fantasy faces significant challenges regarding effective promotion and information delivery to potential visitors. Despite its attractions, the park struggles with visibility and outreach. The information available to the public is often limited and poorly organized, making it difficult for visitors to obtain comprehensive and accurate details about the facilities, rides, ticket prices, and upcoming events. This lack of clear communication can deter potential tourists who rely on detailed information to plan their visits. Additionally, inadequate promotional efforts mean that many potential visitors, especially those from outside the region or country, may remain unaware of the park's existence and offerings.

Improving the promotion and information dissemination for Pamela Fantasy involves leveraging modern marketing strategies, such as social media campaigns, partnerships with travel agencies, and creating an informative, user-friendly website. Enhanced promotional efforts would ensure that accurate and engaging information reaches a wider audience, ultimately increasing visitor numbers and supporting the local economy. By addressing these challenges, Pamela Fantasy can fully realize its potential as a premier tourist destination in

Kubu Raya Regency, contributing to the overall growth and sustainability of the tourism industry in the region.

Hernández, L., et al. (2023) to overcome this problem, an integrated tourism information system that is easily accessible to the public is needed. Murugesan, S. (2002), developing a web-based information system is the right solution, considering the increasingly widespread internet access and its increasing use among the public. With a web-based tourism information system, Pamela Fantasy managers can provide complete, up-to-date, and easily accessible information anytime and anywhere.

The design of this web-based tourism information system aims to provide convenience for visitors in obtaining information related to Pamela Fantasy. In addition, this system is also expected to help managers manage tourism data, conduct promotions, and communicate with visitors more effectively. Thus, this system improves the visitor experience and supports the management and development of Pamela Fantasy as a leading tourist destination in Kubu Raya Regency. With an effective web-based tourism information system, Pamela Fantasy can increase its appeal as a tourist destination, attract more visitors, and contribute to local economic growth.

## 2. LITERATURE REVIEW

### 2.1. Design

According to Pressman (2010), design is one of the most important aspects of a program. The design aims to provide a clear and complete picture to the programmers and engineers involved. The design must be useful and easy to understand so that it is easy to use. According to Pressman (2010), the definition of development or building a system is the activity of creating a new system or replacing or repairing an existing system as a whole.

It can be concluded that Design is a depiction, planning, and making of sketches or arrangements of several separate elements into a whole and functioning unit. Thus, the definition of design is translating the results of the analysis into a software package and then creating or improving the existing system.

### 2.2. Information System

According to Edhy Sutanta (Heriyanto, 2018), an information system is a collection of interconnected subsystems, gathered together and forming a single unit, integrating and cooperating with each other in certain ways to perform data processing functions, receiving input in the form of data, then processing it (processing), and producing output in the form of information as a basis for making useful decisions and having a real value that can be felt both at that time and in the future, supporting operational, managerial, and strategic activities of the organization, and utilizing various existing resources available for these functions in order to achieve goals.

### 2.3. Tourist

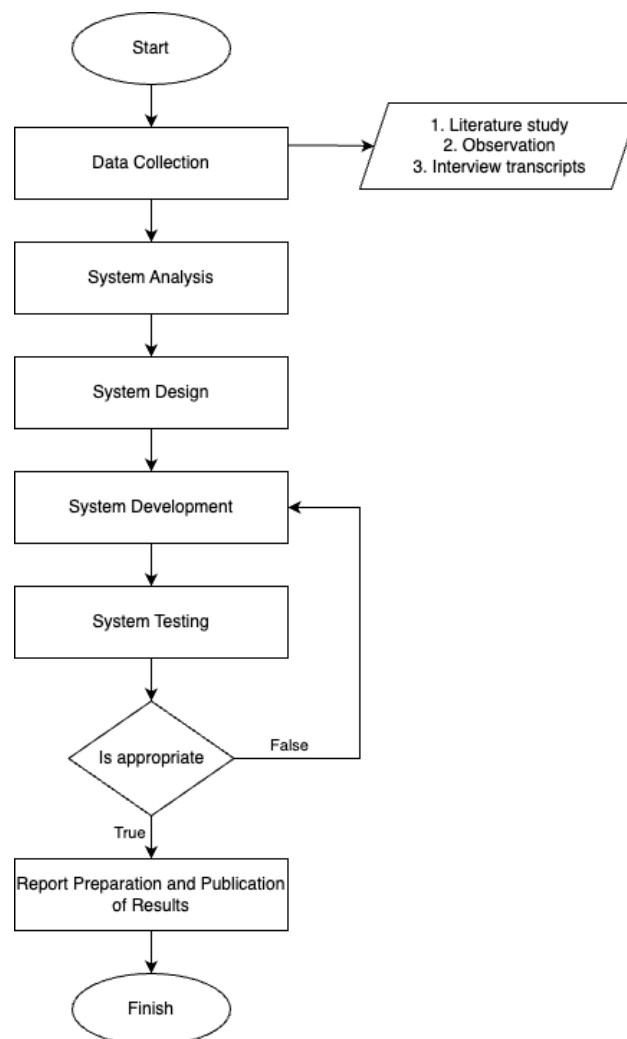
According to [Muljadi \(2012: 7\)](#), Tourism is an activity of changing a person's temporary residence outside of their daily residence for any reason other than doing activities that can generate wages or salaries. In addition, tourism is an activity, service, and product of the tourism industry that creates a travel experience for tourists.

According to Chalik in [Suwena and Widyatmaja \(2010: 14-15\)](#), Tourism is a journey that is done repeatedly or around. According to [Koen Meyers \(2009\)](#), Tourism is a travel activity that is done temporarily from the original place of residence to the destination area for reasons not to settle or earn a living but only to satisfy curiosity, spend free time or holidays, and other purposes.

Based on the experts' descriptions above, it can be concluded that tourism is a journey undertaken by a person or group of people to visit a particular place for recreation, self-development, and learning something with a specific attraction.

### 3. RESEARCH METHOD

In this research method, a diagram is described in Figure 1 as follows:



**Figure 1.** Application system flow

### 3.1. Data Collection

Herlambang and Yulianto (2020); and Sugiyono (2018), this stage is the collection of data needed to develop the system, which will be carried out in three ways. The first stage is literature study, which involves studying books, journals, and references that are in accordance with the research to be carried out. Observation and interviews are needed to collect data to create the system.

### 3.2. Analysis System

At this stage, identification of the current system's problems is carried out, and it is hoped that a study will find obstacles and issues currently occurring in the tourism office and find a way out of each existing problem (Zarubina and Demchuk, 2022).

### 3.3. System Planning

Kendall and Kendall (2014) after the system analysis process is complete, the system design stage is carried out, which aims to facilitate performance and provide an overview of the appropriate mechanism for designing a tourism information system in Sukabumi Regency. which aims to provide solutions and problem-solving by creating a standard and concrete system design to provide more accurate information.

### 3.4. System Development

Satzinger and Burd (2016) In designing this system, the SDLC (System Development Life Circle) approach will be used, which consists of Needs Analysis, where the software to be created and designed includes input analysis, process analysis, and needs analysis design, at this stage, software design is carried out which is intended to provide an overview in the form of a UML design that has been explained in the system design process to help explain the needs and architecture of the software completely, and Programming, This stage is the coding process or software creation, using the PHP programming language with the Codeigniter framework and MySQL database.

### 3.5. System Testing

In this system, testing is the concluding phase of the process stages outlined above, utilizing Blackbox Testing as the primary method. Blackbox Testing focuses on examining the software's functionality without delving into its internal structures or workings. The objective is to determine whether the software created aligns with the design requirements and user needs. Testers input various scenarios and data into the system and observe the outputs to ensure that the system behaves as expected. This method is particularly effective for validating that the software meets its specified functionality, performance, and usability criteria.

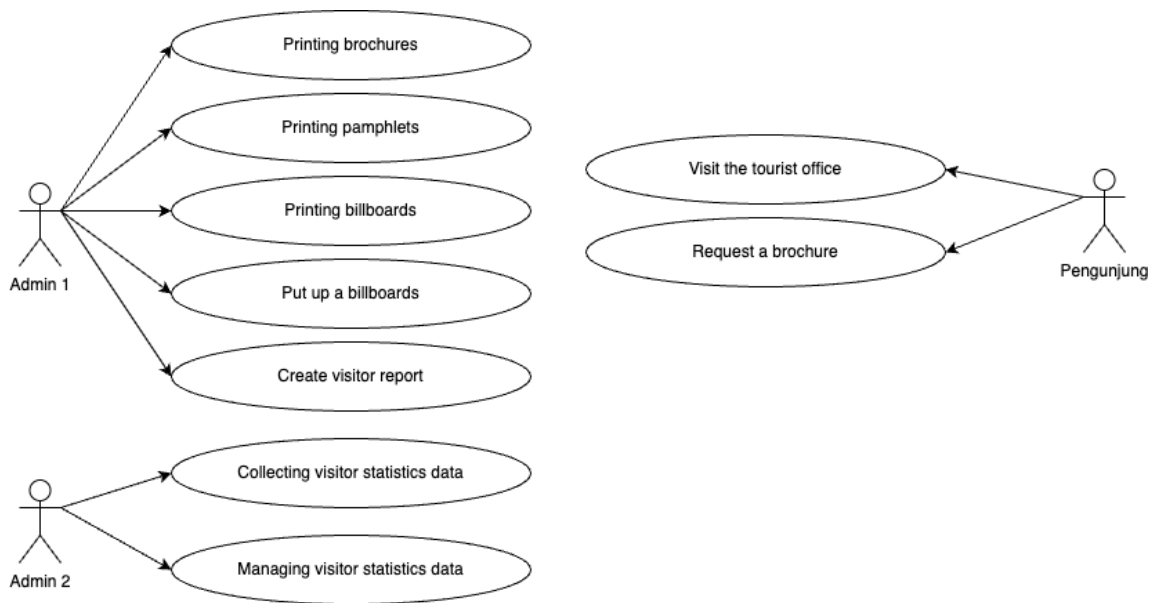
During this phase, various aspects of the software are rigorously tested, including input handling, output accuracy, user interfaces, and overall system behavior. By simulating real-world use cases, testers can identify any discrepancies, bugs, or issues that may not have been

apparent during the earlier stages of development. This process helps ensure the software is robust, reliable, and ready for deployment.

Moreover, Blackbox Testing helps verify that the software is user-friendly and meets the end-users' expectations. It ensures that all features work correctly under various conditions and that the software can gracefully handle different types of inputs. Any deviations from expected outcomes are documented and addressed, leading to iterative improvements and refinements in the software.

#### 4. RESULTS AND DISCUSSION

The following figure 2 is a diagram of the use case of the current system, which still uses conventional methods to provide tourists with tourism information at Pamela Fantasy.



**Figure 2.** Use case system running

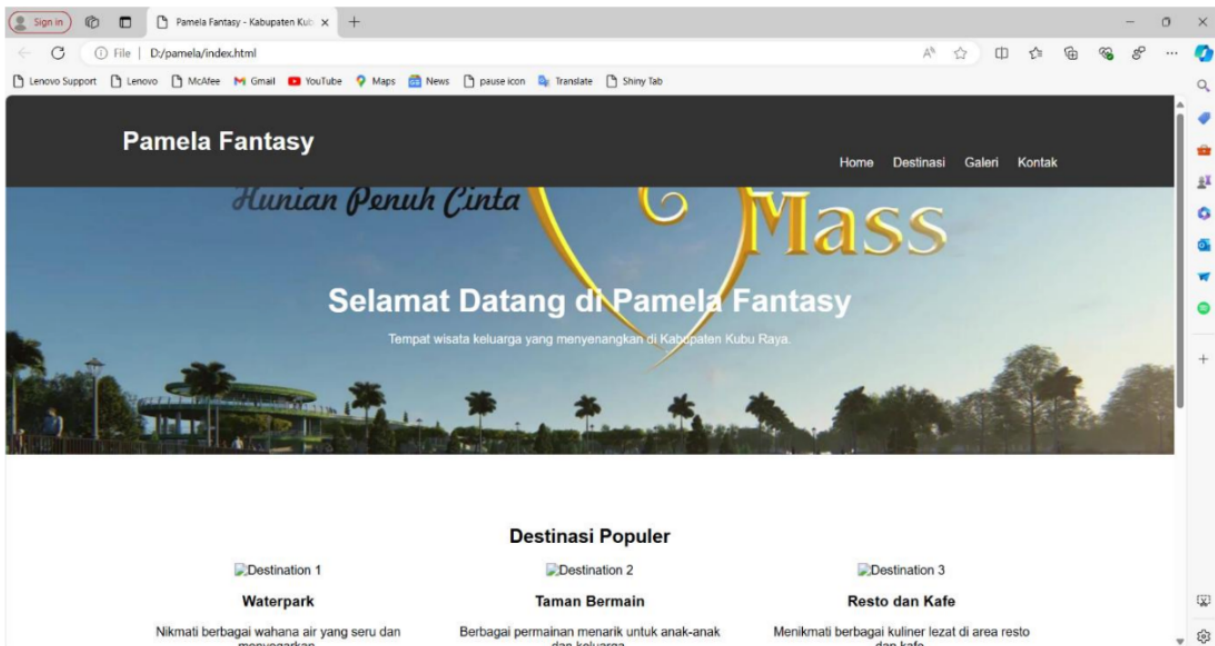


Figure 3. Main view of web page

```
<> index.html > html > head > meta
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8">
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <title>Pamela Fantasy - Kabupaten Kubu Raya</title>
7 <link rel="stylesheet" href="styles.css">
8 </head>
9 <body>
10 <header>
11 <div class="container">
12 <h1>Pamela Fantasy</h1>
13 <nav>
14 <ul>
15 <li><a href="#">Home</a></li>
16 <li><a href="#">Destinasi</a></li>
17 <li><a href="#">Galeri</a></li>
18 <li><a href="#">Kontak</a></li>
19 </ul>
20 </nav>
21 </div>
22 </header>
23
24 <section class="hero">
25 <div class="container">
26 <h2>Selamat Datang di Pamela Fantasy</h2>
27 <p>Tempat wisata keluarga yang menyenangkan di Kabupaten Kubu Raya.</p>
28 </div>
29 </section>
30
31 <section class="destinations">
32 <div class="container">
33 <h2>Destinasi Populer</h2>
```

Figure 4. Home page HTML coding

```

# styles.css > .hero
1  body {
2    font-family: Arial, sans-serif;
3    margin: 0;
4    padding: 0;
5    box-sizing: border-box;
6  }
7
8
9  .container {
10   width: 80%;
11   margin: 0 auto;
12   padding: 20px;
13   background: url ('bghome.jpg') no-repeat;
14 }
15
16 header {
17   background: #333;
18   color: #ffffff;
19   padding: 20px 0;
20 }
21
22 header h1 {
23   display: inline;
24   margin: 0;
25 }
26
27 header nav ul {
28   list-style: none;
29   float: right;
30   margin: 0;
31   padding: 0;
32 }
33

```

**Figure 5.** Web Main Page CSS Coding

The development of a web-based tourism information system at Pamela Fantasy is a good step in supporting and improving the tourism sector in Kubu Raya, with the increase in the tourism sector will boost regional income and become a source of income for the MSME business sector for the people of Kubu Raya Regency.

Similar research was also conducted. According to [Kwa and Arbil \(2017\)](#), this website can help the Tourism and Creative Economy Office provide tourism information. This website has several features, including a forum or mini chat to exchange information and a registration page for visitors to register as contributors to get access rights to enter information about tourism, forums, and photos.

Research conducted by [Prayudi, et. al \(2018\)](#) stated that the system was designed so that the Dompu Regency Culture and Tourism Office could manage tourism information effectively and efficiently to provide tourists with the latest information about tourist attractions in Dompu Regency.

## 5. CONCLUSION

This study aims to design and build a web-based tourism information system for Pamela Fantasy in Kubu Raya Regency. The study results show that this information system has increased the efficiency and effectiveness of delivering tourism information to visitors. Several main points that can be concluded from this study are as follows:



a. Information Efficiency

The web-based information system allows Pamela Fantasy managers to deliver information more quickly and efficiently than conventional methods. Visitors can easily access information about the location, facilities, ticket prices, and upcoming events.

b. Accessibility

With a web-based system, information about Pamela Fantasy can be accessed anytime, anywhere. This increases the number of potential visitors who can access the information from within and outside the region.

c. Interactive and User-Friendly

This system is designed with an interactive and user-friendly interface, making it easy for users to access and search for the information they need. The responsive design also ensures that the system can be accessed well through various devices, including smartphones and tablets.

d. Promotion and Marketing

This information system also functions as an effective promotional tool for Pamela Fantasy. By displaying complete and interesting information, this system can attract more visitors and increase the number of visits to the tourist attraction.

e. Data Management

This system helps managers manage visitor data, feedback, and other information in a more structured manner. Well-managed data can be used for further analysis to improve services and facilities at Pamela Fantasy.

Overall, this study successfully shows that implementing a web-based tourism information system at Pamela Fantasy in Kubu Raya Regency provides many benefits for managers and visitors. Implementing this system is expected to be a model for developing tourism information systems in other tourist locations.

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