

---

## DESIGN OF A WEB-BASED COMPLAINT INFORMATION SYSTEM IN KERTARAHARJA VILLAGE, KARAWANG DISTRICT

Chess Ponco Subagyo , Nadila Dhea Sisca

*Informatics Engineering Study Program, Informatics Management Specialization, STMIK Pamitran*

---

### Abstract

The purpose of this research is to provide solutions to the village in order to manage community complaint information effectively and efficiently, to process the data, it is possible to need a web application that is arranged systematically, accurately and precisely. This web-based application development method uses the waterfall method, how to collect data using interview techniques, then the results of the respondents are processed into consideration of the author to create an application. The place of this research is in the village of Kertaraharja, Karawang Regency. The results of this study are expected to help village officials process community complaint data more quickly, and process it right away. Then this web-based complaint application can generate monthly reports quickly. Hopefully this application can help village leaders village officials in general to make the right decisions to advance the village as a whole.

**Keywords:** Complaint, Web, information system

---

### Introduction

The age of technology is getting faster these days, so the need for technology is increasingly necessary. village is a legal community unit that has boundaries - boundaries that are authorized to regulate and manage the interests of the local community.

Kertaraharja Village, which is located in the Pedes sub-district of Karawang Regency, services will be improved in the use of technology in the field of community services to maximize service. In Kertaraharja Village, the community complaint service is still manual so that when the community wants to make a complaint to the village it is not fast enough so that the complaint info to the village is not optimal, and also in reporting in complaints still using conventional or using simple applications that are less effective. From the background above, the author makes an information system which can help in community services. The title taken in this study is "**Design of a Web-Based Complaint Information System in Kertaraharja Village, Karawang Regency**".

#### Theoretical Studies

##### A. Complaints

According to the Big Indonesian Dictionary (KBBI) complaints are expressions of displeasure or dissatisfaction with things that are not important but need attention. Meanwhile, a public complaint is an aspiration of the community to play an active role in the form of supervision over

performance of an agency. According to (Wahyu and Widayat, 2013), reports and complaints from the public will be used to evaluate the policies and performance of an agency and to inform problems in the community effectively, quickly, and *up to date and* immediately provide solutions and solutions.

##### B. Web

According to Sibero (2013: 11) "the *web* is a system related to documents used as a medium for displaying text, images, multimedia, and others on the internet network".

A *website* is a series of web pages containing information that are connected to each other and accessed via the internet. In today's digital era, websites have become one of the important elements in human life.

For visitors, *websites* provide easy and quick access to find information, buy products, or gain new experiences. As for business people, websites can improve company branding and facilitate online product sales. Sibero (2013: 19)

### C. Information System

According to Sutabri (2013: 15) Information systems are a combination of information technology and the activities of people who use it to support operations and management. The components of this information system consist of *hardware*, *software*, telecommunications, *databases* and data warehouses, as well as human resources and procedures.

Some components of information systems are:

1. *Hardware*.
2. *Software*.
3. Telecommunication Network.
4. Database.
5. Human Resources.

Information Systems have 3 (three) elements

That is:

1. Receive data as input
2. Processing data by performing calculations, combining data elements, updating estimates and others.
3. Obtaining information as output.

### Research Methods

The research method is prepared as a reference or procedure in conducting research which consists of data collection methods and system development methods. The research methods in this study are as follows:

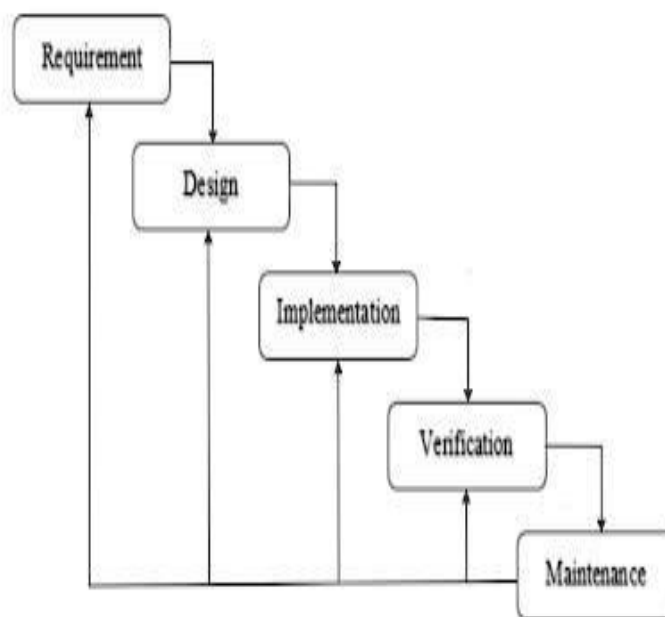
#### a. Data Collection Methods

The data collection methods used in this research are as follows:

1. Literature studies are carried out by collecting materials in the form of books, journals, articles, *e-books* and so on that have relevance to the research being carried out.
2. Observations were made to make direct observations in the village of Kartaraharja, Karawang Regency to find out the conditions and systems that were running at the company.
3. Interviews conducted with question and answer sessions directly with the attendance admin in the village of Kartaraharja, Karawang Regency to find out the existing problems and solutions to be achieved.

#### b. System Development Method

The system development method is used as a reference - reference and procedure for the steps of making *desktop* applications that will be made. The system development method used in this research is the SDLC *waterfall* method. According to Pressman in (Fadli & Sunardi, 2018), the *waterfall method* is a sequential software development process or method in which each process continues to flow down like a waterfall through phases or stages which include planning, modeling, implementation, testing and maintenance. The stages of the *waterfall* method are as follows:



**Figure 1. Flow of the Waterfall Method**

*Source: (Fadli & Sunardi, 2018)*

### c. System Analysis

To support the making of this Hajj and Umrah pilgrim administration information system application, several hardware, software and brainware components are needed.

#### 1. Hardware

Hardware is the physical device that makes up a computer and helps make it work. The hardware or minimum *hardware* specifications required consist of:

1. Using Intel Core i3 Processor or its equivalent.  
Using 4.00 GB RAM.
3. Harddisk or storage media capacity of at least 40 GB.
4. *Mouse, keyboard, printer* and monitor as interface equipment.

#### 2. Software

Software is a system support tool consisting of an operating system and *database* applications. The required *software* specifications consist of:

1. Operating System Windows 7 Ultimate 32 bit version.
2. Programming languages, Web
3. *Database mysql* 2013.
4. Microsoft Word 2013 word processing.
5. *Crystal Reports version 13.0* data report.

#### 3. Brainware

A person who works in a computerized system. The new system requires people to master the computer applications that will run the day-to-day operations.

## F. Functional Design

The functional design used is the UML (*Unified Modeling Language*) method. The design made with the UML method consists of: *use case diagram*, *class diagram*, *activity diagram*, *statechart diagram*, *collaboration diagram* and *deployment diagram*.

## G. UML (*Unified Modeling Language*)

According to Rosa A.S and M. Shalaludin (2015: 137), UML (*Unified Modeling Language*) is a visual language for modeling and communicating a system using diagrams and supporting text. (Noviyanti et al., 2021)

### 1. *Use case diagram*

Use Case Diagram according to Tohari in Tabrani and Aghniya (2019: 46) concludes that, "*use case* is a series or description of a group of interrelated and forming a system in an orderly manner that is carried out or supervised by an actor." (Apriliah et al., 2019)

*Use Case* diagram description can be seen in Figure 1.1.

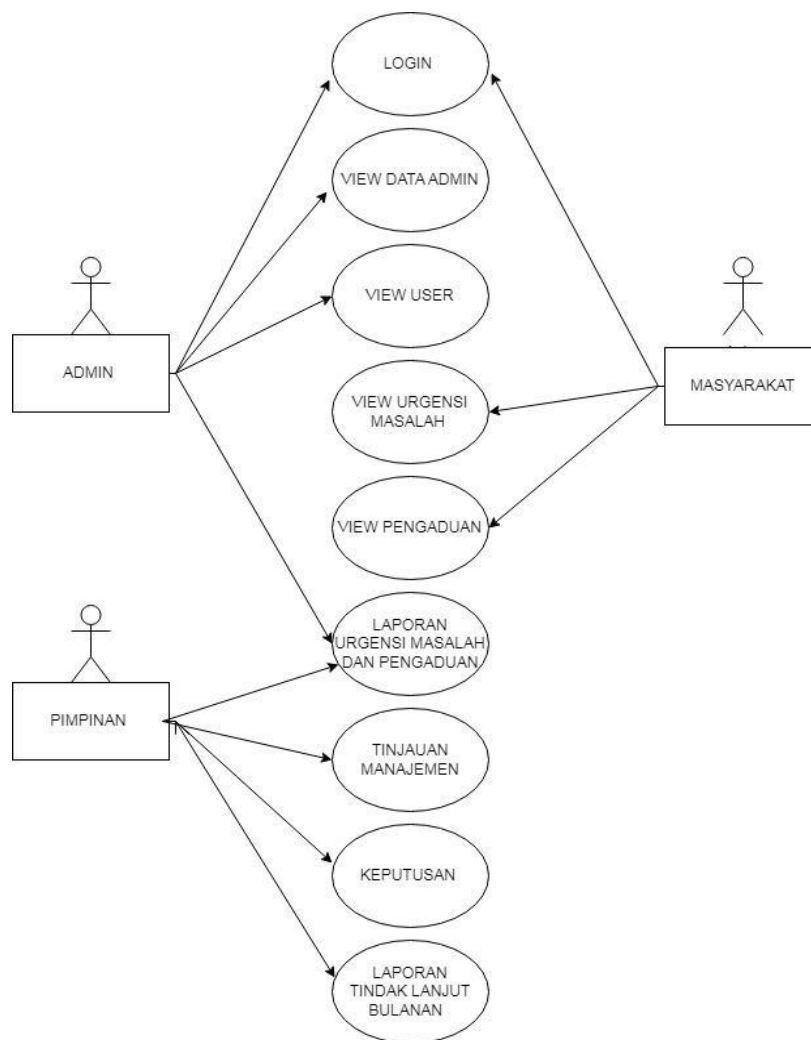


Figure 1.1. *use case diagram* Web-based complaint system.

Source: Author

## Results and Discussion

### System Implementation

#### Login Form Implementation

The following is the login display when run, can be seen in the picture

4.1

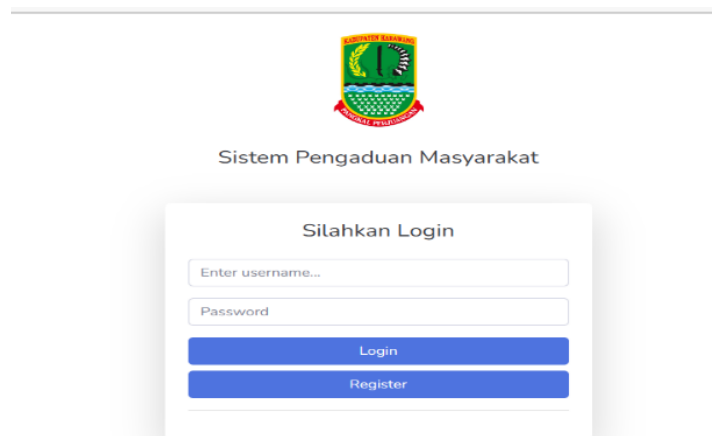


Figure 4.1: Login View  
Source: Author

#### 2. Main Menu Implementation

The following is the main menu display after the user logs in, can be seen in Figure 4.2 below:

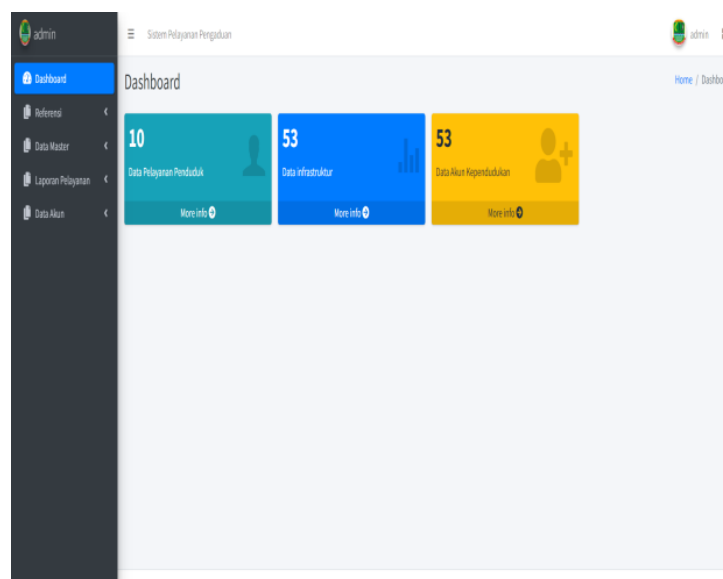
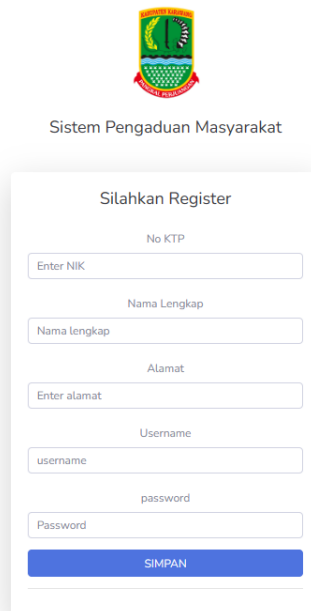


Figure 4.2: Main menu display  
Source: Author

### 3. Register implementation

Here's a look at the register menu to get users and



The image shows a registration form titled "Sistem Pengaduan Masyarakat" with the subtitle "Silahkan Register". The form includes the following fields and elements:

- A "No KTP" label above the "Enter NIK" input field.
- A "Nama Lengkap" label above the "Nama lengkap" input field.
- An "Alamat" label above the "Enter alamat" input field.
- A "Username" label above the "username" input field.
- A "password" label above the "Password" input field.
- A blue "SIMPAN" button at the bottom of the form.

Figure 4.3: Register menu display  
Source: Author

### 4. User Main Menu Implementation

The following is the main menu display after the user logs in, can be seen in Figure 4.4 below

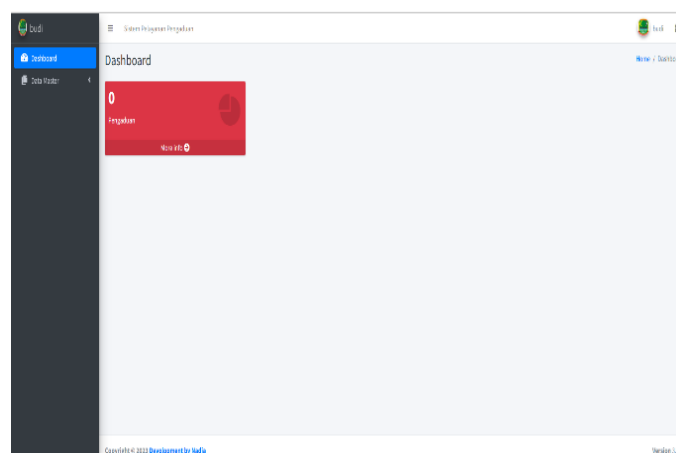


Figure 4.4: User main menu display Source: Author

## 5. Implementation of Complaint Menu

The following is the complaint menu display after the user logs in, can be seen in Figure 4.4

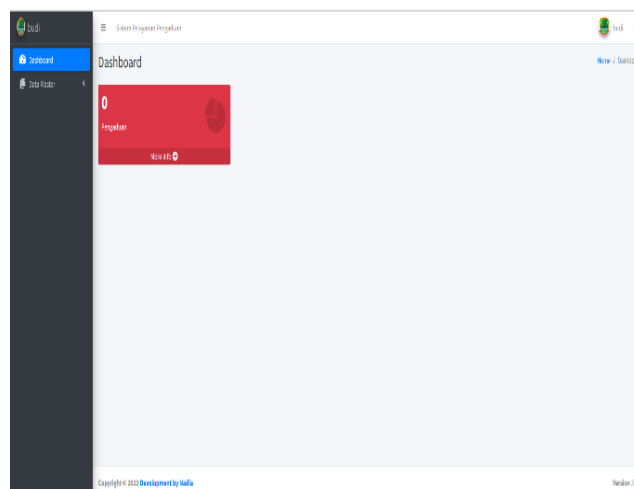


Figure 4.5: Complaint menu display Source: Author

## Conclusions and Suggestions

This web-based complaint system application is expected to help village leaders and village officials in Kartaraharja Village, Karawang Regency to make the right and realtime decisions. And it is hoped that the application can be used in other villages in Karawang district.

## References

- Arifin, N. Y., Kom, S., Kom, M., Tyas, S. S., Sulistiani, H., Kom, M., Alim Hardiansyah, S. T., Kom, M., Suri, G. P., & Kom, M. (2022). Analysis of Information System Design. Cendikia Mulia Mandiri.
- Azis, M. S., & Hakim, L. (2020). Designing Desktop-Based Applications with Microsoft Visual Basic (Case Study: Apprentice Child Attendance Application 1.0). *Responsive Journal: Science and Informatics Research*, 2(1), 44-52.
- Fadli, S., & Sunardi, S. (2018). System Design with *Waterfall* Method at Xyz Pharmacy. *Journal of Informatics Management and Information Systems*, 1(2), 29-35.
- Harumy, T. H. F. (2018). Attendance Information System at Pt. Cospar Sentosa Jaya Using Java Programming Language. *Journal of Engineering and Informatics*, 5(1), 63-70.
- Hendri, A. H., & Sutisna, M. A. (2021). *Article Desktop Based National Police Commission Activities Information System*. *Journal of CoSciTech (Computer Science and Information Technology)*, 2(1), 14-23.
- Huda, B., & Priyatna, B. (2019). Use of Content Management System (CMS) Application for E-commerce Based Business Development. *Systematics*, 1(2), 81-88.
- Talunga, E., Sarjan, M., & Qashlim, A. A. (2021). Employee Attendance Application at the Mamasa Regency Pupr Office. *Journal Peqquruang*, 3(2), 620-626. <https://doi.org/10.35329/jp.v3i2.1983>
- Yauma, A., Fitri, I., & Ningsih, S. (2021). *Learning Management System (LMS) on E-Learning Using Agile and Waterfall Methods based on Website*. *Journal of JTIC (Journal of Information and Communication Technology)*, 5(3), 323-328.