

Design of Web-Based Letter Archiving Application at PT. Pegadaian Office Region I Medan

Siti R Nur Aisyiyah^{*}, Suhardi

Computer Science Study Program, North Sumatra State Islamic University, Medan

ARTICLE INFO

Article history:

Received Dec 30, 2021
Revised Jan 11, 2022
Accepted Jan 25, 2022
Available online Jan 28, 2022

Keywords:

Archives
Website
PHP

ABSTRACT

Letter is a communication to convey written information by one party to another party. At the Medan Regional I Office, physically still using archive folders which are then stored in file cabinets, where this method is less efficient and takes a long time. In an agency or company, mail management is very important in the administrative process. So the researchers made an application design using the Dreamweaver editor and using the PHP programming language, with database processing using MySQL. So it is hoped that the mail management process is carried out properly, quickly and easily. With the E-Letter Archive application, it is hoped that it can reduce the use of a long time in filing letters, as well as reduce paper use, speed up the search for letters.

© 2022 The Author(s). Published by AIRA.

This is an open access article under the CC BY-SA license (<http://creativecommons.org/licenses/by-sa/4.0/>).



Corresponding Author:

Sity Nur Aisyiyah,
Department Computer Science, North Sumatra State Islamic University, Medan,
Email: sitiaisiyah252@gmail.com

1. INTRODUCTION

The development of technology and information is happening faster, and the human need for information is increasing. Information is very important in many human activities. As a result, many documents and media have been created to make it easier for people to find, store, and share information. These documents are known as archives.

Archives are a very important document storage place. Therefore, archives must have a good and safe storage system. At PT. Pegadaian Kanwil I Medan all this time using conventional methods for archiving activities. Document archiving is conventionally done by sorting documents according to the type of letter and the month the letter comes in and out, then the documents are stored in a filing cabinet. Conventional archiving is still possible if the document is small, but the volume will increase over time. Such filing is very inefficient and can cause various problems. Based on the problems above, the researcher wants to design a web-based archiving application system that suits the needs of the office. Using this application can benefit performance and storage during the archiving process.

In this design the researcher uses the PHP programming language, which is an open source web server programming language, which is in the form of scripts related to HTML and is located on the server. For the database, the researcher uses MySQL, which is a database operation, especially for the selection and entry of data that allows data operations to be done easily automatically.

Wishnu, et al (2020) in their research used the waterfall method in designing a web-based system for filing letters at the KONI secretariat of the Bangka Belitung Province.

Hatta, et al (2019) in this design use a coding framework in the design of a web-based mail filing and disposition information system.

Based on the theoretical basis and previous research above, the researcher designed a letter filing application to facilitate the search for letters at PT. Pegadaian Kanwil I Medan using the waterfall and web-based method.

2. RESEARCH METHOD

2.1 Software Development Method

In this study, the software development method is used, namely the waterfall method. The Waterfall method or commonly called the waterfall method, where this method describes a systematic and sequential approach to software development starting with the specification of user needs and then continuing through several more stages. In this study the authors used 5 steps, namely:

- a. Needs Analysis
At this stage, the required data is collected and analyzed. Then, identify the *software* needed and understand the function of the *software* used.
- b. Design
In this stage describes the layout design. The results of this stage describe the basic abstraction of software systems and their relationships. At this stage will form a system architecture based on the requirements that have been set.
- c. Implementation
At this stage, the implementation of the design that has been carried out is carried out. In this study, the author uses the PHP programming language and *MySQL* as the database in making the application.
- d. Testing
After the device is built, testing is carried out to further explore the applications that have been made, to determine the quality of the software being tested. In this stage of testing using the blackbox method.
- e. Support or maintenance (Maintenance)
Programs that have been created are maintained so that they can be used in accordance with the previously designed system. If during the maintenance period it turns out that during the maintenance period it turns out that there is damage or the addition of other features, it will be repaired.

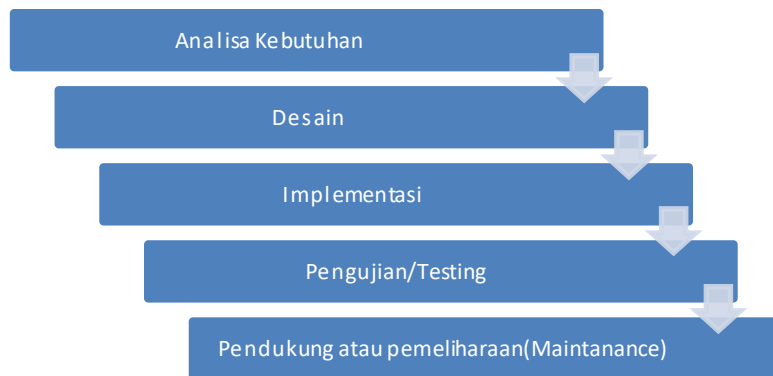


Figure 1 Waterfall Method

2.2 System Design

Use Case diagrams are used to describe the system from the point of view of the system user (user), so that making use case diagrams is more focused on the functionality that exists in this letter filing system as follows:

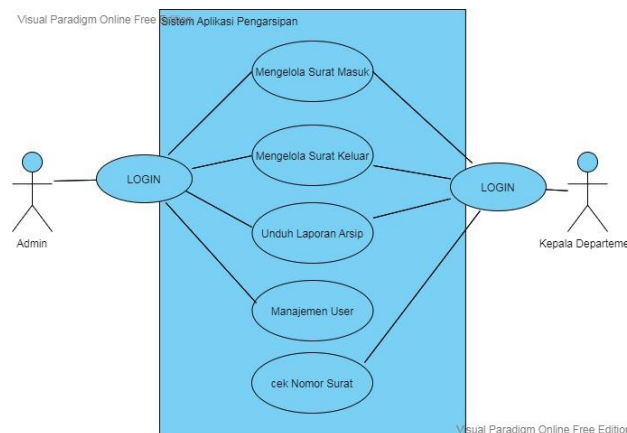


Figure 2 Use Case Diagram

The definition of the actor contained in the use case is, the admin actor has access rights to manage incoming mail, outgoing mail, filing reports and user management. Meanwhile, the Head of Department has access to view incoming and outgoing mail, filing reports. This section consists of several departments located at Kanwil I Medan PT. Pegadaian.

3. RESULTS AND DISCUSSION

After conducting data analysis and research, this study aims to produce a document archiving information that can assist in processing archival documents at PT. Pegadaian Regional Office I Medan. This system is designed to replace the document archiving system which initially still uses conventional methods.

a. Admin Login Form Display

The login page contains the username and password that have been created. This login page is an application access process by entering a user account and password in order to gain access in order to use this application.

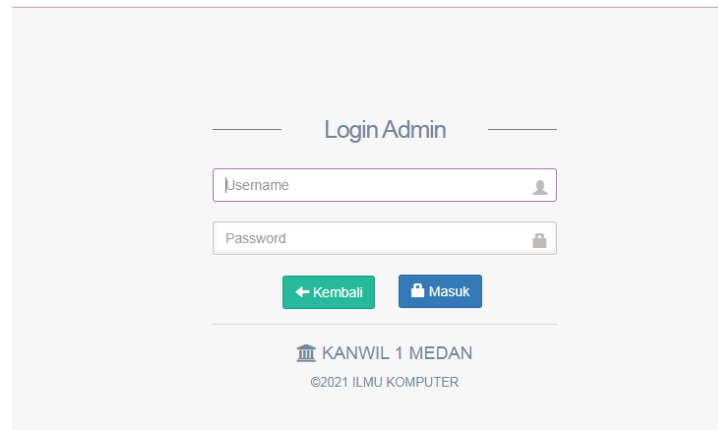


Figure 3 Admin Login Page

b. Admin Main Page

This main page is the second page after logging in to the application, on this page it displays several menus, namely incoming and outgoing mail, and user management.

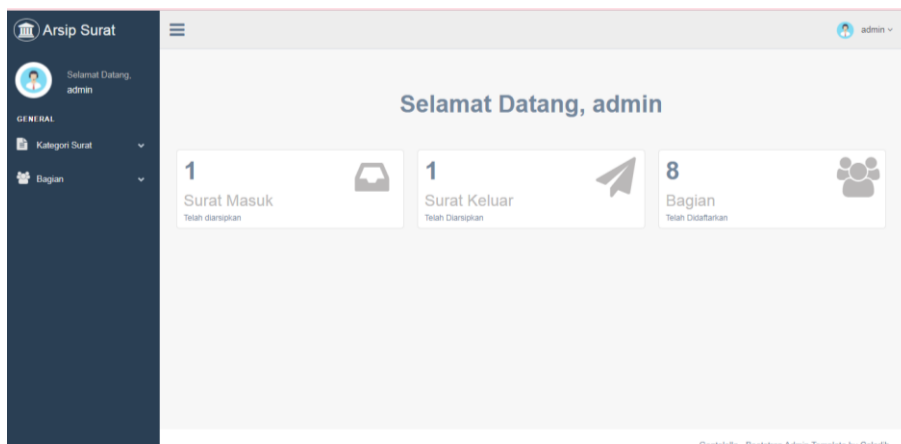


Figure 4 Admin Main Page

c. Incoming Mail Page

On this page, the user can collect letters such as edit letters, delete letters, download mail files, view letter details, and download mail reports.

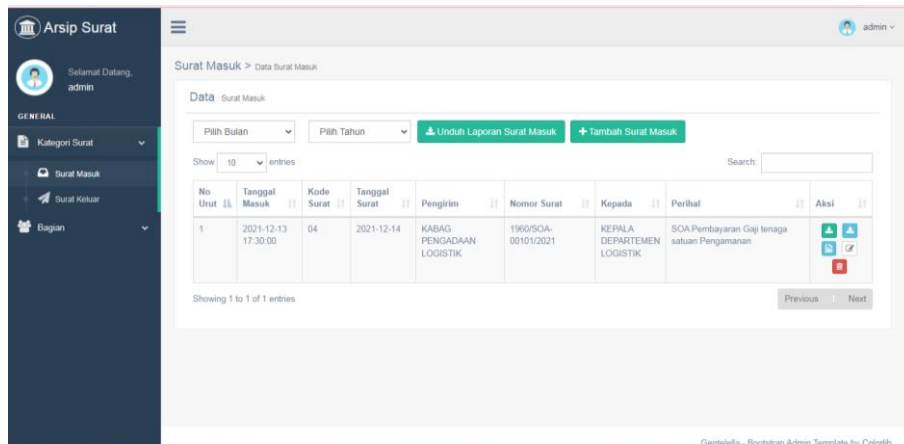


Figure 4 Incoming Mail Page

d. Page Add Incoming mail

On this page the user can input incoming mail to be archived.

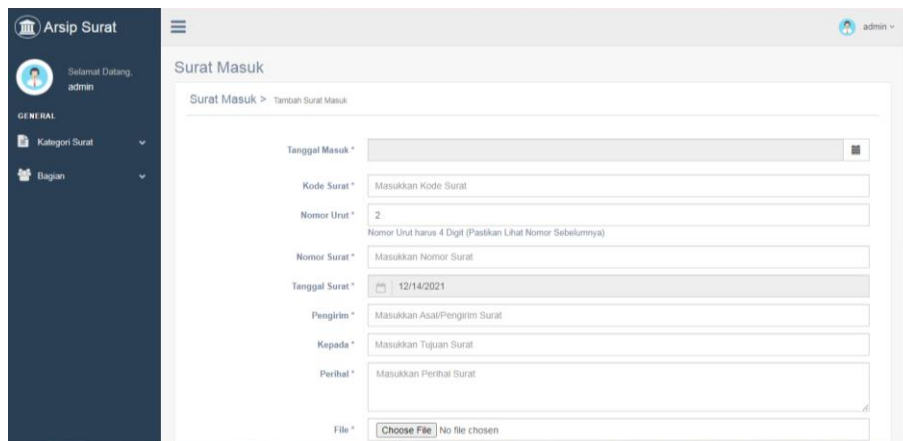


Figure 5 Add Incoming Mail Halaman

e. Outgoing Mail Page

On this page the user can manage outgoing mail that he wants to archive

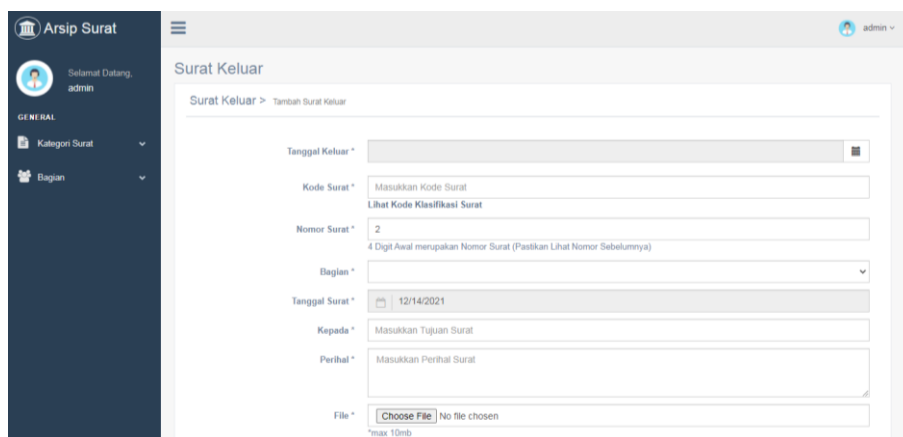


Figure 6 Outgoing Mail Page

f. Section Pages Or User Management

On this page the admin can manage users of this application

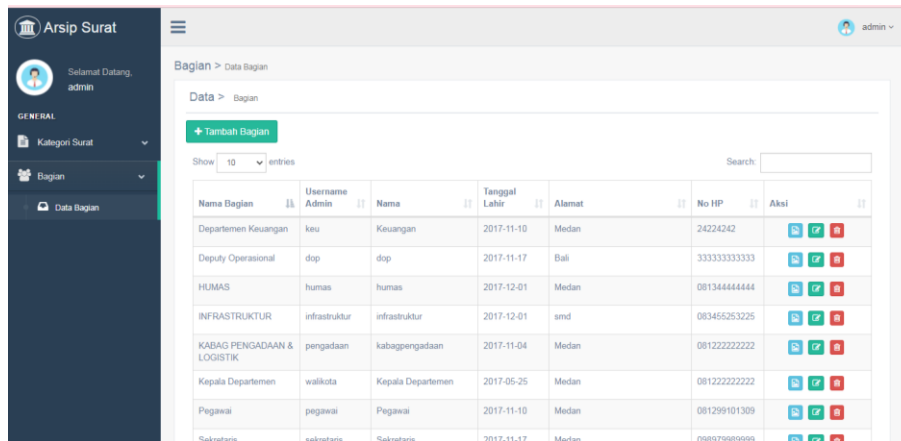


Figure 7 Section Pages

g. Letter Number Page

On this page the user can take a letter number to fill in the letter number code, this page is only found in the actor section



Figure 8 Letter Number pages

h. Head of Department Login Page View

The login page contains the username and password that have been created. This login page is an application access process by entering a user account and password in order to gain access in order to use this application.

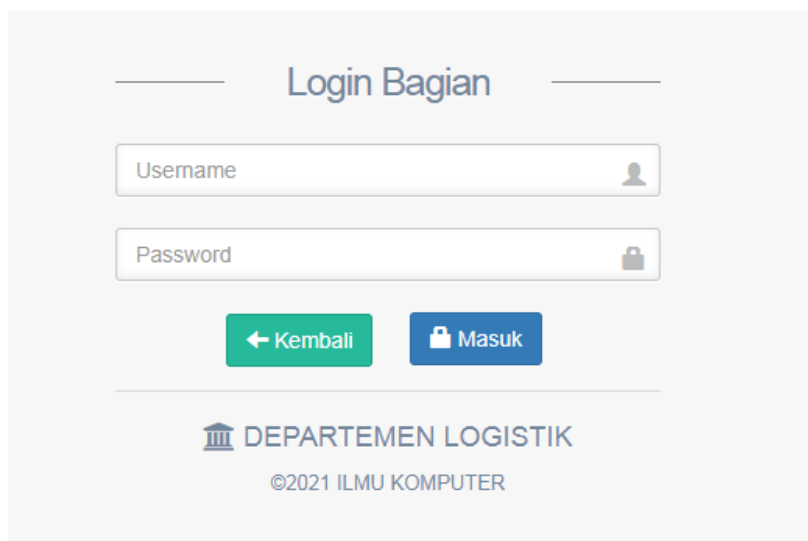


Figure 9 Department Head Login Page

4. CONCLUSION

From the results of the research that has been described in the previous section, it can be concluded that the design of filing applications facilitates archiving. This application can also be used as a digital mail storage area, making it easier to find letters. By using the waterfall method which is passed from several stages, Needs Analysis, Implementation Design, testing stages and maintenance stages. This application uses a dreamweaver text editor with the PHP programming language and a database manager using MySQL. Suggestions for further research is to develop applications by adding several features to improve services, and can be developed into the mobile version and also add features as needed.

REFERENCES

- [1] Hatta, M., Anwar, M., Diana, N. I., & M, H. M. (2019). Designing a Web-Based Mail Filing and Disposition Information System by Using the Codeigniter Framework. *SCAN-Jurnal Teknologi Informasi dan Komunikasi*, 8-12.
- [2] Mahmudah, S., Widiastuti, L., & Ernawati, S. (2019). Management Information System for Incoming and Outgoing Archives (Case Study: Ma Darul Ihya Bogor). *Jurnal Media Informatika Budidarma*, 225-231.
- [3] Probonegoro, W. A., Sari, L. I., Sujono, & Fajrin, N. (2020, 6 2). Design and Build a Web-Based Mail Filing System. *IT CIDA*.
- [4] Rozana, L., & Musfikar, R. (2020). Analysis of the Design of a Web-Based Mail Filing Information System at the Dayah Tuha Village Head Office. *Cyberspace: Jurnal Pendidikan Teknologi Informasi*, 14-20.
- [5] Saifudin, & Setiaji, A. Y. (2019). Web-Based Mail Archive Information System (Sinau) at the Karangsalam Village Office, Baturraden District. *EVOLUSI: Jurnal Sains dan Manajemen*.
- [6] Simanjutak, N. J., Suryadi, S., & Silaen, G. J. (2017). Organizational and Management Section Letter Filing System at the LabuhanBatu Regent's Office Web-Based. *INFORMATIKA*, 26-36.
- [7] Situmorang, C., Sembiring, A. S., & Limbong, R. (2021). Digital Archive Application Design for Searching Incoming and Outgoing Letters with the Aho-Corasick Method at the Health Polytechnic of the Indonesian Ministry of Health. *Pelita Informatics: Information and Informatics*, 389-393.
- [8] Umyanto, A., & Kurniawan, T. B. (2021). WEB-BASED INFORMATION SYSTEM OF INVESTMENT AND OUTCOME LETTER AT THE JAKABARING CAMAT OFFICE USING THE WATERFALL METHOD. *Bina Darma Conference on Computer Science*, 52-59.