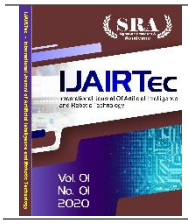

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WEB-BASED E-ARCHIVE DATA INFORMATION SYSTEM FOR TEACHERS AND EDUCATION PERSONNEL UPT SDN 1 TAMBAHREJO BARAT

Helinda Agustina
Departement of Information Systems, Faculty of Technology and Computer Science,
Bakti Nusantara Institute, Lampung
Wisma Rini Street No. 09 Pringsewu Lampung
E-mail : helindagstn@gmail.com

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Abstract
In the world of education, archival documentation is very important to manage. This is because at times it is needed for assessment needs, filing and as school history data. The ease and speed of access is greatly supported by various electronic media facilities such as laptops. Increasingly, the development of technology is that almost all schools in big cities are doing archival documentation digitally. This study discusses plans to build a web that contains all the personal documents of teachers and education staff. This research is entitled Information System E-Archive Data for Teachers & Education Personnel UPT SD Negeri 1 Tambahrejo Barat Web-Based. This Web-Based E-Archive Information System was built to make it easier for users to search for personal data information without carrying files that have piled up.

I. INTRODUCTION

Archives are records of activities or events in various forms and media in accordance with technological and communication developments made and received by an agency, organization, individual or community group.[1]The importance of archives as an important source of information that can support the process of administrative and bureaucratic activities can be used as a means of recording information from all activities of an organization or individual.[2]

It is important for each agency to manage document archives. With the large number of archives being managed, it is necessary to pay close attention to these types of archives, making it easier for managers when searching for archival documents, making it easier for managers when searching for archival documents as needed. According to Ana Pujiastuti (2016) archive types are grouped into 4 types, namely[3]; Archives are a necessity of human life, Archives are the lifeblood of administration, Archives are evidence and source of authentic information, Records of

activities/events. It is important for archive managers to understand the function of each archive according to their needs so that it is necessary to group these records so that problems within an organization can be minimized. The obstacle faced by archive managers in various organizations, including schools, is the limited storage media for these documents[4].

Various methods are used by organizations in managing records by utilizing information technology, some are web-based, some are mobile-based[5]. School as an educational institution is also inseparable from the need for archives. Schools have started implementing digitization for all documents they have because they realize that schools as a duty have to evaluate performance and receive recognition from outsiders, for example through national and international accreditation. Even schools believe that having good archival documentation can be used as accurate data to produce information[6].

For schools, especially at UPT SD Negeri 1 Tambahrejo Barat, the problem of archiving is also still a problem. As a public school, of course, the issue of filing is very important because it will be needed, especially when applying for accreditation because documentation is important evidence that must be owned to strengthen the assessment and become a plus for the school. Currently, almost 90% of schools, especially elementary schools, have utilized Information Technology in managing archival documentation. However, after investigation, UPT SD Negeri 1 Tambahrejo Barat found that there was no E-Archive Information System or had not been made. Therefore the purpose of this research is to build a web-based E-Archive Data Information System for Teachers and Education Personnel to facilitate a filing system for current and future needs.

II. LITERATURE REVIEW

2.1. Research Literature

Previous research is useful for knowing the results of research that has been carried out by previous researchers whether they have met the needs or are still imperfect. Therefore, previous research can be a study for future researchers in making efforts to fulfill the deficiencies that exist in using other methods. The following is a list of previous research with the journal title Inactive Dynamic Records Management in Vocational High School Education Institutions. By Mulyapradana, Aria Anjarini, Ary Dwi Hermanto, Nanang (2021). With the results of implementing a digitalization-based inactive dynamic archive management system to increase work effectiveness. Furthermore, with the title Web-Based Letter Archive Information System (Sinau) at the Karangsalam Village Office, Baturraden District. By Saifuddin, Saifudin, Setiaji, Adi Yudin (2019). The results of the study are that with this website, officers can easily provide information to the village head because the admin, secretary is connected directly to the village head in one application. Furthermore, previous research entitled E-Archives for Muhammadiyah Schools as a Digital Documentation Effort. By Winiarti, Sri, Ahdiani, Ulaya (2021). With the results of the research, namely that in general the implementation of PPM was declared successful very well, it could increase community empowerment Furthermore, previous research entitled E-Archives for Muhammadiyah Schools as a Digital Documentation Effort. By Winiarti, Sri, Ahdiani, Ulaya (2021). With the results of the research, namely that in general the

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2.2. Information System

According to Agus Mulyanto (2009: 12) in his book entitled Information Systems Concepts and Applications: "Information is data that is processed into a form that is more useful and more meaningful to those who receive it, while data is a source of information that describes a real event."[9]

Information systems are systems that are used to perform data processing within the organization by using regular and directed processes that can make decisions that can later be useful to the user.[10].

The information system has several components that can be used as follows:

1) The input component is the data contained in the information system.
2) The model component is a combination of procedures, logic and mathematical models that process the data stored in the database.
3) The output component is the result of stratified information so that it is useful for management organizations.
4) The technology component is all information system processes, from data processing to producing valid data.
5) The database component is a collection of data and information designed in such a way that is stored on a computer so that it is easily accessible to users.
6) The control component is a component that can control the disturbances in the system.

2.3. Website

According to Puspitosari (Wijianto and Anggoro, 2018) defines a website as an information page provided through internal channels so that it can be accessed worldwide, as long as it is connected to the internet network.

Broadly speaking, according to Puspitosari in Susilo and Kesuma (2014) classifies websites into several types, namely:

1) Static Website Static Website is a website that has fixed or unchanged pages. That is, if you want to make changes to a page, you can do it manually by fixing the code on the website.
2) Dynamic Website A website page that is structured is made to be able to make changes to the contents of the website as often as possible.
3) Interactive Website Interactive Website is a website where users can interact and argue about ideas from each user.

2.4. Programming language

The programming languages used in making websites include:

1) Hypertext Preprocessor (PHP) According to the EMS Team (2016:1) Hypertext Preprocessor is a scripting programming language on the server side and is an excellent tool for creating dynamic and interactive web pages.
2) Cascading Style Sheets (CSS)
   According to Rerung (2018: 133), "Cascading Style Sheets (CSS) are used to adjust the appearance of website pages and cannot be separated from HTML, css and html complement each other where HTML is used to create content and website pages".
3) JavaScript
   JavaScript started around 1994, in 1995, Brendan Eich started to develop a script programming language called Mocha. The Mocha language is intended for the client side as well as the server side.
   According to Suryana & Koesharyatin (2014: 181) explained that JavaScript is an object-based scripting language that allows users to control many aspects of user interaction in HTML documents. All of these objects have properties associated with them.

2.5. Database

Is a data storage media so that access can be done easily and quickly. Its main function is to maintain data that has been processed.

1) My Structured Query Language (MySQL)
   According to Nugroho in Mulyanto & Khasanah (2018) "My Structure Query (MySQL) is an application for creating and managing databases or Database Management Systems (DBMS)".
2) phpMyAdmin
   According to Standysah and Restu (2015: 3) PhpMyAdmin is open source software that is used to handle the administration of the MySQL database via a local network or the internet. phpMyAdmin supports various MySQL operations including managing databases, tables, fields, relations, data sorting, users, and permissions.
3) XAMPP
   According to Randi et al (2015: 2) XAMPP is an open source tool, which can run on many operating systems. Its function is as an easy-to-use web server that can serve dynamic stand-alone (localhost) web page views.

III. RESEARCH METHODS

3.1. Method of collecting data

In research and efforts to collect data, this method plays an important role because this data will be needed to meet the data needs that will be needed. The data collection method used in this writing:

A) Observation

It is a data collection technique that does not only measure the attitudes of the respondents[7]. According to Rahardja, U., Harahap E, P., and Anjani, D., (2019). "The observation or observation method is carried out by making direct observations of the process of running a system. The purpose of doing the observation is to describe

the setting being studied, the activities that take place, the people involved in the activity and the meaning of the event seen and their perspectives involved in the observed event.[8]. Data collection on observations made by the author includes manual archives of teacher and education staff documents at UPT SDN 1 Tambahrejo Barat to find out the method of collecting and archiving research data.

B) Interview

Interviews or interviews are a form of data collection techniques that are widely used in descriptive qualitative and quantitative descriptive research. Interviews can be carried out orally in face-to-face meetings individually or in groups

3.2. Waterfall method

According to Rosa and Shalahuddin (2013: 28) "The waterfall model provides a sequential or sequential software life-flow approach starting from analysis, design, coding, testing, and support stages". Here is a picture of the waterfall model:

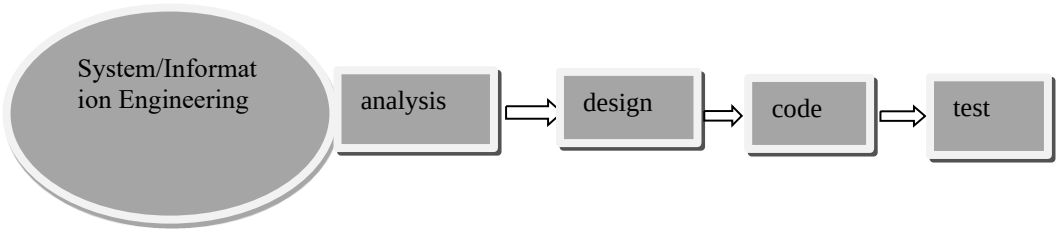

Figure 1. Illustration of the Waterfall Model

Description according to the Waterfall image above as follows:

a. System Planning (Planning) System planning is the initial stage where at this stage the author identifies the system to be used and developed, and determines the goals to be achieved.
b. System Analysis (Analysis) System analysis is the second stage in which problem identification is carried out, problem solving proposals and system requirements analysis are focused on making software. At this stage, the author describes the complete information system into its component parts which aim to identify and evaluate the expected problems and needs.
c. System Design (Design) At this stage, the author describes the design of the system to be built as a guide for making applications. The purpose of making this model is to get a good understanding of data flow and control, functional processes, operating behavior and the information contained therein.
d. Coding At this stage, the author implements the design results into a form that can be read by a computer. the results of the design begin to be translated into machine language through a programming language.
e. System Implementation (Implementation) At this stage the author implements the system that has been planned before.

IV. DISCUSSION

4.1. Design

The design made by this application is useful for making it easier for consumers and customers to order products that are in the UPT SD Negeri 1 Tambahrejo Barat

information. In this design, researchers make use case diagrams and class diagrams aimed at understanding the existing processes in sales and increasing the marketing of processed farm products. The form of the diagram is as follows:

a. Use case diagrams

In the use case process this diagram will provide an overview of the data flow needed and processed from a system that is created. So that it can be described in detail how an admin performs a process that is in the archive. The following is a use case diagram below:

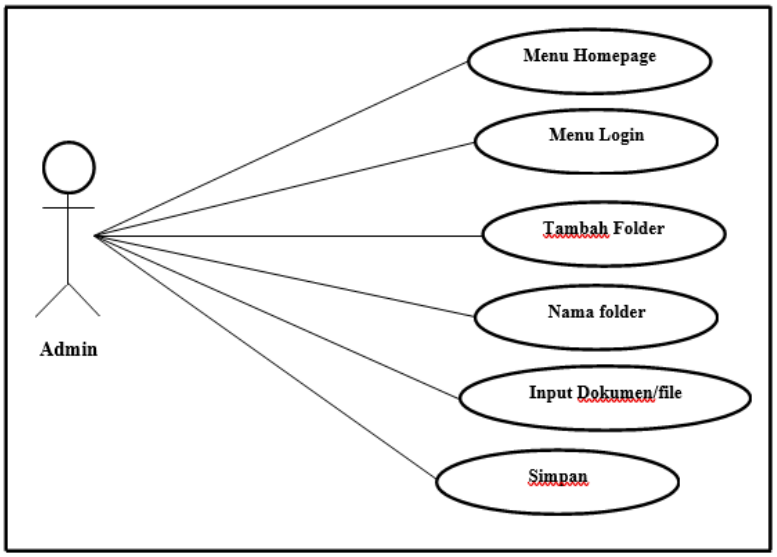

Figure 2. Admin Use Case Diagram

a. Interface Design

1. Login Page

The user login page is the initial display to enter the E-Archive application, by filling in the username and password then clicking login, as shown in the design shown in Figure 2:

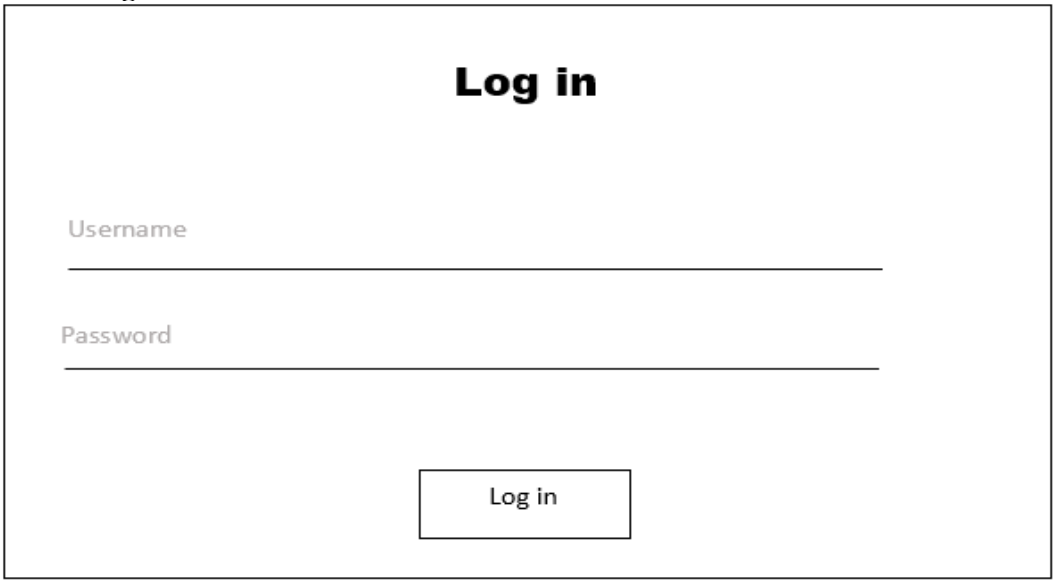

Figure 3. Admin login page design

2. Design Add folder
   The add new folder design is the input design used by the admin to add a new folder in the archive master

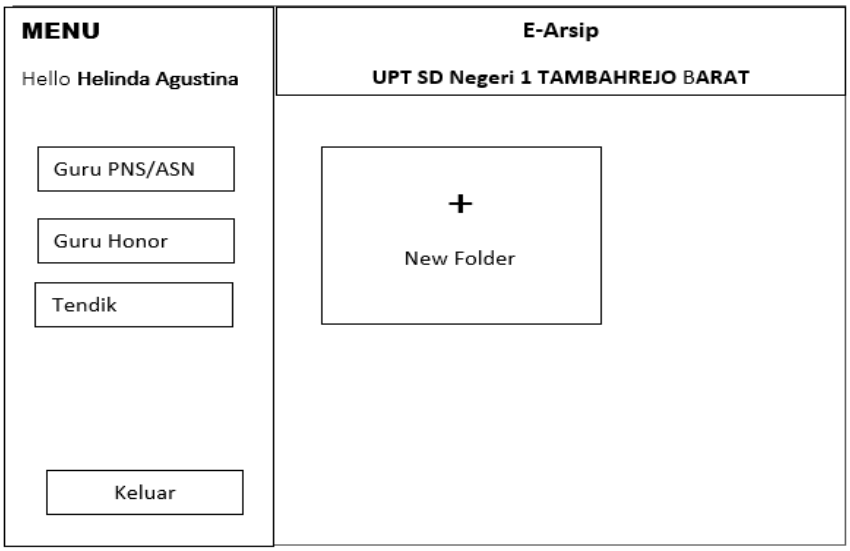

Figure 4. View of the Home Page

3. New Add Folder design
   The new Add Folder design is the input design used by the admin to add a new folder in the archive master

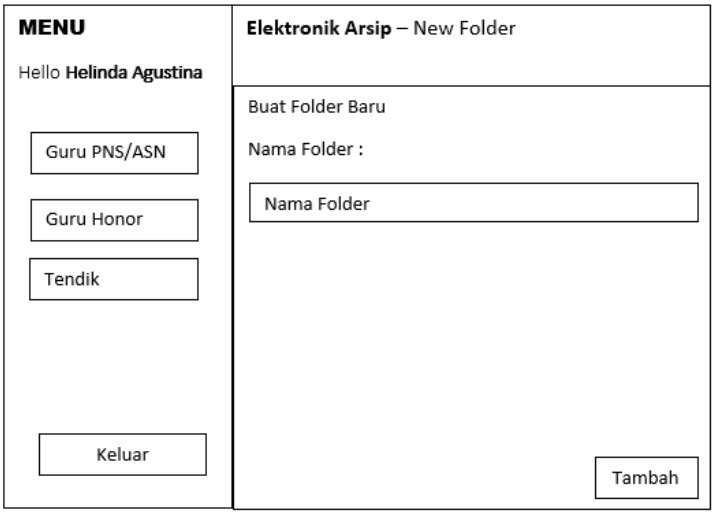

Figure 5. Add Folder Display Design

4. Draft Upload Archive
   The archive upload design is the input design used by the admin to upload files to be archived.

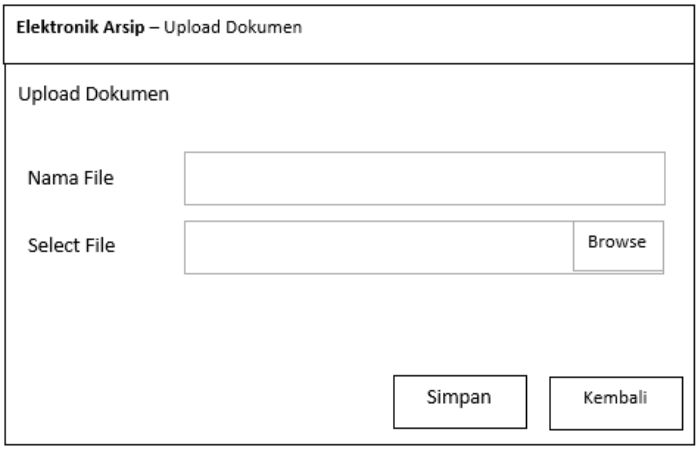

Figure 6. Document Upload Display

5. Designing the Output Dialog
   The output display design is an image design that explains the appearance of the UPT SD Negeri 1 Tambahrejo Barat E-Archive interface system, the design display that was built is devoted to a responsive design so that it can be used on all display layers. This page contains the archive master folder of the homepage design in this application as follows

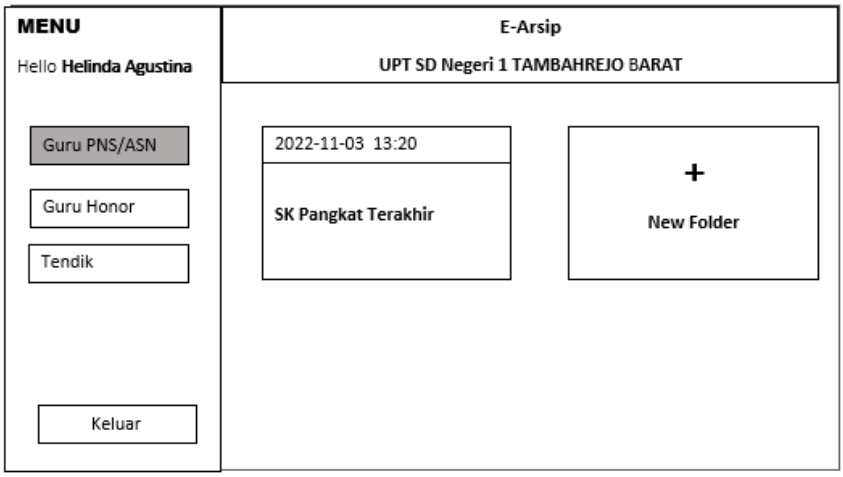

Figure 7. View of the Home Page

4.2. Implementation

After the display design stage is complete, the next process is the process of writing the program by translating the program design that has been made using the programming language codes that have been determined and adapted to the design that has been made. Making software for electronic data archiving at UPT SD Negeri 1 Tambahrejo Barat using the main programming languages used are Html, Css, Php and Javascript which are edited through the sublime text application as an editor application and xampp to run the results of the programs that have been written. Interface Implementation is the management of communication between users and the system,

1. Website Login Page Implementation

The design of the main page of the website is the admin log in menu. In this case the admin will be directed to follow the instructions in accordance with the instructions on the website's main page.

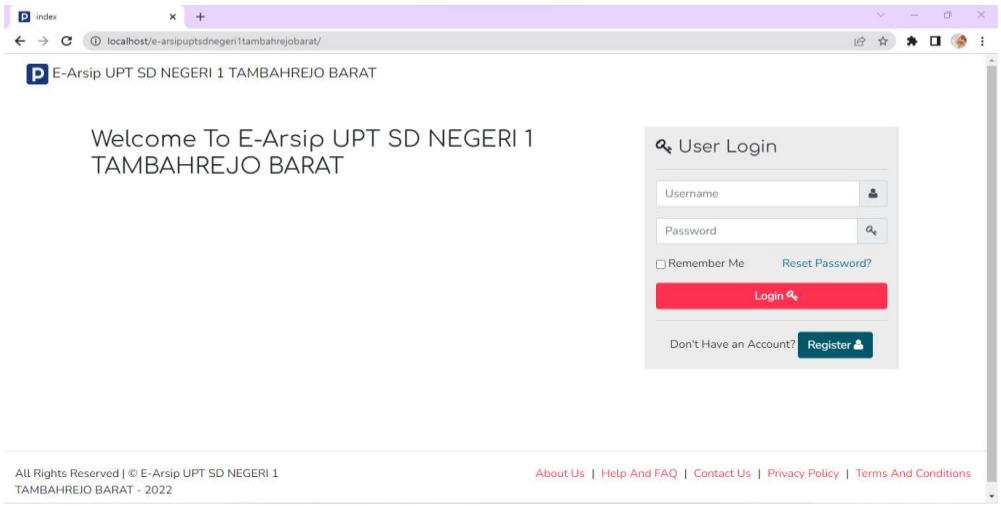

Figure 8. Display of the Main Page of the Website

2. Home Page Implementation

The design on the admin page produces the appearance of the main admin menus which are used to process/manipulate admin data which can be done by simply selecting the required menu as a bridge for data processing on the system

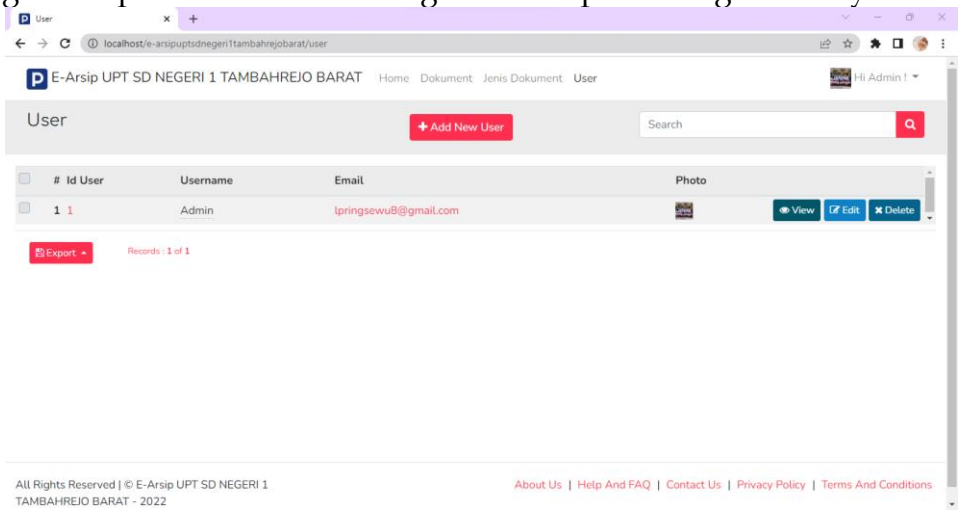

Figure 9. Home page

3. Implementation of Create New Folder Page

The design on the create a new folder page produces a display that is useful for adding a new title to an archive file.

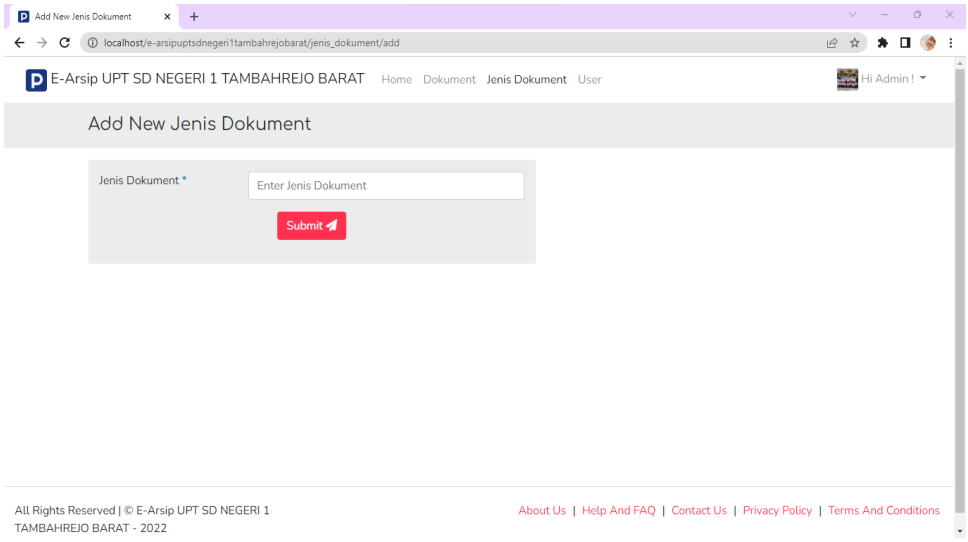

Figure 10. Display Add New Folder

4. Archive Uploads

On the archive upload menu there are tools that will direct the admin/user to carry out the archiving process.

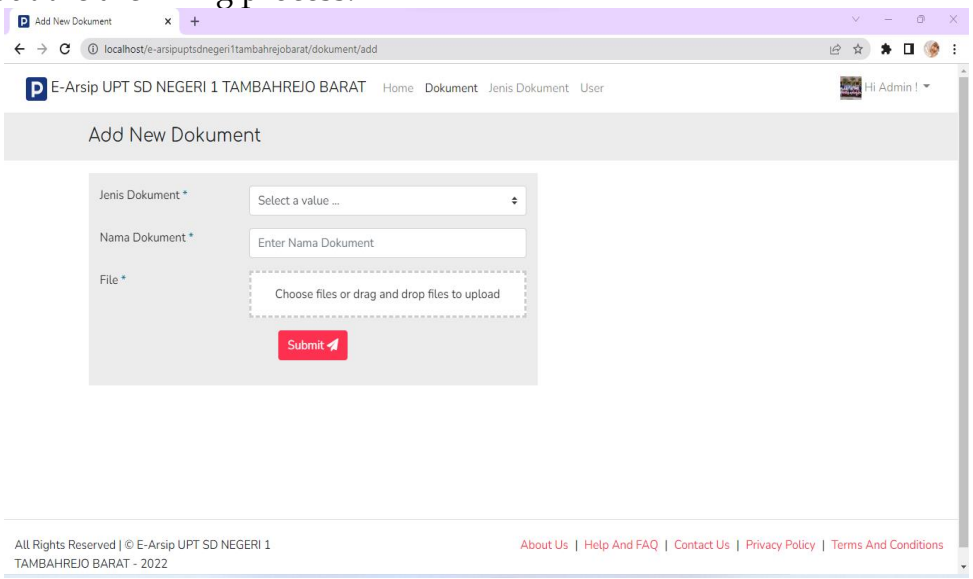

Figure 11. Document Upload page

Based on the research that has been done and the system that has been created for the UPT SD Negeri 1 Tambahrejo Barat E-Archives, there are advantages to this system, namely minimizing loss and damage to documents.

V. CONCLUSION

Based on the discussion, regarding the Web-Based Information System for Teacher Data and Education Personnel UPT SDN 1 Tambahrejo Barat, several conclusions were drawn, including the Web-Based Information System for Teachers and Education Personnel UPT SDN 1 Tambahrejo Barat is an application tasked with managing document archives as a form of development of information technology and computers. This Web-Based Web-Based Teacher and Education Staff Data Information

System Website of UPT SDN 1 Tambahrejo Barat makes it easier for admins in archiving important documents for teachers and education staff. With this website, the admin can easily save documents and get documents if the documents are needed without contacting the person concerned to send the documents.

Based on the conclusions above, suggestions can be submitted in the hope of being useful. As for the suggestion, it is necessary to have an integrated web-based information system so that it can help the work of operators or school admins in the filing process and produce precise, fast and accurate information.

REFERENCES

[1]"REGULATION OF THE NATIONAL ARCHIVES OF THE REPUBLIC OF INDONESIA."

[2 M. Fathurrahman, "The Importance of Archives as a Source of Information," *J. Library Science. and Inf.*, vol. 3, no. 2, pp. 215–225, 2018.

[3]A.Pujiastuti, "Archive Institutions: Collective Archive Management Efforts in Higher Education," *Fihris*, pp. 150–160, 2013.

[4]E.Asrat, S. Achmad, and K. Rafiie, "Implementation of the E-Archive Application System in Correspondence Archiving Activities in the General Section of the West Aceh District Secretariat," no. 2020, 2021.

[5]S.Saifudin and AY Setiaji, "Web-Based Mail Archive Information System (Sinau) at the Karangsalam Village Office, Baturraden District," *EVOLUTION J. Science and Manaj.*, vol. 7, no. 2, pp. 15–21, 2019, doi: 10.31294/evolution.v7i2.6751.

[6]A. Mulyapradana, AD Anjarini, and N. Hermanto, "Management of Inactive Dynamic Archives in Vocational High School Educational Institutions," *Widya Cipta J. Sekr. and Manaj.*, vol. 5, no. 1, pp. 60–68, 2021, doi: 10.31294/widyacipta.v5i1.10037.

[7]A.Arsip, L. Stmik, and P. Based, "ANDROID TO IMPROVE DATA INTEGARATION," vol. 9, 2021.

[8]S.Saryani, H. Harfizar, and R. Arianto, "E Information System Design - Incoming and Outgoing Mail Archives (Tangerang City Tourism and Culture Office)," *Technomedia J.*, vol. 4, no. 1, pp. 69–83, 2019, doi: 10.33050/tmj.v4i1.885.

[9]ELPratiwi and H. Anwar, "Web-Based E-Archive Information System at Pt. Great Lasting Prosperous, *J. INTEKNA Inf. Tech. and …*, vol. 22, no. 1, pp. 35–45, 2022, [Online]. Available: https://ejurnal.poliban.ac.id/index.php/intekna/article/view/1344

[10]D.Fitriyana and M. Muslihudin, "Mobile Commerce Marketing of Flamboyant Women Farmer Group (KWT) Processed Products Based on Android in Kalirejo Village".