

DEVELOPMENT OF A WEB-BASED ADMINISTRATIVE DOCUMENT ARCHIVING INFORMATION SYSTEM AT CV BIG TECHNOLOGY

Moh Idris¹

¹Information System, Faculty of Engineering and Computer Science, Islamic University of Indragiri,

Email: idrisdaxter@gmail.com¹,

ABSTRACT

Administrative document management is a crucial activity for supporting company operations. An increasing volume of documents can create challenges regarding storage, categorization, and retrieval if they are not managed in a structured manner. CV. Big Technology handles various types of administrative documents that require proper storage and management to ensure they can be located and reused when needed. Therefore, this study aims to develop a web-based administrative document archiving information system for CV. Big Technology to serve as a centralized digital archive management tool. The system development follows the Waterfall method, comprising stages for requirements analysis, system design, implementation, testing, and deployment/evaluation. Data collection involved observation, interviews, and literature reviews to gather information on system requirements and administrative document management processes. The developed system features user authentication, archive data management, document categorization, document upload and download capabilities, and archive search functions. System testing was conducted using the Black Box Testing method to ensure that all functions operate according to the established requirements. The results indicate that the system facilitates more structured storage and management of administrative documents and simplifies the process of retrieving necessary archives. With this system in place, document archiving at CV. Big Technology can be carried out more effectively and in a more organized manner, offering easy accessibility via a web-based platform.

Keywords: Web-Based Information, Archiving, Administrative Documents, Waterfall.

1 INTRODUCTION

Rapid advancements in information technology have significantly influenced various workplace activities, including corporate administrative management. Document management, previously largely manual, is shifting toward digital formats to streamline the processes of storage, retrieval, and reuse. Administrative documents are vital to a company's operations, containing information related to activities, legal status, partnerships, and other administrative requirements. Consequently, effective document management is essential to ensure that stored information remains organized and easily retrievable.

The volume of administrative documents in a company's operations tends to grow over time. These documents may include permits, legal records, correspondence, partnership agreements, contracts, reports, financial records, and other administrative files. If document management relies on simply saving files in isolated locations—such as individual computers or specific storage media—without a structured system, the processes of searching for and managing documents become inefficient. This situation creates difficulties when a specific document is urgently needed, particularly when the volume of documents is large and lacks clear categorization. CV. Big Technology is a company that handles a wide range of administrative documents requiring proper storage and management. The diversity of the company's documents makes the need for an organized archival storage system increasingly critical. Archival management encompasses not only how files are stored but also how they are categorized, supplemented with metadata, retrieved, and managed in alignment with company

needs. Poorly structured management can prolong the time required to locate documents and increase the likelihood of errors in archival handling.

A common issue in digital archival management is the lack of centralized document storage. Administrative files may be scattered across various folders, devices, or storage media. When a specific document is required, users must search manually based on file names or storage locations. While this approach may suffice when the volume of documents is relatively low, it becomes inefficient as the archive grows. Furthermore, inconsistent file naming conventions can complicate the search process, as users must recall or guess the filename used when the document was originally saved.

Another issue is the lack of comprehensive information regarding stored documents. A file contains not only the document's content but can also hold details such as document type, reference number, date, validity period, remarks, and other relevant data. If such information exists only within the file itself or is not recorded in a structured manner, identifying specific documents becomes difficult. Therefore, a system is needed that serves not merely as a storage repository but also as a tool for managing information associated with the archives.

A web-based information system offers a solution to these challenges. Such a system enables centralized archive management, providing functions for both document storage and administration. Documents can be uploaded alongside necessary information or metadata. Users can search based on specific criteria, allowing for much faster document retrieval compared to manually browsing through storage folders. Developing an archival information system also helps maintain organized corporate administrative data. Documents can be grouped into predefined categories, resulting in a clearer archival structure. Additionally, the system can provide features for adding, modifying, viewing, downloading, and deleting archival data based on user access rights. This management approach ensures that document-related administrative processes are conducted in a more structured and well-documented manner.

When developing an administrative document archiving information system, it is essential to align the system with the company's actual needs. The system should not merely address file storage requirements; it must also prioritize ease of use, rapid document retrieval, and data security. Corporate administrative documents often contain critical information, and not all users require the same level of access or possess the same authorization regarding these documents. Consequently, implementing authentication and user access controls is crucial to ensuring that document management is handled only by authorized personnel.

To address these issues, a system is required to assist CV. Big Technology in managing its administrative document archives in a more structured and centralized manner. The system under development aims to reduce reliance on manual file searches, streamline document storage and retrieval processes, and help the company maintain organized administrative archives. By implementing this system, documents previously scattered across various storage locations can be managed through a single, user-friendly platform tailored to the company's specific needs. Based on this context, this research is titled "Development Of A Web-Based Administrative Document Archiving Information System At Cv Big Technology." The study focuses on developing a system capable of digitally storing, managing, categorizing, and retrieving the company's administrative documents. The resulting system is expected to serve as an archiving platform that enhances the effectiveness and efficiency of administrative document management while facilitating easy access to archives whenever needed.

2 RESEARCH METHOD

The research began by identifying the company's needs regarding administrative document management, followed by the system's design, development, and testing phases. The Waterfall model was selected as the software development methodology.

2.1 Data Collection Technique

The initial phase of the research involved gathering data and information regarding the administrative document archiving process at CV Big Technology. Data collection was

conducted to gain insight into system requirements and the challenges faced during the archive management process.

The data collection techniques employed included observation, interviews, and a literature review. Observations focused on the company's existing administrative document management and storage processes, specifically examining how documents are stored, categorized, retrieved, and utilized in administrative activities.

Interviews were conducted with personnel involved in the company's administrative document management. These interviews aimed to gather information on user requirements, the types of documents managed, operational constraints, and necessary system features. Meanwhile, the literature review involved examining various references concerning information systems, document archiving, web-based systems, databases, and software development methodologies to serve as the foundation for the research.

2.2 Requirements Analysis System

Once the data has been obtained, the next step is to conduct a system requirements analysis. This analysis is performed to determine the functional and non-functional requirements of the system to be developed.

Functional requirements pertain to the core functions the system must provide, such as user login, user data management, document category management, document uploading, archival data storage, document searching, viewing archive details, document downloading, modifying archive data, and deleting archives in accordance with user access rights.

Non-functional requirements encompass hardware and software specifications, security, and system usability. This analysis ensures that the developed system operates in alignment with the company's needs and provides a positive user experience.

2.3 Design System

The design phase is conducted based on the results of the previously obtained requirements analysis. During this stage, the system's structure and workflow are designed prior to the implementation process. The design encompasses process design, database design, interface design, and user access rights design.

Process design outlines how users interact with the system, covering everything from logging in to managing archives. Database design involves defining the tables, attributes, and data relationships required for the system. The data managed may include user information, document categories, archive data, and other supporting information.

Additionally, the interface is designed with a focus on ease of access to the system's various functions. The system's layout is crafted to enable users to perform archiving, searching, and document management tasks in a simpler and more structured manner.

2.4 Implementation System

The implementation phase involves translating the design into a functional application. The system is developed using web-based technologies, utilizing programming languages, frameworks, and databases suited to the development requirements.

During this stage, the designed features are integrated into the system. These features include user authentication, archive category management, document data management, file uploading, archive searching, document information viewing, and document downloading. The system also implements access control settings to restrict user functions in accordance with company requirements.

Document files are stored digitally and linked to archive data within the database. This enables structured management of document information and allows users to locate files based on the data or categories available in the system.

2.5 Testing System

Once system development was complete, a testing phase was conducted to ensure that every function operated according to the established requirements. Testing was performed using the Black Box Testing method, which focuses on system functionality based on inputs and resulting outputs, without directly examining the program code.

Tests were conducted on several key functions, including the login process, user management, document category management, archive addition, document uploading, archive searching, data modification, data deletion, and document downloading. Specific inputs were provided for each function, and the resulting outputs were compared against the expected results.

The test results were used to identify any errors or functions that were not operating in accordance with requirements. If errors were found, the system was rectified until the functions operated as intended.

2.6 Evaluation

The final stage involves system implementation and evaluation. Once the system has undergone testing, it is deployed as a tool for managing administrative document archives at CV. Big Technology. Evaluation is conducted to assess the extent to which the system facilitates the archiving process compared to the previous method.

The evaluation covers aspects such as the ease of document storage, the speed of archive retrieval, the organization of document groupings, and the ease with which users can access required documents. The evaluation results serve as a basis for determining how well the system meets the company's needs and provide input for future system development.

Overall, the research stages were carried out sequentially, progressing from data collection, requirements analysis, and system design to implementation, testing, and finally, deployment and evaluation. These stages are expected to yield an administrative document archiving information system that aligns with the needs of CV. Big Technology and enables a more structured, effective, and efficient archive management process.

3 RESULT AND DISCUSSION

3.1 Results

This research resulted in the development of a web-based administrative document archiving information system designed to assist CV. Big Technology in managing various administrative documents digitally. The system serves as a centralized archive storage platform, ensuring that administrative documents are not merely stored as files but are also accompanied by supporting information that facilitates management and retrieval processes.

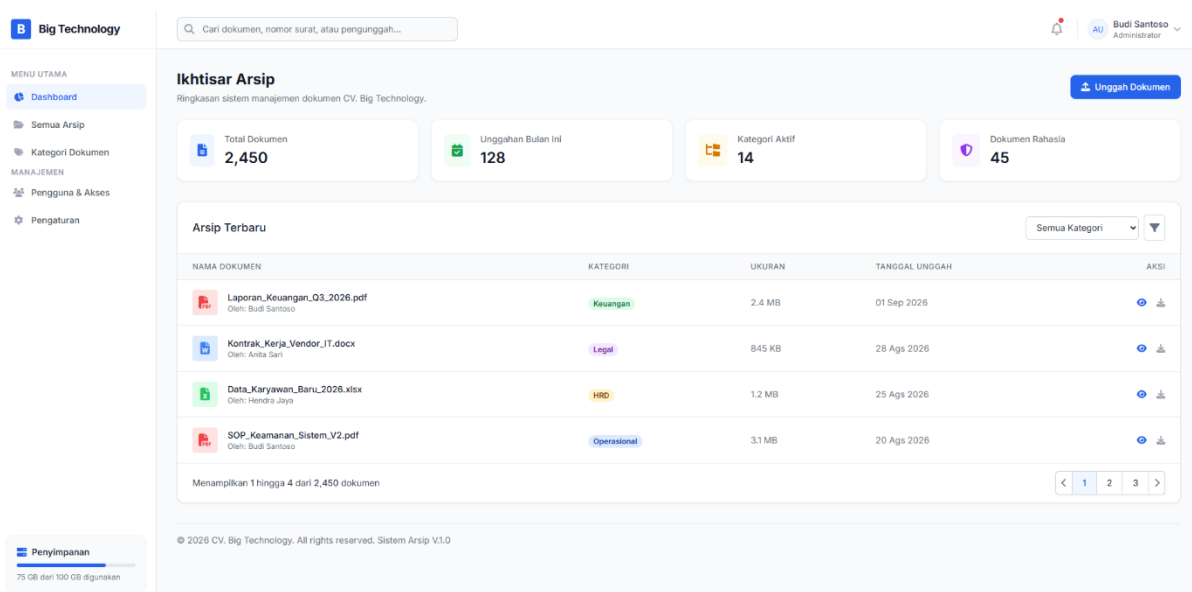


Fig. 1. Dashboard Page

Figure 1 above displays the administrative document management dashboard. Through this system, documents can be uploaded and stored according to predefined categories. This

categorization allows users to identify document types and details without needing to open each file individually.

The web-based nature of the system offers added convenience, as archive management tasks can be performed directly via a web browser. Users do not need to manually search for documents within computer storage folders; instead, they can use the system to access stored archival data.

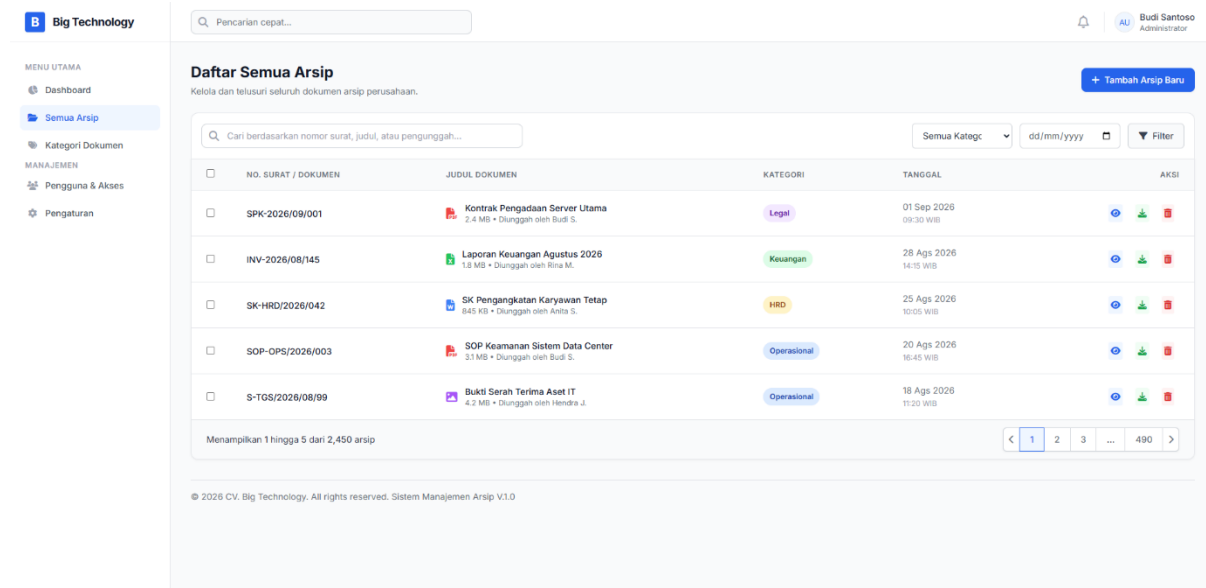


Fig. 2. Archive Management Page

Figure 2 illustrates the system's primary feature: archive data management. Users can add administrative documents to the system by entering relevant details. The stored data encompasses not only the file itself but also information such as the document name or title, category, document number, date, description, and other details required by the system.

Once saved, the document is registered as an archive within the system. Users can view the list of stored archives, thereby making the document management process more organized. Archive data can also be updated as needed to correct errors or reflect changes.

This structured management approach is a key advantage of the system, as document-related information is stored alongside the corresponding file. Consequently, users can not only locate the file but also view supporting information before opening the document.

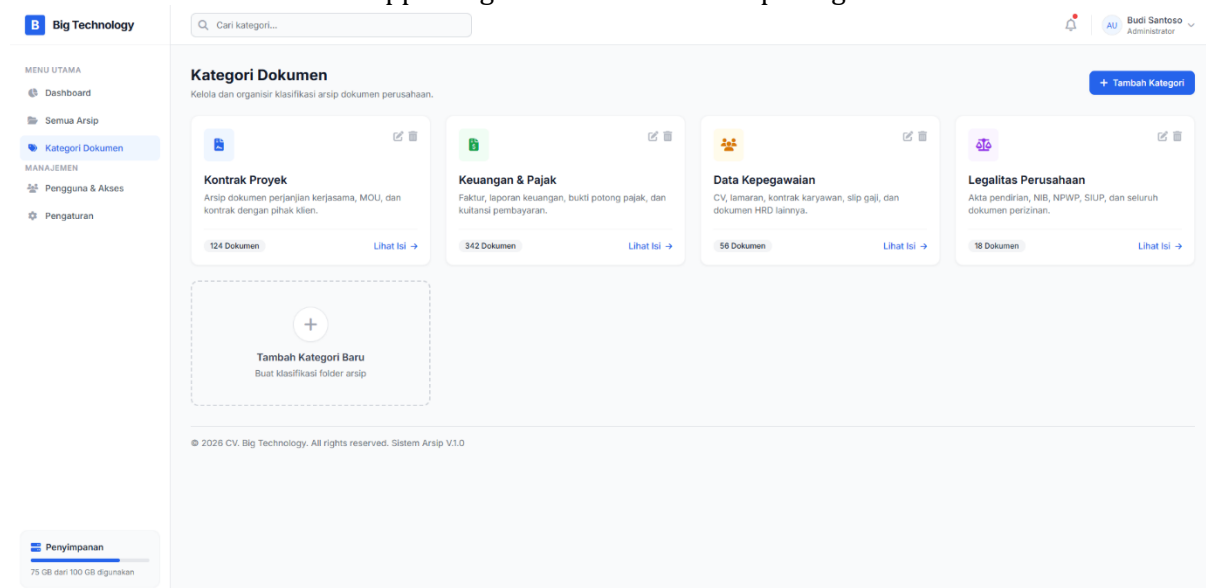


Fig. 2. Archive Categories Page

To facilitate archive management, the system provides document grouping based on categories, as shown in Figure 3. These categories can be tailored to the specific administrative needs of CV Big Technology. This grouping ensures that documents sharing similar characteristics or functions are organized into the same group.

For instance, the company might establish categories such as legal documentation, permits, correspondence, partnerships, contracts, reports, and financial records, among other administrative classifications. These groupings can be adjusted if the company's archiving requirements change.

The use of categories makes the document search process more focused. Users can narrow their search to specific document groups, eliminating the need to sift through the entire archive stored in the system.

Fig. 4. Upload Documents Page

Figure 4 illustrates that the system provides a document upload feature used to input administrative files into the digital archive. During the upload process, the file is linked to archive data previously entered by the user. This ensures that documents are stored in a structured manner and can be retrieved via the system.

In addition to uploading, the system also offers a document download feature. This allows users to retrieve stored files whenever documents are required for company administrative activities. This process can be performed using the available archive data, eliminating the need to search for files directly within the storage media.

The use of these upload and download features enables the system to function not only as a database of document information but also as a digital archive storage medium that allows for document retrieval as needed.

System testing was conducted using the Black Box Testing method. The testing focused on the system's core functions to ensure that each feature could accept inputs and produce outputs in accordance with requirements. The functions tested included the login process, user management, category management, adding archive data, document uploading, modifying archive data, deleting archives, document searching, and document downloading.

Based on the test results, the system's core functions operated according to the established design. Users were able to authenticate, input archive data, upload documents, search for data, modify or delete data, and retrieve previously stored documents. The test results indicate that the system fulfills the basic functions required to support the administrative document archiving process at CV. Big Technology. This testing also served as a crucial step in ensuring the system's usability prior to its implementation in archive management operations.

3.2 Discussion

Based on the development and testing results, the created archiving information system helps transform the document management process into a more structured one. Administrative documents—previously scattered across various storage locations—can now be managed through a single system, allowing for easier control over archival information.

One of the most noticeable benefits is the ease of document retrieval. Users do not need to manually search through numerous folders; instead, they can utilize the data and categories available within the system. This reduces the time required to locate documents, particularly as the volume of archives grows. Furthermore, recording document information within the system makes archives easier to identify. Users can view document details stored in the system before accessing the actual files. This helps minimize errors in document selection, especially when dealing with multiple files that share similar types or names.

From a management perspective, the system provides a clearer structure through the use of document categories. These categories can be tailored to the company's administrative needs, allowing the system to handle various types of archives beyond just licensing documents. Consequently, the system offers a broader scope for supporting administrative document management at CV. Big Technology. Implementing a web-based system also offers flexibility in access, provided users have the appropriate devices and access environments. This ensures that archive management is not strictly tied to specific folder locations on a computer. However, the system's implementation still requires proper access rights management, regular data backups, and ongoing maintenance to ensure the security and continuity of the archives.

Overall, the research findings indicate that the development of a Web-Based Administrative Document Archiving Information System offers a viable solution for CV. Big Technology to manage its archives digitally. The system provides features for storing, categorizing, searching, updating, and retrieving administrative documents through a single, integrated platform. With this system in place, the archiving process is expected to be more effective, structured, and manageable compared to manual document storage methods.

4 CONCLUSION

Based on the research and development conducted, it can be concluded that the Web-Based Administrative Document Archiving Information System for CV. Big Technology has been successfully developed to facilitate the digital and structured management of the company's administrative archives. The system was designed to address issues regarding document storage and retrieval, which can be inefficient when handled manually or through disorganized file storage methods.

The developed system offers several key functions: user authentication, archive data management, document categorization, file uploading and downloading, archive searching, and document data management. These functions allow various types of administrative documents to be stored within a single system and managed based on information specific to each document. Testing using the Black Box method confirmed that the system's key features operate as designed. The system successfully accepts user input and generates outputs that meet the requirements of the archiving process. Additionally, the document search and categorization features simplify the process of retrieving archives when needed. Implementing a web-based system streamlines document management, as users can access archiving functions directly through the system without needing to manually search for files in storage folders. Consequently, the system helps improve the organization of archive management while reducing the time required to search for and manage administrative documents.

Overall, the developed information system serves as a valuable solution for CV. Big Technology in digitizing and managing administrative document archives. Future enhancements could include features such as automatic data backups, user activity logs, document expiration notifications, and improved security and access control settings to maximize the system's long-term benefits.

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