

The making of storage application for electronic official document based on microsoft access at document unit pt kai(persero) daop 2 bandung

Rena Puspitasari¹, Mohammad Rizal Gaffar²

Diploma III Business Administration Study Program, Department of Commercial Administration, Bandung State

Polytechnic Email: rena.puspitasari.abs20@polban.ac.id

Received 06 24, 2023; Accepted 10 13, 2023

ABSTRAK

Unit dokumen PT KAI (Persero) Daop 2 Bandung memiliki tugas dan fungsi dalam mengelola dokumen perusahaan. Salah satu kegiatan pengelolaan dokumen adalah penyimpanan. Penyimpanan dokumen yang dilakukan selama ini kurang efisien karena tidak tersimpan secara terpusat, dan pencarian pada file explorer hanya dapat dilakukan berdasarkan nama file dokumen, sehingga mengakibatkan proses pencarian menjadi lama. Untuk membantu mengatasi hal tersebut, dikembangkanlah sebuah aplikasi penyimpanan dokumen resmi berbasis Microsoft Access. Selain berfungsi sebagai tempat penyimpanan yang terpusat, aplikasi ini juga memudahkan pencarian cepat, menghasilkan laporan berdasarkan jenis dokumen, dan menyertakan form data pemohon. Aplikasi ini dikembangkan dengan menggunakan metode waterfall, yang meliputi tahap analisis kebutuhan, desain, pengembangan, pengujian, dan implementasi. Aplikasi penyimpanan dokumen resmi berbasis Microsoft Access ini memiliki tampilan yang menarik, mudah digunakan, memiliki waktu respon yang cepat, memiliki sistem keamanan, dan yang terpenting dapat menyimpan data dokumen secara terpusat dalam satu aplikasi. Pengembangan lebih lanjut dapat dilakukan dengan menambahkan fitur-fitur tambahan.

Kata kunci: aplikasi, penyimpanan, pencarian, dokumen, surat dinas.

ABSTRACT

The document unit of PT KAI (Persero) Daop 2 Bandung has tasks and functions in managing company documents. One of the document management activities is storage. The file storage is inefficient because it is not stored centrally, and searching in the file explorer can only be done based on the document file name, resulting in a lengthy search process. To help overcome this issue, a Microsoft Access-based official document storage application has been developed. In addition to serving as a centralized storage location, this application also facilitates quick searches, generates reports based on document types, and includes applicant data forms. The application was developed using the waterfall method, which involved requirement analysis, design, development, testing, and implementation stages. The Microsoft Access-based official document storage application has an attractive interface, is user-friendly, has fast response times, includes a security system, and most importantly, can store document data centrally within a single application. Further development may involve adding additional features.

Keywords: application, storage, search, documents, official correspondence.

1. INTRODUCTION

PT KAI (Persero) Daop 2 Bandung is one of the operational areas of PT KAI (Persero) which carries out business management in various fields. The number of business activities managed certainly cannot be separated from administrative activities. In terms of administration, the management of these business activities produces many company documents that are used to support business operations.

According to the Regulation of the Board of Directors of PT KAI (Persero), 2016 concerning Guidelines for Office Documents, a company document is a record or information made and received by the company both written and recorded in any form that can be seen, read, or heard in the context of carrying out operational activities. One type of document managed by the company is official Documents. Official Documents are documents that are made and issued by the company to support the management of the company's business.

The work unit responsible for managing company documents at PT KAI (Persero) Daop 2 Bandung is the Document Unit. In the Regulation of the Board of Directors of PT KAI (Persero), 2018 concerning Organization and Administration of Daop 2 Bandung, it is explained that the main tasks and functions of the Daop 2 Bandung Document Unit are to manage company documents and literature both internally and externally and to carry out management of archive administration.

In order for the available documents to be authentic and reliable, and in the context of efforts to save company assets and to support the implementation of a well-managed PT KAI (Persero) corporate environment (good corporate governance), it needs to be supported by good document management (Hidayat, 2020). From the results of observations and interviews, several facts were obtained regarding the management of documents. Incoming and outgoing company documents are managed and stored manually or digitally. Good document management has the following objectives.

- 1) Documents are preserved.
- 2) Documents are kept confidential.
- 3) Documents are well-maintained and organized.
- 4) Documents are easy to retrieve quickly and precisely when needed.
- 5) Searching for documents does not require much time and effort.
- 6) Document storage does not require a lot of storage space.

- 7) Assist with accountability related to planning and organizing community activities.

Due to limited storage space, active physical documents are stored by each creator unit. Meanwhile, the storage of inactive physical documents is carried out by the document unit. Physical documents stored by the document unit include inactive archives and legal products from other units. Legal products consist of regulations, decisions, instructions, circulars, orders, and many more.

Document storage in the document unit is done in two ways, namely manual and electronic. Manual storage is done by storing physical documents in archive boxes in the archive room. While electronic storage is by transferring media, then stored on a hard disk or file explorer on a computer.

The problem that occurs in storage activities is that there is no system specifically for storing copies of documents. This results in when there is a request for a copy of a document or borrowing a document, the process of searching for document files takes more time because the file explorer can only search by document file name. The search process is also usually done by searching for document files one by one based on the folder where they are stored. This search process usually involves several employees because there are quite a lot of storage folders on several computers. There are times when the requested document file cannot be found due to the less centralized storage of document files.

If these problems are not handled, the consequences are hampering the work operations of other units or the unit concerned, especially if the copies of the requested documents are important and needed immediately. In addition, it can also reduce the quality of service of the document unit.

An effort is needed that can help overcome existing problems. Therefore, the author aims to create an electronic official Documents storage application program based on Microsoft Access so that document storage can be stored centrally.

Microsoft Access software can be used as an alternative as a medium for electronic archive management. With a database using Microsoft Access, finding the required documents will be easier to find (Latif & Pratama, 2015). In addition, many other features can be utilized in Microsoft Access to manage data. Records management applications made using Microsoft Access have functions that can improve employee performance and can increase the effectiveness of archive

retrieval (Amalia & Panduwina, 2022).

The application program to be created is positioned as an application that is expected to assist in the management of official papers, especially legal products in the document unit of PT KAI (Persero) Daop 2 Bandung. This application is designed so that it is not connected to the internet network and the storage system is more devoted to storing official papers only so that it is expected to overcome problems that often arise when storing and searching for documents.

2 LITERATURE REVIEW

A. Definition of Application

According to Surahmat (2023), an application is a computer software that uses a computerized system and functions to facilitate its users in completing a desired task. Applications can also be explained as a program or software that runs on a particular system and can be used to support various activities ordered by users (Huda & Priyatna, 2019).

Applications are programs on computers that are created in order to assist users in taking certain actions or practicing the ideas discussed (Pratama et al., 2023). In summary, based on some of the above definitions, an application is a software or software that has a function to perform certain tasks according to the purpose for which the application was created.

B. Definition of Electronic Records

Digital or electronic archives are collections of information that are recorded or stored using computer technology so that they can be viewed and reused. Archives that have been converted can be stored in the form of files recorded on electronic media. The file repository is equipped with a database that forms an electronic archiving system that includes tools for managing, categorizing, and naming files resulting from media transfer (Mulyadi, 2016).

According to Imasita et al. (2021), the main advantage of an electronic filing system is ease of management and administration. The following describes some of the conveniences offered by computerized electronic filing systems.

- 1) Easy to use.
- 2) Attractive appearance.
- 3) Document search feature.
- 4) Record the location of physical documents.
- 5) Image and sound installation.
- 6) Data security.
- 7) Automatic storage or retention.
- 8) Status report file.
- 9) Can be connected to a computer network.

10) Enable OCR function

C. Definition and Types of Office Documents

According to the Regulation of the Board of Directors of PT KAI (Persero), 2016 concerning Guidelines for Office Documents, official documents are part of company documents in the form of written information as an official communication tool made by authorized officials to carry out company business. The following are types of official Documents.

- 1) Directive Office Documents, including Regulations, Instructions, Circulars, Edicts, Guidelines, Implementation Instructions / Technical Instructions, SOPs (Standard Operating Procedures), and Decisions.
- 2) Assignment Office Documents, consisting of a Warrant/Assignment Letter.
- 3) Correspondence Office Documents, including Service Memorandum, Invitation Service Memorandum, Service Letter, Invitation Service Letter.
- 4) Special Service Documents, including Agreement Letters, Power of Attorney, Minutes of Meeting, Certificates, Cover Letters, Announcements, Reports, Studies, Written Remarks of the President Director, Press Releases, Service Issuances, Award Charter, Education and Training Certificate, Certificates, Minutes of Meeting, Memorandum, News.

D. Definition of Microsoft Access

Microsoft Access is a relational type database management application program that has functions in designing, creating, and managing various types of medium-capacity data. This application uses the Microsoft Jet Database Engine which uses an intuitive graphical display that makes it easier for users to operate the application (Rerung, 2019).

According to Rerung (2019), Microsoft Access is equipped with various objects in it, namely:

- 1) Table, is the most important object because it has a function to store similar data. Table objects consist of fields and records. Field is the part of the table that occupies the column part while data or Record is the part of the table that occupies the row part.
- 2) Query, a database manipulation language. Used to view, edit, and analyze data sets. There are two types of queries, namely:
 - a. DDL (Data Definition Language), to create or define database objects such as creating and deleting tables, relationships between tables, etc.
 - b. DML (Data Manipulation

Language), for database manipulation, such as adding, modifying or deleting data and retrieving necessary information.

- 3) Form, is an object that can be used to enter and edit data or information in the database using a form view. This makes it easy to enter data, and avoid data entry errors.
- 4) Report, is an object that can display data or information in the form of a report.

3. RESULTS AND DISCUSSION

A. Observation Results

One of the daily activities of the document unit of PT KAI (Persero) Daop 2 Bandung is to receive manual document numbering services. Manual document numbering is carried out on documents that are equipped with a wet signature (not TTE). The document is usually classified into the type of legal product official Documents. The following is a chart that illustrates the stages of official Documents storage activities in the document unit.

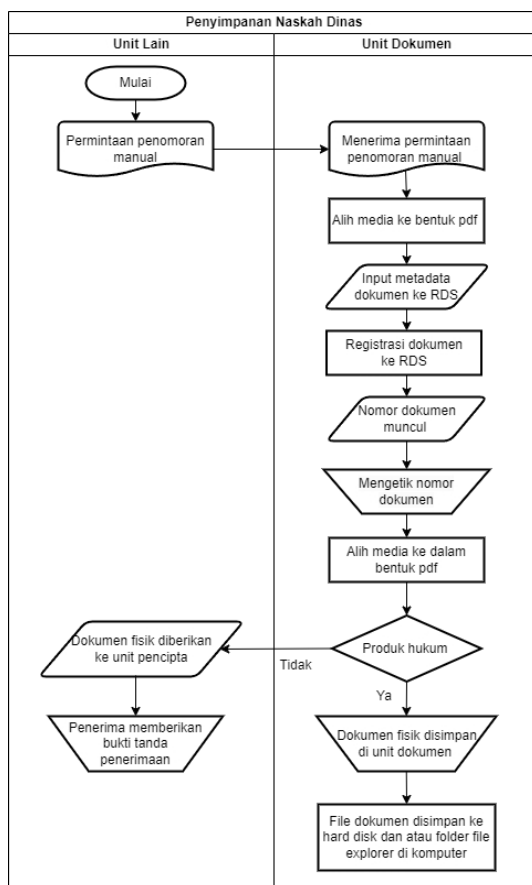


Figure 3. 1 Chart of official Documents storage Activities

done when there is a request from another unit. To get a document number, the document unit employee will register the document into the RDS. RDS (Rail Document System) is a web-based application that has a function to help manage company documents. The function of RDS is to register external incoming mail and register manual numbering.

The manual numbering registration process is carried out by transferring document media into pdf form to be uploaded to RDS. The document metadata is inputted completely and the document is given a template for number placement. The document number will automatically appear and the document is immediately distributed to the party concerned because the RDS is integrated with all employee data.

After the document number appears, the next step is to type the document number manually using an electronic typewriter. Then the documents that have been numbered are first transferred using a scanner into pdf form. After completion, the original physical document is given back to the unit concerned and some are stored in the document unit. The document stored in the document unit is a type of legal product official Documents.

Physical documents of legal products must be stored in the document unit because these documents usually have a long retention period and some are even permanent. Document storage consists of two systems, namely manual and electronic systems. Manual storage is done by storing physical documents in archive boxes in the archive room. While electronic storage is by transferring media and then stored on a hard disk directly or into an explorer file on a computer.

Official Documents are stored with the aim of being easy to find when needed at any time. Usually, other units will ask for copies of documents or borrow physical documents in the form of legal products to the document unit. The following is a chart that describes the stages of official Documents search activities in the document unit.

Manual registration of document numbering is

b. User Data Table Design

This table has a function as a place to store data on application users.

Table 3. 2 User data table design

No.	Field Name	Data Type
1.	Name	Short Text
2.	NIPP	Short Text
3.	Work Unit	Short Text
4.	Position	Short Text
5.	Profile Photo	Attachment

c. Draft Table of Office Documents Types

This table is used to store official Documents type data needed for other forms.

Table 3. 3 Draft table of Office Documents Types

No.	Field Name	Data Type
1.	Types of Office Documents	Short Text

d. Draft of Service Documents Input Table

The official Documents input table is used to store all official Documents data stored on the system.

Table 3. 4 Draft official Documents input table

No.	Field Name	Data Type
1.	Input Date	Date/Time
2.	Types of Office Documents	Lookup Wizard
3.	Document Date	Date/Time
4.	Document Number	Short Text
5.	Subject	Long Text
6.	Signing Officer	Short Text
7.	Status	Lookup Wizard
8.	Creator Unit	Short Text
9.	Document Storage	Short Text
10.	Document Files	Attachment

e. External Incoming Letter Input Table Design

This table has a function to store letter data stored in the system.

Table 3. 5 External incoming mail input table design

No.	Field Name	Data Type
1.	Input Date	Date/Time
2.	Letter Date	Date/Time
3.	Letter Number	Short Text
4.	Sending Agency	Long Text
5.	Subject	Long Text
6.	Purpose of Letter	Short Text
7.	Status	Lookup Wizard
8.	Description	Long Text
9.	Document Files	Attachment

f. Original Document Borrowing Table Design

The original document borrowing table is used to store original document borrower data.

Table 3. 6 Original document borrowing table design

No.	Field Name	Data Type
1.	Date	Date/Time
2.	Name	Short Text
3.	NIPP	Short Text
4.	Unit/Section	Short Text
5.	Document Type	Short Text
6.	Subject	Long Text
7.	Description	Long Text

g. Copy Document Request Table Design

The copy document request table is used to store data on employees who request copies of documents.

Table 3. 7 Draft copy document request table

No.	Field Name	Data Type
1.	Date	Date/Time
2.	Name	Short Text
3.	NIPP	Short Text
4.	Unit/Section	Short Text

5.	Document Type	Short Text
6.	Subject	Long Text
7.	Description	Long Text

C. Final Project Results

1) Login Form Display



Figure 3. 6 Login page view

The login form is used as protection or security with the aim that the application cannot be accessed other than by the user. Users who can access the application are employees of the PT KAI (Persero) Daop 2 Bandung document unit who have registered with the application. Sections on the login page are:

- Username and password fields.
- Login button.

To enter the application, users can enter their username and password in the username and password fields and then press the login button.

2) Main Page/Dashboard Display



Figure 3. 7 Main page view

If the application login process is successful, the dashboard page appears next. There are 11 application buttons or menus with the following details:

- Home menu, used to display the dashboard page and other menu buttons.
- Applicant data form menu, used to open the original document loan applicant data form and copy document request. Each form is equipped with a report sub menu.

- The office Documents input menu, used to open the official Documents input form and is equipped with a report sub menu.
- The external incoming mail input menu has a function to open the external incoming mail input form and is equipped with a report sub menu.
- The search menu for official Documents, used to open the official Documents search form.
- The search for external incoming mail menu, used to open the external incoming mail search form.
- The official Documents report menu, used to open the official Documents report search form based on the type of document and the overall official Documents report.
- The external incoming mail report menu, used to open the external incoming mail report.
- The official Documents type menu, used to open the official Documents type form and is equipped with features that can add or delete types of official Documents.
- User data menu, used to open the user data form and equipped with a feature to open the password change form.
- The application exit menu, used to close the application as a whole.

3) Applicant Data Form Display



Figure 3. 8 Applicant data page display

The applicant data form is used to input data for requesting copy documents and borrowing original documents. Users can fill in the fields that have been provided.

Figure 3. 9 Display of copy document request form

Figure 3. 10 View of the original document borrowing page

The following is an explanation of each column in the copy document request form and original document borrowing:

- Date, filled in with date when the request/loan was made.
- Name, filled in with the applicant's full name.
- NIPP, filled in with the applicant's NIPP.
- Unit / Division, filled in with the origin of the work unit / division of the applicant.
- Type of Document, filled in with a description of the type of document being borrowed or a copy requested.
- Subject, filled in with the subject of the document being borrowed or a copy is requested.
- Remarks, filled in if there are special notes regarding borrowing or requesting copies of documents.

Besides containing fields, the form also has several buttons with different functions. The following is an explanation of each button:

- Go to first record, used to display the firstdata on the form.
- Go to previous record, used to display theprevious data on the form.
- Go to next record, used to display the

nextdata on the form.

- Go to last record, used to display the lastdata on the form.
- Add, used to add new data so that it willdisplay a blank form
- Save, used to save data when newly added or edit data that has already been saved.
- Delete, has the function to delete the displayed data as a whole.
- Report, used to display a list of all data.
- Exit, used to close the form.

4) Office Documents Input Page

The official Documents input page is used to input official Documents data that will be stored. Users can fill in the fields that has been provided.

Figure 3. 11 Display of official Documents input form

The following is an explanation of each column in the official Documents input form:

- Input date, filled with the date when the datawas input.
- Document type, filled in with the type of document to be inputted. User can select the document type provided by pressing the arrow keys.
- Document date, filled in with the date of document creation.
- Document number, filled in with information on the number of the document.
- Subject, filled with information about the document.
- Signing official, filled in with information on the name of the official who signed the document.
- Status, filled with original or copy information. The user can directly select the option by pressing the arrow button.
- Creator unit, filled in with the name of the

unit that created the document.

- i. The place where the document is stored, filled with box number information or place to store the document if the physical document is stored in the document unit. If not, it can be left blank.
- j. Document file, filled in by adding a PDF file or similar. The user will be directed to where the document is stored on the computer.

5) Office Documents Search Page

The official Documents search page is used to search for official Documents data that has been stored. Users can fill in the search field that has been provided by typing the document number/subject/document creator unit.

Figure 3. 12 Display of official Documents search Form

The following is an explanation of each part of the official Documents search form:

- a. The search field, used to type in the keywords of the document to be searched. Users can search documents by document number, subject, or document creator unit.
- b. Refresh button, used to restore the data display as before.
- c. Exit, used to close the form.
- d. List box, used to display all stored data. The data selected in the list box will be displayed in the column on the right.
- e. The caption column is used to display the data selected from the list box. To download the document file, users can double click the file image and select save.

6) Office Documents Report Page Display

Figure 3. 13 Search view of official Documents Report

The official Documents report page is used to display official Documents data that has been saved. There are two choices of buttons, namely:

- a. The overall official Documents report, used to display all official Documents data.
- b. Official Documents report document type criteria, used to display only one type of official Documents. To determine the type of official Documents, users can fill in the search field for the type of official Documents that has been provided by pressing the arrow button and then pressing the document type criteria official Documents report button below it.

Figure 3. 14 Search display for types of official Documents reports

Figure 3. 15 Display of official Documents report

The report page has a function to provide information or display all stored data. The parts of the report are as follows:

- a. The title of the report, used to annotate the report and serves to distinguish between one report and another.
- b. Back button, used to close the report/return to the applicant data input form.
- c. Print preview button, used to review the report before printing.

- d. Print button, used to print the report if the computer is connected to a printer.
- e. Export Excel button, used to save the report in Microsoft Excel. After pressing this button then the user will be prompted to save the file on the computer.
- f. Export PDF button, used to save the report in PDF form. After pressing this button, the user will be directed to save the file on the computer.
- g. Data column, contains all the data that has been stored on the form.
- h. Page and date information, contains information on the number of pages and the date when the page was opened.

7) Office Documents Type Form Display

This official Documents type page has a function to display a list of types of official Documents stored.

Figure 3. 16 Display of official Documents type form

The following is an explanation of each part of the official Documents type form:

- a. Go to first, previous, next, and last record buttons, used as navigation buttons to move the display of official Documents type information.
- b. Add, save, delete, exit, are used to add, change, delete, and save data, and to close the form.
- c. Column type of official Documents, used to add or change the type of official Documents.
- d. List box, used to display all stored official Documents type data. If the data in the list box is selected, the data will appear in the official Documents type column so that it

can be changed. At the bottom there is a description of the number of types of official documents stored.

8) User Data Form Display

The user data form has a function to display, add, change, or delete user data. Users can fill in the name, NIPP, work unit, position, and profile photo fields that have been provided.

Figure 3. 17 User data form display

On this form there is a change password button that functions to open a new form and is used to change the username and password. To change the password, users can directly delete and enter a new password in the password field and then press the save button.

Figure 3. 18 Display of password change form

D. Project Trial Results

In order to test the success of making a Microsoft Access-based official Documents storage application, a trial of the application project was carried out. This activity is carried out with the aim of testing the function and suitability of the finished application function. The trial was carried out by operating the application on an office computer device. This trial was conducted by all employees of the document unit of daop 2 Bandung using manual testing techniques.

Manual software testing is testing done by humans in checking the quality of new applications without using automation tools. The purpose of this test is to identify bugs or defects, ensure the application is error-free, and check whether the application works according to the required

specifications (Global App Testing, 2023).

Any type of application can be tested manually, manual testing is perfect for assessing the user interface and usability (user experience). Users can directly provide feedback or opinions on the appearance and suitability of the required functions. The following table contains the results of the manual testing that has been carried out.

Table 3. 8 Project test results (manual testing)

No.	Poin Uji	Kondisi	Hasil Uji
1.	Proses masuk aplikasi	Menggunakan nama pengguna dan kata sandi yang sudah terdaftar.	Proses login berhasil dan dapat masuk ke aplikasi (menu dashboard)
		Menggunakan nama pengguna dan kata sandi yang belum terdaftar.	Proses login gagal kemudian muncul pemberitahuan kesalahan.
		Melakukan ubah nama pengguna dan kata sandi.	Nama pengguna dan kata sandi dapat diubah, proses login berhasil.
2.	Proses input data	Menambahkan, menyimpan, mengubah, dan menghapus data dokumen pada form input.	Data berhasil ditambahkan, disimpan, diubah, dan dihapus.
3.	Proses pencarian dokumen	Memasukkan kata kunci data yang akan dicari pada kolom pencarian.	Berhasil menemukan data dokumen yang dicari.
		Mengklik data dokumen yang tampil pada tabel.	Data dokumen terlampir secara lengkap pada form.
		Membuka dan mengunduh file dokumen.	File dokumen dalam bentuk PDF berhasil dibuka dan disimpan ke komputer.
4.	Proses melihat dan mengunduh laporan.	Mengklik menu laporan pada form atau halaman utama.	Berhasil menampilkan data laporan.
		Mencari laporan berdasarkan jenis dokumen dan mengunduh laporan dengan bentuk excel maupun pdf.	Berhasil menampilkan laporan berdasarkan jenis laporan dan mengunduhnya dengan bentuk excel maupun pdf.
5.	Proses keluar dari aplikasi	Mengklik menu keluar pada halaman utama.	Berhasil menutup/keluar dari aplikasi.

E. Discussion

In the literature review chapter, according to Imasita et al., electronic archiving systems are said to have several advantages over manual archiving systems. Some of these advantages include the use of applications that are easy to use, attractive application interfaces, have document search features based on several keywords, can record the location or storage of physical documents, can perform image and sound installations, have a more secure security system, can display status reports, and so on.

After the trial and application stage was carried out by three testers, from the results of the questionnaire evaluation it was found that the Microsoft Access-based official Documents storage application had advantages that were in accordance with the explanation of Imasira et al. The advantages are as follows.

- 1) The official Documents storage application is easy to use.

By using the user-friendly concept, users have no difficulty in operating the

application. Users can easily use the features or menus available in the application. Users can understand and understand the function of each button.

- 2) The appearance of the app is attractive and not boring.

Although users cannot change the color design of the application display, the display is said to be attractive because it is equipped with other attributes such as images, logos, and icons so that the application display does not seem default from the system.

- 3) The application work process has a fast response.

In the document search feature, the system is setup so that the document search engine immediately searches for the appropriate keywords even though the keywords have not been typed in. This results in the user not having to press the search button because the data that matches the keywords will automatically appear.

- 4) Usernames and passwords can be changed so that security can be maintained.

Because the application can be duplicated on several computers, it requires security so that data confidentiality can be maintained. The password change feature can be used easily, users can immediately change the username/password periodically and according to their wishes.

- 5) The process of inputting data, searching files, and downloading document files can be done easily and takes less time.

With the integrated features of buttons, forms, reports, and list boxes coupled with a fast response, the time required for the data management process is not much. However, this is also affected by the specifications of the computer equipment used.

- 6) Data and document files can be stored in one application, making work easier.

With centralized system document storage system in one application, storage and search activities can be performed simultaneously on the application.

- 7) Report data in the application can be converted in excel and pdf.

In addition to being viewable and immediately printable, reports can be converted into other formats so that report data management can be customized according to user needs.

The drawback that may arise from using the application is the full storage capacity. However, this can still be overcome because the application

can be duplicated as needed. In addition, another factor that is feared is that the application file is deleted by the user. Therefore, it is very necessary to be aware and careful in storing application files on a computer.

Based on the test results, there are some differences in the process of storing and searching documents in the state before and after the application is made. The following is a table of differences before and after the project.

Table 3. 9 Comparison before and after application development

Sebelum Proyek	Sesudah Proyek
Folder – folder pada file explorer tidak dilengkapi dengan pengamanan sehingga keamanan kurang terjaga apalagi ketika komputer dalam keadaan terbuka.	Aplikasi dilengkapi dengan pengamanan username dan password sehingga keamanan lebih terjaga meskipun komputer berada dalam keadaan terbuka.
Dokumen salinan disimpan di beberapa folder pada file explorer atau harddisk.	Dokumen salinan dapat disimpan secara terpusat pada aplikasi sehingga memudahkan dalam penyimpanan dan pencarian.
Fitur pencarian pada file explorer memerlukan waktu cukup lama (respon lambat).	Fitur pencarian pada aplikasi berbasis Microsoft Access tidak banyak memerlukan waktu karena memiliki respon yang cepat.
Kata kunci yang dimasukkan pada kolom pencarian harus sesuai dengan nama file dokumen yang disimpan.	Kata kunci yang dimasukkan pada kolom pencarian dapat berupa nomor dokumen/perihal/unit pencipta sehingga dokumen mudah ditemukan.
Pencarian dokumen fisik dilakukan dengan mencari satu per satu pada daftar arsip di dalam boks.	Pada form hasil pencarian akan tertera letak penyimpanan dokumen fisik sehingga dokumen dapat langsung diambil tanpa mencari satu per satu pada daftar boks.
Jika yang diminta berupa salinan dokumen namun yang ditemukan adalah dokumen fisik, maka sebelum diberikan dokumen harus dialihmediakan terlebih dahulu menggunakan scanner ke dalam bentuk pdf.	Jika yang diminta berupa salinan dokumen maka file dokumen yang terlampir pada hasil form pencarian dapat langsung diunduh dan disimpan ke dalam komputer untuk diberikan.

4 CONCLUSIONS AND SUGGESTIONS

A. Conclusion

- 1) The initial condition of official Documents storage activities in the document unit of PT KAI (Persero) Daop 2 Bandung is done manually and electronically. When there is a document request whether copy or physical, searching on a computer is done using the search feature based on the document file name or searched one by one into folders according to the type of document. In the archive box, the search is done one by one by looking at the list of archives stored in the box. This is less efficient because it takes more time and effort to search for a document file, especially when the document you are looking for is not found.
- 2) The design and creation of a Microsoft Access- based electronic official Documents storage application in the document unit of

PT KAI (Persero) Daop 2 Bandung was carried out by utilizing the table, query, form, report, and macro functions in Microsoft Access. This application has a function to store official Documents data, search for official Documents, create official Documents reports by type, store document request or loan data, and others.

- 3) The results of the trial use of the Microsoft Access-based official Documents storage application in the document unit of PT KAI (Persero) Daop 2 Bandung show that the application is easy to use because it has a user- friendly display so that users understand the function of the features well. In addition, the application has an attractive appearance, fast response especially on search engines, equipped with a security system, document data can be stored in one application, the process of inputting data, searching data, and downloading files does not require a long time, and lists or reports can be downloaded in excel and pdf formats.

B. Advice

To develop the application in the future, some suggestions are given, namely:

- 1) Add keywords to the search engine so that searches are not only carried out based on the subject, document number, and creator unit. Search options can be added such as searching by input date, document date, and others.
- 2) Addition of a report generation feature that can generate reports based on date, month, year, creator unit, status, or other criteria so that report generation is not only based on the type of document.
- 3) Adding an automatic retention feature for each document entered so that it can know when the document can be depreciated.

LITERATURE

- Amalia, A. T., & Panduwina, L. F. (2022). Microsoft Access-Based Electronic Records Management Information System (E-Archive) on the Effectiveness of Archive Rediscovery at SMKN 4 Surabaya. *Journal of Office Administration Education (JPAP)*, 10(3), 195-210. <https://doi.org/10.26740/jpap.v10n3.p195-210>
- Global App Testing. (2023). *Manual Testing*. Globalapptesting.Com. <https://www.globalapptesting.com/manual-testing-best-practices>
- Hidayat, M. I. (2020). Management of General

- Company Documents of PT Kereta Api Indonesia (Persero). *Shaut Al-Maktabah: Journal of Library, Archives and Documentation*, 12(1), 21-32. <https://doi.org/10.37108/shaut.v12i1.271>
- Huda, B., & Priyatna, B. (2019). Use of Content Management System (CMS) Applications for E-commerce Based Business Development. *Systematics*, 1(2), 81-88. <https://doi.org/10.35706/sys.v1i2.2076>
- Imasita, Gunawan, A., & Hirman. (2021). *Electronic Filing System Find Archives in Less than 5 Minutes* (Mastang (ed.); Second). UPT Unhas Press. https://www.google.co.id/books/edition/ELECTRONIC_FILING_SYSTEM/uI4qEAAAQBAJ?hl=id&gbpv=1&dq=archive+electronic&pg=PA168&printsec=frontcover
- Latif, F., & Pratama, A. W. (2015). Design of Electronic Records Management Information System (E-Archive) Based on Microsoft Access at PT. HI-TEST. *Journal of Accounting, Economics and Business Management*, 3(1), 21-31.
- Mulyadi. (2016). *Automation-Based Records Management* (First). PT Rajagrafindo Persada. https://www.google.co.id/books/edition/Pengelolaan_Arsip_Based_Otomasi_Rajaw/idMAEAAAQBAJ?hl=id&gbpv=1&dq=archive+electronic&pg=PA213&printsec=frontcover
- Pratama, F., Rahayu, E., & Andriana, S. D. (2023). Designing Medical Record Applications with a Clinical Pathway Approach for Outpatients and Inpatients at Android-Based Health Centers. *SIBATIK JOURNAL: Scientific Journal of Social, Economic, Cultural, Technology, and Education*, 2(2), 697-708.
- PT KAI (Persero). (2016). *Board of Directors Regulation Number: KEP.U/KD.100/IX/1/KA-2016 About the Manual of Office Documents*.
- PT KAI (Persero). (2018). *Board of Directors Regulation Number: PER.U/KO.104/I/2/KA-2018 concerning Organization and Administration of Daop 2 Bandung*.
- Rerung, R. R. (2019). *Database with Microsoft Access Applications* (M. R. Subekti (ed.); First). Publisher of Indonesian Lecturer Career Association. https://books.google.co.id/books?hl=id&lr=&id=6Xj8DwAAQBAJ&oi=fnd&pg=PA1&dq=microsoft+access+is+&ots=Z4xGwncS3a&sig=TAkw17pHx9JB3r5pJQ8uGI3K0A&redir_esc=y#v=onepage&q=microsoft+access+is&f=false
- Surahmat, A. (2023). Sales System Application Design at Cubic Art Printing. *Journal of Informatics Engineering Students*, 7(1), 81-86.