Design Of Information System Archiving For Disbursement Of Funds At The Regional Treasury Web-Based (Case Study Of The Regional Asset Finance Agency Of West Bandung Regency)

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Abstract

Information systems at this time will continue to grow from various aspects, to take advantage of the progress in this era of information systems into a need that must be owned by every agency. One of them is the filing information system, each agency needs to keep documents as important records of various activities. Therefore, the archive must be managed properly so that it is not difficult when searching for the required information. In addition, the archive system can be used in the long term so as to avoid some obstacles that often occur in the management of archives such as damaged, scattered or lost. This archive system was created to facilitate the filing process, because Kasda BKAD archiving is still manually. Therefore, in this study was carried out the design of a filing information system for Disbursement Warrants (SP2D) in Regional Cash (Kasda) in BKAD West Bandung Regency. The development of this system uses waterfall methods and functional design using UML (Unified Modelling Language), the results of black box system testing are obtained valid results. This research produces a web-based information system that is expected to make it easier to manage archives.

Keywords— Information System, Archive, PHP, MySQL.
1. INTRODUCTION

In this era of globalization, everything is modern, namely with the rapid development of the times such as using sophisticated technology, this affects every institution in Indonesia. So that each agency makes changes to the system to be more computerized to make it easier to carry out an activity, one of which is the information system. According to [1] an information system is a group of hardware, software, \textit{brainware}, steps and provisions that are united in an integral container to process data into information that is useful for solving a problem and making decisions. With the use of information systems, it becomes a matter of competition in an agency because technology is the main thing to produce better work quality.

This information system technology has become a necessity in meeting the needs of every agency, an example of the use of which its existence is most needed archives. An agency will handle daily mail that requires filing. According to [2] Archive is an activity to store important documents, written documents that have a historical value that is stored and maintained in a special place as a reference. In some agencies, archiving is still done manually because the existing system is not yet perfect. So, the archiving is less efficient and will cause several obstacles such as requiring a lot of time and effort, consuming the volume of archive space if the documents are added continuously, documents becoming damp, easily damaged and even lost and disasters such as floods and fires occur. In addition to being physically stored, archives can be stored in an information system to make it easier to find archives when needed. To meet these needs, and archive information system was created.

With the existence of this archive information system to help archive a warrant for disbursement of funds (SP2D) at the Regional Treasury (Kasda) in West Bandung Regency. While SP2D is a letter used to obtain funds through a bank designated by a payment order (SPM) which is received directly by the Regional General Treasurer (BUD) [3]. The disbursement of these funds is proposed by the Regional Work Unit (SKPD, the issuance of SP2D includes Direct (LS), Change Money (GU), Money Supply (UP) and Add Money (TU) examples in this case are disbursement for salaries, additional requests, submissions reimbursement of supplies, etc. SP2D issuance will continue to increase so that the filing of the SP2D issuance process requires a lot of space because it is archived by the accounting, treasury and Kasda sections. However, the archives at Kasda have not used a system specifically for archives.

Research conducted by Masan Abdi Wicaksono entitled "Design of a Letter Archive Information System Using the Method Prototype" explains that the management of the letter archive at the UPTD SPNF SKB Salatiga is still carried out by the administration, the letter is recorded by the secretary in the letter agenda book and stored on a closet shelf. physical archive. So we need a web-based mail archive information system that can store archives inform \textit{soft file}. So that the search for archival documents can be done more quickly and efficiently [4]

Furthermore, research conducted by Wiji Lestari with the title "Based Mail Archive Management Information System Desktop- at BP3TKI Jakarta" explains that filing letters at the Center for the Placement and Protection of Indonesian Migrant Workers (BP3TKI) ) Jakarta is still less effective because it is done manually, and storage is still in the form of \textit{hardcopy}. Then a mail archiving management information system was created using \textit{Visual Basic.net} and \textit{MySQL} to improve performance in mail management to deal with problems that occur [5]

Based on the two previous studies it can be concluded that the research conducted by Masan Abdi Wicaksono has the same objectives as the research In doing this in managing archives, the difference in this research is in the development that the method is used \textit{waterfall}. The advantage of using the method is that its \textit{waterfall} has a systematic process from analysis to testing. The study conducted by Wiji Lestari has a difference with this study, namely in the
programming language and display design using Visual Basic.net. While in this study the author uses a web-based design with PHP and MySQL programming languages as databases that can form a dynamic system. Therefore, so that mail information can be managed properly, documents are protected from damage and several other obstacles. In this study the author aims to make a system design to make it easier for employees to do archiving.

2. RESEARCH METHODS

2.1. Literature Review

2.1.1 Information System
According to [6] Information systems are the management of the organization's daily transactions, support operations, management and strategic activities and provide reports required by certain external parties.

2.1.2 Archives
Archives are records of information both recorded textually, images and audio-visuals created by the organization and stored using various media [7].

2.1.3 PHP
According to [8] PHP or Hypertext Preprocessor is a programming language used to manage dynamic and interactive web. Dynamic means, the web can change its appearance and content according to certain conditions.

2.1.4 MySQL
According to [8] is a server that serves the database. Used in database creation and processing, special programming called queries SQL(commands).

2.2 Research Methods
According to Sugiyono (2018: 1) in general the research method can be interpreted as a scientific method to obtain data that has a specific purpose and meaning. The scientific method means that research activities are based on scientific characteristics, namely rational, empirical, and systematic [9]

2.2.1 Data Collection Method
Collection methods in this study are as follows:
1. Observation: This research was conducted at BKAD in West Bandung Regency to obtain the required data and documents.
2. Interview: Collecting data is done by way of question and answer to get the information or information needed so that the information is in accordance with the data obtained.

2.2.2 Information System Development
Method the system development method used for this research is the waterfall method approach. The Waterfall (Classic Life Cycle) method is often used by system analysis because this method describes a systematic and sequential approach so that technical errors can be avoided to a minimum [10].
1. **Requirement Analysis**
   In this step, research and interviews were conducted at the BKAD, West Bandung Regency, to analyze the filing process at the BKAD Regional Treasury. In this process, the stages related to system creation are carried out.

2. **Design**
   This stage is carried out after the analysis stage is complete and complete, this design process is made to make it easier for users to use the system created. The system design uses UML (Unified Modeling Language) modeling which includes Usecase Diagrams and Activity Diagram.

3. **Coding**
   Is a translation of the design in a language that has been recognized by the computer. At this stage coding is done with the programming language using PHP and XAMPP as localhost.

4. **Testing**
   In the final stage in program development, the system that has been created will be tested for its capabilities. At this stage an experiment is carried out so that the system runs effectively and efficiently so that there are no shortcomings. Testing on the archive system made using BlackBox.

5. **Maintenance**
   The software that has been used changes from time to time, because the system must adapt to the needs and technological developments. This maintenance is to keep the system from errors or bugs.
3. RESULT AND DISCUSSION

3.1 System Design

This study explains that the concept of system design using *Unified Modeling Language* (UML) includes use cases and activity diagrams and uses the PHP programming language. This design is carried out to provide an overview to the user about the system used.

3.1.2 Use Case

Use case serves to describe the interaction between actors (Kasda) with the system.

![Figure 2. Use Case Diagram](image)

In Figure 2 shows a use case diagram that describes the interaction between the actor and the system which is depicted through a Use case diagram. The actor here is an entity that uses the system. The actor here is the Regional Treasury Section who can access the Data Management and Data Report system, before that the regional treasury section is required to log in first and if you don't have a username and password, the Kasda section is required to create an account first. The Regional Treasury Section can input data and display data in the data management menu, while in the data report menu it can print data that can be downloaded in pdf format.

3.1.3 Activity Diagram

This design describes the workflow that is run by the system.
In Figure 3 explains the flow of activity to log in, then Kasda will enter the username along with the password if both are wrong then the system cannot be processed and remains on the login page. If the username and password are correct, the system will display the main page/dashboard and login is successful.
Gambar 4. Activity Diagram Input Data

Based on the activity flow in Figure 4 is the data input process, Kasda opens the data management menu and then clicks the data input menu and the system will display a data input form so that the data will be input by the Kasda. After the data is added, the system will display the data that has been input.

Figure 5. Activity Diagram View Data
In Figure 5 describes the flow of activity to display data, Kasda clicks on the manage data menu and then clicks on the data view menu, after which the system will display the data that has been input by Kasda.

![Activity Diagram Print Report]

In the activity flow based on Figure 6 is the process of printing data, Kasda click on the report then the system will display the report menu, click the print button then the system will display the page to be printed and the system will process the report.

3.2 System Implementation

The following displays the archive information system interface that has been created, consisting of a login page, main page, data input menu, data display menu and report print menu which can be downloaded in pdf format.
Based on Figure 7 shows the login page for filling in the username and password used by the Kasda section so that the archive information system can be accessed.

In Figure 8 is the main page menu display that will appear when the username and password have been successfully performed. This page shows several items that can be processed by the system such as managing data, displaying data and printing reports.
Based on Figure 9 displays a form for inputting SP2D data by including SKPD, SP2D No, SP2D Date, description and amount. Click the add data button then the SP2D archive has been successfully added.

In Figure 10 shows the results of input data, the data can be edited, deleted and searched. If Kasda clicks edit then the display will return to the add data page if you click delete then the data will be deleted and on searching for data it will perform a search based on SKPD and SP2D numbers.
The report print menu based on Figure 11 shows the archive report that will carry out the printing process, besides that the report can be downloaded in pdf format.

### 3.3 System Testing

**Tabel 1. Black Box Testing The Archive Information System**

<table>
<thead>
<tr>
<th>No</th>
<th>Tested Case</th>
<th>Expected Results</th>
<th>Test System</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Login</td>
<td>Login successful and displays the main page</td>
<td>If the username and password have been appropriate then the system will display the main page, if it does not match then the system will remain on the login page.</td>
<td>Valid</td>
</tr>
<tr>
<td>2</td>
<td>Inputting Data</td>
<td>Data has been successfully added and data can be displayed</td>
<td>If the data input field is not filled in, then the system will give a warning that it must be filled in and if all data input fields are filled in then the data can be successfully added and the data can be displayed.</td>
<td>Valid</td>
</tr>
<tr>
<td>3</td>
<td>Button edit data</td>
<td>Data has been successfully modified and saved</td>
<td>Archive data has been successfully modified and saved.</td>
<td>Valid</td>
</tr>
<tr>
<td>4</td>
<td>Button delete</td>
<td>Data has been deleted</td>
<td>Archived data has been</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---</td>
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<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Search archive</td>
<td>Data Search result data is successfully displayed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>System successfully displays archive data search results according to the word search key.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Print archive report</td>
<td>Data is displayed in the report</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>System successfully displays the archive report to be printed and can be downloaded in pdf format.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. CONCLUSION

Based on the results of research that has been done that the Archive Information System at the BKAD Regional Treasury is made Web-based. This system was built to assist in managing archives in a more structured manner so that the storage of the Fund Disbursement Order (SP2D) becomes effective and efficient. In this study, the design of the archive information system presents the main page features, input data, displays data and prints reports. So the management of archives in the BKAD Regional Treasury is no longer manual and this system is expected to develop technology in the archives field. Some of the benefits of an archive information system, namely, reducing the volume of space, making it easier to store, searching for archives can be done quickly, an archive information system reducing the risk of damage to archives, reports can be printed in pdf format and can increase archive security because access can only be accessed. carried out by the Regional Treasury. From these benefits, the archive information system can support the needs of the Regional Treasury in managing archives.

5. SUGGESTIONS

After this research has been conducted, the authors provide suggestions for system development including:
1. Adding a report print feature according to the required date.
2. Reports are downloaded not only in pdf format but can be added in excel format, documents and so on.
3. System maintenance is carried out regularly so that the system continues to function properly good.

GREETINGS THANK YOU

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