



E-Library at Aceh Provincial Language Center

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Abstract: The book data information system at the Aceh Provincial Language Center still uses conventional methods in book data collection. The large number of printed manuscripts that were entered and the transaction process caused many difficulties in controlling bookkeeping. In addition, data processing also takes a long time. From the background description, the authors define the problem only in how the E-library Database Management System at the Aceh Provincial Language Headquarters and the design of the E-library Database Management System at the Aceh Province Language Center Office are web-based. The purpose of the discussion is to find out the E-library Database Management System at the Aceh Provincial Language Headquarters and to design a web-based E-library Database Management System at the Aceh Province Language Headquarters. For the perfection of this report, the authors collected data using several data collection methods, including using field studies and literature studies. The E-library Database Management System makes it easy for the Aceh Provincial Language Headquarters to evaluate the handling of e-libraries and with this application, it can overcome problems that exist at the Aceh Provincial Language Head Office because it speeds up reporting and reduces human errors.

Index Terms: System; Information; Database; E-library.

1. Introduction

Information technology is a technology used to process data [1, 2], including processing, obtaining, compiling, storing, manipulating data in various ways to produce quality information [3], namely information that is relevant, accurate and timely, which used for personal, business, and government purposes [4, 5]. All of that is strategic information for decision-making [6]. This technology uses a set of computers to process data [7, 8], a network system to connect one computer to another computer as needed [9], and telecommunications technology is used so that data can be spread and accessed globally [10, 11].

The Aceh Provincial Language Center Office is one of the language institutions under the auspices of the Language Development and Development Agency (Language Development Agency), Ministry of Education and Culture, which is a government agency assigned to handle language and literary issues in Indonesia. The Aceh Provincial Language Center Office is a language institution that requires a system that converts printed media texts into non-print / digital media, which is expected to be able to fill gaps arising from problems with reading culture, distance, and time problems. so that several supplement products are produced in the form of audio cassettes, radio programs, television programs, web supplements, and interactive videos. In the process of processing these products, teamwork communication relationships in each part of the management are needed, so that quality products can be consumed by participants and the public.

So far, the book data information system and the like at the Aceh Provincial Language Center still use the manual method. The large number of printed manuscripts that entered and the transaction processes caused many difficulties in controlling books. In addition, data processing also takes a long time. To be able to help with existing problems. So that it can facilitate the process of book data appropriately with the availability of timely, accurate, and relevant information. On this basis, the authors conducted research related to the making of the E-Library application at the Aceh Provincial Language Center.

2. Background and Analysis

The analysis is the stage that finds the decomposition of the components to achieve a goal [12], after the needs of a problem have been identified, the feasibility study is met to the limitations of the analysis that will be implemented into

programming [13, 14]. The analysis was carried out to obtain information about what is currently running in the administration sector [15] where the information collected is mainly about the advantages and disadvantages that apply so that later it can produce new information that is effective and efficient [16, 17]. At this stage, several procedures or stages in carrying out library data collection, both books, and others, are described, equipped with a FlowMap about what is currently running and suggestions at the Aceh Provincial Language Center. a flow map is a flowchart that shows the general structure of information, which displays a general description of the sequence of data processing in general form and shows the overall flow of work.

Based on the results of direct observations at the Aceh Provincial Language Center. The system currently running at the Aceh Provincial Language Center has been using a computerized system, especially in inputting library data but only on the use of the Microsoft Office Excel application. The Aceh Provincial Language Center currently has a computer as a tool, but the computer is only used for typing letters and not for inputting data for the new library due to the absence of supporting applications on that computer.

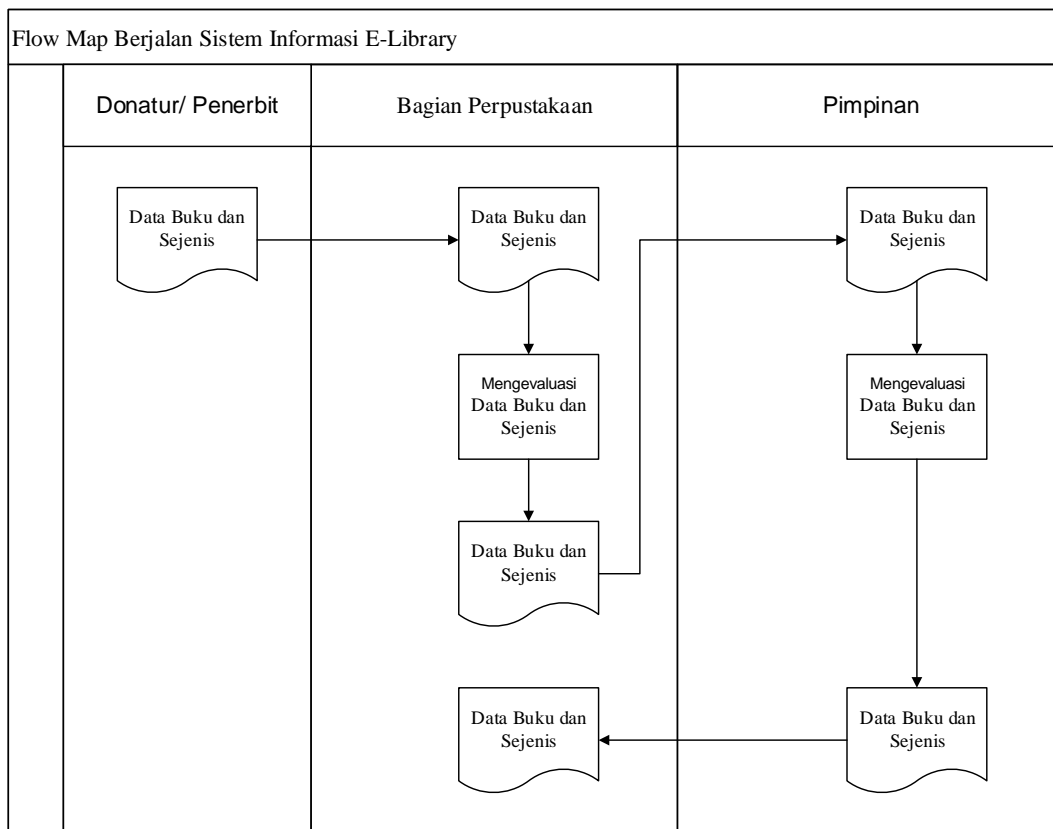


Fig.1. Flowmap Data

3. Result and Discussion

System design is the activity of developing procedures and processes that are currently running to produce a new system or updating existing systems to increase work effectiveness in order to meet the results used with the aim of utilizing available technology and facilities. In this chapter, the author will provide a suggestion which is a computerized information system that is expected to help and simplify the work. The system design is made from several menus, namely menus; overview, library, client, and settings.

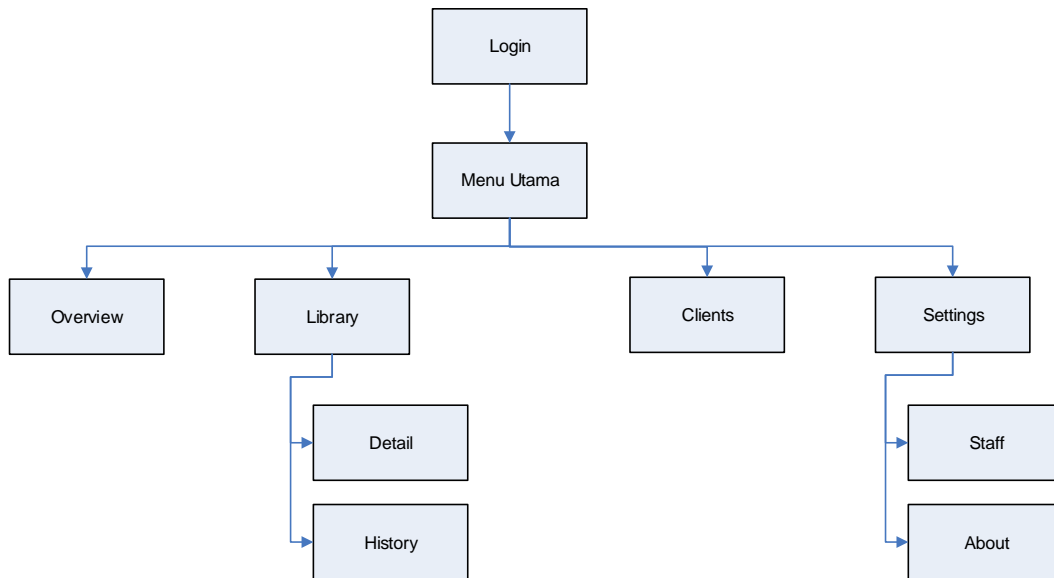


Fig. 2. Program Menu Structure

Basically, the library data collection process at the Aceh Provincial Language Center uses computers. Library data collection, then the section sends the library form, especially the new library to fill in other completeness data. Furthermore, after all the data is complete, the administration section makes a recapitulation report regarding the library data, so that the library data collection system can be seen in the context diagram below:

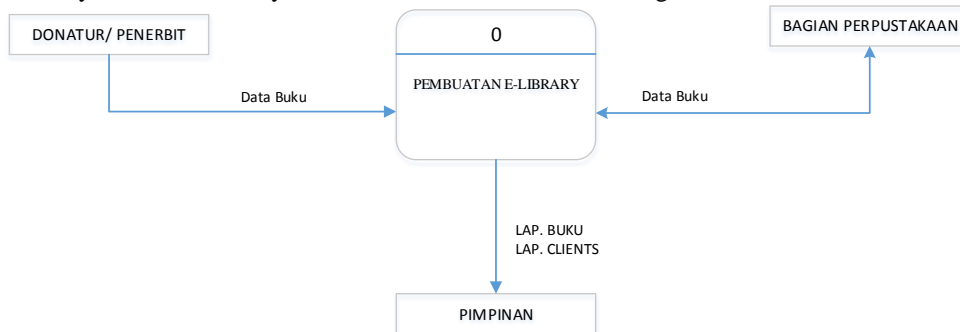


Fig.3. Context Diagram

In Figure 3 the context diagram, the department staff or officers perform library data entry. The system or leadership makes the approval which will later be processed into the library program making. Furthermore, prospective libraries will be recorded in a ledger as evidence and library evaluation. While the process in library data collection can be seen in the following figure.

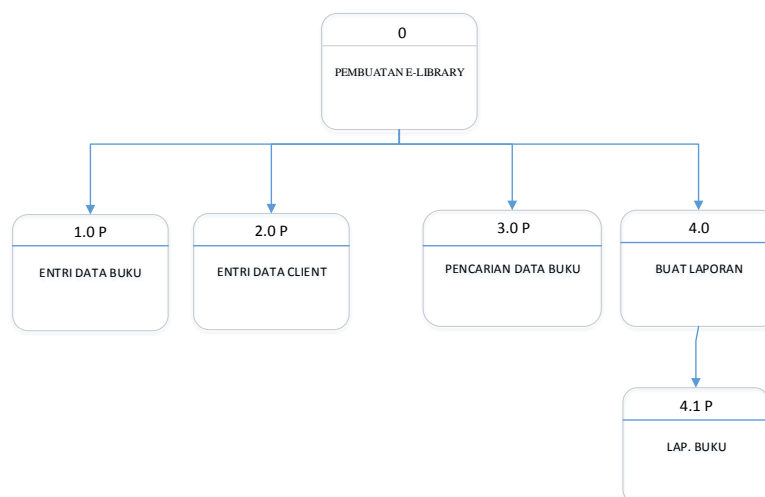


Fig.4. Tiered Diagram

Based on Figure 4, it can be seen that in each library data collection at the Aceh Province Language Center there are four processes. The four processes are Book Data Entry, Clients Data Entry, User Search Data Entry and Create Reports. For more details, from one process to another can be seen in Figure 5.

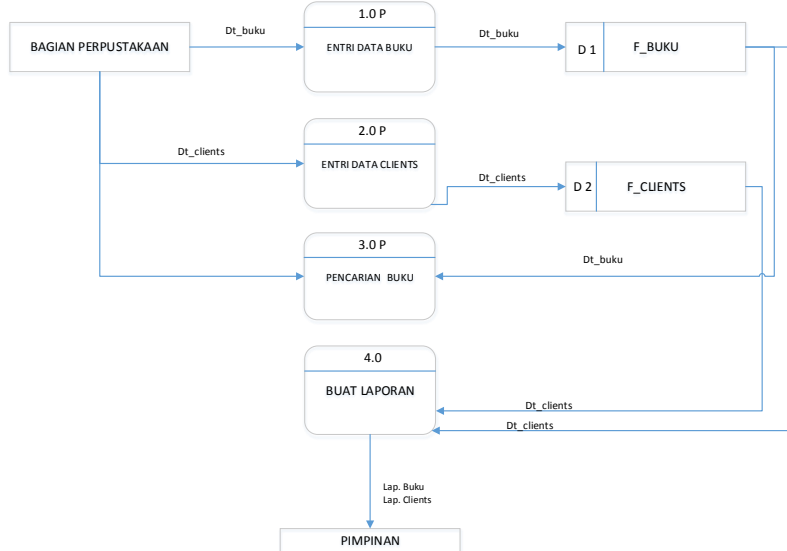


Fig.5. Data flow diagram level 0 the system is running

Based on Figure 5, it can be explained that the library data collection process, the officer records library data. The process of library recording will be reported periodically to the leadership.

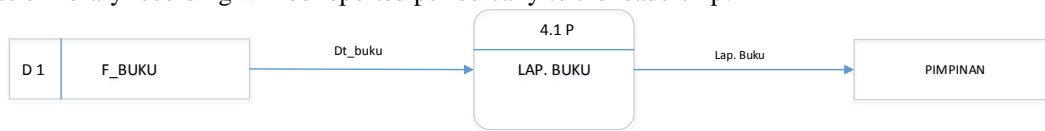


Fig.6. Data flow diagram level 1 process number 4 system design

Based on Figure 6, it can be explained that each data file provides data to the report-making process, from each report-making process giving each report to the leader, the process of making library data. The results of the design are then designed an application that can run on a browser or online that can be used by the agency or agency. Applications built in accordance with the initial development plan where there is a menu; overview, library, client, and settings as shown in Figures 7 to 11.

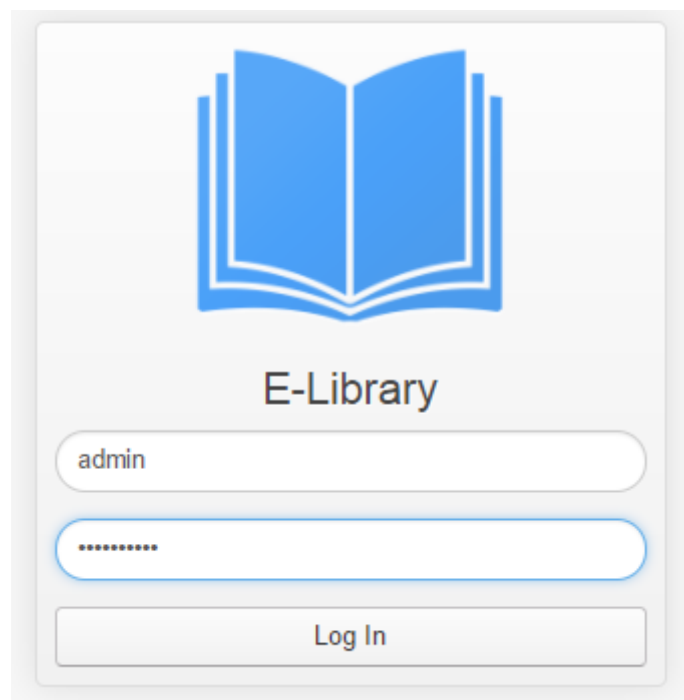


Fig.7. Login Form

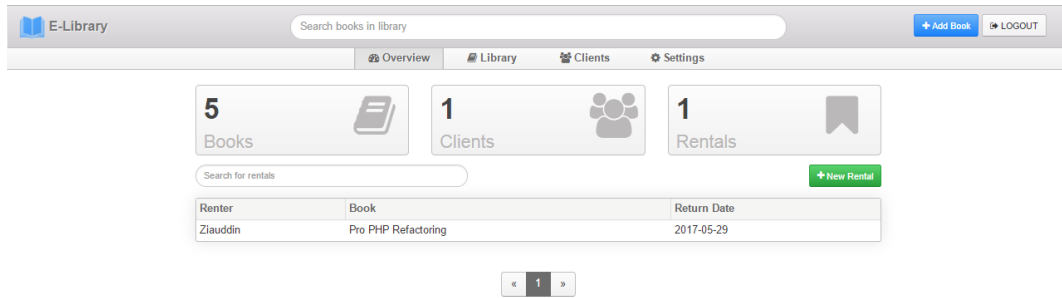


Fig.8. Main Menu Form

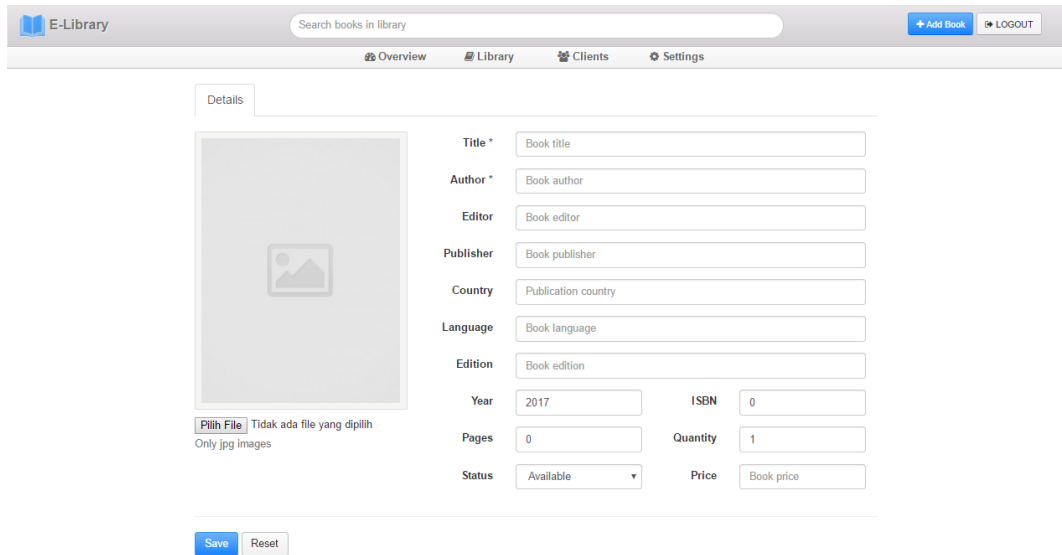


Fig.9. Book Form



Fig.10. Book Search Form

The screenshot displays the 'Book Detail Report Form' in the E-Library application. The form is titled 'Details' and shows the following information for the book 'Pro PHP Refactoring':

Title *	Pro PHP Refactoring		
Author *	Francesco Truocchia, Jacopo Rossi		
Editor	-		
Publisher	Apress		
Country	New York		
Language	English		
Edition	10		
Year	2017	ISBN	000000000143022
Pages	360	Quantity	1
Status	Available	Price	1901

At the bottom of the form, there are buttons for 'Save', 'Reset', 'Print', and 'Delete'. A small error message is visible: 'Flash File: Tidak ada file yang diunggah. Only jpg images'.

Fig.11. Book Detail Report Form

4. Related Work

Few studies have been done before and are countless [18]. Some have developed e-commerce adoption strategies for e-library development in Indonesia [19]. Basically, an e-library helps students or users [20, 21] in learning skills or digital libraries so that they can be accessed by anyone or limited by each use [22, 23]. This is also related to previous research, which focused on development, but the implementation of the results of this study has not yet been carried out. A theoretical study is needed and the impact of this application on the Aceh Province Language Center agency so that some of the benefits of using the application can be seen.

5. Conclusion

Based on the results of observations and the author can draw a conclusion which includes the following:

1. The use of E-Library at the Aceh Province Language Center Office is quite good and uses computers as data processing tools, although data processing still relies on Microsoft Office, making it difficult to produce accurate and effective reports.
2. The making of E-Library makes it easy for the Aceh Province Language Center Office to evaluate the handling of books and with this application, it can overcome problems that exist at the Aceh Province Language Hall Office because it speeds up reporting and reduces human errors.
3. Further discussion is needed in subsequent research related to the effectiveness of using this application.

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