Asset Management Information System at The Health Service of Aceh Province

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Abstract: As an effort to manage assets at the Aceh Provincial Health Office, an information system is needed that can handle problems in asset data collection. This research stage consists of; literature study, data collection, system analysis, system development, and report generation. Furthermore, in the development of the system used is the waterfall method or better known as the waterfall method. The design of the asset management information system software at the Aceh Provincial Office which the author designed consists of several stages, namely input design, output design, process design, control design, labor design, and cost design. The results of this study are an asset management information system built with Visual BASIC and Microsoft Office Access as databases. The conclusion that can be obtained from the analysis and design of the Asset Management Information System is that the information system will later be used to process asset data at the Aceh Health Office, namely adding, editing, searching for asset data. This system will also be equipped with displaying reports such as asset data reports and others. This application can be used as an alternative tool for processing asset data at the Aceh Health Office.

Keywords: Assets; Visual BASIC; Microsoft Office Access.

1. Introduction

The development of the world of technology and information systems has grown rapidly and penetrated into the side of human life [1]. Such developments are supported by the availability of both hardware and software which are increasingly powerful in their abilities [2,3]. Along with the rapid development of technology in the field of information, it has become a basic need in the business world and other businesses and has an impact on all life [4]. Computers are no longer a luxury or something that is rare for someone to have as it was at the beginning of its arrival [5], but has become a necessity even a very important need [6], especially for companies and agencies, both government and private, as well as individuals [7,8]. So that everything that is done can be coordinated in a computerized manner that is far from error, more efficient, and can work more optimally [9,10].

In connection with the issuance of the Minister of Home Affairs Regulation concerning Technical Guidelines for the Management of Regional Property or Regional Assets, there has been a new paradigm shift in the management of regional property or regional assets which is marked by the issuance of PP No. 6 of 2006 which is a derivative regulation of Law no. 1 of 2004 concerning the State Treasury, which raises new optimism in the arrangement and management of regional assets that are more orderly, accountable, and transparent in the future. Professional and modern regional asset management is expected to be able to increase public trust and other stakeholders to the government for regional asset management. In asset management, the Aceh Provincial Health Office does not yet have a good and accurate system in asset management, especially for office assets at the Aceh Provincial Health Office.

In-office activities, the software is a very important part, which has capabilities such as processing, accessing, and storing the required information quickly and precisely. With the software, it is expected that existing data can be stored regularly so that data processing can be done more easily. Almost every government and private agency already use information systems. The existing system at the Aceh Provincial Health Office, especially in the Inventory section of goods, already uses a computerized system, namely using office applications such as Microsoft Word and Microsoft Excel in the process of managing data on usage and demand for goods. Although there is some data that has been stored in the computer, there is still some data that is still stored in irregular sheets, making it difficult for employees to provide information quickly and accurately. Information systems at the agency are needed to identify and control the development of the agency. The existence of this information system is very helpful for agencies in managing their performance in a systematic and procedural manner. From the description above, the research objectives are:
a) To find out and design an Asset Management Information System using Visual BASIC 6.0 at the Aceh Provincial Health Office
b) Design of Asset Management Information System using Visual BASIC 6.0

c) To improve the existing system to be even better, by building an information system that can improve performance at the Aceh Provincial Health Office.
d) Knowing how the process of asset management at the Aceh Provincial Health Office

2. Research Method

To assist in the preparation of this research, it is necessary to have a clear framework for the stages. This framework is the steps that will be taken in solving the problems that will be discussed. The research framework used is as shown in Figure 1.
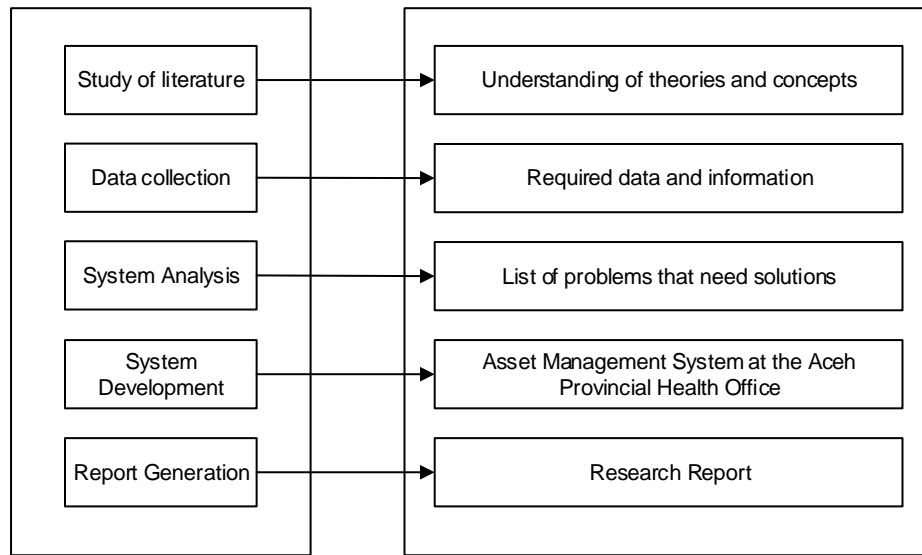

Fig.1. Research Flowchart

This research was conducted at the Aceh Provincial Health Office which is located at Tgk. Syech Mudawali Street No. 6, Kampung Baru, Kp. Baru, Baiturrahman, Banda Aceh City, Aceh 23116. The special place of research is asset management. In writing this research, the author uses several Field Research methods, namely by obtaining data directly from the research site so that the data needed in this study are data that were actually obtained when the research was conducted. As for the research data collection, the authors use the collection methods in the form of; 1) Interview, namely collecting data by conducting interviews directly with related parties to obtain information on the problems they are facing, and 2) Observation, namely direct observation of the system mechanisms that are running at the Aceh Provincial Health Office.

Software development is the latest industry, in industry, development, and growth are really needed to be better. Software development in a company is more than just writing code. Collaboration with other teams and team members with various specialties is an additional step in documenting the software development process. The Linear Sequential Model, often called Waterfall, is the oldest and most widely used software engineering paradigm. This model proposes a systematic and sequential approach to software development that starts at the system level and progresses throughout analysis, design, code, testing, and maintenance [11,12].
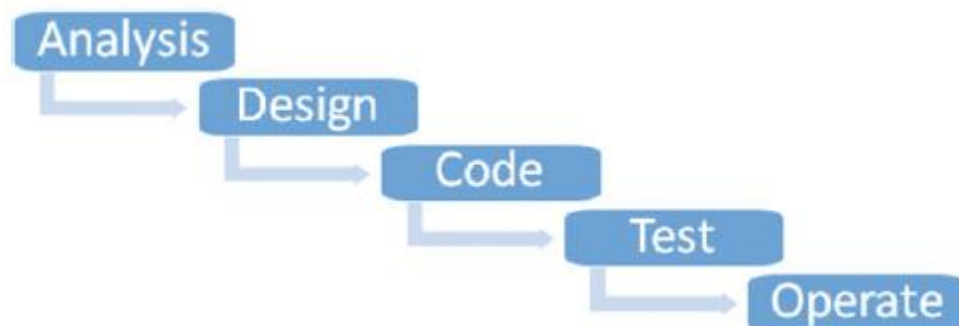
Fig 2. Waterfall Stage

An Entity Relationship Diagram (ERD), also known as an entity relationship model, is a graphical representation that depicts the relationships between people, objects, places, concepts, or events in an information technology (IT) system [13,14,15]. The ERD that the researcher designed is as follows.
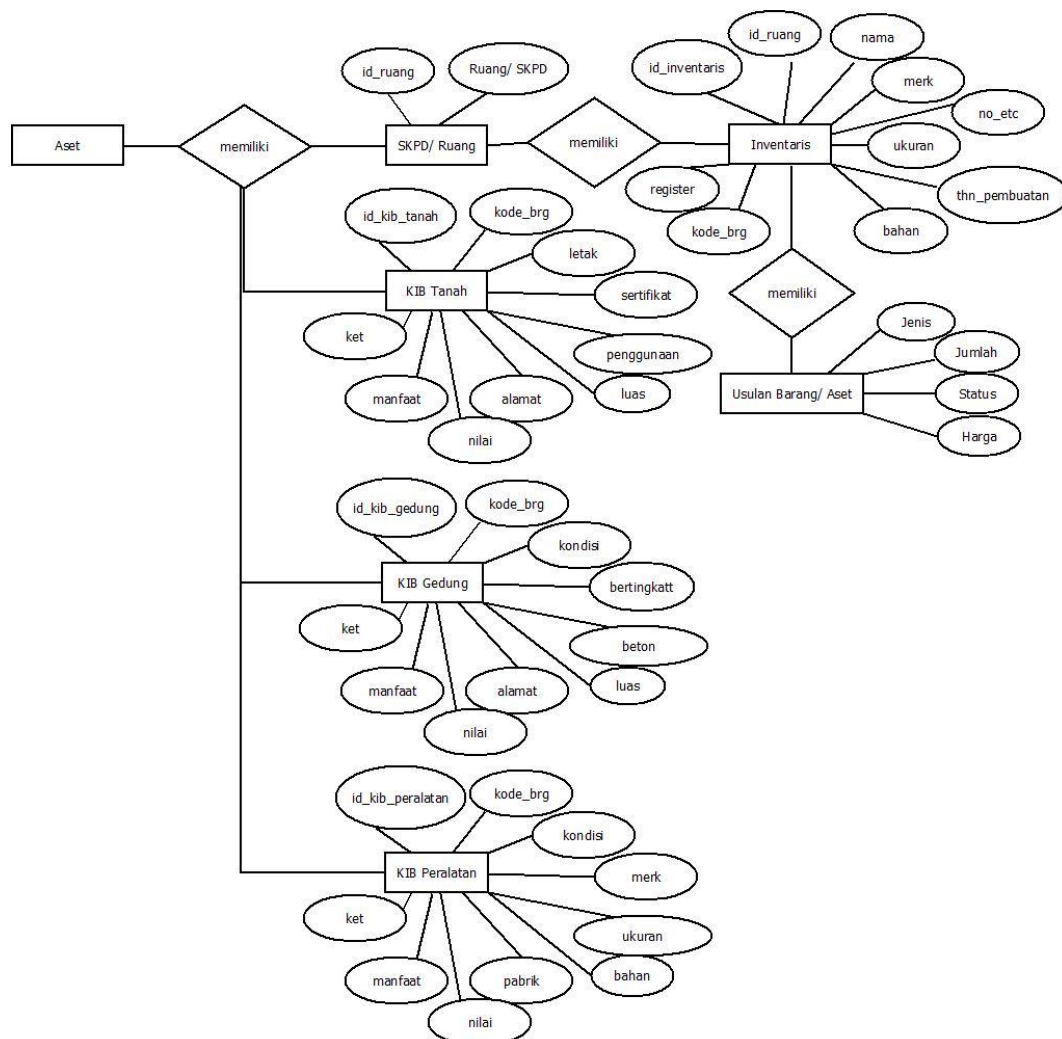
Fig 3. ERD (Entity Relationship Diagram)

3. Result and Discussion

The design of the asset management information system software at the Aceh Provincial Office which the author designed consists of several stages, namely input design, output design, process design, control design, labor design, and cost design. This design later the author hopes to make it easier for every user, especially the asset section of the Aceh Provincial Office. For more details on the design stages can be seen in the following explanation. This input design consists of several program files, namely:
a) Space Data Entry Program
b) Proposed Data Entry Program
c) Data Entry Program for Building Assets Inventory Card (KIB)
d) Data Entry Program for Goods Inventory Card (KIB) Equipment and Machinery Assets
e) Land Assets Goods Inventory Card (KIB) Data Entry Program, and
f) User Data Entry Program.

The use of the Asset Management Information System Design at the Aceh Provincial Office, seen from the design of the application into the form of an application display. The login form is used as system security from abuse of access rights, so data security can be guaranteed. Here the user is asked to enter a user name and password to be able to access further data. For more details on the login process can be seen in the image below.
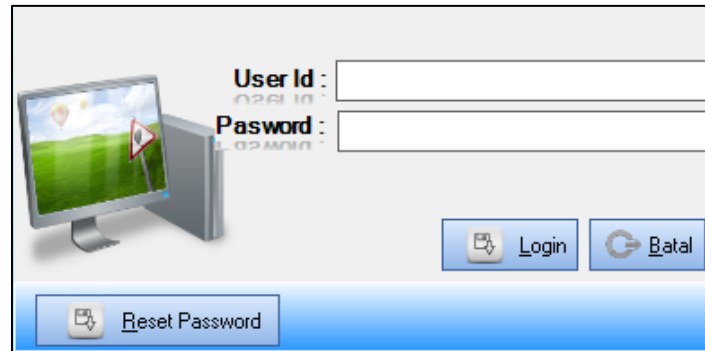
Fig 4. Login Form Display

The reset password button is used to change the password, this is an alternative module if someone forgets the password that was used previously, they can reset the password by filling in the previous user id and username data and then filling in the new password data. In the form below, the main menu form contains the display of the master user, room, proposal, inventory, KIB for building and building assets, KIB for equipment and machinery assets, KIB for land assets, and users. Computer users just click the desired menu icon to see what's in the file.
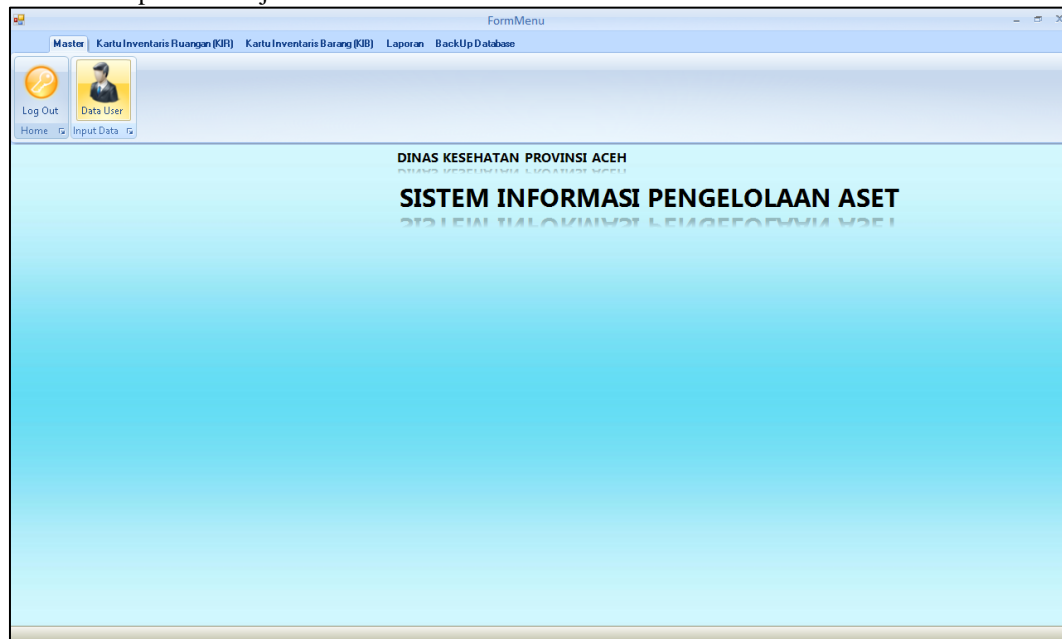
Fig 5. Main Menu Display

The space input menu is a page where the user can input space data. Where it contains the code, space name, and description.
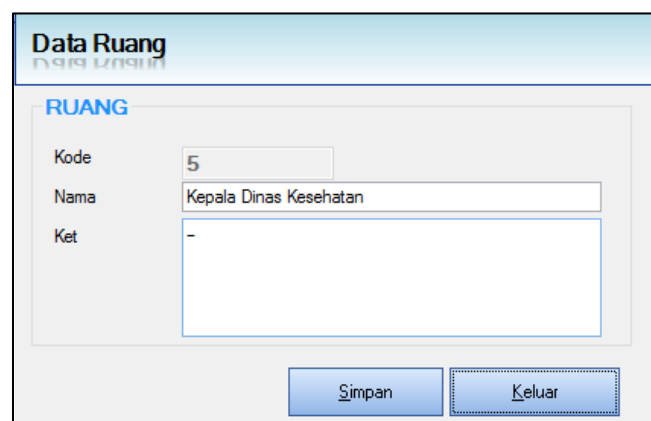
Fig 6. Space Input

Each space data added will be displayed in the form of a list, the space list form also functions to manipulate space data such as adding, changing space data and deleting space data, as shown in Figure 4.6 below. The input data menu for the proposed goods is a page where the user can view a number of proposed data for goods to add to the official inventory on the system. After the data is added or saved, the results of the proposed data will also be displayed on the proposal list form which functions as adding, changing data, and deleting proposed data. So that the results of recording the proposed goods data will also produce a detailed report on the proposed goods and a recap of the proposed goods as shown in Figures 7 and 8 below.

Fig 7. Proposed Data List Form

Inventory data input forms are assets that are in buildings or tools that are used daily. The form for adding inventory data consists of; inventory code, room code, room name, item name, brand/model, certificate/factory/chassis/machine number, size, material, year of manufacture, item code, register, purchase price/acquisition, item condition, item status, and description mutations and others. Based on the inventory data input form, it can then be seen on the inventory list form where the inventory list form can function as adding, changing data, and deleting inventory data. Here's a display of the inventory list below.

Fig 8. Inventory List Form

The results after the inventory data is stored are divided into 2 (two) parts, namely; Inventory Detail List Report and Inventory Recap Report as shown in Figures 9 and 10 below.

Fig 9. Inventory Detail List Report

Fig 10. Inventory Recap Report

The input menu for the Building and Building Assets Goods Inventory Card (KIB) which serves to add data to the existing Building and Building Assets KIB data at the Aceh Health Service which consists of; asset code, item code, item name, register, condition, address, document, origin, acquisition price, benefit value, depreciation value, value after depreciation and description. The results of the recording of the Building and Building Assets KIB will be displayed in the form of a list, where the Building and Building Assets KIB list form also functions as data manipulation of Building and Building Assets KIB such as adding, changing data, and deleting data.

Fig 11. List of Building and Building Assets KIB Form

The results of the Building and Building Assets KIB report are divided into 2 (two), namely; Detailed Report on KIB Building and Building Assets and Detail Report on KIB for Building and Building Assets. The input menu for the Goods Inventory Card (KIB) for Equipment and Machinery Assets which serves to add data to the Equipment and Machinery Assets KIB at the Aceh Health Service which consists of; asset code, item code, item name, register, brand, size, material, factory, year of purchase, order, police identity, machine, BPKB, acquisition price, benefit value, depreciation value, value after depreciation and description. The results of the recording of the KIB for Equipment and Machinery Assets will be displayed in the form of a list, where the list form for the KIB for Equipment and Machinery Assets also functions as data manipulation of the KIB for Equipment and Machinery Assets such as adding, changing data, and deleting data.

Fig 12. KIB List Form for Equipment and Machinery Assets

The results of the KIB report on Equipment and Machinery Assets are divided into 2 (two), namely; KIB Detail Report on Equipment and Machinery Assets and Detail Report on KIB Equipment and Machinery Assets. The input menu for the Land Assets Goods Inventory Card (KIB) which functions to add data to the existing Land Assets KIB data at the Aceh Health Service which consists of; asset code, item code, item name, register, area, year of procurement, location/address, rights, certificate number, date certificate, use, origin, acquisition price, and information. The results of the recording of KIB Land Assets will be displayed in the form of a list, where the list form of KIB Land Assets also functions as data manipulation of KIB Land Assets such as adding, changing data, and deleting data.

Fig 13. Land Assets KIB List Form

The results of the Land Assets KIB report are divided into 2 (two), namely; Detailed Report of KIB Land Assets and Detail Report of KIB Land Assets. The Backup Database menu is a form for backing up old databases to other media places, the purpose of this backup is one of data security.

Fig 14. Database Backup Form

4. Conclusion

The conclusion that can be obtained from the analysis and design of the Asset Management Information System is that the information system will later be used to process asset data at the Aceh Health Office, namely adding, editing, and searching for asset data. This system will also be equipped with displaying reports such as asset data reports and others. This application can be used as an alternative tool for processing asset data at the Aceh Health Office.

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