

Asset Inventory System of Employee Cooperative's Pusri Palembang Inc.

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Submitted : **26/08/2022**
Revised : **02/09/2022**
Accepted : **19/09/2022**
Published : **27/09/2022**

Abstract

Employee cooperative has been widely existed in every institution in Indonesia, both at government and non-government. This research aims at facilitating the office employees of the Pusri Employee Cooperative to manage the assets owned. To support this convenience, the author proposes an asset inventory system using VB.Net 2008 and MySQL database. The proposed system can be used to manage asset data in the form of asset data input, asset search, asset grouping, deletion, sales and asset reports owned. With the creation of an asset inventory system, the performance of office employees will be faster and more efficient and ensure the security of asset data. In this study the author uses the Waterfall research method including several stages i.e., requirements analysis, system design, program code generation, testing and maintenance. The method of data collection is done through interviews and direct observation to the object of research. The results of the research are expected to be useful for all office employees of the Pusri Palembang Employee Cooperative in managing data on assets owned by the office.

Keywords: asset inventory, MySQL, system, VB.Net 2008

1. Introduction

Information technology (IT) have widely spread in all aspects of work. IT is a very important requirement for companies, agencies, and educational institutions to support data management to be more structured, efficient, and fast, including in the management of the inventory of goods owned by a company or institution, of course with the help of information technology or computerization will be very helpful in managing and maintaining the assets of the goods owned. The understanding of the system according to Jogianto in (Hutahaen, 2014) is a collection of elements that interact to achieve a certain goal. This system describes an event - an event and a real entity is a real object, such as places, objects, and people that really exist and occur. Assets

are goods owned by local governments obtained from buyers by local governments, grants from the central government, or assistance from other parties, which are non-binding and coercive (Rahyunir, 2016).

Employee cooperatives are cooperatives formed within a company. The management and membership of the cooperative are employees of the company. The business entity located in the Pusri Palembang Inc. complex has a savings and loan business unit and other business units. This institution is in dire need of assistance from information technology to support the ease of managing data on assets owned and to support the smooth working system of the cooperative office. The definition of asset inventory is a series of activities to collect data, record, report the results of asset data collection, and document both tangible assets and intangible assets at a certain time (Pinem & Pakpahan, 2020). Asset inventory is very important for a company, agency, or institution, because with a good and correct and structured inventory it will make it easier to manage equipment facilities or goods assets from the agency itself.

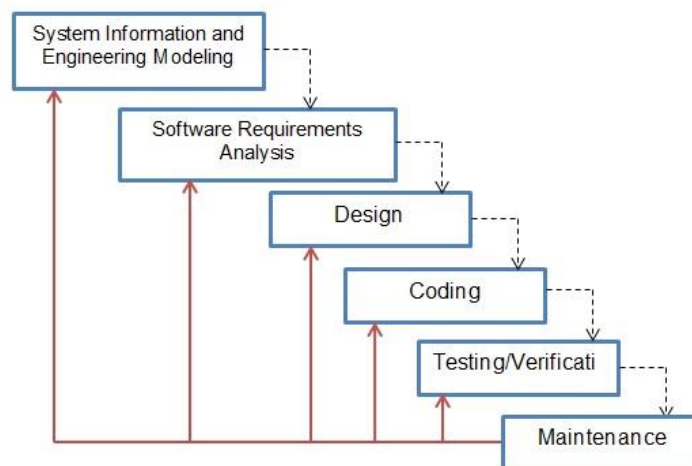
Therefore, it is necessary to create an inventory system that can support the performance of cooperative employees to make it faster and easier to manage asset data owned by the office. A system that can connect to all office spaces without having to be connected to the internet network and easy to operate by simply installing an application on their computer. The use of Microsoft Visual Basic .Net 2008 is the right way to create a cooperative asset inventory system for Pusri Palembang Inc. which can enable researchers to create a desktop application-based system that can be connected to each other without being connected to the internet network and can be a solution for making applications intended for Offices/Agencies where computer equipment is dominated by Windows OS such as computer equipment. which is in the office of the employee cooperative Pusri Palembang Inc.

Microsoft Visual Basic .Net 2008 is one of a group of programming languages created by Microsoft and incorporated in one package of the Microsoft Visual Studio 2008 programming language (Sulastri & Sarwindah, 2014). The programming package consists of Microsoft Visual C # 2008, Microsoft Visual Basic 2008, Microsoft Visual C ++ 2008 and Microsoft Web

Developer 2008. Visual Studio 2008 is a software for creating Windows applications such as database applications, desktop applications, inventory applications, and so on.

2. Research Method

The system development methodology applied in this research is the waterfall method. This method will go through several sequential and systematic phases in software development. That way, the work on the system cannot be done simultaneously, it must be with. Therefore, this method is often analogous to a waterfall where all processes are carried out sequentially from top to bottom. The waterfall model is a classical model that is systematic, sequential in building a system (Pressman, 2015).



Source: Pressman

Figure 1. Waterfall Method

3. Results and Analysis

3.1. Requirement Analysis

Requirements Analysis is a requirement related to the function in the application of the system. This analysis is used to provide an overview of the problems that exist in the workings of the asset inventory carried out by the PT.Pusri employee cooperative which is currently being used.

After analyzing the requirements of the system, researchers got data directly from the field about the problems and workings of asset management at

the employee cooperative office. Where later the data from the results of the needs analysis will be very useful for researchers in building the system to be made.

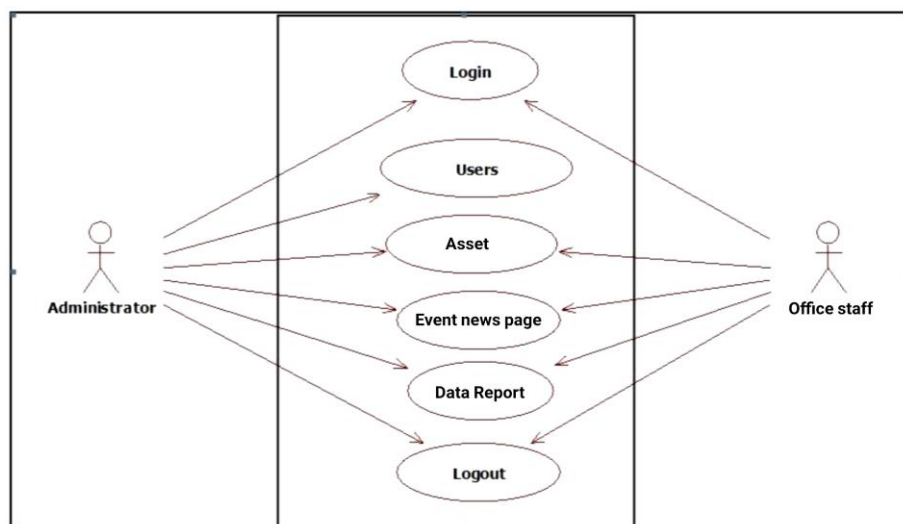
The notion of data was a representation of real-world facts that represented an object such as humans (employees, students, buyers, customers), goods, animals, events, concepts, circumstances, and so on, which were manifested in the form of numbers, letters, symbols, text, image, sound, or a combination thereof (Nisa, 2019).

3.2. System Design

Design is the process of translating the requirements of the system into a detailed and structured software form. To facilitate the implementation of the system later. Where in this design will use Use Case Diagrams, Class Diagrams, Activity Diagrams and Database table design.

Use Case Diagram

Use Case or Use Case Diagram is a modeling for the behavior (behavior) of the information system to be created (Sukamto & Shalahuddin, 2018). Use case diagram is a representation of the relationship that occurs in a system and its environment.



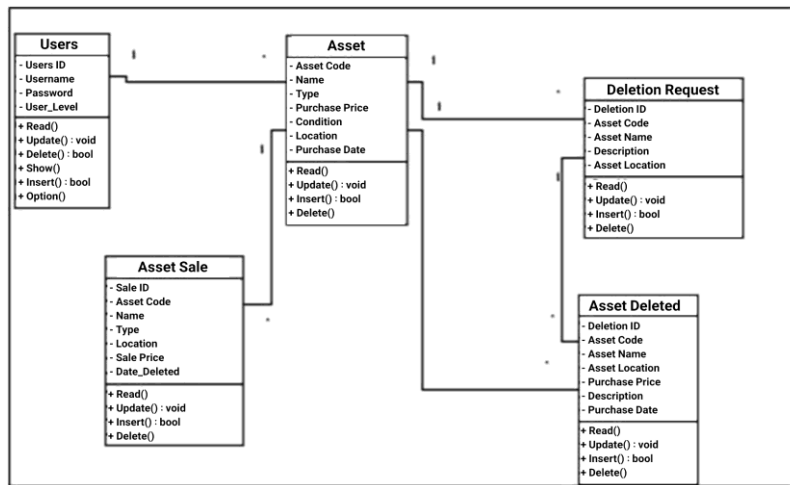
Source: Research Result

Figure 2. Use Case Diagram

Class Diagram

The class diagram describes the structure of the system in terms of defining the classes that will be created to build the system (Sukamto &

Shalahuddin, 2018). Class diagrams are used to display classes and packages on the system.

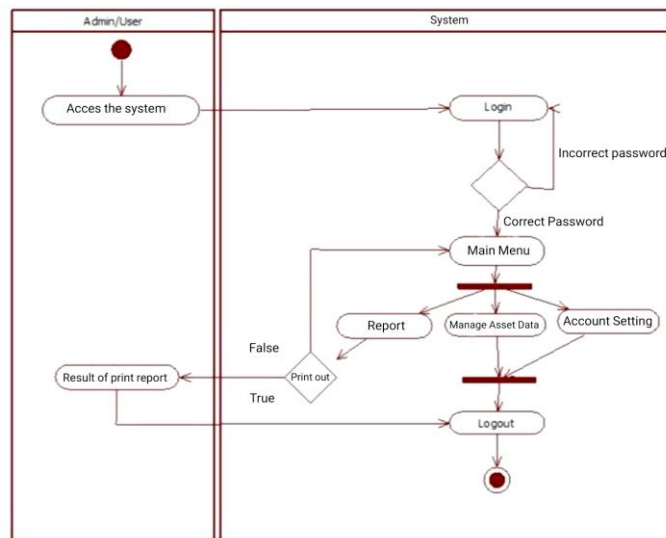


Source: Research Result

Figure 3. Class Diagram

Activity Diagram

Activity diagrams or activity diagrams describe the workflow (workflow) or activities of a system or business process or menu that is in the software. Activity diagrams describe how the activities performed by users in the system (Sukamto & Shalahuddin, 2018).



Source: Research Result

Figure 4. Activity Diagram

3.3. Database Design

The database is a collection of interrelated and interacting files, the relationship is indicated by the key of each existing file (Dalimunthe, 2022). In

PIKSEL status is accredited by the Directorate General of Research Strengthening and Development No. 28/E/KPT/2019 with Indonesian Scientific Index (SINTA) journal-level of S5.

designing the database structure, a database is created with the name inventory and there are 4 tables that It has been designed in it, namely, Asset table, User table, Scorched Table, Request_removal table and Sale table.

In this study, the author uses MySQL as the database software along with XAMPP as the local server. MySQL is a relational database software (Relational Database Management System or DBMS), such as ORACLE, POSTGRESQL, MSSQL and so on (Anisya, 2013). While the understanding of XAMPP is a package of PHP and MySQL based on open source or free, which can be used as a tool to help develop a PHP-based application (Riyanto, 2014).

Table 1. Asset

No	Field Name	Data Type	Size	Description
1	ASSET CODE	CHAR	10	Asset Code *Primary key
2	NAME	VARCHAR	50	Asset Name
3	TYPE	VARCHAR	50	Asset Type
4	PURCHASE PRICE	INT	11	Asset Price
5	CONDITION	VARCHAR	10	Asset Condition
6	LOCATION	VARCHAR	20	Asset Location
7	PURCHASE DATE	DATE	-	Date of Aseet Purchase

Source: Research Result

Asset table is a table that will accommodate all asset data in it. All data entered the system will be directly entered into the asset table. In this table there is an ASSET CODE field that serves as the primary key.

Table 2. Users

No	Field Name	Data Type	Size	Description
1	USER ID	INT	10	USER ID *Primary key
2	USERNAME	VARCHAR	50	Account Username
3	PASSWORD	CHAR	50	Account Password
4	USER_LEVEL	VARCHAR	11	Level of Account type

Source: Research Result

The User table is used to store all system user account data. In this table there is ID_User as the primary key and then the HAK_USER field which will later set user access rights in the system. Where there are 2 types of user levels, namely Administrator and User (regular users/office staff).

Table 3. Asset Sale

No	Field Name	Data Type	Size	Description
1	SALE_ID	INT	10	Sale_ID *Primary key
1	ASSET CODE	CHAR	10	Asset Code
2	NAME	VARCHAR	50	Asset Name
3	TYPE	VARCHAR	50	Type Asset
6	LOCATION	VARCHAR	20	Asset Location
4	SALE PRICE	INT	11	Asset Sale Price
7	DATE_DELETED	DATE	-	Deletion Date

Source: Research Result

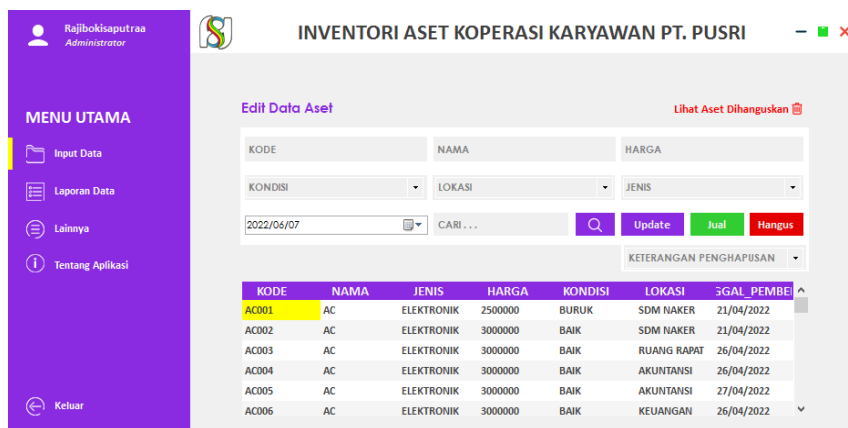
In this table, all asset data that have been resold by the office will be stored here. There is a field ID_PENJUAL which serves as the Primary key.

3.4. Results

After conducting the analysis and design process of the system and then ending with the creation of an asset inventory system for the Pusri employee cooperative. Therefore, the results obtained by the researcher is the direct application of an asset inventory system at the Pusri Palembang Inc. Employee Cooperative office.

a. Edit Data

Edit data is useful for making changes to assets, such as changing locations, conditions, etc. This menu is also used to delete or sell assets. In addition, users can view assets that have been deleted by the previous admin via the View Destroyed Assets button located in the upper right corner of the data edit menu.

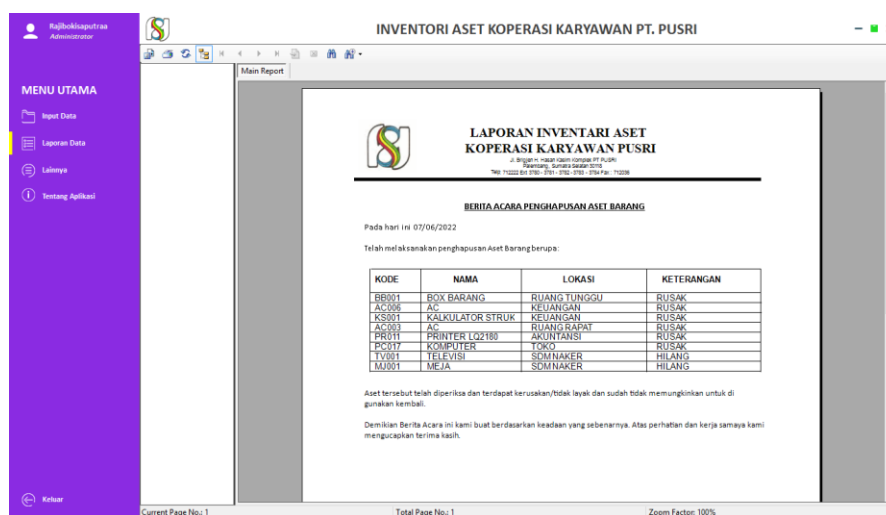


Source: Research Result

Figure 5. Edit Data

b. Minutes of Asset Disposal Page

Minutes are created automatically by the system based on the condition of the assets deleted on that day. The Minutes form will automatically change according to the change in date. Hence, after the asset is deleted, the minutes will be displayed, but if you access the minutes after the deletion is done the system will not display the previous minutes.



Source: Research Result

Figure 6. Minutes of Asset Disposal

4. Conclusion

The resulting system is an asset inventory system for the Pusri Employee Cooperative which aims to help manage all assets owned by the Pusri Employee Cooperative in a more efficient and structured manner. All employees can see a report on the overall assets owned. With this system asset data management is safer because it is directly stored in the database. Make it easier for admins to sort every new item or item that has been deleted by the office. So that all asset data has a clear and transparent record and reduces the risk of assets being lost without any information.

Acknowledgements

The researcher expresses his gratitude to Bina Darma University, especially the Vocational Faculty. Because thanks to the support from the Vocational Faculty of Bina Darma this research can be realized.

Author Contributions

Rajib Oki Safutra proposed a research topic, Akhmad Khudri provided a model concept and system design. Rajib conducts system requirements analysis. Rajib Oki Safutra and Akhmad Khudri analyzed the results.

Conflicts of Interest

The authors declare no conflict of interest.

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