

Design Of Web-Based Asset IT Management Systems (Case Study Of PT Bollore Logistics)

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Abstract:

The asset management system at Pt Bollore Logistics is currently still being carried out manually, so there are still frequent information errors. With this error of information, the Pt Bollore Logistics asset manager is not well controlled, because asset management is basically still done with Excel and manual. In this case the alternative circuit is to create a Web-based asset management system with the Waterfall method. The Asset Management System is designed to overcome the asset placement that will be used by user. The Waterfall Method is chosen by the writer using the Waterfall method according to Rosa and M Shalahuddin (2013: 28) The SDLC model of waterfall is often also called a linear sequential (classic life cycle) model. The waterfall model provides a sequential or sequential software lifecycle approach starting from analysis, design, coding, testing, and supporting stages. Creating a draft Management Asset Management system for goods that is expected to help and accelerate the process of making reports on the use IT assets of goods and reduce information errors so that it will produce reports that can be accounted for.

Keywords — Information System, Asset Management With The Waterfall Method.

I. INTRODUCTION

Asset management in the field of Information Engineering discusses controlling IT assets in institutions. The development of business in the modern world will not escape from the field of Information Engineering, a simple example that we encounter such as processing transactions online. With the online transaction process, consumers can make purchases anywhere, anytime they don't need to meet each other. The development of information technology in Indonesia continues to increase. Large companies in Indonesia use a database asset management system to control assets within the agency. The IT Asset Database Management system at the company helps the IT team to carry out data collection, starting from grouping data, inputting data, updating to deleting data.

It can record all IT assets that enter the company. Thus IT assets within the agency can be accessed directly to see the process of entering and leaving IT items. Imagine what happens if the company does data collection only with excel or books. Data will not be accurate and difficult to be accessed. With the IT asset management database system, you can view data history and directly control the IT asset inventory activities in the company [1]. From this explanation, this paper will focus on making a web-based IT Asset Management Application Database System for PT Bollore Logistics. This application can be accessed at any time by the IT Team through a website that has been made during working hours. Data can be purchased for IT Asset items. directly inputted by the IT Team.

Users of this application can see the history of incoming and outgoing IT assets within the Company, proof of recipients of IT assets can be Print Out as receipts of IT items given to staff who make requests for IT asset purchases. Thus the base system IT Asset Management application data can help make data collection and control IT Assets from staff [2].

2. METHODS AND RELATED RESEARCH

2.1. System method

IT Asset Management System is a system for collecting and maintaining data describing inventory, converting the data into information and reporting to users. This inventory system has the main function of being able to generate information flows that support the routine work of the asset control section by obtaining and recording inventory data, supporting decisions needed by the IT department, Helping preparation of internal and external reports [3].

2.2 Method Waterfall

According to Sukanto and Shalahuddin (2013: 28) the SDLC model of waterfall is often also called a linear (sequential linear) or classic life cycle model. The waterfall model provides a sequential or sequential software flow approach starting from analysis, design, coding, testing, and supporting stages [4]. Explanation of the waterfall model stages is as follows :

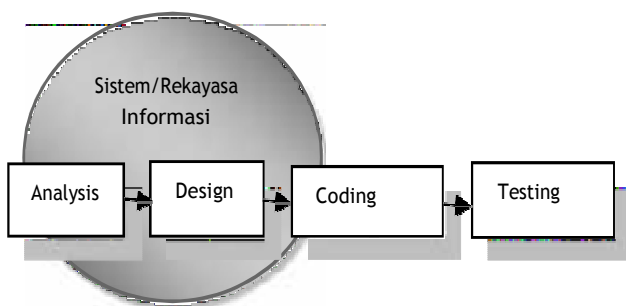


Fig.1 Illustration of the Waterfall Method

A. Analysis

Analysis of software requirements The process of gathering needs is done intensively to specify software requirements so that software can be

understood as needed by the user. The software requirements specification at this stage need to be documented [5].

B. Design

Software design is a multi-step process that focuses on the design of making software programs including data structures, software architectures, interface representations, and coding procedures. This stage translates software requirements from the needs analysis phase to design representation so that it can be implemented into a program at a later stage. The design of the software produced at this stage also needs to be documented [6].

C. Coding

Making Program Codes, designs must be translated into software programs. The results of this stage are computer programs according to the designs that have been made at the design stage [7].

D. Testing

Testing focuses on software in a logical and functional manner, ensuring that all parts have been tested. This is done to minimize the error (error) and ensure the output that is produced is as desired [8].

E. Maintenance

It is possible for a software to change when it has been sent to the user. Changes can occur because of an error that appears and is not detected when testing and software must adapt to the new environment. The support or maintenance stage can repeat the development process starting from specification analysis to changes existing software. But it doesn't create new software [9].

2.3 Related System Business Process

Each work unit has a sub-section controlling IT assets needed in the work unit, the system process for this activity is useful for efficient time and valid data records. The following is the system process for management asset activities. If the sub-administration has agreed, the IT staff will purchase goods in accordance with the form. IT staff do manage the stock assets according to the location of the staff, and print a list of items purchased to be given to the sub-administration to recap according to the purchase of goods. purchase due to damage then insert repaired device. If the purchase of goods is there and first, then insert new device if the purchase

item is not available / finished then the IT staff confirms the administration and continues confirmation to the staff who request and wait for the goods to be available. report that item t it has been completely used / damaged, insert dump device [10]. Following is the actual flow of business process.

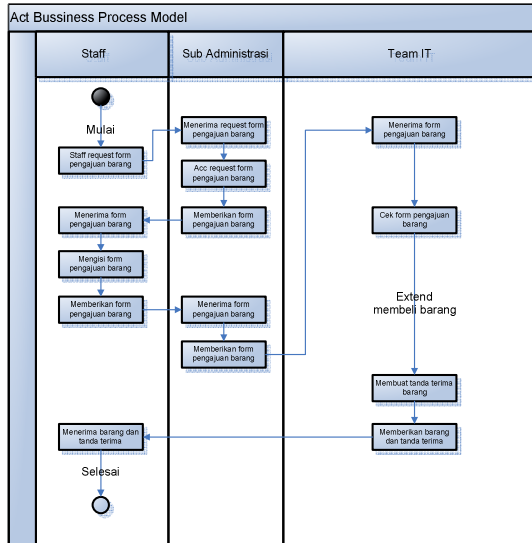


Fig.2 Activity Package Diagram System Business Process. Describe business processes and workflow stages step by step from system components.

3.RESULT AND DISCUSSION

3.1 Research Methodology

The research method used in this research is applied research method which is a research that is directed to obtain information that can be used to solve problems with the aim of applying, testing, and evaluating practical problems. UML modeling as a method for modeling software to be built.

The modeling used is as follows:

1. Use case diagram. In this case the author organization and models of the behavior needed and expected by the user (user)
2. Activity Diagram. In this case the author tries to show the flow of activity to other activities in the system.
3. Sequence Diagram. In this case the author tries to model the flow of logic from a system to a built in visual way
4. Deployment of Asset Management System Diagrams

The author shows the asset inventory system configuration on the Web Service Server on localhost.

5. Class Diagram Class Diagram. In this case the author tries to show the sets of classes, interfaces, collaborations, and relationships.

Design is a depiction, planning and making a sketch or arrangement of several separate elements into one whole unit. The system is a group of integrated elements with the same intent to achieve a goal. The IT Asset Management System aims to provide an interactive information system that provides information, modeling and data management [11].

3.2 Data Collection Method

The collection method The data used for this study is to use secondary data obtained by looking at existing problems. In this case the author helps the IT to solve problems in managing asset IT management in PT Bollore Logistics which is done manually, therefore the authors do data collection, namely:

- Frequency of IT asset purchases.
- Collecting data data from suppliers for purchases IT goods.
- Data collection of items that are often purchased by IT
- The process of inputting data is manually inputted.
- Conduct research through existing journals there is about the management process of goods on company.

3.3 Implementasi Sistem

This stage is carried out after the analyst and system design, including the implementation of the system, so that the system can be operated. move the program logic obtained from the results of analysis and design.

- User Interface

Display Menu Form Login

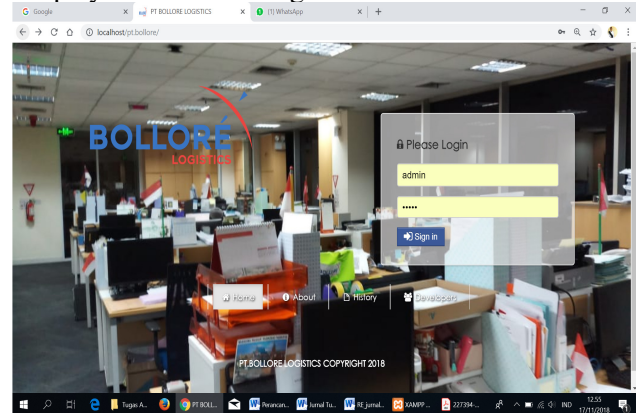


Fig.3 User Interface Form Login

Display Form Home

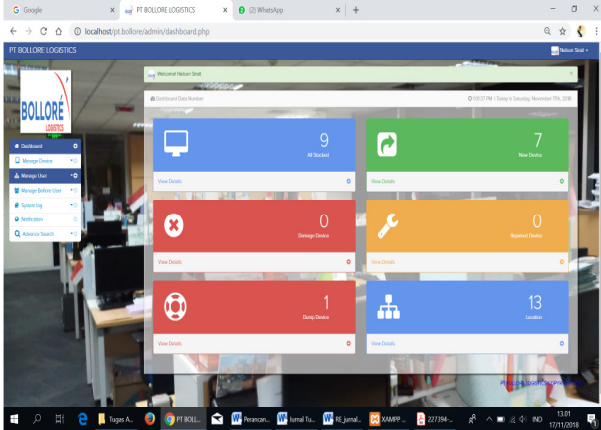


Fig.4 User Interface Form Home

Display of Data Entry Item Inventory Form

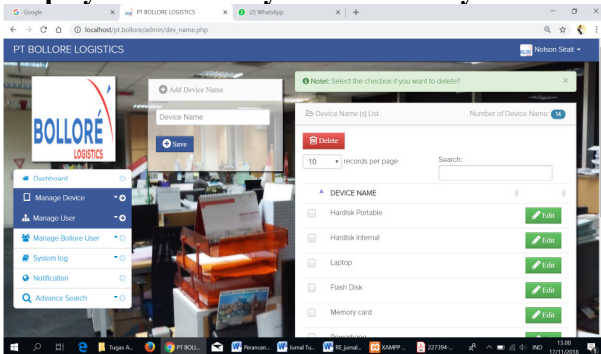


Fig.5 User Interface Data Entry Item

3.4 Software Architecture

Software architecture in IT asset management, namely, to create a bridge between business needs through a case that has been created and find ways to implement the use case, and display interactions between objects in the system and all involved in the system environment. Here is a description:

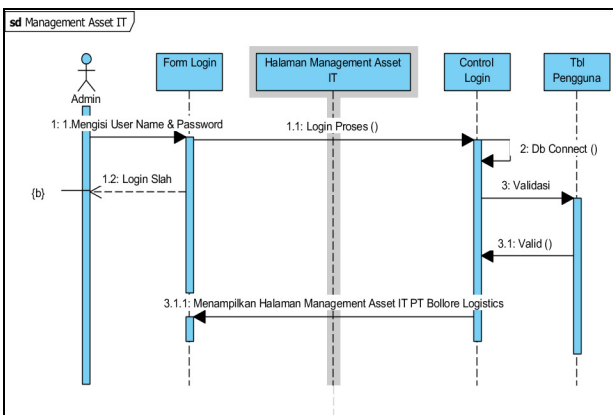


Fig.7 Equence Diagram Showing

3.5 Deployment Diagram

Deployment Diagram Shows system configuration of asset inventory on Web Service Server on localhost. Here is a description:

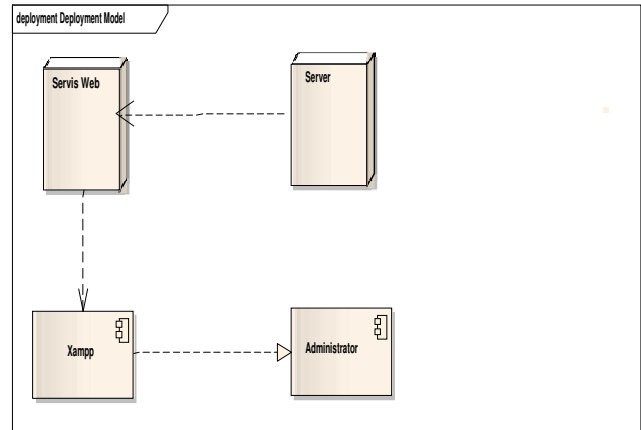


Fig.8 System Management Asset Diagram Deployment.

4. CONCLUSIONS

From the results of the analysis conducted by the researchers, there are several conclusions obtained including:

1. After passing the stages of analysis, design and implementation that are in Pt Bolloré Logistics, the authors get several conclusions and suggestions including the following: With the application of the IT Asset Management System that has been integrated, of course it will be easier for me to access this application.
2. With this application the IT team can know and control IT assets. And obtain data information quickly, precisely and can be accounted for.
3. With a more complete report feature that helps in obtaining information needed for decision making.
4. Add features and facilities that make it easier for users / users to process this Asset Management System so that it becomes one of the choices for the right decision making.
5. Because this application only processes asset data, it is hoped that there will be an integrated relationship between this application and the system of purchasing goods and calculating budgeting for ATK procurement.
6. To maximize the security of the system, the password must be strong by paying attention to the criteria in the form of sentences consisting of at least 10-12 characters and must be complex.

7. Conducting more in-depth research so that the Asset Management System is feasible to be applied in the Logistics and Transport Section of PT Billore Logistics

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