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THE DESIGN OF FUEL DISTRIBUTION INFORMATION SYSTEM AT PT. RUDY AGUNG LAKSANA JAMBI

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ABSTRACT

PT. Rudy Agung Laksana Jambi is one of the companies engaged in the distribution of fuel oil which is located in the Jambi area where the fuel distribution system still uses Microsoft Excel. The enterprise have some problems due to the fact the inventory of oil ordered to Pertamina is limited, so orders from those clients delays from each the middle and company branches. Problems in data such as duplicate data, data storage that is still separate so that the difficulty in finding data, and making the result report is less effective and efficient to be presented to the owner of the company. Therefore, this paper aims to provide a solution to the problems that occur by offering FUEL distribution information systems using web programming with PHP language and MySQL database where the author develops the system with the new system produces output that can display customer data, supplier data, product data, purchase data, and income data, and can print reports needed to be presented to the owner of the company.

Keywords: Fuel Distribution, Information System

INTRODUCTION

Currently, fuel is the primary need of the society as well as the primary need for private companies. Fuel oil (BBM) in Indonesia is currently controlled by Pertamina Persero [1]. PT Agung Laksana Jambi is a company engaged in the distribution of BBM (Fuel Oil), located at jl. Brigadier General Katamso no. 153 Kel. Tanjung Sari, Kec. Jambi Timur. This company has 7 gas stations, and distributed fuel oil such as Pertamax Turbo, Pertamax, Pertalite, Dexlite, Pertalite, Diesel. In the daily activities of PT. Rudy Agung Laksana Jambi has 13 employees in the office, where the business process from gas stations submits their income to the office of PT. Rudy Agung Laksana Jambi, then used to buy fuel oil which will be distributed to each gas station.

The enterprise have some problems due to the fact the inventory of oil ordered to Pertamina is limited, so orders from those clients delays from each the middle and company branches. From the business process will produce a lot of information and data. The widespread application of information technology to promotes the rapid development of the industry[2]. A well-implemented information system is a very crucial for companies to get the financial and non-financial benefits A system that helps people perform better is expected to be positively related to net profits [3][4]. Anitesh Barua and Rajiv Banker agree that the leverage of information technology can improving efficiency in production[5][6].

The data processing distribution of Fuel Oil (BBM) at PT. Rudy Agung Laksana Jambi is currently still relatively slow because data processing is still using Microsoft Excel, resulting in duplicate distribution of data, data storage that is still fragmentary so that it is difficult to find data, and the resulting reports are less effective and efficient to be presented to company owners.

Based on the problems that have been stated above, the writer can formulate the problem in this study is how to design a fuel distribution information system at PT. Rudy Agung Laksana Jambi. This paper only discussing the distribution of Fuel Oil which includes customer data, supplier data, product data, purchase data, revenue data, and reports.

The purpose of the research conducted by the author is to analyze the distribution system of fuel oil at PT. Rudy Agung Laksana Jambi which is currently running and designing an information system for processing data on the distribution of fuel oil to make it easier for employees to process data at PT. Rudy Agung Laksana Jambi.

As well as the benefits obtained from this research itself such as helping PT. Rudy Agung Laksana Jambi in designing an information system for processing data on the distribution of fuel oil, assisting employees in

searching for distribution and purchasing data, assisting gas stations in knowing the remaining stock of fuel and calculating expenses that occur at gas stations, as well as looking at the income from the sale of Fuel Oil.

RESEARCH METHOD

The stages of data collection used are as follows, First, Interview the stakeholder, in this method, the author conducts questions and answers orally to the head of HRD PT. Rudy Agung Laksana Jambi regarding the distribution system of BBM (fuel oil) that is currently running at the company. And we found some weaknesses that occur, namely: frequent occurrence of duplicate distribution of data, data storage that is still fragmentary so that it is difficult to search for data, and the resulting report is less effective and efficient. Second method is Direct Observation. The author makes direct observations of the process of managing data on the distribution of BBM (fuel oil) so that the author can understand the ongoing process at PT. Rudy Agung Laksana Jambi.

RESULTS AND DISCUSSION

System Analysis and Design

PT. Rudy Agung Laksana Jambi is one of the distribution agents for BBM (Fuel Oil) located in the Jambi area. In fuel distribution process starting from the purchasing department collecting BBM orders made by registered gas stations. Then after collecting orders, the purchasing department makes purchases directly to Pertamina by providing details of the orders that have been collected. After that, Pertamina directly delivers the required fuel to the gas stations listed on the purchase order. Then the purchasing department recaps the order data that has been made into the general ledger.

Functional System Requirement

System functional requirement describes the process or service activities provided by the system based on procedures or business process functions that must be carried out by the system to serve the needs of users.The main functions in the PT Rudy Agung Laksana Jambi, as follows:

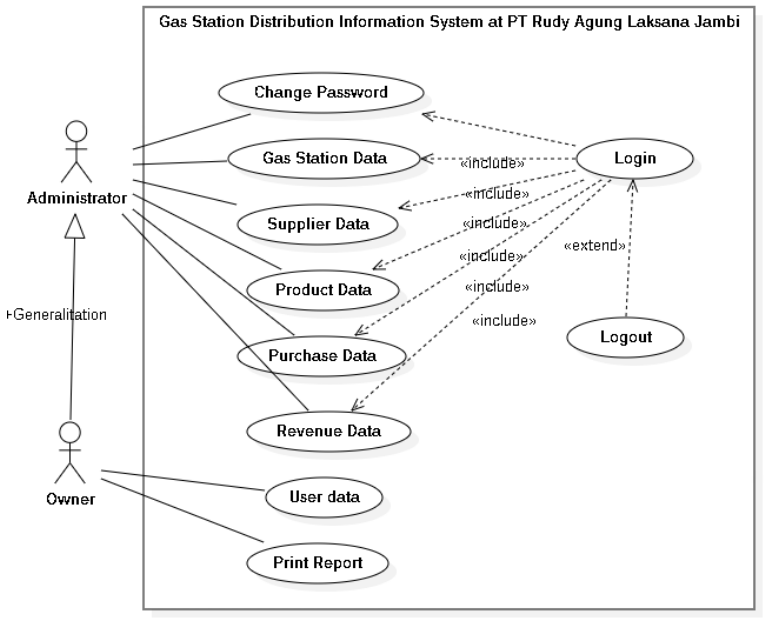
1. Administrator
    a. Login function
        The admin function is to access the system page according to the access rights.
    b. Function to change password
        This function is used by the admin to change the old password into a new password.
    c. Function of managing gas station data
        This function is used by the admin to add, change and delete gas station data according to their needs
    d. Product data management function
        This function is used by admins to add, change and delete product data according to their needs
    e. Purchase data management function
        This function is used by the admin to add and change purchase data according to their needs
    f. Revenue processing function
        This function is used by the admin to add and delete income data according to their needs
    g. Logout Function
        This function is used by the admin to exit the system.
2. Owner
    a. Login function
        The owner function is to access the system page according to the access rights.
    b. Functions of managing user data

This function is used by the owner to add, change and delete user data according to their needs

c. Report printing function

This function is used by the owner to view and print income and delivery report data per certain period according to the admin's wishes

Use Case Diagram and Class Diagram



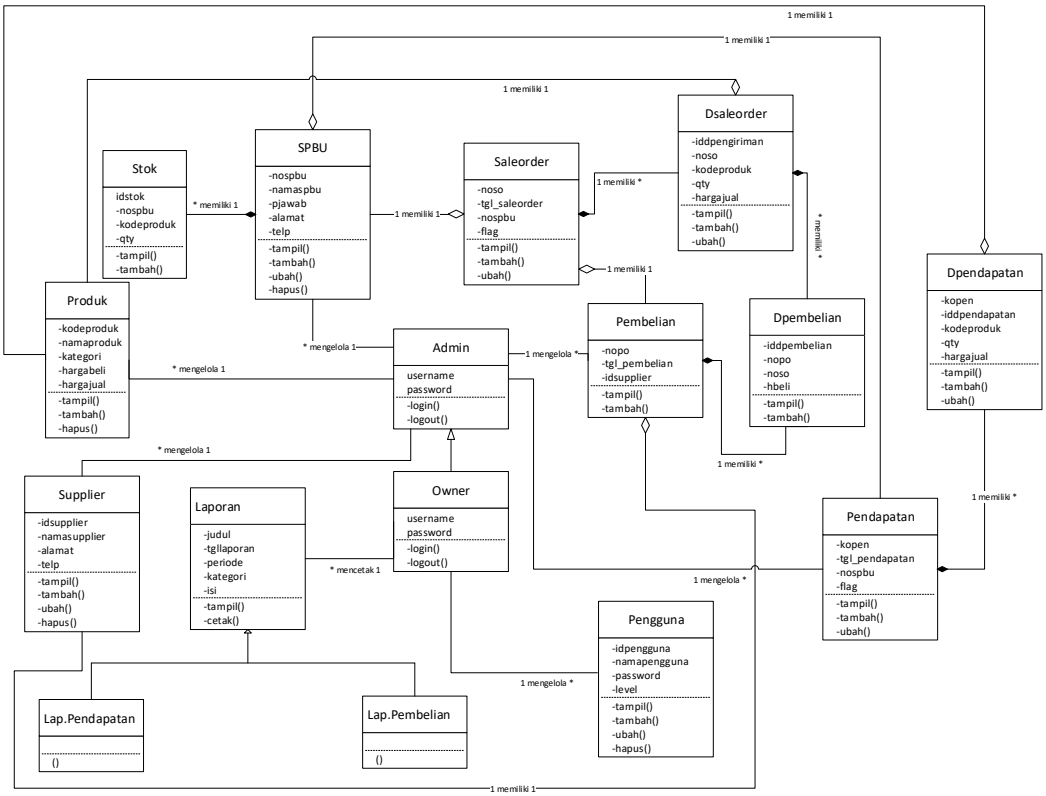


Figure 1. Use Case and Class Diagram

Interface Design

Figure 2. Username and Password Interface

Figure 3. Gas Station Information

Figure 4. Supplier Information

Figure 5. Product Information

Figure 6. Purchase Information

Figure 7. Detail Order Information

Figure 8. Revenue Information

CONCLUSION

In this paper, design of the BBM distribution information system using the PHP programming language and MySQL database aims to help PT. Rudy Agung Laksana Jambi in processing fuel distribution data such as Fuel stock, knowing the remaining fuel stock at gas stations, seeing income from fuel sales, and making more efficient reports. The designed system provides features for customer data processing, supplier data processing, product data processing, purchase data processing, revenue data processing, and reports.

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