Information System for Sales of Spare Parts at Drs. Workshop

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Abstract

Designing a Java netbeans-based sales information system for the Drs. Workshop business. The research method used is a qualitative method, which is a research method based on interviews or in-depth observations of the research subject. With the creation of a sales information system at the Drs. Workshop business based on neatbeans, all activities related to the sales data of goods can run well and smoothly. In this application, the sales data management section can handle inputting data about all sales transactions quickly and can be updated easily. This Drs. Workshop spare part sales information system is made with Netbeans and MySQL as its data base. This information system can be used to manage sales data, incoming and outgoing goods, also to perform sales calculations based on the data that has been inputted, and can be used to print reports. Finally, with this sales information system, the sales calculation process can be done automatically without the need to calculate manually and the sales data obtained are appropriate, provided that all the data entered is valid.

I. Introduction

Along with advances in the field of information technology lately, it is growing very quickly, especially accompanied by the increasing number of applications among the community. The Drs. Workshop business is one of the various kinds of businesses that exist in this life. Although this business is still small and is growing by adding applications to support this business, this business will be more competitive in its sales. The development of technology at this time has grown very rapidly and will continue to grow in the future. There have been many examples of applications that support various businesses to make it easier for users to work. Technology that continues to take root is sure to be able to solve problems and make it easier for its users to be very helpful, especially in business and daily work.

The purpose of this research is to apply and practice the knowledge that has been obtained in lectures. Forming the mindset of students to become individuals who have insight into knowledge. Benefits of increasing efficiency and effectiveness in the work process, and overcoming problems related to data processing problems.

The system is a collection of elements that are closely related to each other, which work together to achieve a common goal [1]. Information is data that has been organized and has uses and benefits [2]. Data Flow Diagram is a depiction of a system that uses the form of symbols to describe data flow in an interconnected process [3]. Data Flow Diagram (DFD) is a data flow diagram that uses symbols to represent entities, processes, data flows and storage related to a system with the aim of providing an indication of how data is transformed as data moves through the system and describes the functions (and sub-function) that transforms the data flow [4]. Java programming language is one of the many programming languages that can be run on various operating systems including mobile phones. This programming language was first created by James Gosling when he was still with Sun Microsystems [5]. Netbeans is the ideal IDE for Java. Called IDE because Netbeans can be used to create Java applications from start to finish, including for testing [6]. MySQL is a software or database server program while SQL is the programming language,

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the query language (query) in the database server is included in MySQL itself. SQL is also used in other database server software, such as SQL Server, Oracle, PostgreSQL and others [7]. XAMPP is open source software which is a development of LAMP (Linux, Apache MySQL, PHP and Perl) [8]. Report is a tool that makes it easy to make reports. Reports are usually used in the Java programming language[9]. Information is computerized data designed to receive, store, process, transform, analyze and process data and provide reports[10].

II. RELATED WORKS/LITERATURE REVIEW (OPTIONAL)

Research conducted by Agus Nurcahyono [11] entitled JAVA-Based Sales Information System at Arditya Motor Workshop. This study aims to design and build a sales system at the Java-based Arditya Motor Workshop.

Research conducted by Zubaidah [12] entitled Design of a Motorcycle SPAREPART Sales Information System at Bengkel One Batam Web-Based. This study aims to create a web-based computerized and sales information system at One Batam workshop.

III. METHODS

In developing a system, it is necessary to design a system to find out how a system will accomplish what needs to be done. The system development process includes system planning, analyzing system requirements, executing program code, testing and implementing it. The system development method used is the SDLC Waterfall (System Development Life Cycle Waterfall) method with the following stages:
1. Requierment analysis in the Design Process
2. System Design
3. Coding and Testing
4. Program Implementation
5. Requierment analysis After Design

IV. RESULTS

The business processes that run at Drs. Workshop are as follows:
1. Employees make transactions with buyers.
2. Then, the sales transaction process is recorded manually by the admin.
3. Next, re-check the remaining items sold to make it easier when stocking goods.
4. Make sales reports manually so it takes a very long time.

Data Flow Diagram (DFD) is a data flow diagram that uses symbols to represent entities, processes, data flows and storage related to a system with the aim of providing an indication of how data is transformed as data moves through the system and describes the functions (and sub-functions) that transform data flows (Taufan Adi Kurniawan, 2020). Based on the results of the research above, the author makes an overview of the system with Data Flow Diagrams or in Indonesian is the Data Flow Diagram as follows:
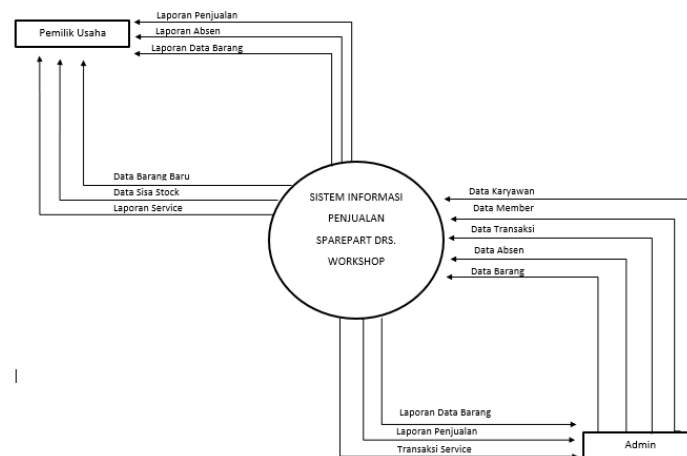
Context Diagram

Figure 1. Context Diagram

Entity Relationship Diagram

Entity Relationship Diagram is to show data objects and relationships contained in these objects, as well as a tool to model the results of data analysis.
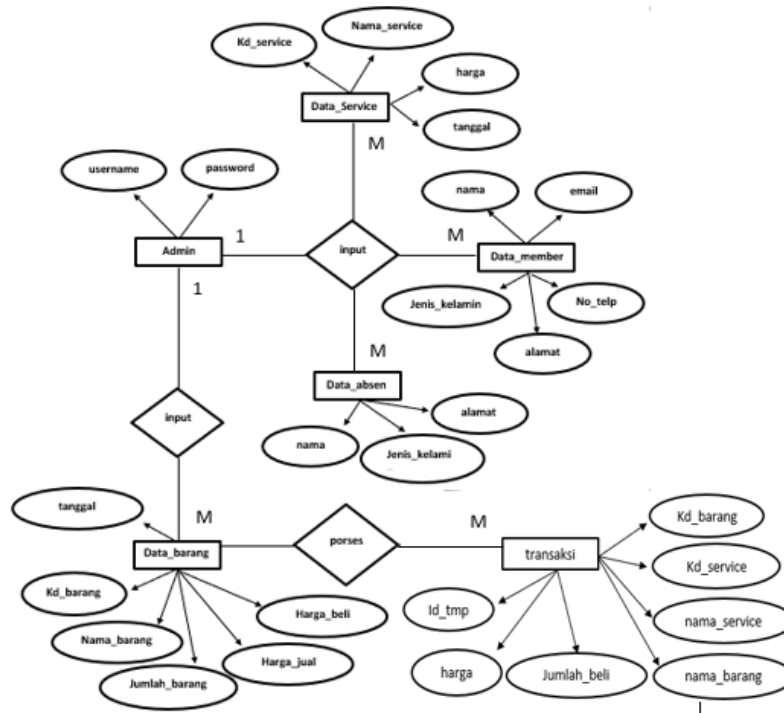

Figure 2 Entity Relationship Diagram
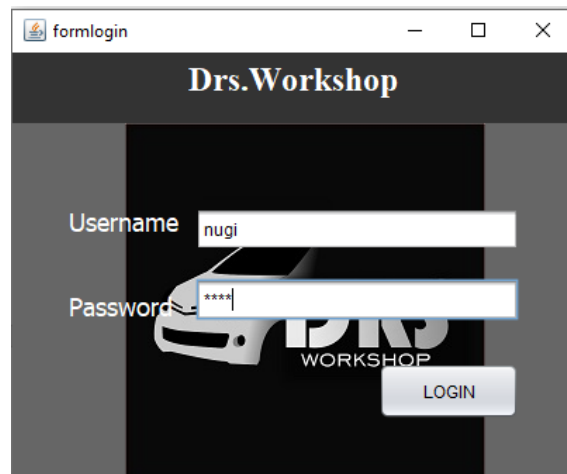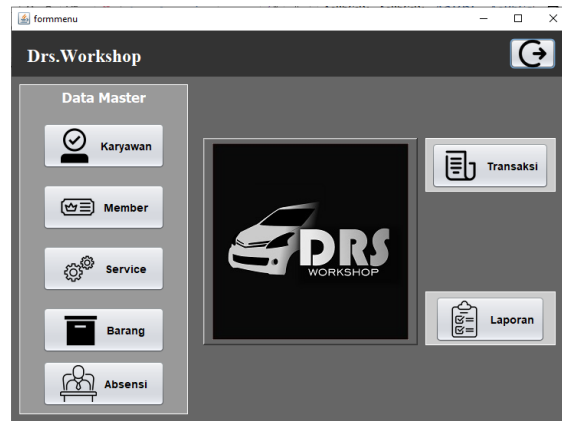
User Interface

Figure 3. Login Page

This login menu display appears at the beginning of the application program operation to be filled in by the admin. Admin enters the appropriate username and password with access rights in order to operate the system. If the username and password match, it will enter the main menu display.

Figure 4. Main Page

The main menu display contains buttons for inputting absent data, members, employees, goods, services and transactions. Report menu bar to print data reports. If you want to exit there is an exit button in the top corner to return to the login screen

Figure 5. Employee Input Display

This employee input display contains name, password, gender, email, phone number, religion, and address. There are buttons that function as save, edit and delete data. If you want to exit this form, there is an exit button in the upper right corner to return to the main menu page.

Figure 6. Member Input Display

This member input display contains name, gender, email, phone number and address. There are buttons that function as save, edit and delete data. If you want to exit this form, there is an exit button in the upper right corner to return to the main menu page.

Figure 7. Display Input Service

This service input display contains the service code, service name, price, quantity and search. There are buttons that function as save, edit and delete data. If you want to exit this form, there is an exit button in the upper right corner to return to the main menu page.

Figure 8. Item Input Display

This item input display contains item code, item name, price, quantity and search. There are buttons that function as save, edit and delete data. If you want to exit this form, there is an exit button in the upper right corner to return to the main menu page.

Figure 9. Absen Input Display

The input display of this item contains the name, gender and description. There are buttons that function as save, edit and delete data. If you want to exit this form, there is an exit button in the upper right corner to return to the main menu page.

Figure 10. Transaction Input Display

This item input display contains invoice number, item name, service name, item code, service code, price and quantity. There are buttons that function as save, print notes, total and delete data. If you want to exit this form, there is an exit button in the upper right corner to return to the main menu page.

Figure 11. Report Form Display

The display of the report form contains buttons for printing reports of absences, members, employees, goods, services and transactions. Report menu bar to print data reports. If you want to exit there is an exit button in the top corner to return to the login screen. From this form there is an exit button in the top left corner to return to the main menu page.

Figure 12. Repot Display

Printed display of a note containing a purchase transaction report on the transaction form.

V. CONCLUSIONS

The use of computerized applications can help this business in accelerating sales data processing processes. Facilitate and increase the efficiency of various activities. Can reduce the mistakes that are often made by human error. Can provide more precise, fast and accurate information compared to conventional systems applied in this business. This sales information application makes reports faster and data is stored safely.

In the Spare Part Sales Information System Application at Drs. Workshop, there are still shortcomings and limitations, therefore there are several things that need to be developed from the system so that it can become an even better system.

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