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Application Of Inventory And Service Transactions On Web-Based Cv Medan Teknik using the Agile Kanban Method

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ABSTRACT

This study discusses the application of website-based goods supply and service transactions using the agile kanban method on cv. Engineering Field. The Agile Kanban method facilitates efficient workflow management and visualizes inventory management progress and transactions in real-time. Kanban boards are used to track tasks, identify bottlenecks and ensure smooth collaboration between team members. The manual journal book recording system has many constraints and weaknesses so that inventory data processing is needed where the availability of goods will be better organized by using a supportive and adequate information system and computer equipment. Inventory application on CV. Website-based Medan Teknik is an activity system consisting of goods entry data and goods inventory data that reports all transactions in and out of goods from per day, per month, to per year. Programs that are built based on websites use the PHP programming language and MySQL database to make it easier for users, namely admins, cashiers and leaders to input data, access reports with an internet connection that can be accessed anytime and anywhere.

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1. INTRODUCTION

The manual journal book recording system has many constraints and weaknesses so that inventory data processing is needed where the availability of goods will be better organized using a supportive and adequate computer. In addition, it will take a very long time to use notes manually [1,2,3, 4]. Inventory system in and out of goods is an activity that consists of data on the entry of goods, data on returns and data on inventory of goods that reports all transactions in and out of goods from per day to per month. Processing of goods inventory data in CV. Medan Teknik is still manual, namely for recording and processing data using an inventory report book. Industry 5.0 demands the application of technology in all fields [5][6][7][8][9], so that the CV. Medan Teknik also requires applications to improve services [9, 10, 11, 12, 13]. Based on the inventory report, the authors are motivated to develop

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an information system about inventory through the inventory information system, especially in CV. Medan Teknik Web-based. The program is designed to make it easier for companies to manage data so that it is faster, more accurate in data processing and increases the accuracy of managing the entry and exit of raw materials and finished products in the company. Programs designed on a website basis can make it easier for users, namely admins, cashiers and leaders, to input data, obtain reports with an internet connection that can be accessed anywhere and anytime.

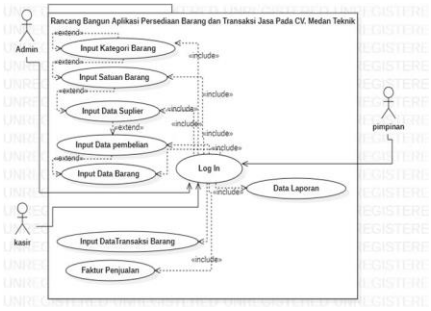
In designing this application using the Agile Kanban method is the right choice.
Agile Kanban is one of the methods used in Agile-based software development [15][16][17], The concept of Kanban involves the use of a visual board (Kanban board) that lists tasks or work items to be completed. Each task is represented by a card that moves through several columns on the board, reflecting the status and stages of the work [17, 18, 19].The Agile Kanban method is a flexible and structured approach to designing software applications. This study aims to design a website-based application for inventory and service transactions at CV Medan Teknik using the Agile Kanban method. This research involves analyzing user needs, system design, implementation, and application testing. The necessary data and information will be collected through interviews with related parties at CV Medan Teknik and analysis of related documents. The results of the research can contribute to the development of website-based goods inventory applications and service transactions using the Agile Kanban method [4, 5].

2. RESEARCH METHOD (10 PT)

The method used in the Design and Build Application of Inventory of Goods and Service Transactions at CV.Medan engineering is the Waterfall method.

2.1 Use Case Diagrams

The following is the use case diagram of the goods inventory system and service transactions on CV. Engineering Field



Fgure 1. Use Case Diagram

2.2 Actifity Diagrams

Activity diagram inventory application and service transactions CV. Medan Teknik, Activity diagram Inventory application and service transactions consist of activity diagrams for admin, activity diagrams for cashiers and leaders.

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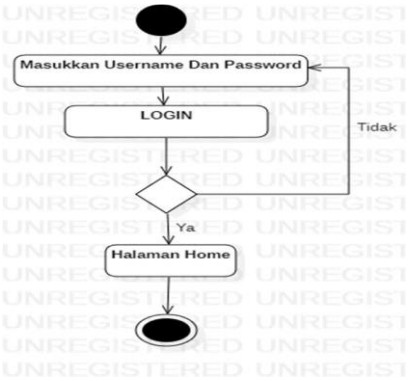
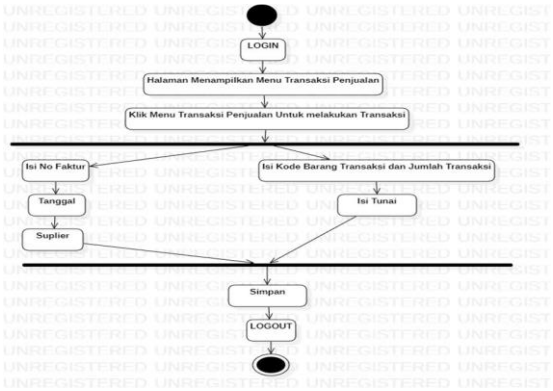


Fgure 2. Admin Activity Diagrams



Fgure 3. Cashier Activity Diagrams

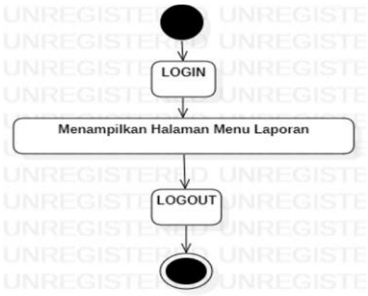


Figure 3. Leader Activity

2.3 Sequence Diagram

Sequence Diagram design of this web-based inventory information system can be seen in the following figure:

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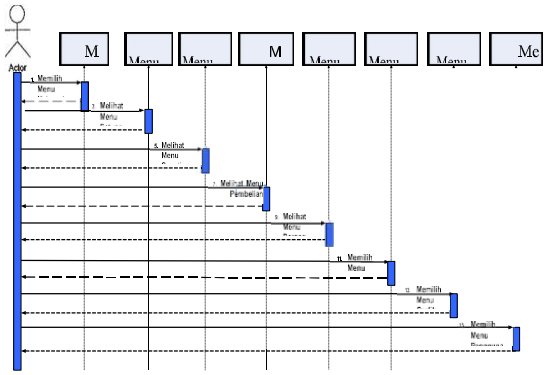

Figure 4. Sequence Diagram

2.4 Class Diagram

Class Diagram describes the structure of static objects in a system, showing what classes the system is composed of and what relationships are formed between these classes.

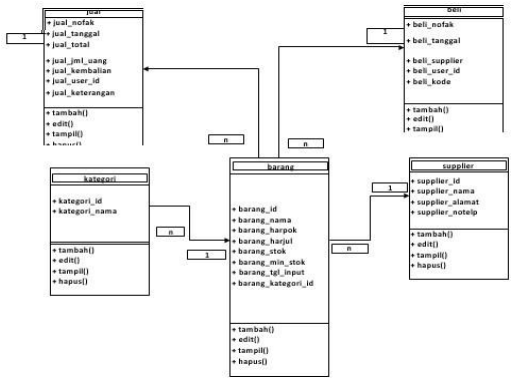

Figure 4. Class Diagram

3. RESULTS AND DISCUSSIONS

In this section, it is explained the results of research and at the same time is given the comprehensive discussion. Results can be presented in figures, graphs, tables and others that make the reader understand easily [2, 5]. The discussion can be made in several sub-chapters.

3.1. App page view

Login Page

Is the first page accessed when the application is run. The Login page can be displayed in the following image:

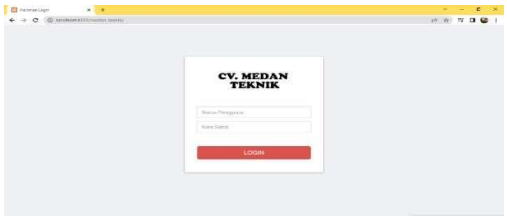

Figure 5. Login Page

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Home page

It is the first page accessed when the application is run, the Home page as the main page of the inventory information system and service transactions is CV. Medan tekni. Home page can be displayed in the following image:

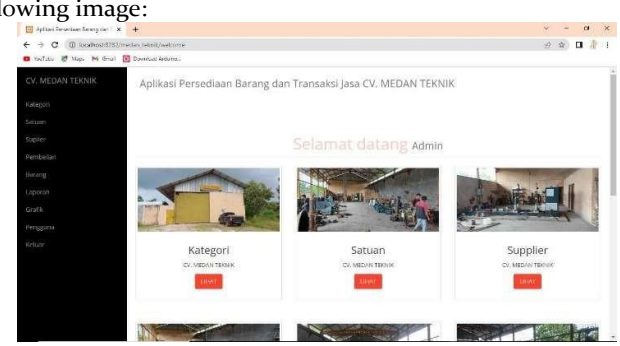

Figure 6. Home Page

Goods Category Data Page

This image provides user access to a list of product categories in CV Medan Teknik, which can be used to organize and classify the various types of goods owned by the company. This menu can see a list of categories of goods presented in tabular form. Each item category has relevant information, such as the category name, short description, and possibly other related attributes. Users can easily add, edit, or delete item categories as needed via the buttons or icons provided.

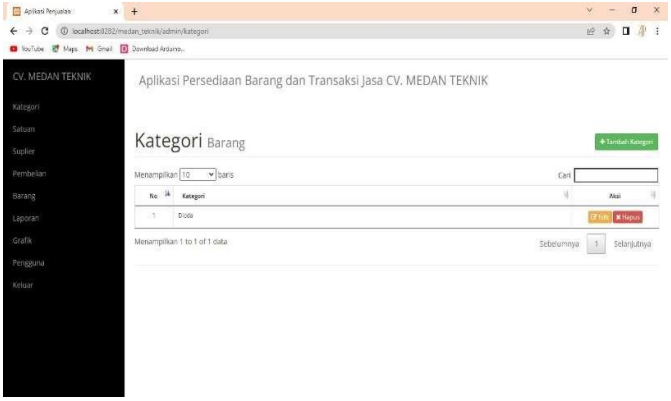

Figure 7. Home Page

Transaction Data Page

This page provides users with access to a list of transactions that have been made, including the transaction date, transaction number, associated customer, and transaction details such as item quantity, price, and total payment. On this page, each row in the table represents one transaction. Users can view information related to each transaction easily, and also have the option to filter or sort transactions by certain parameters, such as date or type of transaction.

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Figure 8. Transaction Data Page

Stock Report Page

This page gives users access to relevant data, such as the name of the item, the amount of stock available, the minimum or maximum limit, as well as other information related to the stock of the item.

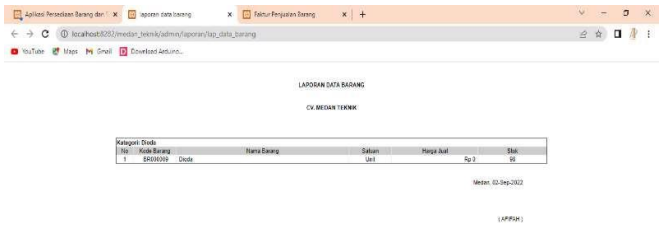

Figure 9. Stock Report Page

Purchase Report page

This page provides users with easy access to track purchases that occur, analyze expenses, evaluate vendor performance, and make the right decisions in procuring goods. This page gives the user access to monitor and analyze purchasing activity. The Purchase Reports page helps companies improve operational efficiency, optimize procurement, and better control expenses.

Figure 10. Purchase Report Page

Sales Report Page

This page provides access that displays sales reports, users can provide easy user access to view and analyze sales data in detail.

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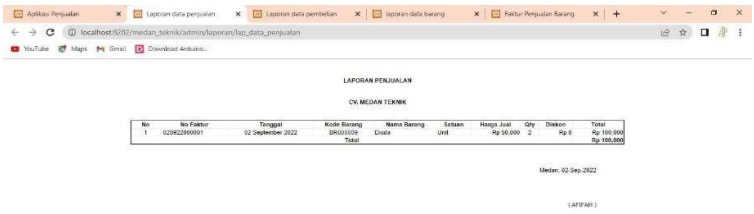

Figure 11. Sales Report Page

4. CONCLUSION

the results of inventory application research and service transactions at CV. Engineering Field, it can be concluded as follows:

1. With the management information system software for inventory data processing and transactions on CV. Field Engineering can be done quickly, precisely, accurately, easily and better than the previous system.
2. Processing spare parts sales transaction data that is neatly arranged will make it easier to control transaction data so that it can improve the company's performance later.
3. By using a web-based programming language, namely PHP and assisted with the MySQL database web application as data storage, a management information system device for managing inventory data and service transactions can be produced at CV. Engineering Field.
4. Presentation of good information can be done by updating the contents of the sales information system and data warehouse on a regular basis.

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