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Website - Based Computer Network Equipment Sales Information System at My Rise Sidoarjo

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ABSTRACT

Objective: *The rapid advancement of information technology has highlighted the need for efficient systems in sales data management. This study aims to develop and implement a web-based sales information system to enhance operational efficiency and customer service quality in My Rise, a store in Sidoarjo specializing in computer network equipment.* ***Method***: *The research employed qualitative methods, including interviews to gather system requirements from business operators and direct observation to analyze the current sales process. The system was designed with an integrated approach to manage sales data, inventory, and transactions in real-time.* ***Results***: *The implementation of the system resulted in significant improvements in the speed and accuracy of sales processes, with enhanced customer access to information and services.* ***Novelty***: *This study introduces a practical web-based solution for small and medium-sized enterprises in the computer network equipment sector, addressing common issues such as data entry errors and delays in service, thus contributing to the digital transformation of the business.*

INTRODUCTION

The development of information and communication technology has had a significant impact on various sectors of life, including trade and distribution of goods. The use of computer-based information systems, especially those integrated through website platforms, is an effective solution for increasing the efficiency, speed, and accuracy of data processing. Web-based information systems enable wider consumer reach without geographical limitations, while providing a competitive advantage in a dynamic business world that relies heavily on the speed of information [1].

The public's need for computer networking devices continues to increase, along with the increasing reliance on digital technology in various fields such as education, business, and personal needs. This condition opens up opportunities for business actors to provide computer networking products more effectively [2]. However, many computer networking equipment sales stores still implement manual or semi-digital sales management systems. This has an impact on suboptimal stock management, slow transaction processes, and a high potential for data recording errors [3].

My Rise Sidoarjo, located in Sidoarjo and specializing in internet network installation and computer network equipment sales, is one example of a business that still uses conventional systems in its operations. Sales data management and transaction recording are still done manually, which often creates obstacles in customer service and

operational efficiency [4]. Meanwhile, consumers today increasingly expect sales services that are fast, transparent, and accessible online at any time through their digital devices [5].

See problem mentioned, it is necessary developed A system information sale website- based that is capable integrate various business processes in the My Rise store. Implementation system This expected No only increase efficiency Work And reduce error recording, but also provides experience more shopping Good for consumers. Therefore that, research This aim for designing and implement system information sale equipment network computer website- based on My Rise Sidoarjo, as solution in face challenge growing business competitive in the digital era.

RESEARCH METHOD

In study this, is needed a number of related data with the implementation process booking or reservation at My Rise Sidoarjo. For to obtain the data, it is used a number of technique collection information, namely :

1. Interview
   Method This done with method do conversation direct (interview) to parties involved in a way direct in activity operational , use get relevant information [6].
2. Observation
   This technique done through observation direct to object research , with objective collect factual data about channel And mechanism booking [7] products implemented in My Rise Sidoarjo.

A number of design system or component planned application for implemented such as :

a. Flowchart (Admin)

Chart that works for describe order steps in operate something system. The process flow visualized through a diagram consisting of from interconnected symbols connected with line [8]. Figure 1 below shows a flowchart that describes process stages of corner admin view in system My Rise Sidoarjo sales :

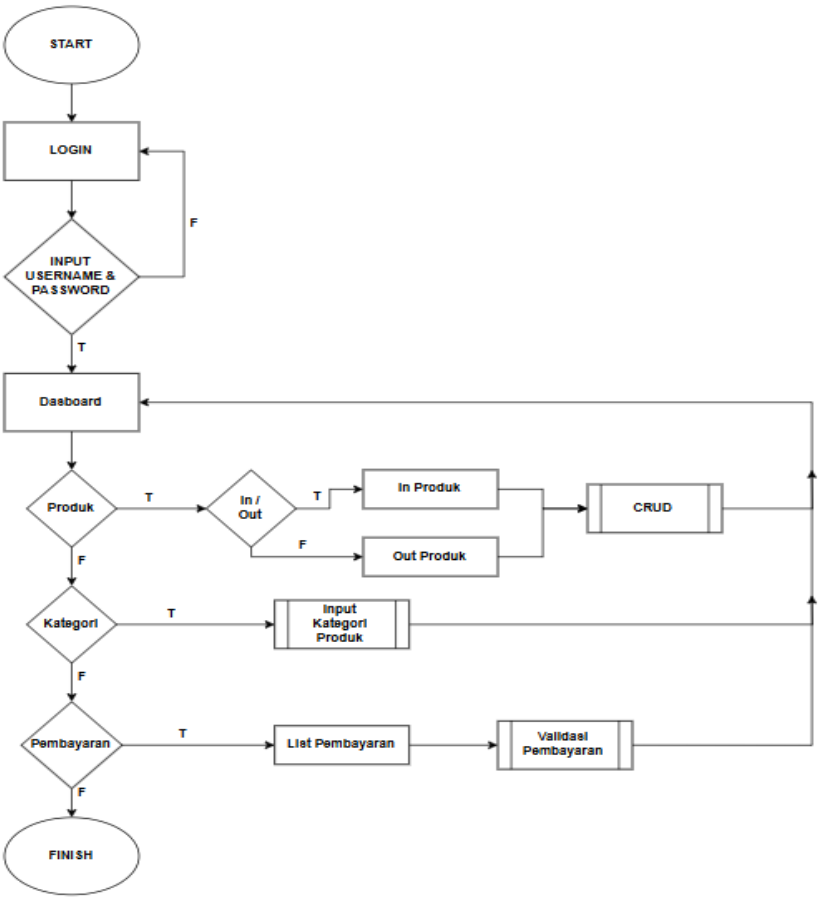


Figure 1. Admin Flowchart

b. Flowchart (User)

Figure 2 below display process flow or flowchart that describes activity system from perspective user on system My Rise Sidoarjo sales :

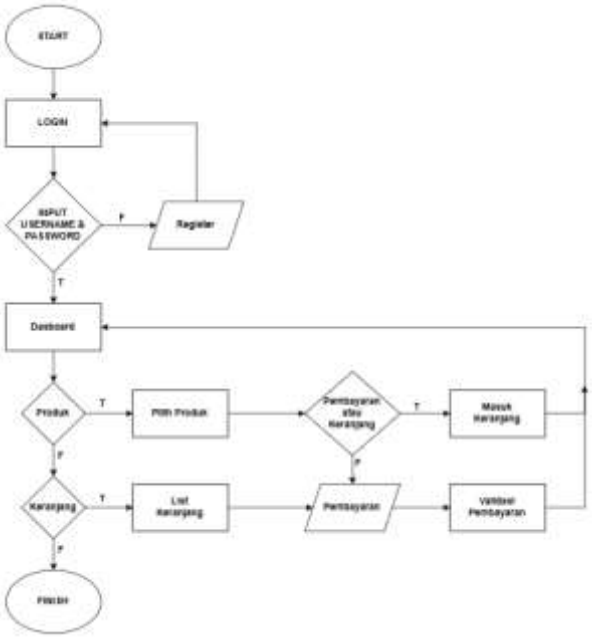


Figure 2. User Flowchart

c. Database Relations

Table database relations are used For visualize existing classes in something system along with connection between each class said [9] Connection between entity in system My Rise Sidoarjo sales can seen in Figure 3 below This :

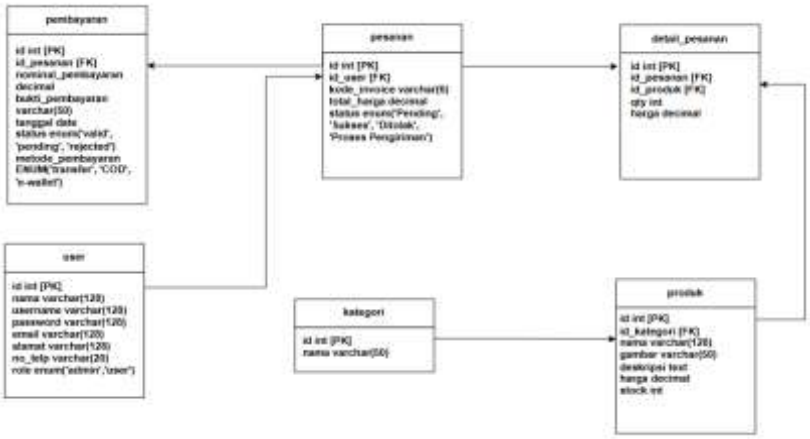


Figure 3. Database relations

d. Context Diagram

Functioning diagram for show in a way clear interaction between system and entity external which has access or relatedness with system. Every entity own limitation certain related to data that can be input and data received (output) [10]. Interaction details between component in system can found in Figure 4 below This:

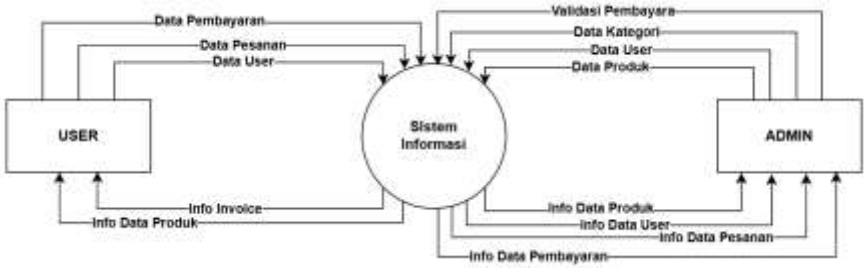


Figure 4. Context Diagram

e. Data Flow Diagram Level 1

Data Flow Diagram (DFD) Level 1 is expansion from the context diagram used for describe data flow in a more details in the operational process something system [11]. Same like entity in the context diagram, each entity in DFD Level 1 also has separate data flow. Figure 5 below serve visualization from DFD Level 1 as representation data flow in system :

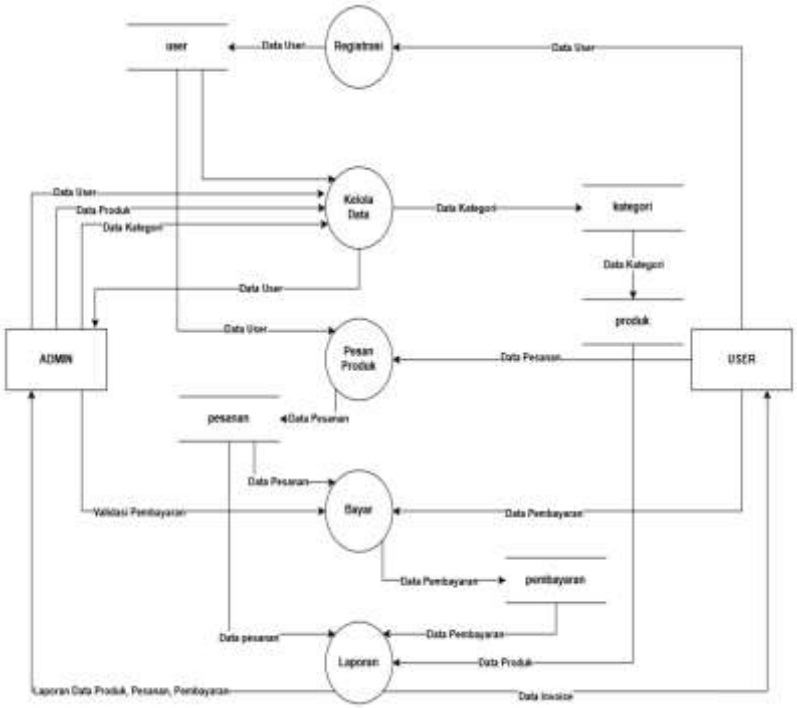


Figure 5. Data Flow Diagram

RESULTS AND DISCUSSION

1. Website Home Page

Figure 6. Page main

On page main e- kost website there is welcome safe come as well as the login button located in the corner right top, where the user can enter with email and password as shown in Figure 6.

2. Admin Dashboard Page

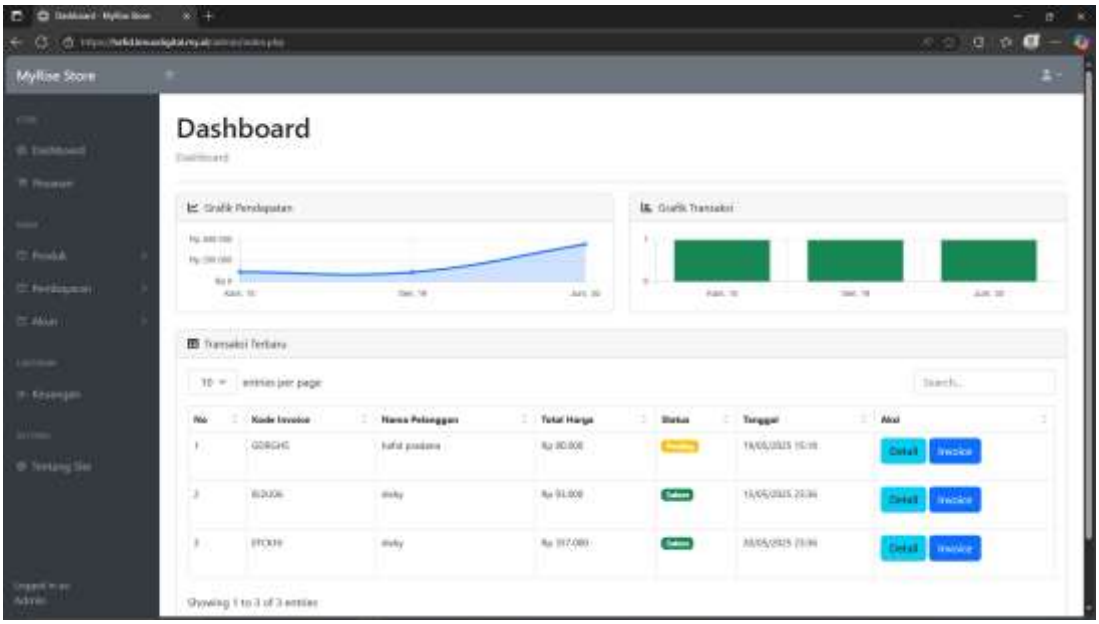


Figure 7. Admin dashboard page

admin dashboard page displays information such as total revenue, graphs transactions, as well as table transaction latest. Admin can also monitor status and view details and invoices from existing orders, as seen in Figure 7.

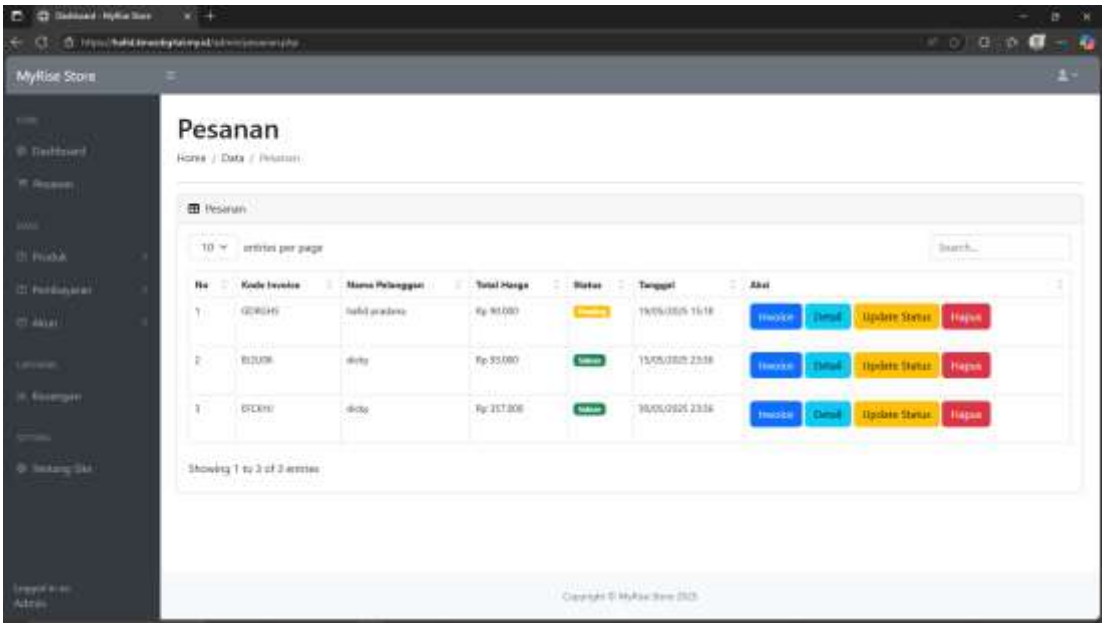


Figure 8. Page Order

Page order presenting a list of orders that have been made by user. Admin has access full for see and editing all transaction details, as shown in Figure 8.

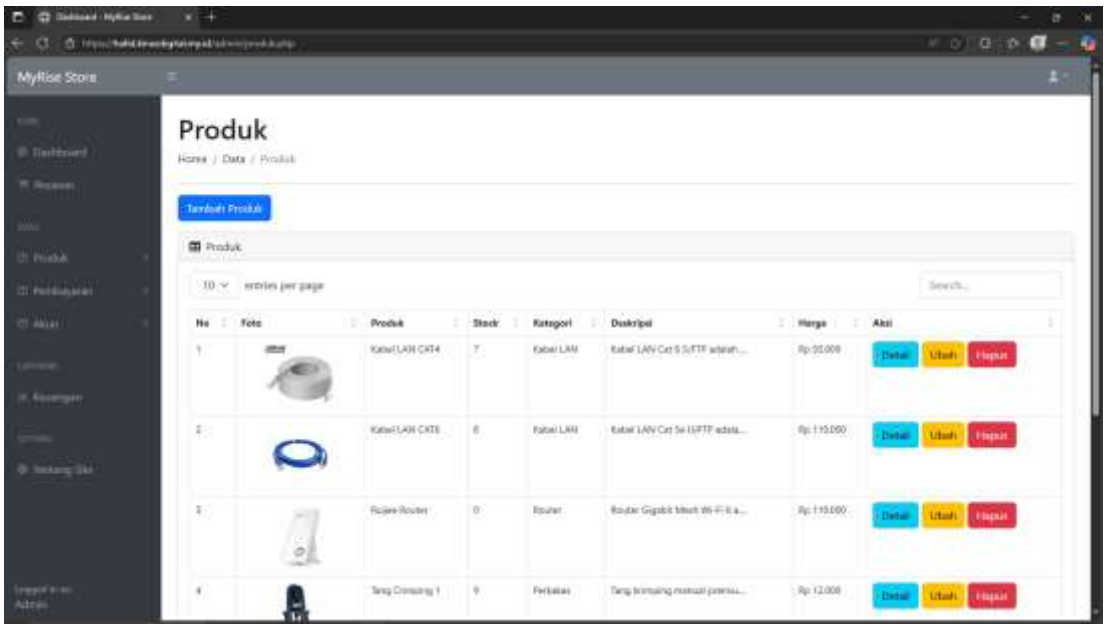


Figure 9. Page Product

On page product, displayed all over products available on the website. Admin can add product new and delete products that have been there is. Display page This can seen in Figure 9.

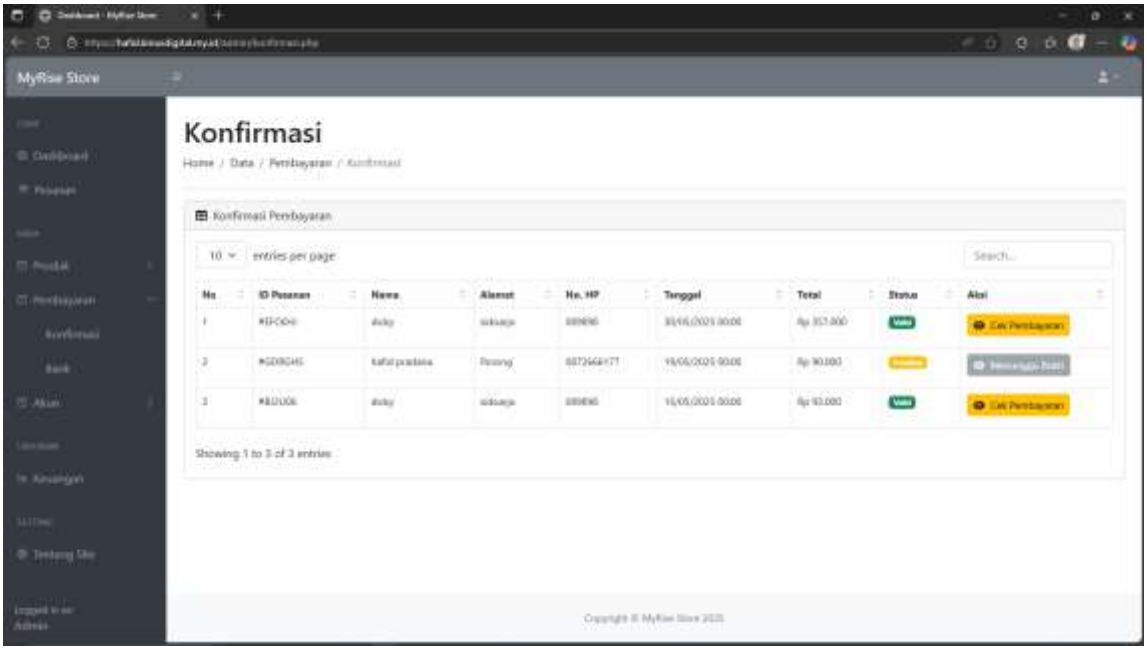


Figure 10. Page Payment

Page payment serve table containing all over transactions made by user. Admin can monitor payment status and processing delivery after payment status stated successful, as shown in Figure 10.

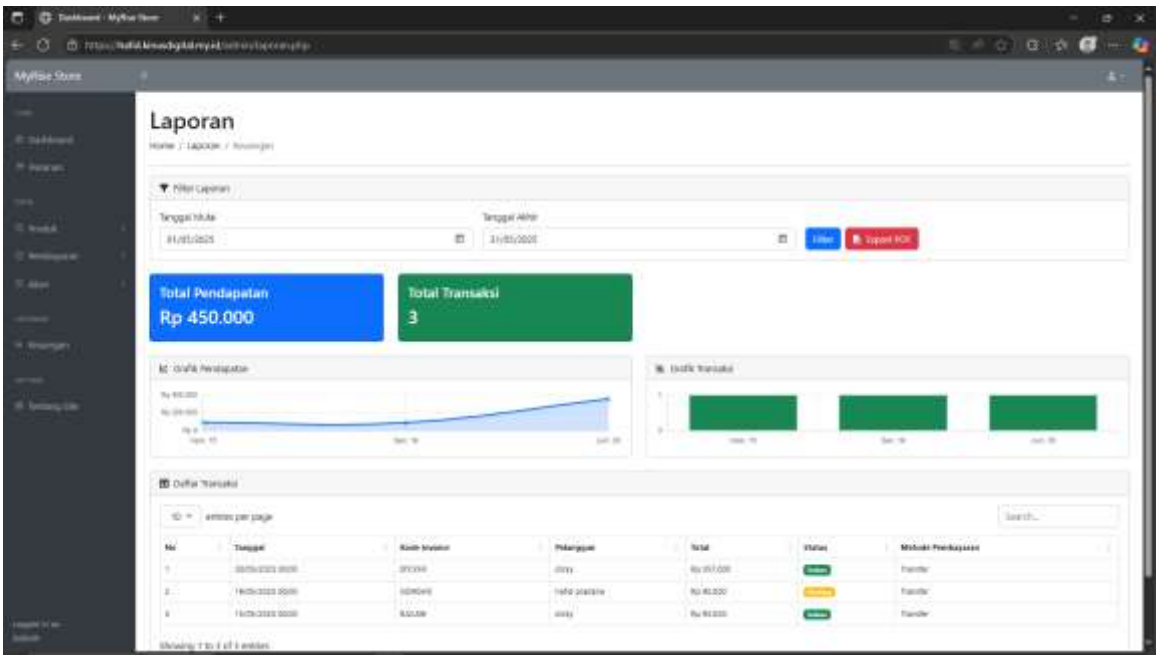


Figure 11. Page Report

Page report load information regarding total income, amount transactions, as well as transaction data table. Admin also has option for download report in PDF format. View page the can seen in Figure 11.

3. User Dashboard Page

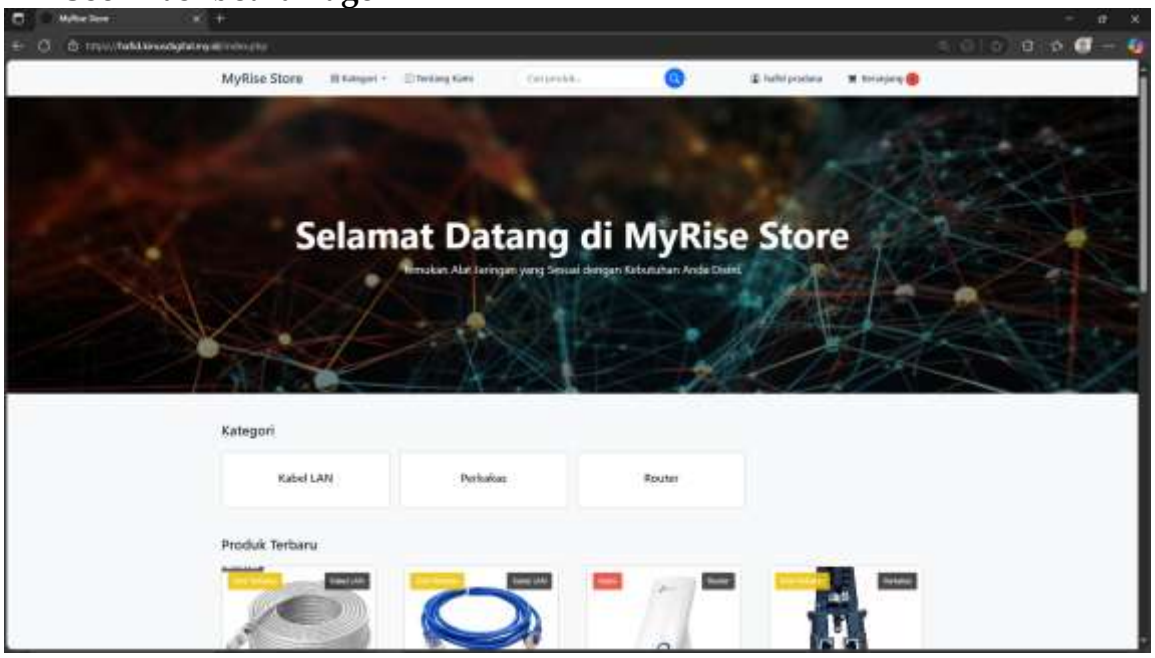


Figure 12. User dashboard page

The User Dashboard page displays welcome Happy come, and provide knob navigation going to category product and profile shop (about us). Users can also view the list of recommended products by shops, such as displayed in Figure 12.

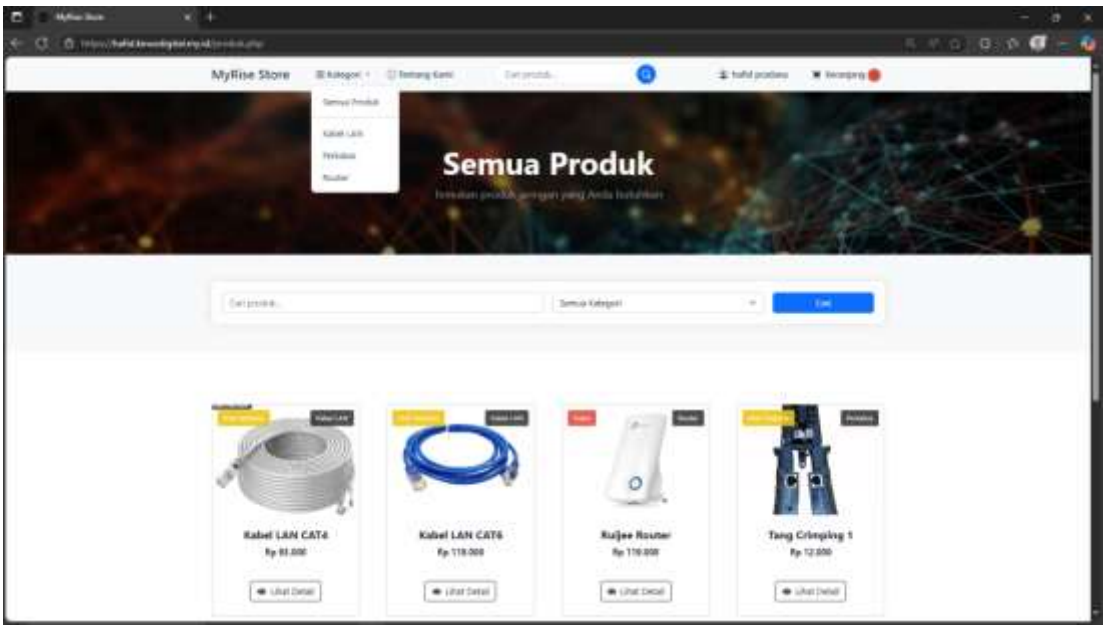


Figure 13. Page Category Product

On page Category Products, users can choose various type product in accordance needs, such as LAN cable, tools tools, and routers. Each product accompanied by "View Details" button to display information specific selected products by users, as seen in Figure 13.

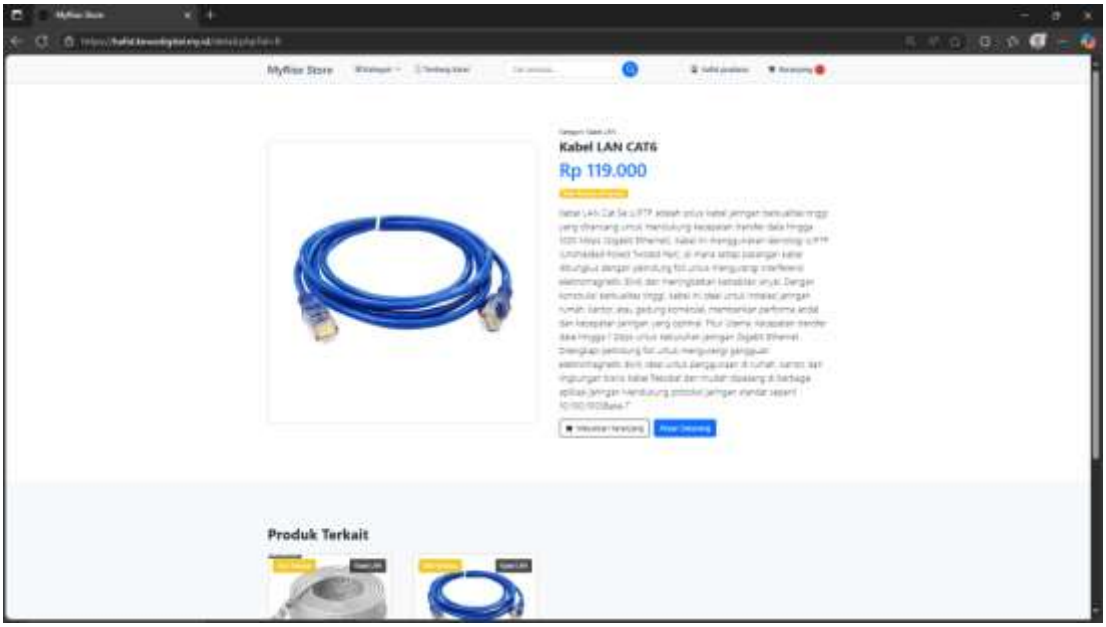


Figure 14. Product Detail Page

Product Detail Page serve information complete about products that have been chosen by users, so that make it easier users in understand function as well as specification from product said. Display page This can seen in Figure 14.

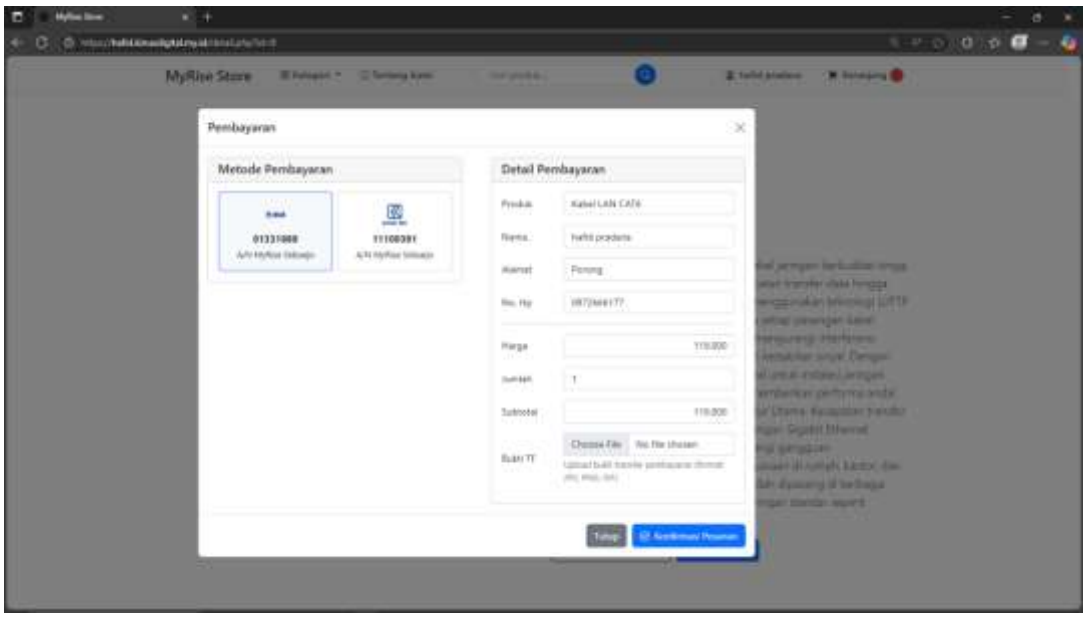
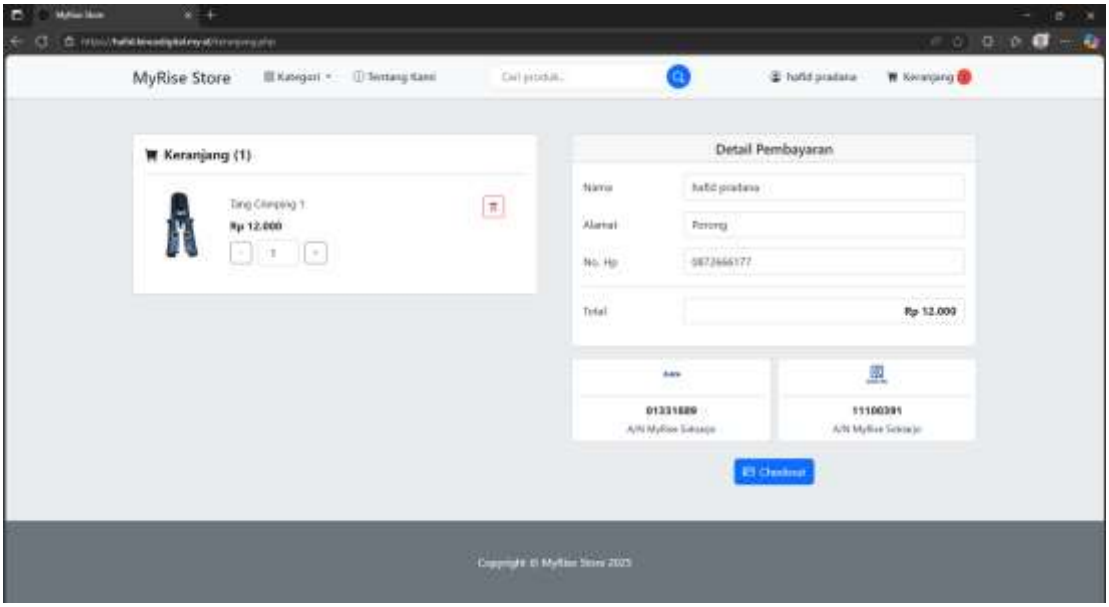


Figure 15. Page Payment

Page Payment display total bill details, information account objective payments, as well as feature for users for upload proof of transfer according to with accounts that have been selected. Display page This can seen in Figure 15.



Picture 16. Page Basket

Page Basket display all over products that have been added by user. From the page this, user can continue to the payment process for all products that have been entered to in basket, as shown in Figure 16.

A. Results Black-Box Testing

The Black Box Testing method is a software testing technique that focuses on evaluating system functionality without requiring knowledge of the internal structure or program code of the software being tested [12]. This technique is carried out by providing a number of inputs to features or forms available in the application, then

evaluating whether the resulting output is in accordance with previously determined specifications [13]. In the My Rise Sidoarjo Information System Research, the Black Box Testing method is used to identify errors or functional inconsistencies in the system to ensure that the developed software can run optimally before being officially implemented [14]. The use of this method is considered effective because it is able to assess system performance from the end - user perspective, so that it can provide a real picture of the user experience. In addition, this approach also plays an important role in ensuring the quality and reliability of the system, especially in detecting functional defects that may not be visible during the development process [15]. The results of the Black Box Testing on the My Rise Sidoarjo website page can be seen in Table 1 and Table 2 below :

Table 1. Blackbox Testing Admin Testing

No	Testing	Test Case	Expected results	Test Results
1	Login	Username or password is correct	Enter page main	Valid
2	Login	Incorrect username or password	Still on login page	Valid
3	Product	Input category product	Category data product succeed added	Valid
4	Product	Product data input	Product data succeed added	Valid
5	Payment	Input bank data	Bank data successful stored	Valid
6	Payment	Confirmation payment order with evidence data appropriate payment	Payment order confirmed	Valid
7	Payment	Confirmation payment order with evidence data unpaid payments in accordance	Payment order rejected	Valid
8	Finance	Print report finance based on period certain	Report succeed printed with specified duration	Valid

Table 2. Blackbox Testing User Testing

No	Testing	Test Case	Expected results	Test Results
1	Registration	Click knob registration	Showing page user data entry	Valid
3	Registration	Enter the required user data And click register button	User data stored	Valid
4	Login	Username / password is correct	Enter page main	Valid
5	Login	Incorrect username/password	Still on login page	Valid
6	Choose product	Check product details	Showing description product	Valid
7	Choose category product	Check category available products	Showing category product	Valid
8	Choose Category product	Check the product list at each category	Displaying a list of products in the selected category	Valid
9	Basket	Enter product to in basket	Selected products enter to basket	Valid
10	Basket	Check the list of products entered to in basket	Displays a list of saved products in the basket	Valid
11	Checkout	Check the list of products to be ordered	Displaying a list of products and payment details	Valid
12	Checkout	Confirmation order	Order data succeed enter to the system database	Valid

CONCLUSION

Fundamental Finding : The implementation of a web-based sales information system at My Rise Sidoarjo has proven to be an effective solution in enhancing operational efficiency and customer service quality. The system successfully addresses common challenges associated with manual processes, such as data entry errors, service delays, and limited information access. **Implication** : The integrated system improves

inventory management, transaction recording, and ordering processes, enabling faster, more accurate, and transparent operations. Additionally, it aligns with modern consumer preferences for convenience and online access. **Limitation** : While the system offers significant benefits, its adoption may face challenges such as the need for continuous training, initial implementation costs, and the adaptation of staff to new technology. **Future Research** : Future studies could focus on further improving system scalability, exploring advanced features like predictive analytics for inventory management, and investigating the long-term impact of such systems on business growth and customer satisfaction in the context of small and medium-sized enterprises.

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