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DESIGNING A WEB-BASED ONLINE SALES SYSTEM FOR THE KRAKATAU INDERAPURA MINIMARKET

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ABSTRACT

The use of information technology in the business world is growing rapidly, including in online sales systems. Krakatau Inderapura Minimarket, as a micro-business engaged in the sale of various daily necessities in the Inderapura area, recognizes the need to adapt technology to expand its market reach and improve customer service. This study aims to design and develop a web-based online sales system that allows customers to make purchases easily and efficiently. The system development method used is the waterfall method with stages of requirements analysis, system design, implementation, testing, and maintenance. This system is designed to allow customers to view a list of available products, place orders online, select payment methods, and track order status in real-time. In addition, the system also provides administrative features for minimarket managers to manage inventory, view sales reports, and manage store profiles. The results of this study show that the implementation of a web-based online sales system at Minimarket Krakatau Inderapura can increase ease of access for customers when shopping, improve the operational efficiency of minimarkets, and provide a better overall shopping experience for customers.

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1. INTRODUCTION

With the development of Internet technology, information [1] can be widely disseminated, accessible to everyone, and unlimited by time and geographical boundaries. Internet technology has been applied in all fields, including government, health, education, economics, and others [2] . In the field of economics or trade, Internet technology is used to improve performance and competitiveness with other similar companies.

Web-based and Internet technology has now become an important necessity in daily life. The development that is currently being widely discussed and debated is technology that leads to web-based information systems and applications. One of the functions of the Internet is to enable businesses to conduct business processes online. Minimarket Krakatau Inderapura, as one of the players in the retail industry, is faced with the challenge of adapting to these changes. Until now, the minimarket has been running its business operations using conventional methods, namely sales transactions carried out directly in physical stores.

To increase competitiveness in the market, an innovation in the form of a web-based online sales system is needed. By designing a website, Minimarket Krakatau Inderapura can easily reap benefits such as

expanding business relationships and increasing satisfaction in terms of human resources because this website can be accessed quickly and easily.

The author created a computerized information system that covers all activities from purchasing goods, selling goods, to creating reports that are easy, fast, and accurate. The development of this web-based online sales system will use the waterfall development model, which includes the stages of requirements analysis, system design, implementation, testing, and maintenance. Through the implementation of this system, it is hoped that Minimarket Krakatau Inderapura can improve the quality of service to customers, expand its market reach, and increase operational efficiency.

2. METHOD

The system development procedure is carried out using the SDLC (System Development Life Cycle) system development model, which is a structured project management framework or model that outlines the phases required to build a system from start to finish [3] . The purpose of the Software Development Life Circle (SDLC) is to create an effective and high-quality production process in order to meet customer expectations in accordance with the predetermined budget and schedule [4].

The SDLC development model uses the waterfall method, which arranges all phases sequentially so that each new phase depends on the results of the previous phase. Conceptually, the design flows from one phase to the next like a waterfall. The advantage of using this waterfall model is that it is easy to understand and the process is orderly, but this model also has high risks and uncertainties. The steps in implementing the waterfall model are as follows [5]:

1. Needs Analysis

This stage can be achieved in various ways, including discussions, observations, surveys, interviews, and so on. The information obtained is then processed and analyzed to obtain complete data or information regarding the specifications of user needs for the system to be developed.

2. System Design

At this stage, the system architecture, database design, and user interface design are developed. The system design describes how the system will be built to meet the identified needs.

3. Implementation

This stage involves the actual coding or implementation of the system based on the previously determined design. Developers use programming languages and developer tools to produce a system that meets the design specifications.

4. Testing

After implementation is complete, the system will be tested to ensure that it functions according to specifications and is free of errors. Testing includes functional testing, performance testing, and error (bug) testing.

5. Implementation and Maintenance

After the system was successfully tested, it was implemented at the Krakatau Inderapura Minimarket and maintenance was carried out. System maintenance is performed regularly to ensure optimal performance, and repairs are made if any problems arise. In addition, system updates are carried out periodically to improve features and functionality.

3. RESULTS AND DISCUSSION

1. Homepage

The homepage is the main landing page that appears when users first access a website. It functions as a central information hub that provides a comprehensive overview of the website's overall content, services, and features. As the initial point of interaction, the homepage plays a crucial role in shaping users' first impressions and enhancing overall user experience (UX).

On the Krakatau Inderapura Minimarket website, the homepage is designed with several essential navigation features to ensure usability, accessibility, and efficient interaction. These features include:

a. Category Navigation: Allows users to browse products based on specific categories, enabling a more structured and organized product search process.
b. Product Navigation: Displays featured, popular, or newly added products that users can access directly.
c. Search Feature: Provides a search bar that enables users to quickly locate specific products by entering relevant keywords.
d. Shopping Cart: Displays selected items before proceeding to checkout, allowing users to review and manage their purchases.

e. Shop Now Button: A call-to-action button that directs users immediately to the shopping section.
f. Location Information: Presents the physical location of Krakatau Inderapura Minimarket, helping customers who wish to visit the store directly.

Overall, the homepage serves not only as an introductory interface but also as a strategic component that supports user engagement, navigation efficiency, and seamless interaction within the website system.

Figure 1. Website Home Page

2. Category Navigation

Category navigation makes it easier for customers to find the products they want.

Figure 2. Category Navigation

3. Product Page

The product page is a dedicated section of the website that displays detailed information about the available items or products offered by the store. This page functions as the primary interface where users can browse, evaluate, and select products before making a purchase decision.

On this page, products are typically presented in a structured layout, including essential information such as product names, images, prices, stock availability, and brief descriptions. The visual presentation is designed to enhance clarity and support users in comparing different products efficiently. In addition, filtering and sorting features may be provided to help users refine their search based on categories, price ranges, popularity, or other relevant criteria.

The product page also facilitates user interaction by allowing customers to select product quantities and add items directly to the shopping cart. By providing comprehensive and well-organized product information, this page plays a crucial role in supporting informed purchasing decisions and improving the overall user experience within the e-commerce system.

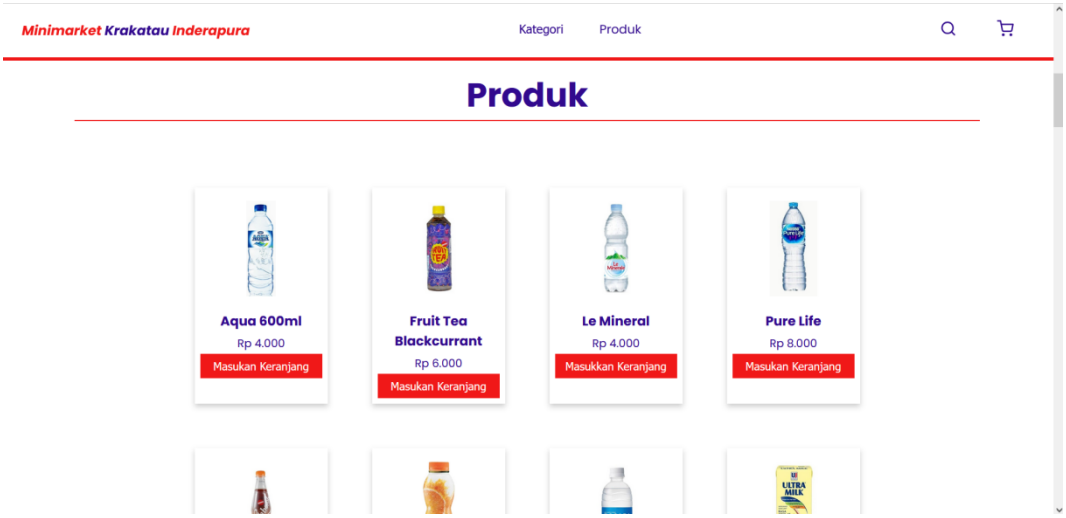

Figure 3. Product Page Display

4. Shopping Cart Display

The shopping cart display is a feature within the website that presents the list of products selected by the customer prior to completing the purchase transaction. This page serves as a temporary storage area where users can review, modify, and confirm their selected items before proceeding to checkout.

The shopping cart typically includes detailed information such as product names, images, quantities, individual prices, and the subtotal for each item. It also displays the total purchase amount, allowing customers to clearly understand the overall cost of their order. In addition, this page generally provides options to update item quantities, remove products from the cart, or continue shopping.

By offering transparency and flexibility in managing selected products, the shopping cart display plays a crucial role in enhancing user control, minimizing purchasing errors, and improving the overall efficiency of the online transaction process.

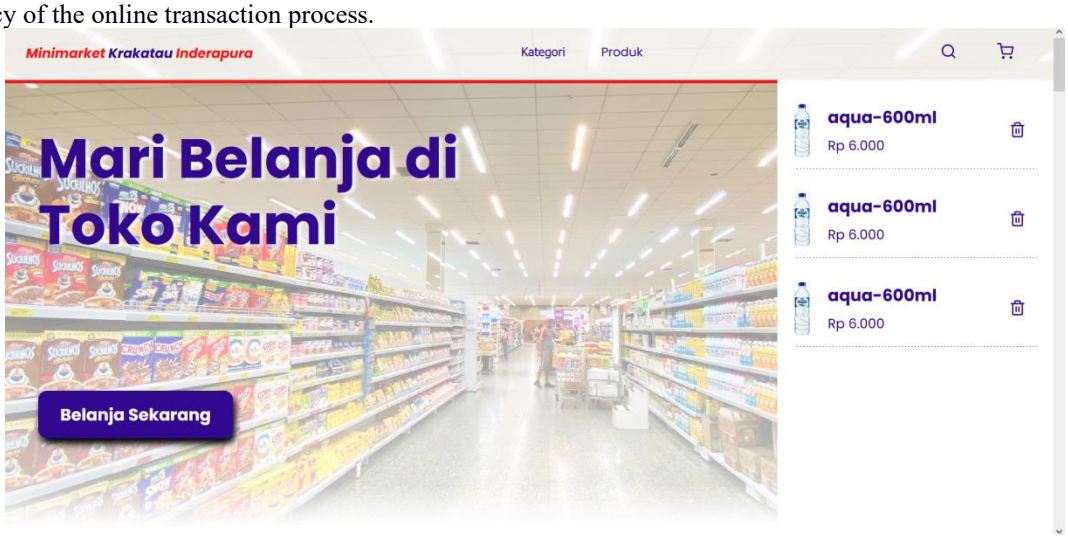

Figure 4. Shopping Cart Display

5. Location Display

The location display is a dedicated section of the website that provides detailed information regarding the physical location of the Krakatau Inderapura Minimarket. This feature is designed to assist customers who wish to visit the store directly by offering clear and accessible location references.

The location display typically includes the complete address, an embedded digital map, and possibly navigation support through integration with mapping services. Additional information such as operating hours, contact details, and surrounding landmarks may also be provided to enhance clarity and convenience for customers.

By presenting accurate and easily accessible location information, this feature strengthens the connection between the online platform and the physical store, supports customer accessibility, and improves overall service effectiveness.

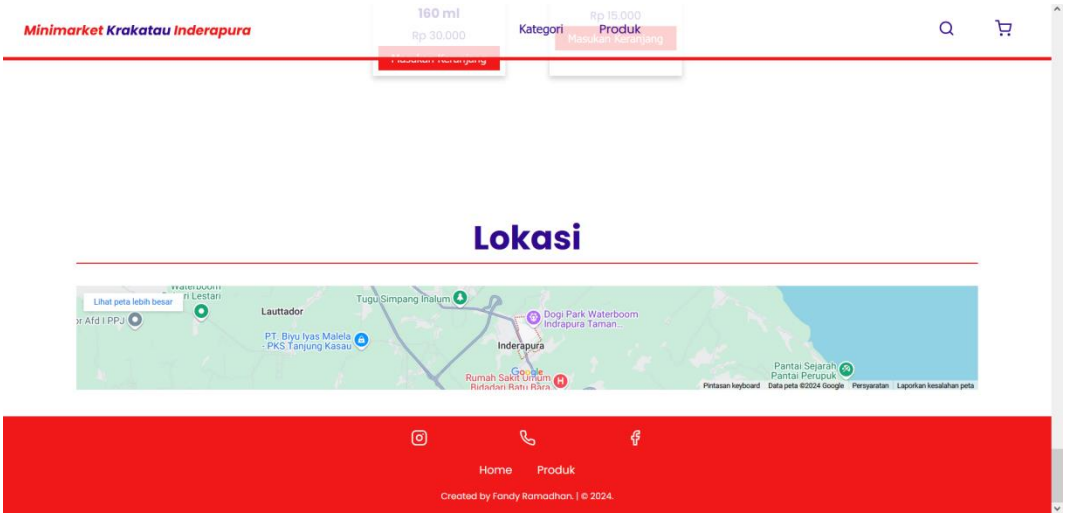

Figure 5. Location Display

4. CONCLUSION

The online sales system website can be used as the latest interactive sales service medium at Krakatau Inderapura Minimarket. It is hoped that this website can become a practical and efficient sales medium. With the online sales system website at Krakatau Inderapura Minimarket, it is hoped that it will make it easier for sellers and buyers to conduct transactions.

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