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DESIGNING A WEB-BASED AGRICULTURAL PRODUCT SALES APPLICATION AT TOKO TANI CITRA IN BANGKA

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ABSTRACT

Toko Tani Citra is a small business that markets various types of agricultural products, for example plant fertilizers, fruit and vegetable seeds, herbicide poisons, insecticides, fungicides, as well as complete agricultural equipment. Toko Tani Citra is currently still running a business only by shopping directly at the shop, not yet based on E-Commerce. Meanwhile, many businesses out there are more advanced and based on e-commerce. In order to provide this business to become competitive and widely known among the customer, by expanding the process of buying and selling products using online transactions. This project is about the design of a web-based application for agricultural transaction products at Toko Tani Citra. The method used for this project is Software Development Life Cycle (SDLC) Waterfall Model, the researches utilized Hypertext Preprocessor (PHP) programming language, and PhpMyAdmin database for building the system. With this web-based system, customers can receive shop information and agricultural products available at the shop.

Keywords: *Sales Application, Agricultural Products, Website, Customer, PHP*

1. PREFACE

Introduction

The information system is a combination of people, technological facilities or tools, media, procedures, and controls intended to organize communication networks that are important for users or recipients. Information systems are increasingly developing along with the rapid development of computer technology [1]. Information systems become an organizational success and require the business world to be able to carry out its activities effectively and efficiently. This can be done with the ability to compete at both local and global levels with the quality of human resources, as well as the goods or services produced [2].

Toko Tani Citra is an agricultural shop that sells various kinds of agricultural tools as well as fertilizer, vegetable seeds, and various types of plant poisons and pests. So far, shop sales at Tani Citra still use a manual system, that is, the process of selling goods is usually still buying directly at the shop and delivering the goods directly to the buyer at a distance that is still affordable. The current sales system of the Toko Tani Citra is not very widely known to the public, so the author feels it is necessary to create an information system for the Toko Tani Citra. The information system created is web-based to help promote sales and increase product sales figures. It is hoped that this web-based information system can also improve the performance of Toko Tani Citra. The following is a view of the Toko Tani Citra in Bangka, which can be seen in Figure 1.1.

Figure 1.1 Toko Tani Citra

Regarding the background to this final assignment, the research is focused only on information technology issues that can provide support for the smooth running of goods sales carried out by a shop or business venture which is entitled "Designing a Web-Based Agricultural Product Sales Application at Toko Tani Citra". The equipment used to build this system uses the Visual Studio Code application for the text editor, and PhpMyAdmin for designing the database.

2. RESEARCH METHODS

The data collection methods used were observation and interviews. The observation method is used to observe the process of payment and ordering activities that occur directly [3]. The interview process is carried out to understand individual views regarding the subject of discussion [4]. SDLC is the stages of work carried out by system analysts and programmers in building information systems [5]. SDLC is a process regarding the methods and strategies used to develop, design, and maintain software projects [6]. With SDLC, developers prioritize user needs with a structured method for developing the system [7]. In designing a web-based application for the promotion and sales of agricultural products at the Tani Citra store, the SDLC (Software Development Life Cycle) Waterfall model will be used. SDLC with this model is the most frequently used model [8]. The Waterfall model has a sequence which means that before carrying out the next step, the previous step must be completed first [9]. In general, the Waterfall method has the following steps: analysis, design, writing, testing, and implementation and maintenance [10].

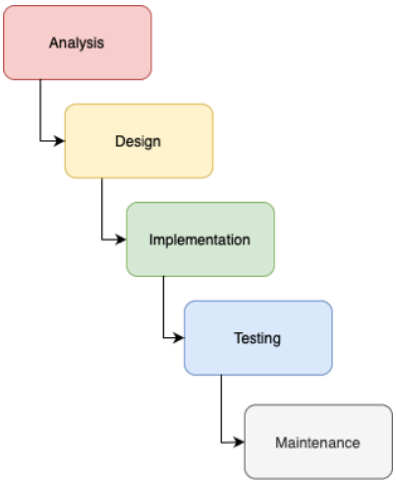


Figure 2.1 Waterfall Model

The following is an explanation of the stages carried out in the waterfall model:

- Needs Analysis

  The author seeks data and carries out an analysis of system services, limitations, and research sources to understand the software and features needed by users and software limitations. Data analysis and search will be carried out by observation, interviews, and documentation of Toko Tani Citra. Figure 2.2 shows the products and catalog at Toko Tani Citra.

Figure 2.2 Product Data

- System Design

  The system design process creates requirements for a software system. The system design process establishes the overall system architecture. The author uses Unified Modeling Language (UML) to create Sequence Diagrams, Class Diagrams, Use Case Diagrams, Activity Diagrams, Prototype User Interfaces, and Windows Navigation Diagrams.

- Writing the Program Code

  Based on the system design from the previous stage, the author realized a software system with the process of creating software program code, creating a database, developing applications, and developing a User Interface. The programming language used is Hypertext Preprocessor (PHP) and the PHPMyAdmin database.

- Program Testing

  Individual programs are integrated and tested as a complete system to ensure that software requirements are met, for example testing the application and making improvements if there are bugs or errors.

- Program Implementation and Maintenance

  The maintenance process includes correcting errors or deficiencies found in the previous stage and newly discovered errors. Maintenance activities are carried out, such as carrying out routine checks, updating the system, and preventing bugs from occurring.

3. RESULT AND DISCUSSION

The results of research on designing a web-based agricultural product sales application at Toko Tani Citra aims to help Toko Tani Citra's business process become easier and more efficient, making it easier for customers to get information and carry out online transaction processes for Toko Tani Citra, and increase credibility and popularity.

Users can start by registering an account so they can log in and make transactions on the Toko Tani Citra website. Figure 3.1 shows the Register page display.

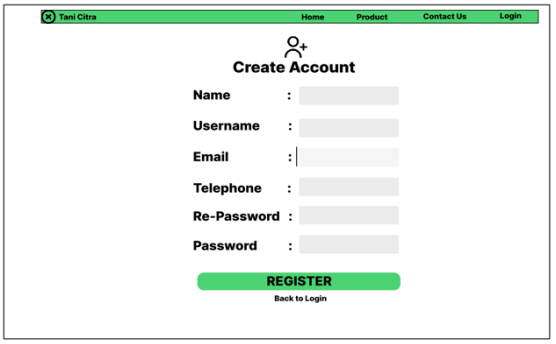
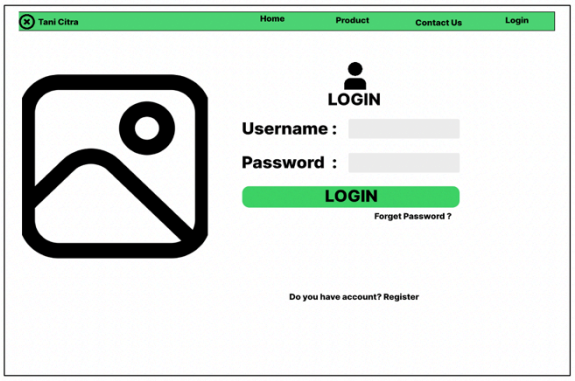


Figure 3.1 Register Page

After registering, users can log in by entering the registered username and password. Figure 3.2 shows the Login page display.



Gambar 3.2 Login Page

After logging in, users can see the products sold by Toko Tani Citra as in Figure 3.3.

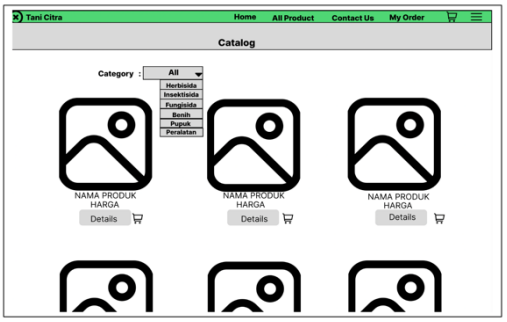


Figure 3.3 Home Page

Next, the user can select the product they want to order by adding the product to the shopping basket, the user can also change the quantity of products according to their needs as shown in Figure 3.4

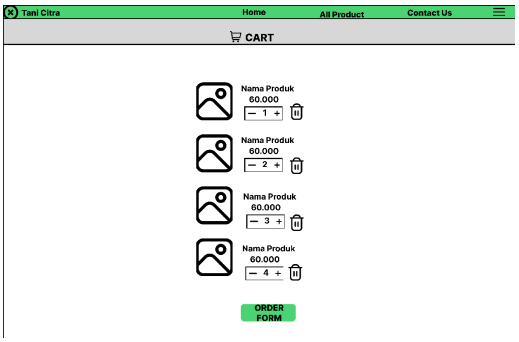


Figure 3.4 Cart Page

Next, if the user has confirmed the order, the user can fill in the order form, payment form, and choose a delivery method. If so, the user can see their order on the My Order page as shown in Figure 3.5.

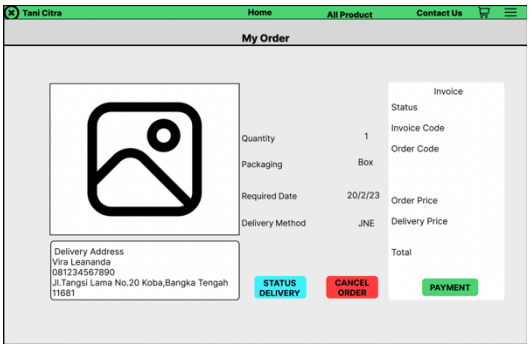


Figure 3.5 My Order Page

After the user has finished ordering the product and has received the product the user can provide an assessment review of the product as shown in Figure 3.6.

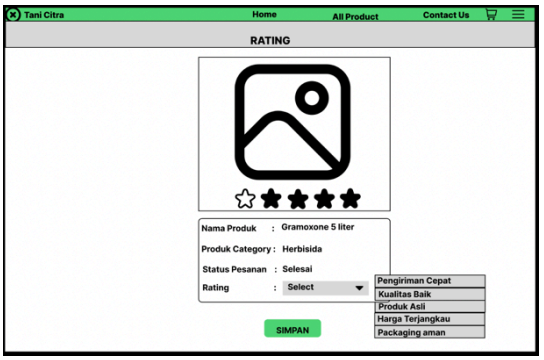


Figure 3.6 Rating Page

Toko Tani Citra's web-based agricultural product sales application program has an admin dashboard page, which contains a Product Page for admin to process product data, a Customer Page for admin to process customer data, an Order Page for admin to process customer order data, a Delivery Page for admin to process and update goods delivery data, and a Rating Page to process customer assessments. As seen in Figure 3.7.

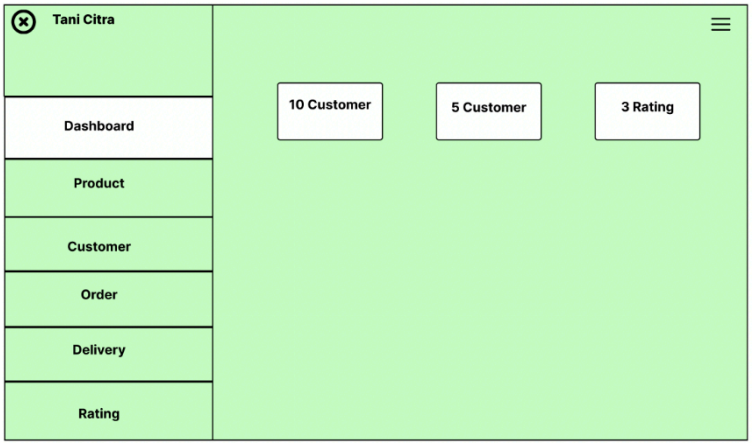


Figure 3.7 Admin Dashboard

Toko Tani Citra's web-based agricultural product sales application program has a Product page on the Admin Dashboard, which contains product data such as product ID, product name, product code, product category, stock and action buttons for admins to process product data, delete and change. As seen in Figure 3.8.

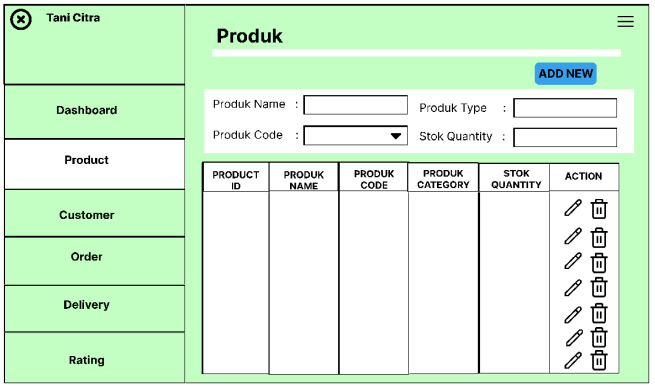


Figure 3.8 Admin Product Page

Toko Tani Citra's web-based agricultural product sales application program has a Customer page on the Admin Dashboard, which contains customer data such as customer ID, customer name, login ID, email, telephone number, address and action buttons for admins to process customer data, delete and change. As seen in Figure 3.9.

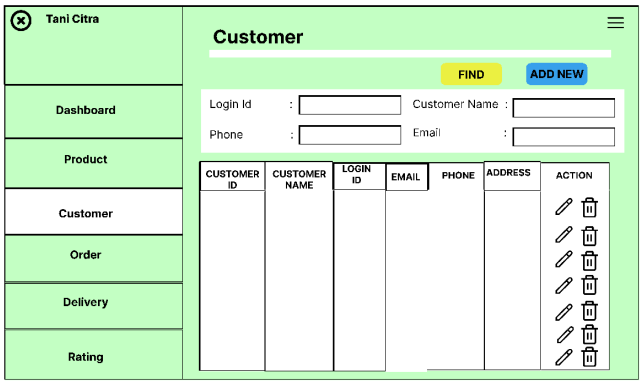


Figure 3.9 Admin Customer Page

Toko Tani Citra's web-based agricultural product sales application program has an Order page on the Admin Dashboard, which contains Order data such as Order ID, Order Code, Product Name, Status Order, Required Date, Quantity and action buttons for admins to process Order data to delete and change. As seen in Figure 3.10.

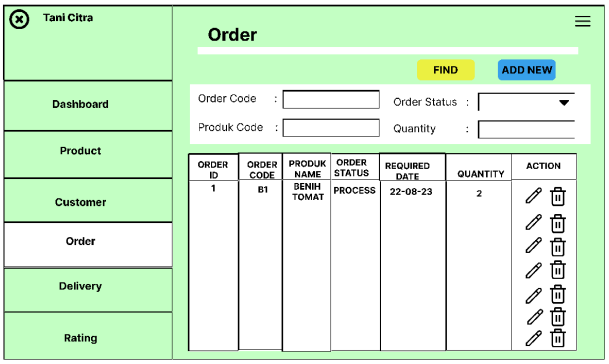


Figure 3.10 Admin Order Page

Toko Tani Citra's web-based agricultural product sales application program has a Delivery page on the Admin Dashboard, which contains Delivery data such as Delivery ID, Delivery Method, Expedition, Delivery Price, and action buttons for admins to process Delivery data, delete and change. As seen in Figure 3.11.

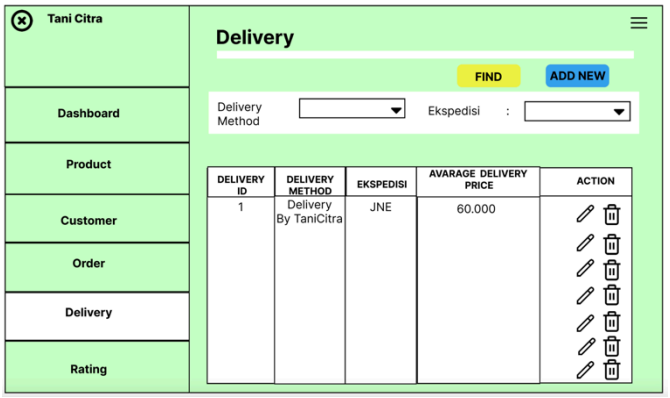


Figure 3.11 Admin Delivery Page

4. CONCLUSIONS AND RECOMMENDATIONS

The conclusion of this research is a web-based application system for selling agricultural products or E-Commerce in the form of the Toko Tani Citra website. This website aims to help Toko Tani Citra's business process become easier and more efficient, making it easier for customers to get information and carry out online transaction processes for Toko Tani Citra, and increasing credibility and popularity. The Toko Tani Citra website application has a feature for customers to provide product assessments so they can provide useful information to future customers. This website application also has a shopping cart feature to make it easier for customers to order goods and make changes to the number of items they want to order.

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