



STANDARD NEEDS INFORMATION SYSTEM (SPECIFICATIONS) MOBILE WEB BASED

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Abstract

Toko Iwan is a business engaged in the sale of basic necessities in the Talangpadang market, Talangpadang sub-district, Tanggamus district, Lampung. Iwan's shop sells various kinds of basic household needs such as rice, sugar, noodles, cooking oil, flour and so on. In the process of recording transaction data at this store, it still uses a manual method using paper and pen media so that errors are often encountered and it is difficult to find out the stock of goods that are still available in the warehouse. The ordering process at this store is still via whatsapp, sms, telephone and coming directly to the store. The research method used is observation, interviews and literature study. This web-based sales system was developed using the waterfall development method, with the PHP programming language and the database used is MySQL. The design of this web-based information system is very useful in today's digital era and can make business activities at Toko Iwan more effective and efficient.

Keywords:

Mobile web;
information systems;
PHP;
MySQL.



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I. INTRODUCTION

Grocery store is one of the businesses engaged in the economic sector, which currently still uses a conventional system. One of the most promising business opportunities currently run by small entrepreneurs is opening a grocery store business. Because daily needs such as sugar, oil, salt, rice and other foods are the most important needs for humans, everyone really needs them. That is why opening a grocery store business is a promising business opportunity. Besides that, opening a grocery store business also has its advantages and disadvantages. The advantages are that many people really need it, the marketing strategy is very simple, the business time is flexible, the capital is flexible, it is affordable for all groups. The drawbacks are rising and falling prices of basic necessities, very tight competition. Based on data from the Central Statistics Agency (BPS), the main pattern of rice trade distribution experienced the addition of one main chain compared to the previous year.

Meanwhile, the main distribution pattern for the trade in purebred chicken eggs, cooking oil and sugar in 2020 has the same number of main chains as the previous year. The total trade and transportation margin (MPPT) for Lampung Province in 2020 for rice raw materials is 14.45 percent; purebred chicken eggs 19.34 percent; edible oil 13.06 percent; and 12.53 percent sugar.

with this application, it can minimize the time for a purchase transaction. This application can make it easier for consumers to make payments for goods and store report data to be effective and tidy. This application can also make it easier for sellers to fill in data on the goods to be sold. So that this application can make it easier for sellers to recap sales data and can minimize manufacturing time. This application can make it easier for buyers to make purchases without having to come to the store and consumers can find out directly the price of the goods to be purchased so that it is easier for sellers to make transaction data. this information system will minimize recording errors. With the stock of goods, ordinary employees know the stock of goods in the warehouse. Information and documents can be recorded and stored properly to make it easier to search when needed because they are stored in a database. Making reports is easier because there is data stored in the database so that it becomes easier. Website applications are designed to make sales transactions easier for managers and consumers to complete sales transactions. Makes it easy for admins to view sales reports. Make it easy for admins to review consumer data. Simplify campaign implementation for managers by managing consumer data through CRM (Customer Relationship Management). The sales process that was originally manual is now computerized. The advantage of this application is that it saves time in making sales transactions. Based on research activities carried out by the authors ranging from design to implementation and testing, the following conclusions can be drawn: This application only applies to one type, namely the cashier as administrator to add or delete sales information and information merchandise in this application program. This application does not support online information input.

Previous research used the Java and Netbeans programming languages. Using this system can make it easier to input data. Then the disadvantage of using the Netbeans Idea is that it takes up a large amount of memory and is easy to decompile, making the source code that we have created easier to hack. The difference with the research that will be conducted is in the use of the PHP and MySQL programming languages. Aims to facilitate the input of transaction data and inventory and maintain data security.

In the process of recording sales and purchase transactions at Iwan's shop, the manual method is being used, namely by using paper media in the recording process, as a result, errors often occur and it is less efficient in the data collection process, making it difficult to find out the remaining inventory and goods that have been sold. To improve store performance, store managers want to create a WEB-based sales information system. This sales information system is really needed by various groups of people because it can help people make the right decisions via the internet and the technology is now also growing rapidly. It can also help, especially in the business world, so that information is more real-time. HTML, CSS and PHP programming methods were used in making this web-based grocery store information system. HTML is one of the basic programming languages in making website frameworks. CSS which functions to give style to a website. PHP is used to handle server-side related tasks. The purpose of this research is to create an Iwan store information system website application so that it can greatly facilitate the collection of transaction data and inventory. The benefit is being able to manage computerized sales and purchase transaction data processing.

II. LITERATURE REVIEW

2.1. Information Systems

(Abdul Kadir, 2008) An information system is a system consisting of several sets of system components, namely software, hardware and brainware that have processed data processing into an output that is very useful for achieving a certain

goal in an organization. organization". (Abdul Kadir, 2013) who has defined that "An information system is a set of formal procedures where all data is collected, then converted into information, and finally distributed to users. (Davis, 1985) A system that serves all management needs for daily transactions, is managerial in nature, forms strategic activities, supports operations, and provides certain external parties with the necessary reports. An information system is a system that has several abstract system components that always interact and are interconnected in forming a single unit to carry out certain activities or goals. The information system is the idea of a series of files that are created in a structured way to produce information, namely data that has been processed into a form that is useful for all users.

2.2. E-Commerce

(Suyanto, 2003) E-commerce is a condition where the process of buying and selling products will be carried out electronically by consumers and from industry to other industries by using computers as intermediaries in commercial transactions. E-commerce can be understood as a field of transactions or exchange of information between sellers and buyers in cyberspace. It cannot be denied that the buying and selling arena in cyberspace is created by the connection of millions of computers into a giant network (Internet). (Wiji Susanti & Noca Yolanda Sari, 2015) E-commerce can be referred to as an arena or place where transactions are formed in the exchange of information that has existed between sellers and buyers in cyberspace. (Rita Irviani, Kasmi, Evi Setyorini, 2018) From the various definitions above, it can be concluded that e-commerce is a process in which buying and selling transactions are carried out through an online electronic system.

2.3. Visual Studio Code

(Sallaby, Utami, & Arliando, 2015) Visual Code Studio is a kind of free code editor that can run on Windows, Linux, and MacOS desktop devices. This code editor has been developed by one of the world's technology giants, Microsoft. Visual Studio code has been designed to work with existing tools, and Microsoft has provided documentation to help co-developers, with encouragement to work with ASP. NET 5, Node. js, and Microsoft scripts, and tools that can be used to help build and manage Node applications. js.(Liu & Zhang, 2017) Visual Studio Code is primarily for JavaScript developers who want a full suite of development tools for their server-side scripting and may want to venture from Node.js to a .NET based framework.

2.4. Web Mobile

(Utomo, 2013) A mobile website is a site that has been specially designed for mobile device users that has been designed to implement the same protocol standards as the desktop web. (Warman et al., 2018) Web Mobile is a website that has been created specifically for all mobile device users. (Andreas Andoyo, 2019) Mobile websites like to have very simple designs and will usually be informative. a mobile website is an internet web park that can be used or accessed on all mobile features.

2.5. Iwan's Grocery Store

Iwan's basic food shop is a wholesale shop that provides basic necessities and all kinds of basic household needs. This shop is in the Talang padang market, Tanggamus district, Lampung. This store also serves purchases in retail and wholesale. Purchases at this store can also be done via telephone, whatsapp and sms. Goods purchased will be delivered to the destination address by transportation service (ojek). In this way consumers can save time, they don't have to buy goods directly to the store. For payment problems, this store can only be through cash only. If someone buys by phone, whatsapp or sms, the payment is deposited through a delivery service that has delivered the item.

III. RESEARCH METHOD

The research method that will be used by researchers includes several methods such as data collection and system development.

3.1. Data Collection Methods

In research, it is necessary to formulate the problem that will become the subject of research. The problem is formulated in advance by considering the actual conditions in the field by gathering information about Iwan's business. This method uses observation, interviews and literature studies.

Observation Method

The observation method is a data collection technique that is carried out by observation, accompanied by notes on the state or behavior of the target object. Researchers made direct observations at Iwan's shop, including observing ongoing business processes at the store.

Interview Method

The process of collecting personal information by asking questions to Toko Iwan employees/cashiers about business processes that are currently running.

Literature Study Method

Researchers carry out literature studies to collect data or sources related to the topics raised in the research. Literature search can be tried from various sources of books, journals, articles as well as notes and process research materials.

3.2. System Development Method

The waterfall method is often called the classic life cycle, the name of this model is actually the "Linear Sequential Model", describes a systematic and sequential approach to software, starting from the definition of user requirements and ending with the design phase. planning, modelling, construction, delivery of the system to the users deployment, ending with support for the complete software produced (Pressman, 2012). The first time this waterfall model was introduced by Winston Roycl in 1970.

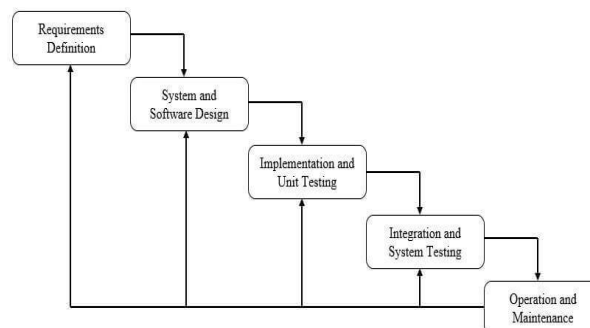


Figure 1. Model Waterfall (Jeffery, Bentley, & Dittman, 2004)

The waterfall method has several levels in the development process, namely requirements (needs analysis), system design (system design), coding and testing (testing), program implementation and maintenance. The steps of the waterfall method are:

a. Requirement Analysis

In this phase, the system designer needs to communicate in order to understand the expectations of the software users and the limitations of the software. This information can be obtained through interviews or questions and answers, discussions, and direct questions. The data is analyzed in order to get the information the user needs.

b. System Design

In this phase, the requirements definition from the previous phase is studied and the system design is prepared. The system design will help to determine the hardware and system requirements and can help define the architecture of the system as a whole

c. Implementation

During this phase, the system is initially developed into the smallest unit, which is integrated at a later stage. Each unit whose functionality is developed and tested is called a unit test.

d. Integration & Testing

All units that have been developed during the implementation phase to be integrated into the system after testing each unit. After integration, the entire system is checked for possible errors or failures.

e. Operation & Maintenance

In the final stage of the waterfall model. The software is ready to run and perform maintenance. Maintenance will be listed into fixing errors that were not encountered in the previous step. The new requirements include improved system unit execution as well as extended system services.

IV. DISCUSSION

4.1 Use Case Diagram

Use case diagrams are one of several types of Unified Modeling Language (UML) diagrams that illustrate system interactions and their actors. A use case can illustrate the type of system user interaction and the system[15].

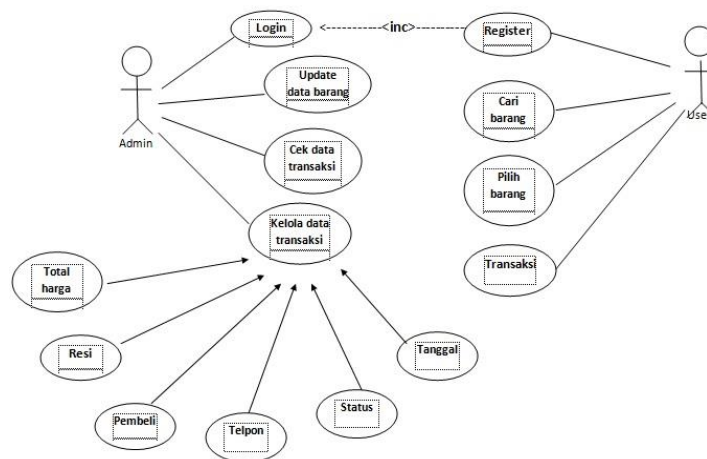


Figure 2. Use Case Diagram

a. Before entering, the administrator must login first. Admin can then update item data, check transaction data and process transactions.

b. Visitors can search and select items that have been offered through the system. So that visitors can make transactions, first visitors must register to enter visitor data. During registration, visitors can specify a username and password that they want to use every time they enter the system.

4.2 Implementation

System implementation as steps or procedures taken to complete all approved system designs, to install, test, and start a new or repaired system. The login page requires the user to enter his username and password to enable the user to access the synchronous system using his user rights.

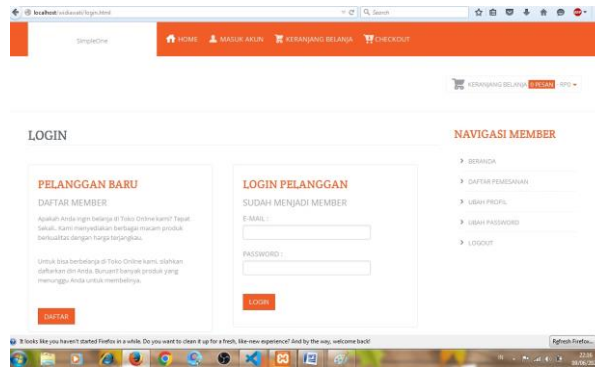


Figure 3. Implementation system E-Commerce

After logging in, the user accesses the main page, the main page contains the best-selling catalogs and products.

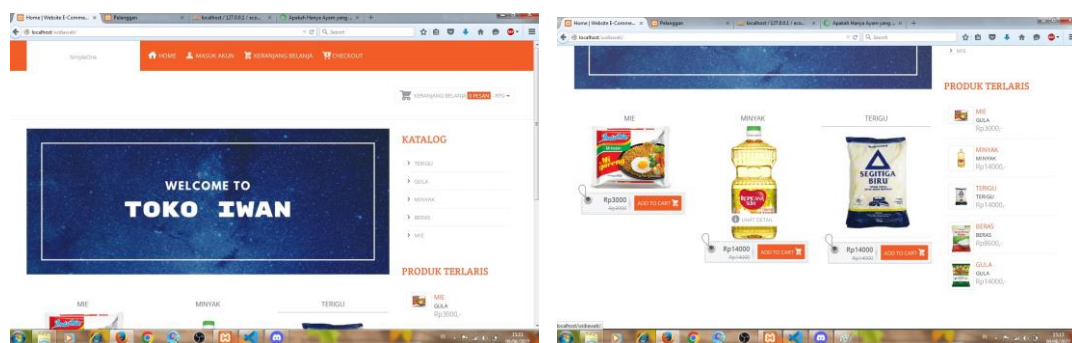


Figure 4. Page Home System E-Commerce

4.3 Analysis of Results

The purpose of an information system is to change raw information into data that is very useful for an institution or organization. From the results of data processing into information, this will then enable decision making to be carried out objectively within an organization. The design of a web-based data processing information system can make it easier to access data and find data information, which in turn can speed up decision making. Information analysis uses the waterfall method, designs and creates applications using the PHP programming language and MySQL database. Black box testing is a test that can be tried to observe the results of the input and output of the software without having to think about the code structure of the software.

V. CONCLUSION

Based on the final results of the research that has been submitted, the researcher makes several conclusions This computerized system makes it very easy for cashiers to make sales transactions, all of which are already in the computer system. The information system is made to provide various reports, namely order reports, sales reports, inventory reports and payment reports Implementing a computerized system can reduce errors when making transactions

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