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Web-Based Online Sales Information System Using PHP and MYSQL Database in Nara Collection

Hendriyanto[1], Pandu Adi Cakranegara[2]
[1]Mitra Karya University
[2]Pesident University
Corresponding Author E-mail: hendriumika@gmail.com

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Abstract: Online sales is an alternative form of business that can be used by business people to offer products to consumers. As internet service users continue to grow, due to being cheap and easy, business online sell is growing. Business development is supported by increased productivity which provides a variety of products to be marketed through the internet media. This has triggered the rise of ballet shoes selling business through the internet called "Nara Collection" because it is easy to run does not require large capital and does not need to require an easy management system to manage it. Now it is enough with the product photos and internet access to market it into goods selling sites and social networking sites, this business can already run. To simplify the online sales process, a web-based online sales information system was created. With this application, it can help market products online so that it can be widely known by the general public. In addition, the development of this information system makes the transaction process easier and faster and problems related to sales data and report information can be printed quickly and easily by the cashier.

Keyword: Online Sell Systems, Products, Transactions, Internet, Web

1. Introduction

At this time the development of information has grown very rapidly, therefore there are also many businesses or agencies that use information systems to improve their business. The way to increase the business of a business is to build a good information system. And the requirements to build a good information system, namely the speed and accuracy to obtain the required information. The computer is a tool that can store data, process data, and provide the desired information precisely and accurately that is useful for its business to progress.

Online sales are an alternative form that businesses can use to offer products to consumers. Along with the increasing number of internet service users, which is because it is cheap and easy, the business carried out by selling online is growing. Business development is supported by increased productivity by providing a wide range of products to be marketed through the internet. This is what triggers the proliferation of business selling ballet shoes via the internet called "Nara Collection" because it is easy to run and does not require large capital and it doesn't have to require an easy management system to manage it. Now it is enough with product photos and internet access to market them into selling sites and social networking sites, this business can run.

Online business is growing rapidly without being limited by time and place. Selling goods with the internet as a liaison medium and a website as a marketing catalog is more practical and efficient because it does not require a direct meeting between the seller and the buyer. Purchasing products online is a fast growing alternative. Even online business has many advantages, namely in terms of service, effectiveness, security and popularity. The internet is growing rapidly at this time, especially with the increasing number of social networking sites and websites that offer products or services, making people make the internet a necessity. Consideration of the business world for businesses or individual entrepreneurs using the internet to reach customers globally, has a positive impact on several aspects of human life, including the development of the business world. Changes in communication technology that are very fast and global, have provided marketers with wider and more efficient opportunities.

Basic and General Theory

Understanding an information system is a method or method of determining an information that can be said to be good and accurate as desired by the recipient, so as not to receive misleading information sources. Information system includes a number of components (humans, computers, information technology, and work procedures), something is processed (data becomes information), and is intended to achieve a goal or goal (Wijayanto, 2013).

Waterfall Method

The waterfall method or what is often called the waterfall method is often called the classic life cycle, where it describes a systematic and sequential approach to software development, starting with the specification of user requirements and then continuing through the planning stages modeling, construction, and delivery of the system to customers (deployment), which ends with support for the complete software produced (Pressman, 2012).

According to Rosa (2014) the waterfall model is an example of the planning process, where all process activities must be planned and scheduled before being carried out. The stages of the waterfall model according to Pressman and Sommerville are as follows:

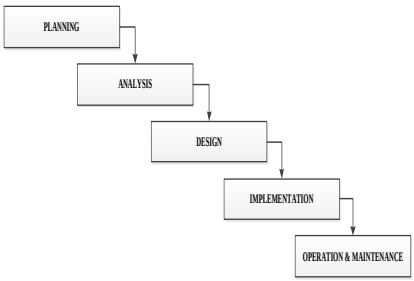


Figure 1. Waterfall Model

Advantages of the Waterfall Model: 1) it is the most reliable and longest used development model; 2) suitable for generic software systems; 3) work on system projects will be well-scheduled and easy to control. Disadvantages of the Waterfall Model: 1) system requirements must be clearly delineated; 2) the details

of the process must be completely clear and cannot be changed; 3) difficult to adapt if there is a change in specifications at a stage of development.

According to Siberio (2013), E-Commerce or electronic commerce is the buying, selling and marketing of goods and services through electronic systems. Such as radio, television and computer networks or the internet. So the understanding of e-commerce is the process of buying and selling transactions carried out via the internet where the website is used as a forum to carry out the process.

There are 4 (four) classifications of E-Commerce according to the pattern of interaction or transactions, namely: 1) Consumer-to-Business (C2B), the E-Commerce model in which individuals use the Internet to sell products or services to companies or individuals, or to find sellers for products or services that they need; 2) Business-to-Cunsumer (B2C), E-Commerce transactions occur between companies/businesses and individual consumers; 3) Business-to-Business (B2B), E-commerce transactions that can occur between two organizations among other activities, which include purchasing, procurement, inventory control, sales, payments, services and support; 4) Peer-to-Peer (P2P), E-Commerce transactions that include transactions between several or more consumers. The exchange may include the involvement of 3 consumer parts (Pratama, 2014; Supono dan Vidiandry, 2016).

Sales is a part of promotion and promotion is one part of the whole marketing system. Winardi in the science and art of selling said that selling is a process in which the needs of the buyer and the needs of the seller are met, through exchanges and interests.

A database is a collection of logically related data that is designed to get the data an organization needs (Indrajani, 2015). The database can be understood as a collection of connected data that are stored together on a medium, without looking at each other or not needing a data frame stored in certain ways so that it is easy to use or display again, data can be used by one or more application programs optimally, data is stored without being dependent on the program that will use it, data is stored in such a way that the process of adding, returning, and modifying data can be done easily and controlled.

In a database there are attributes that show the characteristics of the entity and for each entity attribute there is one attribute that is used as a key. There are several types of keys, 1) Primary Key, an attribute that not only uniquely identifies the occurrence of an entity (candidate key); 2) candidate key is an attribute that can uniquely identify an occurrence of a specific entity; 3) Composite Key, Candidate Key consisting of two or more attributes; 4) Foreign Key, an attribute in one relation that matches the candidate key of several relations.

In addition to attributes there are also cardinality, cardinality defines the number of occurrences of either a minimum or a maximum of one entity that can be associated with a single occurrence of another entity. Since all relationships are bidirectional, cardinality must be defined for each relationship.

One to one (1:1)

The relationship level is stated to be one to one if an occurrence of the first entity has only one relationship with one occurrence of the second entity and vice versa.

Figure 2. One to One Relationship

One to many (1:M)

The degree of a one-to-many (1:M) relationship is the same as that of many-to-one (M:1) depending on which direction the relationship is seen. For one event in the first entity can have many relationships with events in the second entity. On the other hand, one event in the second entity can only have one relationship with one occurrence in the first entity.

Figure 3. Many to One Relationships

Many to many (M:N)

The level of many-to-many relationship occurs if every event in one entity will have many relationships with events in other entities. At each cardinality many-to-many relation can be handled by creating (new file) such that direct many-to-many relation turns into indirect one-to-many relation via connector file. The contents of the connector file are at least two primary keys, many-to-many relations will produce three new relations.

Figure 4. Many to Many Relationships

One database has several important criteria that must be met, namely: 1) Oriented to the data and not oriented to the program oriented that will use it; 2) The data in the database can grow easily, both volume and structure; 3) Existing data is able to meet the needs of new systems easily; 4) Data can be used in an easy way; and 5) Minimum data redundancy

Programming

Understanding Programming according to Jogiyanto (2010) is the activity of writing program code to be executed by the computer. Programming language is software that can be used in the process of making programs that go through several stages of problem solving. Programming gives instructions to the computer so that it can work as we want. Computers understand programming as data and instructions in binary form (a series of bits with the values '0' and '1'). While humans understand as logic, arithmetic, algorithms, concepts, models and so on. To bridge the gap, a programming language was created that translates

what humans want or understand into computer machine instructions. In the computer world, there are various programming languages. Because there are so many types of programming languages, these languages are also grouped based on certain criteria.

Flowmap

Flowmaps are charts that have a flow that describes the steps to solving a problem. Flowmap is a way of presenting an algorithm.

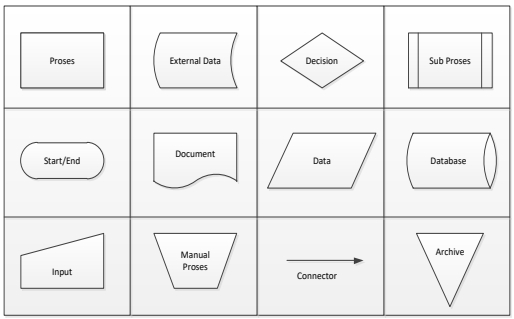


Figure 5. Flowmap Models and Symbols

Unified Modeling Language (UML)

According to Nugroho (2011), UML (Unified Modeling Language) is software with an "object-oriented" paradigm. Modeling is actually used to simplify complex problems in such a way that they are easier to learn and understand. Unified Modeling Language is a set of tools used to abstract a system or object-based software. UML is also a way to facilitate continuous application development. Undocumented applications or systems can usually hinder development because developers have to perform searches and study the program code. UML consists of several parts as follows:

Use Case Diagrams

According to Murad (2013), Use Case Diagrams are status diagrams that show a set of use cases and actors (a special type of class). This diagram has 2

functions, namely defining what features must be provided by the system and stating the nature of the system from the user's point of view. Use case is an abstraction of the interaction between the system and the actor. Use cases work by describing the type of interaction between the user of a system and the system itself through a story of how a system is used. The use case diagram describes an interaction between one or more actors and the system to be created.

Website

A website is a collection of pages in a domain that contains various information so that it can be read and viewed by internet users through an internet search engine. Information that can be contained on a website generally contains image, illustration, video, and text content for various purposes. Usually for the initial appearance of a website can be accessed through the main page (homepage) using a browser by writing the right URL. In a homepage, it also contains several derivative web pages that are linked to one another (Yuhefizar, 2013).

Main Elements of the website

From the understanding, history and function of the website, to a discussion of the elements of the website itself. Here is some information related to the elements that make up a web.

Domain

The first component is the domain, where the website can be analogized as a product. Then the website is the brand or the brand. Writing an attractive domain can get someone to enter your site. In addition, you must create a domain that is not too long and easy to remember. A good domain will also have an effect on increasing the ranking of the search engine system. Also make sure to do SEO optimization and check the domain regularly.

Hosting

The second component or element is hosting, which has an important role in storing all databases (data storage). Information in the database can be in the

form of text, images, illustrations, videos, and scripts). Currently, there are many services related to hosting package services according to your business and product needs.

Content

Content is, where the function of content is crucial. Because if the website does not have content, it can be said that the site does not have a clear purpose. Websites that apply content are social media, company profiles, online buying and selling sites, and many others (Yeni and Devie, 2011).

2. Methods

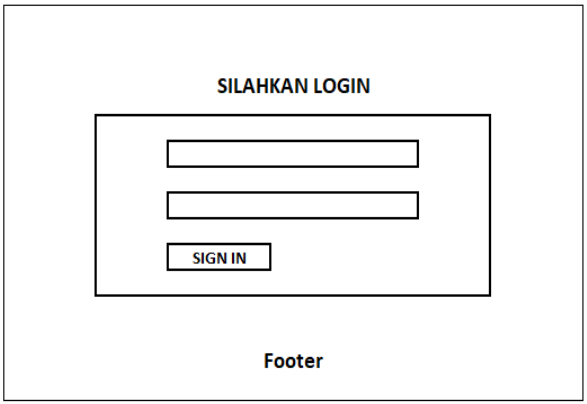
An information system that can provide extensive information about products sold in stores as well as an easy, effective and efficient sales transaction process using the Waterfall Method with several features to be built, including: 1) Making an application program that can make online transactions for selling shoes, bags and clothes to buyers, without having to come to the store; 2) Making an application program that can display detailed information on the sale of goods in the form of shoes and store all sales transaction data; 3) Create an application that is easy to run and can record sales history of shoes; 4) Making application programs that can provide reports on transactions of goods sold and can print income reports according to the specified period (Aditya, 2011; Bretha, 2014; Suryantara, 2017).

3. Results and Discussion

Input Design

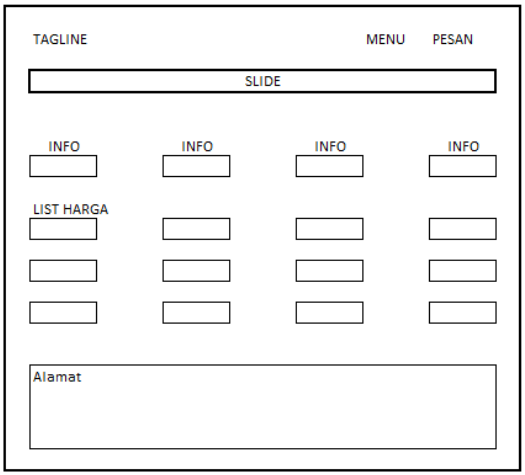
1) Login

Function: Identify the user for access to the system

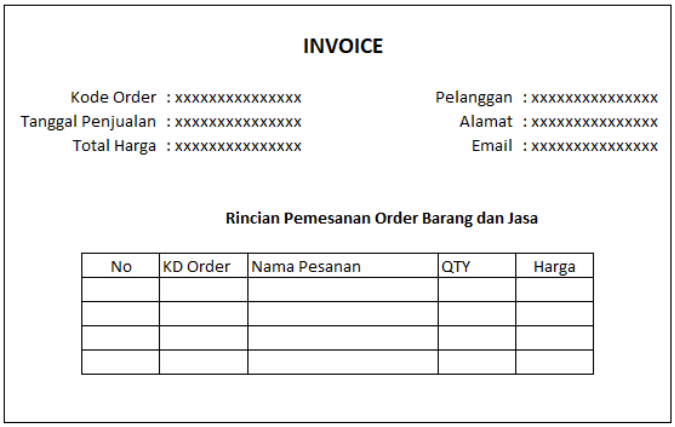


2) Main Menu

Function: Main Menu Website



Output Design



INVOICE

Kode Order : xxxxxxxxxxxxxxx
Tanggal Penjualan : xxxxxxxxxxxxxxx
Total Harga : xxxxxxxxxxxxxxx

Pelanggan : xxxxxxxxxxxxxxx
Alamat : xxxxxxxxxxxxxxx
Email : xxxxxxxxxxxxxxx

Rincian Pemesanan Order Barang dan Jasa

No	KD Order	Nama Pesanan	QTY	Harga

Print Buyer Invoice

Rekap Laporan Pendapatan Berdasarkan Range Tanggal

Tanggal Awal
Tanggal Akhir

No	Tanggal	KD Order	Naa Pelanggan	Total Harga
1	xxxx-xx-xx	x-xxx	xxxxxxxxxx	xxxxxxxxxx
2	xxxx-xx-xx	x-xxx	xxxxxxxxxx	xxxxxxxxxx
3	xxxx-xx-xx	x-xxx	xxxxxxxxxx	xxxxxxxxxx
4	xxxx-xx-xx	x-xxx	xxxxxxxxxx	xxxxxxxxxx
			Total Seluruh Pendapatan	**xxxxxxxxxx**

Print Report

Implementation

Proposed System Management

Hardware requirement

The hardware configuration from the server side required to operate the new system is 1 (one) PC server with the following specifications:

a. Processor i7 (8 GHz)

b. 8GB memory
c. Hard disk 4GB
d. 15 inch LED monitor
e. Standard keyboard and mouse

Software requirements

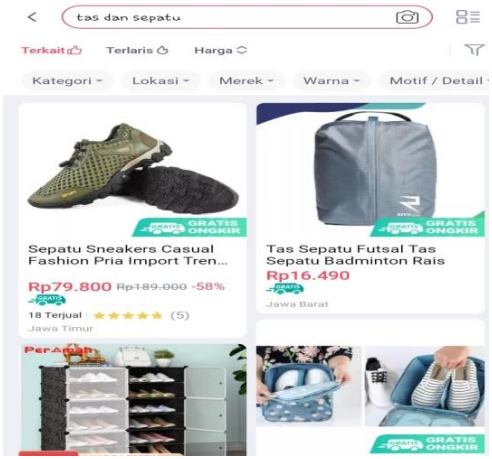
The software configuration required by the new system is as follows:

a. Minimum Operating System Windows 10
b. Xampp 1.8.0 for MySQL database management
c. Notepad plus plus as editor
d. Bootstrap HTML and PHP for making Web-based systems.

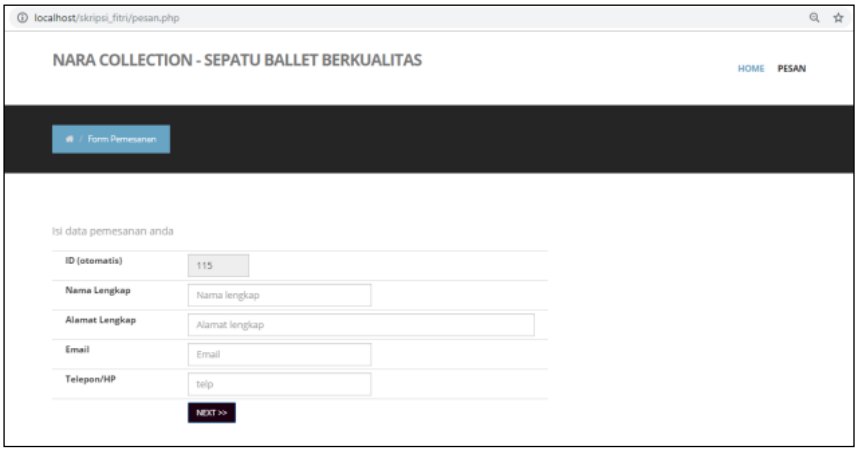
Screen Display

Login Employee/Admin

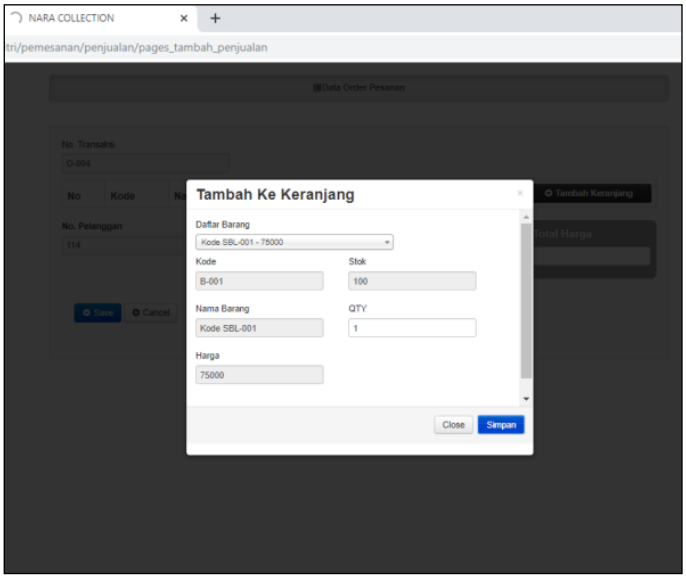
Website Main Menu



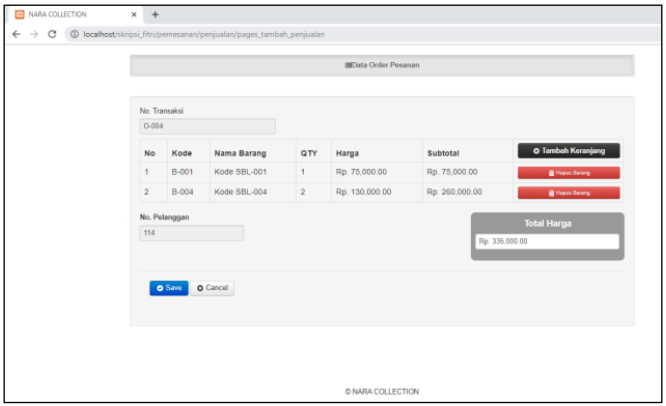
Order Form



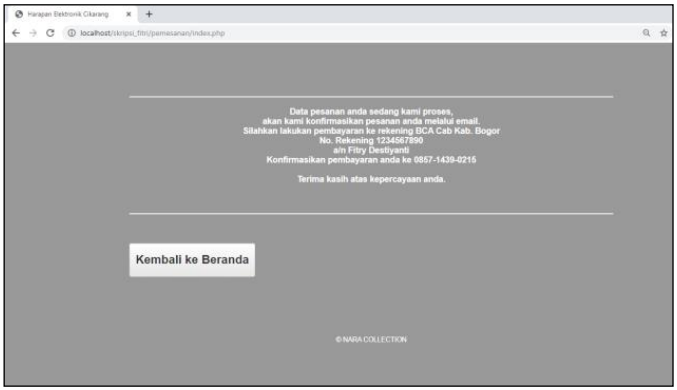
Choose Shoe Order



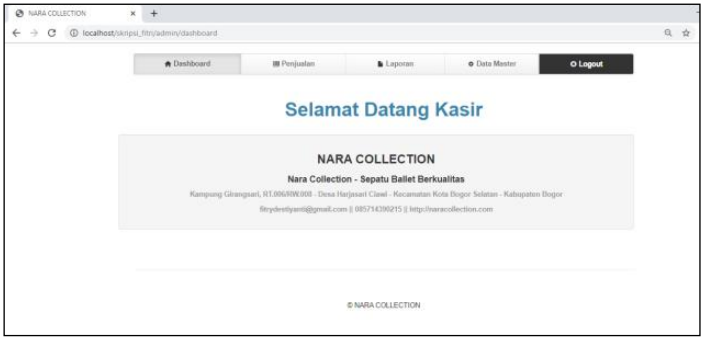
Order List



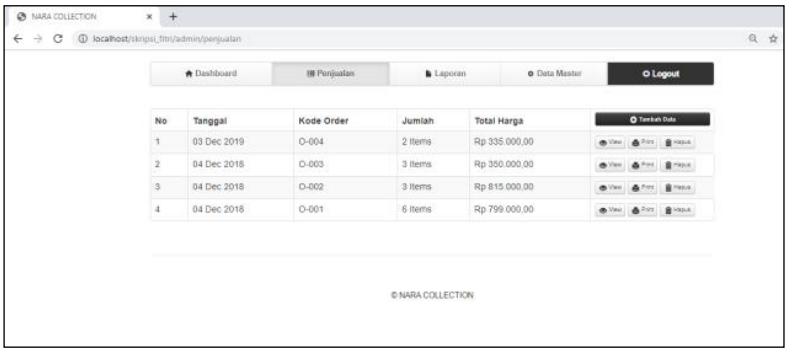
Done Order



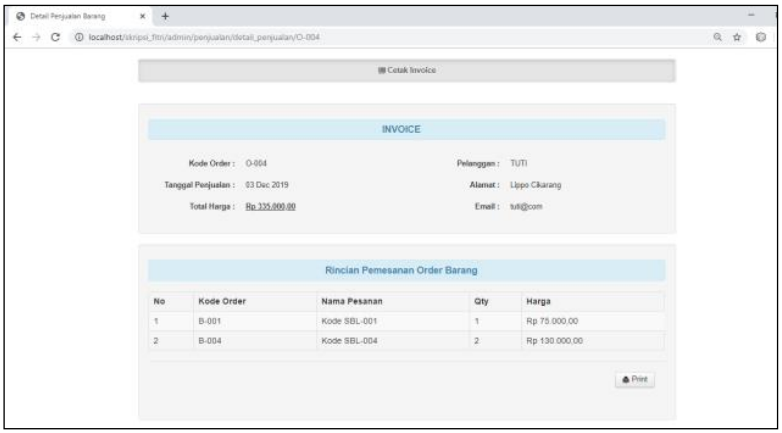
Admin Dashboard



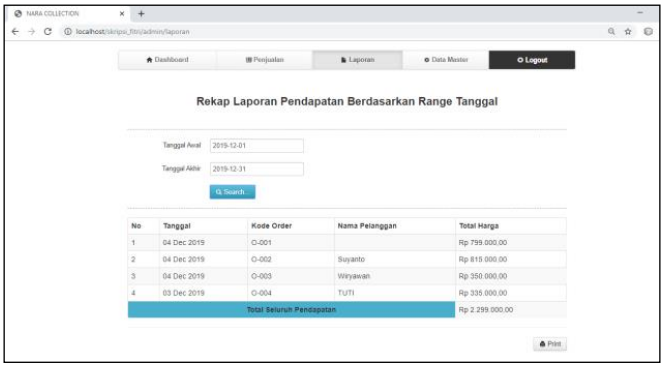
Shoe Order Information



Shoe Sales Print Invoice



Report Recap



4. Conclusion

The online sales system at the Nara Collection, the authors can conclude:With system development. This information can then help market products online so that they can be widely known by the general public. With the development of this information system it makes the transaction process easier and faster. With this system, problems related to sales data information and reports can be printed quickly and easily by online cashiers.

Acknowledgement

Our gratitude goes to those who have published our journal, the author of this scientific journal is still far from perfect. For that we are open to input and suggestions for future improvements. Hopefully this scientific work will be a reference for the same research and can enrich the knowledge that will be obtained in the field of computer science. thank you

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