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Kacio Batusangkar Outlet *E-Commerce* Information System Design Using the YII2 Framework

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Abstract: According to Presidential Decree No. 99 of 1998, the replacement of small businesses with business sectors which are predominantly small business activities and need to be protected to prevent unhealthy business competition. In the development of information technology, especially in the field of internet, it is a global network that unites computer networks and interactions between one another throughout the world. The aim is by connecting the network with the producer's computer to the internet, the producer can establish relationships with buyers or customers more efficiently. In this final assignment we use the E-Commerce information system method with the YII 2 framework. And in this final assignment we produce an E-Commerce information system for the Kacio outlet in the Batusangkar area using the YII 2 Framework. By using E-Commerce marketing can be done anywhere and anytime because customers only need to access the website that has been provided.

Keyword: E – Commerce, Information System, YII Framework.

INTRODUCTION

According to Presidential Decree no. 99 of 1998, the definition of Small Business is: small-scale people's economic activities with the majority of business sectors being small business activities and need to be protected to prevent unfair business competition.

According to M. Tohar in his book (1999:2) definition of small business are as follows:

1. Based on total assets. Small entrepreneurs are entrepreneurs who have a net worth of at most IDR 200,000,000 excluding land and buildings where they open their business.
2. Based on total sales. Small entrepreneurs are entrepreneurs who have total net sales/year of at most IDR 1,000,000,000.
3. Based on the status of ownership. Small entrepreneurs are businesses in the form of individuals who can be legal entities or not legal entities which include cooperatives.

The development of information technology, especially in the internet sector, is a driving factor for the development of *E-Commerce*. The internet is a global network that unites computer networks around the world, thus enabling communication and interaction between one another around the world. By connecting manufacturers' computer networks

with the internet, producers can establish relationships with buyers or *customers* more efficiently. Until now the internet is the ideal infrastructure for running *E-Commerce* , so the term *E-Commerce* has become synonymous with running a business on the internet.

The exchange of information in *E-Commerce* is carried out in digital format so that the need for sending data in printed form is eliminated. By using a computer system that is interconnected via a telecommunications network, sales transactions can be carried out automatically and in a very short time. As a result, the information needed for sales transactions is available when needed. By selling electronically, producers can reduce the costs they have to incur for sending information.

By using information technology, *E-Commerce* can be used as a solution to help manufacturers face competitors. The high sales competition that appears requires producers to provide a good response. The use of *E-Commerce* can increase cost efficiency and producer productivity, so that it can increase the ability of producers to compete.

With regard to the current development of information technology, the authors will design an *E-Commerce information system* (electronic commerce) for kacio outlets. To make it easier for the writer to make this *E-Commerce* , the writer will do research on the Kacio Batusangkar outlet store .

Based on the results of marketing interviews at the Kacio outlet store which has only been running for 3 years, the marketing procedure at the Kacio outlet begins with direct marketing, namely by sending employees to explain the goods at the Kacio outlet while providing information and price lists at the Kacio outlet. By using *E-Commerce* marketing can be done anywhere and anytime because customers only need to access the website that has been provided.

METHOD

The Unified Modeling Language (UML) is a complete notation for creating a visualization model of a system. As Chonoles said in Prabowo Pudjo Widodo and Herlawati (2011: 8) "Before UML existed, object-oriented programming language developers found it difficult to communicate with each other."

UML is a general syntax for creating a logical model of a system and is used to describe the system so that it can be understood during the analysis and design phases. As explained by Chonoles in Prabowo Pudjo Widodo and Herlawati (2011: 6) "*UML* stands for *Unified Modeling Language* which means standard modeling language". *UML* is usually presented in the form of diagrams/drawings which include *classes* and their attributes and operations, as well as relationships between *classes* which include *inheritance*, *association* and composition.

1. UML diagrams

Any complex system will be much better represented in a simple model that describes the system as a whole. *UML* defines eight diagrams to describe a system:

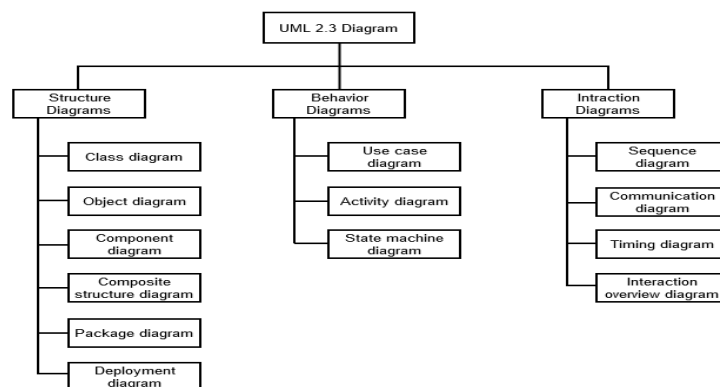


Figure 1 . UML Chart Types

2. System planning

Design is done to describe, plan and sketch from several separate elements into one unit and function. The design of this system is the result of the transformation of the system analysis which will be implemented later.

a. Context Diagrams

Context diagram is the highest level in data flow and only contains one process, shows the system as a whole and clearly describes the scope of the system to be created. *The context diagram* also contains anyone who provides input data to the system and to whom the data must be issued. The following *context diagram* is as follows:

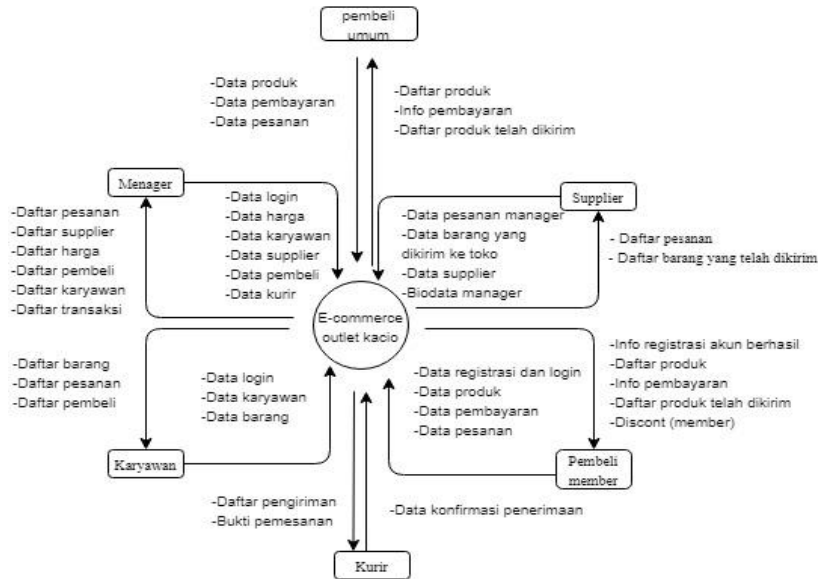


Figure 2. Context Diagram

b. Use Case Diagrams

A *use case diagram* is a graphical depiction of some or all actors and interactions. A *use case diagram* describes the relationship between actors and activities that can be performed on an information system. This information system involves two actors, namely the orderer and the manager.



Figure 3. Use Case Diagram

c. Class Diagrams

Now I will make a class diagram, this class diagram describes the classes in a system and their relationships, between one another and also includes the attributes of each actor and the operations performed by the actor.

1) Main course

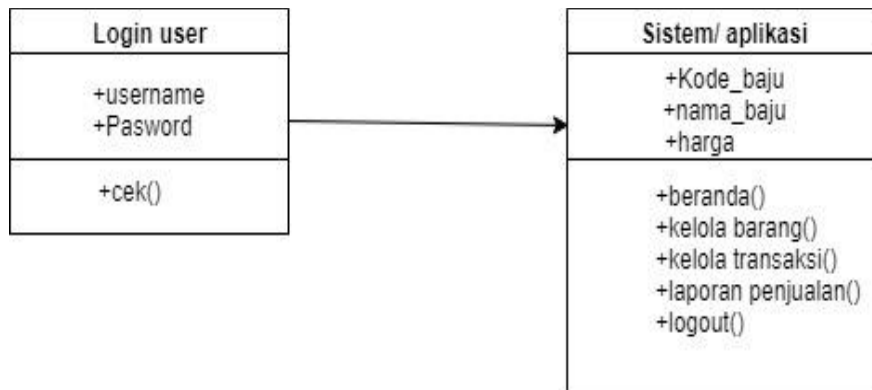


Figure 4. Main Menu Class Diagram

2) Employee

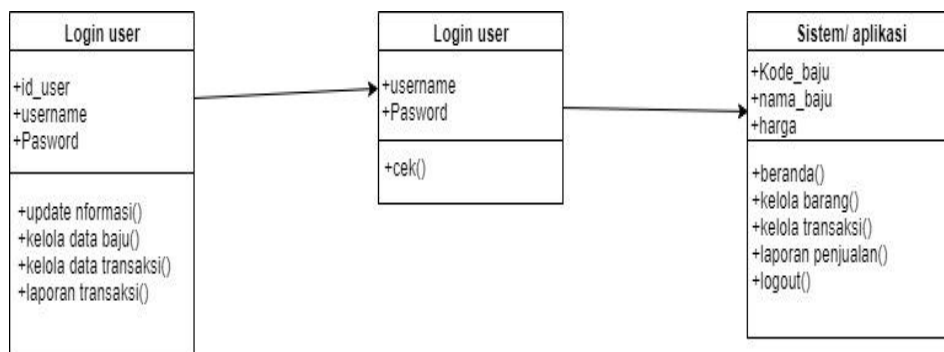


Figure 5. Employee Class Diagram

3) Buyer

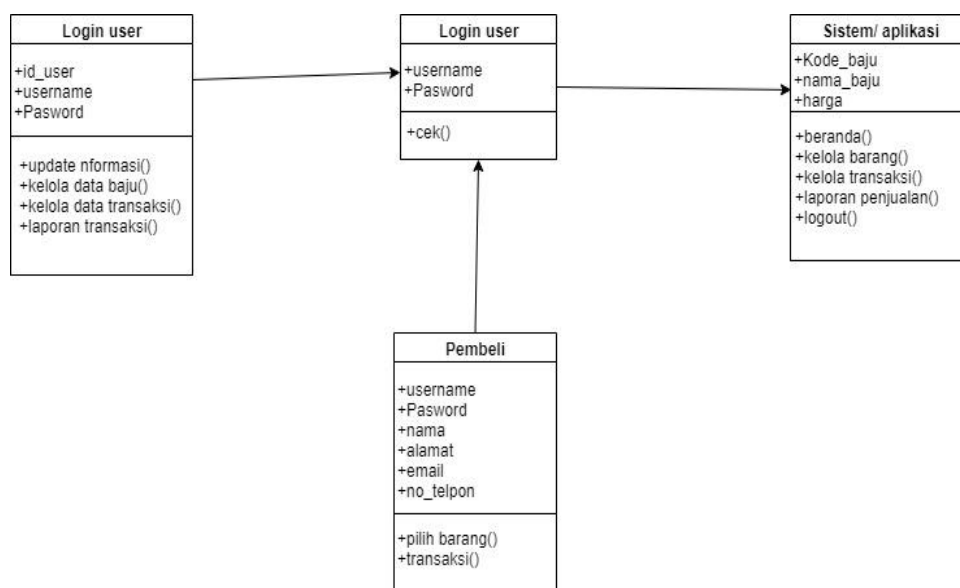


Figure 6. Buyer Class Diagram

4) manager

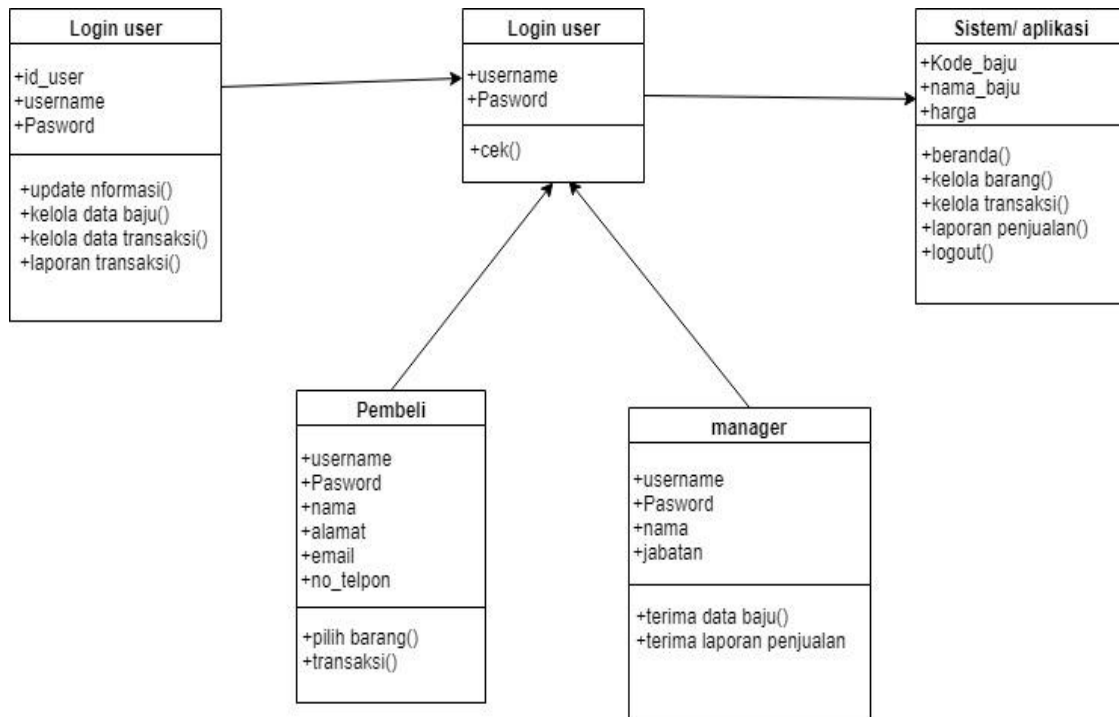


Figure 7. Class Diagram Manager

5) Dress

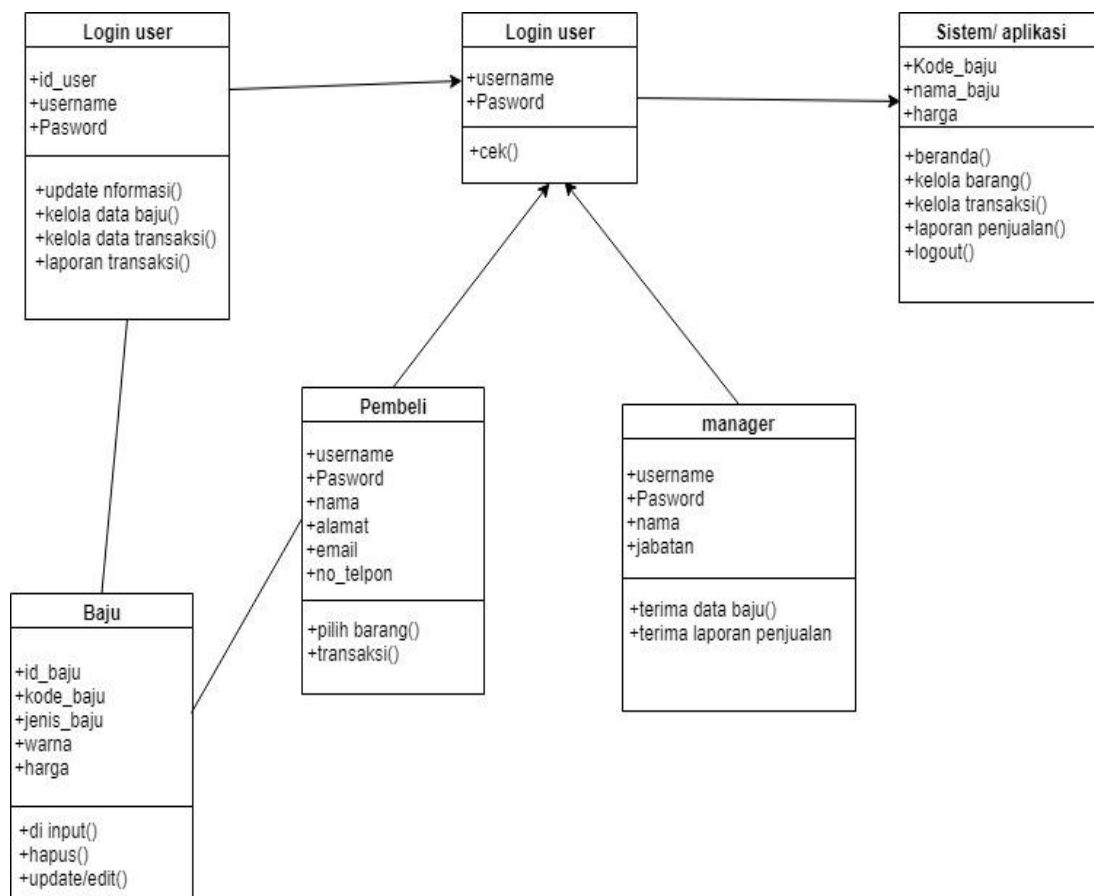


Figure 8. Class Diagram of Clothing

6) Transaction

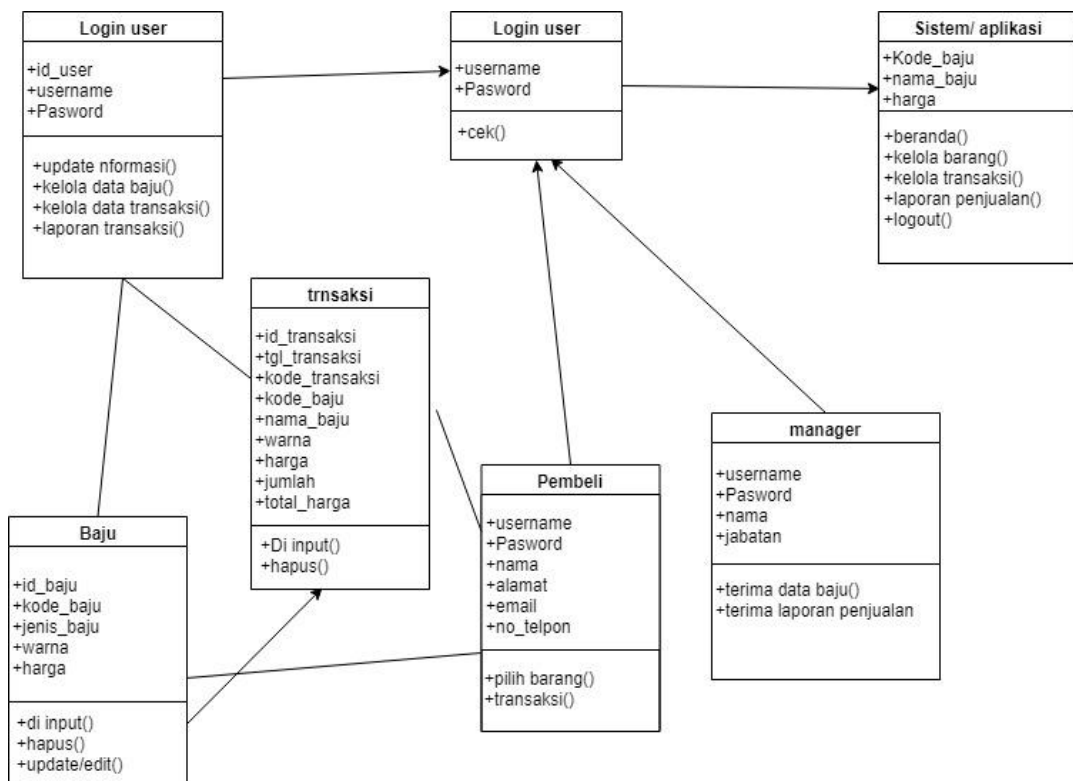


Figure 9. Transaction Class Diagram

RESULTS AND DISCUSSION

Main Page Display

In this display there is application information (several items that can be seen by customers) in general

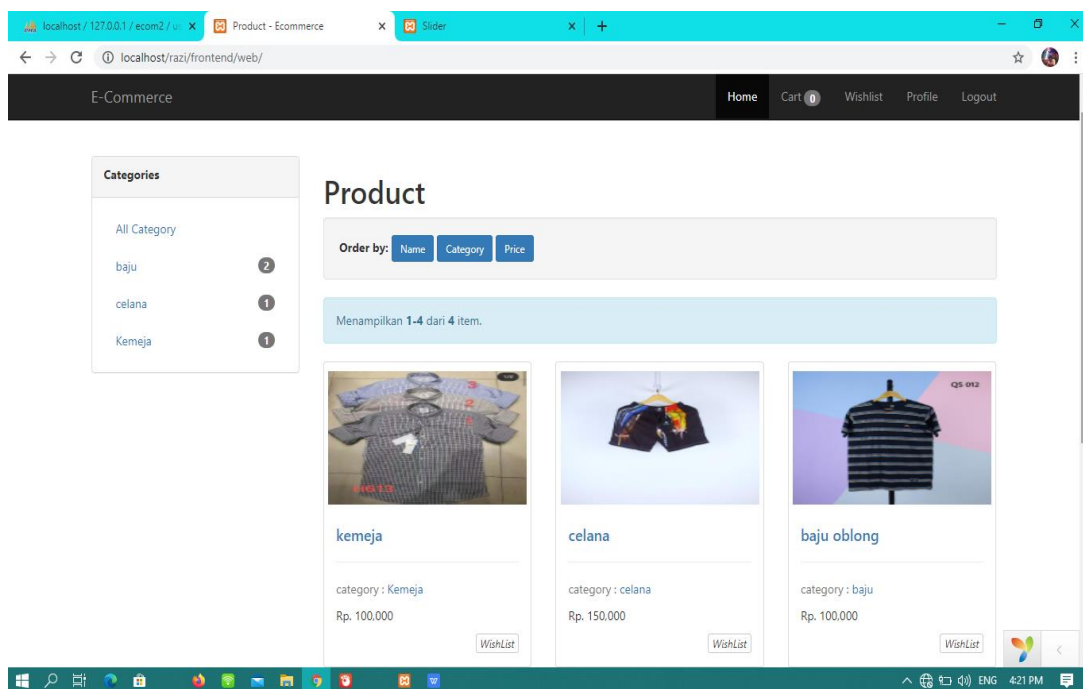


Figure 10. Display of the main page

Login Page Display

In this view the user can enter a user name and password to be able to access the web.

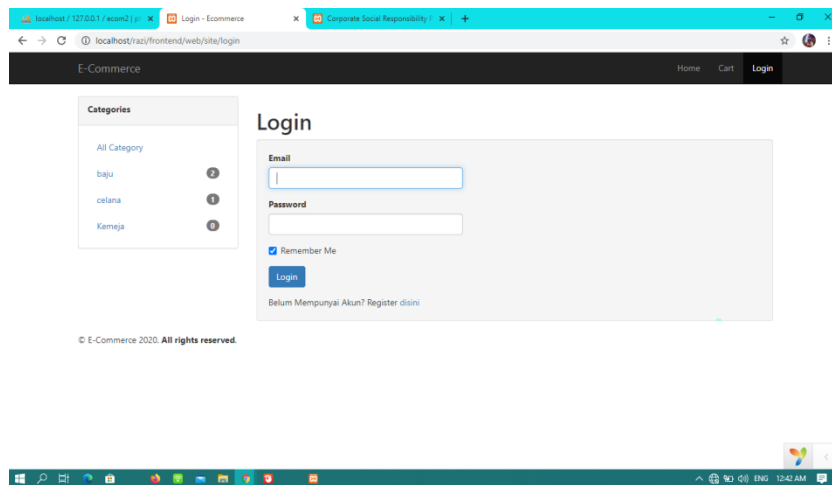


Figure 11. Display of the login page

Home Page Display

In this view the user can see product variations to determine the choice of product to be purchased.

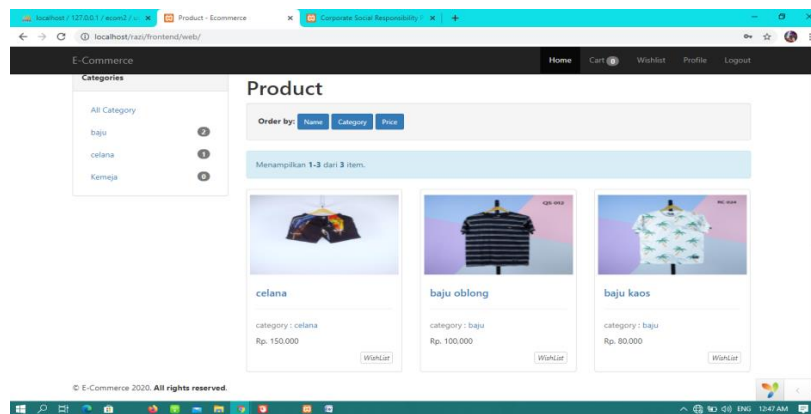


Figure 12. Display of the home page

Profile Page Display

In this display there is general information about Kacio outlet application users. On this page, users can change their account password by pressing the change password icon.

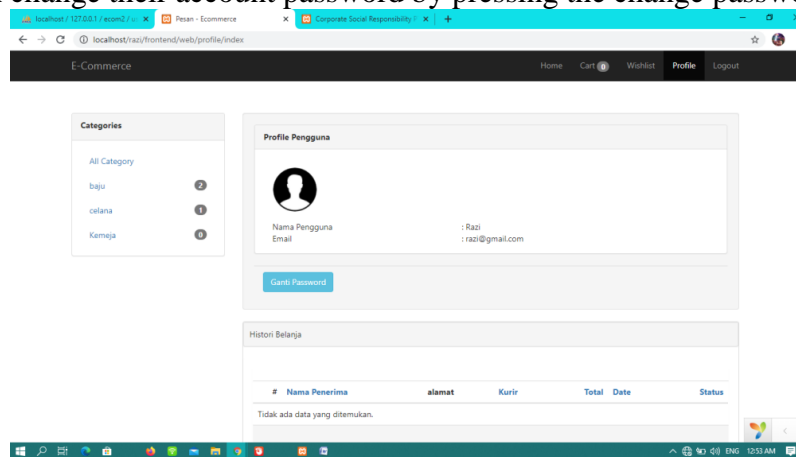


Figure 13. Profile page display

Clothes Page View

In this display, users can see variations of products (clothing) that are bought and sold in the application. The variations included include color, size and motif

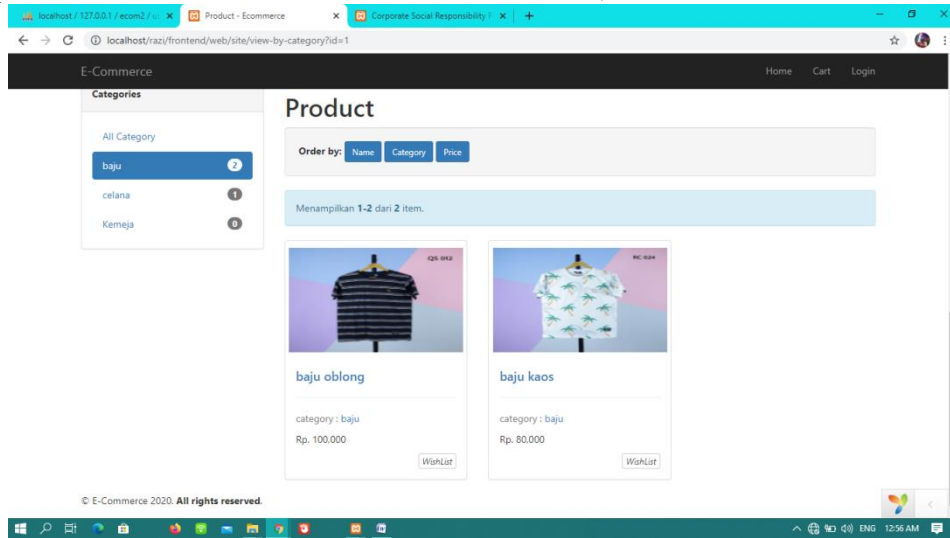


Figure 14. Appearance of the Shirt Page

Customers

In this display, the application owner can enter customer data who wants to join the application to become a member.

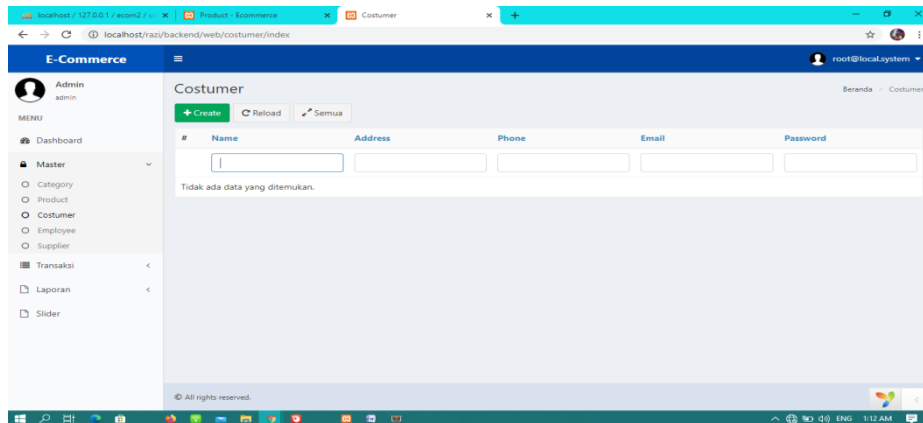


Figure 15. Display of the customer page

Suppliers

In this display the application owner can enter supplier data (suppliers of goods) in the shop

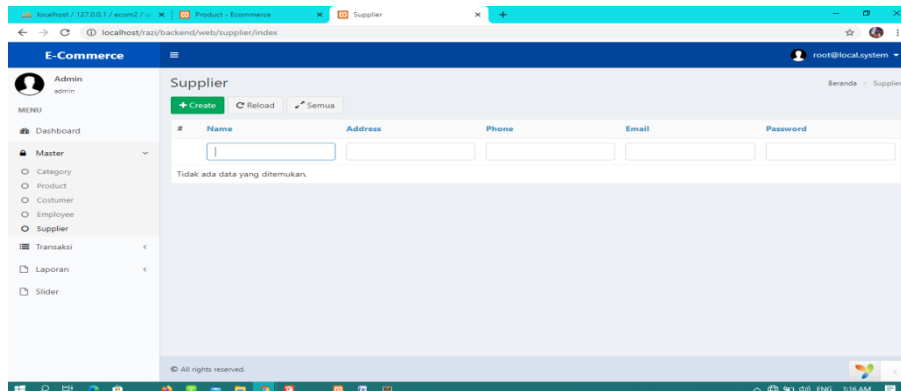


Figure 16. Supplier page display

CONCLUSION

Based on the design that has been created, the Kacio Batusangkar outlet information system was created. 1. With this system, the work done manually can be reduced so that it saves energy and time. Checking data on goods or inventory as well as making sales reports can be done quickly and precisely because it is done directly by a computer so that you can immediately find out information about clothing sales. 2. The Kacio Batusangkar outlet information system was designed using *the Yii2 framework, PHP programming language and MySQL database.*

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