



Implementation of the Prototype Method in Design E-Commerce New World Distro Store

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Abstract

Distro is a place to sell clothes that is currently favored by many people. Both children and adults. This distribution itself has various types of clothing for children and adults. New World distribution provides various types of clothing such as shirts, pants, jackets, hoodies, and others. The transaction process on distros is still done manually by coming directly to the store, for that it would be better if the distro had a website as a place to sell and promote. Researchers will use the Prototype method as a development method that will be used when designing and building applications, while the research method that will be used is a descriptive method through a qualitative approach. Researchers collected data through direct observation, interviews and literature study. The design tools in this study will use the Unified Modeling Language (UML), namely, use case diagrams, class diagrams, and activity diagrams.

Keywords: Distro, Prototype, sales

1. Introduction

E-commerce is an idea that is quite developed in the world of the internet where this system can benefit many parties, including consumers, producers and sellers of New World distro shops, founded in 2019 with shop owners His name is Mr Alius Fernando. The New World Distro Shop is a men's clothing shop and is located on the road in Kuripan Village, Empat Petulai Dangku District. Based on an interview with the distro shop owner, Alius Fernando, the sales system at the New World Distro Shop is generally where consumers who want to buy products from the New World Distro Shop have to come directly to that place and make transactions in cash. New World Distro itself does not utilize an online sales system, so using the current sales system makes it difficult for New World Distro Stores to reach markets outside the region. The next problem is that the shop is not making optimal promotional efforts on social media. They basically carry out promotions only through brochures that are distributed and also promotions are sometimes done through fellow friends. Then, the existence of shops selling men's clothing that sell similar products in the same area where the New World Distro Shop is located creates a threat in the world of sales competition. As for the problems that occur at the New World Distro Store, researchers want to help by providing solutions to overcome several problems currently being faced by the New World Distro Store. Among other things, by helping the shop to create and implement a sales information system media with website-based e-commerce so that the New World Shop can keep up with developments in technology and information systems and can help support promotional activities and product sales at the New World Distro Shop online. Based on an interview with the distro shop owner, Alius Fernando, the sales system at the New World Distro Shop is generally where consumers who want to buy products from the New World Distro Shop have to come directly to that place and make transactions in cash. New World Distro itself does not utilize an online sales system, so using the current sales system makes it difficult for New World Distro Stores to reach markets outside the region. The next problem is that the shop is not making optimal promotional efforts on social media. They basically carry out promotions only through brochures that are distributed and also promotions are sometimes done through fellow friends. Then, the existence of shops selling men's clothing that sell similar products in the same area where the New World Distro Shop is located creates a threat in the world of sales competition. As for the problems that occur at the New World Distro Store, researchers want to help by providing solutions to overcome several problems currently being faced by the New World Distro Store. Among other things, by helping the shop to create and implement a sales information system media with website-based e-commerce so that the New World Shop can keep up with developments in technology and information systems and can help support promotional activities and product sales at the New World Distro Shop online.

2. Theoretical Review

2.1. Implementation

According to [1] "Implementation is the process of testing between concepts and conceptual ones or between text and context." "Implementation is the physical realization of the database and application design. Database implementation is achieved by using Data Definition Language (DDL) to create database schemas and empty database files." So it can be concluded that implementation is the implementation and testing stage for a new system and is the stage where the application is ready to operate.

2.2. Prototype Method

According to [2], Prototypes can also be called rapid development and also referred to as fast application design because they simplify and speed up system design. Prototype is a method that provides facilities for developers and users to interact with each other during the creation process, so that developers can easily model the software to be created. So Prototype is a method where the development and design of the system is carried out quickly and in this activity it is necessary to interact with the client so that the application creation model can match what is desired.

2.3. Website

According to [3], a website is a collection of pages used to display text information, still or moving images, animation, sound and/or a combination of all of them, both static and dynamic which form a series of interrelated buildings, each of which is connected to a network of pages. According to, a website is the totality of web pages contained in a domain which contains various information. The conclusion from the two definitions above is that a website is a collection of pages that are both static and dynamic. The website also has a website that has a lot of information on each page.

2.4. E-Commerce

According to [4], e-commerce is an activity consisting of purchasing, selling, service and other development processes which utilize internet media as a forum for effective communication between sellers and buyers. e-commerce is a dynamic set of economics, applications and business processes that connect companies, consumers and certain communities through electronic transactions and trade in goods, services and information carried out electronically. It can be concluded that e-commerce is online sales that utilize the internet where there are online sales and purchasing activities carried out by sellers and buyers which involve electronic payments.

2.5. Business To Consumers

Business to consumer (B2C) is referred to as a group of market transactions. B2C involves interactions and transactions between a sales company and consumers. In market transactions, consumers learn about products offered through electronic publications, buy them using electronic cash and a secure payment system, then ask for the goods to be delivered.

3. Research Methods

The research method used by researchers in this study is a descriptive method using a qualitative approach. As for the definition of descriptive method according [5], "descriptive method is research that describes variables that play a role in providing a situation or situation, as well as describing the relationships that exist in these variables, while the definition is qualitative. According to [5] "qualitative is a research method that is based on the philosophy of postpositivism, used to research the conditions of natural objects, where the researcher is the key instrument". In this case, researchers analyze based on facts found in the field or actual data to obtain information.

3.1. Method Of Collecting Data

A. Observation

Observation is a method of collecting data by observing or reviewing carefully and directly at the research location to find out the conditions that occur or prove the truth of a research design that is being carried out. Regarding the observations described previously, in this research the author carried out data collection activities by making direct observations in distro stores, namely by observing product sales activities.

B. Interview

Interview is a data collection technique by asking respondents questions and recording or recording the respondents' answers. In this research, researchers conducted direct interviews with the resource person, namely Mr. Muhammad Hassan who is the Operations and Accounting Manager at the Distro Shop. The results of the data obtained from the interviews conducted are about the promotion methods carried out by the shop, the products sold, what products are most popular with consumers and also the background of the Distro Shop.

C. Literature Study

Literature study is a data collection technique that is carried out by studying various references that are appropriate to the problem to be discussed to help create concepts in writing. The literature study carried out by the author was by studying the prototype method and each stage in the online e-book, as well as citing several references for the theoretical basis from both online and printed books and previous research journals that were relevant to the research topic being carried out. So that a strong scientific basis is obtained as a reference in preparing this thesis proposal report.

4. Research Result

4.1. System Design

Based on the analysis of the problem system, a sales information system media with website-based e-commerce is proposed which will assist in the sales process at the New World Distro Store. This website was built using the PHP language and the CodeIgniter Framework. It is hoped that this system design can provide an overview of how the design will work and can be implemented.

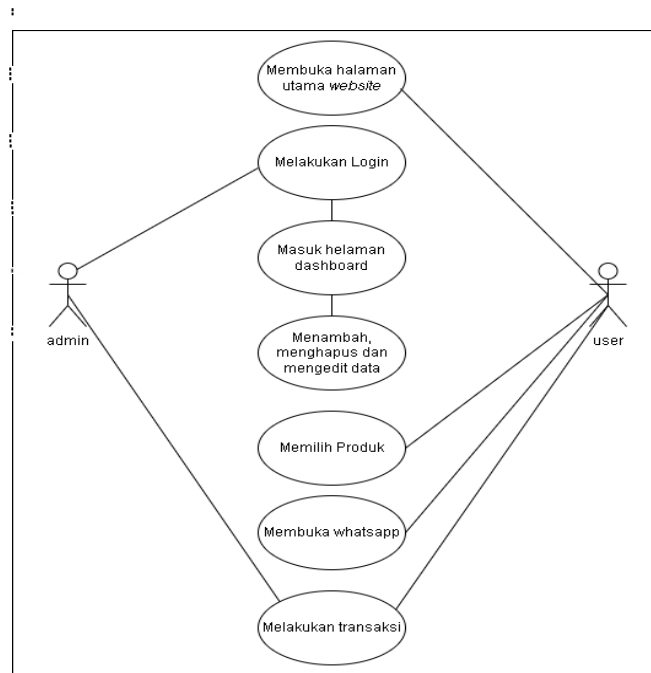


Fig. 1: Proposed Use Case Diagram

In Figure 1 above there are two actors, namely admin and user, admin can add, edit, delete data and users can choose products and make transactions via WhatsApp.

4.2. Interface Implementation

Fig. 2: Login Menu

In Figure 2 there is an admin login menu page where the admin must log in first.

NEW WORLD

Daftar Sekarang

Nama lengkap

Email

dd/mm/yyyy

Pilih Agama

Alamat

Password

Register

[Saya sudah punya akun](#)

Fig. 3: Registrasion Menu

In figure 3 of the menu page, if the user does not have an account, the user must register first to enter the dashboard menu.

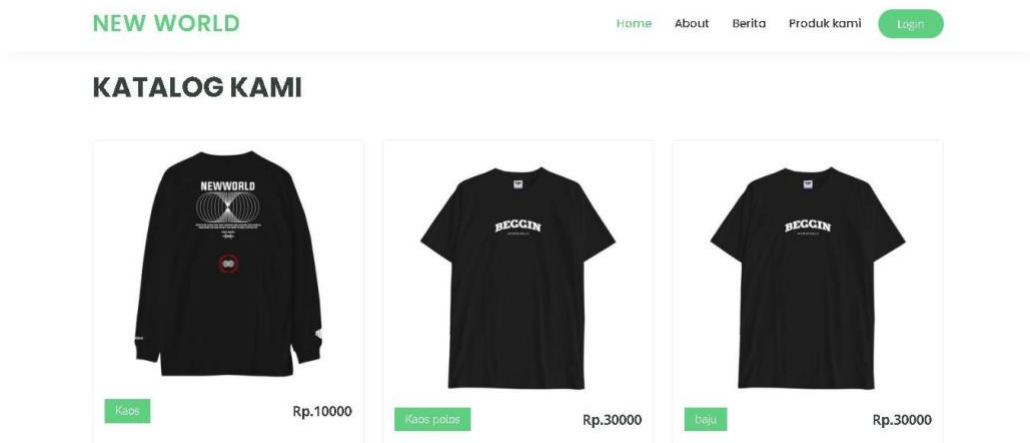


Fig. 4: Home Menu

Figure 4 shows the main menu page that can be seen by users.

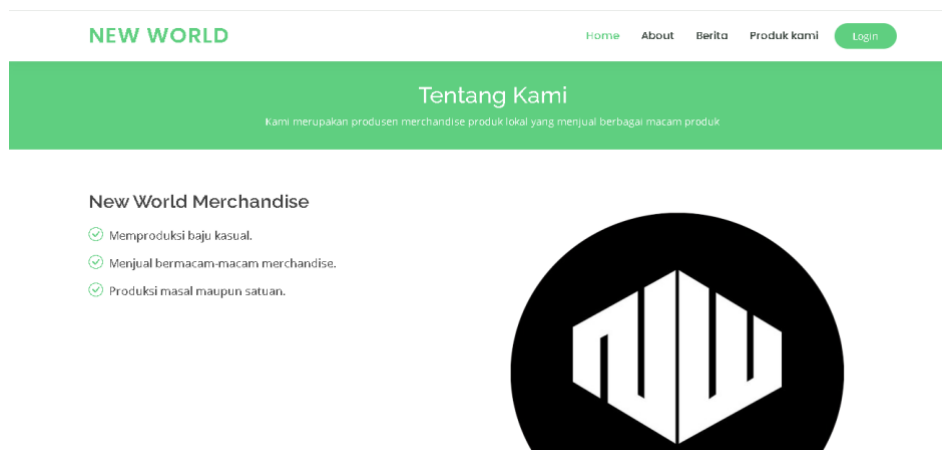


Fig. 5: About Menu

Figure 5 shows the information menu page about the New World store.



Fig. 6: News Menu

In Figure 6 there is a news menu page that can be seen by users.

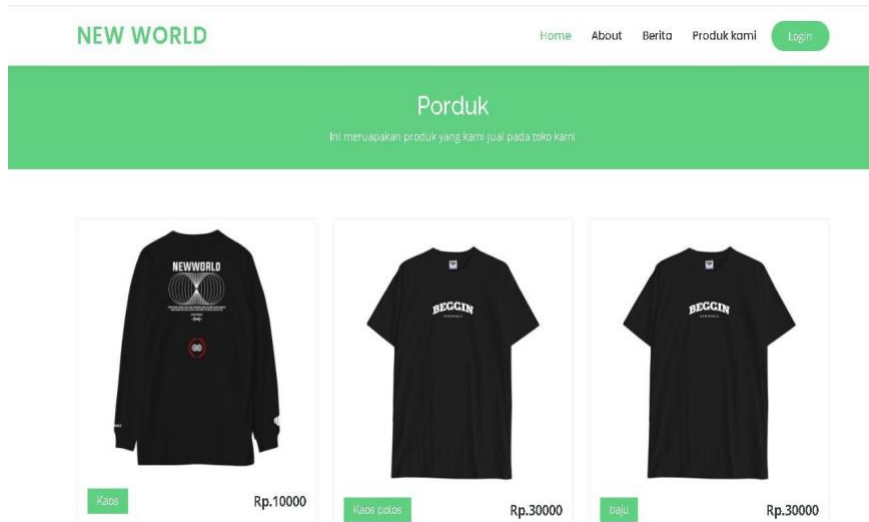


Fig. 7: Product Menu

In Figure 7 there is a product menu page which displays shop products.

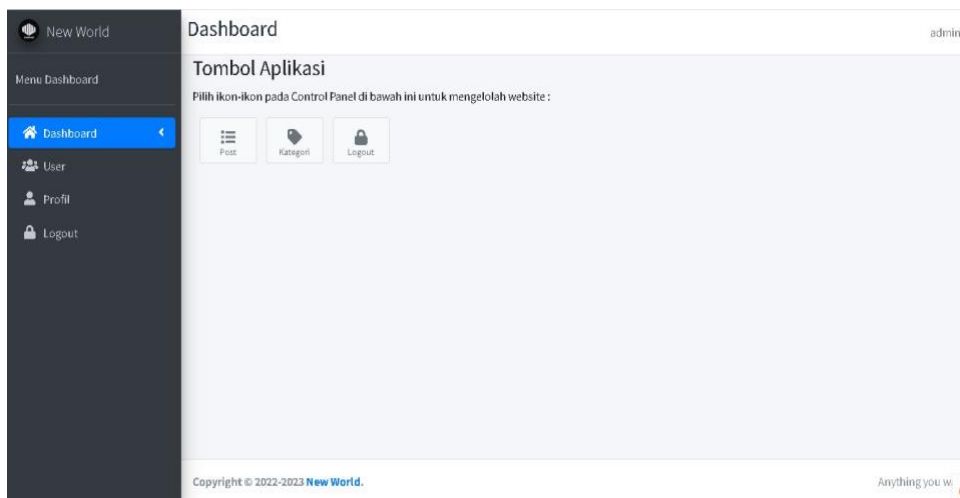


Fig. 8: Dashboard Menu

In figure 8 there is a dashboard menu page, which used to input data.

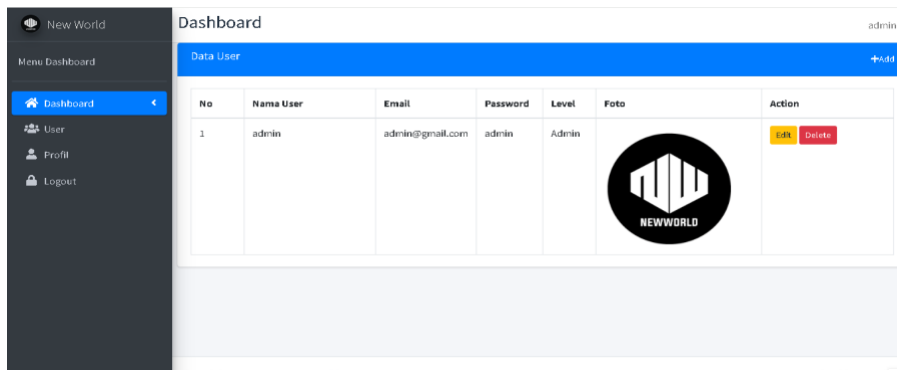


Fig. 9: User Menu

In Figure 9 there is a user menu page.

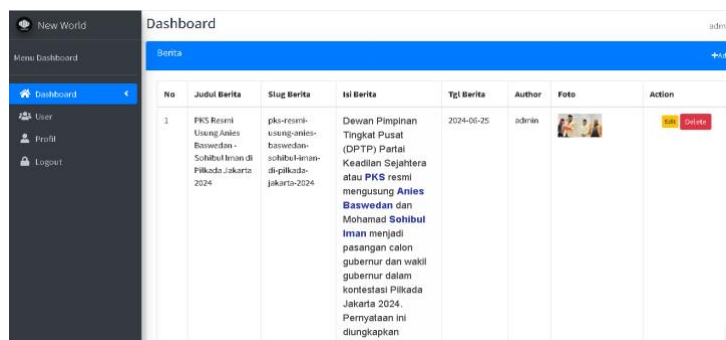


Fig. 10: Profile Menu

In figure 10 there is a profile menu page.

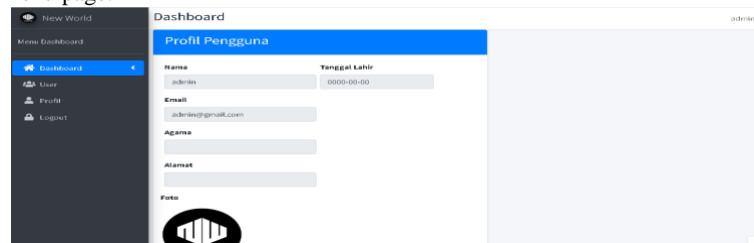


Fig. 11: News Post List Menu

In Figure 11 there is a news post list menu page.

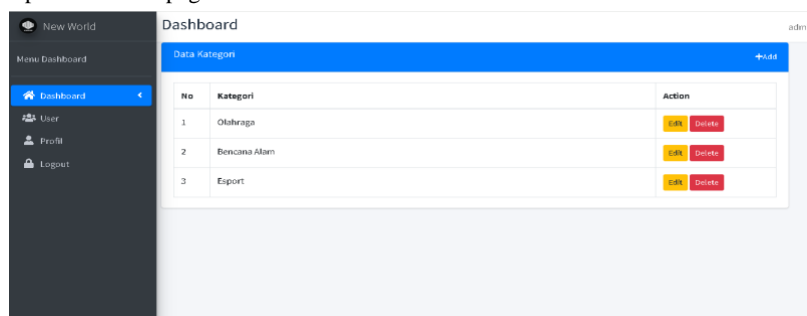


Fig. 12: Category Menu

In figure 12 there is a category menu page.

4.3 Conclusion of Test Results

Based on the test results using tests on the samples above, it can be concluded that the system runs functionally, producing results as expected and in accordance with the purpose of creating this system. This is in line with research conducted by [6] entitled "E-Commerce System Design for Clothing Stores Using the Prototype Method (Case Study: Richsunday Clothing Store Pekanbaru)" resulting in Web-Based and UML Design Tools.

5. Conclusion

1. The aim of making this application is to help stores implement a sales information system media with website-based e-commerce so that New World Stores can keep up with technological advances.
2. assist in supporting promotional activities and product sales at the New World Distro Store online.
3. Make it easier for consumers to buy products online and find out detailed product information without having to go to the trouble of coming directly to the seller.

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