WEB-BASED FOOD AND BEVERAGES ORDERING INFORMATION SYSTEM AT CAFE IN BEKASI

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Abstract: A cafe is a place that serves food and drink orders in a relaxed or informal atmosphere, a cafe is also a center for social interaction where people can gather to read, write, have business meetings, or just fill their spare time. Recording of food and beverage orders at the Freezing Point Cafe is still done manually and the sales system is still offline where if a buyer wants to order food from the cafe they have to come to the location so it is time consuming and inefficient and many people don't know about the cafe, so a This web-based Food & Beverage Ordering Information System aims to introduce the Cafe to the wider community and make it easier for buyers to place orders for food and drinks offered by the Café without coming directly to the location. This study uses the SDLC method which consists of Planning, Analysis, Design, Implementation and Testing. The results of the tests that have been carried out can be concluded that this website has been successfully created, which in terms of appearance is quite attractive, all the menus on the website function properly and are in accordance with the designs and algorithms that have been made before.
Keywords: Cafe, Information System, Ordering, SDLC, Web

INTRODUCTION

Cafes, also known as coffeehouses, coffee shops or cafes, are places where orders for coffee or hot drinks are served. The concept of a cafe is the same as a bar or restaurant, but different from a cafeteria, there are already many cafes that sell not only drinks, but also food, both light and heavy meals. From a cultural point of view, cafes have spread widely to become centers of social interaction where people can gather to read, write, have business meetings or simply fill their free time [8].

The regular combination of software, hardware, brainware, network and data resources that collect, modify and distribute information within an organization or agency is called an information system [2]. Activities that consumers perform before buying a product are called ordering [11]. According to Damasius, et al (2019), Order Information System is an information system that can manage the flow of order transactions from planning process to processing by an organized system which then progresses into financial transactions for the desired product [4].

At present, many entrepreneurs are setting up businesses in the culinary field, both pastry shops, restaurants and cafes, so the competition is very tight and followed by rapid technological developments, so that in order to survive in the world of culinary business, you must keep up with the times and put customer satisfaction first. Taking food and drink orders at Freezing Point Cafes is still done manually and the sales system is still offline. If a buyer wants to order food from the cafe, he has to come to the location, which is time consuming, inefficient and many people don't know the cafe.

The results of research conducted by Fabriyan, et al (2019), Zia, et al (2019) and Avantika, et al (2021) show that the problems that exist in culinary establishments such as cafes, in the way of ordering and picking up products that are still offline and not yet automated and there are still many people who don't know the cafe, so it affects the sales of the cafe's products.

Based on previous research and subsequent technological developments, the researchers have created a web-based food and drink ordering information system in cafes in Bekasi with the aim of introducing the cafe to the wider community and making it easier for shoppers to place food and drink orders. place drinks. offered by the café without having to come directly to the location.

RESEARCH METHOD

When creating an information system for ordering food and drinks in a web-based cafe in Bekasi, the System Development Life Cycle (SDLC) method is used. SDLC (System Development Life Cycle) is a logical process used to develop a system consisting of requirements, validation, training and involving the user [10]. The SDLC consists of 5 phases, starting with the planning phase (description of a new system globally), the analysis phase (data collection, needs analysis), the design phase (detailed web flow design), followed by the implementation phase (coding using PHP and MySQL programming languages) , and the final stage is Trial (web tests are performed).

RESULT AND DISCUSSION
Web overview

This web-based food and drink ordering information system is a web that is used to order food and drink online and to market freezing point cafes to the wider community. On the main web page, there are four menus, namely home, menu, about us and login. If you want to place an order, you must log in first, for users who do not have an account, you must register first. If you already have an account, you can log in. After logging in, the user will go to the user page which consists of home, menu, about us, testimonials, cart, payment, profile and logout.

In this website, users get information about the facilities offered by the cafe, the menu of food and drinks that are sold, can make testimonials about food and drinks, can make online orders and payments, and can view the location and profile of the cafe.

Analysis needed

Functional requirements analysis is a requirement that contains all the processes that will be performed by the system. The following functions are available on this website:
1. Users can order the food and drinks they want.
2. Users can order multiple times a day.
3. Users can only place orders according to the opening hours of the cafe.
4. Users can view food or drink menus, profiles and cafe locations without logging in.
5. After logging in, users can order food and drinks and give testimonials.
6. Those who do not have an account can register

Non-functional requirements analysis is the analysis necessary to determine the specifications of system requirements, namely hardware and software used in building this website. This website is built using PHP and MySQL programming languages as well as some supporting software, namely bootstrap, visual studio code, XAMPP, a web browser. Access rights for the management of this website are employees and cafe owners.

UML Design

UML is used to define, describe, build and document a system [9].

Use Case Diagrams

Use case diagrams are used to describe the interaction between actors and information systems.

Figure 1. User use case diagram

When the user enters the web page, there will be a start menu with the best seller menus, if you select a menu, it will contain a list of food and drink menus for sale, about us will contain the profile and location of the cafe. If the user does not have an account, he can register first. After he has an account, he can log in. drinks sold on the menu page, and the user can place an order, about us contains the cafe's profile and location, users can view and fill in testimonials about the quality and service in the cafe on the testimonial menu, the cart menu contains a list of the food and drinks you want, and if you want to order you can checkout, then you will be redirected to the payment method, in the payment menu the user can view the order status and make payments, in the profile menu the user can view customer details and purchase history, and if the user wants to exit the web, they can select the logout menu.

Activity Diagram

Activity diagram describes the workflow of a system. Activity diagrams focus on depicting system activity, not what actors are doing.
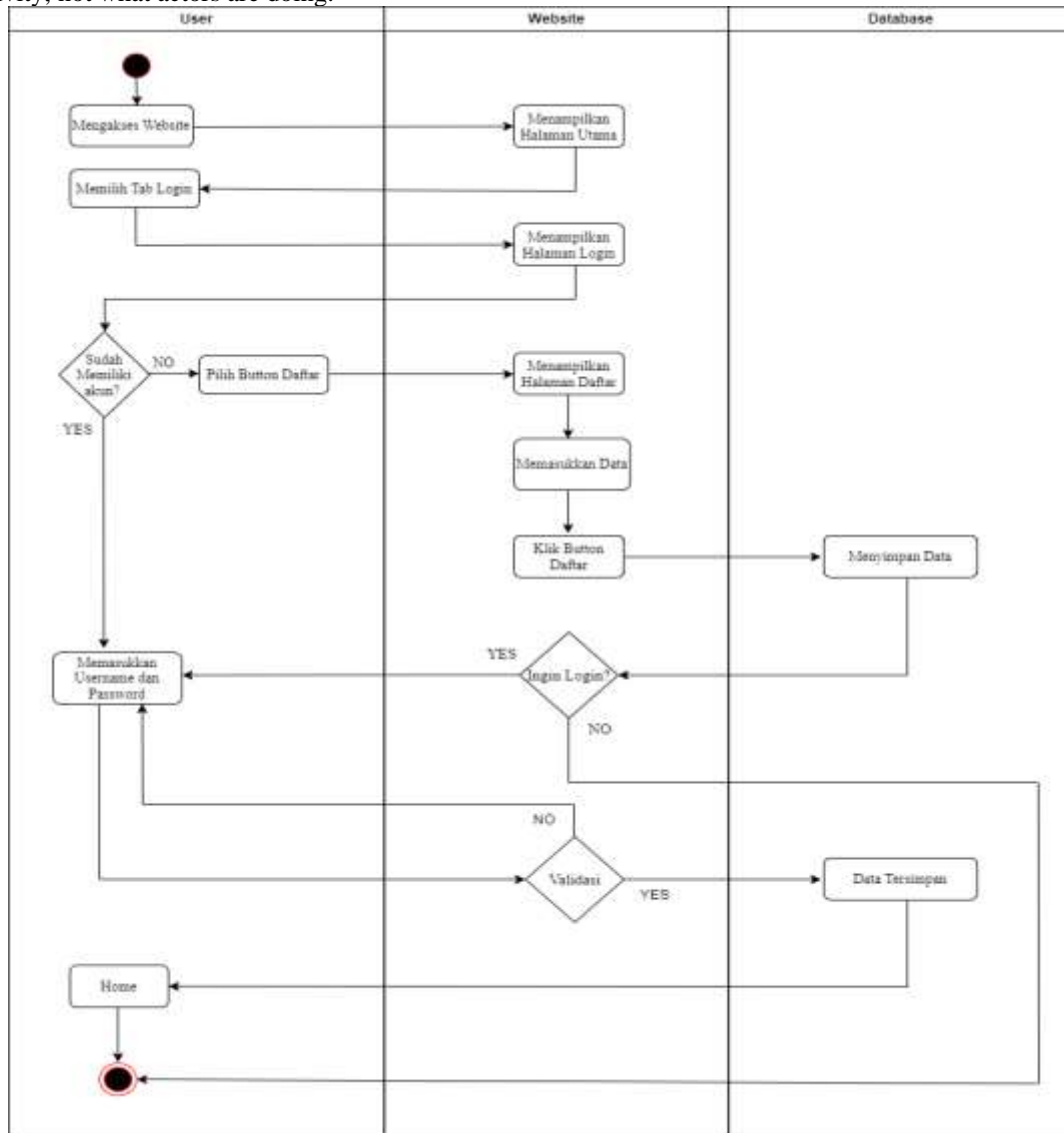
Figure 2. Login Activity Diagram

When the user accesses the web page, they go to the main page and then select the login menu, which opens the login page. If the user does not have an account, click the Register button which will later open the data entry form. the user finishes pressing the record button and the system saves the data. If the user already has an account, fill in the username and password, then the system will validate the data whether it is appropriate or not. If it matches the data stored in the database, the system will display the main page of display the user, but if the data does not match, the system will redisplay the form by entering the username and password.
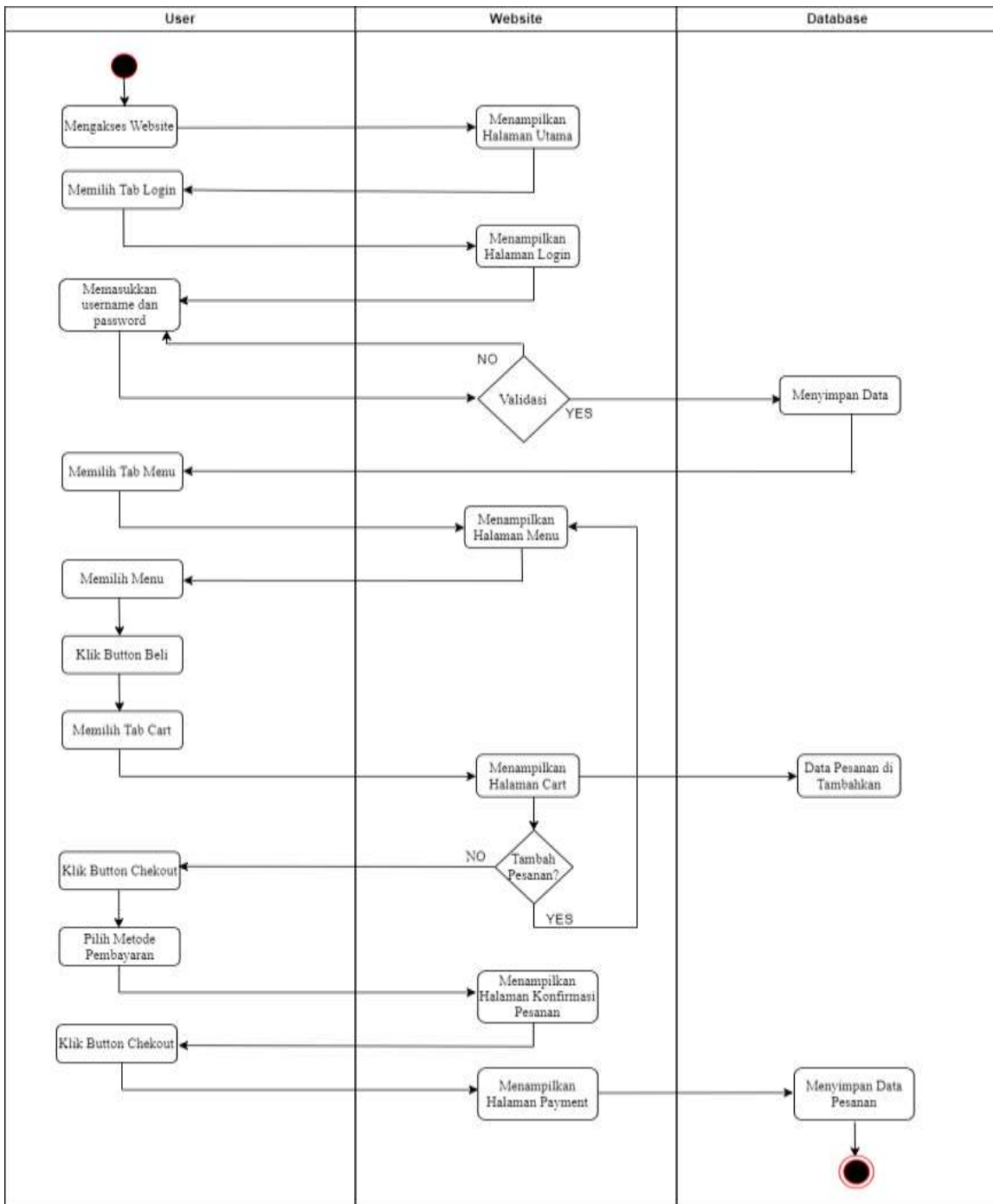
Figure 3. Order Activity Diagram

The above activity explains the flow of ordering food and drinks on the web, the user can place an order when successfully logged in, the user selects the menu and then selects the desired food and drink and then clicks the buy button. shopping cart menu if user want to add order then system will show menu page again then user can add desired food and drink after sure about order then select payment method then system will show order confirmation page then click on the checkout button again and go to the payment page where the user can see the order status and make payments according to the selected payment method (Wire Transfer, E-Wallet and COD (Cash On Delivery).

Class Diagram
Class Diagram describes the database structure used in building this web, classes have attributes and methods or operations.
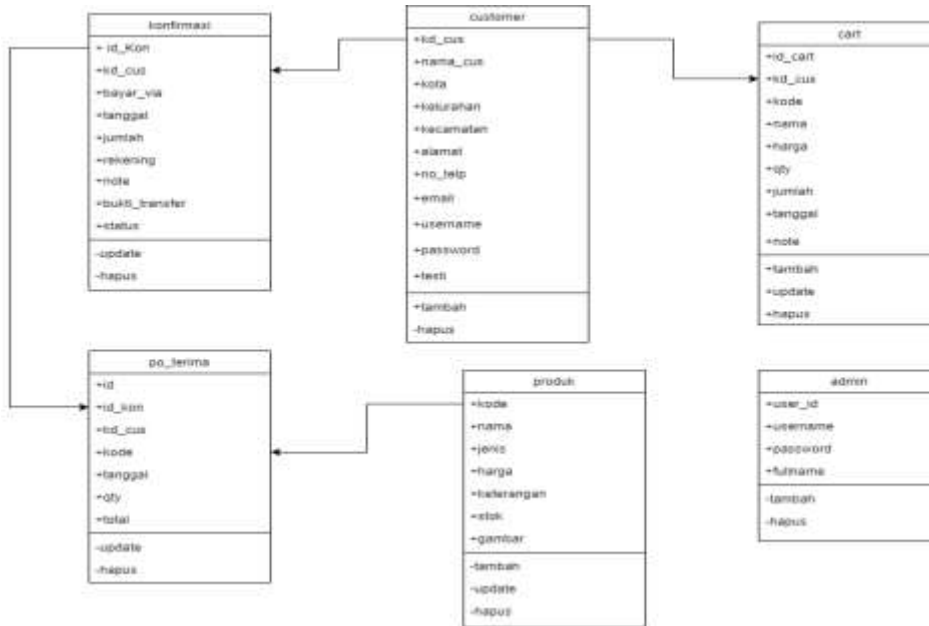
Figure 4. Class Diagram

There are 6 tables that build this web namely customer tables, cart tables, confirmation tables, po_received tables, product tables and admin tables.

Web Implementation

Show login page

On the main web page, selecting the login menu takes the user to the login page where the user is prompted to enter a username and password. If the user does not have an account, click on the available list on that page, shown in Figure 5.
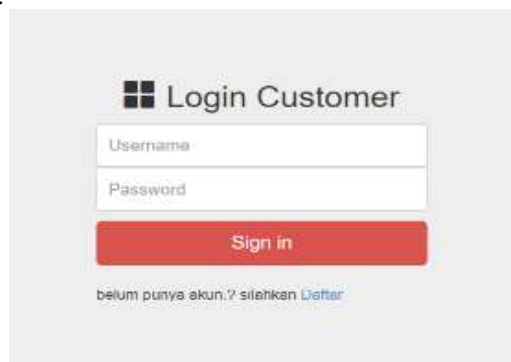

Figure 5. Login Page

Show Home Page

When the user is successfully logged in, he enters the home page where the user can see the bestseller menu on this page and there is a menu bar consisting of the menu, about us, testimonials, cart, payment, profile and logout, shown in figure 6.

Figure 6. Home page

Show Menu Page

There are two categories, namely the food card and the drink card. Logged-in users can place an order on this menu page. Each menu image has detail and buy buttons, shown in Figure 7..
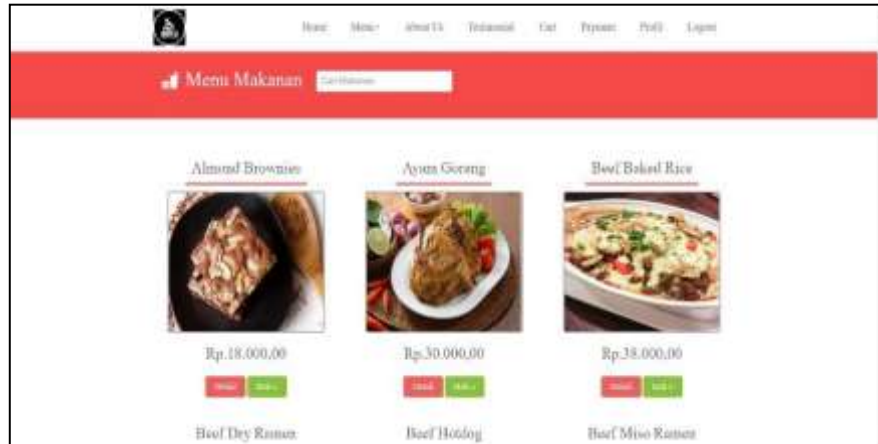

Figure 7. Menu Page

View of the About Us page

The About Us page contains information about the profile and location of the Frozen Point Cafe, as shown in Figure 8.

Figure 8. About us page

Check Out The Testimonials Page

Users who already have an account and have successfully logged in can provide testimonials about the quality and service of the cafe as shown in Figure 9.

Figure 9. Testimonial Page

Cart page display

The shopping cart page is a shopping cart for the user, where the user can save food and drink menus that will be ordered before the checkout process. The user can review the orders placed in this shopping cart, the user can add and subtract and delete orders and can add other food and drink menus by clicking the continue shopping button the menu page will reappear, if the user makes a payment want to do, click the Checkout button, as shown in Figure 10.

Figure 10. Cart page

View payment page

On this page user can see the order status like order code, customer code, payment, date, amount, status and tools. The tools are used when we want to pay online or cancel an order, shown in figure 11.

Figure 11. Payment page

Display profile page

Users can view personal information such as full name, city, sub-district, village, full address, phone number, email and username entered when registering for an account and users can view purchase history, shown in Figure 12.

Figure 12. Profile page

Trial Results

    This web test is performed to test whether all menus on the web are working properly. This test is performed using black box testing and a web browser. The results of black box tests are shown in Table 1 and the results of the web browser test are shown in Table 2.

Table 1. Black Box Testing Results

No	Function	Scenario	Expected Results	Results
1	Main page	Clicking the home button	It worked came home	Success
2	Login page	Empty or partially fill and click on log in	A warning will appear on the form to fill it out	Success
		Enter the wrong username and password	A warning appears with an incorrect username and password	Success
		Enter the correct username and password	Successfully logged in and opened the user's main page.	Success
3	Registration page	Empty or partially fill, then click submit	A warning will appear on the form to fill it out	Success
		Fill in all forms with the correct information	The data appears to have been saved successfully	Success
4	Menu page	Clicking on the food menu category	Displays all types of food	Success
		Clicking details on a food or drink menu	Shows details of the Food or Drink menu	Success
		Clicking on a drink menu category	Displays all types of drinks	Success
		Place an order by clicking buy	Click on the shopping cart page to view the shopping cart	Success
5	About us page	By clicking the about us button	Displays an about us page in the form of a profile and cafe address	Success
6	Testimonial page	Click on the testimonial button and fill in the testimonial	Displays the testimonial page, then the following content displays the testimonial page on the home page.	Success
7	Cart page	By clicking the continue shopping button	Displays the menu page	Success
		Click add on the quantity option	The number of orders you want to add has been added successfully	Success
		Fewer clicks on the Quantity option	The number of orders you want to reduce has been successfully reduced	Success
		Clicking remove on the Quantity option	Successfully deleted orders entered in the shopping cart	Success
		Clicking the chekout button	Successful checkout and	

No		Action	Expected	Result
		Displays the menu page	redirected to the payment methods page	Success
8	Purchase page	Order a maximum of 10 pieces	Successfully placed a maximum order of 10 pieces	Success
		Place an order of more than a maximum of 10 pieces	Cannot click on orders over 10 pieces	Success
		Order for less than 10 pieces	Successfully placed an order for less than 10 pieces	Success
9	Payment page	Clicking the button on tools	Shows details of the user's order	Success
		Clicking on the payment button when making a payment with Pay Online	Display the payment type and enter a proof of payment	Success
		By clicking the Cancel Order button	Successfully canceled the order	Success
10	Profile page	By clicking on the profile	Display personal information and purchase history	Success
11	Logout page	Sign out of account	Successfully logged out and returned to the main web page	Success

In Table 1, all menus on the Internet work well and produce the expected results.

Table 2. Web Browser Trial Results

No	Browser	Results
1	Google Chrome	o Appearance is good, there is no change in color or size in the image or font o All functions are working properly
2	Mozilla Firefox	o Appearance is good, there is no change in color or size in the image or font o All functions are working properly
3	Microsoft Edge	o Appearance is good, there is no change in color or size in the image or font o All functions are working properly

From tests on 3 web browsers, namely Google Chrome, Mozilla Firefox and Microsoft Edge, it can be concluded that the display does not change the color or size of images or fonts and that all functions work properly on all tested web browsers.

CONCLUSION AND SUGGESTIONS
Conclusion

The development of a food and beverage order information system in a cafe in Bekasi based on a web using PHP and MySQL programming languages has been successfully made. Based on the tests performed, it can be concluded that all functions are functioning properly and are as expected and are quite attractive in appearance and there is no change in color and size in both the image and font.

This website makes it easier for users to order the food and drinks they want without having to come directly to the cafe location, saving time and becoming a forum for introducing Freezer Cafes to the wider community so that sales will increase from the cafe.

Suggestion

It is recommended that payments use a virtual account (VA) so that payment confirmation is made automatically and shipment is tracked, so that the user can see where the courier delivered the order.

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