

Web-Based Food Ordering Information System at Naonaru's Kitchen

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Abstract - Naonaru's Kitchen is one of the restaurants that provides a variety of foods such as fried rice, food made from seafood, burgers, pizza and various types of drinks. The current order management system is still running manually starting from recording orders from customers using order paper then handed over the order paper to the kitchen and every day the cashier must recap proof of payment one by one to make income reports. The current running system is considered less effective and can slow down the operational activities of restaurants every day, besides that the current running system causes problems, namely if the condition of the restaurant is crowded then the waiter often forgets which order comes first, order notes are often stacked in the hands of the cashier due to lack of time to the kitchen to inform of incoming orders. Sometimes the cashier loses the order note when the customer is about to make a payment and takes time to make an income report because the cashier must recap the proof of payment one by one. This research produces a food & beverage ordering information system that helps cashiers in managing food and beverage orders so that they can provide value of menu order effectiveness for customers. This research uses Pieces for Analysis methods, diagram design using UML applications and coding using PHP programming language and MySQL databases, System development using RAD and system testing using blackbox testing.

Keywords:

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Restaurant;
Cashier;
Kitchen;
RAD;

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1. INTRODUCTION

The current restaurant management system is still manual, starting from recording orders from customers using order sheets and then handing over the order sheets to the kitchen. Because orders still use paper, if the restaurant is busy, the order notes often pile up in the cashier's hands so that the order sequence is not correct and customers are served late. The second problem is that the service and cashier departments have difficulty finding out information about menu availability so that customers are often disappointed because the menu they have ordered is not available. The third problem is the difficulty in knowing whether the customer's order has been fulfilled or not. The next problem is the possibility of losing the order note when the customer is going to make a payment or the cashier will summarize the income report because the order notes in paper form are prone to being lost. The income report recap process also takes time because every day the cashier has to summarize proof of payment one by one to make an income report. [1] produced an Android-Based Cafe Management Information System at the Inland Coffee Cafe which aims to produce a prototype that can be implemented further so as to produce a cafe management information system that can be implemented at the inland coffee cafe. In addition, [2] produced an Android-Based E-Cafe Ordering System Using the FIFO Method by producing an application that assists in ordering, including easy and transparent menu

selection, and reducing queues when ordering.

2. LITERATURE REVIEW

Web-based food ordering information system is a technological development that facilitates interaction between customers and food service providers. This system allows customers to: View food menus digitally, Make orders in real-time, Make payments online Track order status, [3]. identify key components in a web-based food ordering information system, including: User interface, Menu management system, Integrated payment system, Customer database, Order management module, [4]. put forward several challenges in system implementation: Security of online transactions, Payment system integration, User-friendly interface design, Real-time inventory management, Development and maintenance costs, [5]. System design is a strategy for solving existing problems to obtain the best solution to solve problems and achieve certain goals. [6]. The purpose of this research is to create an Android-based application that is useful for supporting the digitalization of the cafe management process in order to improve the management of daily order transaction data and accurate calculation of raw material usage. [7].

3. METHODOLOGY

1. Proposed analysis
 a. Use Case Diagram

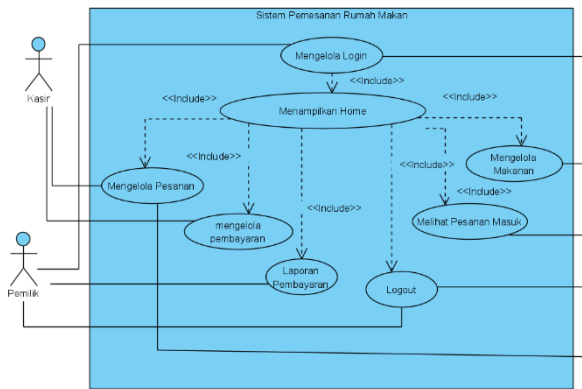


Figure 1, Use Case Diagram of the Proposed System

Based on Figure 1 Use Case Diagram of the proposed system, there is an explanation

b. Activity diagram login

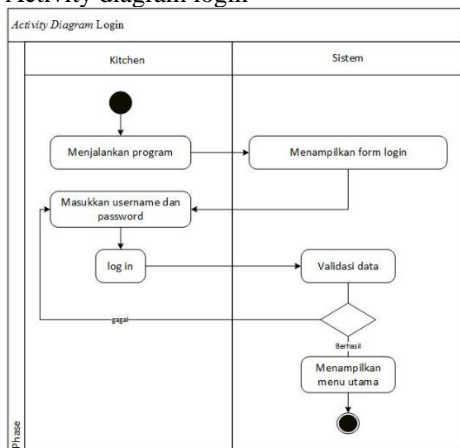


Figure 2, Activity Diagram Login

Based on the proposed figure 2, there are: 2 Vertical Swimlanes used as actors and systems, 1 Initial Node as the initial object, 2 Activities from the system that reflect the execution of an action, 1 Final State as the final object.

c. Sequence diagram login

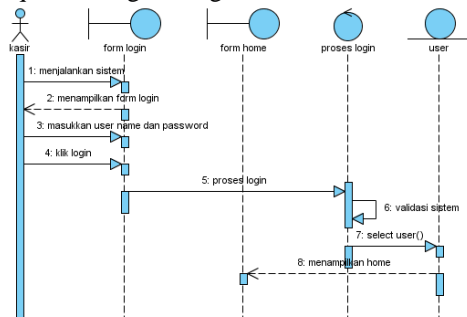
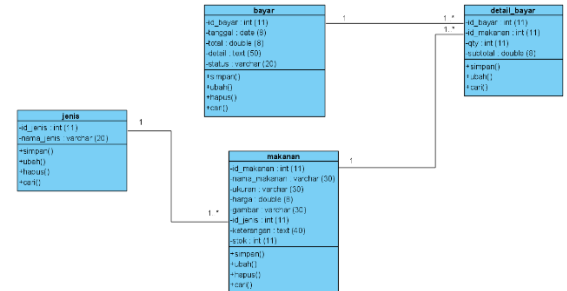


Figure 3, Activity Diagram Login

Based on Figure 3 Sequence Diagram Login, there is an explanation as follows: 1 actor, as

the actor of the activity. 1 lifeline boundary, which describes the elements of the system that interact directly with the actor, including: Login form menu. 5 message, in the form of an arrow line connecting each lifeline to describe the activities of the actor. 2 return message, in the form of a dotted return arrow line that describes one action that is returned. 1 control lifeline that shows the element that regulates the flow of information for a scenario, namely: Login process. 1 lifeline entity that describes the element that stores data.

d. Proposed class diagram



Proposed Class Diagram

Based on Figure 4, the proposed Class Diagram contains: It has 4 classes, namely as tables containing attributes and has 3 associations, namely as relations between attribute tables in classes with the same operations.

2. Program View

a. Main Menu Page View

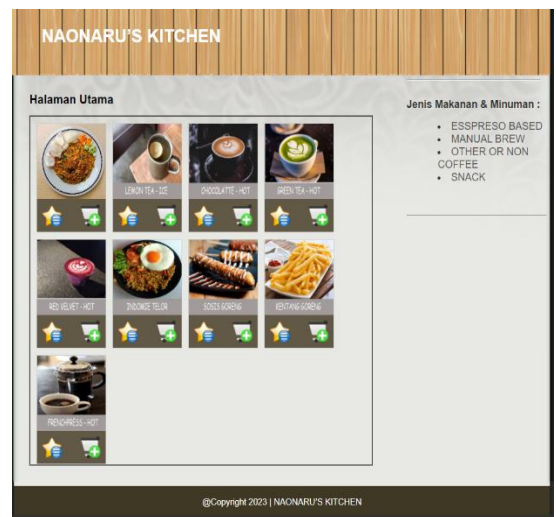


Figure 5, Home Menu Display

Figure 5 displays the main menu which is the initial menu of the menu ordering system after the system is run.

b. Login Form Menu View

NAONARU'S KITCHEN

Figure 6, Login Form Display

Figure 6 displays the login form which functions to maintain the security of order data from people who are not registered to use the system.

c. Food Data Form Menu Display

Figure 7, Food Data Form Display

Figure 7, food data form that functions to add, change, delete food data.

d. Payment Report Data Form Menu Display

Data Laporan Transaksi Pembayaran:					
ID Transaksi	Tanggal	ID Pelanggan	Total	Status	Opsi
18	2023-06-17	12	28000	Belum Bayar	Detail ✖
19	2023-06-17	13	18000	Belum Bayar	Detail ✖
20	2023-07-06	14	25000	Belum Bayar	Detail ✖
21	2023-07-06	15	0	Belum Bayar	Detail ✖
22	2023-07-06	16	25000	Belum Bayar	Detail ✖
23	2023-07-06	17	0	Belum Bayar	Detail ✖
24	2023-07-06	18	25000	Belum Bayar	Detail ✖
25	2023-07-06	19	0	Belum Bayar	Detail ✖
26	2023-07-06	20	0	Belum Bayar	Detail ✖
27	2023-07-07	21	34000	Belum Bayar	Detail ✖
28	2023-07-07	22	0	Belum Bayar	Detail ✖
29	2023-07-07	23	0	Belum Bayar	Detail ✖
30	2023-07-07	24	10000	Belum Bayar	Detail ✖

Figure 8, Payment Report Data Form Display

Figure 8 is a payment report data form that

functions to record menu payments.

2. Metode PIECES Analysis

The following is a comparison table of the current system with the proposed system.

Table 1. PIECES Analysis Method

No	Jenis Analisis	Kelemahan Sistem yang berjalan	Sistem Usulan
1	Performance (kinerja)	Nota pesanan sering tertumpuk ditangan kasir dikarenakan kurangnya waktu ke dapur untuk menginformasikan adanya pesanan masuk.	Sudah menggunakan sistem untuk mendata pesanan pelanggan dan data pesanan langsung masuk ke kitchen.
2	Information (Informasi)	Informasi pesanan yang di terima oleh kitchen terkadang suka salah sehingga pesanan yang di buat oleh kitchen tidak sesuai pesanan	Sudah menggunakan sistem untuk mendata pesanan sehingga dapat mengurangi terjadinya permasalahan.
3	Economics (Ekonomi)	Membutuhkan pengeluaran dan pembelian ATK untuk mencatat informasi kerusakan.	Tidak membutuhkan pengeluaran dana untuk membeli ATK sehingga dapat mengurangi pengeluaran pembelian ATK
4	Control (Pengawasan)	Keamanan sistem masih belum optimal karena data dapat di lihat oleh semua orang.	Keamanan pada sistem yang diusulkan sudah menggunakan database dan hanya user yang terdaftar yang dapat melihat data.

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