Collabits Journal
Vol. 2 No. 1 January 2025 : 48-51
E-ISSN : 1979-5254, P-ISSN : 3062-8601
https://publikasi.mercubuana.ac.id/index.php/collabits

Web-Based Barbershop Brother Service Application

Bagas Sumantri[1], Yaya Sudarya Triana[2], Siti Maesaroh[3]

[1,2,3,4] Information Systems Study Program, Universitas Mercu Buana

*Coressponden Author: 41816010090@student.mercubuana.ac.id

Abstract - The development of information technology has been widely implemented in various types of businesses, both businesses in the sale of products and businesses in the service sector, in order to facilitate the work process. The design of the barbershop service application aims to help manage the service process in the barbershop location area. Based on researchers' observational data, the condition of the barbershop which has many customers every day has service constraints in the queue of orders and payment transactions at the barbershop. This results in loss of customer time as well as from employees and barbershop owners. From this problem, we need a service application that is expected to minimize the density of customer queues in ordering services and payments. The analysis and design of this application aims to help the owner of the barbershop in serving customers, using structured system development (SDLC) modeling that has limits or scope of research that starts from the planning to the design stage, namely the application interface design. So this research can produce customer service application designs that can help solve customer queue service problems.

Keywords:
Application;
Barbershop Service;
SDLC;

Article History:
Received: 17-12-2024
Revised: 15-01-2025
Accepted: 23-01-2025

Article DOI : 10.22441/collabits.v2i1.32710

1. INTRODUCTION

Brader Barbershop is a place where men to tidy up their hair to keep it looking neat and stylish. There are many barbershop businesses in cities and rural areas because barbershops have become a need for men to maintain the neatness of their hair. The development of technology has many changes and is developing rapidly, currently many men want to cut their hair and make their appearance more fashionable so that they look confident, one way to build their confidence by coming to the babershop The problems faced in the barbershop booking process are still using phone media and whatsApp to contact the Barbershop, So that this makes it difficult for customers to obtain information because customers have to confirm repeatedly to get information about services and service prices[1].

The condition of service quality in a company functions to maintain customer trust, the high quality of service provided will be reflected in the aspect of customer satisfaction[2]. A common problem that is often faced by almost most Barbershops is in terms of serving customer queues, for barbershops that have many customers and have many service seats, then of course a good customer queue service management concept is needed [3], this will make the attraction of customers will be more smoothly established in marketing barbershop services [4]. One of the concepts of queuing services for customers is how queuing information can reach customers without queues at the location[5]. Most only focus on the main service as their goal. So they don't realize that there are many benefits that have not been obtained because the system is still managed manually[6]. The real problems are the effectiveness of time in service, the efficiency of the recording system and the circumstances to minimize losses due to errors in patient data recording[7].

2. LITERATURE REVIEW

2.1 SDLC

The SDLC *method* stands for *Software Development Life Cycle* which is a structured system development cycle consisting of four fundamental phases, namely: planning, analysis, design, and implementation. In each of these phases, deliverables are produced, or work results in the form of documents or systems. Deliverables from one phase are used as inputs in the next, and will be enriched with additional details with each phase change[8].

2.2 PIECES

The PIECES *method* is an analysis method as a basis for obtaining a more specific core problem. In analyzing a system, this method emphasizes 6 aspects, namely: *Performance, Information, Economy, Control, Efficiency and Service*. This *PIECES* analysis is very important to be carried out before developing a system or application because in this analysis it will help the developer or creator find problems that exist in the performance of the business process that is being observed[9].

3. RESEARCH METHODS

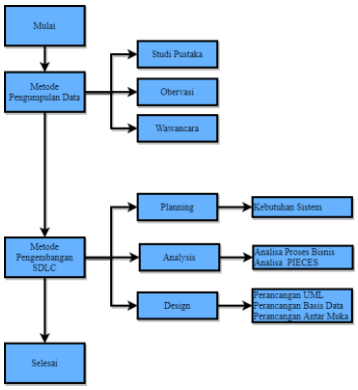

Figure 1. Research Flow Diagram

This research began by collecting data through 3 methods, namely: literature study, observation and interview, then the data that had been obtained was processed and developed using the SDLC system development method which only included 3 stages, namely: planning, analysis, and system design.

4. RESULTS AND DISCUSSION

4.1 Business Process Analysis

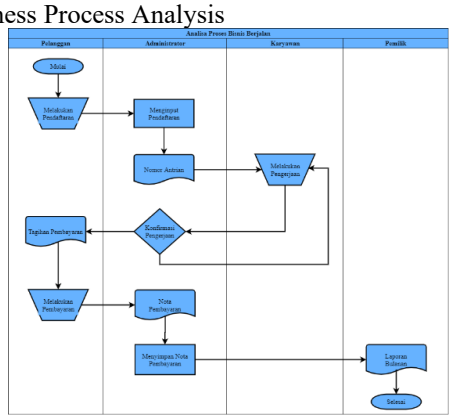

Figure 2. Analysis of Business Processes

a. Customers register
b. Administrator inputs barbershop service registration
c. Administrator prints queue numbers for customers
d. Employees will receive the customer service order status input by the admin and perform the work
e. Employees confirm work with administrators
f. If the work has not been completed, the employee will return to service
g. If the work has been completed, the administrator will provide a bill of payment
h. The customer will make the payment
i. The administrator accepts the payment and prints the proof of payment and keeps a backup of the receipt of the receipt of payment
j. At the end of each month, the receipt of proof of payment will be produced in the form of a barbershop monthly report document

4.2 Problem Identification

The current business process is carried out with output results in the form of text from reports which are then printed and stored in the cashier's archives. In planning the Babershop service application requires problem analysis from the ongoing process so that it can produce the right and better solution. Furthermore, the problem identification process resulted in an analysis carried out using *the PIECES method.*

4.3 Analyzes *PIECES*

Table 1. Analyzes PIECES

Aspects	Constraints	Solution
Performance	Many business processes that are carried out both in ordering, payment and reporting, require n long time.	The creation of an automated barbershop management information system
Information	There are often incorrect data entry and incorrect writing due to manual data collection	The existence of a computerized system can prevent data errors from occurring
Economics	Data collection to record the number of customers, paper, print, etc. To create a report	The use of computerization so that it does not require a lot of paper
Control	Documentation i is done in writing and there is a lack of data backup so that it is vulnerable to loss	Presence of data storage and backup of data that is not vulnerable
Effeciency	Storage n archives take up too much space	The existence of a database as a storage medium
Services	The speed of service is less effective so that the value of customer trust is reduced	A customer registration form is created which will be handled by the barbershop administrator

4.4 Design *Use Case Diagram*

The Use Case Diagram is a depiction of business processes through the interaction of actors with business functions[10]. The following is a draft *Use Case Diagram* that has been made by the researcher based on the needs analysis above.

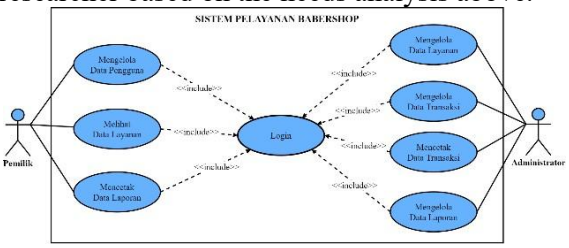

Figure 3. *Use Case Diagram*

4.5 *Design Class Diagram*

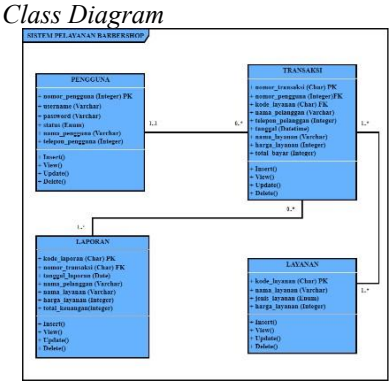

Figure 4. *Class Diagram*

4.6 *Design User Interface*

a. *Design User Interface Login*

Figure 5. *Design User Interface Login*

The User Interface Login design is the first page to enter the Brader Barbershop service application. The user must input the username and password, if the input is correct then the system will display the home page according to the user's status, because in this design the system user has 2 types, namely the user as the owner or as the administrator

b. *Design User Interface* Owner's Home

Figure 6. *Design User Interface Owner's Home*

The Owner's Home *User Interface* design is a page that connects the owner with the features provided, the owner has 3 access menus, namely the user menu, the service menu, and the report menu

c. *Design User Interface* User Data

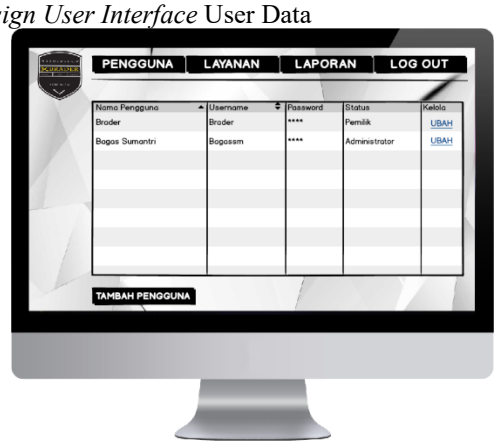

Figure 7. *Design User Interface User Data*

The User *Interface* design of the User Data can only be accessed by users with the status of Owner, in this user interface design the owner can manage user data which includes the addition, change, and deletion of user data.

d. *Design User Interface* Home Admin

Figure 8. *Design User Interface Home Admin*

The design of the User Interface Home Admin/Administrator is a page that connects administrators with the features provided, administrators have 3 access menus, namely the service menu, the transaction menu, and the report menu.

e. *Design User Interface Service Data*

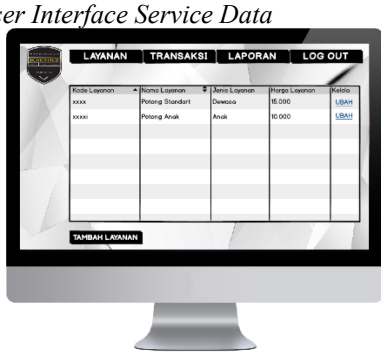

Figure 9. *Design User Interface Service Data*

The design *of the User Interface* Service Data can be accessed by users with the status of owner and administrator, in this user interface design the owner can only see the condition of the activeness of the service, while the administrator can manage the service data which includes the addition, change, and deletion of user data according to the conditions of the business development being run.

f. Design User Interface Transaction Data

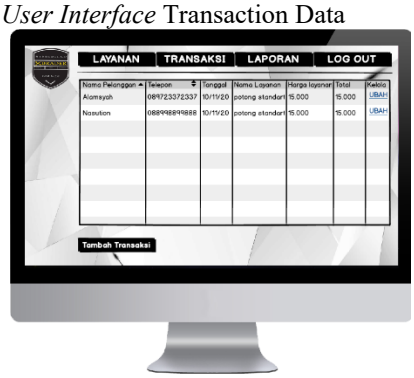

Figure 10. *Design User Interface* Transaction Data

The Transaction *Data User Interface* design can only be accessed by users with administrator status, in this user interface design the administrator can manage the transaction data of existing services in the barbershop including the addition, change, and deletion of existing transaction data

g. Design User Interface Report Data

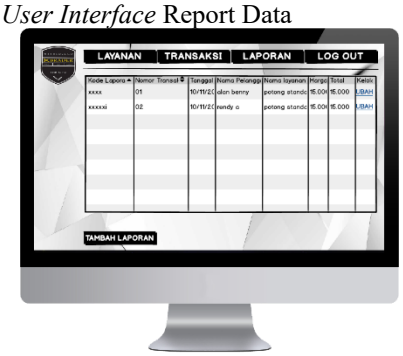

Figure 11. *Design User Interface* Report Data

The Report *Data User Interface* design can be accessed by users with owner and administrator status, in this user interface design the owner can only print monthly transaction reports, while administrators can manage the transaction data of the report in the barbershop including adding, changing, and deleting existing transaction data in the monthly report.

5. Conclusion

Based on the results of this study, the researcher can conclude that:

1. Analysis and Design of service applications have a very important role in assisting owners and administrators in running business processes running at Brader Barbershop
2. This service system has a registration feature to speed up the queue of customers who queue up for the Broder Barbershop service

BIBLIOGRAPHY

[1] S. Rahayu, "PeDesign Aplikasi Barbershop Online," J. Algoritm., vol. 15, no. 1, pp. 29–36, 2018.

[2] M. A. S. Yuli Asbar, "Analisa Dalam Mengukur Kualitas Pelayanan Terhadap Kepuasan Konsumen Menggunakan Metode PIECES," J. Visioner Strateg., vol. 6, no. 2, pp. 39–47, 2018.

[3] S. Yurindra, Ari Amir Alkodri, Anisah, "Aplikasi Client Server Berbasis Android pada Barbershop The Barbega Menggunakan Model Multi Channel - Single Phase," J. Sisfokom (Sistem Inf. dan Komputer), vol. 9, no. 1, p. 138, 2020.

[4] Wulan Dari, "PENERAPAN METODE SYSTEM DEVELOPMENT LIFE CYCLE PADA PEMBUATAN SISTEM INFORMASI PENJUALAN PRODUK BATIK KUROWO JAKARTA," J. KHATULISTIWA Inform., vol. 3, no. 9, pp. 222–228, 2015.

[5] H. Suprapto and Y. S. Triana, "Analisa Perbaikan Kualitas Produk Keramik Tableware Dengan Pendekatan Six Sigma Studi Kasus Pt Haeng Nam Sejahtera Indonesia," J. Ilm. FIFO, vol. 7, no. 2, p. 209, 2015.

[6] Z. A. Ardiansyah, "PeDesign Sistem Pengelolaan Dokter Referal PT . Nitrasanata Dharma," vol. 6, pp. 27–38, 2017.

[7] I. H. Dewi Lestari, "Analisa Dan PeDesign Aplikasi Sistem Pelayanan Klinik Gigi (Studi Kasus: Dental Echo Clinic)," JSAI (Journal Sci. Appl. Informatics), vol. 2, no. 1, pp. 127–134, 2019.

[8] D. T. Alan Dennis, Barbara Haley Wixom, SYSTEMS ANALYSIS & DESIGN An Object-Oriented Approach with UML. 2015.

[9] W. Ragil, Pedoman Sosialisasi Prosedur Operasi Standar. Jakarta: Mitra Wacana Media, 2010.

[10] D. F. Murad, N. Kusniawati, and A. Asyanto, "Aplikasi Intelligence Website Untuk Penunjang Laporan Paud Pada Himpaudi Kota Tangerang," CCIT J., vol. 7, no. 1, pp. 44–58, 2013.