

WEBSITE DESIGN *OF* BATAK TYPICAL DANCE PACKAGE DALIHAN NATOLU SIGAPITON STUDIO USING WEB ENGINEERING METHODS

Silvianti¹⁾*, Kiky Rizky Nova Wardani²⁾

^{1,2)}Information System, Bina Darma Palembang University

e-mail: silviantisilvi11@gmail.com¹⁾, kikyrizkynovawardani@binadarma.ac.id²⁾

*e-mail korespondensi : silviantisilvi11@gmail.com

ABSTRACT

Dalihan Natolu Sigapiton Studio is an art studio located in Sigapiton Village. This studio is one of the efforts to preserve the original village culture with native village teachers to make this dance pure, original that has been passed down from generation to generation. Many want to learn the original Batak dance which is known as the tor-tor dance from Sigapiton Village, however, the long distance makes it difficult for consumers to learn directly from the Dalihan Art Studio Natolu Sigapiton. The current problem is that there is no website or system that can help outsiders to learn traditional village dances. So it can be concluded that there are many wishes from the outside community to learn typical village dances, distance does not prevent them from learning. Based on previous research by Silvianti, Kiky Rizky Nova Wardani [1] entitled "UI Design UX Batak Dance Package at Website-Based Studio Dalihan Natolu Sigapiton Using the Design Thinking Method" has created a website design for Studio Dalihan Natolu Sigapiton. In this study, the aim was to design and build based on previous research by creating a website and adding features to become a Batak Dance Package Website for Dalihan Natolu Sigapiton Studio Using the Web Engineering Method, which is a quality software development without spending a lot of money, based on the idea and the needs of the users.

Keyword : *Dance Studio, Website, Dance Packages , Web Engineering*

I. INTRODUCTION

Sigapiton Village is one of the villages located in Ajibata District, Toba Regency. Sigapiton Village has such natural beauty that the village was made one of the tourist villages by the Ministry of Tourism and Creative Economy. As one of the tourist villages, Sigapiton Village has local residents who are known to be very friendly and open to tourists. Tourists who come will be welcomed and invited to tour several areas including Sibisa, Matung, Sirungkungan, and Samosir Island by local residents [2].

Sigapiton Village has many cultures, one of which is a typical Batak dance culture called Tor-Tor. Local residents often dance in a studio in Sigapiton Village called Dalihan Natolu Sigapiton Dance Studio, and the dance studio was developed by local residents. Dalihan Natolu Sigapiton Dance Studio was established in 2019 more precisely April 4, 2019 as well as the inauguration of tourism in Sigapiton Village, namely The Kaldera by the Minister of Tourism [3]. This studio was created to invite the community to cultivate typical Batak dances, foster a sense of love for culture, especially Batak dances by pouring talents, aspirations and creativity in the arts. One of the dances that is widely recognized by the community is the tor-tor dance, this dance was created by Togarma Naibaho. Tor-tor dances are accompanied by gondang music usually for healing rituals, the process of starting planting and harvesting rice, for death events and also as a means of entertainment. Not only local residents who dance in the dance studio, but tourists who come, may learn typical Batak dances. Dalihan Natolu Sigapiton Dance Studio and its typical Batak dances are still not widely known by the Indonesian people, because it does not yet have a medium to promote, introduce and develop the dance culture.

Typical Batak Dance Package Website of Dalihan Natolu Sigapiton Dance Studio Using the Web Engineering Method. According to Pressman (2009), Web Engineering is a method based on an agile framework for designing quality websites without having to spend a lot of money [4]. This research uses this method because this method is effective enough to build a website based on ideas and needs from customers. The result of this research is a dance package website of Dalihan Natolu Sigapiton Studio as a promotional medium in preserving the culture of Batak dance. Based on this description, the author wants to conduct research with the title "**WEBSITE DESIGN *OF* BATAK TYPICAL DANCE PACKAGE DALIHAN NATOLU SIGAPITON STUDIO USING WEB ENGINEERING METHODS**".

II. RESEARCH METDHDOD

A. Method of Data Collection

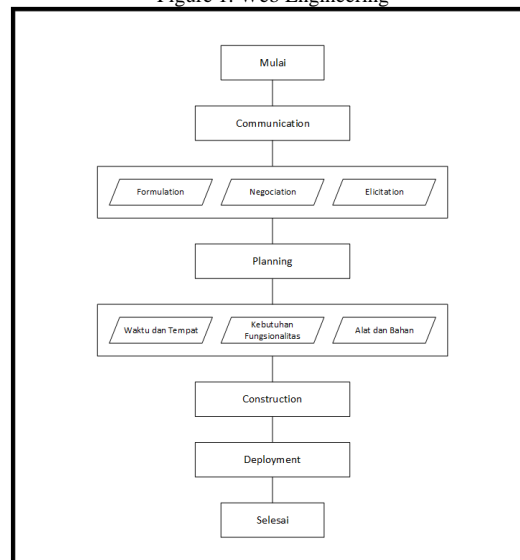
The method of data collection in this study is by indirect interview, namely using Zoom meetings and Whatsapp video calls that have been carried out in previous studies. Interviews are one of the most widely used tools for collecting qualitative research data. Interviews allow researchers to collect diverse data from respondents in various situations and contexts (Sarosa, 2017)[5].

The interview guide in this study includes the author showing the results of the UI UX research of the Batak Typical Dance Package at Dalihan Natolu Sigapiton Studio which has been made in previous research through a zoom meeting, based on the results of the interview, it produces a feedback in the form of criticism and suggestions for the designer. From the conclusion of the interview from the interviewee, namely a desire to design a typical Batak Dance Package Website for Dalihan Natolu Sigapiton Studio to become a real website and a more attractive appearance, more complete features that will attract users.

B. Method of System Development

In this study using the web engineering method, according to Pressman (2009), web engineering is a method used to design a high-quality website without having to spend a lot of money. Web engineering has basic concepts related to systematic and management, which adjust to changes [6]. According to Research from Nyimas Sopiah and Eka Puji Agustina [7] This method consists of 5 stages to design a website which consists of :

Figure 1. Web Engineering



A. Communication

The communication stage consists of three stages, namely formulation, negotiation, and elicitation.

a. Formulation

At this stage determining the purpose of the needs and who will use the website. This research was conducted to produce a Dalihan Natolu Sigapiton Studio dance package website with the need to promote and preserve Sigapiton Village, especially Dalihan Natolu Sigapiton Studio as one of the studios that preserves typical Batak dances.

b. Negotiation

The negotiation stage is the stage for negotiating between developers and users who will use the website, this negotiation is carried out directly by interviewing the owner and founder of the dalihan natolu sigapiton studio online through a zoom meeting.

c. Elicitation

The elicitation stage is the stage to describe the problems that occur from data collection. From the data collection, there are several problems that occur, namely that many still do not know Sigapiton Village and the lack of preservation of typical Batak cultural dances carried out by Dalihan Natolu Sigapiton Studio.

B. Planning

The planning stage is the planning stage for website development based on the results of communication between website developers and users. The planning to build this Dalihan Natolu Sigapiton Studio dance package website consists of

a. Time and Place

The object used to build this dance package website is Sanggar Dalihan Natolu Sigapiton

b. Functionality Requirements

Based on the results of interviews with the owner and founder of Sanggar Dalihan Natolu Sigapiton are as follows:

1. The website has a simple design, so that website users have no difficulty when accessing the Sanggar Dalihan Natolu Sigapiton dance package website. The website display must also show residents from Sigapiton Village who are dancing typical Batak dances.
2. This website consists of 3 dance packages, which contain various typical Batak dances called Tor-Tor.
3. With this website, it is hoped that it can help to develop Sigapiton Village and the Dalihan Natolu Sigapiton Studio.

c. Tools and Materials

The tools and materials used to build the Sanggar Dalihan Natolu Sigapiton dance package website are:

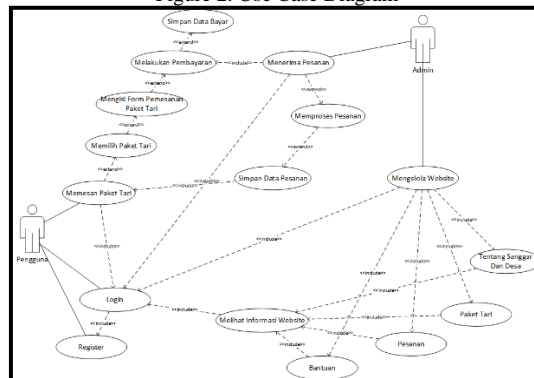
1. Website built using Hyper Text Preprocessor (PHP) programming language.
2. The programming language is written using the Visual Studio Code application.

C. Modelling

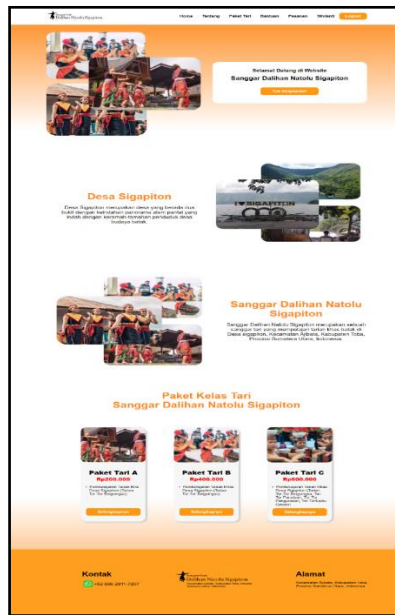
The modeling stage is the stage for designing a website. In the modeling stage, we will use the Unified Modeling Language tool, which consists of use case diagrams and Activity Diagrams. According to Sukamto and Shalahuddin (2018), Unified Modeling Language (UML) is one of the language standards widely used in the industrial world to define making analysis and design, as well as describing architecture in object-oriented programming. UML is a visual language for modeling and communicating about a system using diagrams and supporting text[8].

Sukamto and Shalahuddin (2018), activity diagrams or activity diagrams describe the work flow or activity of a system or business process or menu in the software. activity diagrams describe system activity not what actors do, so activities that can be done by the system.

Figure 2. Use Case Diagram



Sukamto and Shalahuddin (2018), use case diagrams are modeling for the behavior of the information system to be created. Use cases describe an interaction between one or more actors and the information system to be created. Roughly speaking, use cases are used to find out what functions are in an information system and who has the right to use those functions [8].



If the user does not yet have an account or username and password, it is mandatory to register first on the login page in Figure 4 by clicking do not have an account, it will display the registration page as follows :

Figure 6. Registration page

The Registration page is a page used by users to register an account before accessing the website of Sanggar Dalihan Natolu Sigapiton Batak Typical Dance Package. There are 6 forms that must be filled in by the user, user name, password, full name, address, email, and telephone number. However, if the user name filled in has already been used, if the user successfully registers and already has an account, then the user can fill in the login page in Figure 4. with the username and password that has been created. Then the website will display the user's home page. If the user enters the wrong username and password, the user can return to the login page and if the user forgets the website password, the user can directly contact the website admin of the typical Batak dance package which can be seen in the following figure.

Figure 7. forgot password page



b. About Page

The About page is a page that contains information about Sigapiton Village and Sigapiton Dalihan Natolu Studio in full.

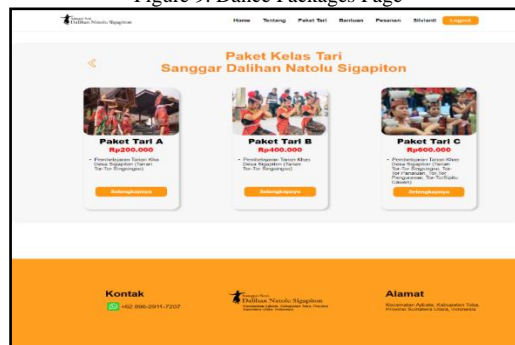
Figure 8. About Page



c. Dance Packages Page

The Dance Package page is a page that contains dance packages consisting of dance packages A, B, and C.

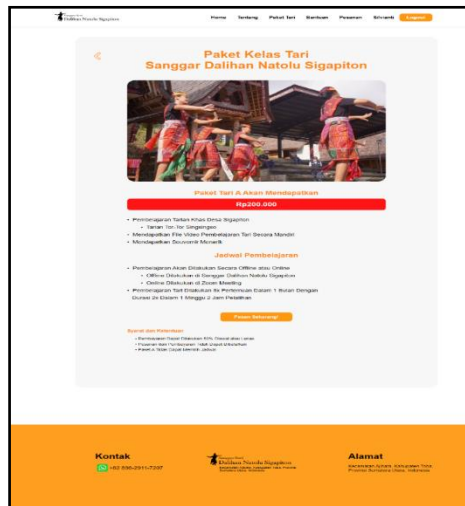
Figure 9. Dance Packages Page



d. Dance Package Detail Page

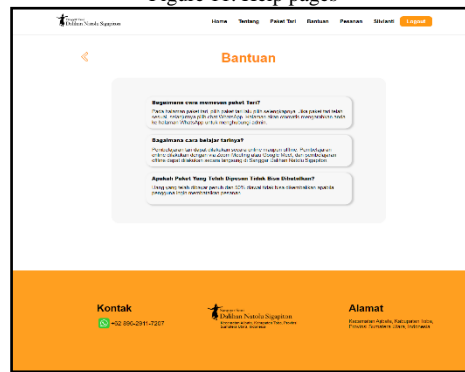
The Dance Package Details page is a page that contains complete dance package information, after the user presses the "More" button on the dance package page.

Figure 10. Dance Package Detail Page



- e. Help pages
The Help page is a page that contains help on how to order dance packages.

Figure 11. Help pages



- f. Buyer Order Page
The Buyer Order page is a page that contains a history of dance package purchase transactions by users.

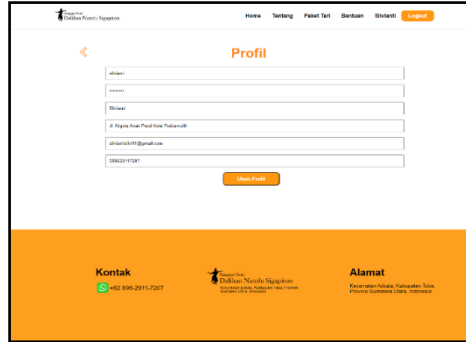
Figure 12. Buyer Order Page



After payment the user can access the invoice, this invoice contains the amount to be paid and can also access the learning page directly based on the selected package.

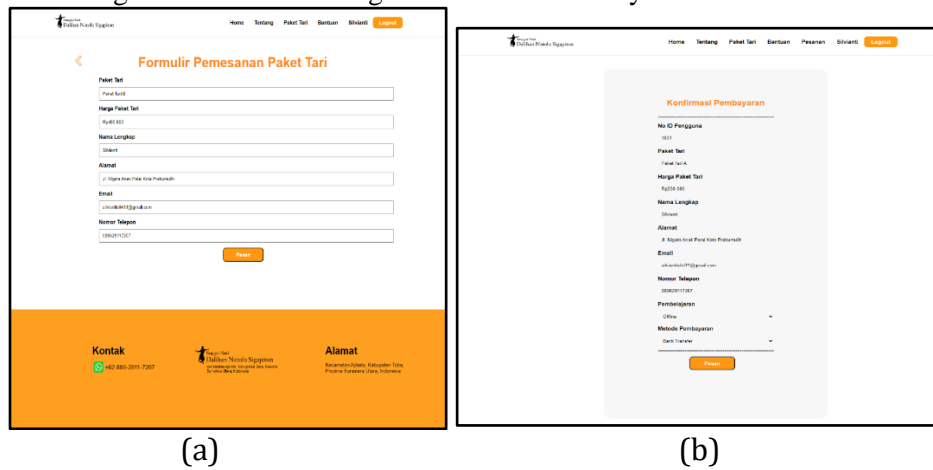
- g. User's Profile Page
The Profile page is a page that contains the user's personal information.

Figure 13. User's Profile Page



h. Dance Package Order Form and Payment Confirmation

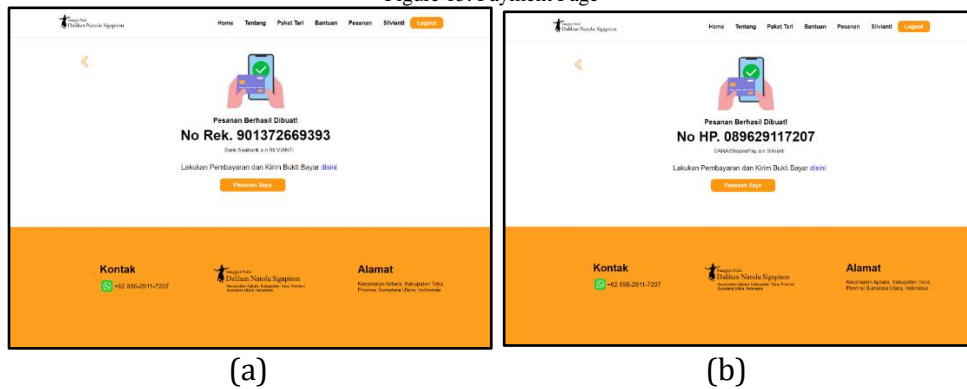
Figure 14. Dance Package Order Form and Payment Confirmation



i. Payment Page

User can make payments using bank transfer and e-wallet

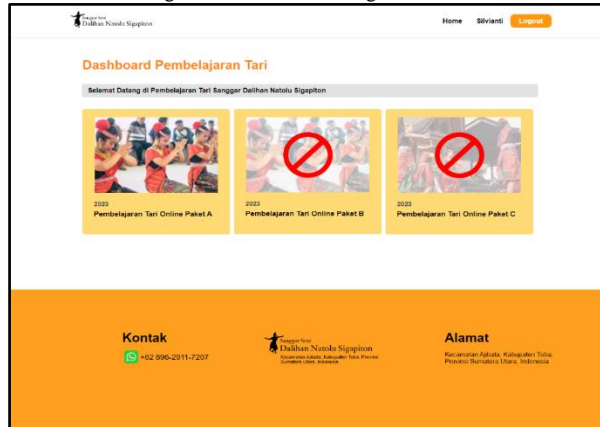
Figure 15. Payment Page



j. Dance Learning Dashboard

The picture is a dashboard view of dance learning, in learning at Sanggar Dalihan Natolu Sigapiton, there are 3 learning methods that can be chosen, namely online, offline and hybrid. Figure 16 is the display for online learning.

Figure 16. Dance Learning Dashboard



- k. Display of Learning Material Page
Users can do learning on the page. Users can submit and edit accessed tasks

Figure 17. Display of Learning Material Page



2. Testing

According to Iskandaria (2012), Blackbox Testing is one of the methods used as a test for software [9]. Black-Box Testing is a software testing method, which is often used as functional testing. Black-Box Testing is referred to as "black box" testing that makes software work without looking at its internal performance [10]. This test is often used on the input and output functionality of the application. With this test, it can find out if there are errors or deficiencies, can be directly known by the author:

TABLE 1. TESTING

| | FUNCTION | INPUT | EXPECTED OUTPUT | RESULT | CONCLUSION |
|----|-------------------|---|--------------------------------|--------------------------------|------------|
| 1. | User's Home Page | Enter the website address | Display the home page | Display the home page | Success |
| 2. | User's Login Page | Select the login feature on the home page | Display the login page | Display the login page | Success |
| 3. | Registration Page | Selecting the "Don't Have an Account?" feature on the | Displays the registration page | Displays the registration page | Success |

| | | | | | |
|-----|---------------------------------|---|--|--|---------|
| | | login page | | | |
| 4. | About Page | Select the about feature | Display the about page | Display the about page | Success |
| 5. | Dance Packages Page | Selecting the dance package feature | Display the dance package page | Display the dance package page | Success |
| 6. | Help Pages | Selecting the help feature | Displays the help page | Displays the help page | Success |
| 7. | Buyer Order Page | Selecting the order feature | Displays the order page | Displays the order page | Success |
| 8. | User Profile Page | Choose the profile feature | Display the profile page | Display the profile page | Success |
| 9. | Dance Package Detail Page | Selecting the "More" feature on the dance package page | Displays the dance package details page | Displays the dance package details page | Success |
| 10. | Dance Package Booking Form Page | Select the "Book Now" feature on the dance package details page | Displays the dance package order form page | Displays the dance package order form page | Success |
| 11. | Order Page Successfully Created | Fill out the order form and select the "Order" feature on the dance package order form page | Displays the order page successfully created | Displays the order page successfully | Success |
| 12. | Sign out feature | Select the logout feature | Display the home page | Display the home page | Success |
| 13. | Login page Admin | Enter the website address of the admin page | Display the admin login page | Display the admin login page | Success |
| 14. | Admin Home Page | Selecting the "Login" button on the admin login page | Display the admin home page | Display the admin home page | Success |
| 15. | Admin Order Page | Select the order feature | Display the order page | Display the order page | Success |
| 16. | Order Acceptance Feature | Select the order acceptance feature on the admin order page | Order status successfully changes to Accepted on the buyer's order | Order status successfully changes to Accepted on the buyer's order | Success |
| 17. | Order History Page | Choose the order history | Display the order history | Display the order history | Success |

| | | feature | page | page | |
|-----|--------------------------------|----------------------------|--------------------------------|---------------------------------|---------|
| 18. | Admin Profile Page | Choose the profile feature | Display the admin profile page | Displays the admin profile page | Success |
| 19. | Admin Account Sign Out Feature | Choose the logout feature | Displays the admin home page | Displays the admin home page | Success |
| 20. | Forgot Password Feature | | | | Success |

Testing was carried out using the blackbox testing method which was directly tested on users in Sigapiton Village, as well as from Independent Study Mentors from PT Amati Karya Indonesia through a zoom meeting on June 27, 2023. In this test there are 19 test items on the Batak Typical Dance Package Website of Sanggar Dalihan Natolu Sigapiton with the results of all tests declared successful in accordance with the expectations of the users.

G. CONCLUSION

Sigapiton Village is one of the villages located in Ajibata District, Toba Regency. Sigapiton Village has such natural beauty that the village was made one of the tourist villages by the Ministry of Tourism and Creative Economy. Sigapiton Village has many cultures, one of which is a typical Batak dance culture called Tor-Tor.

The author conducted a research related to one of the studios in Sigapiton Village called Sanggar Dalihan Natolu which still preserves the typical Batak dance culture called Tor-Tor. The research conducted by the author is the design of a dance package website for Sanggar Dalihan Natolu Sigapiton as a promotional medium in preserving the culture of typical Batak dance and as a promotional medium in preserving the typical Batak dance culture of Sigapiton Village, as well as the income obtained from the website to help develop Sanggar Dalihan Natolu Sigapiton.

Based on the results and discussion of the research that has been done, the design of the Sanggar Dalihan Natolu Sigapiton dance package website has been successfully carried out and is running well. So, this website already has a domain at the address <http://paket-tari-sdns.infinityfreeapp.com/login.php?i=1> and <http://paket-tari-sdns.infinityfreeapp.com/login-admin.php> which can be accessed by everyone.

EFERENCES

- [1] Silvianti, & Rizky Nova Wardani, K. (2023). DESAIN UI UX PAKET TARI KHAS BATAK PADA SANGGAR DALIHAN NATOLU SIGAPITON BERBASIS WEBSITE DENGAN METODE DESIGN THINKING. ZONAsi: Jurnal Sistem Informasi, 5(1), 84 - 99. Penulis1 A, Penulis2 B. *Judul Artikel*. Nama Konferensi. Kota. Tahun; vol: halaman.
- [2] Situmeang, A. Siaran Pers: Desa Sigapiton, Desa Pinggir Danau Toba Yang Wajib Dikunjungi. Diakses pada 17 Juni 2023, dari <https://www.bpodt.id/siaran-pers-desa-sigapiton-desa-pinggir-danau-toba-yang-wajib-untuk-dikunjungi/>
- [3] Biro Humas dan Keprotokolan Setdaprovsu. (15 Oktober 2019). TOBA CALDERA RESORT DIRESMIKAN, JOKO WIDODO BERPELAN RUMAH DI KAWASAN DANAU TOBA DIKEMBALIKAN SEPERTI ASLINYA. Diakses pada 17 Juni 2023, dari <https://diskominfo.sumutprov.go.id/artikel-1834-toba-caldera-resort-diresmikan-joko-widodo-berpesan-rumah-di-kawasan-danau-toba-dikembalikan-seperti-aslinya.html>
- [4] Pressman, Roger, S., 2001, Software Engineering : A Practitioner’s Approach, 7th Edition, McGraw Hill Book Company, New York, USA.
- [5] Sarosa, Samiaji. 2017. Metodologi Pengembangan Sistem Informasi. Jakarta: Indeks Jakarta
- [6] Pressman RS. 2002. Rekayasa Perangkat Lunak : Pendekatan Praktisi (Buku Satu). Yogyakarta: Andi
- [7] Nyimas, S. (2022). Penggunaan Metode Web Engineering dalam Aplikasi Penjualan Kain Khas Palembang. Penggunaan Metode Web Engineering Dalam Aplikasi Penjualan Kain Khas Palembang.
- [8] Sukanto, Rosa dan M. Shalahuddin. 2018. Rekayasa Perangkat Lunak Terstruktur dan Berorientasi Objek. Informatika: Bandung. hlm 13,141,155-158, 161-163, 165-167
- [9] Iskandaria (2012), blackbox (blackbox testing), metode pengujian perangkat lunak yang berfokus pada sisi fungsionalitas.
- [10] SALAMAH, Umi; KHASANAH, Fata Nidaul. Pengujian Sistem Informasi Penjualan Undangan Pernikahan Online Berbasis Web Menggunakan Black Box Testing. INFORMATION MANAGEMENT FOR EDUCATORS AND PROFESSIONALS : Journal of Information Management, [S.l.], v.2, n. 1, p. 35-46, dec. 2017. ISSN 2548-3331. Available at: <<http://ejournal-binainsani.ac.id/index.php/IMBI/article/view/626>>. Date accessed: 30 aug. 2023.

