



# Designing A Purifiers Website for Motorcycle Washing and Selling Motorcycle Washing Products

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**Abstract**—In the contemporary era, numerous businesses offer motorcycle washing services and sell motorcycle cleaning products. However, many people still engage in manual transactions, with customers visiting the business premises in person. Purifiers is a business specializing in motorcycle washing services and the sale of motorcycle cleaning products. In conducting its operations, Purifiers facilitates transactions with customers who visit its business location. With the advancements in internet technology, this study aims to create a website to enable online motorcycle washing services and product sales through Purifiers. Customers can initiate transactions through the website, after which Purifiers will visit the customer's location to pick up the motorcycle for washing. Additionally, purchased motorcycle cleaning products will be dispatched either through a courier service or upon the return delivery of the motorcycle to the customer. This research focuses on the design of the Purifiers website for motorcycle washing services and the sale of cleaning products, utilizing the PHP programming language and MySQL database. The methodology employed for the development of this website follows the Software Development Life Cycle (SDLC) with the Waterfall method, encompassing stages such as analysis, design, coding, and testing. Based on the outcomes of the Black Box testing, all menus on the website, both from the admin and user perspectives, function well according to their intended purposes. Furthermore, the results of the Portability testing using various browsers indicate that the website operates smoothly, with all pages displaying correctly.

**Keywords:** Motorcycle; Waterfall; Website; MySql; PHP

## 1. INTRODUCTION

Today's technological developments occur quickly, providing a number of benefits and conveniences. One important aspect in the realm of information technology is the internet, which stands for International Networking or international networking [1]. The Internet is a vast network of computers that are interconnected around the world, ranging from personal computers at home to large computer systems in companies[2].

As an information resource, the Internet provides a wide range of possibilities and benefits. One of its applications is in business development through the use of websites. The website becomes an effective promotional medium to convey information, offers, and promotions from a company to customers. The components in the website include text, images, sound, video, animation, and others [3].

The existence of a website provides a great opportunity for business people to improve their performance. With the website, business people no longer have difficulty in accessing the information needed to support their business activities. The use of the Internet in a business context has undergone an evolution, not only as a means of exchanging electronic information, but also as a tool for implementing business strategies, such as marketing, sales, and customer service [4].

One form of business that can be run over the internet is motorcycle washing services and sales of motorcycle washing equipment. Cleanliness and maintenance of the motorcycle are essential needs for its users. Currently, many motorcycle washing service businesses and motorcycle washing equipment sales have sprung up in urban areas. Just like a laundry service that helps people clean their clothes.

Although many motorcycle washing services are already operating, there are still many that use a manual transaction system, where customers must come directly to the service place. In this context, as with any laundry service, the need for motorcycle washing services that make it easier for customers to make transactions without having to leave the house is increasing. Therefore, making information about motorcycle washing services and selling motorcycle washing equipment through the website can be an effective step to further introduce the business and provide convenience to customers[5]. Especially in the current season, the weather is erratic, sometimes rainy or hot.

Purifiers are businesses that focus on washing motorcycles and selling motorcycle washing products. In carrying out their operations, Purifiers usually carry out transactions conventionally, where customers need to come directly to the location to place an order. In order for the transaction process to be more efficient and easier for customers, Purifiers decided to involve the online world by creating a website. Through this website, customers can easily get detailed information about the motorcycle washing services and motor cleaning products offered.

Website Purifiers, developed using PHP and MySQL, presents several menus, including helmet washing services and sales of helmet cleaning products. The helmet washing service is only available for region Brebes, while the accepted payment method is cash on delivery (COD) or on-site payment. Purchase of motorcycle wash products can be done throughout Indonesia via bank transfer or using the COD method.



The website system design process is carried out by applying the SDLC (Software Development Life Cycle) method using the PHP programming language. Before conducting this research, there was previous research that discussed website design. It is used by researchers as literature review material.

The first research conducted by Maghfirah et al entitled "Design and build a coin laundry website alhamdulillah" obtained results, website design that can make it easier for cashiers to make transactions. In analyzing and building systems using the SDLC Waterfall Model method [6]

The second research was conducted by Soraya et al entitled "Design a web-based dim sum sales application". This research uses waterfall system development methods, and UML design tools. The web system created was tested using ISO 25010 with aspects of functionality, reliability, and performance efficiency. The results of ISO 25010 testing that has been carried out involving 7 respondents that the resulting software feasibility quality conclusion has a percentage of success with an average total of 94.85%. So it can be concluded that the percentage value obtained indicates the overall quality of the software has a scale of "Very Good" [7].

The third research was conducted by Rizky et al entitled "Design a web-based employee leave application". The results of his research are building an employee e-leave application at the Bandar Lampung State Administrative Court (PTUN) based on android, a website using php programming language and mysql database and using the development of Extreme Programming. Testing on the E-Cuti system uses ISO 25010 testing with two aspects of testing, namely the functionality usability aspect and obtained 100% results and the operability aspect and obtained 85.24% results, so it can be concluded that the Bandar Lampung PTUN E-Cuti Application is declared good for use [8]

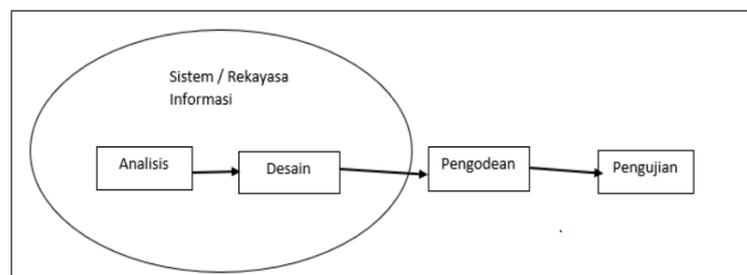
Therefore, based on the background previously described, this research is different from the others. This research, conducted a website design by combining two features at once, namely motorcycle washing and a website used as an online buying and selling transaction. In addition to ensure the quality of the website, testing is carried out using two methods, namely the black box method and portability testing through various browsers. Thus, [9]Purifiers strives to provide a better and easier transaction experience for customers through online platforms.

## 2. RESEARCH METHODOLOGY

Contains an explanation of the stages of research (MANDATORY IN THE ARTICLE) which describes the sequence/stages in conducting research, how the stages of applying the method in research and testing methods in obtaining research results are in accordance with the expectations and description of the research. It is better if there are pictures and tables, they must be presented with the names of the tables and figures accompanied by serial numbers.

System development for website Purifiers follows SDLC (Software Development Life Cycle). SDLC, or often called System Development Life Cycle, refers to the process of developing or changing software systems using models and methodologies that have been tested and applied previously by developers based on best practices. Each SDLC model has advantages and disadvantages, and the most crucial thing is to recognize the type of customer and choose the SDLC model that suits the characteristics of the customer and developer [10].

In the context of developing purifiers websites, the model adopted is the waterfall model, which is similar to the waterfall concept. This model proposes a systematic and sequential approach in software development, involving stages such as analysis, design, coding, and testing across all levels of system progress [11]. An illustration of the waterfall model can be found in Figure 1.



**Figure 1.** Method Model Waterfall

### 2.1. Analysis

The analysis phase is carried out to meet the characteristics of the program under development, including the desired user interface and the required feature functions. In the analysis phase, the actions of the device for development are described in detail[12]. This process involves collecting information related to the needs of the system to be developed.

To obtain information and analyze the needs of the Purifiers website, this approach is done by communicating directly with the Purifiers business owner, who is also the main user. Questions are asked directly to business owners to understand the process of motor washing transactions and sales of motor washing equipment. Information obtained from purifiers business owners is collected as well as possible in order to design a computer system that can meet the needs desired by these users.



These steps will produce a user requirement document or requirement specification, which includes data related to user wishes in creating the system. This document is the main reference for translating these needs into programming languages [13].

**2.2. Design**

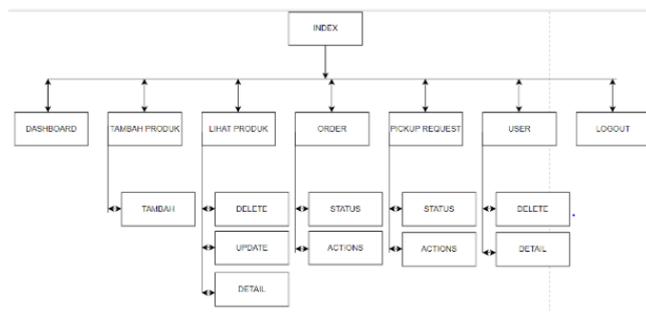
In this study there is a design stage, the existing process includes designing navigation structures and the use of UML (Unified Modeling Language) which involves use case diagrams, activity diagrams, class diagrams, storyboards, and database design.

**2.2.1 Navigation Structure**

Navigation Structure is the layout or flow of a program designed as an arrangement of relationships or series of tasks from various different areas, aiming to help structure and organize all the elements involved in creating a website. In the context of Website [14]Purifiers, the navigation structure is divided into two parts, namely the Admin Navigation Structure and the User Navigation Structure.

**2.2.1.1 Admin Navigation Structure**

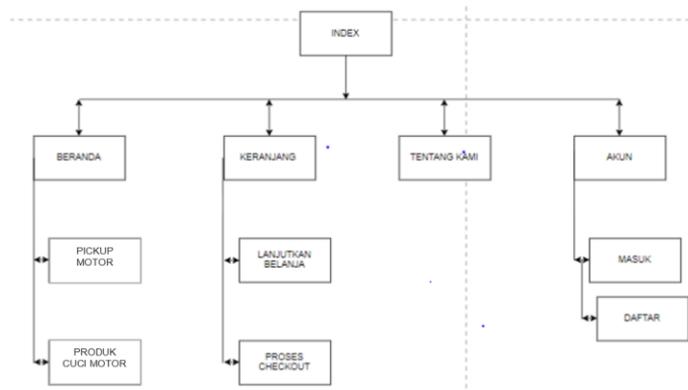
This admin navigation structure is a combination of navigation structures (Composite) that includes elements of linear, non-linear, and hierarchical navigation structures. The design of the admin navigation structure can be seen in figure 2.



**Figure 2.** Admin Navigation Structure

**2.2.1.2 User Navigation Structure**

This user navigation structure is a combination of navigation structures (Composite), which includes elements of linear, non-linear, and hierarchical navigation structures. The design of the navigation structure for users can be seen in figure 3.



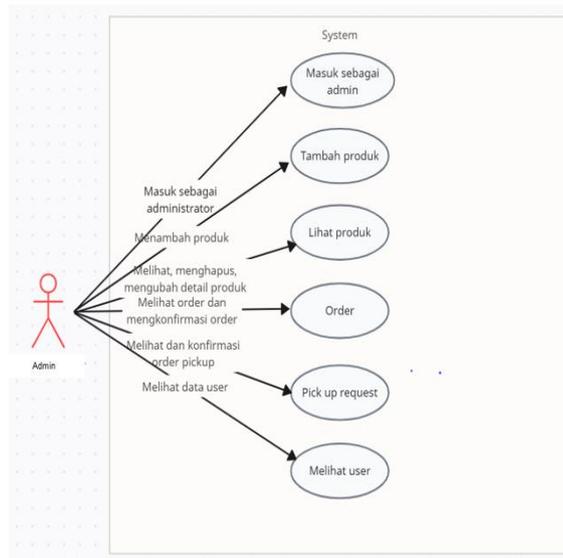
**Figure 3.** User Navigation Structure

**2.2.2 UML (Unified Modelling Language)**

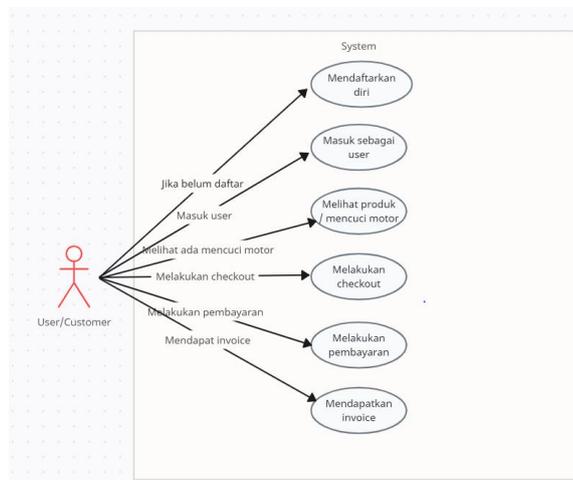
The design of this system is designed using the Unified Modeling Language (UML), which includes several elements such as Use Case Diagrams, Activity Diagrams, and Class Diagrams[15]. Use Case Diagrams are used to illustrate system functionality from the user's perspective, Activity Diagrams are used to show sequences of activities or processes in the system, while Class Diagrams are used to represent structures and relationships between objects in the system[16]. By utilizing UML, system design can be done in a more systematic and structured manner, facilitating a better understanding of various aspects of the system being built [17].

**2.2.2.1 Use Case Diagram**

In this study, the use case diagram is divided into two parts, namely, use case diagram for admin and use case diagram for user. For use case diagram admin can be seen in figure 4 then for use case diagram user can be seen in figure 5.



**Figure 4.** Use Case Diagram Admin



**Figure 5.** Use Case Diagram User

### 2.3. Coding

Website Purifiers for motorcycle Washing and Sales of Motor Wash Products will be developed using PHP (Hypertext Processor) programming language. PHP is a programming language that serves to convert program code into machine code that can be understood by computers, especially on the server side, and integrated into HTML. To support the database, this website will use MySQL. MySQL is an application used to manage databases and is often used in the development of applications that require databases[18]. The necessary device and will be used at this stage the following components:

- Hardware: Ideapad gaming 3 Intel® Gen 11<sup>th</sup> Core™ CPU @ @3.20GHz 3.19 GHz, SSD 128 GB, RAM 8 GB.
- Software: Windows 11 Pro 64-bit Operating System, Visual Studio Code, XAMPP

### 2.3. Testing

The next step is the testing phase, an additional phase carried out to ensure that the system is operating effectively. Testing a website is a key factor in maintaining the quality and performance of a website, because through testing, users can have confidence that the functionality of the application runs well and can be used without doubt[19].

In this study, testing will be carried out using the black box method and portability testing through a browser. The black box testing method is focused on assessing software functionality, with the aim of finding incorrect functions, interface errors, errors in data structures, insufficient performance, as well as initialization and termination errors[20]. The black box testing process is done by trying the program that has been created and entering data on each form. This testing is necessary to ensure that the program operates according to the needs of the company [21].

Meanwhile, portability testing will involve cross-browser compatibility testing, which is testing using the help of browserstack.com to conduct cross-browser testing. If the system can run well on cross-browser trials, it can be concluded that the system application has met the characteristics of portability [22].



### 3. RESULT AND DISCUSSION

System development using SDLC with waterfall method resulted in Website Purifiers for motorcycle washing and motorcycle washing product sales. This website involves two parties, namely admin and user (customer). Admin has access rights to manage data, while users have access rights to register and transact. The system testing process involves black box testing and testing through a browser. The following is an explanation of the results obtained in the process of building this website.

#### 3.1. Website Display Results

##### 3.1.1 Admin Login Page Display

The Admin Login page is the start page when an admin wants to access and manage content on the admin page. On the admin login page, there are two columns, namely the column to enter an email and the column to enter a password. If the admin enters incorrect information, the system will give a warning regarding the login failure, stating that the email or password entered does not match. However, if the information entered is correct, the admin will successfully enter the admin page. Furthermore, the page admin can be seen in the figure 6.

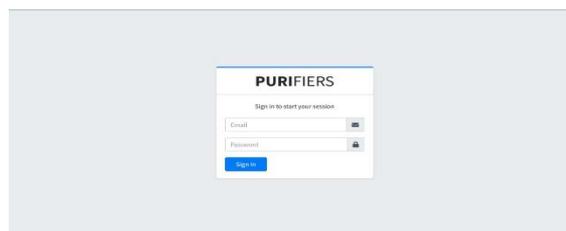


Figure 6. Admin Login View

##### 3.1.2 Admin Page View

The admin page includes various features such as Dashboard, Add Product, View Product, Order, Pickup Request, User, and Logout.

###### 3.1.2.1 Admin dashboard view

In this research, the web admin dashboard display contains details about products, orders and users. Furthermore, the page admin dashboard can be seen in the figure 7.



Figure 7. Admin Dashboard View

###### 3.1.2.2 Add Product View

Add Product is a page used to add motorcycle wash products by filling in information in fields such as Product name, Price, Stock, Description, and uploading product images. Furthermore, the page add product can be seen in the figure 8.

Figure 8. Add Product View



### 3.1.2.3 Product View Display

View Products is a page that allows to see a list of previously added products. On this page, users can also make edits and deletions of products. Furthermore, the page view product can be seen in the figure 9.

Produk					
ID	Nama Produk	Harga	Stok	Deskripsi	Actions
1	Kit	Rp. 103.000	100	Membersihkan motor dan bikin kinclong	  
1	Sabun	Rp. 10.000	1000	Membersihkan motor dan bikin kinclong	  

Figure 9. Product View View

### 3.1.2.4 Order Display

Order is a page used to view and confirm product orders submitted by users to admins. Furthermore, the page order can be seen in the figure 10.

Order						
ID	User	Produk	Quantity	Status	Pembayaran	Action

Figure 10. Order Display

### 3.1.2.5 Display Pickup Request

The Pickup Request page serves to confirm the pickup request submitted by the user to the admin. Furthermore, the page pick up request can be seen in the figure 11.

Pick Up					
ID	Data User	Kontak Customer	Detail Produk	Status	Action
1	Nadia	08573467346	Sabun	<span style="background-color: yellow;">Pending</span>	<input type="button" value="confirm"/>
2	Sinta	09402374623	Kit	<span style="background-color: green;">Done</span>	<input type="button" value="confirm"/>

Figure 11. Display Pickup Request

### 3.1.2.6 User Display

The User page allows admins to view detailed information about registered users and gives the option to delete already registered users. Furthermore, the page user display can be seen in the figure 12.

User				
No	Nama	Email	Register Pada	Action
1	Nadia	nadia@gmail.com	1 week ago	<input type="button" value="Detail"/> <input type="button" value="Detail"/>
1	Sinta	sinta@gmail.com	1 week ago	<input type="button" value="Detail"/> <input type="button" value="Detail"/>

Figure 12. User Display

### 3.1.3 User List Page Display

The User Registration Page aims to allow users to register so that they can make transactions on the website. On the user registration page, there are fields such as name, email, password, confirm password, and address. Furthermore, the page user list can be seen in the figure 13.

Daftar

**Nama Lengkap**

**Email**

**password**

**confirm password**

**Alamat**

SUBMIT

Figure 13. User List Page

### 3.1.4 User Login Page Display

The User Login page is the starting point when a user wants to do a helmet wash or purchase a helmet washing product. On the User Login page, there are two columns, namely the email and password columns. If the user enters inappropriate



information, the system will give a login failure warning stating that the email and password entered are incorrect. However, if the information entered matches, the user will successfully enter the user's main page. Furthermore, the page user login can be seen in the figure 14.

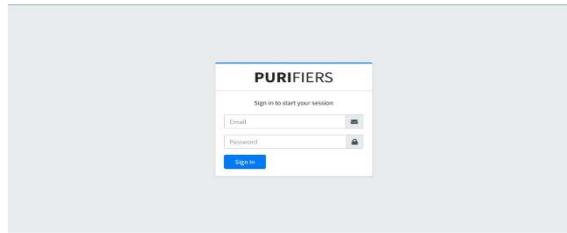


Figure 14. User Login Display

### 3.1.5 User Home Page Display

The User Start Page is the starting point for users to explore helmet washing products and make helmet washing transactions. On the User Start Page, there is a header section that includes account columns containing login and registration options, a cart, information about us, and a link back to the homepage. Furthermore, the page user home can be seen in the figure 15.

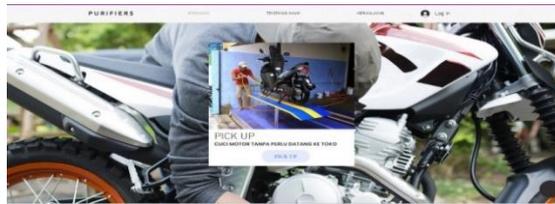


Figure 15. User Home Page

### 3.1.6 Pick Up Page views

The Pick up page is a place for users to carry out the process of taking helmet washing by filling out the Pickup form. On the Pickup page, there are columns that ask for information such as full name, email, helmet type, helmet color, helmet brand, phone number, and address. Furthermore, the page pick up can be seen in the figure 16.

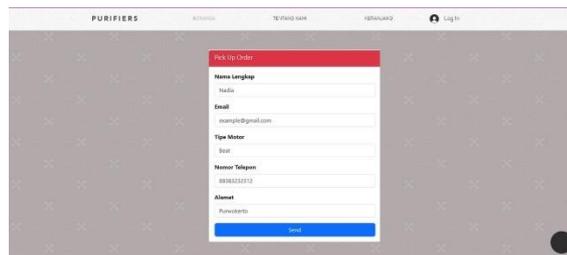


Figure 16. Pick Up Page

### 3.1.7 User Booking History Display

The Order page is a page that allows users to view details of helmet washing orders or product purchases. On the Bookings page, there is a table that shows user details and a table that shows information related to pick up orders and product orders. For details of the order page can be seen in the figure 17.



Figure 17. Order History View

## 3.2. Website Testing

### 3.2.1. Black Box Testing

The black box method is a form of software test that focuses on functionality, especially inputs and outputs, with the aim of ensuring that what is executed is up to expectations. In the testing process using this black box method, it was carried



out offline on a laptop device with Ideapad gaming 3 Intel® Gen 11<sup>th</sup> Core™ CPU @ @3.20GHz 3.19 GHz, 128 GB SSD, 8 GB RAM.

**Table 1.** Test User and Admin Pages with black box

No	Testing	Test Case	Expected Results	Conclusion
1	Admin login page testing	Enter email and password	As expected	Valid
2	Admin Page Testing	Dashboard View	As expected	Valid
3	Customer page testing	Product Display	As expected	Valid
4	Customer list page testing	Enter your full name, email, mobile number, password, confirm password	As expected	Valid
5	Customer login page testing	Enter email and password	As expected	Valid
6	Product add page upgrade	Add product	As expected	Valid
7	Product view page testing	View product details that have been added, and wipe the product	As expected	Valid
8	Order page testing	Receive a customer order	As expected	Valid
9	Pickup Request page testing	Receive Pickup Customer	As expected	Valid
10	User page testing	View user data and intercept us user	As expected	Valid

After testing website purifiers using the black box method on the user and admin sections, it can be concluded that the website runs smoothly without experiencing problems.

### 3.2.1. Portability Testing

In the portability testing phase, cross-browser compatibility testing is carried out using cross browsing compatibility testing. This test involves executing the Cleaners site to evaluate its ability to perform well on a particular browser, by running it through the browser on localhost. The purpose of this test is to select the optimal browser during the site creation process and to understand the different page views that appear in each browser.

**Table 2.** Trial Using Various Users

Browser	Version	constraints	Speed	Result
Google Chrome	97.0.4692.99	None	2.8s	Very Fast
Mozilla Firefox	96.0	None	2.3s	Fast
Microsoft Edge	97.0.1072.76.	None	2.6s	Fast

Through browser experiments using three browsers, namely Mozilla Firefox, Google Chrome, and Microsoft Edge, it was seen that Google Chrome showed better performance and responsiveness compared to the other two browsers.

### 3.3 Discussion

From the findings obtained from the research that has been carried out, namely the design of web purifiers for motorcycle washing and the purchase of motorcycle washing products using php and Mysql database, some things that can be used as evaluation material include, In this study testing carried out using black box shows web results in accordance with besides that web testing with the black box method is highly recommended because testing focuses on external functionalities and testing is carried out throughout the system. In addition, this study uses a portability test that obtains smooth web results used for the advantages of testing web systems with portability tests is to ensure the ability of the web system and can check the website can operate on all devices without any change in location / screen resolution. The advantage of this study is to design two features at once on one website, besides that this study uses two tests so that the results are maximized. Unlike previous research, only doing website design in which there is only one feature. Therefore, it can be concluded that the design of website purifiers is successful. The drawback of this study is that it uses a design that is too simple so that further research can be developed again about the appearance of UI / UX.

## 4. CONCLUSION

Website Purifiers for Motorcycle Washing and Sales of Motorcycle Washing Products provide convenience for customers in making transactions, both ordering washing services and purchasing Motorcycle washing products. The development of this website is carried out using Software Development Life Cycle (SDLC) with waterfall method. The results of trials using the black box method show that all menus on the website can perform as expected. Portability testing using various browsers shows that this website can run well and smoothly. For further development, it is recommended to improve the



appearance of the website to make it more attractive. The service facility can be expanded by adding a chat message feature, and in the context of payment for Pickup Order, it is recommended that it can be done via bank transfer. Thus, these improvements can improve the quality and comfort of using the Purifiers website.

## REFERENCES

- [1] M. Aziz, Y. Marcellino, I. Agnita Rizki, S. Anwar Ikhwanuddin, and J. Welman Simatupang, "STUDI ANALISIS PERKEMBANGAN TEKNOLOGI DAN DUKUNGAN PEMERINTAH INDONESIA TERKAIT MOBIL LISTRIK." 2020
- [2] Y. A. Usen and C. Hayat, "DESIGN AND BUILD VEHICLE PLATE DETECTION SYSTEM USING YOU ONLY LOOK ONCE METHOD BASED ON ANDROID," *Jurnal Teknik Informatika (Jutif)*, vol. 4, no. 4, pp. 807–818, Aug. 2023, doi: 10.52436/1.jutif.2023.4.4.791.
- [3] J. A. Bisnis, G. M. Rafsyanjani, A. Fauzi, A. Niaga, and P. N. Malang, "PENGEMBANGAN MEDIA PROMOSI BERBASIS WEBSITE DENGAN APLIKASI CMS WORDPRESS UNTUK MENARIK MINAT BELI KONSUMEN PADA UMKM ANEKA BATIK PAMEKASAN," 2022.
- [4] M. T. Febriyanto and D. Arisandi, "Debby Arisandi Halaman 61 dari 76 JMD," 2018. [Online]. Available: <http://ejournal.stiedewantara.ac.id/index.php/JMD/issue/view/32>
- [5] Y. Mahfud and C. Anwar, "STRATEGI GUERRILLA MARKETING AMAZONE LAUNDRY DALAM MENGAKUISISI PELANGGAN," *Journal of Economic, Business and Engineering (JEBE)*, vol. 3, no. 2, 2022.
- [6] A. Maghfirah and I. Saputra, "Rancang Bangun Website Coin Laundry Alhamdulillah Prototype Website Coin Laundry Alhamdulillah," 2022.
- [7] A. Soraya and A. D. Wahyudi, "RANCANG BANGUN APLIKASI PENJUALAN DIMSUM BERBASIS WEB (STUDI KASUS: KEDAI DIMSUM SORAYA)," *Jurnal Teknologi dan Sistem Informasi (JTSI)*, vol. 2, no. 4, pp. 43–48, 2021, [Online]. Available: <http://jim.teknokrat.ac.id/index.php/JTSI>
- [8] M. Al, K. Rizki, and A. F. Op, "RANCANG BANGUN APLIKASI E-CUTI PEGAWAI BERBASIS WEBSITE (STUDI KASUS: PENGADILAN TATA USAHA NEGARA)," *Jurnal Teknologi dan Sistem Informasi (JTSI)*, vol. 2, no. 3, pp. 1–13, 2021, [Online]. Available: <http://jim.teknokrat.ac.id/index.php/JTSI>
- [9] G. Gunadi, J. Informatika, S. Widuri, J. Palmerah Barat, K. Lama, and D. Jakarta, "Impelementasi Metode Rapid Application Development Pada Rancang Bangun Sistem Informasi Berbasis Web dengan Framework W3.CSS (Studi Kasus : POUK Lenteng Agung)," vol. 3, p. 2021.
- [10] Y. Firmansyah, R. Maulana, and M. S. Maulana, "Implementasi Metode SDLC Prototype Pada Sistem Informasi Indeks Kepuasan Masyarakat (IKM) Berbasis Website Studi Kasus Dinas Kependudukan Dan Catatan Sipil," *Jurnal Sistem dan Teknologi Informasi (Justin)*, vol. 9, no. 3, p. 315, Aug. 2021, doi: 10.26418/justin.v9i3.46964.
- [11] D. Rahayu, S. Fadillah Rezky, ] Prodi, M. Informatika, and G. Medan, "Perancangan Aplikasi Lowongan Kerja Berbasis Web dengan Menggunakan Metode Waterfall." 2017
- [12] A. Maharani Ibrahim and dan O. Frans Prasetyadi, "Analisis Kualitatif Penggunaan Antibiotik pada Pasien Rujukan dengan Metode Analisis Alur Gyssen di RSPAL Dr. Ramelan Surabaya," 2020.
- [13] H. Sastypratiwi, R. Dwi, "Analisis Data Artikel Sistem Pakar Menggunakan Metode Systematic Review" 2020
- [14] R. Widyastuti, W. Indrarti, and M. Novaliza, "RANCANG BANGUN SISTEM INFORMASI INVENTORY BONEKA BERBASIS WEB STUDI KASUS DI TOKO ISTANA BONEKA CIHAMPELAS BANDUNG," vol. 7, no. 2, 2020.
- [15] R. Hafsari, E. Aribe, and N. Maulana, "PERANCANGAN SISTEM INFORMASI MANAJEMEN INVENTORI DAN PENJUALAN PADA PERUSAHAAN PT. INHUTANI V," vol. 10, no. 2, 2023.
- [16] A. Agung, K. 1\*, and A. Hermawan, "Analisis dan Perancangan Sistem Manajemen Proyek Berbasis Web Rimbo Dua PTPN VI," *Jurnal Pengembangan Teknologi Informasi dan Komunikasi*, vol. 1, no. 2, pp. 44–51, 2023, doi: 10.52060/juptik.v1i2.1615.
- [17] S. Calista, A. Husaein, and F. Ilmu Komputer, "Perancangan Sistem Informasi Inventory Barang Berbasis Web pada Toko Laris Furniture Jambi," *Jurnal Manajemen Teknologi dan Sistem Informasi (JMS)*, vol. 3, no. 2, 2023, doi: 10.33998/jms.v3i1.
- [18] M. Ahmadar, P. Perwito, and C. Taufik, "PERANCANGAN SISTEM INFORMASI PENJUALAN BERBASIS WEB PADA RAHAYU PHOTO COPY DENGAN DATABASE MySQL," *Dharmakarya*, vol. 10, no. 4, p. 284, Dec. 2021, doi: 10.24198/dharmakarya.v10i4.35873.
- [19] F. Septa Kristara, G. Kanuraga, D. Yansah, and A. Saifudin, "Pengujian Kualitas Aplikasi Web E-Learning Universitas Pamulang Menggunakan Metode Black Box," vol. 6, no. 2, pp. 225–231, 2021, doi: 10.32493/informatika.v6i2.8635.
- [20] F. C. Ningrum, D. Suherman, S. Aryanti, H. A. Prasetya, and A. Saifudin, "Pengujian Black Box pada Aplikasi Sistem Seleksi Sales Terbaik Menggunakan Teknik Equivalence Partitions," vol. 4, no. 4, 2019, [Online]. Available: <http://openjournal.unpam.ac.id/index.php/informatika>
- [21] J. Shadiq, A. Safei, R. Wahyudin Ratu Loly, C. sitasi, L. Rwr, and P. Aplikasi Peminjaman Kendaraan Operasional Kantor Menggunakan BlackBox Testing, "INFORMATION MANAGEMENT FOR EDUCATORS AND PROFESSIONALS Pengujian Aplikasi Peminjaman Kendaraan Operasional Kantor Menggunakan BlackBox Testing," *Information Management for Educators and Professionals*, vol. 5, no. 2, pp. 97–110, 2021.
- [22] N. Rizky Aulia and A. Indrayanti, "PENGUJIAN APLIKASI MAHASISWA STMIK JAKARTA STI&K MENGGUNAKAN METODE BLACKBOX TESTING," *Seminar Nasional Teknologi Informasi dan Komunikasi STI&K (SeNTIK)*, vol. 5, no. 1, 2021, [Online]. Available: <https://mahasiswa.jakstik.ac.id/>