

Multimedia Web Profile Design as Information Media In Kitchen Phase 17

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ABSTRACT

This study was conducted at Kitchen Phase 17, a culinary business located in Deli Serdang Regency, North Sumatra Province. The aim of this research is to create a web profile for Kitchen Phase 17, incorporating multimedia elements such as a profile video, to improve the delivery of information. The research utilized the SDLC (Software Development Life Cycle) method, with data collection carried out through observation, interviews, and literature review. The design process of the multimedia web profile consisted of several stages: system planning, analysis, design, implementation, and maintenance. The goal is that this website will help Kitchen Phase 17 effectively present information about its profile, food and beverage menus, and allow visitors easy access to view the offerings. Furthermore, the website will resolve current challenges in promoting and communicating information, ultimately broadening the scope and efficiency of information dissemination.

Keywords: Kitchen Phase 17, SDLC Method, Multimedia Web Profile

INTRODUCTION

The rise of information technology and digitalization has transformed business operations. In the culinary industry, having a website is crucial as it serves as a promotional and informational platform that is accessible 24/7, thereby boosting business visibility. Social media also plays a significant role by capturing user behavior in real time, offering insights that go beyond traditional statistical data. Competition in the culinary sector is fierce, including for Kitchen Phase 17, a snack business that currently only utilizes Facebook and Instagram without an official website.

A website can help businesses appear more professional, improve accessibility, and present important details such as menus, prices, locations, and available services in a practical online format. Incorporating multimedia elements like images, videos, and audio enhances the visual appeal and overall user experience, ultimately attracting more customers. Given this, a study on "Multimedia Web Profile Design as Information Media in Kitchen Phase 17" was conducted.

LITERATURE REVIEW

This section covers key concepts relevant to the study of multimedia web profile design for the culinary industry.

1. **Design:** The design process aims to configure software and hardware to effectively accomplish tasks. System design focuses on creating or improving systems for greater efficiency. (Lasminiasih, P, S., Akbar, A., Andriansyah, M., & Utomo, 2016).
2. **System:** A system is an interconnected set of components designed to achieve a common goal, consisting of elements that work together as a unit. (Andrianof 2018)
3. **Information:** Information is processed data that becomes valuable for decision-making, eliminating uncertainty and conveying important announcements. (Tukino, T., & Amrizal, 2021)
4. **Information System:** Information systems involve data collection, processing, analysis, and

dissemination to produce useful knowledge, focusing on input, processing, output, storage, and control. (Sugiyanto, Gito, 2022)

5. **Internet:** The global network that connects users worldwide, supporting static, dynamic, and interactive information. It has evolved since the 1980s with advances in hardware and software. (Agus Eka Pratama, 2015).
6. **Website:** A website consists of interconnected pages accessible via the internet, serving various purposes such as communication, information sharing, entertainment, and transactions. (Elgamar, 2020)
7. **Web Components:**
 - a. **Web Profile:** A site used for promoting a business and displaying information about products/services.
 - b. **Web Server:** Software that receives page requests and sends back the content.
 - c. **Web Browser:** Software that allows users to access and display web pages. (Utomo, Wahyu Budi, 2015).
8. **Multimedia:** The use of multiple media forms (text, audio, images, video) to convey information. Types of multimedia include interactive, hyperactive, and linear formats. (Pratini, HS and Prihatini, 2020).
9. **Video:** A sequence of frames creating smooth motion, with various formats like AVI, MPEG, MP4, and FLV used for different purposes. (Azhar Arsyad, 2014)
10. **Culinary Industry:** Encompasses organizations involved in food and beverage production, distribution, retail, and services. (Kotler, P. and Keller, 2016)
11. **Programming Languages:**
 - a. **HTML:** Used to structure content on a web page. (Agus Saputro, I., Endro Suseno, J., & Edi Widodo, 2017)

Table 1 Types of Tags in HTML

Tags	Information
<!DOCTYPE >	Defines the type or kind of document
<body>	Define body or body document
<a> / 	for hyperlink / for bold text
<audio>	Defining sound content
<button>	Defines a button

Source: (Damar Yosa, 2016)

- b. **CSS:** Styles and manages the layout of web pages. (Pranata, D., Hamdani & Marisa K., 2015).
 - c. **PHP:** A scripting language for dynamic web content. (Agus Eka Pratama, 2015)
 - d. **JavaScript:** Enhances interactivity on web pages. (MD Amarta Sholehuddin & K. Auliasari, 2021).
 - e. **MySQL:** A relational database management system for managing data. (Purba, S., Lasmana, ID, & Redi, 2018).
12. **UML:** A modeling language used to visualize, design, and document software systems, particularly those based on object-oriented programming. (Nugroho, SS, Syamsudin, E., Hardianto, A., & Riawan, 2017).

13. Design Applications:

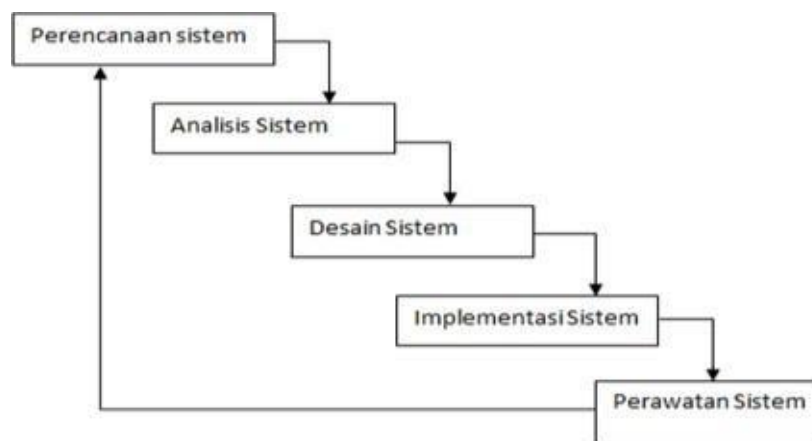
- XAMPP:** A complete web server application for building websites. (Novendri, MS, Saputra, A., & Firman, 2019)
- Visual Studio Code:** A code editor supporting various programming languages. (*phpMyAdmin development team Revision*)
- Adobe Premiere Pro:** A video editing program. (Kim, J., Nguyen, TTH, Jin, J., Septiana, I., Son, GM, Lee, GH, & Kim, 2019).
- Adobe Photoshop:** Software for image editing and manipulation. (Khaeruddin, 2015)

This review establishes a theoretical foundation for the design and development of a multimedia web profile, focusing on its application in the culinary industry.

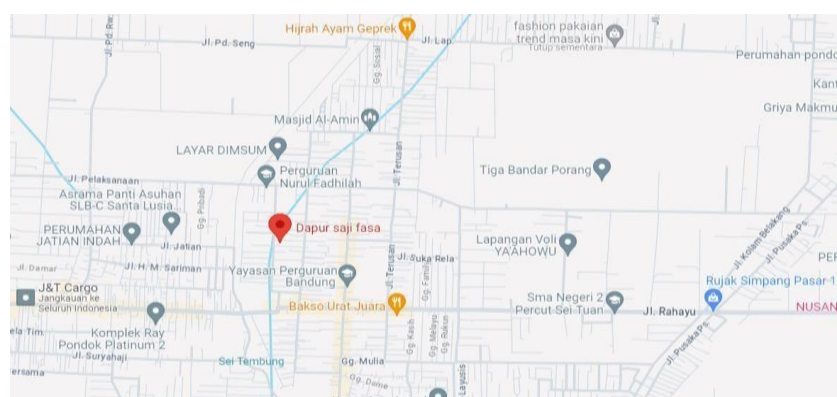
RESEARCH METHODS

The methods used in this research are as follow:

- SDLC Method:** The Software Development Life Cycle (SDLC) is a structured process used in software development, comprising four main stages: initiation, analysis, design, and implementation. Each stage serves a specific purpose and outcome. SDLC ensures the creation of high-quality systems that meet user needs and are easy to maintain. Common models like waterfall and prototyping are based on this framework.

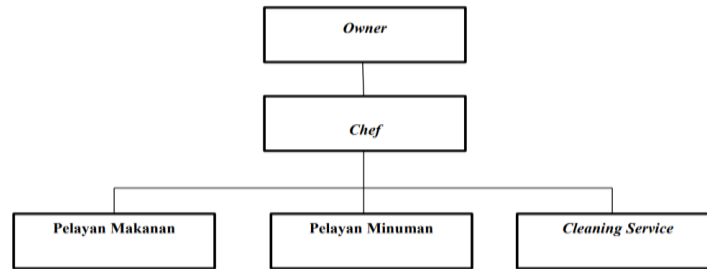


Source: Rudi, Hidayat, & Utomo, (2015)
Figure 1 System Development Life Cycle



Source: <https://www.google.com/maps>

Figure 2 Location Plan of Phase 17 Food Service Kitchen



Source: *Dapur Saji Phase 17 (2024)*

Figure 3 Organizational Structure of Kitchen Phase 17

The following are the duties of each section in the organizational structure of Dapur Saji Phase 17:

1. **Owner:** Planning business, managing finances, marketing strategies, sales target and managing teams, recruitment, training and performance evaluation.
 2. **Chef:** Creating recipes, determining the measurements of ingredients, cooking and serving delicious and attractive dishes.
 3. **Food Server:** Welcomes customers, explains the menu, takes orders and ensures customer Satisfaction.
 4. **Beverage Waiter:** Serves customers, explains the drink menu, takes orders and ensures customer satisfaction.
 5. **Cleaning Services:** Maintain cleanliness and ensure the environment remains tidy.
2. **Black Box Testing:** Black box testing focuses on evaluating a system's functionality without examining its internal code or structure. This method emphasizes testing the system's behavior from the user's perspective, ensuring it meets specifications through input validation, performance checks, and functional testing.
3. **Data Collection Methods:**
- a. **Observation:** Relevant information was gathered by observing the operations at Kitchen Phase 17 and the production stages of the web multimedia profile.



Figure 4 Front and Interior View of Phase 17 Serving Kitchen

- b. **Interviews:** Direct interviews with the owner provided valuable insights. Key questions included how information is communicated, the necessity of a multimedia web profile, and desired features for the website, such as menu management and image galleries.

Table 2 List of Questions During Interview

No	Question	Answers (Agreements, Requests and Suggestions)
1.	How do you provide information about Dapur Saji Phase 17?	Through visual communication media and social media.

No	Question	Answers (Agreements, Requests and Suggestions)
2.	Does Dapur Saji Phase 17 already have a <i>web</i> multimedia profile?	Not yet.
3.	Whether web profile needed for promotion?	It is very necessary to manage a restaurant.
4.	What features will be designed in web profile?	Menu management, image gallery and price descriptions.
5.	Hope after it was made web multimedia profile?	Provide detailed information to visitors.

- c. **Literature Study:** Relevant information was gathered through the review of reliable sources and literature.

4. Analysis and Design Methods:

- a. **Analysis:** System requirements were analyzed using object-oriented analysis and UML tools, focusing on the system's attributes and functions. Data was gathered via interviews, observations, and literature review.
- b. **Design:** The design phase involved translating system requirements into a website structure, including layout and database design. Tools like flowcharts and UML diagrams (e.g., use case, activity, class diagrams) were used.
- c. **Coding:** The design was then implemented into programming languages such as HTML, PHP, CSS, and MySQL to create a dynamic website.
- d. **Testing:** The black box testing method was applied to identify errors and ensure the website met its specifications.
- e. **Maintenance:** Ongoing updates and maintenance are planned to ensure the website remains current and free of errors.

5. **Research Stages:** The research was conducted through various stages, from data collection to website design, coding, and testing, as shown in a visual representation of the process.

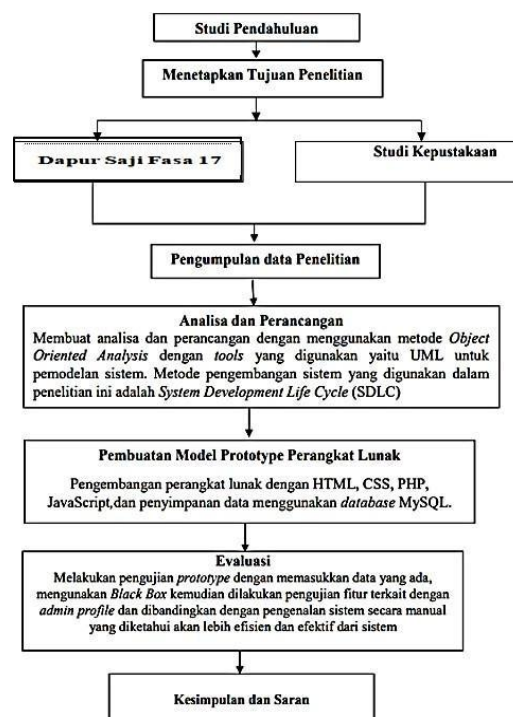


Figure 5 Research Stage

RESULTS AND DISCUSSION

1. System Analysis:

- a. **Current Process:** The existing system at Kitchen Phase 17 is not efficient in providing information to customers due to limited communication. Visitors must ask for the menu and pricing directly, which hinders information flow.

Researchers use *flow chart* to analyze this system, as shown in Figure 6.

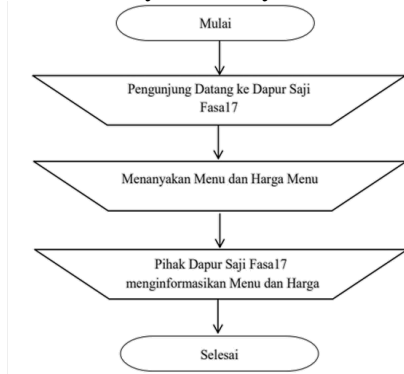


Figure 6 The System is Running in the Kitchen of Saji Phase 17

- b. **Proposed System:** A web-based system is suggested to improve information delivery. It would include a web profile, menu, prices, contact information, and short videos. Customers could order without queuing, view menus and prices, and interact via a contact feature. Admins can manage content by logging in to add, edit, or delete data. This system is designed to enhance customer satisfaction and streamline operations.

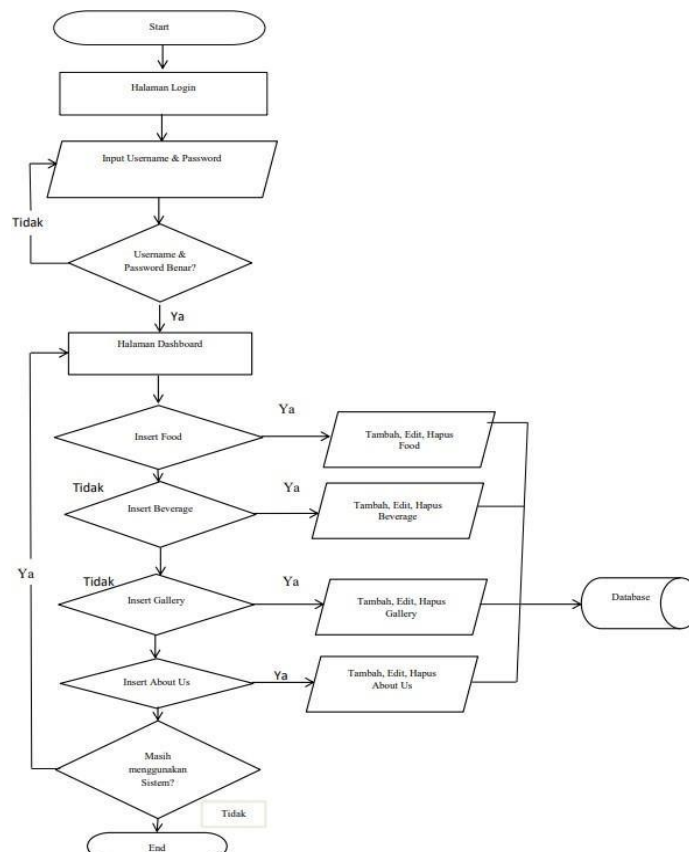


Figure 7 Flowchart of Admin Proposed System

2. System Design:

- a. **Use Case Diagram:** The system involves two actors: Admin and Visitors. Admin manages the website's content, while visitors browse the menu, categories, videos, and basket.

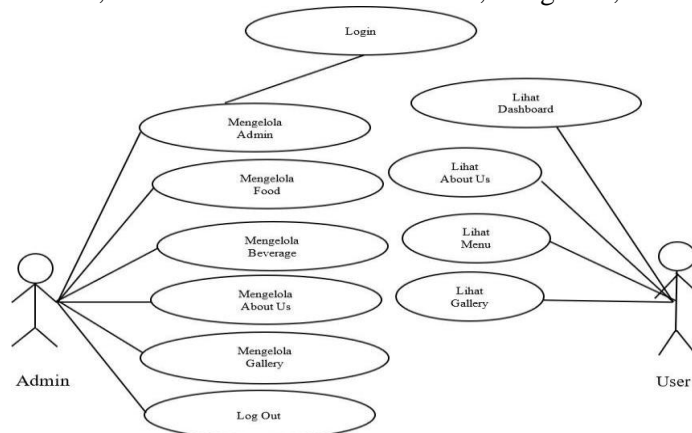


Figure 8 Use Case Diagram of Dapur Saji Fasa17 Web Profile

- b. **Activity Diagram:** This diagram illustrates the flow of activities within the system, showcasing decisions and process completion.

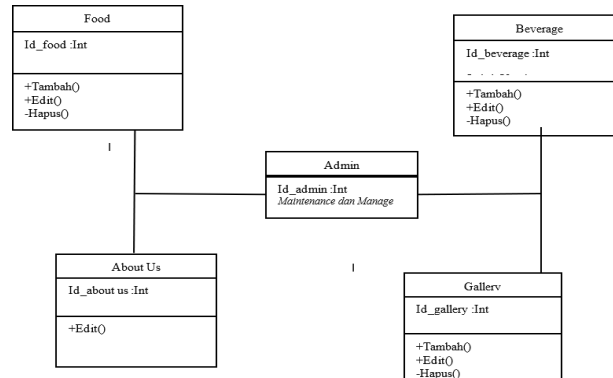


Figure 9 Class Diagram of Dapur Saji Phase17

- c. **Site Map:** A site map outlines the system's menu to make it easier for users to navigate the website.

3. Database Design:

- a. The website's database uses MySQL and includes several tables such as *users*, *food*, *drinks*, *about_us*, and *gallery*. These tables manage data for visitors, food, drink menus, company details, and media galleries.

4. Interface Design:

- a. **Admin Pages:** The admin interface includes a login page, a dashboard displaying system data (menus, drinks, gallery), and options for adding and editing content.
- b. **Visitor Pages:** Visitor pages include a home page, an "About Us" page with a profile and video, a menu page showing food and drinks, a contact page for customer feedback, and a gallery page with photos of the establishment.

5. System Testing:

- a. **Black Box Testing:** This method tests system functionality by focusing on inputs and outputs without reviewing the internal code. Key areas tested include admin login and content input for food and drinks menus.
- b. **Admin Login Testing:** Ensures that users can log in with the correct credentials and access the admin dashboard, with test results confirming that all functionalities work as expected.

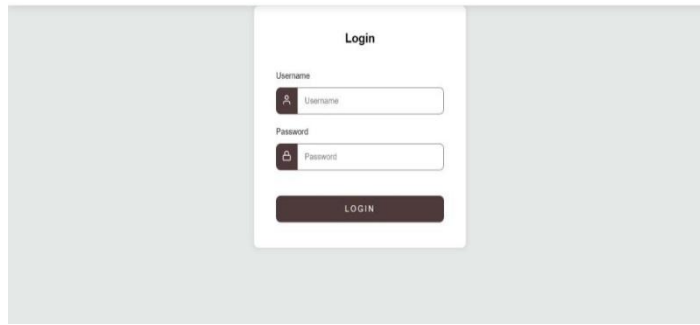


Figure 10 Admin login system implementation page

6. System Implementation:

- a. **Admin Pages:** Admin functionality includes logging in, viewing and managing the dashboard, and adding or editing food and drink menus.

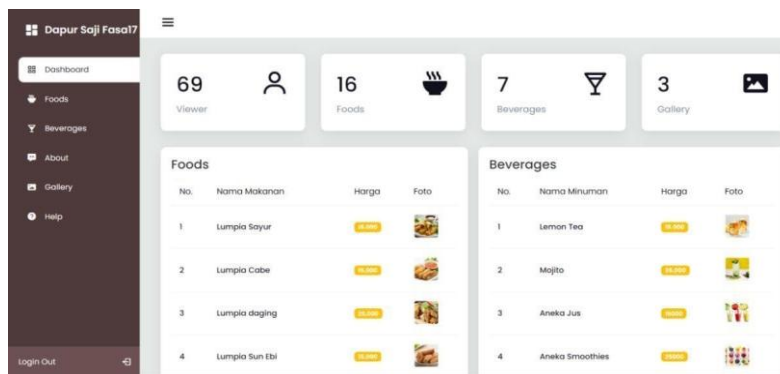


Figure 11 Implementation of the admin dashboard page system

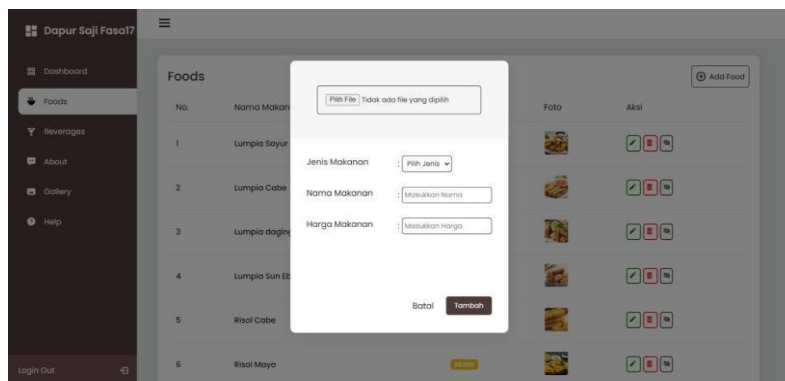


Figure 12 Implementation of the food menu add page system

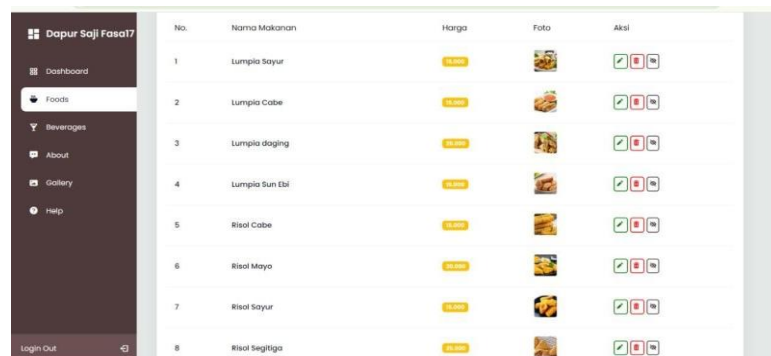


Figure 13 Implementation of the food menu page system

- b. **Visitor Pages:** Visitors can view the homepage, check the "About Us" section with video content, browse menus, leave comments, and view the gallery.

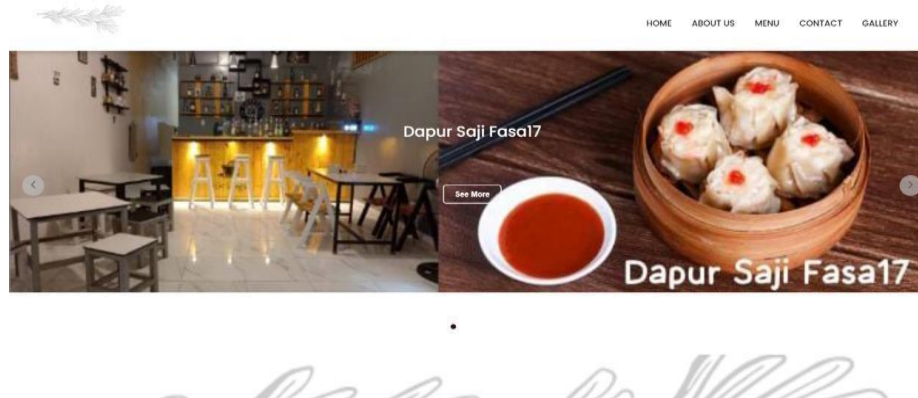


Figure 14 Implementation of the home page

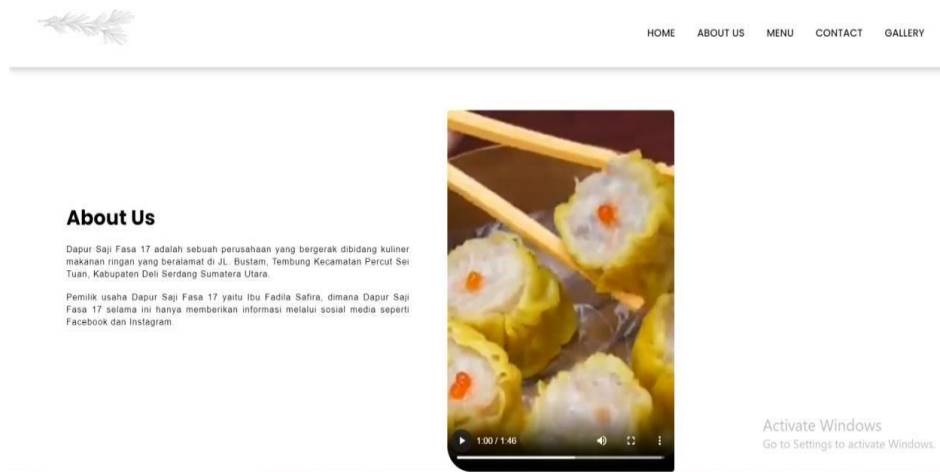


Figure 15 Implementation of the about us page

This analysis and design outline showcases a more efficient and user-friendly system to manage and communicate information for Kitchen Phase 17, improving both customer and admin experiences.

CONCLUSION

Kitchen Phase 17 web profile successfully introduced its profile, food and beverage menu, and made it easy for visitors to access information. This website also increases the effectiveness of promotion and information dissemination. Suggestion Add payment method features, because currently only cash payments are available. And Add a booking feature, because currently this web only works as a simple profile.

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