



IMPLEMENTATION OF NADIS FOOD AND CATERING WEBSITE USING WATERFALL METHOD

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Abstract

Based on research conducted, 86% of people find it difficult to find information about catering, food, suitable prices and so on. So in this case it is necessary to integrate information technology in marketing. In marketing, the use of websites as promotional media is very effective where websites can function as information media. The aim of creating this website is expected to help the owner's performance in the marketing and ordering process. In this research, a system was created using the Waterfall method in building an ordering website for Nadis Food and Catering. The Nadis Food and Catering website functions as a medium for information and catering orders. Where when customers order catering they will be directed to the Nadis Food and Catering admin WhatsApp, this is done in order to establish good communication between customers and Nadis Food and Catering. It is recommended to carry out maintenance in order to increase functional requirements so that the information needed by administrators and users can be met.



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1. INTRODUCTION

Online business is the impact of the development of information and communication technology which is increasingly becoming a demand in the business world. Likewise in Indonesia, with the development of various information and communication technologies as seen from the popularity of affordable internet connections from various telecommunications service providers as well as the increasingly affordable prices of telephones and tablet PCs, the internet is no longer a strange thing for most people [1].

The food industry is one of the most popular businesses in Indonesia because of its high profits, besides that food is also a basic need of every human being, one of the fastest growing food businesses, the most numerous in Indonesia is catering [2]. Catering is a business that provides services to provide and serve requests for food which includes wedding catering, industrial catering, transportation catering, outside and inside catering services, hospital catering [3].

Based on research conducted by Refly Ilham Saybana, 86% of people find it difficult to find information about catering, food, suitable prices and others. Where the information is obtained from the closest people. So in this case the integration of information technology is needed in terms of marketing, in marketing the use of websites as a promotional medium is very effective where the website can function as an information medium [4].

Building a website in a business as a support for activities in operations in this digital era is highly recommended because of the many benefits obtained such as allowing efforts to provide practical services to consumers, as a medium or means of providing information, and can also be a means of selling for the progress and increase in turnover of a business[5][6]–[9].

Nadis Food and Catering is a business engaged in the culinary field. Nadis Food and Catering was established on June 1, 2011 in Denpasar, which was founded by Mrs. Ni Made Seni, located at Jln Danau Tondano Gg. IV no. 24 Sanur, South Denpasar. From the beginning of its establishment until now the

process of providing information and ordering is still manual, where consumers must come directly to the catering place to order and get the desired information.

At the time of the interview, the owner expects a website that can provide information and help every process in ordering catering, this is the background for designing an ordering information system that aims to help ordering, marketing, and providing information that suits the needs of the Nadis Food and Catering business. In realizing a technological development process that was originally manual and not computerized to be computerized based to improve performance.

The creation of this website is expected to help the owner's performance in the marketing and ordering process. In this study, the system uses the Waterfall method in building a booking website for Nadis Food and Catering.

II. LITERATURE

2.1 Catering

Catering is a business venture that offers food and services. Home catering competitions are usually held by individuals, and sometimes emerge as rivals with greater advantages than licensed caterers because home caterers are not charged the same fees, have cheaper costs, and can set lower rates[1], [5].

2.2. Website

A website can be likened to a house, shop, or office. A house or office must have a fixed address, a physical building, and its contents in the form of rooms, equipment, and furniture so that people can move in it [10]. This is also the case with websites. A website needs a domain name as its address, web hosting as its physical building, and web design and applications as its content [11][12].

2.3. Waterfall Method

The waterfall model is the most widely used model for the development stage. The waterfall model is also known as the traditional model or the classic model. The waterfall model is often called the linear sequential model or the classic life cycle". This waterfall model provides a sequentially ordered software lifecycle approach starting from analysis, design, coding, testing and support stages [13], [14].

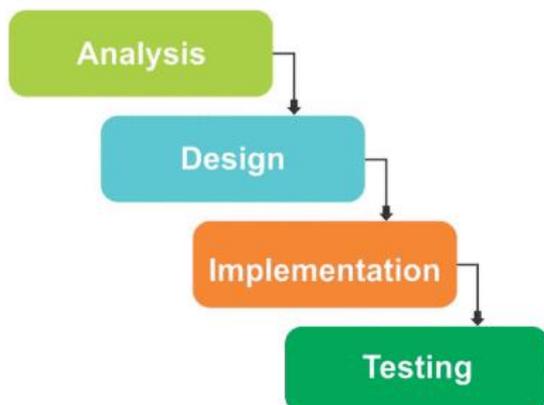


Figure 1. waterfall Method

III. RESEARCH METHODS

The process in this research uses the SDLC method, namely the Software Development Life Cycle with the Waterfall method. SDLC is a systematic and sequential approach, the stages of the SDLC method are as follows:

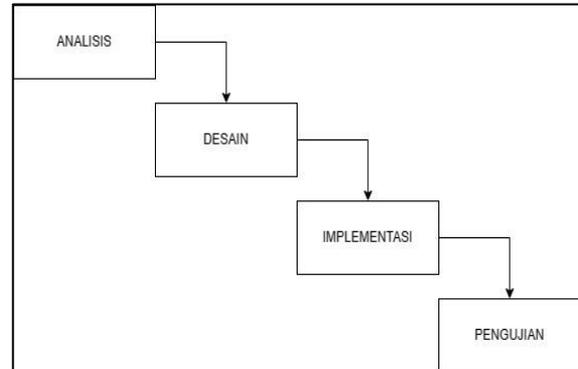


Figure 2. Waterfall Model [14]

1. Requirement (analysis)
Analysis is done to determine what is needed to design a website. The analysis stage is to collect data related to website needs where the data is obtained from interviews and direct observations.
2. Design
Design is a modelling stage used to describe the overall website that will be created, such as flowcharts, data diagrams.
3. Implementation
The design results will be implemented into a website using software for website creation.
4. Testing
Approval stage, at this stage the software that has been tested in general. The purpose of this test is that the resulting software meets the requirements.

IV. RESULTS

4.1 Research Results

In the results of this study provide an explanation of the results of the research that has been done. These results will be explained in detail and clearly in accordance with the research flow of the waterfall method which begins with analysis, design, implementation and testing. The following is an explanation of the results of the research that has been done.

1. Analysis
At this analysis stage, it explains the needs of the Nadis Food and Catering website in the form of, system description, functional requirements, non-functional requirements.
 - a. System description
On this Nadis Food and Catering website, information about catering products such as easy navigation, menus and services, ordering, gallery (product photos), contact

information and customer reviews are displayed.

b. Website Functional Requirements

Functional requirements are processes that can be carried out on the website. The functional needs of the Nadis Food and Catering Website are Home, Menus and Services, Ordering, Gallery (Product Photos), About us, and articles.

c. Non-functional Website Needs

Non-functional needs are things that help run a website. The non-functional needs of the Nadis Food and Catering Website are as follows:

1) Performance

Fast page load time to improve user experience. As well as the ability to handle a high number of users at peak times.

2) Security

Use of HTTPS security protocol to protect customer data. And Protection against cyber attacks by implementing firewalls and intrusion detection systems.

3) Accessible from Various Devices

Responsive design to ensure optimal viewing on various devices, including desktops, tablets, and mobile phones.

d. Testing Scenarios

Black box testing is run to verify that the website features work correctly. In this study, researchers chose the Boundary Value Analysis stage in conducting black box testing to test the upper limit value and lower limit value. Nadis Food and Catering website display.

2. Design

At this design stage, it discusses the description of the Nadis Food and Catering website design such as flow charts, use cases and interface design.

a. Flow Chart

Flow Chart is an overview of the website flow of Nadis Food and Catering. Flow Chart Nadis Food and Catering can be seen in Figure 3.

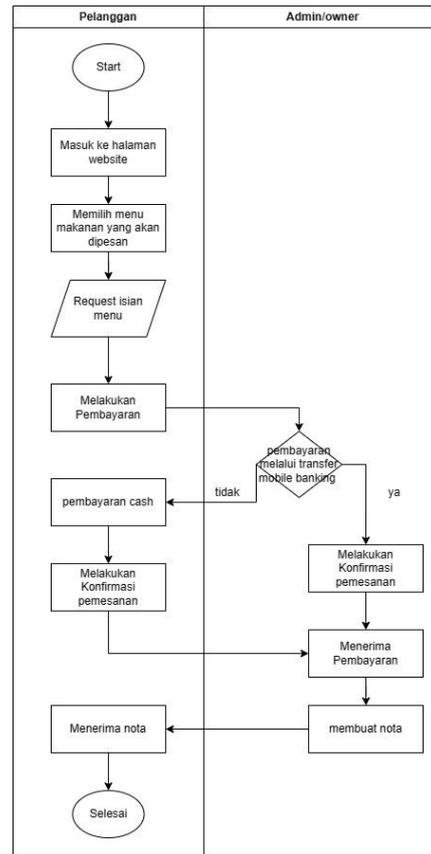


Figure 3. Flowchart Nadis Food and Catering

b. Use case

Use case diagram is a scenario description of the interaction between the user and the system. A Use case diagram describes the relationship between the actor (user) and the activities he can perform against the application. The following is a Use case diagram that shows the role of the actor in his interaction with the system.

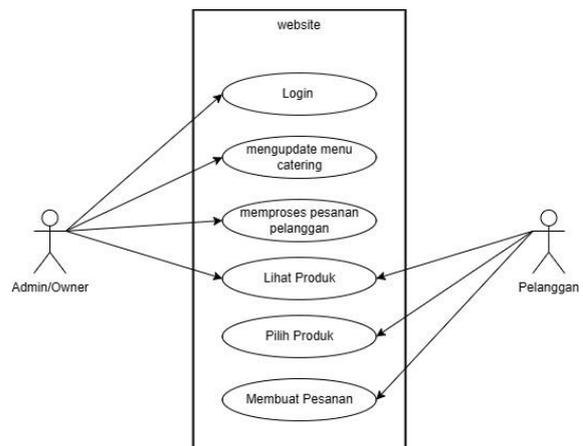


Figure 4. Use Case Nadis Food and Catering

In the use case diagram there are 2 entity, namely admin and customer, the following is an explanation of the use case diagram.

1. Customers can see products, choose the product they want, make orders.
2. Admin / Owner can login to the admin dashboard, update the catering menu, process customer orders.

c. Customer Order Sequence Diagram

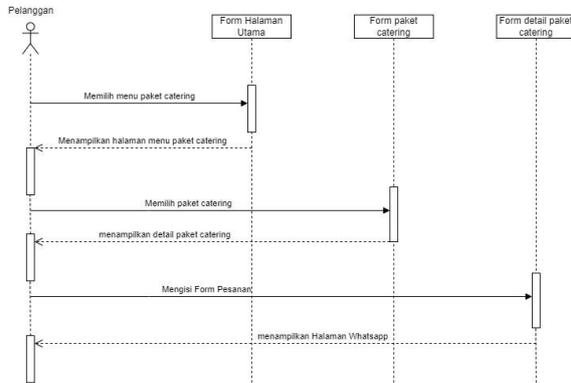


Figure 5. Catering Order Sequence Diagram

Illustrates the ordering process carried out by customers by selecting the desired package order on the main page form, consumers will be directed to the catering package page and then the customer chooses the desired catering package. Fill in the order data in the form of the price of the selected package then the details of the catering package will display the whatsapp page.

d. Interface Design

1) Home Page

On the home page, contains brief information and navigation menu menus. The Home page interface design can be seen in Figure 6.

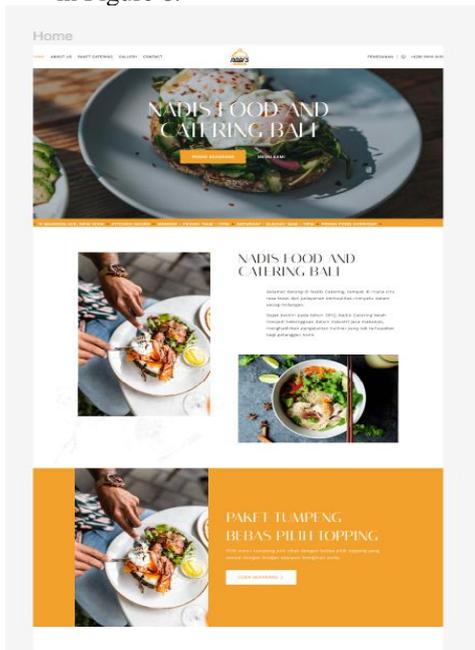


Figure 6. Home Page Interface Design

2) About us page

On the About us page contains a brief history of Nadis Food and Catering and also the vision and mission of Nadis Food and Catering. The interface design of the About Us page can be seen in Figure 7.

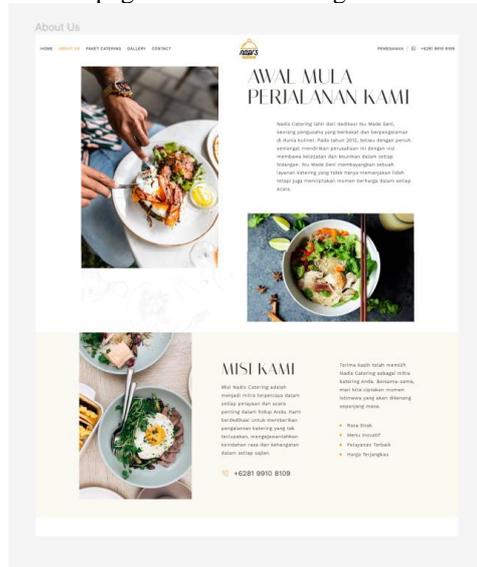


Figure 7. Interface Design About Us Page

3) Catering Package Page

On the catering package page, contains a menu of mock-up options that can be ordered such as cone rice, buffet, wrapped rice and boxed rice. The interface design of the catering package page can be seen in Figure 8.

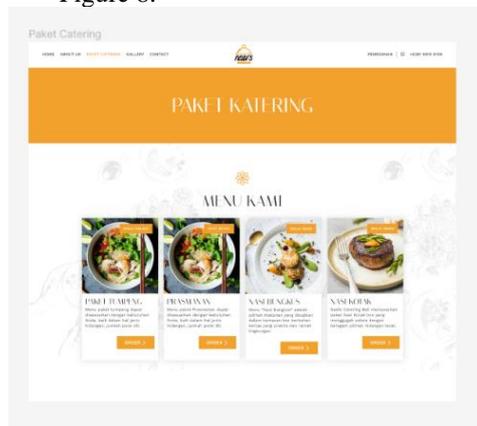


Figure 8. Interface Design Catering Package Page

4) Contact Page

The Contact page contains Address, cellphone number, google maps, and message form. The interface design of the contact page can be seen in Figure 9.

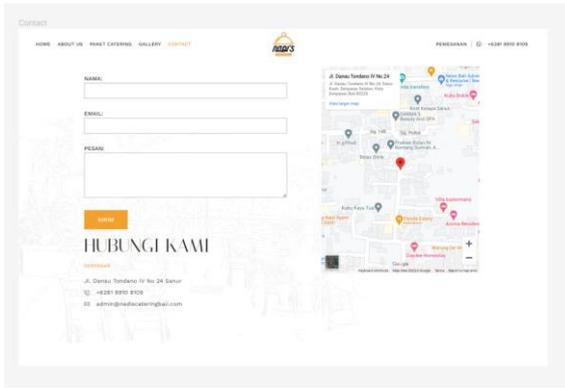


Figure 9. Contact Page Interface Design

5) Nasi Tumpeng Page

The tumpeng rice page contains a description of tumpeng rice and a tumpeng rice order form. The interface design of the tumpeng rice page can be seen in Figure 10.

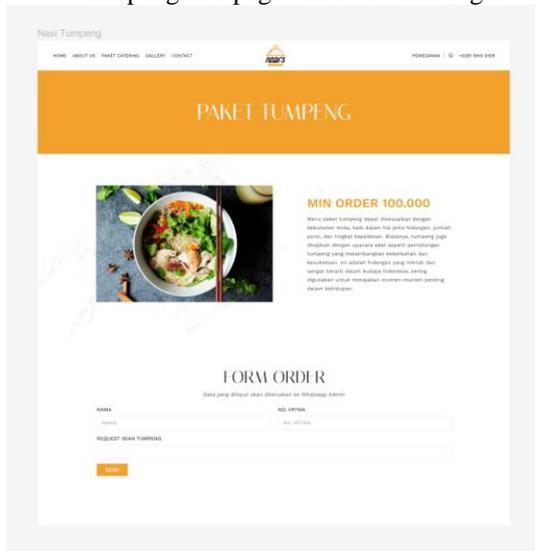


Figure 10. Page Interface Design Nasi Tumpeng Page

6) Buffet Page

The Buffet page contains a buffet description and buffet order form. The interface design of the buffet page can be seen in Figure 11.

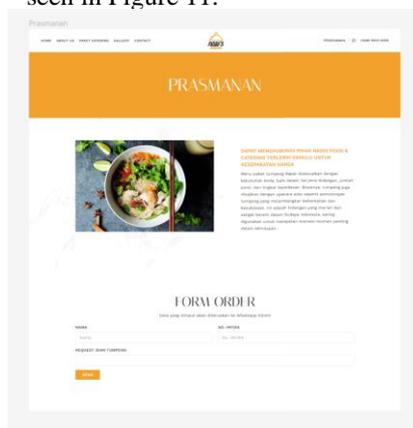


Figure 11. Interface Design Buffet Page

7) Packed Rice Page

The Nasi Bungkus page contains descriptions, menu details and order forms. The interface design of the packaged rice page can be seen in Figure 12.

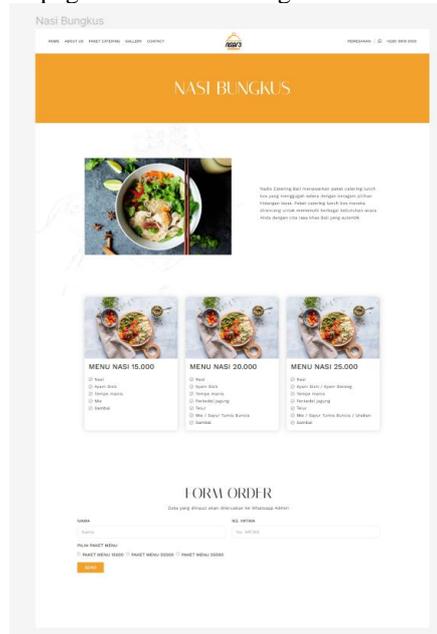


Figure 12. Page Interface Design Wrapped Rice Page

8) Nasi Kotak Page

The Nasi Kotak page contains a description, menu details and order form. The interface design of the boxed rice page can be seen in Figure 13.

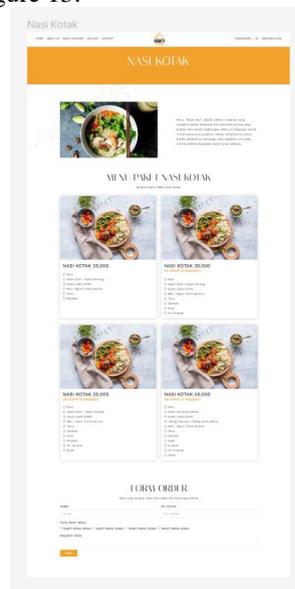


Figure 13. Interface Design Nasi Kotak Page

3. Implementation

a. Home Page

On the home page there are several menus, namely, catering packages, contact, about us and gallery. On this Home page customers can

select a menu and get information about Nadis Food and Catering. The appearance of the home page can be seen in Figure 14 and Figure 15.

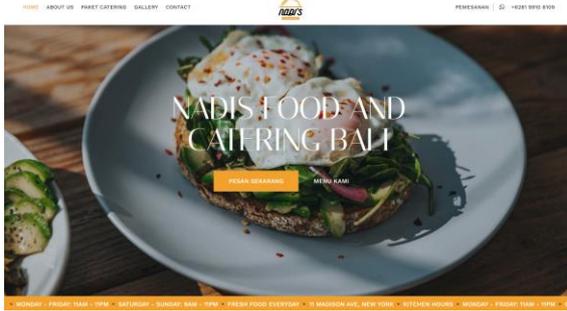


Figure 14. Home Page



Figure 15. Home Page

b. About Us Page

On the about us page there is a brief explanation of Nadis Food and Catering. On this page customers can get information about Nadis Food and Catering in detail. The display of the about us page can be seen in Figure 16

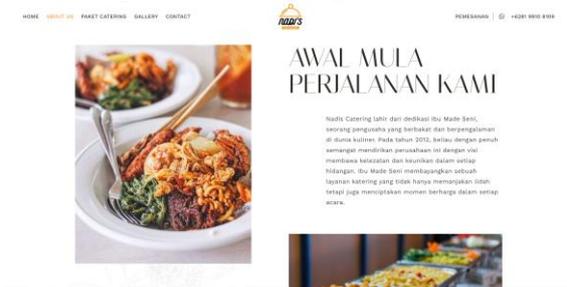


Figure 16 About Us Page

c. Catering Package Page

On the catering package page there are several menus, namely the selection of food packages in the form of boxed rice, wrapped rice, buffet and tumpeng rice. On this page customers can choose the food product they want to order then the customer will be directed to the details of the food product. The display of the catering package page can be seen in Figure 17.

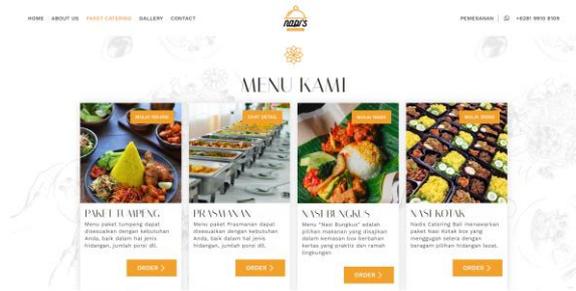


Figure 17. Catering Package Page

d. Gallery Page

On the Gallery page there are photos of Nadis Food and Catering, on this page customers can see photos of Nadis Food and Catering in the form of product photos. The display of the Gallery page can be seen in Figure 18.



Figure 18. Gallery Page

e. Contact Page

On the Contact Page there is some information, namely, cellphone numbers, addresses and also google maps from Nadis Food and Catering. On this page customers can get contact information and company locations from Nadis Food and Catering. The display of the Contact page can be seen in Figure 19.

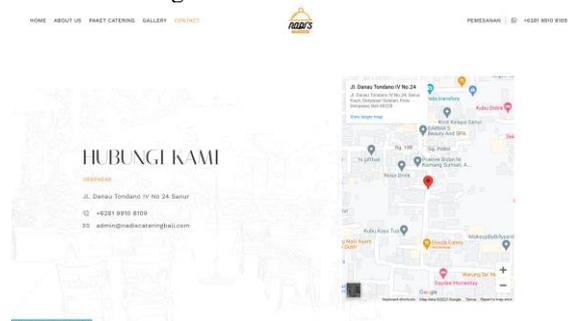


Figure 19. Contact Page

f. Packed Rice Ordering Page

On the Packed Rice Order page, displays several choices of packaged rice menus and prices. On this page customers can see the choice of packaged rice packages that are available and if the customer wants to order packaged rice according to their wishes. Customers can fill out the form that has been provided on this page. The display of the packaged rice ordering page can be seen in Figure 20 and Figure 21.

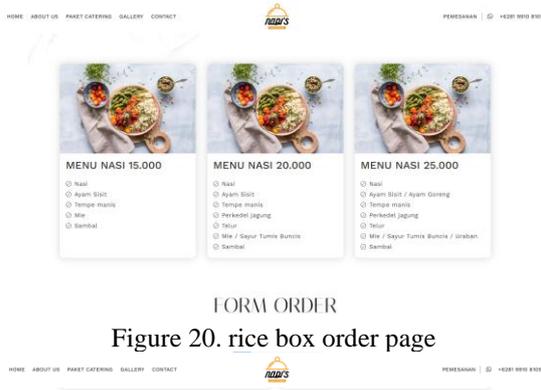


Figure 20. rice box order page

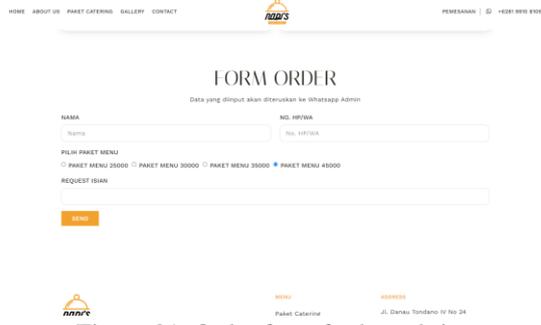


Figure 21. Order form for boxed rice

g. Buffet Ordering Page

On the Buffet Order page, displays an order form that can be used for ordering buffets and customers can also request a menu from the buffet ordered on this page. The appearance of the Buffet booking page can be seen below

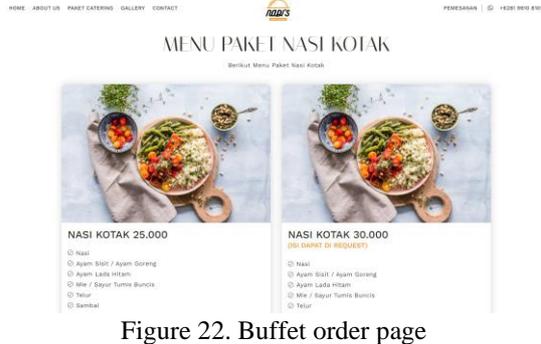


Figure 22. Buffet order page

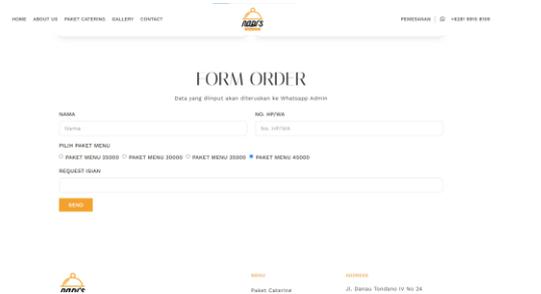


Figure 23. Buffet order form

h. Nasi Tumpeng Ordering Page

On the Nasi Tumpeng Order page, displays an order form that can be used for ordering Nasi Tumpeng and customers can also request a menu of tumpeng rice ordered on this page. The

appearance of the Buffet ordering page can be seen in the picture below



Figure 24. tumpeng rice order page

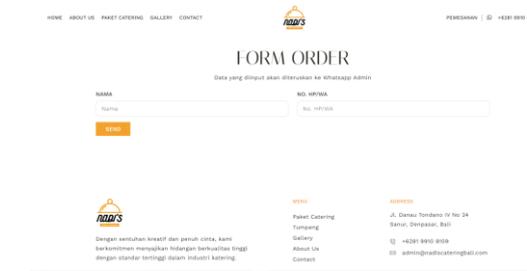


Figure 25. Order form for tumpeng rice

4.2 System Testing Results

This process tests each function of the website using the Blackbox testing method. Because to ensure every function of the website runs as it should. Based on the test results, all features, namely the home page, catering package page, tumpeng rice page, buffet page, wrapped rice page, and boxed rice page, function properly.

V. CUNCLUSION

Based on the results of the discussion of the website implementation at Nadis Food and Catering, the website implementation at Nadis Food and Catering carried out in this study uses the water fall method, starting from the stages of problem identification, data collection, website requirements analysis, system design and system testing and implementation. The Nadis Food and Catering website functions as a medium of information and ordering caring. Where when customers order catering will be directed to the WhatsApp admin of Nadis Food and Catering, this is done because in order to establish good communication between customers and Nadis Food and Catering.

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