DESIGNING A WEB-BASED RESTAURANT RESERVATION INFORMATION SYSTEM WITH REQUIREMENT PROTOTYPING METHOD

Raymond Sutjiadi[1*]; Titasari Rahmawati[2]; Ariel Kristianto[3]; Frederick Theo Kanessa[4]

Information Technology[1, 4], Information Systems[2], Informatics Management[3]
Insitut Informatika Indonesia, Surabaya, Indonesia[1, 2, 3, 4]
https://ikado.ac.id[1, 2, 3, 4]
raymond@ikado.ac.id[1*], tita@ikado.ac.id[2], ariel@ikado.ac.id[3], fredericktheokanessa@gmail.com[4]
(*) Corresponding Author

Abstract—*The development of information technology is proliferating, along with the increasing human need for fast, precise, and accurate information. The role of information technology in supporting the business world will make it easier for business people to run their business. One of the business fields that can implement information technology is restaurants. Restaurant management is gradually changing from using conventional methods with manual recording to being more systematic through digital devices. With digital devices, restaurant managers can more efficiently record table reservations and food menu orders. On the consumer side, it is also easier because they can make reservations and food menus from anywhere via a computer or smartphone device connected to the internet. In this research, a web-based application will be created that is used as a means to record table reservations and order food menus with the case studies at Wisata Kampung Kemiri Jember. The design and creation of the website at Wisata Kampung Kemiri Jember uses the requirement prototyping software development method. For the testing process, the Black Box Testing method is used to test all features on the website that have been running according to their functions. To test the user experience, the User Acceptance Testing (UAT) method was used by distributing questionnaires. Through the implementation of this website-based table reservation and food ordering system, it is hoped that work efficiency can be improved to optimize customer satisfaction.*

Keywords: *Blackbox Testing, Reservation, Restaurant, Requirement Prototyping, User Acceptance Testing.*

Intisari—*Perkembangan teknologi informasi semakin pesat, seiring dengan meningkatnya kebutuhan manusia akan informasi yang cepat, tepat, dan akurat. Peran teknologi informasi dalam mendukung dunia usaha akan semakin memudahkan para pelaku bisnis dalam menjalankan usahanya. Salah satu bidang usaha yang dapat menerapkan teknologi informasi adalah restoran. Manajemen restoran secara bertahap berubah dari menggunakan cara konvensional dengan pencatatan manual menjadi lebih sistematis melalui perangkat digital. Dengan perangkat digital, pengelola restoran dapat mencatat reservasi meja dan pemesanan menu makanan dengan lebih efisien. Di sisi konsumen juga semakin dimudahkan karena dapat melakukan reservasi dan pemesanan menu makanan dari mana saja melalui perangkat komputer atau smartphone yang terhubung dengan internet. Pada penelitian ini akan dibuat sebuah aplikasi berbasis web yang digunakan sebagai sarana untuk mencatat reservasi meja dan pemesanan menu makanan dengan studi kasus di Wisata Kampung Kemiri Jember. Perancangan dan pembuatan website di Wisata Kampung Kemiri Jember ini menggunakan metode pengembangan perangkat lunak requirement prototyping. Untuk proses pengujian digunakan metode Black Box Testing untuk menguji seluruh fitur pada website yang telah berjalan sesuai fungsinya. Untuk menguji pengalaman pengguna, digunakan metode User Acceptance Testing (UAT) dengan menyebarkan kuesioner. Lewat penerapan sistem reservasi meja dan pemesanan menu makanan berbasis website ini diharapkan dapat meningkatkan efisiensi kerja untuk mengoptimalkan kepuasan konsumen.*

Kata Kunci: *Backbox Testing, Reservasi, Restoran, Requirement Prototyping, User Acceptance Testing.*

INTRODUCTION

Internet-based digital communication tools are currently increasing. This cannot be separated from several supporting factors, including the increasingly affordable price of digital

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**

communication devices, such as smartphones, tablets and laptops. In addition, internet users are currently also experiencing a relatively rapid increase. Based on data from the Indonesian Internet Service Providers Association, by 2024, the number of internet users in Indonesia will reach more than 221 million people; in other words, more than 79.5 per cent of the population has used the internet (APJII, 2024).

The use of information technology in the business world also brings more or less changes in the company's business strategy. Computerised methods make recording data and information more systematised and accessible for further processing. This disruption will change the company's marketing strategy from conventional to digital through information technology and Internet media (Khairunnisa, 2022). With the application of digital marketing, business actors can develop a broader market and add value to increase customer satisfaction, which also impacts increasing company turnover (Saputra et al., 2023).

One of the business fields that can utilise information technology is restaurants. In the past, restaurant business actors still used manual records to run their business, such as recording customer orders, reservations, and financial transactions. This manual recording certainly has risks such as data loss, recording errors due to human error, and slow processing of the data. Currently, by utilising information technology infrastructure, data is recorded centrally through a database, where the data can be recalled quickly, system validation to minimise recording errors, and processed more rapidly into reports, which is helpful for further business analysis. Business analysis with computerised data can increase the company's productivity (Ahmad et al., 2022).

Research conducted by Handayani et al. created a web-based food ordering information system using the Waterfall software development method (Handayani et al., 2020). The information system records customer food orders to reduce queues when ordering food. In addition, this website application will make it easier for restaurant business owners to serve customers. This study has no integrated system for reserving places and is limited to handling food menu orders.

Nurda et al. also researched developing web-based information systems using the Scrum software development method (Nurda & Petrus Sianggian Purba, 2022). This web application was created to record food menu orders while providing features to record customer table reservations. Thus, the information system can record table occupancy while recording customer menu orders at each table, making restaurant employee performance more effective and efficient. However,

this application does not provide a menu to view details and update customer order status.

Putra also researched designing a web-based reservation information system using the Waterfall software development method (Rivaldo Pradana Putra, 2023). This information system has a reservation feature at the cafe that lists the days and hours of visit. In addition, the information system can also handle ordering food and beverage menus. However, this application does not explicitly cover table reservations according to the total number of visitors. In addition, this information system also does not handle the recapitulation of restaurant sales transactions.

Wisata Kampung Kemiri is a tourist attraction and restaurant that serves Indonesian and Chinese food. This restaurant was established in August 2022 and is located on Jalan Teropong Bintang, Kemiri Panti, Jember Regency. The process of reserving a place and ordering food at Wisata Kampung Kemiri is still done manually via telephone media. This affects the efficiency of work in the restaurant because the owner has difficulty when there are many visitors and cannot find information on table availability and food menu stock quickly. In many cases, the restaurant failed to process the table and food reservations, which can degrade customer satisfaction. In addition, the owner often finds it challenging to recapitulate sales transactions. Every day, the owner should recap the sales transactions manually, which consumes time and requires thoroughness to avoid mistakes.

Therefore, this research will design a web-based information system to handle table reservations on certain days and hours as customers desire. In addition, customers can also order food at the same time so that the restaurant can prepare it before the arrival of customers, which can also speed up restaurant services. Through this information system, restaurant owners can also monitor sales transactions' value and food menu stocks within a certain period through the report feature. This web-based information system is expected to streamline reserving and ordering food, reduce errors in recording reservations and ordering food, find out the availability of tables and food menus more efficiently, and recap sales transactions more quickly.

The development of software applications using the Requirement Prototyping method involves the owner, admin, and restaurant customers in designing the website. Thus, this information system is expected to accommodate easily user needs to increase restaurant productivity. Through the implementation of this website-based table reservation and food ordering system, it is hoped that work efficiency can be improved to optimize customer satisfaction.

MATERIALS AND METHODS

Requirement Prototyping Software Engineering Method

The requirement Prototyping method is an approach in software development that emphasises the creation of early prototypes to collect and validate user requirements. This process involves iterations, where user feedback is used to improve and refine the system being developed with the flow, as shown in Figure 1. Requirement Prototyping allows developers and users to collaborate more effectively to produce a system more aligned with user needs and expectations (Pressman & Maxim, 2020).

Prototyping can be divided into two main types: throwaway prototyping and evolutionary prototyping (Bjarnason et al., 2023). Throwaway prototyping is used to better understand and define user requirements by selecting multiple prototype alternatives. Evolutionary prototyping is used to build a system that will continue to be developed until it reaches the final form that the user wants.
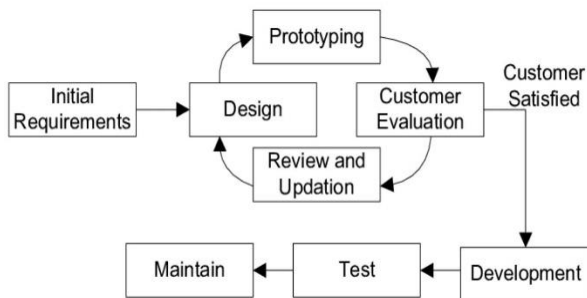
Source: (Board Infinity, 2024)
Figure 1. Requirement Prototyping Flow

Requirement Prototyping methods can improve software quality through several mechanisms:
1. Improved Understanding of User Needs: Early prototypes help developers better understand user needs and expectations, allowing them to define system specifications more accurately (Kang et al., 2023).
2. Fast and Iterative Feedback: Prototyping allows users to provide immediate feedback on the features being developed. This iterative process ensures that necessary changes and improvements can be implemented immediately (Mansur et al., 2024).
3. Risk Reduction: By identifying and correcting problems from the early stages of development, Requirement Prototyping can reduce the risk of project failure and ensure that the final product meets the user's needs (Lasminiasih et al., 2022).

In addition, the Requirement Prototyping method emphasises the importance of effective communication between developers and users in the prototype development process. Intensive and collaborative interaction between both parties can lead to a better understanding of user needs and ensure that the system built can fulfil expectations. Requirement Prototyping is also considered a flexible and adaptive approach which can handle changing requirements during development. This is especially important in a dynamic business environment, where user needs can change rapidly.

In developing a web-based restaurant reservation information system, Requirement Prototyping can be used to develop a user-friendly system that suits users' specific needs. The system can be gradually refined through iterations and direct user feedback until it reaches the desired quality.

Black Box Testing

Black Box Testing is one of the software testing methods that focuses on testing the system's functionality without paying attention to the program's internal structure or source code. This method tests the system based on expected inputs and outputs, ensuring that the system behaves according to predetermined specifications (Bierig et al., 2021). Testers in Black Box Testing do not require knowledge of the internal implementation of the software; instead, they focus only on external interfaces and functionality.

According to a study by Wijaya et al., Black Box Testing effectively identifies various types of errors, including functional, interface, and integration-related errors (Wijaya & Astuti, 2021). These tests are usually conducted using techniques such as equivalence partitioning, boundary value analysis, and decision table testing to ensure comprehensive test coverage.

Equivalence partitioning is a technique that divides the input domain into several equivalence classes where each class is expected to produce the same system behaviour (Sasongko et al., 2021). Boundary value analysis is a testing technique that focuses on the boundary values of the equivalence classes, which are often the source of errors (Sianturi, 2022). Decision table testing is a technique that uses a decision table to describe different combinations of inputs and the expected actions of the system (Marthasari et al., 2022).

Black Box Testing has the advantage of detecting errors at an early stage of development, which can reduce the cost of fixing errors later. This study also emphasises that Black Box Testing is suitable for testing complex systems with many user interactions. This method allows testing that is

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**

more focused on the user experience and the final functionality of the system without the need for mastery in reading program code (Raihan & Voutama, 2023).

Implementing Black Box Testing in modern software development, such as web-based and mobile applications, has become an industry standard due to its ability to evaluate the system from the end-user perspective. Thus, these tests ensure the software meets users' needs and expectations (Fadhilasari et al., 2024).

User Acceptance Testing (UAT)

User Acceptance Testing (UAT) is an evaluation process conducted by end users to ensure that the developed software fulfils predefined requirements and is ready to be used in a natural operational environment. UAT aims to validate that the developed system is aligned with business needs and has no significant problems that can hinder daily operations (Sambas & Ipan Ripai, 2022).

The UAT methodology involves several essential steps that must be followed to ensure that the test process is effective. The main steps in the UAT methodology are as follows:
1. UAT planning: Identify test objectives, define success criteria, and assign roles and responsibilities.
2. Test Scenario Design: Create test scenarios representing the system's use in daily business operations.
3. Test Execution: Perform tests based on the designed scenarios and record the results and anomalies found.
4. Reporting Results: Document test results and provide feedback to the development team for improvement.

UAT implementation often faces various challenges that can affect its effectiveness. Research conducted by Novansyah et al. mentioned some of the main challenges in UAT, including time constraints, lack of user involvement, and ineffective communication between the development team and business users (Novansyah et al., 2024). To overcome these challenges, it is recommended to involve users early in the development process and have a comprehensive test plan.

RESULTS AND DISCUSSION

System Requirements Gathering

At this stage, an interview was conducted with the owner of Wisata Kampung Kemiri. The interview focused on asking about the needs Wisata Kampung Kemiri required in website development.

The contents of the interview can be seen in Table 1 below:

Table 1. Interview Table

Question	Answer
What are the obstacles that Wisata Kampung Kemiri is currently experiencing?	It does not have a food reservation and ordering system, so there are many mistakes in customer orders.
What details are usually explained when handling customer reservations?	Details that are usually explained include reservation time, reservation date, selection of table and place in indoor or gazebo, and food.
Are there any features needed for the website to be created?	What is needed from the website is that customers can make reservations and order food online so that they do not have to wait too long because most customers come from various cities. The admin also checks food reservations and orders from customers.

Source: (Research Results, 2024)

Wisata Kampung Kemiri needs a website to help customers make table reservations and order food. This website will make it easier for customers to make reservations, including table selection, reservation hours, reservation dates, and food orders. It will also make it easier for the admin to check customer reservations.

**Prototype Design and Interface Implementation**

This section prepares the prototype design according to users' needs and input. This prototype also accommodates the software's features by considering a good interface design. Based on the prototype, the software will then be implemented as a web page interface.

1. Customer Home Page Design
After the customer logs in, the main page will be displayed, which contains photos and explanations of Wisata Kampung Kemiri, as shown in Figure 2. A navbar on the left contains the main menu, contact information, and login information. The menu will display a variety of food menus at Wisata Kampung Kemiri. Contact to find out the number that can be contacted and social media from Wisata Kampung Kemiri. On the top right is a button allowing customers to make reservations. Figure 3 is the implementation of the interface for the customer's main page based on the existing prototype.

Source: (Research Results, 2024)
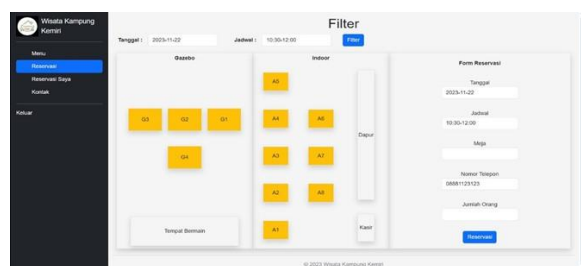Figure 2. Customer Home Page Design
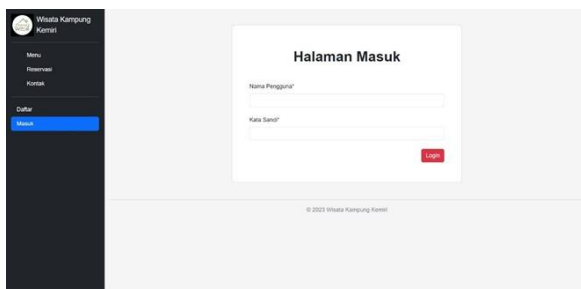
Source: (Research Results, 2024)
Figure 3. Customer Home Page Implementation

2.   Reservation Page Design
After the customer presses the reservation button, the customer can select a table, indoor and outdoor, as shown in Figure 4. The customer can enter the reservation date, time, and number of people and proceed to the food menu page. Figure 5 is the implementation of the interface for the reservation page based on the prototype.

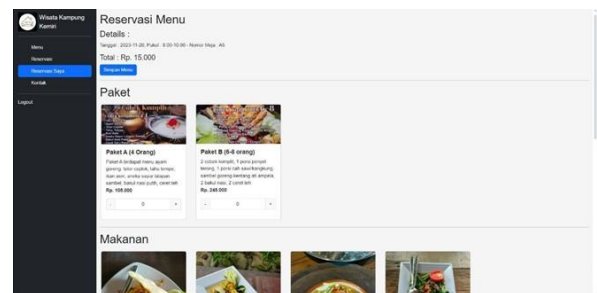Source: (Research Results, 2024)
Figure 4. Reservation Page Design

Source: (Research Results, 2024)
Figure 5. Reservation Page Implementation

3.   Food Order Page Design
After the customer fills in the reservation information, it will proceed to the food ordering page, as shown in Figure 6. This page will provide a variety of foods that customers can order. After ordering the food menu, an order confirmation code can be given to the admin when the customer visits Wisata Kampung Kemiri as proof of reservation. Figure 7 is the implementation of the interface for the food ordering page based on the existing prototype.

Source: (Research Results, 2024)
Figure 6. Food Order Page Design

Source: (Research Results, 2024)
Figure 7. Food Order Page Implementation

Context Diagram
The context diagram describes a general description of a system and is the lowest-level diagram. The flow of system information can be seen clearly in Figure 8 below:
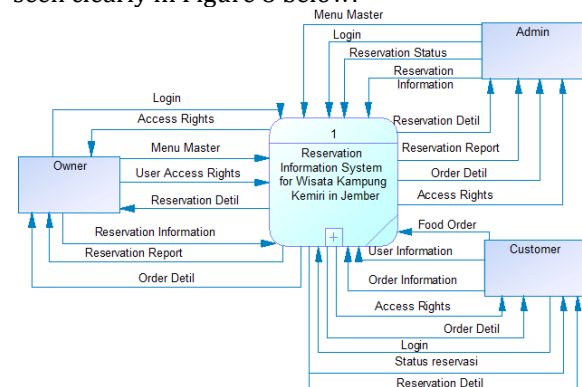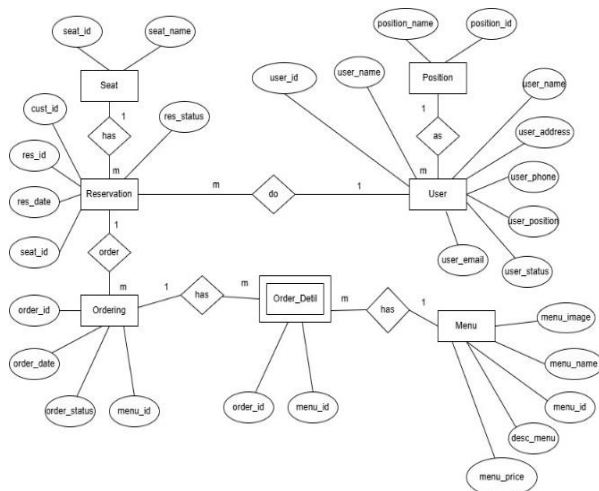

Source: (Research Results, 2024)
Figure 8. Context Diagram of Wisata Kampung Kemiri Information System

Figure 8 above explains what data flows are carried out by each entity in the information system process for the Wisata Kampung Kemiri website. There are three entities related to the system: the owner, admin, and customer. The owner can receive order details, reservation reports, and reservation details from the system. The owner can also grant user access rights, master menu, and reservation information. Admin can receive customer reservation details, reservation reports, and order details. Admins can find out the status of reservations, reservation information, and menu master. Customers can make reservations, which include user information, order information and food orders. Customers can also find out the status of reservations and reservation details.

Entity Relationship Diagram (ERD)

Entity Relationship Diagram (ERD) is a diagram that describes the table entities that exist in a system, along with the relationship between each table and the attributes owned by each table. Figure 9 can be seen as the interaction that occurs between entities, where each entity has elements called attributes. The relationships that occur in the entities can be described as follows:

1. The reservation entity has a many-to-one relationship with the user entity
2. The reservation entity has a many-to-one relationship with the seat entity.
3. The user entity has a many-to-one relationship with the position entity
4. The reservation entity has a one-to-many relationship with the booking entity.
5. The order entity has a one-to-many relationship with the order details entity.
6. The order details entity has a many-to-one relationship with the menu entity.

Source: (Research Results, 2024)
Figure 9. Entity Relationship Diagram of Wisata Kampung Kemiri Information System

Black Box Testing

The Black Box Testing will be conducted by a tester who is one of the employees at Wisata Kampung Kemiri, and it will have several predetermined test scenarios. The employee conducts the test independently without assistance from the developer. The following in Table 2 is a test scenario that was carried out:

Table 2. Black Box Testing Scenario

Test Scenario	Expected Results	Test Results
Entering the correct username and password	Display the home page	Successful
Entering an incorrect username/password	Display an incorrect username/password message	Successful
Login using an unverified account	Displays to verify email	Successful
Enter the password in the password input	Text input on passwords disguised as symbols	Successful
Choosing a table	The selected table changes colour	Successful
Selecting a table that has been chosen	The selected table does not change colour	Successful
Successfully make a table reservation.	Move to the booking page	Successful
Opens the admin reservation page	Display a list of reservations made by customers	Successful
Confirming the reservation	The status on the confirmed reservation list will change to "confirmed."	Successful
Approve reservations cancelled by customers.	No button appears on customer cancelled reservations	Successful
Cancelling a reservation	The status of the cancelled reservation list will change to "cancelled."	Successful
All reservations within 1 hour before the actual time will be automatically confirmed by the	The status on the reservation list that matches the scenario will change to "confirmed".	Successful

Source: (Research Results, 2024)

From the Black Box Testing results above, it can be seen that the login, table reservation, and food menu ordering features on the Wisata Kampung Kemiri website can run well according to the designed scenario. Thus, it can be concluded that

all features can accommodate user needs following the problem analysis that has been done.

User Acceptance Testing

This section will explain the User Acceptance Testing method to measure the effectiveness of the website created. Questionnaire questions will be categorised into three parts, namely demographic questions, user experience questions, and application functionality. The basis for determining questionnaire variables comes from several sources; among others, demographic information is carried out to obtain data about user profiles, user experience, and functionality information will be used to obtain preferences and the level of effectiveness of the features that have been built (Hajizah, 2024). These variables can be used to develop the Wisata Kampung Kemiri reservation website further.

The questionnaire survey was distributed to customers who had previously tested the features of the Wisata Kampung Kemiri reservation website. Filling out the questionnaire uses a Likert scale to determine the value of each questionnaire, with a value range of 1 (very bad) to 5 (very good) (Hassan, 2021). The questionnaire was distributed to 24 respondents, who then filled in the results on Google Form media. The results of the questionnaire are shown in Table 3 below:

Table 3. The result of User Acceptance Testing

No.	Question	Results
Demographic Questions		
1	Gender	Male = 75%
		Female = 25%
2	Age Range	18-25 Years = 70.8%
		26-35 Years = 8.3%
		36-45 Years = 0%
		46-55 Years = 16.7%
		>55 Years = 4.2%
User Experience Question		
1	How easy was it for you to navigate our website?	Very Uneasy = 4.2% Not Easy = 4.2% Neutral = 4.2%
		Easy = 33.3%
		Very Easy = 54.2%
2	How satisfying was your experience in making a reservation using our website?	Very Dissatisfied = 4.2%
		Dissatisfied = 0%
		Neutral = 4.2%
		Satisfied = 45.8%
		Very Satisfied = 45.8%
3	What do you think of the look and design of our website?	Very unfavourable = 4.2%
		Not good = 0%
		Neutral = 12.5%
		Good = 37.5%
		Very good = 45.8%
4	Can you quickly find information about the food menu available at our restaurant?	Very Uneasy = 0%
		Not Easy = 0%
		Neutral = 0%
		Easy = 50%
		Very Easy = 50%

No.	Question	Results
Functionality Question		
1	How well does the table reservation feature work on our website?	Very unfavourable = 4.2%
		Not good = 0%
		Neutral = 8.3%
		Favourable = 29.2%
		Very Favourable = 58.3%

Source: (Research Results, 2024)

The results of the questionnaire above show that all the aspects of user experience and functionality that are asked get good average results. Thus, it can be concluded that users can utilise the Wisata Kampung Kemiri website properly and smoothly. However, there is an opportunity to optimize aspects such as ease of navigation, website design, and user convenience in obtaining the required information. This is because a small portion of customers still selected the very dissatisfied response for the three parameters mentioned above.

CONCLUSION

The Wisata Kampung Kemiri information system allows users to reserve a table and order a food menu in one integrated platform. This allows users to simultaneously make table reservations and food orders, creating a comprehensive and efficient user experience.

The design of web-based applications can provide information about table and food orders. In addition, the resulting information system is easily accessible. This follows the testing results using black box testing and UAT related to the table reservation and food ordering features. A well-designed interface can help consumers quickly navigate and understand the information needed, increase user engagement, and provide convenience in making reservations and orders.

Applying the Requirement Prototyping software development method to this information system can significantly accommodate user needs. This approach allows users to participate in the development process actively, ensures that their needs are met accurately, and the system can be adapted with flexibility. Thus, this system successfully utilises prototyping principles to achieve satisfactory results that meet user expectations.

In the future, this application could be developed into a mobile app that is easier to use on customers' smartphones. Additionally, adding features such as reward points and online payments through a payment gateway would provide added value for customers.

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**

REFERENCE

Ahmad, M. O., Ahmad, I., Rana, N. P., & Khan, I. S. (2022). An Empirical Investigation on Business Analytics in Software and Systems Development Projects. *Information Systems Frontiers*. https://doi.org/10.1007/s10796-022-10253-w

APJII. (2024, February 7). *APJII Jumlah Pengguna Internet Indonesia Tembus 221 Juta Orang*. Asosiasi Penyelenggara Jasa Internet Indonesia.

Bierig, R., Brown, S., Galván, E., & Timoney, J. (2021). *Essentials of Software Testing* (3rd ed.). Cambridge University Press.

Bjarnason, E., Lang, F., & Mjöberg, A. (2023). An empirically based model of software prototyping: a mapping study and a multi-case study. *Empirical Software Engineering*, *28*(5), 115. https://doi.org/10.1007/s10664-023-10331-w

Board Infinity. (2024). *A Quick Guide to Prototype Model in Software Engineering*. Board Infinity. https://www.boardinfinity.com/blog/a-quick-guide-to-prototype-model-in-software-engineering/

Fadhilasari, A., Wahanani, H. E., & Akbar, F. A. (2024). Equivalence Partitioning dan Boundary Value Analysis Dalam Black Box Testing Pada Platform E-Commerce Berbasis Web di Lima Benua. *JATI: Jurnal Mahasiswa Teknik Informatika*, *8*(3), 3362–3367.

Hajizah, A. (2024). Penerapan User Experience Dalam Permodelan Sistem Informasi Keuangan. *Journal of Information Technology, Software Engineering and Computer Science (ITSECS)*, *2*(1), 1–11.

Handayani, T., Gunawan, I., & Taufiq, R. (2020). Rancang Bangun Sistem Informasi Pemesanan Menu Makanan Berbasis Web (Studi Kasus: Restoran Bukit Randu Bandara). *Jurnal SITECH : Sistem Informasi Dan Teknologi*, *3*(1), 21–28. https://doi.org/10.24176/sitech.v3i1.4837

Hassan, S. (2021). Online Survey-based Research Using Likert-Scale Questionnaire as an Educational Tool during COVID-19: From Design and Development to Validation Process and Interpretation. *International Journal of Science and Research (IJSR)*, *10*(5), 545–560. https://doi.org/10.21275/SR21512174451

Kang, B., Crilly, N., Ning, W., & Kristensson, P. O. (2023). Prototyping to elicit user requirements for product development: Using head-mounted augmented reality when designing interactive devices. *Design Studies*, *84*, 101147.

https://doi.org/10.1016/j.destud.2022.101147

Khairunnisa, C. M. (2022). Pemasaran Digital sebagai Strategi Pemasaran: Conceptual Paper. *JAMIN : Jurnal Aplikasi Manajemen Dan Inovasi Bisnis*, *5*(1), 98. https://doi.org/10.47201/jamin.v5i1.109

Lasminiasih, Saputra, G. E., Rooswhan Budhi Utomo, & Elbi Wiseno. (2022). Using Prototyping Method for Analysis and Design of Information Systems for Student Registration in Sekolah Master. *International Journal Science and Technology*, *1*(2), 19–29. https://doi.org/10.56127/ijst.v1i2.140

Mansur, Khairul Imtihan, & Mohammad Taufan Asri Zaen. (2024). Rekayasa E-Raport Menggunakan Model Pengembangan Rapid Application Development (RAD) Dan Framework Codeigniter. *Jurnal Manajemen Informatika Dan Sistem Informasi*, *7*(2), 94–105.

https://doi.org/10.36595/misi.v7i2.1173

Marthasari, G. I., Wahyuningsih, A. T., Aviansyah, M. R., Ramadhani, M. A., & Rahmatullah, Z. (2022). Pengujian Website Infotech Menggunakan Teknik Black-Box Decision Table. *Jurnal Informatika Universitas Pamulang*, *7*(1), 115–119.

Novansyah, R., Novita, R., Munzir, M. R., & Nursalisah, F. (2024). Sistem Informasi Monitoring Insyira Pekanbaru Berbasis Web Menggunakan Agile Development. *INOVTEK Polbeng - Seri Informatika*, *9*(1). https://doi.org/10.35314/isi.v9i1.3813

Nurda, A. P., & Petrus Sianggian Purba. (2022). Perancangan Sistem Informasi Reservasi & Makanan Pada Restoran Moji Grill & Suki Berbasis Web Menggunakan Metode Pengembangan Scrum. *Jurnal Publikasi Teknik Informatika*, *1*(3), 42–61. https://doi.org/10.55606/jupti.v1i3.607

Pressman, R., & Maxim, B. (2020). *Software Engineering: A Practitioner's Approach* (9th ed.). McGraw Hill.

Raihan, H., & Voutama, A. (2023). Pengujian Black Box Pada Aplikasi Database Perguruan Tinggi dengan Teknik Equivalence Partition. *Antivirus : Jurnal Ilmiah Teknik Informatika*, *17*(1), 1–18. https://doi.org/10.35457/antivirus.v17i1.2501

Rivaldo Pradana Putra. (2023). Rancang Bangun Sistem Informasi Reservasi Berbasis Web (Studi Kasus: Cafe Sentani Garden Madiun). *Jurnal Riset Rumpun Ilmu Teknik*, *2*(1), 145–155.

https://doi.org/10.55606/jurritek.v2i1.939

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**

Sambas, & Ipan Ripai. (2022). Implementasi Dan User Acceptance Test (UAT) Aplikasi Integrated Library System (Inlis Lite) di MTs Negeri 7 Kuningan. *ICT Learning*, *7*(1). https://doi.org/10.33222/ictlearning.v6i1.2306

Saputra, H. T., Rif'ah, F. M., & Andrianto, B. A. (2023). Penerapan Digital Marketing Sebagai Strategi Pemasaran Guna Meningkatkan Daya Saing UMKM. *Journal of Economics, Management, Business, and Entrepreneurship*, *1*(1), 29–37. https://doi.org/10.31537/jembe.v1i1.1275

Sasongko, B. B., Malik, F., Ardiansyah, F., Rahmawati, A. F., Adhinata, F. D., & Rakhmadani, D. P. (2021). Pengujian Blackbox Menggunakan Teknik Equivalence Partitions pada Aplikasi Petgram Mobile. *Journal ICTEE*, *2*(1), 10. https://doi.org/10.33365/jictee.v2i1.1012

Sianturi, E. (2022). Boundary Value Analysis and Decision Table Testing Methods in Software Testing. *International Journal of Information Technology and Education*, *1*(3), 124–129. https://doi.org/10.62711/ijite.v1i3.68

Wijaya, Y. D., & Astuti, M. W. (2021). Pengujian Blackbox Sistem Informasi Penilaian Kinerja Karyawan PT Inka (Persero) Berbasis Equivalence Partitions. *Jurnal Digital Teknologi Informasi*, *4*(1), 22. https://doi.org/10.32502/digital.v4i1.3163

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**