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Implementing Gestalt Theory in UI/UX Design of Mobile Apps for Food Waste Reduction

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Abstract

Participants in the Independent Study MSIB Batch 5's #Tech4Impact Skilvul Program are encouraged to create digital solutions for social problems, such as reducing food waste. A website-based e-commerce design was one of the first innovations to receive a 90 on the System Usability Scale (SUS). Two drawbacks were identified during evaluations: the incentive elements lack clear visual cues, and the design is not yet responsive on mobile platforms. Given the mobile-first trend and the critical role mobile applications play in delivering integrated, tailored, and practical transaction experiences, this poses a problem.

The UI/UX design of the SaveBite mobile application is developed in this study by applying Gestalt Theory and Design Thinking. Gestalt principles improve consistency, visual perception, and interface navigation, while Design Thinking guarantees that the design is focused on user needs. The development is concentrated on making the reward elements more user-friendly and enhancing the mobile experience.

With an average SEQ of 6.7 (or 95.7% ease of use) and a SUS score of 81.0, usability testing findings demonstrate a significant improvement over the prior website design. These results show that the prototype provides a reasonable degree of responsiveness, clarity, and comfort.

This study shows the potential for increased user adoption while helping create mobile-based digital solutions to food waste problems. In the future, this application might be fully developed for community use, leveraging digital technology to reduce food waste sustainably.

Keywords : *Food Waste, E-Commerce, Mobile Applications, UI/UX, Design Thinking, Gestalt Theory, Usability Testing, System Usability Scale, Single Ease Question, Maze.*

INTRODUCTION

The MSIB Batch 5 Independent Study's #Tech4Impact Skillvul Program encourages participants to develop digital solutions with social impact, especially in reducing food waste. An e-commerce website design that received a Single Ease Question (SEQ) score of 90, which denotes a high degree of usability and comfort, is one of their innovations. Evaluation findings, however, point to two primary issues: the incentive elements lack obvious visual cues, and the design is not yet responsive on mobile devices.

Given that mobile phones account for over 93% of internet activity in Indonesia and that mobile applications are used for most online transactions, limited availability on mobile devices presents a significant obstacle (Purbo, Y. S., Azis, A., & Hidayah, 2024). With mobile-native capabilities such as alerts and digital payments, mobile applications not only increase user reach but also offer a quicker, more customized, and more integrated experience. Furthermore, it has been demonstrated that gamification components such as points and incentives increase user loyalty, but ambiguous reward structures may decrease user motivation and engagement (Utami, 2024).

Implementation

The process of turning a previously conceived design, concept, or model into a physical form—whether as a digital system, application, or other technological product—is known as implementation. The implementation

stage in information systems research marks the transition from conceptual design to a usable, testable system (Jamal, A., & Hashmat, 2025). For the produced solution to operate at its best, effective implementation requires not only technical implementation but also adjustments to user needs and the operational context.

Gestalt Theory

Gestalt theory is a method of perceptual psychology that focuses on how people arrange and perceive visual components as a single, coherent whole. The fundamental ideas of this theory, including figure-ground, continuity, closure, proximity, similarity, and the law of prägnanz, are essential for forming coherent and significant perceptions (Dewi, E. Z., Fransisca, M., Handayani, R. I., & Cahyanti, 2022). Gestalt principles can improve readability, visual consistency, and interface navigation in UI/UX design, helping users comprehend the information structure and engage with the system more naturally.

Figure 1. Visualization of the six gestalt principles

Design Development

The process of turning abstract concepts into usable, testable forms is known as design development. Design development, according to (Lashin, M. M., & Helmy, 2021), entails requirements analysis, interface design, and verification that the design aligns with the user context. The solution's durability and applicability to user problems are also emphasized in this non-technical phase.

Design

Unstructured starting situations can be transformed into precise, targeted solutions through design. The extent to which a design accomplishes its intended objectives determines its value (Jantan, A. H., Mohd Norowi, N., & Yazid, 2023). Visual aspects that affect user perception and comfort include lines, shapes, colors, typography, and illustrations. Design concepts in UI/UX aim to strike a balance between utility and beauty.

User Interface (UI)

The visual component of a digital system that facilitates communication between users and the application is called the user interface. To create a practical user experience, components such as buttons, layouts, animations, and colors are essential (Massari, S., Principato, L., Antonelli, M., & Pratesi, 2022). A well-designed user interface (UI) emphasizes visual coherence and user-friendliness, enabling users to understand the system's structure easily.

User Experience (UX)

The total experience users have while engaging with a system is referred to as user experience. The creation of practical, understandable, and pleasurable-to-use goods is the main objective of UX design. To produce relevant products, UX designers strike a balance

between user wants, corporate goals, and technical improvements (Kamarulredzuan, M. B., Setiawan, D., & Kusumo, 2024). According to this study, user experience (UX) is crucial to making sure the mobile application promotes user happiness and comfort.

Mobile

The term "user experience" refers to the totality of a system's interaction with its users. The main objective of UX design is to deliver products that are practical, understandable, and pleasurable to use. To produce meaningful products, UX designers strike a balance between user wants, corporate objectives, and technical advancements (Limantara, N., Renaldi, R., & Filicia, 2021). To ensure the mobile application promotes user comfort and pleasure in this study, user experience (UX) is crucial.

E-Commerce

Buying and selling products, services, or information online is known as e-commerce (Ranti, C. D., & Lee, 2023). Efficient transactions and unrestricted product distribution are made possible by this method. Every e-commerce model, including M-Commerce, B2B, and B2C, has unique traits. According to this study, e-commerce connects buyers and sellers, helping reduce food waste by offering edible food at lower prices.

Food Waste

Unlike food loss, which occurs during production, food waste refers to the disposal of food that is still suitable for consumption during distribution or consumption (Abdillah, M. S., Dafa, F. A. M., & Widiati, 2024). Food waste management is a significant issue since it affects society, the environment, and the economy. By enabling rapid, effective redistribution of excess food, e-commerce-based digital applications can be useful tools for reducing food waste.

Design Thinking

Design Thinking is a user-centered approach to understanding needs, defining problems, and developing innovative solutions. There are five steps in this process: define, ideate, prototype, test, and empathize (Gunawan, T., & Saputro, 2021). This approach helps researchers create user-friendly solutions and iteratively improve them. Design Thinking is used in this study to develop a mobile application that prioritizes user requirements to reduce food waste.

Usability Testing dan System Usability Scale (SUS)

According to Rizma Reyhana (Ezeanaka, C., & Tran, 2024), usability testing is an assessment technique that directly engages users to gauge how simple and effective a system is. Ten Likert-scale statements in the System Usability Scale (SUS) gauge how easy users think the application is to use. As a gauge of digital system adoption, SUS has demonstrated accuracy and validity.

Single Ease Question (SEQ)

A straightforward technique for gauging how easy users believe it is to perform specific actions within an application is the Single Ease Question (Purbo, Y. S., Azis, A., & Hidayah, 2024). A score of 7 indicates a high degree of ease on a scale of 1 to 7. SEQ is an additional metric used to assess how well the application's interface works.

Maze as a Usability Testing Tool

A web-based tool called Maze is used to analyze user interactions with prototypes and conduct UX testing (Lashin, M. M., & Helmy,

2021). This tool offers quantitative testing results, including task time, completion rate, and misclick rate, and is compatible with Figma. Prior to final deployment, design refinement is supported by objective data collected with Maze.

In light of these problems, this study aims to develop a UI/UX design for a mobile application using Gestalt Theory and Design Thinking. Gestalt principles improve visual perception, consistency, and interface navigation, making it more intuitive, while the Design Thinking approach ensures the design is centered on user needs. The goal of this project is to create a mobile application design that encourages user participation in food waste reduction initiatives by optimizing mobile-native features and improving reward features with obvious visual cues.

METHOD

To fully comprehend user demands and create design-based solutions that fit the user context, this study uses a descriptive qualitative method grounded in Design Thinking. This approach is used to create user interface (UI) and user experience (UX) designs for a mobile e-commerce application that aims to reduce food waste by methodically describing phenomena.

The Design Thinking methodology's ability to integrate user requirements with relevant technology solutions yields designs that are practical, functional, and user-centered (Mirza et al., 2023). The five primary steps of the research process are define, ideate, prototype, test, and empathize.

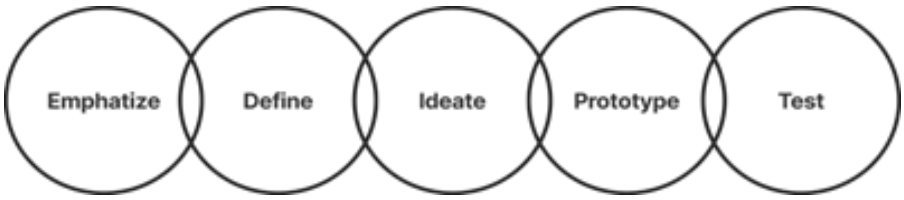

Figure 2. Design thinking process

Show compassion

Through in-person observation and interviews with potential application users, researchers aim to comprehend user demands, behaviors, and issues during this phase. In line with the traits of potential users, this data collection aims to investigate the reasons for and challenges encountered by students aged 20-23 when making online food purchases (Adoe & Muvid, 2023; Rizal & Saputra, 2023).

Describe

Using methods for identifying pain points and creating How Might We (HMW) inquiries, the results from the empathize stage are then developed into the primary issues that consumers confront. Based on the real problems users face, this stage helps researchers determine the focus of product development (Arisa et al., 2023).

Ideate

Brainstorming is done at this stage to generate a range of solutions to consumer issues. An idea prioritizing approach is then used to rank the gathered ideas according to two primary criteria: user value and the amount of work needed (Arisa et al., 2023).

To illustrate the flow of interaction between users and the system, the ideation outcomes are

then displayed as a user flow (Sweetania & Hafidz, 2023).

A prototype

In this phase, concepts are brought to life through Figma, creating low-fidelity prototypes that evolve into high-fidelity prototypes (Agus Muhyidin et al., 2020). Gestalt Theory concepts, including proximity, similarity, closure, continuity, figure-ground, and prägnanz, are used in interface design to provide users with a visually consistent, user-friendly, and easily comprehensible structure (Julian et al., 2023).

The Usability Testing approach is used to assess how comfortable and easy it is for users to interact with the application prototype (Rizma Reyhana Putri & Dwi Indriyanti, 2023). The System Usability Scale (SUS) and Single Ease Question (SEQ) are two of the measuring tools utilized (Azizah et al., 2025). The Maze tool is used to directly analyze user interactions (Rinawiyanti et al., 2025). Ten participants who fit the target user profile participated in the trial.

RESULTS AND DISCUSSION

The SaveBite mobile application's UI/UX design was developed through this research, to provide the best possible user experience to reduce food waste. The five steps of the Design Thinking approach—empathize, define, ideate, prototype, and test—were employed in the development (Mirza et al., 2023). The outputs from each step served as the foundation for the design development process, which applied Gestalt Theory concepts to improve interface coherence and visual perception. The Design Thinking phases used in accordance with the earlier conversation are listed below:

a. Empathize

   The first step in the Design Thinking process is the Empathize stage, which focuses on developing a thorough grasp of the requirements and issues faced by SaveBite application users. A research strategy, which serves as a methodical guide covering the project background, research objectives, data collection techniques, and participant criteria to focus the interview process, is developed prior to data collection. Ten respondents, ages 20 to 23, interested in environmental issues and accustomed to ordering food online, are then observed and interviewed via Google Forms. Several issues were found with the old SaveBite website design, especially the lack of obvious visual cues for the reward features and their less responsive design. The results of the interviews also confirmed that most users choose to utilize mobile applications since they are more useful and effective for day-to-day tasks.

Figure 3. Research plan

A Fishbone Diagram (Ishikawa), which lists the primary contributing elements across six aspects—Man, Method, Machine, Material, Measurement, and Environment—is used in a study to better identify the origins of these problems (Majka, 2024). According to this report, the primary issues are a failure to prioritize mobile device-focused user behavior, web-based technology restrictions, and an inadequate assessment of digital market trends. The development of SaveBite into a mobile application is a calculated move to improve user experience and the efficacy of food waste reduction initiatives, according to the analysis's findings.

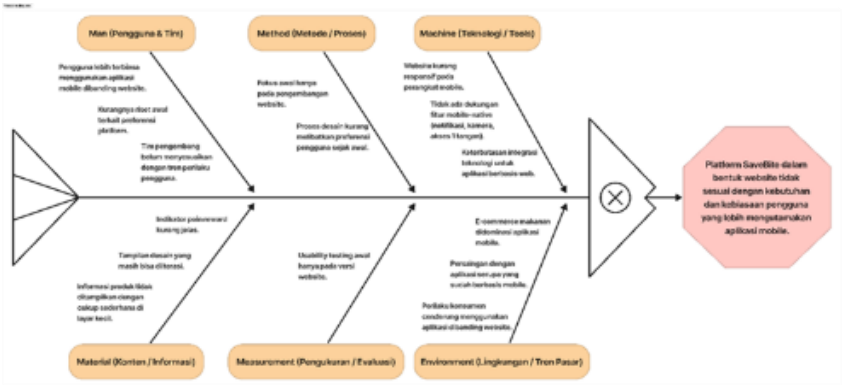

Figure 4. Fishbone diagram

b. Define

Based on the results of the Empathize stage, the Define stage is used to formulate the primary issues. By analyzing data from observations and interviews, the problem focus is

established from the users' viewpoint, enabling the precise definition of their needs and challenges. This process produces a point of view (POV) and serves as the basis for creating solutions that make the SaveBite application genuinely user-centered. Identification of pain points reveals several user needs, such as:

Table 1. Pain points and user needs

No	Pain Point	User Needs
1	Users have doubts about the quality of discounted food.	Requires food quality assurance (e.g., clear expiration dates or standard certification).
2	Users want more transparent information	Requires clear product information details, including condition, original vs. discounted price, and the reason the product is being sold for less.
3	Lack of information about the brands that collaborate with the app	Requires a list of trusted partners and a clear brand/seller profile to be more confident in purchasing.
4	Not yet familiar with the concept of food waste and saving leftover food	A brief education on the concept of food waste reduction is required to understand the app's purpose and benefits.
5	The website's UI/UX appearance is more complicated and complex.	Requires a simpler, more practical, and easier-to-use mobile application design.
6	Users are concerned about food location and delivery.	Requires clear seller location information and flexible delivery/pickup options.
7	Users want clarity based on user reviews or product testimonials.	Requires reviews and testimonials from other users as a reference point before purchasing.
8	Users are afraid of being cheated or feel the application is not safe.	Requires guaranteed transaction security and system transparency to feel safe when using the application.
9	Users prefer applications that are practical and don't take long to download.	Need a fast ordering process with simple navigation, without complicated steps.
10	Want a reward/incentive system?	Want a reward/incentive system

An affinity diagram, which groups different findings and user problems into related categories to reveal deeper patterns and meanings, is used to synthesize the data after the users' pain points have been effectively identified. How Might We (HMW) questions are developed from this grouping to investigate answers that address user needs.

Table 2. Affinity diagram and HMW

Pain point	Problem Category	The Question of How Might We
a. Not familiar with the concept of food waste and saving leftover food	User Perception & Education	How can we help users understand the concept of food waste in an interesting and easy to understand way?
a. Users have doubts about the quality of discounted food. b. Users are afraid of being scammed or feel the app is unsafe.	Trust and Security	How can we build user trust in the quality and safety of food sold on the app?
a. Users want more transparent information b. Lack of information about brands collaborating with the app c. Users want clarity based on user reviews or product testimonials	Transparency and Information	How can we present product information, brands, and user reviews in a clear and transparent way?
a. Website UI/UX displays are more complicated and complex b. Users prefer applications that are practical and quick to download	Ease of Access and Use	How can we make applications that are more practical and easy to use for all users?
a. Users are concerned about food location and delivery	Shipping and Location	How can we provide clarity about food delivery locations and systems to ensure users feel comfortable?
a. Want a reward/incentive system	Motivation & Engagement	How can we create a reward system that encourages users to continue using the app and save food?

The qualities, motives, and behaviors of users in the context of utilizing the application are then represented by User Personas, which are developed to improve comprehension of the target audience.

Figure 5. User Personal

User scenarios are developed from personas to depict actual circumstances and the user's path through the application to accomplish their objectives.

Table 3. User Scenario

Name: Rini Ayu Lestari	
Situation: Friday afternoon, Rini had just finished her college assignment and wanted to find a delicious snack as a self-reward after a busy week.	
Context: Rini is relaxing in her boarding house. She wants to buy delicious food while still saving money as her budget is running low at the end of the month. She wants to buy food quickly and easily because she's tired from her daily activities. Furthermore, while scrolling through social media, she sees content about food waste, which sparks her interest in contributing to reducing food waste through wiser consumption choices.	
User goals	1. Enjoy delicious, high-quality food (like from a restaurant or hotel) as a self-reward. 2. Affordable prices that fit your end-of-month budget. 3. Fast and hassle-free ordering. 4. Contribute to reducing food waste in a practical way.
Motivation	1. Save money at the end of the month. 2. Still enjoy quality food. 3. Support a sustainable lifestyle. 4. Avoid complicated or slow ordering processes because you want to relax after a long week.
Steps	1. Rini opens the SaveBite app on her phone. 2. She sees a list of unsold, edible food from nearby restaurants and hotels at lower prices. 3. Rini reads the food descriptions, reviews from other users, and location and delivery information. 4. She selects a food item that suits her taste and budget, then conveniently places her order. 5. Rini chooses cash on delivery and waits for delivery while relaxing in her boarding house. 6. Rini receives her order and pays the price listed in the app, not forgetting to leave a review on the app for her order.
Results: Rini successfully purchased delicious food at affordable prices through a mobile app, quickly and conveniently. She was satisfied with the clear product information, easy ordering process, and felt she was contributing to reducing food waste, in line with her frugal lifestyle and concern for the environment.	

A User Journey Map, which maps the entire user experience from the first step of identifying needs to the completion of the transaction, is then used to depict the outcomes of this scenario. In addition to identifying areas for improvement that serve as the foundation for design solution development in the ensuing ideation stage, this mapping helps researchers comprehend the interaction flow, feelings, and challenges users face at each level.

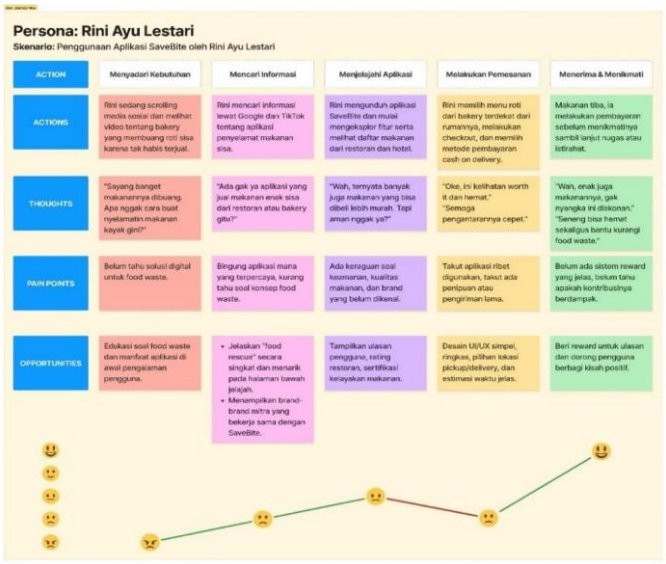

Figure 6. User Journey Map

c. Ideate

The process of developing innovative solutions to the issues identified in the previous stage is known as the "Ideate stage." To generate as many ideas as possible without restrictions, this method starts with brainstorming exercises that encourage ideas for the SaveBite application.

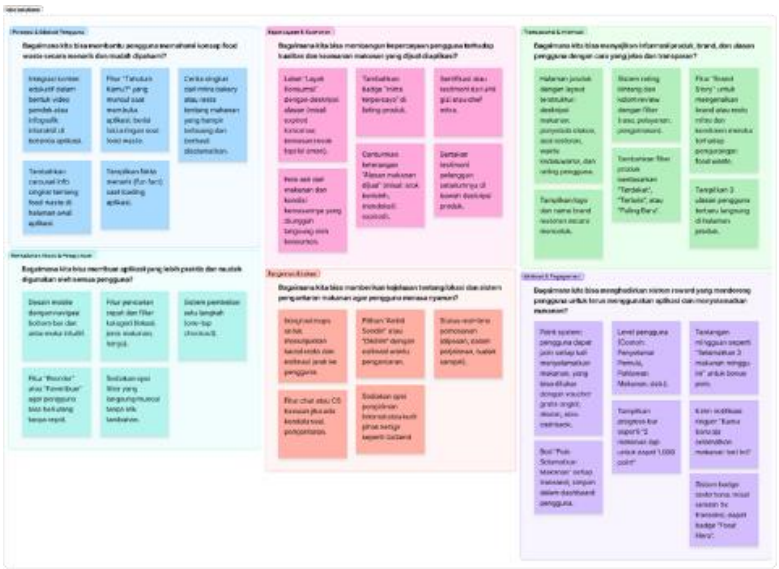

Figure 7. Ideation/Brainstorming Results

To select the most promising ideas for development, concept prioritization is conducted using a matrix based on impact and implementation simplicity.

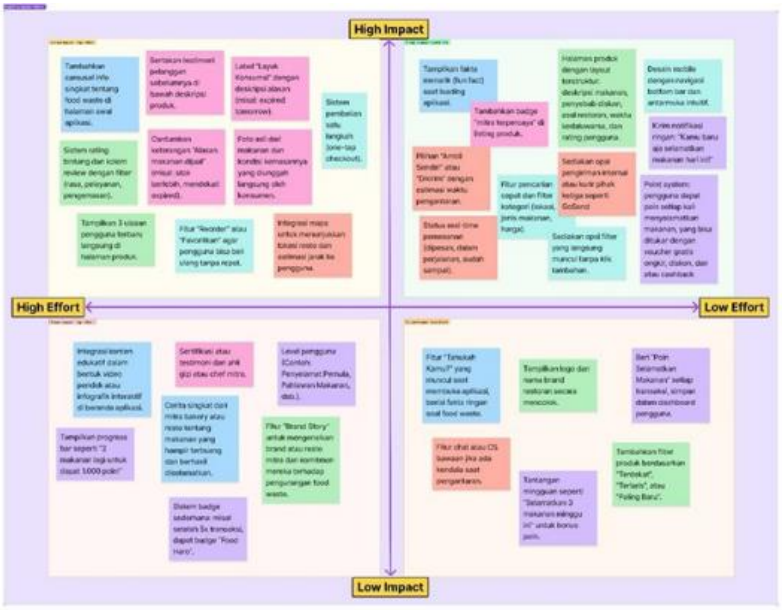

Figure 8. Prioritization Matrix

Following idea selection, a user flow is created to show how users interact with the application's primary features, such as Ordering & Reviews, SavePoint, and Sign Up & Log In. As a guide for design creation in the later phases of the Design Thinking process, this step is essential to ensuring that every stage of user contact is arranged logically and effectively.

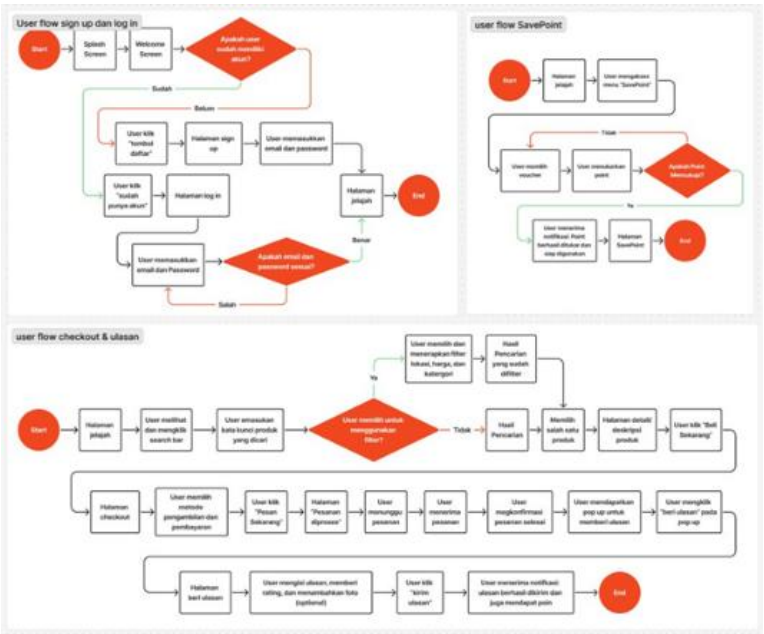

Figure 9. User Flow

The SaveBite mobile application's structure and hierarchy are then arranged using an information architecture, which makes the navigation flow more methodical, focused, and user-friendly.

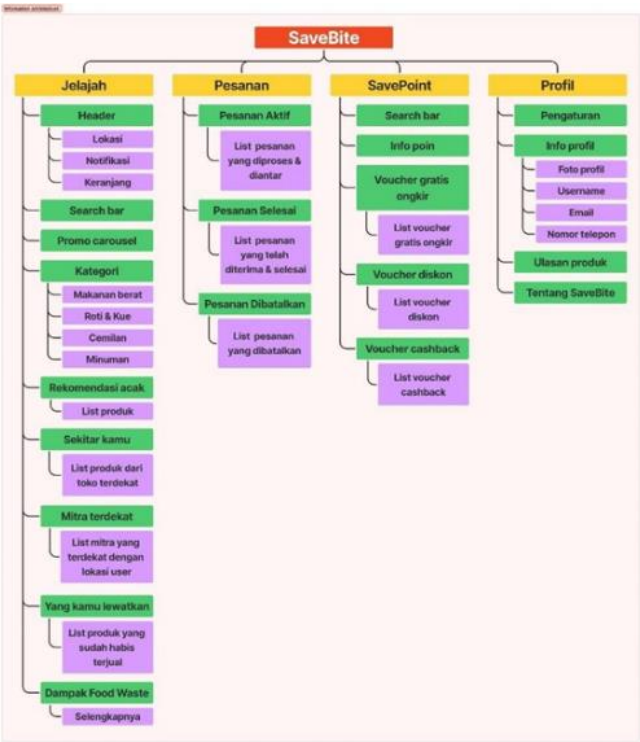

Figure 10. Information Architecture

d. Prototype

The process of turning concepts from the ideate stage into a working prototype is known as the prototype stage. This stage's primary objective is to more accurately depict the SaveBite application's main interaction flow, structure, and appearance. To produce a realistic user experience, prototypes are developed in phases, beginning with low-fidelity models that map the fundamental layout and navigation framework and progressing to high-fidelity models that include all visual elements, including colors, icons, typography, and images.

Gestalt Theory is used during the design process to improve visual order, consistency, and ease of perception. While similarity is used through consistent shapes, colors, and fonts to preserve visual harmony, proximity is employed to group objects with similar purposes for easier recognition. While closure is performed by showing incomplete portions to evoke the illusion of continuity, continuity is a principle that aids in creating a flowing navigation path. The Law of Prägnanz maintains the appearance's simplicity, stability, and ease of comprehension, while the Figure–Ground concept ensures that users' attention is directed to important components such as action buttons or notifications.

Figure 11. Low-Fi Wireframe

Gestalt principles are more clearly implemented in the high-fidelity prototype thanks to straightforward, readable Poppins typography (Law of Prägnanz) and the choice of red (#E64848) as the primary color, which enhances visual identity and connects it to the food context (Similarity principle).

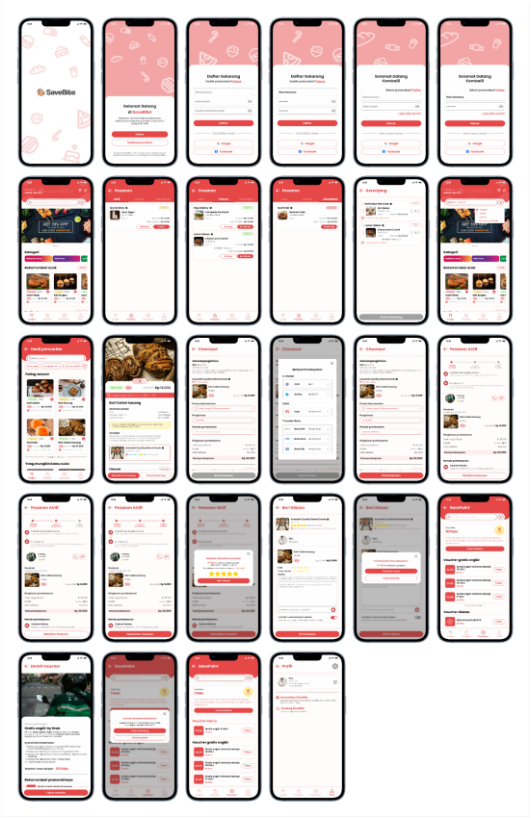

Figure 12. hi-fi wireframe

e. Test

The last step in the Design Thinking process is the test stage, which assesses how well the design solutions meet user needs and are practical and easy to use. Using the Maze platform, usability testing is conducted both in-person and remotely with five individuals who meet the respondent criteria and the user persona described in the research plan from the empathize stage. To evaluate the entire user experience, the prototype is tested on three key features: Ordering & Reviews, SavePoint, and Sign Up & Log In. This testing stage assesses how user-friendly and comfortable the application is. Five respondents who are representative of the target users participate in the tests. Success indicators that assess how effectively users comprehend the interface's appearance, functionality, and flow evaluate the effectiveness of the UI/UX design. For every testing situation, the indicators' specifics are shown in the following tables:

Table 4. UT Scenarios Sign Up And Log In Features

Sign-up and log-in feature scenario: A user has just downloaded the SaveBite app and wants to access or log in to the app if they already have an account.	
Task	**Success indicators**
1. Find the 'Register' or 'Login' button	1. The user clicks the ‘Register’ button and is redirected to the ‘Register’ screen. 2. The user clicks the ‘Login’ button and is redirected to the ‘Login’ screen.
2. Enter personal data	The user successfully entered his/her data in the text field box.
3. Click 'Register' or 'Login'	User successfully switched to the home screen or ‘Explore’

Table 5. UT Scenario Features Ordering And Reviewing

Order and review feature scenario: A user already has an account and wants to order food and then leave a review once the food has been received.	
Task	**Success indicators**
1. Access the search bar	The user finds the search bar and clicks on it to enter a keyword.
2. Apply search filters	The user successfully found the search filter dropdown and accessed the ‘Search Results’ screen.
3. Select one of the products	1. The user successfully switches to the ‘Order Details’ screen and reads the product information there before entering the quantity of products he wishes to order.
Order and review feature scenario: A user already has an account and wants to order food and then leave a review once the food has been received.	
Task	**Success indicators**
	2.The user clicks the cart button on the selected product card and is redirected to the 'Cart' screen before entering the quantity of products they wish to order.
4. Find and click the ‘Order Now’ button	User moves to the ‘Checkout’ screen
5. Checkout	User successfully entered shipping method and payment method options.

6. Make an order	1. The user finds and clicks the ‘Place Order’ button. 2. The user navigates to the ‘active orders’ screen. 3. They view the progress of their order, from ordering to being delivered, to receiving the order.
7. Confirm order completion	The user clicks the ‘Complete Order’ button and is presented with a pop-up offering to leave a review.
8. Give a review	Users move to the ‘Leave a Review’ screen and then enter their rating, review, photo evidence and choose whether to keep their username private or not.
9. Submit reviews	1. The user clicks the ‘Submit Review’ button. 2. The user sees a pop-up that they can earn extra points for leaving a review.

Table 6. UT scenario of SavePoint feature

SavePoint feature scenario: A user wants to exchange their points for a free shipping voucher.	
Task	**Success indicators**
1. Find the SavePoint menu on the menu bar.	1. The user switches to the SavePoint screen. 2. The user sees their points information and several categories from the voucher list.
2. Select a voucher	1. The user navigates to the 'Voucher Details' screen and clicks the 'Redeem Voucher' button on the screen. 2. The user clicks the 'Redeem' button directly on the voucher card on the SavePoint screen.
SavePoint feature scenario: A user wants to exchange their points for a free shipping voucher.	
Task	**Success indicators**
3. Redeem vouchers	Users will receive a pop-up notification that their voucher has been successfully redeemed and will be able to view their redeemed voucher in the new "My Vouchers" category.

There are also several questions posed to users during the usability testing process, as follows:

Table 7. UT QuestionsTable 7 UT Questions

Opening	
1	Good morning/afternoon sis, may I have a moment of your time?
2	What is your sister's name, if I may ask?
3	What is your profession or current activity?
4	Allow me to introduce myself. My name is Silvi Sundari, a semester student currently conducting research for my thesis.
5	May I request your time to participate in research or testing my application?
6	I also ask for permission to record our conversation, sis.
Introduction to usability testing	
7	Have you ever done usability testing before?
8	(If you haven't already) So, usability testing is a test for a product or application. Later, you will be asked to complete several tasks based on the scenario I provide.
After each scenario	
9	What was your first impression when you saw/used this application?
10	In your opinion, are there any buttons, colors, or icons that don't fit the appearance of this application?
11	In your opinion, how easy is the feature you just tried? On a scale of 1 to 7, with 1 being the most difficult and 7 being the easiest.
Closing	
12	Do you have any additional suggestions or input for this SaveBite application?
13	Thank you very much for your time, and continue your activities.

The results of the usability testing are then measured for their level of success using three main metrics, namely SUS, SEQ, and Maze:

a. System Usability Scale (SUS)
   Application satisfaction and usability were measured using the System Usability Scale (SUS) to assess user perceptions of the system as a whole. The SUS questionnaire, consisting of 10 statements on a Likert scale of 1–5, was distributed to participants after completing all testing tasks, yielding the following results:

Table 8. SUS Scores

Respondents	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Amount	Skor SUS
Respondents 1	5	1	5	1	5	1	5	1	5	1	40	**100.0**
Respondents 2	4	3	5	2	4	3	4	2	4	4	27	**67.5**
Respondents 3	4	1	4	1	4	1	4	1	4	3	33	**82.5**
Respondents 4	4	2	4	5	4	1	5	2	3	4	26	**65.0**
Respondents 5	4	1	5	2	4	2	5	1	5	1	36	**90.0**

The SaveBite application prototype has a high degree of usability, is simple to use, and is well-liked by users, according to the calculation findings, which indicate an average score of 81.0, placing it in the good to outstanding category.

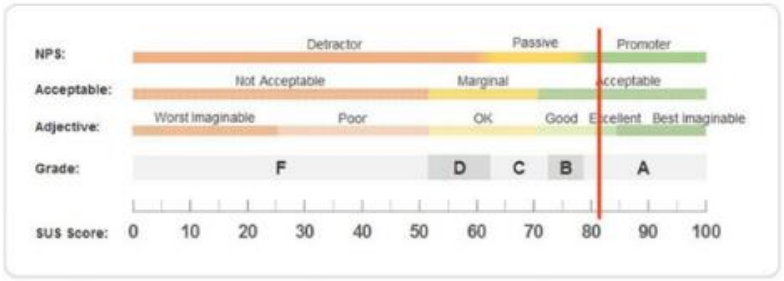

Figure 13. SUS scale

b. Single Ease Question (SEQ)

Each activity in the prototype was evaluated for user ease of completion using the Single Ease Question (SEQ). Users rated each exercise on a scale of 1 to 7, where one indicates very difficult and seven indicates very easy. The following were the respondents' findings:

Table 9. SEQ Scores

Respondents	Task 1	Task 2	Task 3
Respondents 1	7	7	7
Respondents 2	6.5	7	7
Respondents 3	7	7	7
Respondents 4	6	6	6
Respondents 5	7	6	7
Amount	6.7	6.6	6.8
Presentation of convenience	**95.7%**	**94.3%**	**97.1%**

The average score of 6.7 (95.7%) in the results shows that participants found the activity very straightforward to accomplish and that the application

prototype had excellent usability and straightforward navigation.

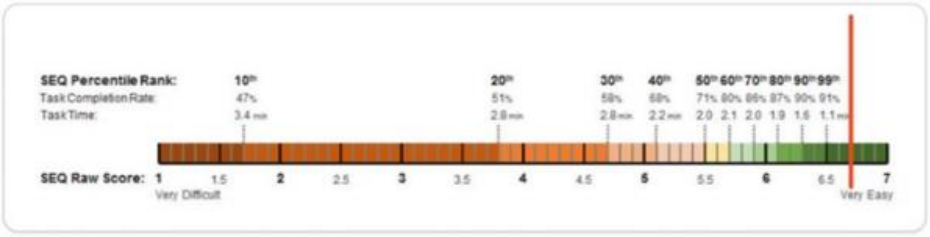

Figure 14. SEQ scale

c. Maze Analytics

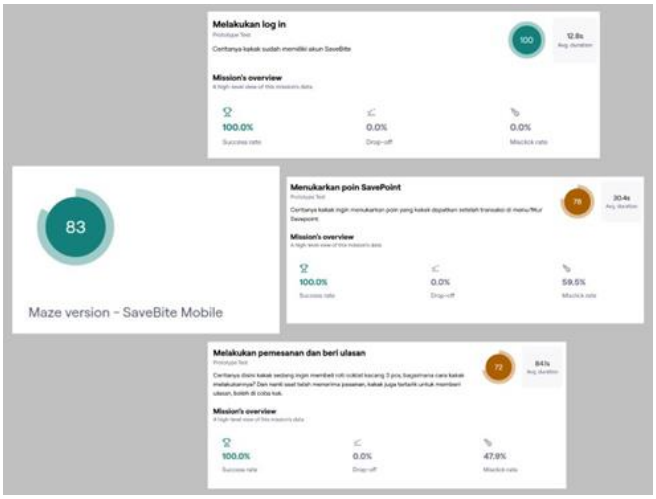

Figure 15. Overall Maze And Individual Features

To examine user interactions with the SaveBite application prototype asynchronously and without researchers present, remote usability testing is conducted using the Maze platform. In addition to displaying a heatmap visualization to highlight regions of user involvement, Maze automatically logs statistics such as task completion length, misclick rate, and usability score. According to the testing findings, users can complete all tasks with a low error rate and quick turnaround times. Users' curiosity about the UI is the leading cause of several misclicks. All things considered, Maze's findings show that the SaveBite prototype offers high usability, a clear design, and a simple, intuitive user experience.

Figure 16. Heatmap Visualization

CONCLUSION

This research demonstrates that applying Gestalt Theory and Design Thinking to the UI/UX design of the mobile application SaveBite has markedly improved the user experience in mitigating food waste. This study effectively identified and addressed many user difficulties, including insufficient information clarity and design responsiveness, through the five principal stages of Design Thinking: empathize, define, ideate, prototype, and test.

The findings of the usability testing demonstrate a significant improvement in the system, as evidenced by an average System Usability Scale (SUS) score of 81.0, indicating high user satisfaction. The Single Ease Question (SEQ) indicates that users perceived completing the application's features as highly straightforward.

This mobile application is designed to offer practical solutions to minimize food waste and promote user engagement in sustainability efforts. The SaveBite app is anticipated to be optimized and widely adopted across the community, significantly reducing food waste through effective use of digital technology.

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