

**KAWA: THE DIGITAL HUB FOR CULINARY ENTHUSIASTS**

**A Thesis Presented to the  
Faculty of the College of Science  
Technological University of the Philippines**

**by**

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**In partial Fulfillment of the  
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Bachelor of Science in Information System**

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**ABSTRACT**

This study explored the way social media has formed contemporary digital culture and how it affects various aspects of daily life, such as business, politics, interpersonal relationships, self-expression, and cross-cultural communication. The study examined how social media platforms enabled previously unheard-of levels of online communication and information sharing cultures and regional culinary dishes in the Philippines by examining its development and popularization. Furthermore, the study explored how the study was started and how successful it was as a project to promote and preserve regional Filipino food. The results showed that Kawa functions as a comprehensive online archive of regional foods and effectively cultivates a community of culinary enthusiasts. *Kawa: the digital hub for culinary enthusiasts* received overall positive feedback from its respondents, receiving a *Highly Acceptable* rating across all the given criteria with a grand mean of 3.66. The highest overall weighted mean was obtained by the *Functional Suitability* criterion in  $W = 3.73$  while the lowest is *Reliability*  $W = 3.60$  described as *Highly Acceptable*. The system also received valuable comments and suggestions from the IT Professionals which will be attached to this paper along with the tabulated results of this evaluation.

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This thesis hereto entitled:

**KAWA: THE DIGITAL HUB FOR CULINARY ENTHUSIASTS**

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## DEDICATION

We would like to dedicate this study to the Filipino people, this is our way of preserving our Culture when it comes to food, as well as raising awareness to the “hidden” gems of our culinary landscape. We believe food is a part of who we are as Filipinos, by making this we aim to provide a Platform where Filipinos can share their passion and love for food and cooking.

Moreover, we consider that an essential aspect of what makes us Filipinos is our fondness for food. With this study, we hope to establish a platform that will unite people who have a passion for Filipino cooking and food while also showcasing our culinary diversity. The objective of this study is to create a more profound awareness and comprehension of the flavors that characterize our culture by providing a forum for Filipinos to explore, discuss, and appreciate their culinary heritage.

This study emphasizes our shared pride and sense of identity. We are fostering creativity and the exchange of individual culinary experiences in addition to conserving traditional recipes by bringing together people who have an affinity for Filipino food. Through the exploration and celebration of the diverse range of flavors that comprise our country's culinary culture, this platform hopes to encourage future generations.

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## **Chapter 1**

### **INTRODUCTION**

#### **Background of the Study**

The development of social media greatly affected online communication, sharing of information and interaction between people. Platforms like Facebook, X formerly Twitter and YouTube popularized a new approach of online communication and content sharing in the early 2000's. Interactions and the sharing of content in these platforms are happening on a scale never seen before, and as a result, social media catered to a wide range of people and interest and eventually expanded into a more diverse environment.

Modern digital culture was greatly affected by social media, and it evolved to adapt to the constantly changing user preference and behaviors. Social media's broad effects influence the daily life of modern society, including interpersonal interactions and self-expression as well as business, politics, and cross-cultural communication.

Philippines has a rich and varied culinary culture, but despite of this, there is a lack of widespread knowledge and literature about the Philippines' regional culinary specialties accessible to everyone in the modern era. In Pampanga, famous for its Kapampangan cuisine, where culinary traditions are fundamental to cultural identity, this problem is especially noticeable.

The research "Intergenerational Transmission of Food Cultures in the Philippines" focused on the complex method by which these culinary traditions are handed down

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through generations within Kapampangan families. The relevance and difficulties of maintaining these traditions were clarified by the study.

The study revealed issues, such as the fading interest of younger generations due to the influence of fast-food culture, even though these traditions are passed down orally, through teaching and observation within families and communities, as well as through teaching and observation. This emphasizes how critical it is to establish a repository to preserve and share these culinary traditions to prevent their extinction (Leuterio & Vargas, 2021, p. iv).

The development of "Sisig" from "Manyisig," which is another aspect of the culinary tradition, serves as a reminder of the value of recording and maintaining these cultural artifacts. The enduring nature of cultural and culinary traditions is demonstrated by the "Sisig" culinary tradition in Angeles City, Pampanga. This tradition extends beyond the food itself and includes uncooked materials, built structures, tangible and intangible heritages, and a rich culinary legacy.

The study confirmed the importance of conserving and developing culinary history because it encompasses cultural identity, community growth, and historical relationships. To make sure that these priceless traditions are preserved for future generations to enjoy and appreciate, it is crucial to address the lack of a repository for these gourmet specialties (Cadiogan & et al, 2021, p. iv).

A wasted opportunity to capitalize on the potential of food tourism and build a feeling of community among those who have a passion for food is highlighted by the lack of a support network for culinary lovers and the difficulty of connecting Filipinos who

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share a love of food. In terms of influencing travel tastes and location preferences, food tourism has become increasingly important. This has been eloquently illustrated in the case of Thailand, where visitors' interactions with regional cuisine have a big impact on their entire travel experiences.

However, there is still a lack in completely utilizing this knowledge for both theoretical understanding and practical implementation, despite the abundance of online textual data available. Studying the culinary experiences of visitors to Thailand is important since it shows how beneficial the industry is to the country. Different internet platforms provide different experiences and provide unique contributions to local cuisine. One example of this locally is a particular group on Facebook that shares the same passion for making the best possible Filipino Fried Chicken recipes or commonly known locally as Kanto Fried Chicken.

It is characterized as the local chicken stands on the streets where Filipinos can buy and enjoy good fried chicken. The name of the said group is *fried chicken sharing and business recipe*, it is an active Facebook group amounting to upwards of three hundred thousand members and it is still growing as members of the group are trying to come up with the best possible homemade Filipino Fried chicken, actively sharing and rating each other's fried chicken recipes.

This Facebook group truly shows that people, not only Filipinos coming from different backgrounds can bond together through the shared love for food, in this case Filipino Fried Chicken (Kattiyapornpong, et al., 2021, p. iv).

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Indonesia, celebrated for its diverse array of culinary offerings, recognizes the pivotal role its cuisine plays as a representative of its broader culinary identity. This acknowledgment is rooted in the understanding that culinary brands possess the capacity to encapsulate a nation's historical narratives, customs, and cultural essence. Through an examination of Indonesian food enthusiast communities and virtual culinary forums, research underscores this perspective.

Findings revealed the significance of certain community members, often dubbed "insiders," in shaping organizational dynamics. These insiders not only impart profound insights into traditional gastronomy but also exert influence on fellow participants' engagement and commitment to culinary discourse. Their contributions foster a sense of community and strengthen ties to Indonesia's culinary heritage, underscoring the potential of such communities as hubs for like-minded individuals to connect, exchange ideas, and celebrate their shared passion for food.

Online platforms and support networks present tangible opportunities, both in the Thai and Indonesian contexts, to bridge divides and provide food enthusiasts with forums to convene, share expertise, and revel in the diverse and vibrant culinary traditions of these nations. Localized platforms, in particular, offer an extensive range of culinary tourism experiences, including immersive culinary excursions, interactions with indigenous communities, specialized cultural enrichment led by locals, and the communal benefits of food within local cultures (Triputra & Irwansyah, 2016, p. iv).

Conversely, there exists a disparity between the traditional methods of orally and textually conveying culinary expertise, evident in the lack of comprehension regarding the

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origins of dishes. Historically, culinary knowledge predominantly circulated through oral tradition and handwritten recipe documentation, serving as a bridge between societal and scientific realms.

These recipes, commonly referred to as "culinary narratives," encapsulate the unique heritage and cultural identity of a community. They provide the intricate technical and procedural insights essential for crafting dishes, thereby enhancing culinary craftsmanship and heightening the prospects of achieving culinary excellence (Mercado & Andalecio, 2020, p. iv).

This study dived into the significance of preserving local food as a vital part of each community's cultural heritage. By analyzing existing literature, it argued that culinary traditions are not just about cooking meals; they reflect a community's social, historical, and culinary roots. Many places prioritize preserving local cuisine as a way to set themselves apart and gain a competitive edge.

Indigenous foods and cooking styles have become valuable assets, boosting these locations' competitiveness worldwide. The findings suggest that popular destinations and chefs are increasingly using culinary traditions to showcase their skills and passion in the kitchen, encouraging people to explore new authentic dishes deeply rooted in local history (Nyarota & et al, 2022, p. iv).

Social media's rise is deeply tied to preserving and promoting culinary heritage, offering new opportunities for culinary tourism. This study focused on how important culinary traditions are for preserving cultural legacies, especially in today's digital world where social media platforms play a big role in sharing these traditions.



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It also talks about how embracing culinary heritage can benefit local economies and improve tourists' experiences. Overall, the research stressed the cultural and economic significance of food heritage, adding to the ongoing conversation about preserving and promoting it in the digital age, and ensuring these traditions continue to thrive and bring communities together worldwide. In line with these goals, the significance of this study lies in its potential to benefit various stakeholders through a dedicated digital platform.

Home cooks will discover inspiration and assistance, making it easier to produce healthy and appealing recipes while also conserving and innovating classic home-cooked meals. Restaurants may use the platform to engage with their target market, share their culinary masterpieces, and receive feedback, all while enhancing their internet visibility and attracting customers. Culinary students will have access to a wealth of knowledge, collaborative possibilities, and an environment to share their own creations, all of which will enhance their education and skill development.

School and university canteens can keep up with food trends and student preferences by adopting popular recipes to boost student satisfaction and promote better eating habits. Finally, future academics will have a solid foundation for investigating the impact of digital platforms on culinary education and trends, therefore contributing to the growth of the food sector. This multi-stakeholder engagement emphasizes the platform's role in connecting traditional culinary history with modern digital innovation, ensuring that these traditions thrive and bring communities together in the digital era.

**Objectives of the Study**

The main objective of this study is to develop Kawa: The Digital Hub for Culinary Enthusiasts.

Specifically, it aims to:

1. Design a social media platform with the following features:
  - a. A suite of engagement options has been implemented, including like, comment, and favorite buttons.
  - b. Text and media can be posted simultaneously, providing a more dynamic content-sharing experience.
  - c. Added a thorough list of Regional Cuisines and Filipino Foods to increase content diversity.
  - d. Introduced an administrative role to properly regulate and enforce the site's community standards.
2. Develop the platform as designed using the following programming language:
  - a. PHP as programming language.
  - b. HTML
  - c. Cascading Style Sheet (Bootstrap)
  - d. JavaScript
  - e. MySQL
3. Test the functionality of the system.
4. Evaluate the platform's acceptability according to ISO 25010 standards.

**Scope and Limitations of the Study**

The scope of a study defines the boundaries and extent of what the research aims to achieve. This study developed Kawa, a social media platform tailored for culinary enthusiasts, with features including an online repository for regional Filipino culinary dishes, community-building functionalities, and a comprehensive database of Filipino dishes. The success was measured by the platform's capability to provide a diverse culinary repository, build an engaged community, and offer detailed dish information. These objectives are feasible within the defined timeframe, making them attainable. Given the cultural significance of Filipino cuisine and the need for culinary community platforms, the project aligns with relevant interests and goals. The project has a specific timeline for development, testing, and performance evaluation, ensuring it remains time bound.

The limitation of a study defines the boundaries and extent of what the research aims to avoid such as resource constraints that may limit the depth and breadth of the online repository and community-building efforts. Time restrictions could impact the completeness of the platform's features and content, potentially affecting the project's objectives. Data availability challenges might affect the comprehensiveness of the culinary dish repository, impacting the objective of providing comprehensive information. Technical constraints may influence the efficiency of the platform in achieving its objectives.

## **Chapter 2**

### **CONCEPTUAL FRAMEWORK**

This chapter presents a comprehensive review of the existing literature and research relevant to the topic at hand. It aims to provide a solid theoretical foundation and contextual understanding by examining scholarly works, studies, and publications related to the subject. By delving into the existing body of knowledge, this review seeks to identify the gaps, trends, and key findings in the field, which will serve as a basis for the current study.

#### **Review of Related Literature**

This section presents key concepts and ideas related to the topic of the study. It includes discussions on regional culinary, digital hub, web design, and development, uses authentication and security, evaluation system, and the different technological tools.

#### **Regional Culinary in the Philippines**

Culinary tourism is rapidly expanding globally. Food has become an important consideration when selecting a place and an essential component of the holiday experience. The Philippines has a rich history of hereditary recipes, food-themed festivals, traditional cooking techniques, and remarkable indigenous culinary ability, all of which contribute to Filipino cuisine's growing appeal. In fact, Filipino cuisine is identified as an important tourism product in the Philippine National Tourism Development Plan (Gutierrez et al., 2022, para. 1).

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Filipino cuisine reflects a rich tapestry of influences from its past rulers, most notably the Spanish, who ruled the Philippines for 300 years, followed by brief periods of American, Japanese (during World War II), and British dominance. Mexican culinary features were also introduced through trade via galleon routes, which transported goods and cuisines to Philippine beaches. Furthermore, local cuisine in the country's Islamic parts is influenced by surrounding Southeast Asian countries (Tee, 2023, para. 3 and 4).

The Philippines features a variety of cuisines, each with its own distinct flavor. Regional dishes from Luzon, Visayas, and Mindanao appeal to a wide variety of palates, from salty and spicy meals to sweet desserts. Local ingredients are used in each location to create distinct cuisines that reflect its culture and traditions. Unique festivals provide a good opportunity to try some of these unique specialties. Many festivals feature cooking competitions in which inhabitants showcase their well-known culinary skills. There are a variety of local dishes available, including fish, meat, vegetables, and desserts, all made with regional ingredients. Regardless of what event you attend, one of the best ways to learn about Philippine culture is to eat different cuisines. (Secret-PH, 2023, para. 4, 5, & 6).

Pancit is one of the Filipino delicacies that have been influenced by Chinese culture. Filipinos adopted the culinary tradition, establishing themselves as an indigenized gastronomic identity. Using the Heritage Documentation Approach, this qualitative study explores the culinary heritage value of pancit on Luzon Island, the Philippines. In that context, this paper examines the various types and variations of pancit based on the community's cultural and heritage aspects, as well as related characteristics such as raw

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ingredients, selling points, cooking equipment and tools, cooking process, consumption, and waste disposal and recycling. (Mercado & Andalecio, 2020, para. 1).

Many factors influence our food choices and the development of our eating behavior and habits, including availability, income, culture, health concerns, social values, religion, and even inheritance. To be ingested by the majority of individuals and in typical circumstances, foods must be pleasant or appealing to the appetite. Food in today's society is a collection of common procedures, traditions, and beliefs shared by a large number of people. (O. Marco & HM, 2019, para 2)

### Digital Hub

Del Monte Kitchenomics, a well-known culinary brand, is excited to announce the introduction of its new internet community designed specifically for modern home cooks. This revolutionary Kitchenomics digital portal seeks to improve your cooking experience by providing a variety of tools, recipes, and interactive features for both rookie and experienced cooks (Philstar, 2023, para. 1 & 2).

Food has been recognized by Destination Management Organizations all over the world as a component of special interest tourism and an experience that helps distinguish a destination's offerings from competitors. The objective of this study was to look into travelers' perceptions of food as a motivator for visiting destinations, its ability to create memorable experiences for travelers, and the effectiveness of destination management organizations in promoting food tourism through digital media, especially in an era when travelers rely more on online sources for information. (Dawson et al. 2023, para.1)

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The growing convergence of the internet and the culinary world highlights food as a particularly rich subject for understanding the developing but often subtle impact of digital technology in our daily lives (Lewis, 2018, para. 1).

The sustainability of agri-food systems digs into ideas such as 'shared value,' which is critical in increasing a company's competitiveness and improving economic and social circumstances within communities, particularly for local digital food hubs. Although Food Hubs have been successfully developed in the United States, their presence in Europe and Italy is almost nonexistent, despite the sector's potential for economic regeneration through both digital and conventional channels. This potential is backed by the 'New Generation EU' European Plan, which includes significant funding for innovation and digitization. (Sgroi & Marino, 2022, para. 1).

The discussion of the Indian foodscape emphasizes the transformative impact of globalization, as well as the widespread influence of traditional and social media, as exemplified by shows like MasterChef Australia and platforms like Instagram, which shape food perception and presentation at both the restaurant and household levels. Based on in-depth interviews with food bloggers, experts, and enthusiasts, the article contends that the evolving Indian foodscape, characterized by diverse culinary offerings, innovative food packaging, and the rise of 'experience culture,' reflects a shift toward associating class and art with food, presenting a hyperreal dining experience and significantly contributing to the fields of media studies and cultural studies. (Nanjangud & Reddy, 2020, para. 1).

Web Design and Development

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Improving the online presence was greatly influenced by web design and social media interaction. Users expected a website that exists on many platforms and is well designed to work on many devices. A smooth integration of social media and site design is a great advantage for any career in today's digital environment. (Branex, 2018, para. 3)

The dynamic combination between web development and social media complements each other's functionality. It's important that web development be included in all phases of the social media marketing strategy implementation process, the integration of the two components for a project are important to get the desired outcome. (The Stack Group, 2021, para. 21)

A well created interactive web design to convince the target demographic willingly to engage and utilize the website. Web designing in social media has a clear correlation to each other by creating an user friendly and smooth experience. With web designing, it helps to keep the interests and attentiveness of the users like, attractive, regularly updated, and brand-reflective websites and social media pages. (Ringo Media, para. 16)

The prime goal in social media from the industry standpoint is user engagement. In web designing the focus is creating the best experience and interface for the users, websites that are appealing, responsive, and easy to use in different platforms will become well liked. (Power, 2018, para. 10)

In the digital age, web design should be user friendly and offer a smooth experience similar to interactions in social media. It takes a strategic strategy, in-depth knowledge of social media platforms, and expert execution to achieve this integration, which allows websites to blend in nicely with a variety of forms of media. (TIS, 2023, para. 31)



## Database Design and Management

Databases that are fast and reliable need secure and well-designed database architecture and management. Putting the industry standard into practice will make the database perform at its best quality to meet the requirements and perform tasks such as data modeling, normalization, data integrity, indexing, backup, recovery, security, and scalability. (Liki, para. 69)

Data accessibility, performance optimization, and consistency are required and important for the finest database management. Expertise in database administration is one of the most important skills in today's technological period. This skill is required for developing any application driven by users and data. (Medium, 2023, para. 76)

Managing social media effectively takes a lot of data handling from multiple sources. Successfully utilizing social media channels for marketing can be done by understanding the foundational elements of big data management. Operating across various channels generates terabytes of data every day, therefore managing this enormous amount of data successfully requires a dependable database, which may be created using self-designed solutions or already existing platforms. (Digital Doughnut, 2018, para. 4)

Database Management System (DBMS) manages and controls a vast amount of data that comes from multiple users stored in data tables and other databases. It allows the controller to arrange and present the database of the same structure to the desire of the controller. Using DBMS, it efficiently handles the data without physical location or storage medium of the data. (Tech Target, 2020, para. 3)

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Social media databases stores user data, including messages, contact lists, account information, and other types of data. There are different database systems used by different social media platforms, others use exclusive databases and others use open-source databases like MySQL. Database systems will improve the effectiveness of managing and safeguarding data, especially in social media platforms. (Bost Innovation, 2021, para 19)

### System Analysis and Design

System analysis is an important procedure for observation and improvement, especially related to computer-based systems. System analysis focuses on the satisfactory of architecture's composition and quality. It is important for comprehending, assessing, and improving computer-based systems is system analysis. (Analytic Steps, 2020, para. 9)

System analysts collect and analyze data to identify problems and provide feedback. System analysis helps create plans and prepare for future requirements. Planning, analyzing, designing, implementing, and maintaining new systems or methods to supplement or replace old ones is all included in system design. (Indeed, 2023, para. 4)

Social media is a product and a service, and it is possible to analyze these systems to help with service design, work culture reform, process optimization, policy refinement, and end-user interactions through multiple platforms. (Medium, 2020, para. 29)

User's presence doesn't significantly raise by improving the level of detail, such as showing the typing process. Nevertheless, the introduction of simultaneous real-time text transmission greatly increases the transfer entropy between people, hence enhancing intimacy, emotional arousal, and social presence. Simultaneous communication in

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addition to information richness in promoting dynamic digital interactions are needed to highlight the realization. This is extremely relevant for creating and generating meaningful and relevant conversations and experiences for users. (Frontiers, 2021, para. 1)

Social network analysis is required to be applied for identifying the variables in a system like models of social capital, user incentives, and organizational expenses. Improving the use-centered experience will be achieved by incorporating social dynamics and structures into the design of the system. (MDPI, 2021, para. 1)

### User Authentication and Security

Online Social Networks (OSNs) privacy and security risks were analyzed to develop solutions in response. It shows the gaps in OSN with different range of attacks to the users. The importance of security and assurance based in the patterns of the attacks on websites are required to be given attention. Creating countermeasures and defensive tactics, also containing the issues to improve the security of the users. (Springer Link, 2021, para. 1)

Variety of dangers that social media accounts can face, such as profile hijacking and social engineering. That many reasons social media security is important, especially in heavily regulated industries like finance and healthcare. A brand's reputation and online presence are closely related, any breach has the potential to damage consumer confidence and compromise confidential company information (Sprout Social, 2023, para. 1).

Improving the user authentication procedure, users can sign in several apps with minimum process by utilizing a social login authentication. Users can easily access

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numerous platforms or websites by reducing the steps like having to input their credentials again. To improve efficiency and user convenience, this authentication approach improves the user authentication procedure by using login credentials from well-known social media sites like Facebook and Twitter (LoginRadius, para. 3).

Social media security emphasizes the privacy and security of its users to malicious attacks. Safe social media browsing, controlling third-party apps and permissions, identifying phishing and scams, privacy settings, and account authentication are included. With the continues growth and popularity of social media, it's also increasing all the threats that will harm the users and that is why it needed focus in security and safety (Sprinklr, 2023, para. 1).

The way we communicate, and exchange information was revolutionized by social media, and it also raised concerns about data security and privacy. Users are becoming more and more aware of the dangers posed by data breaches, cyberattacks, and invasions of privacy. Encryption has become essential for protecting user security and privacy in social media space (Medium, 2023, para. 1).

## Evaluation System

The International Organization for Standardization (ISO) has created a comprehensive framework known as the ISO 25010 software quality model, sometimes referred to as the SQuaRE (Software product Quality Requirements and Evaluation) model,

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to analyze and evaluate the quality of software products. It offers a collection of fundamental quality traits and sub traits for assessing software systems

ISO 25010

**Table 1.** The ISO 25010 Model

Criteria	Attributes
Functional Suitability	Functional suitability refers to the software's ability to provide functions that meet specified needs
Performance Efficiency	Performance efficiency evaluates the software's ability to perform tasks with appropriate speed and resource usage.
Compatibility	Compatibility assesses the software's ability to operate effectively with other software, hardware, or systems.
Usability	Usability focuses on the software's ease of use and user satisfaction.
Reliability	Reliability measures the software's ability to perform its intended functions consistently and reliably.
Security	Security evaluates the software's ability to protect data and system resources from unauthorized access, breaches, and attacks

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### Maintainability

Maintainability refers to the ease of maintenance and the ability to modify, enhance, or repair the software.

### Portability

Portability assesses the software's ability to be transferred from one environment to another.

## Operating System

Operating system (OS) is an important component of a computer, it controls applications, allows hardware connection, and facilitates services via an application program interface. It requires a computer to have an OS installed, to allow the application to run. The important components of OS found in kernel, the deepest part of computer's software (Great Learning, 2023, para. 1).

Microsoft's Windows OS is the most popular graphical user interface (GUI) based operating system. Windows is known for its adaptability to a wide range of devices and software programs and efficient file management features for effective file organization and accessibility. Windows has a built-in antivirus to protect against malware and viruses (PrepBytes Blog, 2023, para. 2).

Windows is an operating system from Microsoft that lets users do a lot of things including read, save data, run apps, play games, watch videos, and connect to the internet. It is deployed on about 90% of personal computers and meets the needs of both personal and professional computing (Go Seeko, 2022, para. 1).

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Google's Android operating system is designed mostly for mobile devices, such as tablets and smartphones. The user-friendly design allows the users to quickly learn and adapt the input actions to operate the devices and to be able use it intuitively. Android's user interface can be customized, so it can also use in automobiles, wristwatches, and televisions in addition to mobile devices (Investopedia, 2022, para. 1).

By the end of 2020, the Android operating system will be widely used across many mobile platforms with a market share of about 75% worldwide. Based on an altered Linux kernel and additional open-source software, it was first created by the Open Handset Alliance (Elprocus, 2020, para. 1).

### Visual Studio Code

Microsoft Visual Studio (VS) Code is an Integrated Development Environment. It is a powerful platform or tool that supports virtually any kind of programming language. It categorizes itself as a lightweight, powerful and open-source IDE that can run on a desktop and other Operating systems, as well as on the web (Heller, 2022, para. 1). It is a platform that allows for the writing, editing, and modifying code. Recently there are AI driven tools that boost productivity for developers, one of these is IntelliSense Code which predicts and suggests the possible codes that need to be written to make it function (Vaithilingam et. al, 2023, para. 1-3). According to Del Solle (2023, para. 1).

Visual Studio Code is an end-to-end development environment. which offers functionalities that cannot be found on other IDEs, as it enables developers to work on various types of projects as well as debug and analyze code in multiple languages, this concept gives way to the inception to an almost universal IDE that serves the most

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functionality. Widely used in the field of programming it is used by both professional and newbie programmers as it's very pleasing user interface and high contrast color scheme somehow makes code on this IDE more readable compared to other IDE.

VS Code also allows integration to a repository where users can store their code almost seamlessly with integration with systems like Git or other repositories. Allowing the support for Git through the IDEs built-in integration allows developers to edit, access and even update files within the IDE, without having to leave (Pendamkar, 2023, para. 5-7). It is a great feature when working with other developers, making it easy to access and integrate certain code and files through its ease of access and viewability.

Having Cross-platform functionality gives Visual Code an edge compared to other IDEs. It also has a particular function that greatly reduces the loss of progress when it comes to coding. One of the people who worked in developing the project made use of this function, which according to an article by Pasero (2021, para. 17) that the *Auto Save function* that the VS Code has been one of the initial goals in developing this IDE which is deployed during the earliest versions of VS Code. Visual Studio Code was the IDE where this study is built on, using the said functionalities to our advantage throughout the development of the system, this greatly reduced the downtimes and boosted the productivity of the team.

## XAMPP

This article explains how to utilize XAMPP, a cross-platform Apache, MySQL, PHP, and Perl framework that focuses on web application development processes. The session discusses using XAMPP as a local host, evaluating various web application



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building technologies, and delving further into the life cycle model and architecture. Furthermore, the paper provides insights into the technology, with a concentration on PHP, and uses pictures to describe XAMPP's operation, anticipating constructive criticism of the process (Joshi et al., 2022, para. 1).

XAMPP was created as a development tool for web designers and programmers to test their work on personal computers without the need for Internet access. To speed up the setup process, numerous key security elements are deactivated by default. XAMPP works as a web server, serving web pages locally on the PC (Naik, 2023, para. 3).

Users that use XAMPP today may have been used to Internet Explorer 6 in the 2000s, as it was frequently their first introduction to web creation. As a result, they may have persisted with XAMPP without considering or implementing alternate options. Unfortunately, many books and tutorials continue to recommend XAMPP as the preferable programming environment, reinforcing the notion that it is "easier" owing to familiarity. However, difficulties arise when doing operations that are outside of XAMPP's rather restrictive default configuration (Butler, 2021, paras 3 and 4).

XAMPP is a versatile solution for testing applications using many technologies on a personal server. Its name refers to the abbreviated forms of its essential components: X for cross-platform interoperability, Apache web server, MariaDB database management system, and scripting/programming languages such as PHP and Perl. This software package is intended to run on a variety of operating systems, including Windows, Linux, and macOS (Mishwani & Mishwani, 2022, para 3 and 4).

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XAMPP works with Windows, Mac OS X, and Linux, allowing users to build and test web applications without having to install different software on each development and testing device. Setting up XAMPP is quicker than establishing other server environments. XAMPP simplifies tasks such as defining server settings, installing packages, and creating database users, reducing the time required for environment setup (Nagendrag, 2023, para 33–34).

## PHP

PHP is a popular server-side programming language for enterprise and web applications. PHP is one of the most popular programming languages for developing interactive websites and online apps due to its open source nature and fast execution speed. Several of the most popular websites today, including Wikipedia, Facebook, Flickr, Yahoo, MailChimp, and MailChimp, are totally developed with PHP (David 2023, para 1).

PHP is a basic but effective computer language used to create HTML pages. This chapter provides an in-depth look at the PHP programming language. It discusses PHP's characteristics and background, the systems on which it works, and how to customize it. This chapter concludes with a fast tour of PHP apps that demonstrate common activities such as form processing, database connection, and picture creation. (Tatroe & MacIntyre, 2020, para. 1).

PHP is free and open-source, thus developers of all levels can use it. PHP is ideal for web development because it can be integrated straight into HTML code. Furthermore, PHP is an effective tool for developing complex online applications since it supports a

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wide range of databases, including MySQL, Oracle, and PostgreSQL (Lincopinis, 2023, para 1).

PHP, unlike other backend languages, deals with business logic. It can also collect data, send and receive cookies. PHP also lets you alter, update, or delete data from a database, grant user access to it, and encrypt it (Hari, 2023, para 6).

PHP's ease of use, clear syntax, and well-documented code are continuously supported by a thriving development community that ensures timely upgrades. Its versatility extends to cloud services, hosting providers, and numerous web technologies, which increases its adaptability. PHP, which is open-source and free, not only performs faster than server-side programming languages such as Python, but it also serves as a solid solution for server-side rendering technologies. PHP supports the creation of HTML templates for both static and dynamic websites, as well as plugins and tools for online applications, making it extremely compatible with platforms such as WordPress (Shiotsu, 2021, para. 30).

## HTML

Hypertext Markup Language, also known as HTML, is essential in building web pages, establishing the foundational structure of a webpage. Oftentimes referred to as the "skeleton" of a webpage. HTML gives way for developers to ensure proper formatting of all the texts, images and graphics on web pages, also made possible in accordance with CSS, they can design any web page according to their liking (Ghimire, 2020, para. 7).

HTML functions as a set of rules for the browsers that are about to be displayed to the user. CSS and HTML go together as foundations of modern web development (Nicoara, 2023, para. 1). HTML is a composition of elements utilized in the creation of web pages and websites. It instructs web browsers in a form of tags, such as the "body," "head," "title," and "section," where many tags can contain other tags as child elements (Lamsal, 2020, para. 7).

In web development, new programming languages and technologies are constantly available for usage, upgrading the possibilities it can have. Some examples of these web technologies are CSS/HTML, PHP, SQL, JavaScript, Perl, Python, and Ruby. Among the said web Technologies CSS along with HTML and JavaScript are most utilized (Lyashenko et al., 2023, para 1-3).

The last decade has seen HTML transform into a significant functional evolution, eventually reaching in the release of its newest / latest version the HTML5. This new version made way to new and improved elements can lead to more complexity, fragmentation as well as possibilities across protocols, platforms, devices, and systems. This continuous improvement has greatly influenced the new landscape of web development in the 21<sup>st</sup> Century (Gutierrez, 2021, para. 1).

HTML 5 greatly simplifies dynamic website development, it increases flexibility for its developers. Current trends suggests that 90% of websites are already built using HTML5, major browsers like Google Chrome, Safari, and Firefox have integrated this seamlessly for this HTML version to their respective web browsers (Joshi, 2023, para. 1). HTML is continually evolving and has become a cornerstone in building web pages. This

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technology is utilized in this study, in creating a website that serves as a Hub for Filipino Culinary Enthusiast. HTML is the backbone of the collection of web pages that currently exists as we know of on the Internet.

### CSS (Cascading Style Sheets)

Cascading style sheets or CSS allows for the existence of visually appealing web pages, as it is an integral part along with HTML to the way information is presented to the users. A style sheet is used to determine how the webpage is to be viewed (Azbergenova & Uteuliev, 2023, para. 3) . It first appeared in the 1990s as a style sheet language intended to improve the visual features of web content. It has evolved into a vital skill for web developers and is a critical component in designing the online user experience.

CSS is essential to the presentation and style of a web page, working together with multiple markup languages (Basumallick, 2022, para. 2). In the Earliest days of the Internet and web pages the task of defining the visual style of HTML pages on the web was addressed using CSS. Earliest implementation of browser technologies and webpages used CSS in the early days of Webpage Design, this version of CSS does not provide the same capabilities as it is today, it has been described as ‘providing little control in terms of a web pages’ visual appearance’.

CSS in its current configuration has been used and utilized by Front end developers and Full stack developers as a Standard Language in Providing the Best possible browsing experience for its users, utilizing theories on UI/UX in building dynamic webpages that give way on creating complex and intricate webpage design (Ndia et al., 2019, para. 2). CSS and other programming languages can exist together to build web pages which is now

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categorized as Web Programming. This had shaped the way we, the users view and use the web.

Terms such as “seamless user interactions, responsive design, and dynamic content delivery” from various social media, e-commerce, and streaming sites has surfaced Abdurakhimovich (2023, para. 3). In today's digital age, it is both standard and of relevance that a website should be able to adapt to various devices and resolutions without degrading. Because a website that is responsive can offer the best possible viewing experience (Dănuț et. al, 2019, para. 6). The researchers has used this technology to build a website where information is visually presented in a way that it is pleasing to its users, in order for them to use the website according to its intended function.

### JavaScript

JavaScript was created to meet the rising needs of the growing internet environment. Since its conception, it has risen in popularity and scope beyond standard web development. JavaScript has become the industry standard for interactive web development, making it practically ubiquitous in the sector (Ozanich, 2022, para. 4).

JavaScript is adaptable enough to be utilized in a variety of applications, including software development, device controllers, and server-side operations. While JavaScript is most commonly linked with web development because to its native support in web browsers, it has spread to other domains. Web browsers can interpret JavaScript natively, just like a native English speaker does (Meltzer, 2020, para. 2).

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JavaScript is generally acknowledged for its inherent speed, which improves the performance of webpages and applications. It allows developers to handle maintenance and upgrades more efficiently, which speeds up the debugging process. Its ability to work fluidly with various programming languages makes it an adaptable option for front-end web development (BairesDev Editorial Team, 2022, para. 2).

JavaScript enhances websites by making them more interactive and user-friendly, allowing for easier navigation and enabling designers to deliver more information or guide visitors through walkthroughs. Additionally, JavaScript is instrumental in creating visual effects like picture rollovers (Geekbots, 2022, para. 2).

JavaScript's ability to adapt and large set of tools and libraries have cemented its place and efficacy in web development, allowing developers to create unique web apps that can revolutionize the online experience. Its open-source nature makes it accessible to anyone, regardless of past experience or skill level. These advantages highlight why JavaScript is still an essential technique for modern web developers (Wie Kang, 2023, para. 2).

## MySQL

MySQL is a widely used, open source database system that requires minimal disk space in order to function efficiently. It is important to consider that compared to other database technologies, MySQL has considerably fewer functions, however it has the fundamentals to be a robust database and has complete basic functionalities for database management (Islam et. al, 2022, para. 24). MySQL, an open-source relational database management system which means it can be used by anyone in their projects and

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developments this Database Technology follows the standard relational database model, storing data in multiple tables composing of multiple rows and columns.

Users interact with the system through Structured Query Language (SQL), a useful query language that lets them define, manipulate, control, and query data within the MySQL framework (Drake, 2020, para. 1) . It is widely used and considered as a robust database system that is easily accessible making it one of the, if not the most popular and basic database management systems in the world. Famous companies such as Facebook, Twitter, Air BNB, and Netflix had utilized MySQL throughout its development and deployment. When building dynamic web pages, that are hosted online or in other words Cloud based, MySQL is commonly used as a Database Management System, in an online environment. It is some of the most used technologies used to store user data and log-in information. (Sotnik et al., 2023, para. 8).

SQL, or Structured Query Language, is a type or in other term a subset of a specialized database query language used to create and manipulate data in databases. It is used to carry out a number of operations, such as database updates. The idea of a Relational Database Management System (RDBMS) is strongly related to this function (Noviana, 2022, para. 7). Commonly used within the XAMPP application with the phpmyAdmin feature which is used mostly for web pages built using PHP as a back-side programming language, primarily used to manage data that exists in the webpage (Yusuf, 2022, para. 5).

MySQL has functions in maintaining the security of the data secured in the databases, one of these security features are encryption, which is most of the time included within MySQL, which can be used to encrypt user information as well as passwords (Kadiri



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& Ukaegbu, 2023, para. 10). In the setting of this study, SQL is established as the Database Management System of the website. It utilizes this reliable 'free' technology in structuring, storing, and manipulating the data generated and input within the website.

### Computer and Internet

GWS Media (2021, para. 3) briefly captures the advancing nature of web framework prerequisites, noticing that innovative headways have brought approximately considerable changes in requests. This brief explanation serves as a door to a comprehensive investigation into the variables moving these changes. By recognizing the nonstop advancement of innovation, GWS Media emphasizes the flexibility required for web frameworks to meet unused challenges successfully. The descriptor "noteworthy changes" insights at the significant shifts in prerequisites, recommending potential worldview changes in the plan and support of web frameworks. In general, this explanation lays an establishment for a point-by-point examination, welcoming assist request into the particular variables driving these changes and their suggestions for the advancement and administration of modern web systems.

The necessarily part of the web in cutting edge day by day exercises, communication, and recreation requires particular highlights inside one's computer framework. Changing over an ordinary computer into a mixed media center includes the integration of speakers, earphones, microphones, and related functionalities. Central to web network are fundamental components: a modem, remote switch, computing gadget, and a membership from a Web Benefit Supplier (ISP) for get to. As Vendatu (2023) declared, collaboration among an ISP, computer, and interfacing gadget is basic for web get to,

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highlighting the interconnected biological system fundamental for consistent advanced engagement in modern society.

### Processor

The equipment prerequisites, eminently indicating "Windows CPU Core 2 Duo or Athlon X2," depict the fundamental handling control basic for site development on a Windows working framework (Travis, 2021). By emphasizing dual-core processors, the capacity for concurrent assignment taking care of vital web improvement forms is underscored. The term "least processor details" builds up a foundational standard for smooth apparatus execution, whereas compatibility with the Windows OS guarantees optimization for consistent integration. Furthermore, affirmation of potential prerequisites for more strong equipment to handle complex assignments includes adaptability, engaging engineers to customize assets for proficient site improvement.

### Memory

Steele (2021) recommended that having a RAM capacity surpassing 4GB is fitting, with the agreement being that more is best, notwithstanding of the apparatuses and applications utilized (para. 44). Additionally, to ease eye strain, it is prescribed that the screen determination surpasses 1920 x 1080 pixels. Furthermore, accomplishing moved forward information capacity execution requires a memory speed more prominent than 3.6 GHz. These suggestions by Steele offer profitable experiences into the equipment contemplations basic for successful site advancement.

In site framework advancement, Travis (2021) highlighted the essential part of RAM capacity, proposing a reasonable extent from 2 GB to 24 GB (para. 9). For

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assignments requesting increased execution, such as serious applications or large-scale site advancement, vigorous 24 GB RAM is suggested, adjusting with the require for significant memory assets to handle perplexing forms and broad codebases. On the other hand, for easier computing needs or less complex websites, a least of 2 GB may suffice, outlining the versatile nature of RAM based on extended complexity. By joining these RAM rules into the broader talk on site framework improvement, engineers can optimize their memory assets to absolutely meet the particular prerequisites of their ventures, guaranteeing ideal execution and responsiveness.

### Storage

The ideal estimate of the hard drive can be altogether impacted by the complexity of embraced ventures, as highlighted by Steele (2021, para. 44). This proposal underscored the significance of adjusting disk capacity with extended scale, especially concerning the number of webpages and related information that require capacity. Steele's understanding emphasizes the energetic relationship between venture complexity and capacity prerequisites, recognizing that bigger and more complex ventures may require proportionately expanded disk capacity. By recognizing this relationship, engineers and framework directors can make educated choices around hard drive details, guaranteeing they meet the particular capacity needs directed by venture scope and information volume.

Steele (2021, para. 46) underscored the significance of having an outside hard disk accessible as a judicious degree for web advancement ventures. This proposal is grounded in the acknowledgment that standard information reinforcement is basic amid venture work, considering the potential dangers of record debasement or site crashes. The recommendation to utilize an outside difficult disk highlights the requirement for a solid

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and isolated capacity arrangement to defend against information misfortune and guarantee extended progression. Also, Steele exhorts getting a partitioned server machine if the site builder or web plan stage being utilized needs moment facilitating alternatives and if outside facilitating administrations are not portion of the arrange. This proactive approach points to giving engineers with more prominent control overextending facilitating, improving steadiness and relieving potential challenges related with outside conditions.

To accomplish ideal usefulness, Travis (2021, para. 9) suggest particular capacity contemplations for the framework. Guaranteeing a free space of at slightest 8 GB on the framework is exhorted, laying the establishment for smooth operations and productive assignment execution. Furthermore, distributing an additional 24.4 GB for capacity needs reflects a mindfulness of the shifting requests related to information capacity, pleasing the potential development of records and ventures. Besides, Travis recommended assigning 1 GB for a swap record, emphasizing its part in improving framework execution by and large. These rules offered clients an organized approach to framework capacity administration, adjusting accessible space for prompt utilize, potential capacity development, and execution optimization through vital record allotment.

## Android Smartphone

The far-reaching appropriation of Android-based portable gadgets is reshaping them into the essential portal for people to get to the online domain, with the nonstop surge in smartphone utilization. To ensure smooth interaction between shoppers and a site on Android smartphones, it is significant for the location to pass the mobile-friendly test effectively. Outstandingly, Google detailed in 2017 that the worldwide month to month utilization of Android smartphones outperformed two billion, speaking to a critical 80%

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share of all smartphones deals to conclusion clients all inclusive. This dominance in the showcase underscored the fundamental significance of optimizing websites for Android stages. In differentiate, Apple, in January 2016, declared the fulfillment of 1 billion dynamic iOS gadgets, illustrating the critical nearness of both Android and iOS in the portable scene (Diego, 2022, para. 7-10). These insights emphasized the basic need for web engineers to prioritize mobile-friendly plans, especially for Android gadgets, to guarantee a broader reach and improved client encounter.

### **Related Studies**

The studies reviewed were found relevant to the present study : Khalid, Jayasainan, and Hassim (2018) stated that “social network sites (SNS) users at present trust peer recommendations more than search engines and this phenomenon is evident from their resonance with social media influencers (SMIs) who are capable of influencing massive followers through reviews of products, services, and social trends on their social media accounts; particularly on dining out and ‘cafehopping’ as a social experience. This study examined the curation of Instagram posts by SMIs and found that their visibility of content created shared voices and reinforced cultural identities among their followers.” (p. 1).

Mulianingsih, Nabila, and Fairuz Iftikhar (2022) stated that “Instagram is the main recommendation in deciding or choosing a restaurant compared to other platforms. In addition, in the comments column there is a review of the food or beverage photos so that users can more easily assess the restaurant before visiting it. Taking photos of food or beverages is conducted in a way that prioritizes aesthetic value by using a professional camera. This strategy attracts users interested because the food uploaded on the account

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uses attractive visuals. All photos of food and beverages are completed with informative captions. Instagram users can more easily get information from information and locations tagged on the photo.” (para. 6).

Lewis (2018) stated that “examining food photography on social media before discussing the role of ordinary people as participants in online food culture via video-sharing platforms such as YouTube. Mapping the shift from web 2.0’s dreams of creativity and sharing to the monetisation of digital food communities.

Pilař, Stanislavská and Kvasnička (2021). stated that “users most commonly associate healthy food with a healthy lifestyle, fitness, nutrition and diet. Foods associated with this hashtag were vegan, homemade, and organic. It is possible to identify lifestyle as an important element in the field of healthy eating. In the following studies, it is necessary to focus separately on individual topics that have been identified as the most commonly associated with healthy food and to make a comparison within other social networks like Facebook, Instagram, and TikTok.” (para. 41)

Görür, Atabay and Güzeller (2023) mentioned that “photographs and likes show that users have high and low perceived images for certain food categories. Hashtag findings support the user’s positive attitude towards Turkish cuisine. The study will help the destination develop future social media strategies by revealing the strengths and weaknesses of user-generated content (UGC) in the destination's food image branding.” (para, 1).

Exploring the complex relationship between the digital and food industries and emphasizing that food is a crucial context for understanding how the digital is changing

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our daily lives. The phenomena of food photography on social media platforms, noting how people actively participate in online food culture by posting images of their culinary masterpieces. Examined the transition from *Web 2.0's* idealistic ideas of creation and sharing to the commercialization of online food communities, shedding light on the intricacies of food politics and the paradoxes of connectedness. (Lewis, 2018, p. iv)

Food and digital media are intertwined in modern popular culture. In contrast to how digital media is becoming more important in daily life, the study emphasizes how food is becoming a topic of interest that is becoming more popular. The audiences interact with the variety of culinary texts that are available across multiple platforms and look at the decisions they make when choosing between traditional and digital media or combining the two for different uses, such as entertainment, shopping, eating, and cooking (Kirkwood, 2018, p. iv).

Godora and Dev (2021) emphasized how the evolution of food in modern culture is explored in the paper, in addition to being seen as a basic requirement, food has evolved into a component of lifestyle. The goal of the study was to comprehend the variables influencing the consumption and creation of food and culinary-related material while also analyzing the effects of the Covid-19 pandemic on food media. The study's results showed a discernible increase in both the production and consumption of food- and culinary-related material (p. iv)

Atwal, Bryson, and Tavilla (2018) identified the motivations behind posting or sharing food photos on social media, with a focus on the context of fine dining establishments. The study's conclusions showed that the reasons people take, and post food

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photos may be broadly divided into two categories: those that are experiential such as hedonism, altruism, and passion amassing and those that are symbolic such as social status, originality, self-esteem, and self-presentation (p. iv)

Simeone and Scarpato (2020) examined the complex relationship between social media, sustainable consumption, and food choices. As a novel contribution to discipline, the study intends to shed light on how social media affects consumer behavior, environmental consciousness, and access to consumer information. The study uncovers the link between information found on social media and non-sustainable dietary practices through a survey taken in Benevento, Italy, with 162 participants. It points out factors that make it more likely for people to get knowledge via social networks, which could result in actions that are not environmentally sustainable. The study also reveals an important finding: social media frequently encourages consistent eating practices that harm the environment. This demonstrates how social media shapes consumer behavior and may influence sustainable purchase habits (p. iv)

Lewis and Phillipov (2018) study stated that “the world of food has been quietly colonized by an array of electronic devices, online content, and information and communication technologies. For consumers in Australian cities, digital food practices have quickly become habitual and often passed unnoticed in people’s daily lives, from ordering take away food online via platforms like Deliveroo and searching and reviewing restaurants using smart phone apps to ‘connecting’ with food producers and farmers via online food hubs.” (para. 1).



Aisyah Dwityas et al. (2020) stated that “the diversity of information sources and content on social media provides more strength for consumers, particularly Millennials to make the consumption decisions of culinary products. Despite it has great potential, social media cannot stand alone in the context of facilitating all stages in the consumer journey, particularly for consumers of culinary products.” (p. 1).

Francesc Fusté-Forné and Nela Filimon (2021) stated that “social media promotion in Instagram also revealed how bakeries have managed this difficult situation and kept a close relationship with customers, standing up as a symbol of resilience against the odds and contributing to preserve customers’ awareness on food and health, and the city’s identity, through digital branding strategies that communicate messages around bread and pastry foods (the product), the shop and the workshop (the place), and both the employees and the customers (the people).” (para. 1).

Philip and Bali (2022) stated that “the research attempts to study the increase in the growth of viewership as well as production of food/culinary related content. The paper also analyzes the impact of the Covid-19 pandemic on food media. The increase has been exponentially greater during and after the 2020 pandemic, as people have been more interested in the topic and are actively participating in creating it too.” (para. 3)

Khoirina Kencana Ningrum and Ratna Roostika (2021) viewed that “the interaction variables, trends, and EWOM have a positive and significant effect on consumer engagement, and consumer engagement has a positive and significant effect on brand awareness and brand image. While the entertainment and customization variables have no significant effect on consumer engagement.” (para. 2).

### Conceptual Model of the Study

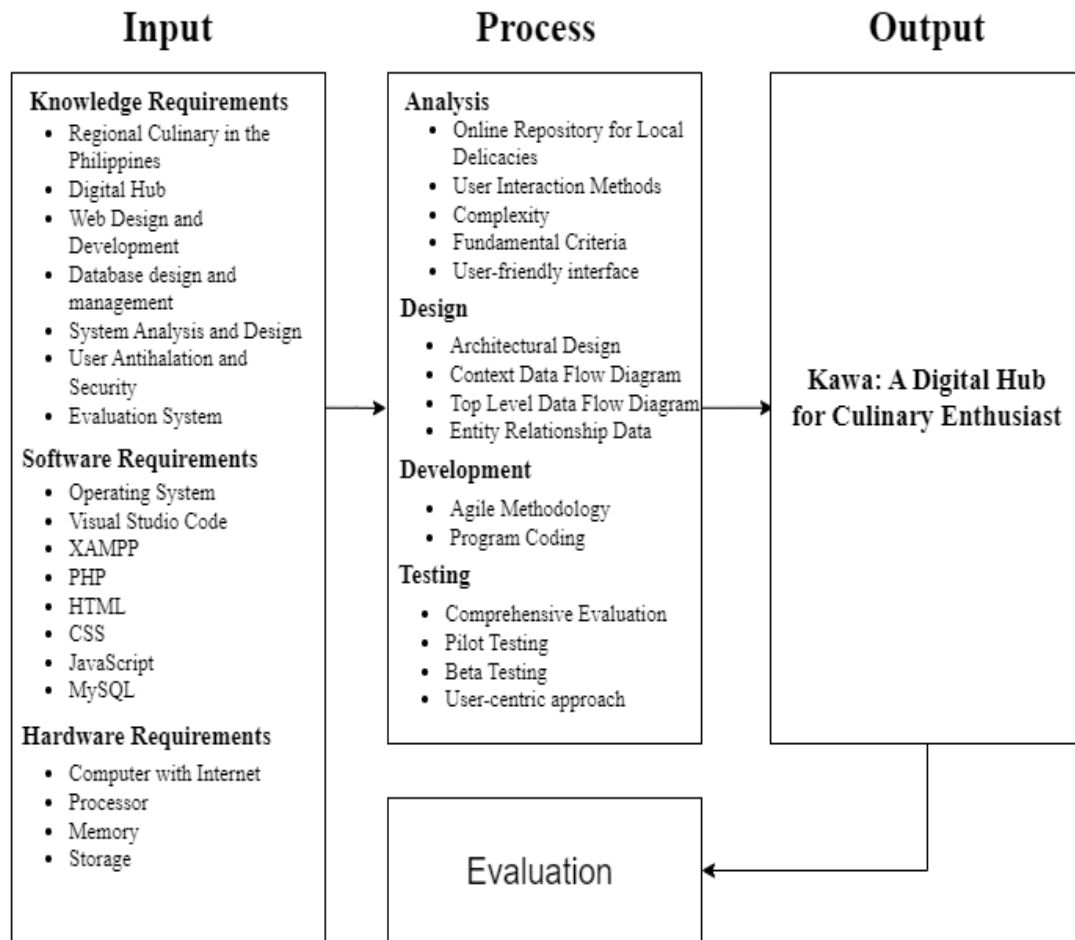


Figure 1. Conceptual Model of the Study

The conceptual model of the study is a simplified representation or framework that illustrates the key concepts, variables, and relationships being explored in the research. It provides a visual or abstract understanding of how these elements are interconnected and influence one another within the study's scope.

## Input

Figure 1. presents the conceptual framework of the study which suggests the researchers should have a thorough grasp and expertise in a variety of knowledge areas, as well as the necessary software and hardware, are necessary to construct a social media website successfully. For building a reliable and user-friendly platform, expertise in web development, database management, social network integration, user experience design, content management and moderation, and user authentication and security is essential. The basis for effective and secure website creation is adequate software requirements, which include the right operating system, web server, development environment, front-end and back-end frameworks, and a trustworthy database management system. For assuring efficient development workflows and seamless website performance, additional hardware specifications including a powerful CPU, enough memory (RAM), plenty of storage, a reliable network interface, and well-equipped development workstations are essential.

## Process

Various visual models should be used when creating a social media website to comprehend and entity relationships, and user interactions of the system. These models include the Entity Relationship Diagram, which illustrates the relationships between entities and their attributes. These visual representations support study, design, and communication of user interactions, data management, and operation of social networking websites.

## Output

Kawa is a digital food hub designed exclusively for culinary enthusiasts, offering a dedicated space for users to connect, share, and explore their passion for cooking, recipes, and all things food related.

## Operational Definition of Terms

The following terms are defined to better understand the study.

**Users** - In the context of a digital platform or online community, users refer to individuals who have registered or created an account to access and participate in the platform's activities.

**Register** – Register is a function that allows users to create an account to access and participate in the platform's activities.

**Login** – Login is a function that allows users to login into the platform to access functionalities of the platform.

**Recipe** - A recipe is a list of directions or requirements that describe how to make a certain dish or meal.

**Moderation** - An administrator is a person or role in charge of controlling and supervising a system's settings, users, and activities.

**Post** - A post refers to a piece of content created and shared by a user within an online platform or social media network. It can take various forms, including text, images, videos, or a combination of different media.

**Like** - Like refers to the action taken by a user to express appreciation, agreement, or engagement with a specific post or content.

**Comment** - A comment is a written response or feedback provided by a user in response to a post or content shared on the social media application.

**Follow** – A follow allows users to see all another user's posts in their home page.

**Favorite** – A favorite is a function that allows the user to mark their favorite posts and recipes.

**Trending** – A trending page shows all the posts had a significant amount of interaction in the platform.

**Profile** – A profile shows all information registered by the user, posts, and activities.

**Notification** – A notification is a notice of specific interaction or activity on a specific post.

**Tag** – A tag is label for a post to indicate the scope of the post top and discussion.

**Dashboard** – A dashboard is a feature that shows the activities of the users in the website.

## Chapter 3

### METHODOLOGY

This chapter outlines the strict approach utilized to carry out the study and obtain reliable results. It defines the techniques, methods, and strategies for collecting, analyzing, and interpreting data. Using a well-designed methodology, this study maintains the accuracy, reliability, and integrity of the research process, enabling the development of meaningful findings and suggestions.

#### Project Design

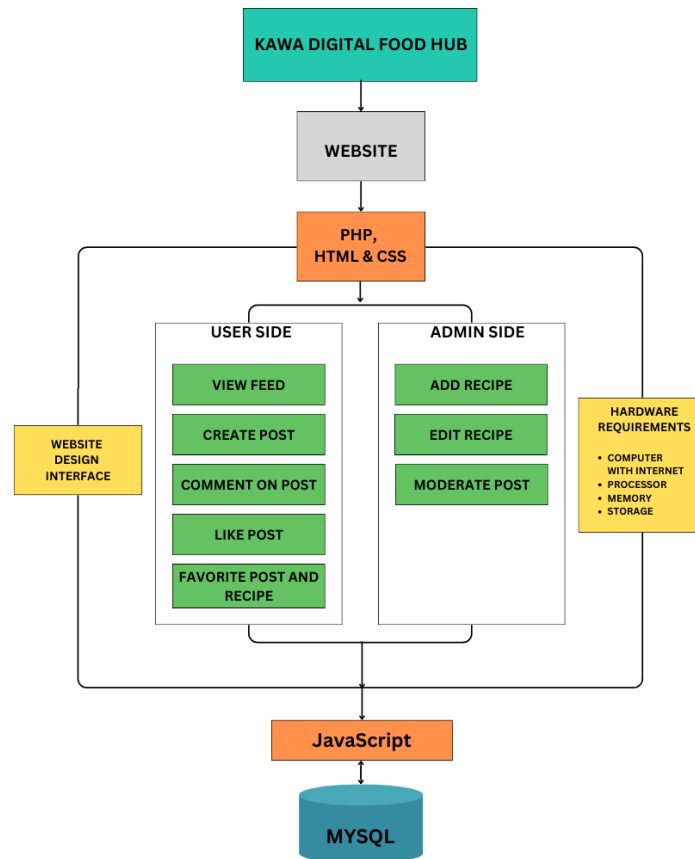


Figure 2. Architectural Design of Kawa

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

Shown in figure 2 is the architectural design of Kawa Digital Food Hub is a digital hub that serves as a hub for recipe sharing and community involvement for culinary enthusiasts. Users can post their own recipes, encouraging a creative and collaborative environment. The website encourages networking and idea exchange within the culinary world by promoting connections among like-minded individuals. The website serves as the Philippines' melting pot of flavors, with a diverse assortment of dishes centered on regional Filipino cuisine. It also includes a fashionable recipe showcase to keep users up to date on culinary advances, and it focuses on conserving the rich tapestry of regional Filipino food, fostering cultural appreciation, and exploring the Philippines' diverse culinary heritage.

The minimal hardware needed for Kawa, a social media platform that can be accessed through a computer's web browser, depends on a number of variables, such as the application's complexity, the volume of users anticipated, and the required performance standards. However, the minimum hardware requirements listed below are recommended for basic functionality and usability:

- **Processor:** To perform the computational tasks necessary for the web application to run smoothly, a current dual-core processor or higher would be adequate. It is advised to use a processor with a clock speed of at least 1.6 GHz or higher to guarantee speed and efficiency when handling user requests and handling data.
- **Memory:** In order to facilitate intuitive multitasking and effective management of several user sessions, Kawa would need a minimum of 4 GB of RAM. When the system has enough RAM, it can cache frequently visited data, which lowers the requirement for frequent disk access and optimizes system speed.

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

- **Storage:** It is advised to have at least 128 GB of storage space available for user-generated content, databases, and application files. This will give plenty of space for setting up the required software and storing data.

### Login

The login function acts as a pivotal gateway within a platform, serving to authenticate users by verifying their credentials and granting access to personalized accounts. Upon successful authentication, users unlock a tailored experience, gaining entry to a range of features and services specific to their account. This process not only ensures the security of sensitive information but also facilitates seamless and efficient user interaction with the platform.

### Recipe

A recipe, in the context of the platform, is a thorough collection of instructions or a list of prerequisites designed to teach users in the preparation of a specific dish or meal. This feature enriches the culinary experience by providing users with systematic and detailed guidance that ensures the cooking process is completed successfully. It functions as a culinary compass, providing users with a clear course to take and improving their ability to create tasty food, resulting in a more joyful and satisfying cooking experience.

### Moderation

The platform's moderation function is a critical role entrusted to administrators, who oversee and control the contents posted on the Kawa feed. This includes managing user activity, and maintaining an environment that adheres to the platform's defined norms



## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

and policies. Administrators protect the platform's integrity and safety, playing a critical role in providing a secure and compliant digital space in which users can engage while adhering to the platform's standards and principles.

### Post

A post is a user-generated piece of material that can take the shape of text, photographs, videos, or a combination of numerous media types within the context of the platform. The post function, which serves as a basic means of user expression, improves engagement, and contributes to the web platform's dynamic and engaging nature. It serves as a dynamic avenue for users to express their ideas, experiences, and creativity, building a thriving digital community in which many types of content add to the platform's richness and depth.

### Like

The platform like function allows users to show their appreciation, agreement, or involvement with a certain post or content. Users transmit a positive response by simply clicking the like button, generating a sense of connection and acknowledgment within the digital community. This interactive element not only acts as a type of virtual approbation, but it also greatly contributes to the platform's social dynamics, as users connect in a fluid and quick manner, forming a network of positive interactions that improves the entire user experience.

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

### Comment

Users can contribute written responses and feedback to postings using the comment function, enabling conversation and dialogue within the community. This feature allows users to share their views, voice their opinions, and respond to the content submitted by others. The comment function boosts overall engagement by allowing for a direct and interactive exchange of ideas, transforming the platform into a dynamic space where users actively participate in discussions, contribute diverse perspectives, and establish a sense of community through meaningful interactions.

### Follow

The following function allows users to subscribe to the updates of another user. When a user chooses to follow another, the posts of the followed user appear prominently on the follower's home page. This feature enhances the user experience greatly by building a personalized feed based on individual interests and preferences. The following function not only ensures that users stay informed about the activities of those they find compelling by facilitating the curation of content from specific users, but it also enhances the sense of connection and engagement within the platform by allowing users to build a virtual network of content creators and contributors aligned with their interests.

### Favorite

The favorite function allows users to mark specific topics and recipes as favorites. This feature, which functions as a personalized bookmarking tool, allows users to easily revisit and access content that is meaningful to them. The favorite function, which allows

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

users to curate a collection of their favorite items, not only improves user convenience but also adds a layer of personalization to the platform, allowing individuals to create a curated library of content that aligns with their tastes, preferences, and specific interests.

### Trending

The platform's trending page highlights posts that have received a lot of attention, showing popular and interesting content. This feature provides users with a curated snapshot of what is currently catching the platform's community's attention and interest. The trending section, by highlighting posts with high levels of engagement, not only provides users with a dynamic and ever-changing snapshot of the platform's most popular content, but also facilitates the discovery of trending topics and discussions, fostering a sense of community around shared interests and current conversations within the digital space.

### Profile

The profile function functions as a centralized center inside the platform, providing users with a full view of their information, including registered details, postings, and activities. The profile feature, which serves as a digital representation of an individual's existence, does more than just compile data; it develops a feeling of identity and community participation. Users may organize and display their contributions effectively, creating a personalized environment that reflects their interactions and contributions on the site. This feature not only facilitates self-expression, but it also plays an important role in connecting users within the digital community by allowing them to discover similar interests and engage with others based on their activities and contributions.

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

### Notification

The notification function serves as an important communication tool inside the platform, sending alerts to users about specific interactions or activities linked to their posts or the platform as a whole. This feature is critical for keeping users informed and interested, as it provides immediate information on likes, comments, and other important activities. Notifications keep customers up to date on the latest events and interactions directly related to their account by enabling real-time awareness. This not only improves the overall user experience by encouraging responsiveness, but it also builds a dynamic and engaged community in which users can keep informed about pertinent interactions and actively participate in ongoing debates.

### Tags

Tags are concise labels that attach to content and serve as landmarks for navigating within the website. They summarize regions making it easier for users to quickly classify and find particular information across a wide range of posts. Tags function as bookmarks for categorization, it improves discoverability and enables focused searches, which promotes a more efficient user experience on various platforms and content archives.

### Dashboard

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

The dashboard offers an update on each user's activity on the website. Key metrics including user counts, content interactions, and other related actions are gathered and visualized. Administrators follow progress and see patterns in real time by using this user-friendly interface to keep an eye on website activities. User activity dashboards help make educated decisions and provide a deeper knowledge of user behavior in online environments by providing actionable data and encouraging transparency.

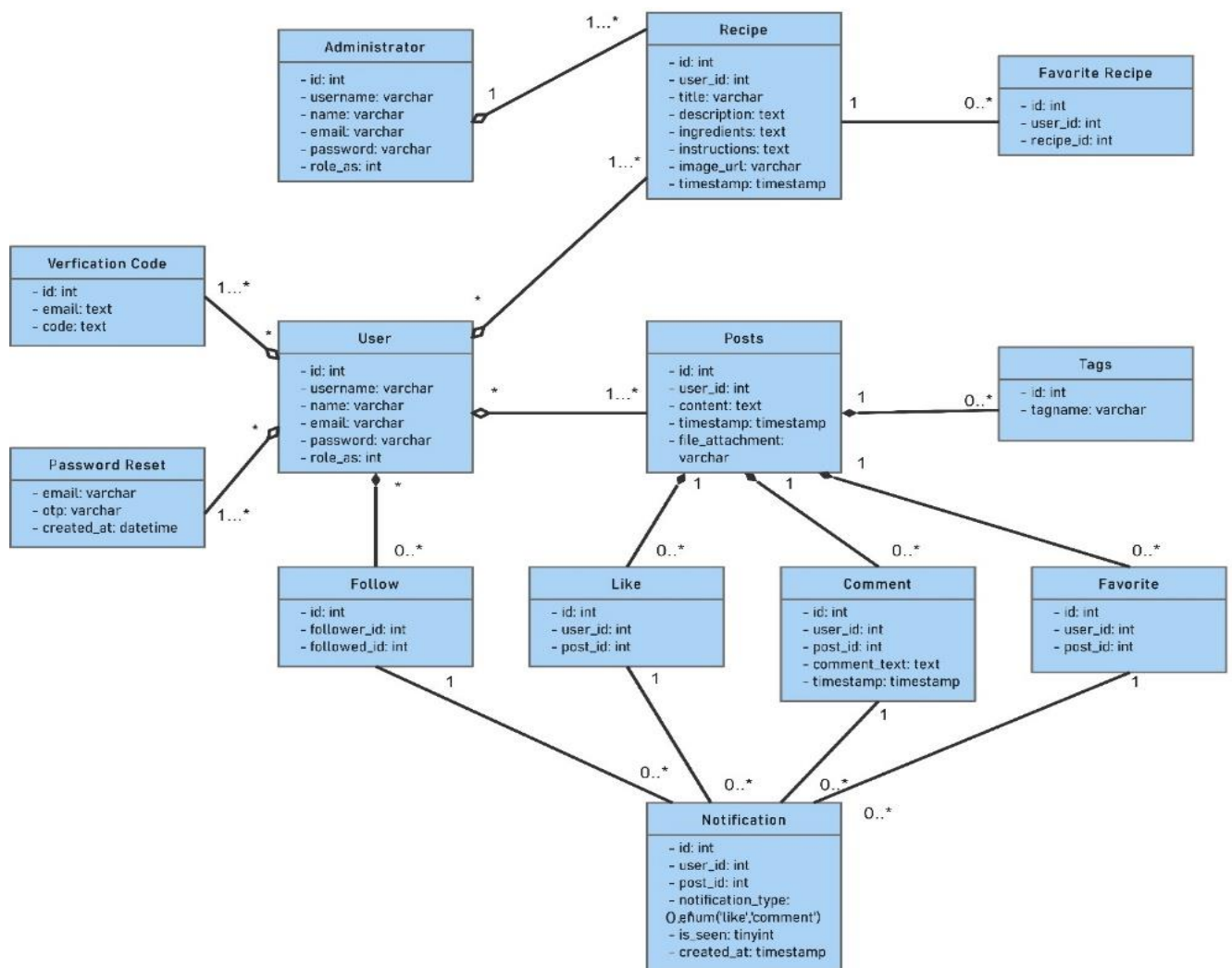


Figure 3. Unified Modeling Language of Kawa

Figure 3 represents the entities and attributes of a relational database for a web application. It includes various components such as users, posts, comments, likes, favorites,

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

follows, notifications, recipes, and user roles. Each class has specific attributes, and relationships are established through foreign keys, enabling the representation of interactions within Kawa. This structured UML serves to efficiently manage and organize data related to user activities, content creation, and social interactions, providing a foundation for the development of a comprehensive and functional web-based platform.

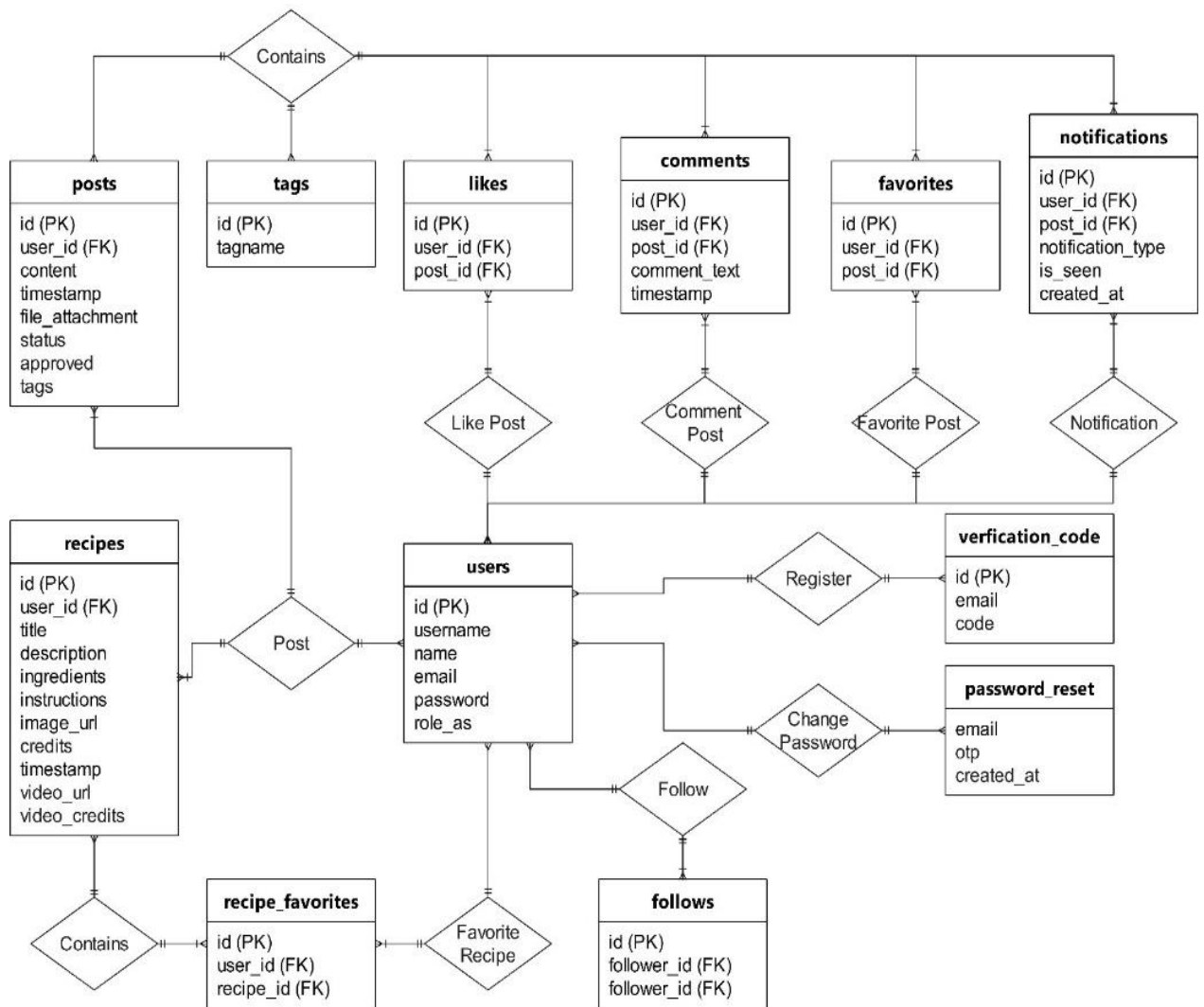


Figure 4. Entity Relation Diagram of Kawa

Figure 4 shows the database architecture of the system structured and shown in the Entity-Relationship Diagram (ERD) of Kawa. All other tables are deeply connected to the central entity, Users, which functions as the main hub. Posts table links to important components like Likes, Comments, Favorites, and Notifications tables, illustrating how user interactions with posts are connected. In a comparable manner, the Recipes table displays a link to the Recipe Favorites table, illustrating the connection between user preferences and recipe administration in the digital food hub. The ERD provides a concise illustration of the relationship dynamics between important entities, highlighting the importance of user-related actions and how they affect post and recipe functionality in Kawa.

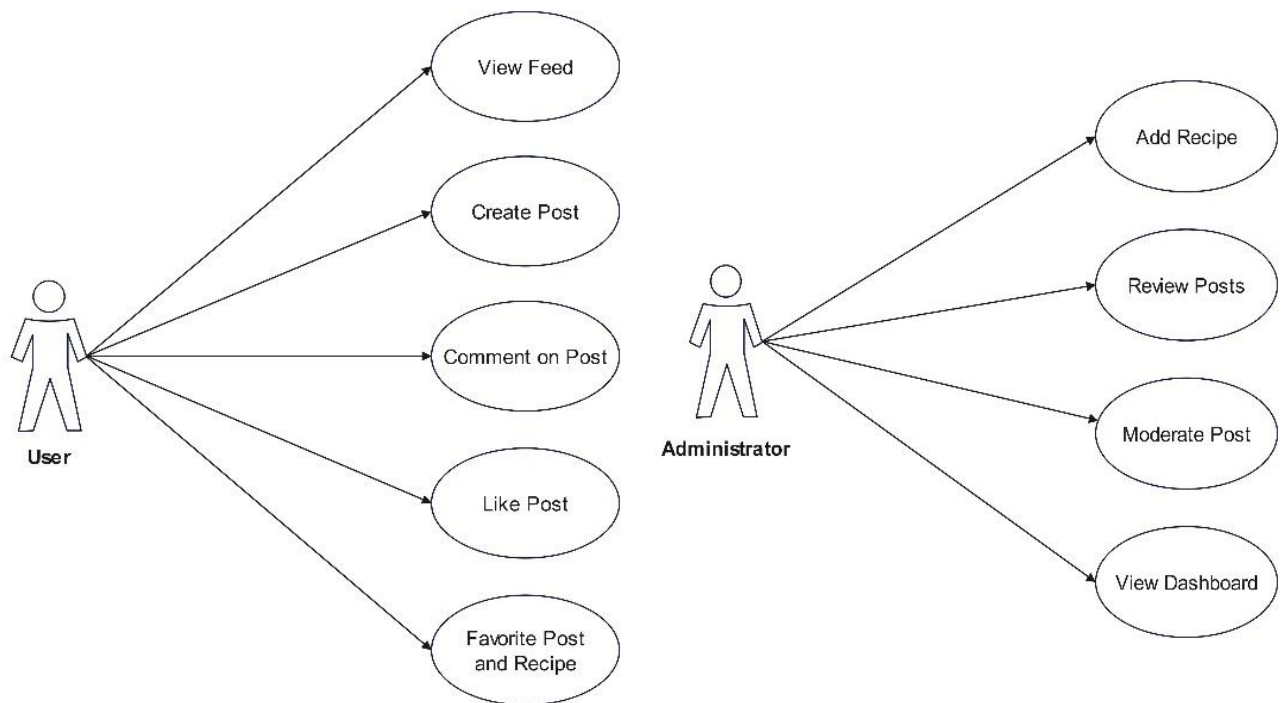


Figure 5. User Case Diagram of Kawa

Figure 5 Viewing, creating, liking, commenting on, and favorite recipes are all possible on the user-friendly website Kawa. Users may share their culinary activities,

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

interact with posts, and favorite their favorite recipes on an interactive platform. A dashboard that tracks site performance and activity is accessible to administrators, who can also contribute new recipes and review and moderate posts to guarantee their quality.

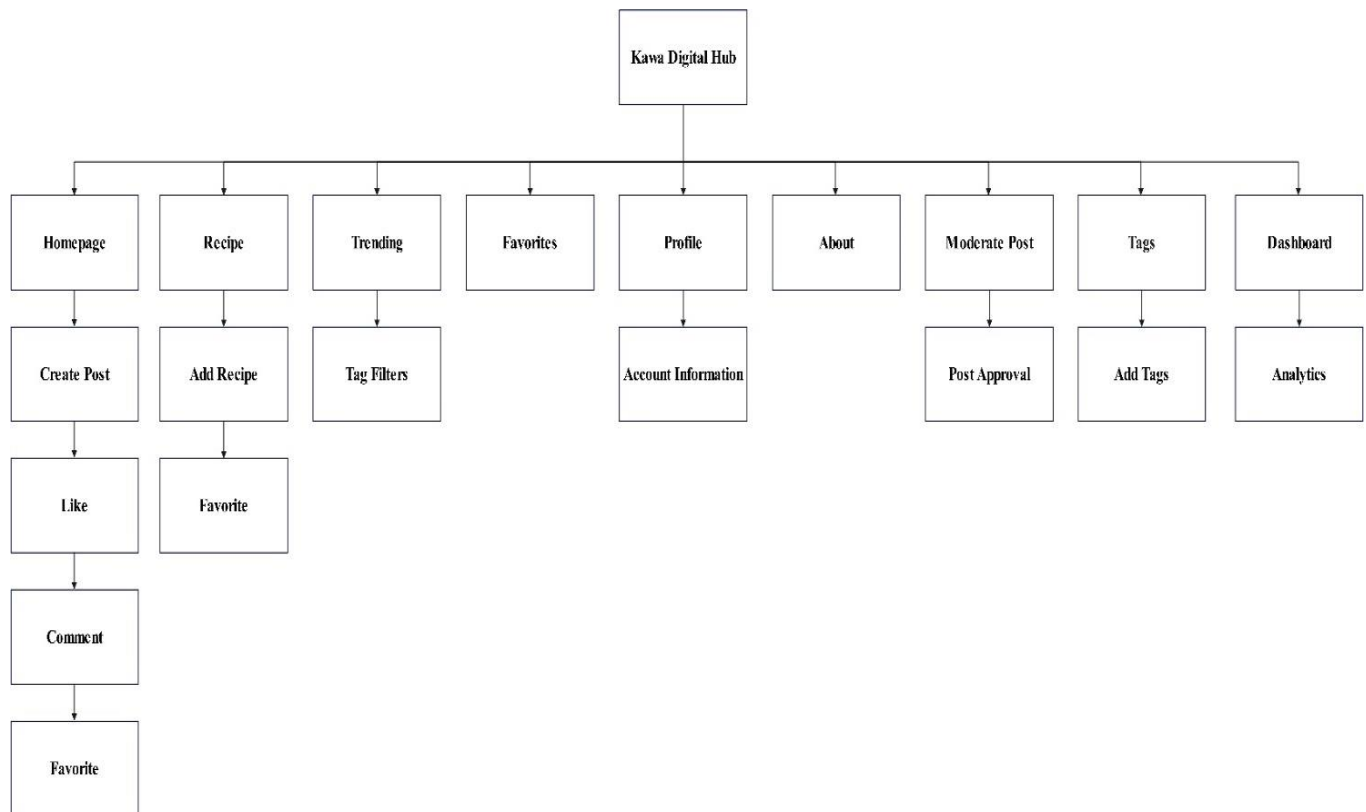


Figure 6. Hierarchical Structure of Kawa

Figure 6 shows Kawa's organizational hierarchy offers effective administration and user engagement. Administrators are at the top and can upload recipes, regulate and evaluate postings, and access the dashboard to manage the site. Regular users are positioned underneath them, with the ability to post, view, like, comment on, and favorite recipes and posts, thereby promoting an active community. A smooth user experience and engaging content are guaranteed by this systematic method.



## Project Development

Agile methodology in software development has placed importance on constantly improving a software product in phases or in the case of this methodology, iterations. This methodology has become one of the most adapted approaches to software development as it places emphasis on improving existing products or processes multiple times based on changing needs and feedback to have the best possible outcome before rolling out (Aurum, et. Al, 2019).

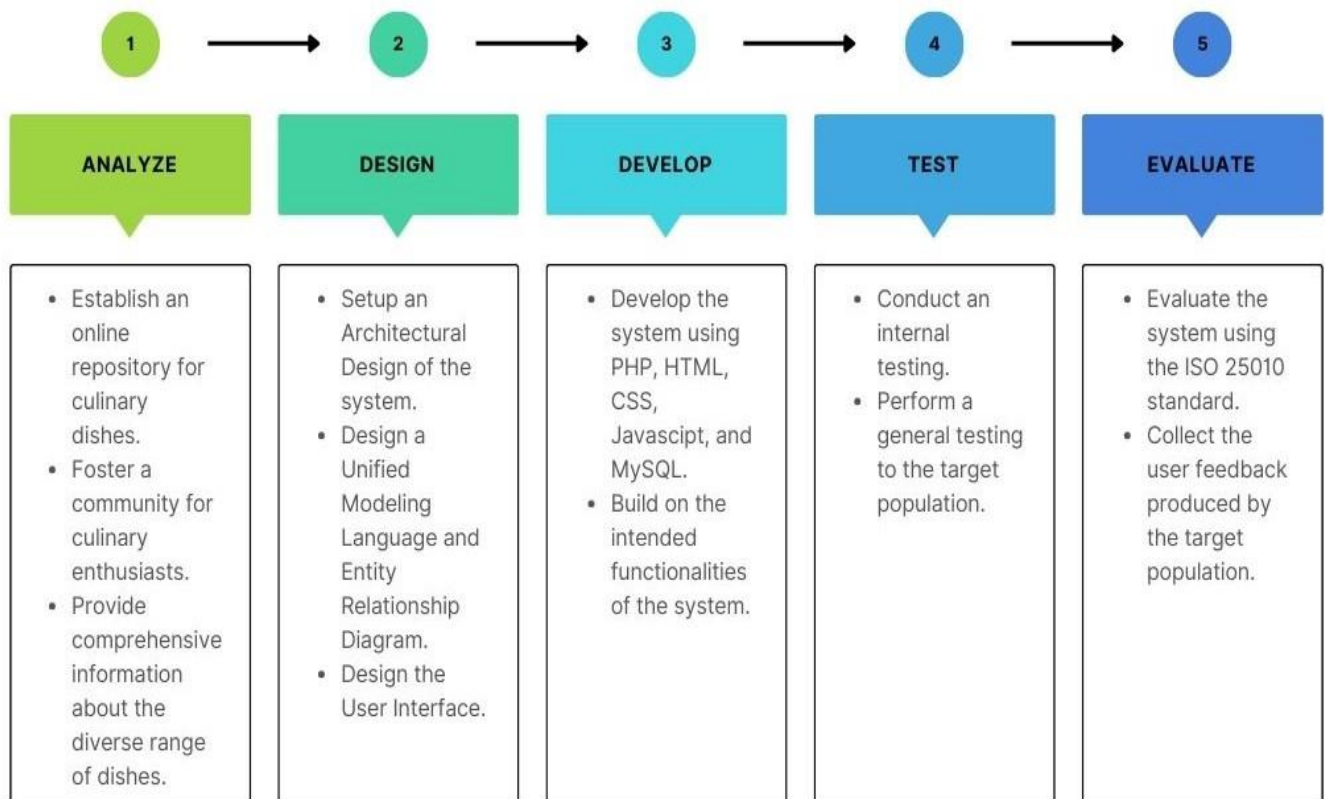


Figure 7. Agile Project Management of the System

Analyze

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

As seen in Figure 7. The first phase of the project is dedicated to doing a thorough analysis to establish the project's scope and vital requirements. The major goal is to develop an online repository dedicated to displaying the Philippines' extensive variety of regional cuisines. This requires understanding the diversity and complexity of Filipino cuisine, as well as considering local delicacies and identifying the basic dishes that characterize the country's culinary culture. Through research, the project attempts to determine the scope of Kawa and ensure that it embodies the richness and individuality of Filipino cuisine.

The analysis investigates the purpose of developing a network for food enthusiasts and bringing together Filipinos who share a love of food. Community building is vital for creating an engaging and active platform where people can contribute their recipes, culinary experiences, and thoughts. During the analysis phase, the project's fundamental criteria are also outlined, with a focus on the importance of a user-friendly interface, dependable search capabilities, and user interaction methods. The purpose is to provide a comprehensive online resource that not only showcases the variety of foods available in the Philippines, but also provides a platform for culinary aficionados to interact and share their shared love of Filipino cooking.

### Design

The second step is all about turning the requirements and conceptual scope from the analytical phase into concrete structures. Establishing an architectural design of Kawa is the first stage. Determining the general framework, individual parts, and the connections between various modules are all included in this. The system's robustness, scalability, and

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

ability to handle the variety of data as well as functions needed for a large-scale culinary repository and community platform are all guaranteed by the architectural design.

This phase also includes the production of two significant visual representations, the DFD and the ERD. Concurrently, the ERD develops links between various system pieces, laying the framework for an efficient and organized database architecture. Next is to design the user interface, ensuring that it is clear, visually appealing, and fits with the platform's aim. A user-friendly design is critical for improving the overall user experience, making navigation easier, and encouraging active involvement among culinary enthusiasts.

### Develop

The third phase requires utilizing essential programming languages like MySQL, PHP, HTML, CSS, JavaScript, HTML to create a solid and dynamic platform. HTML and CSS help create the structure and visual presentation of the system, and PHP is the server-side scripting language that allows dynamic functionality to be executed. JavaScript plays a key role in improving user responsiveness and interaction.

Implementing the intended functionalities is the main goal of this phase. This entails configuring database interfaces, user authentication, and the smooth integration of features that meet the repository's objectives of community building and comprehensive content distribution. Through attention to recognized standards in coding and utilization of each technology's capabilities, the development phase guarantees the production of an efficient and stable system that fits the study's specifications and scope.

## Test

Ensuring the dependability, functionality, and user friendliness of Kawa is dependent on the fourth phase. An extensive analysis of the system's parts, functions, and interactions is done during internal testing to find and fix any errors or problems that could impair the system's functionality. Unit, integration, and system testing are all included in this procedure, which offers a thorough assessment of the system's capabilities.

After internal testing ends, general testing with the intended audience allows for a more thorough analysis of the system. Real-world feedback is made possible by this user-centric approach, which guarantees that the system satisfies the needs and expectations of its target audience. Validating the user interface, feature usability, and overall user experience are all dependent on this step.

## Evaluate

In the last phase, the ISO 25010 standard is applied to the system to conduct a thorough evaluation. Functionalities including usability, security, performance, dependability, and maintainability are all covered by these standards. To make sure Kawa fulfills industry standards and offers users a top-notch experience, it is scrutinized thoroughly during this review.

In addition, feedback from users gathered from the intended audience is important to the system's assessment. Their observations provide significant information about user satisfaction and the system's usability. A user focused approach and continuous

enhancement are fostered by considering and integrating any recognized concerns or recommendations for improvement into the system.

## **Operation and Testing Procedure**

### **Operation Procedure**

The procedure of the project details the step-by-step operation for all the functions present in Kawa. This essentially acts as a blueprint, guiding users on how to use each function effectively.

#### **A. Accessing the Website**

1. Open your preferred browser (e.g., Chrome, Firefox Safari).
2. Type the Website's URL in the address bar and press "Enter."
3. You will be directed into the Website's Log in Page.

#### **B. Create an Account**

1. If you are a new user, click on the "Not yet registered?" button.
2. Fill in the required information, such as username, name, email, and password.
3. Ensure you have access to the submitted email, as the Kawa team will send you an email verification containing a 6 Digit OTP.
4. Submit the 6 Digit OTP to continue with the sign-in.

#### **C. Exploring the Homepage**

1. Once logged in, you will land on the homepage. Here, you will find the Home where people in our community posts, likes, and comments.

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

2. Use the navigation bar to explore different categories like “Recipe”, “Trending”, and “Favorites”.
3. Use the search bar to search for specific post or users you want to find in our community.
4. Use the Tags filtering functionality by clicking the ‘advanced search button’ revealing all the tags and categories that can be displayed upon clicking. Filtering the feed based on the tags and category chosen.
5. Use the notification bell icon to find how many notifications you have got.

### D. Creating a Post

1. If you are on a Homepage, use the textbox to create a post.
2. Use the textbox to type what you want to post on our website.
3. Use the “Choose File” button to post a video or image on our website.
4. Use the “See tags” button to select proper regional tag for the post.
5. Use the “See categories” button to select proper category for the post.
6. Use the “Post” button to upload your post.

### E. Browsing Recipes

1. Click on the “Recipes” section to browse the collection.
2. Use the search bar to find specific recipes.
3. Click the Tag filter to display which recipe belongs to a specific region/s in the Philippines.

### F. Viewing Recipe Details

1. Click on the recipe to view details.
2. Read the description, ingredients, and cooking instructions.

3. By clicking on the “Add to Favorites” the recipe will be on the “Favorites” section

#### G. Viewing About Us

1. Click on the drop-down menu
2. Click on the ‘about us’ button

#### H. Viewing Trends

1. Click on the “Trending” section to find what is the trend post.
2. Click on one or several tags to see what’s the trending posts in those tags.

#### I. Creating Favorites Lists

1. Click on the “Favorites” section to find your favorite posts and recipes.
2. Use the drop-down button to select whether favorite posts or favorite recipes.
3. Use the “Add to Favorites” button on the recipe on the Recipes section.
4. Use the Favorites icon on besides the comment section of any post and you can click “Add to Favorites”.

#### J. Following and unfollowing users

1. If you are on the Homepage, view a post.
2. Use the follow button beside the username to follow the user.
3. Use the unfollow button beside the username to unfollow the user.

#### K. Editing Profile

1. If you are on a Homepage, use the drop-down icon on the far right to see the “profile” and the “logout”.
2. Click the “Profile” button to proceed on the profile tab.

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

3. Use the “Edit Profile” underneath the username to edit your profile.
4. Edit the required information, such as new username, new name, new email, and new password.
5. Click the “Save Changes” button to save and change your new profile information.

## L. Moderating Posts (Administrator)

1. Click the drop-down button to access the drop-down menu
2. Click the moderate post to see the posts that are for approval of the administrator.
3. The administrator can approve the posts by clicking the green check button
4. The administrator can disapprove and delete posts by clicking the red button.

## M. Editing tags (Administrator)

1. Click the drop-down menu
2. Click the Tags
3. The administrator can see the existing tags, they can also add tags.
4. The administrator can edit & delete tags by clicking the edit and trash icon.

## N. Admin dashboard

1. Click the drop-down menu
2. Click the Admin Dashboard
3. The administrator can see the number of Users, Posts, Recipes as well as tags.



4. The administrator can also see the growth of the numbers in a graph.

### Testing Procedure

Throughout the system's development, the developers tested its functionality. It includes testing the features and processes present in the system checking for any possible errors and inconsistencies while also checking the Functionality, Compatibility, Reliability, and Portability of the system. Test cases done in this project will be highlighted in the index part of this paper.

This shows the testing procedure to the modules present in the system as well as the steps taken and the expected output.

### Testing Procedures

**Table 2.** Testing Procedure in System Module

Test for Criteria	Steps Undertaken	Expected Output
1. Like, Comment and Favorite buttons	<ul style="list-style-type: none"> <li>• Clicked the like button.</li> <li>• Wrote and sent a comment</li> <li>• Clicked the favorite button</li> </ul>	<p>The number like on the post will increase by 1.</p> <p>The comment in the post will be seen by other users.</p> <p>The post or recipe will be added to the user's favorite page.</p>

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

2. Text and Media Posts	<ul style="list-style-type: none"> <li>• Wrote a text on the post creation and submitting the post.</li> <li>• Attached a media file on the post and submitting the post.</li> </ul>	<p>The text post will be seen by other users.</p> <p>The media post will be seen by other users.</p>
3. Lists of Regional Cuisines and Filipino Foods	<ul style="list-style-type: none"> <li>• Posted a variety of Regional Cuisines and Filipino Foods on the Recipe Page</li> </ul>	<p>Increasing the content diversity for the users of the platform.</p>
4. Moderation Functionalities	<ul style="list-style-type: none"> <li>• Clicked the approve button on the user's post.</li> <li>• Clicked the disapprove button on the user's post.</li> <li>• Clicked the delete option in users post.</li> <li>• Went to Admin Dashboard page</li> </ul>	<p>The post will be seen by other users.</p> <p>The post will not be seen by other users.</p> <p>The existing posts will be removed and will not be seen by other users.</p> <p>User activities within the website will be compiled and visualized.</p>

### **Evaluation Procedure**

The respondents who were tasked to evaluate the system are composed of 30 respondents in which 15 are cooking enthusiasts or hobbyists, 10 are Information Systems, Information Technology, Computer Science and Computer Engineering Technology Students from the Technological University of the Philippines and 5 are IT experts / Professionals. They were tasked to assess the project based on the criteria for the reliability, performance efficiency, suitability, usability, portability, and security of the system. The evaluation instrument was based on ISO 25010 and adapted from capstone project evaluation instrument used by Carandang et al. (June 2023).

The evaluation process for the project was conducted using the following steps:

1. The users were given a manual demonstrating the whole flow of the system.
2. The respondents were given the questionnaire.
3. The respondents were given permission to operate and test the deployed system's use.
4. The respondents rate the system. The researchers were receptive to possible suggestions and comments from the respondents and will consider them.
5. The results were tabulated and computed to determine whether the system is acceptable or highly acceptable.

Table 3 shows the Scale Range and the rating which has its corresponding interpretation for the evaluation of Kawa: The Digital Hub for Culinary Enthusiasts.

**Table 3.** Scale Range, Rating, and Interpretation

Scale range	Rating	Interpretation
3.26 – 4.00	4	Highly Acceptable
2.51 – 3.25	3	Very Acceptable
1.76 - 2.50	2	Acceptable
1.00 – 1.75	1	Not Acceptable

## **Chapter 4**

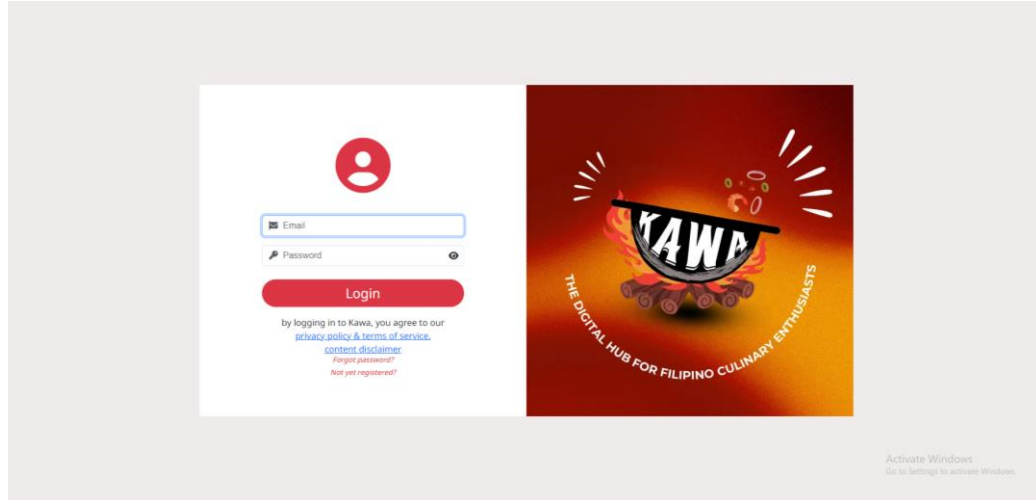
### **RESULTS AND DISCUSSIONS**

This chapter focuses on transforming raw data into meaningful visualizations and actionable insights. It covers methods for clearly presenting information and interpreting its significance to draw meaningful conclusions.

#### **Project Description**

The project is a forum-styled website that allows users to post food recipe-based contents as well as interact with other posts through liking, commenting as well as following other accounts and their posts. In addition to this, Kawa also serves as an online repository for various Filipino dishes, it provides a gallery of verified accumulated recipes with videos that allows users to access a Recipe like a modern cookbook.

Posts on the site can also be ranked on the trending tab depending on their accumulated likes and comments, in this tab users can also sort trending posts depending on their respective Filipino regions through their regional tags. This allows users to have a platform for cooking related contents and have access to a repository of regional Filipino dishes.



*Figure 8. User Login*

Users can experience Kawa by creating a profile, where they can save their favorite recipes and keep track of their interactions. The platform supports multimedia posts, enabling users to upload photos and videos of their culinary creations. Kawa's community guidelines ensure a positive and respectful environment for all members. Furthermore, the website hosts regular cooking challenges and events to engage users and foster a sense of community. This dynamic and interactive approach makes Kawa a comprehensive resource for both amateur and experienced cooks.

## Project Structure

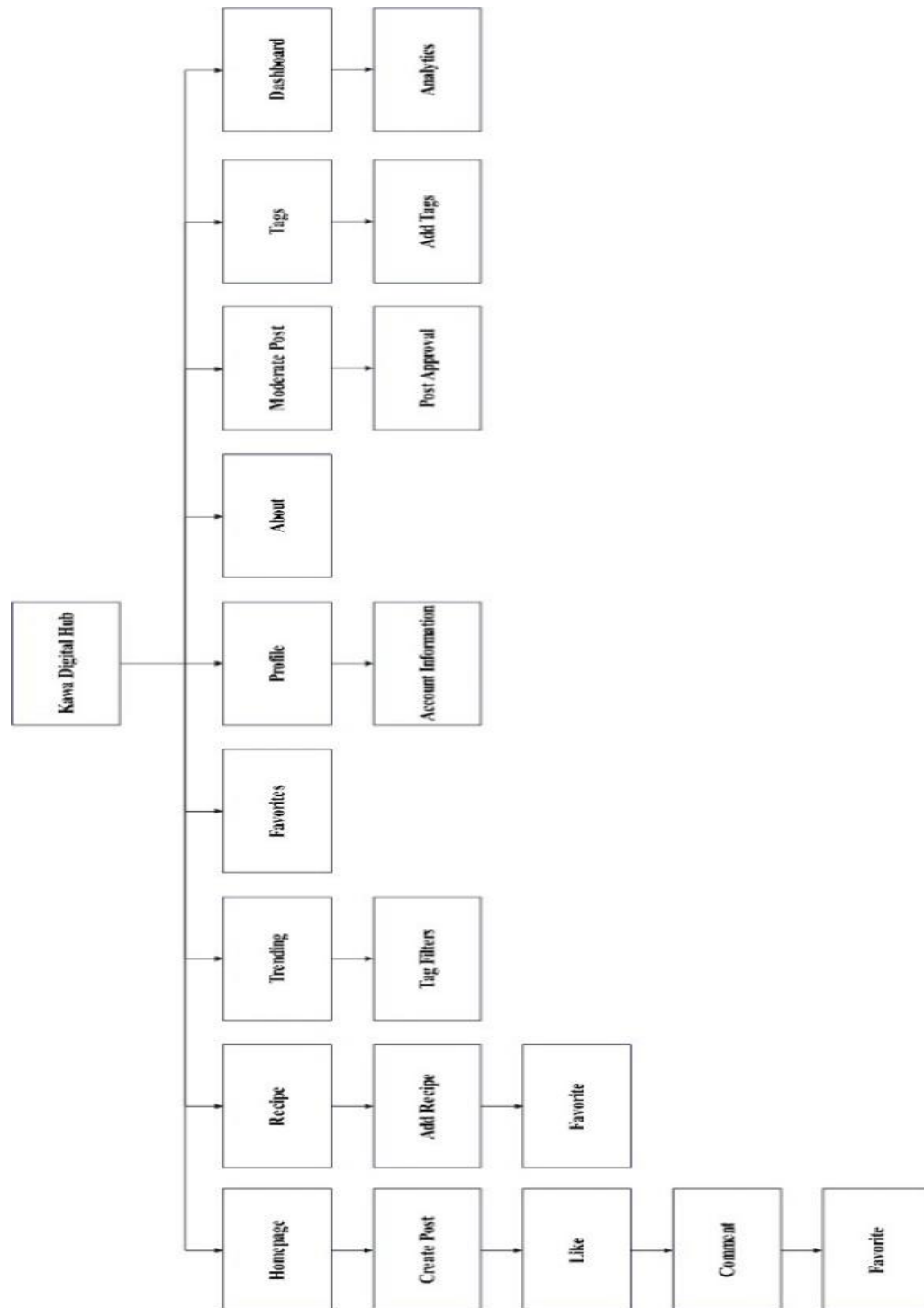


Figure 6. Hierarchical Structure of Kawa: The digital hub for Culinary Enthusiasts

Figure 6 shows Kawa's organizational hierarchy offers effective administration and user engagement. Administrators are at the top and can upload recipes, regulate and evaluate postings, and access the dashboard to manage the site. Regular users are positioned underneath them, with the ability to post, view, like, comment on, and favorite recipes and posts, thereby promoting an active community. A smooth user experience and engaging content are guaranteed by this systematic method.

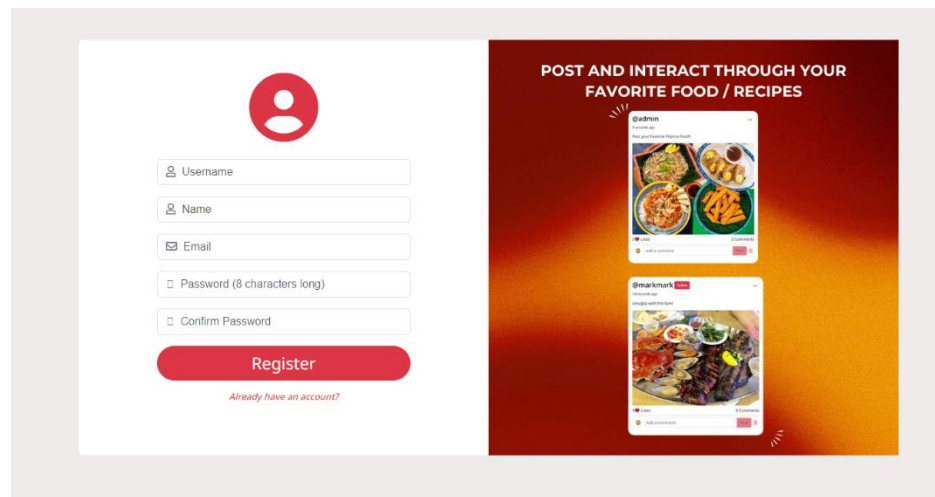


Figure 8. User Login

Figure 8 shows the *login page* of the website. It requires the *email address* and the *password* of the user account to access the website. It has a link to show the privacy policy and terms of service as well as the content disclaimer. If the user is not registered yet there is a link to redirect the users on the registration page.



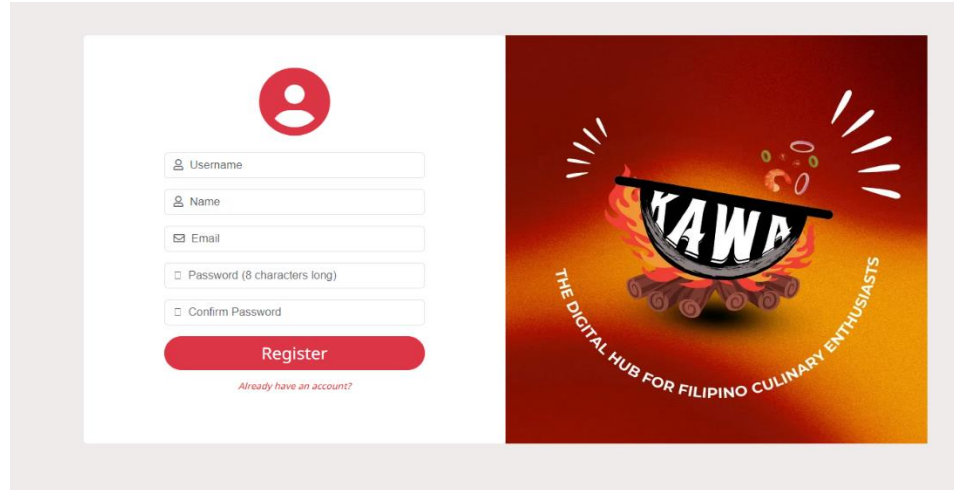
The image shows a user registration form on the left and a KAWA logo on the right. The form has a red circular icon with a white person silhouette at the top. Below it are input fields for Username, Name, Email, Password (8 characters long), and Confirm Password. A red 'Register' button is at the bottom of the form, with a link 'Already have an account?' below it. The logo on the right features a red and orange background with a black bowl containing the word 'KAWA' in white, surrounded by flames and the text 'THE DIGITAL HUB FOR FILIPINO CULINARY ENTHUSIASTS' in a circular arc.

Figure 9. User Registration

Figure 9 shows the user registration to create an account for the website. It requires the *users* to input their *username, name, email address and a password*. After completing the form, the user will be sent an email and be directed to the *Verification code page*. If the user has already registered there is a link to redirect the users on the login page.

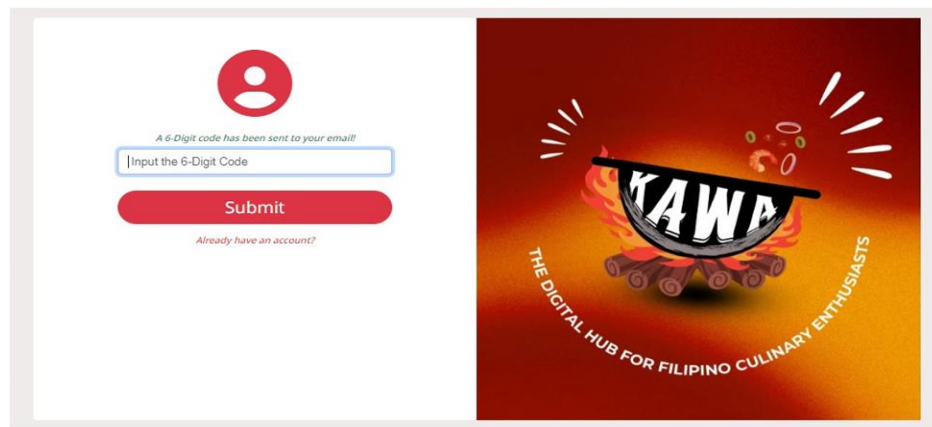
The image shows a verification code page on the left and the same KAWA logo on the right. The page has a red circular icon with a white person silhouette at the top. Below it is a message 'A 6-Digit code has been sent to your email!' and an input field labeled 'Input the 6-Digit Code'. A red 'Submit' button is at the bottom of the form, with a link 'Already have an account?' below it. The logo on the right is identical to the one in Figure 9.

Figure 10. Verification Code Page

In this figure, the verification six-digit code is shown which will be given to the client via the email address provided. After providing the correct 6-Digit code the user will be redirected to the *log-in Page*.

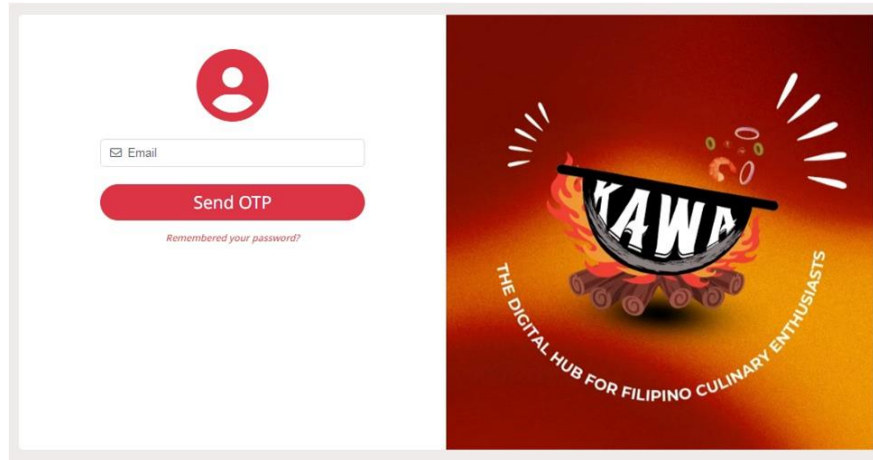


Figure 11. Forgot Password Page

The figure above shows the Forgot Password Page used if a user cannot remember his/ her set password. Once the One Time Password (OTP) email has been sent, the user can modify it.

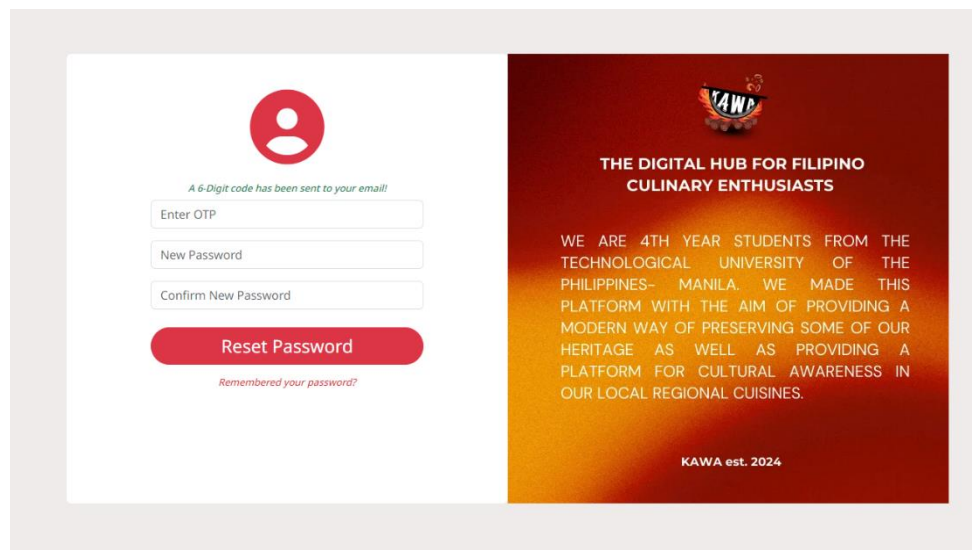


Figure 12. Reset Password Page

Figure 12 shows the reset Password Page where the given 6-Digit OTP will be verified to proceed to change the existing password into kawa. After changing the password, a notification will flash to the screen confirming the changing of passwords. The

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user will then be redirected to the log-in page where the user can log-in with his/her new password.

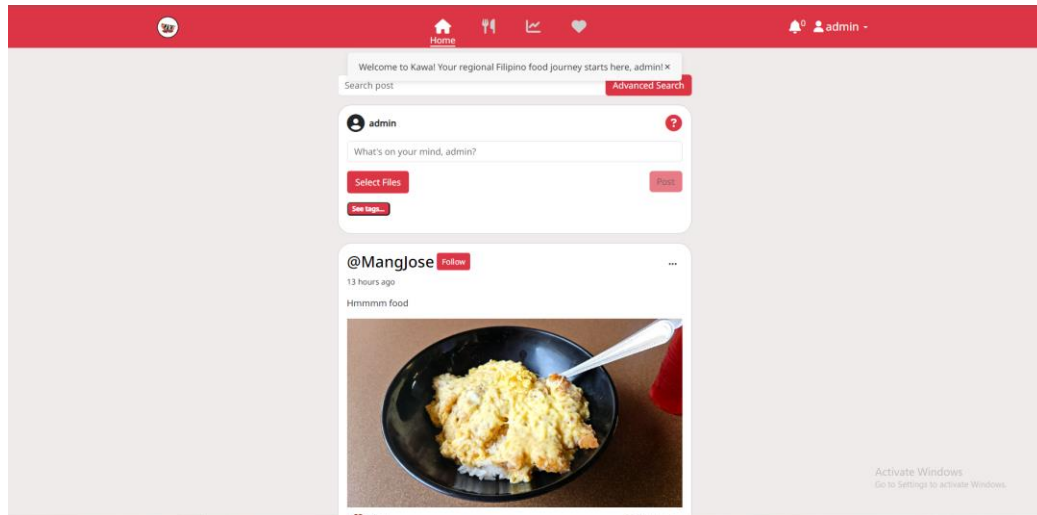


Figure 13. Homepage

Figure 13 shows the homepage of the website. It exhibits the other user's posts on the website and user interactions such as likes and comments. Users can also create posts and apply tags in the homepage, follow other users and favorite other user posts to keep on track on it.

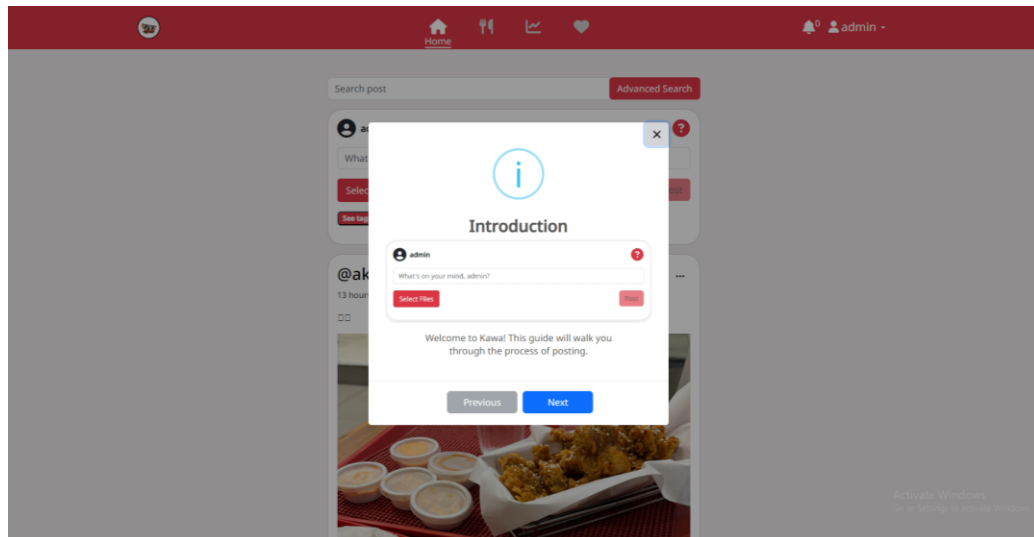
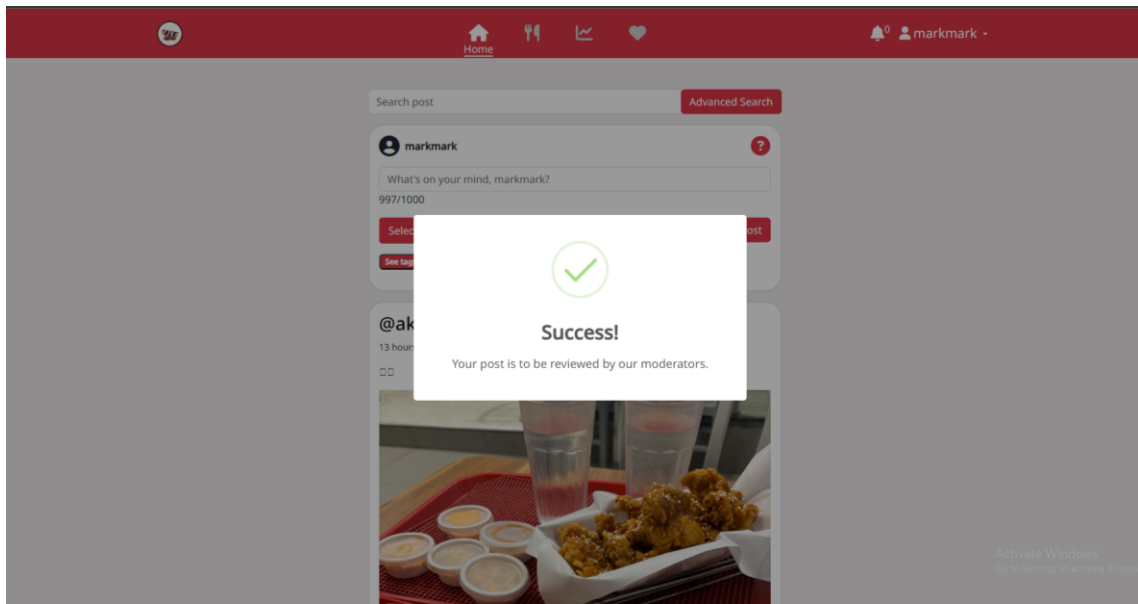


Figure 14. Post Creation Introduction

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Figure 14 shows the instructions for the users on how to create, post and submit posts for approval on the website. It provides a step-by-step guide to ensure users understand the process clearly. It also includes visual aids and suggestions to assist during the posting process.



*Figure 15. Post Review Message*

Figure 15 shows the notification card that will flash upon posting of the Users, it confirms that the post has been received and will be reviewed by the moderators before other users can see it.

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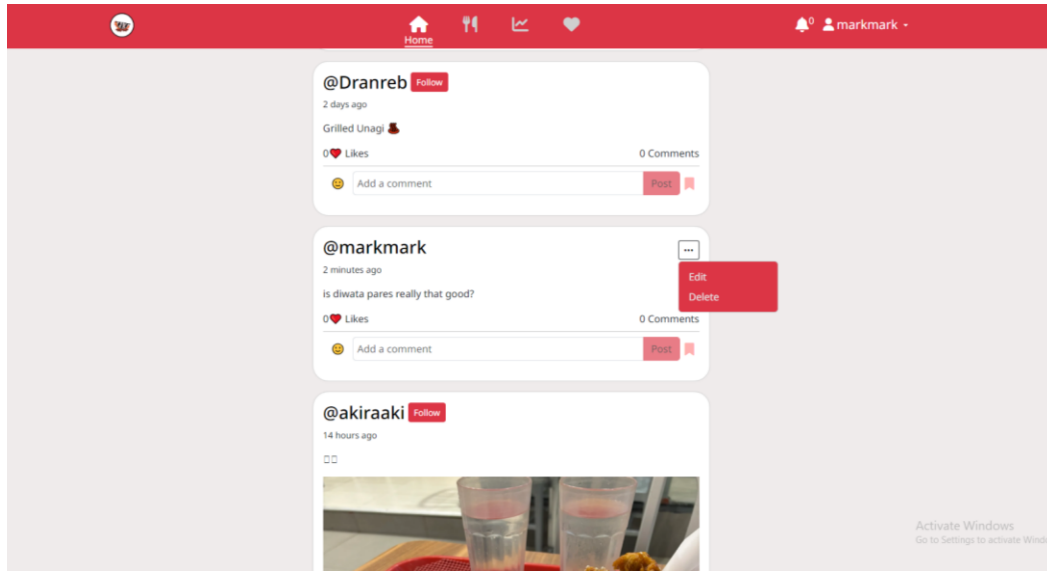


Figure 16. User Post Edit & Delete

Figure 16 shows the ellipsis settings for user's post, and it allows the user to edit and delete their own posts and comments. This feature ensures users have control over their content. Moreover, it provides options for managing the user's post visibility.

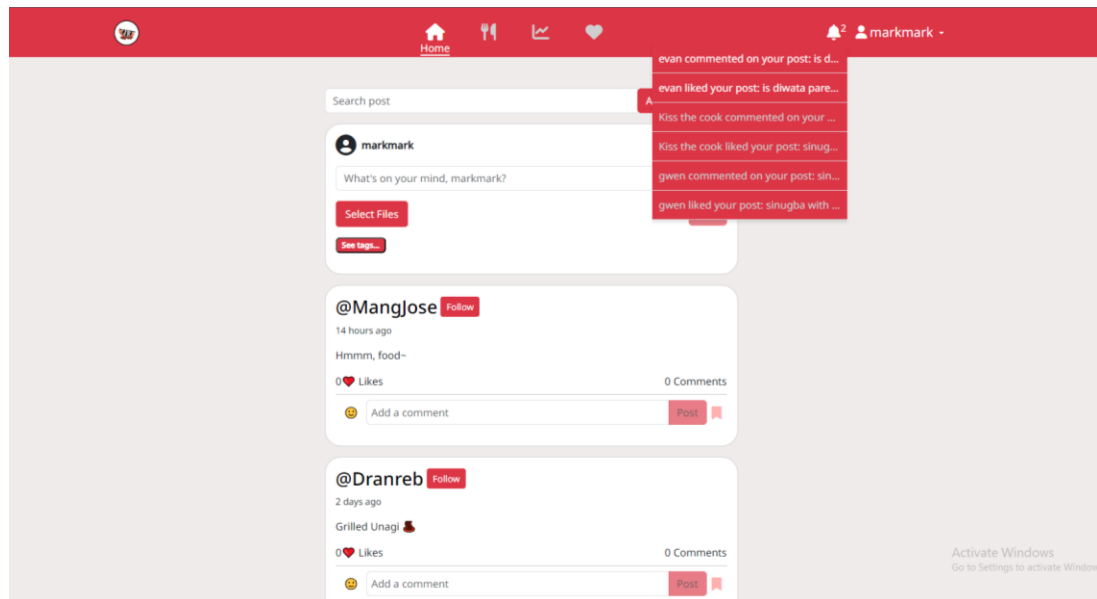


Figure 17. Post Interaction Notification

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Figure 17 shows the notification bar, and it notifies interaction of other users in every user's post and redirects them to the specific post. The notification bar updates in real-time to keep users informed about new interactions promptly. Users can easily access and engage with the latest comments and reactions by clicking on the notifications.

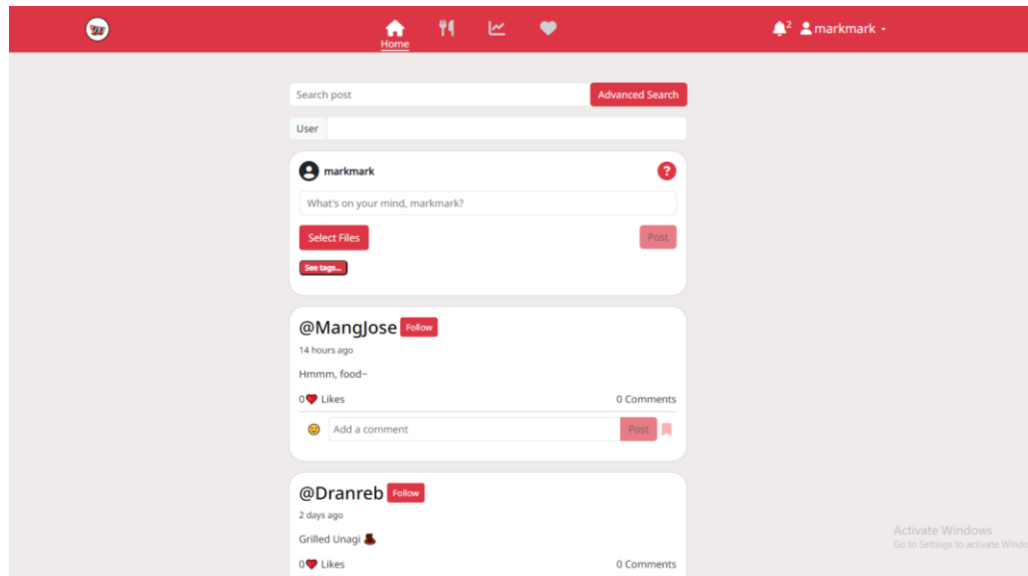


Figure 18. Home feed Search Bar

Figure 18 shows the search bar, and it allows the user to search for other user accounts registered on the website as well as posts that exist in kawa.

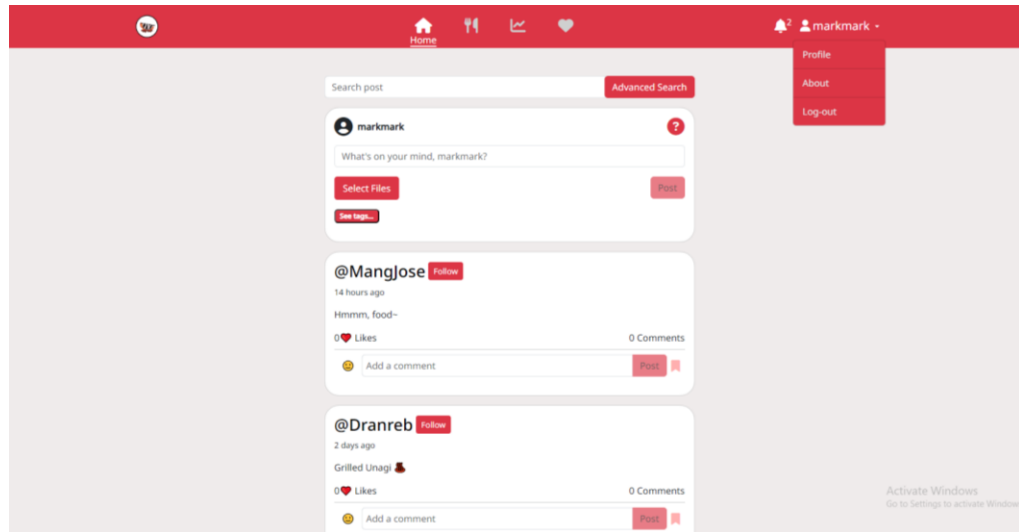


Figure 19. User Dropdown Menu

Figure 19 shows the dropdown menu to redirect them to their account profile and log out their account on the website. It offers convenient access to important account management features, improving user experience and accessibility.

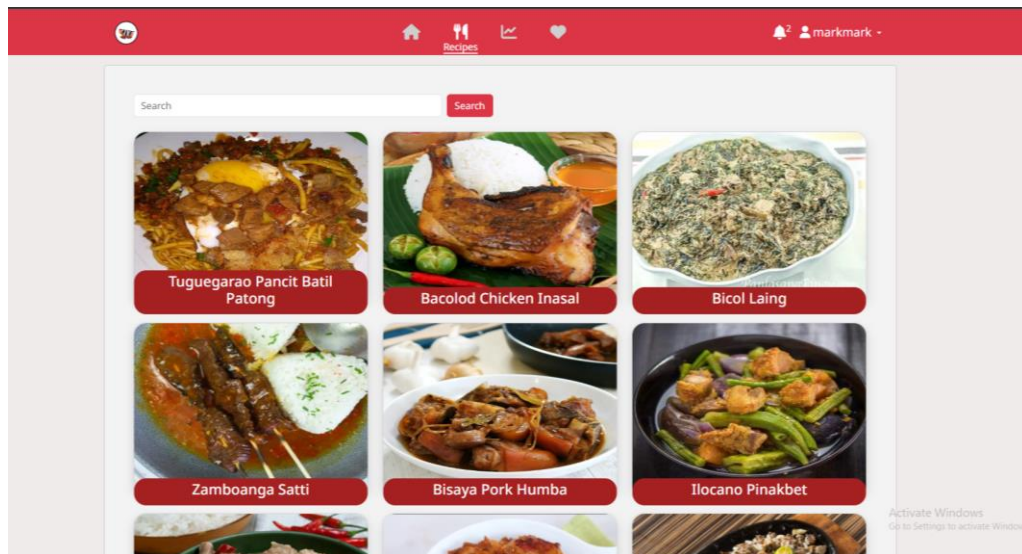


Figure 20. Recipe Page

Figure 20 shows the recipe page, its exhibit the regional culinary recipes in the Philippines posted on the website. It also has a search function to easily find the recipe the





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Figure 22 shows the trending page. It exhibits all posts with the most engagement on the website. Users can filter the trending page with the based on the tags of the post for easy discovery of their preferred topic.

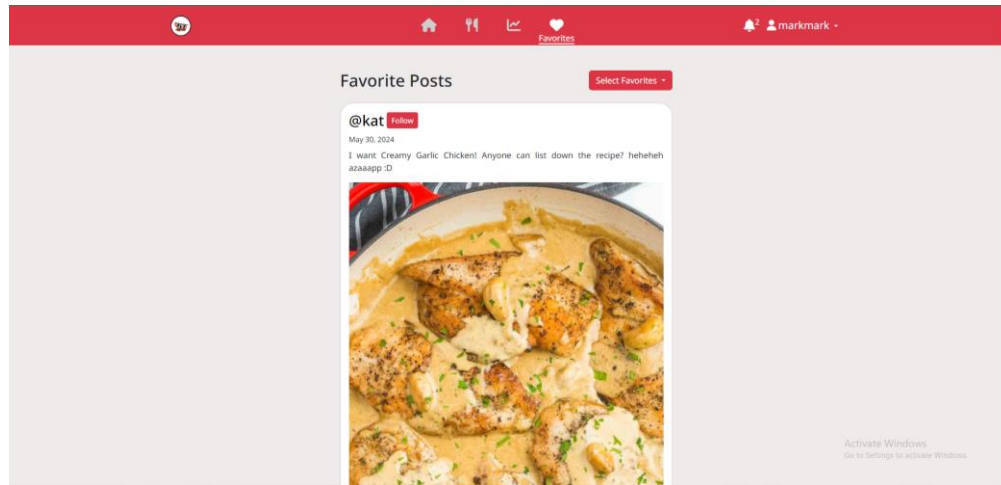


Figure 23. Favorite Page

Figure 23 shows the favorite page of the website. It contains all posts and recipes favorited by the user. This feature allows users to easily revisit content they've enjoyed or found useful, creating a personalized browsing experience.

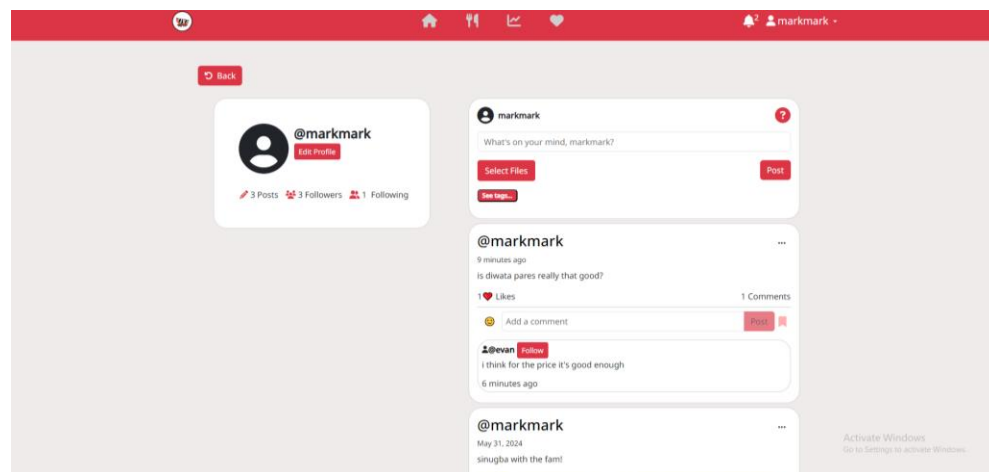


Figure 24. User Profile

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Figure 24 shows the account profile of the user. It shows the number and every post of the users, their followers and following. Users can also create and submit posts in profile page and edit their profile information.

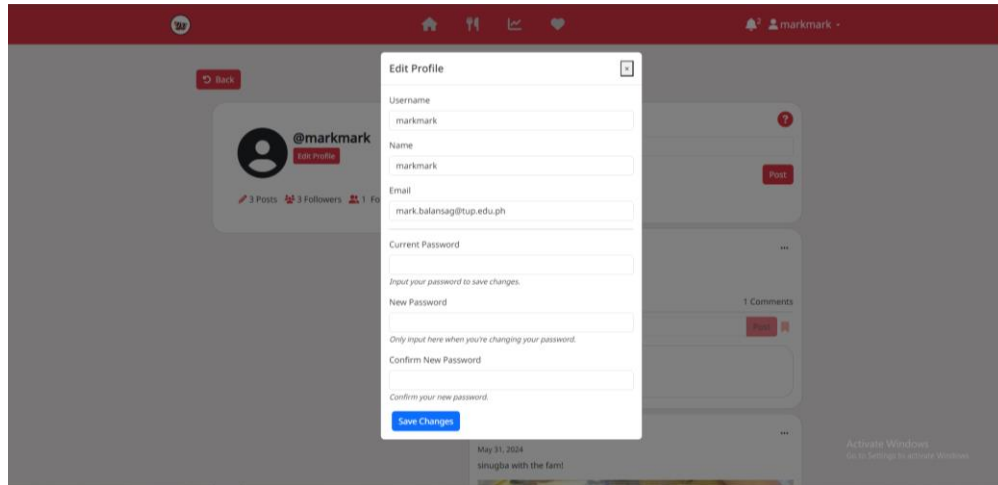


Figure 25. Edit Profile

Figure 25 shows the account profile editing of the users. Within this tab, users have the ability to update various personal details such as their username, name, email address, and password effortlessly.

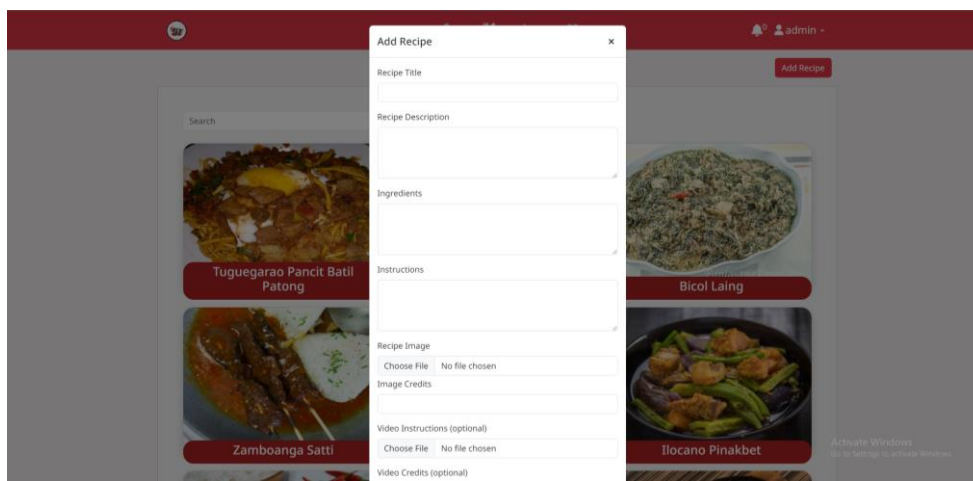


Figure 26. Add Recipe (administrator)

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

Figure 26 shows the add recipe tab for the administrator. The add recipe tab allows the administrator to post the recipe information in the recipe page of the website. With this feature, administrators can efficiently share culinary creations with the website's audience, enriching the recipe page's content and user experience.

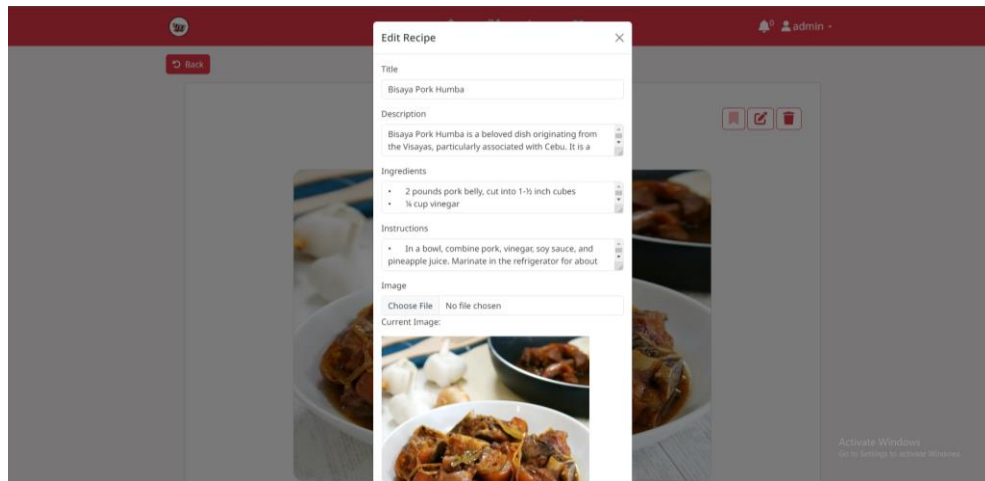


Figure 27. Edit Recipe (administrator)

Figure 27 shows the edit recipe tab for the administrator. The edit recipe tab allows the administrator to edit and delete the recipe information from the recipe page of the website. Administrators adjust as needed to enhance the user experience.

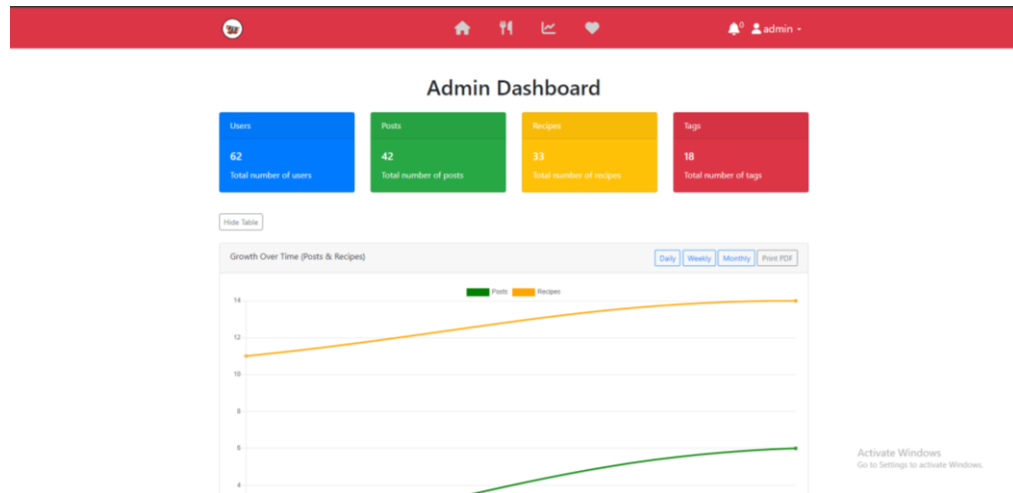


Figure 28 Admin Dashboard

Figure 28 shows the admin dashboard page of the website and can only be accessed by the administrator. The admin dashboard shows the user numbers and activities within the website. The data was presented in infographics and graphs to properly visualize the website and to be presented to the administrator.

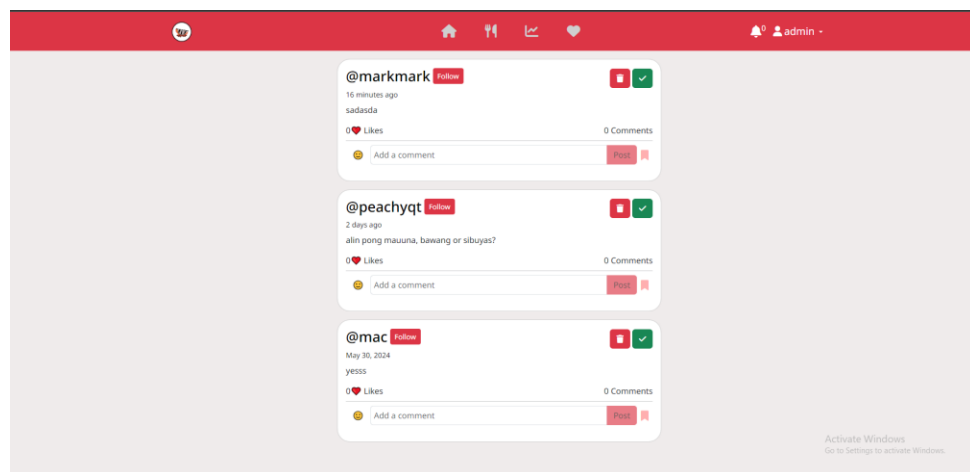


Figure 29. Moderate Post (Administrator)

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Figure 29 displays the moderate post page, where moderators can approve and delete posts submitted by users for its relevance, if the post is deemed appropriate it will be approved and if it was deemed inappropriate, it will be deleted.

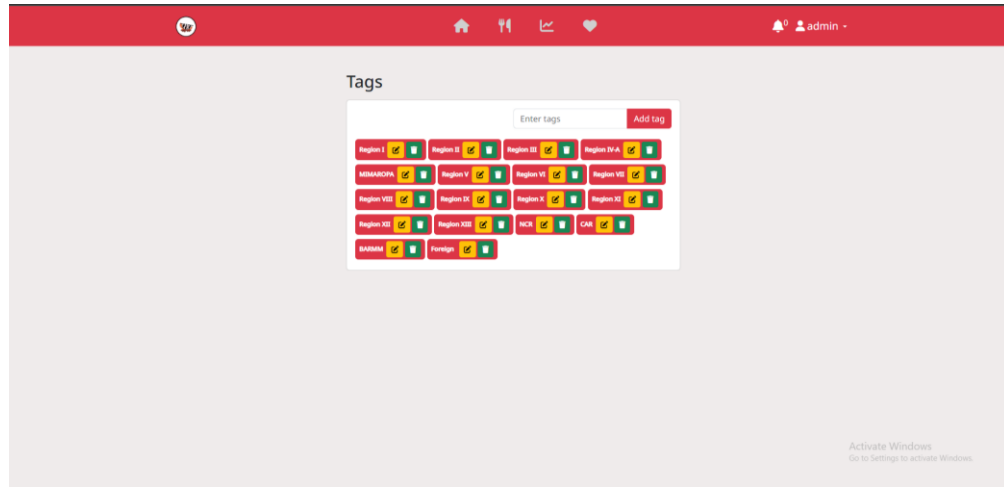
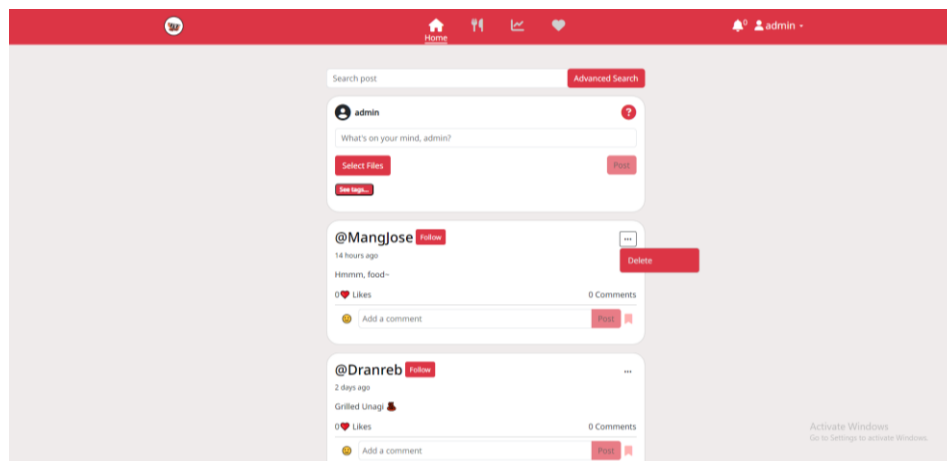


Figure 30. Tags Page (Administrator)

Figure 30 shows the tags page, where the Administrator has been displayed to all available tags, used to sort posts. In this page they can also edit these said tags as well as delete them. Lastly, they can add new tags for further classification of posts.



*Figure 31. Delete Post Function (Administrator)*

Shown in this figure is the delete post function for administrators enables the administrator to remove both the user's post and comments, and it displays the ellipsis settings for the user's post. The admin will always have control over user material thanks to this functionality. Additionally, it offers choices for controlling the post's visibility.

### **Project Capabilities and Limitations**

The project has the following capabilities:

1. The project can do creation of accounts
2. The project can facilitate Log in for users
3. The project allows Users can Post on the post tab (this includes text, videos and they can also add a tag for them to classify which region of the Philippines it came from.
4. The project allows users to filter the posts shown on the feed based on the chosen tag / category
5. The project provides guidelines/ tutorials to users on how they can post
6. The project allows Users to follow other accounts
7. The project allows Users to visit other profiles which contains their posted contents
8. The project allows Users to Access the Recipe tab for Verified Recipes that includes in-depth guidelines and recipes for cooking, which can include video instructions.

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9. The project allows Users to comment on other users' posts
10. The project allows Users to add a post as well as recipe to their favorites
11. The project allows Users to access their favorite recipes and post to be viewed on a separate page.
12. The project allows admin to delete posted contents
13. The project allows the admin to review/ moderate (approve or disapprove) contents posted by the users
14. The project allows the admin to add recipes and tags.

The project has the following limitations:

1. The system does not have a framework.
2. The system does not have a chat function.
3. The users do not have a profile pictures.

### Project Testing Result

#### Test Case 1

Test Case Name: Like, Comment and Favorite Post

Application: Kawa Digital Hub

**Table 4.** *Test Case 1*

Step	Procedures	Expected Result	Result
1	Insert email and password on the login page	The account will login	Success
2	Click the smiling emoji button	The post will be liked	Success
3	Input a text on the comment bar	The comment will be sent to the post	Success

4	Click the bookmark icon	The post was added to the Favorite Page	Success
Precondition		No like, comment and favorite on the post	
Post-condition		A like and comment has been added to the post and the post will appear in Favorite Page	

*\*Success: The expected result has been met.*

*\*Partial Success: The expected result has been partially met.*

*\*Precondition: The condition of the website before conducting the test case*

*\*Post-condition: The condition of the website after conducting the test case*

Table 4 shows how well the feature works to improve user experience and encourage more detailed platform engagement. This feature's essential function for enhancing platform growth and user satisfaction is shown by the obvious connection between its implementation and improving user activity.

## Test Case 2

Test Case Name: Text and Media Post

Application: Kawa Digital Hub

**Table 5.** *Test Case 2*

Step	Procedures	Expected Result	Result
1	Insert text into the Post Creation	The post will be submitted to the administrator	Success
2	Click the Moderate Post in the drop-down menu in administrator account	The website will be redirected to the administrator Moderate Post page	Success



3	Click the green check button	The post will be seen by the other users	Success
4	Click the red trash bin button	The post will not be seen by the other users	Success
Precondition		No test, image or video post has been posted	
Post-condition		The test, image or video post has been seen by the other users in the main page	

*\*Success: The expected result has been met.*

*\*Partial Success: The expected result has been partially met.*

*\*Precondition: The condition of the website before conducting the test case*

*\*Post-condition: The condition of the website after conducting the test case*

Table 5 shows how well text can be combined with video to provide a more engaging and dynamic user experience. This immediate response highlights how important it is to accommodate a wide range of user preferences and improve the platform's ability to adapt content.

### Test Case 3

Test Case Name: Text and Media Post & Delete

Application: Kawa Digital Hub

**Table 6.** *Test Case 3*

Step	Procedures	Expected Result	Result
1	Insert 3 posts one text, image, and video in the post creation	The post will be submitted to the administrator	Success

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2	Click the Moderate Post in the drop-down menu in administrator account	The website will be redirected to the administrator Moderate Post page	Success
3	Click the green check button for the 3 submitted posts	The post will be seen by the other users	Success
4	Click the ellipsis on the posts	A dropdown menu will show 'delete'	Success
5	Click the delete button for deletion of the 3 posts	The card for the post will be deleted	Partial Success
Precondition		There are test, image or video post has been posted	
Post-condition		The test, image or video post has been seen by the other users in the main page	

*\*Success: The expected result has been met.*

*\*Partial Success: The expected result has been partially met.*

*\*Precondition: The condition of the website before conducting the test case*

*\*Post-condition: The condition of the website after conducting the test case*

Table 6 shows the type of posts that can be submitted to the kawa feed, in this case the delete function of the website was tested. Three Posts are submitted one that only has text, one only has an Image and lastly, one that only has a Video. Upon deletion of the first two, the post that only has an Image and a Text has been successfully deleted while the third one, the one with the Video did not meet the standards when deleting in the feed. Knowing this, the bug was resolved to ensure proper video deletion in the kawa feed.

## Test Case 4

Test Case Name: Video Post &amp; Delete

Application: Kawa Digital Hub

**Table 7.** *Test Case 4*

Step	Procedures	Expected Result	Result
1	Insert a video in the post creation	The post will be submitted to the administrator	Success
2	Click the Moderate Post in the drop-down menu in administrator account	The website will be redirected to the administrator Moderate Post page	Success
3	Click the green check button for the 3 submitted posts	The post will be seen by the other users	Success
4	Click the ellipsis on the posts	A dropdown menu will show 'delete'	Success
5	Click the delete button for deletion of the post	The card for the post will be deleted	Success
Precondition		There are test, image or video post has been posted	
Post-condition		The test, image or video post has been seen by the other users in the main page	

*\*Success: The expected result has been met.**\*Partial Success: The expected result has been partially met.**\*Precondition: The condition of the website before conducting the test case**\*Post-condition: The condition of the website after conducting the test case*

Table 7 shows the procedure taken to test the delete function in deleting Videos in the kawa feed. The delete function boasted a successful result in the deletion of Videos submitted.

## Test Case 5

Test Case Name: List of Regional Cuisines and Filipino Foods

Application: Kawa Digital Hub

**Table 8.** *Test Case 5*

Step	Procedures	Expected Result	Result
1	Click the Recipe page button in the navigation bar	The website will be redirected to the Recipe Page	Success
2	Click a regional recipe	The description, recipes and the procure on how to make the regional dish will be seen	Success
3	Click the video	The video tutorial will be play	Success
4	Click the bookmark icon	The recipe was added to the Favorite Page	Success
5	Click the Recipe page button in the navigation bar on the administrator account	The website will be redirected to the Recipe Page	Success
6	Click the Add Recipe	The menu for adding recipe will open	Success
7	Input the Image, description, recipe, procedures, the video, and the source.	The recipe will be added to the list	Success
Precondition		No new recipe added to the list and no recipe added to the Favorite Page	
Post-condition		A new recipe added to the list and a recipe added to the Favorite Page	

*\*Success: The expected result has been met.**\*Partial Success: The expected result has been partially met.**\*Precondition: The condition of the website before conducting the test case**\*Post-condition: The condition of the website after conducting the test case*

Table 8 shows the thorough coverage of local cuisines and Filipino specialties, curiosity and promoting a sense of cultural appreciation among the users. These positive

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results demonstrate the necessity of providing customized content offers to appeal to specific interests and promote interaction between cultures.

## Test Case 6

Test Case Name: Administrative Roles

Application: Kawa Digital Hub

**Table 9.** *Test Case 6*

Step	Procedures	Expected Result	Result
1	Click the Moderate Post in the drop-down menu in administrator account	The website will be redirected to the administrator Moderate Post page	Success
2	Click the green check button	The post will be seen by the other users	Success
3	Click the red trash bin button	The post will not be seen by the other users	Success
4	Click the Dashboard in the drop-down menu in administrator account	The user activities and engagements will be seen	Success
Precondition		No post has been approved	
Post-condition		The post was approved, and the user activities has been seen	

*\*Success: The expected result has been met.*

*\*Partial Success: The expected result has been partially met.*

*\*Precondition: The condition of the website before conducting the test case*

*\*Post-condition: The condition of the website after conducting the test case*

Table 9 shows an online community that is safer and more solid has resulted from administrators' enhanced efficiency in managing the moderation of user-generated content. In addition, the dashboard's accessibility to user statistics provides insightful information

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that can be used to make wise decisions, which eventually supports the platform's expansion and long-term viability.

## Test Case 7

Test Case Name: Forgot Password

Application: Kawa Digital Hub

**Table 10.** *Test Case 7*

Step	Procedures	Expected Result	Result
1	Click the 'forgot your password?' link in the log in page	The website will be directed to the forgot password page	Success
2	Insert an invalid email that was not registered to kawa	The users will be flashed a message saying that the email entered does not exist in kawa.	Success
3	Insert the valid email that was registered to kawa	The user will receive an email in their valid email account and will be redirected into a form for password reset.	Success
4	The user will enter the wrong OTP	The user will be flashed a message saying that the OTP is wrong or have expired	Success
4	The user will enter the right OTP sent to their email along with the new password	The user will be flashed a message saying that the password was successfully changed, and will be redirected into the log-in page	Success
Precondition		Multiple post has been approved	
Post-condition		The password has been changed for the user.	

*\*Success: The expected result has been met.*

*\*Partial Success: The expected result has been partially met.*

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*\*Precondition: The condition of the website before conducting the test case*

*\*Post-condition: The condition of the website after conducting the test case*

Table 10 shows the testing procedure for the ‘forgot password’ function of kawa, the system boasted an overall successful result, not having to debug or further improve the existing function as it serves to be working and functional.

## Test Case 8

Test Case Name: Search Function in the Home feed.

Application: Kawa Digital Hub

**Table 11.** *Test Case 7*

Step	Procedures	Expected Result	Result
1	Type keyword for contents posted in the kawa home feed then click enter	The feed will show the posts that contains the word typed in the search	Success
2	Click on the advanced search options for finding users	The search bar will have a drop-down form for the user input	Success
3	Type an existing username of the user for searching	The feed will show the posts made by that user	Success
Precondition		Multiple posts have been approved	
Post-condition		The feed will update to the input of the user	

*\*Success: The expected result has been met.*

*\*Partial Success: The expected result has been partially met.*

*\*Precondition: The condition of the website before conducting the test case*

*\*Post-condition: The condition of the website after conducting the test case*

Table 11 shows the testing procedure for the search function in the home feed of kawa, in this it shows that the function has been successful in performing multiple tests to ensure the functionality of the module.

### Project Evaluation Results

The project is evaluated using the 4-Point Likert scale, based on the ISO 205010 Criterion. The respondents were given the link to the deployed website and the User Manual on how to use it. They were given time to fully grasp what Kawa has to offer for them as a Platform. In some cases, for the IT Experts they are presented to the website and their functionalities in person along with the functionalities to the admin side, this will ensure a thorough evaluation of how the system should work and function. From there, they were asked to evaluate the system based on the ISO 205010 software criteria. The comments and suggestions given by the respondents will be appreciated and considered upon further development of this project.

**Table 12.** *Overall Evaluation Results*

CRITERIA	OVERALL WEIGHTED MEAN	INTERPRETATION
Functional suitability	3.73	<i>Highly Acceptable</i>
Usability	3.72	<i>Highly Acceptable</i>
Performance efficiency	3.64	<i>Highly Acceptable</i>
Portability	3.68	<i>Highly Acceptable</i>
Reliability	3.60	<i>Highly Acceptable</i>
Security	3.66	<i>Highly Acceptable</i>

Table 12 presents the summary of the results from the evaluation that has been done, this presents every criterion presented to the Students, Culinary Enthusiasts, and IT Experts/ Professionals. It also shows the overall weighted means of all the questions that



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were asked that belong to the given criterion. From these tabulated results the researchers came up with the interpretation based on the established 4-point Likert scale which has a range and corresponding verbal interpretation.

The project received overall positive feedback from its respondents, receiving a *Highly Acceptable* rating across all the given criteria with a weighted mean of 3.66, the highest of which was obtained by the *Functional Suitability* Criterion in which the system received an overall weighted mean of 3.73 while the lowest is *Reliability* in which it received an overall weighted mean of 3.60, which also belongs to the *Highly Acceptable* interpretation. The system also received valuable comments and suggestions from the IT Professionals which will be attached in this paper along with the tabulated results of this evaluation.

The system received a positive evaluation from its respondents, which proved that *Kawa: the digital hub for culinary enthusiasts* is functional, usable, efficient, portable, reliable and secured forum-style hub where users can post, interact and see regional Filipino Recipes / Dishes from a wide-range of regions in the Philippines.

## **Chapter 5**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

This chapter provides an overview of the research results and their interpretations, the conclusions drawn and the corresponding recommendations. It concludes with practical suggestions based on the findings to guide future actions or studies.

#### **Summary of Findings**

Kawa is a digital hub created for culinary enthusiasts to teach people or Filipinos who have a passion for cooking. It can be accessed through the internet by using a phone, laptop, or desktop via a website. After having access to the website, users can browse the website's features and see what the website has to offer.

The website's capabilities include the introduction of different dishes and different preparations from provinces around the Philippines, tutorial videos on how to cook that dish, typewritten procedures on how to prepare, cook, and serve the dish, and ingredients with complete measurements as shown in the tutorial videos.

The website was tested by 30 respondents, including students, culinary enthusiasts, and IT professionals. It was evaluated in terms functional stability, usability, performance efficiency, portability, reliability, and security. The overall evaluation results were very positive, with all requirements receiving a grand weighted mean of 3.60 indicating that the website met the evaluation criteria.

## **Conclusions**

In accordance with the study, Kawa: The Digital Hub for Culinary Enthusiasts successfully promotes and preserves regional Filipino cuisine as well as accomplishing its original objectives and providing as a useful resource for culinary enthusiasts. In consideration of the objectives of the study and the results of the test and evaluation conducted. The following conclusions were drawn:

- 1 The Kawa Culinary Digital Hub was successfully designed in such way that fosters a community, established online regional culinary repository and provide a comprehensive information about regional dishes;
- 2 The Kawa Culinary Digital Hub was constructed and developed using the project design presented;
- 3 The website was tested using a set of test cases and was proven to be functional and;
- 4 The Kawa Culinary Digital Hub was evaluated, and its acceptability was affirmed by its evaluators.

## **Recommendations**

The following recommendations are offered for related research in Kawa Digital Culinary Hub:

1. Integrate a framework for further development of the website.
2. Implement a direct chat function for users.
3. Implement profile picture features for users.

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4. Improve the search function to efficiently search users and posts.
5. Refine the user interface of the website to more efficient operation of the website.

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**APPENDIX**

	<b>TECHNOLOGICAL UNIVERSITY OF THE PHILIPPINES</b> Ayala Blvd., Ermita, Manila, 1000, Philippines Tel No. +632-5301-3001 local 608   Fax No. +632-8521-4063 Email: cos@tup.edu.ph   Website: www.tup.edu.ph	Index No.	REF COS-3.5-INT-TGC
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**THESIS GRAMMARIAN CERTIFICATION**

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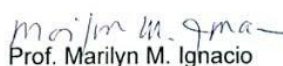
KAWA: THE DIGITAL HUB FOR CULINARY ENTHUSIASTS

authored by

Mark P. Balansag  
 John Michael M. Dela Cruz  
 John Hendryx C. Mediana  
 Shawn Brye L. Ordoñez

has undergone editing and proofreading by the undersigned.

This Certification is being issued upon the request of Mark P. Balansag, John Michael M. Dela Cruz, John Hendryx C. Mediana, Shawn Brye L. Ordoñez  
 for whatever purpose this may serve them.

  
 Prof. Marilyn M. Ignacio


Grammarian

Technological University of the Philippines

*June 13, 2024*  
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## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

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Authored by

**Balansag, Mark P.**  
**Dela Cruz, John Michael M.**  
**Mediana, John Hendryx C.**  
**Ordoñez, Shawn Brye L.**

College of Science

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## Appendix C

### KawaOfficial.Online User Manual

#### Table of Contents

1. Introduction
2. Getting Started
3. Account Registration
4. Navigating the Website
5. Features
6. FAQs

#### 1. Introduction

Welcome to KawaOfficial.Online, your go-to platform as a digital hub for culinary enthusiasts that makes extensive knowledge and literature about the Philippines' regional culinary peculiarities. This manual will guide you through the features and functionalities of our website to ensure you have a seamless experience.

#### 2. Getting Started

To get started with KawaOfficial.Online, you need to have a stable internet connection and a device such as a computer, tablet, or smartphone. Open your web browser and go to [www.kawaofficial.online](http://www.kawaofficial.online).

#### 3. Account Registration

##### 3.1 Sign Up

7. Click on the "Not yet Registered" button located at the bottom-left corner of the Login page.
8. Fill in the required fields: Username, Name, Email Address, and Password.
9. Click the "Register" button.
10. Check your email for a verification code and enter it on the website to complete the registration process.

##### 3.2 Log In

11. Enter your registered email address and password to the Login page.

12. Click the "Login" button to access your account.

#### 4. Navigating the Website

##### 4.1 Home page

The home page provides an overview of the latest updates, featured content, and quick links to different sections of the website.

##### 4.2 Search Function

Use the search bar at the top-left of the page to quickly find specific users.

##### 4.3 Recipes

Click the "Recipes" button located at the navigation bar next to the "Home" button. It includes the food's name and a description. There will be a video with all the ingredients needed and cooking instructions available.

###### 4.3.1 Search Recipe

Use the search bar at the top-left of the page to quickly find specific food you like.

###### 4.3.2 Add to Favorite Recipes

To access or add a favorite recipe, click the Bookmark icon button on the upper right corner of the display.

##### 4.4 Trending

Tap the "Trending" button, which is next to the "Recipe" button in the navigation bar. Users can use the tags located below the word "Trending Posts" to filter, see, and share all of the other users' trending posts.

##### 4.5 Favorites

On the navigation bar, next to the "Trending" button, select the "Favorites" button. This approach concentrated mainly on the user's saved favorites list.

###### 4.5.1 Select Favorites

To sort between favorite posts and favorite recipes—click the "Select Favorites" button at the top-right of the display.

##### 4.6 User Profile

Click the user icon button located at the top-right corner of the navigation bar at the homepage, a dropdown menu consisting of "Profile" and "Logout" button. By clicking the "Profile" icon you will proceed to the User Profile page, where you can see the number of posts, followers, followings and your posts.

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

### 5. Features

#### 5.1 Notification

Click the notification bell icon on the navigation bar located at the top-right corner next to the user profile icon, this shows the activity of who commented or liked your posts.

#### 5.2 Post Creation Instruction

Click the question mark icon button to view the instructions on how to create a post.

#### 5.3 Create Post

Type on the “What’s on your mind, (username)?” text-box, by clicking the “Post” button, the post will be processed on approval by the moderators. Once approved your post will be found on the homepage.

#### 5.4 Edit Profile

Locate the User Profile page and click the “Edit Profile” button to change Username, Name, Email Address, and Password.

#### 5.5 Reaction

Click the happy face icon button to react to a post, once the happy face turns into a heart-eye face icon, this means you liked the post already.

#### 5.6 Comment

Type on the “Add a comment” text-box and click the “Post” button located next to it to make a comment.

#### 5.7 Add to Favorite Posts

To add the post to your collection of favorites, click the bookmark icon on the post.

#### 5.8 Community

Join our community to engage with other members, and share your knowledge.

### 7. FAQs

How do I reset my password?

13. Click on the "Forgot Password" link on the login page.
14. Enter your registered email address.
15. Click the “Send OTP” button.
16. Check your email for a OTP code and fill the necessary fields: Enter OTP, New Password and Confirm New Password.

We hope this user manual helps you navigate and enjoy all the features KawaOfficial.Online has to offer. If you have any further questions or need assistance, please don't hesitate to contact our support team [kawa.teamconnect@gmail.com](mailto:kawa.teamconnect@gmail.com). Thank you for being a part of the Kawa community



**Appendix D****Evaluation Form/s****EVALUATION INSTRUMENT****TECHNOLOGICAL UNIVERSITY OF THE PHILIPPINES****COLLEGE OF SCIENCE**

Name (optional) : \_\_\_\_\_

Date: \_\_\_\_\_

**Directions:** rate the system presented with the following criteria starting from 4, which is the highest to 1, which is the lowest. Check or cross out the corresponding number below, based on the iso 205010 criterion.

4. Highly acceptable 3. Very acceptable 2. Acceptable 1. Not acceptable

<b>KAWA THE DIGITAL HUB FOR CULINARY ENTHUSIASTS</b>				
<b>CRITERIA</b>	<b>RATING</b>			
	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Functional Suitability</b>				
1. The project offers every feature and completes the overall functions that it desires (a digital hub (forum style) platform for posting recipes and regional Filipino dishes.)				
2. The project works as expected, meeting all requirements and delivering reliable, accurate results.				
3. Using this project feels easy to use for tasks. The functions are arranged so that the user can complete the task quickly and easily.				
<b>Usability</b>				
1. The user easily recognizes functions on the project are appropriate for their needs (Posting, liking, accessing recipes, etc.).				
2. The functionalities that exist in the system are easy for users to learn and apply to accomplish what they want to do.				

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

3. The website is easy to use and operate. With the least amount of effort and error possible, users can effectively interact with the functionalities to accomplish the desired results.				
4. The system provides clear instructions to minimize the potential for mistakes				
5. The system displays a good and simple User Interface for user operability and easy interactions.				
<b>Performance efficiency</b>				
1. The amount of time which the system responds to actions, when performing its functions, meets the desired requirement.				
2. The website can publish and store posts, recipes, and information including text, images and videos.				
3. The website can accurately store and display data inputs from the user (this includes posts, images and texts)				
<b>Portability</b>				
1. The system is functioning effectively and efficiently which can be accessed to different or evolving hardware, software, platform or browser (chrome, edge, Opera GX, etc.)				
2. Users can access the website in mobile and in desktop browser applications				
<b>Reliability</b>				
1. The website is always reliable in normal operation and in typical use (posting, interacting, commenting etc.)				
2. The system is operational and accessible when required for use.				
3. The system operates as intended despite the presence of hardware or software faults.				
<b>Security</b>				
1. The system ensures data is accessible only to those who are authorized and have access.				
2. The system prevents unauthorized access to, or modifications of, computer programs or data.				

Appendix 1. Design Criteria

**Comment and Suggestions:**

---

**Google Form**

Section 1 of 5

## THE DEVELOPMENT OF KAWA: THE DIGITAL HUB FOR CULINARY ENTHUSIASTS

THIS FORM IS FOR THE EVALUATION OF THE SYSTEM/WEBSITE KAWA, WE THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY.

We are 4th year student researchers under the program Bachelor of Science in Information Systems from the Technological University of The Philippines- Manila.

The information provided in this study is protected by the Data Privacy Act of the Philippines. We take reasonable security measures to protect your personal information from unauthorized access, disclosure, alteration, or destruction.

THE LINK TO THE WEBSITE IS THIS : <https://www.kawaofficial.online/>  
USER MANUAL : [USER MANUAL HERE!!](#)

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

Name (Optional)

Your answer

HAVE YOU REGISTERED TO KAWA \*

☒ Yes

☐ No

HAVE YOU ACCESSED ALL ITS FEATURES

☒ Yes

☐ No

Clear selection

What is your current role? \*

☐ IT Professional

☐ Student

☐ Culinary Enthusiast

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

## EVALUATION OF THE WEBSITE KAWA BASED ON THE ISO 205010 CRITERION

DIRECTIONS: RATE THE SYSTEM PRESENTED WITH THE FOLLOWING CRITERIA

- 4- Highly Acceptable
- 3- Very Acceptable
- 2- Acceptable
- 1- Not Acceptable

CHECK OR CROSS OUT THE CORRESPONDING NUMBER BELOW, BASED ON THE ISO 205010 CRITERION.

## FUNCTIONAL SUITABILITY \*

	4	3	2	1
The website offers every feature and completes the overall functions that it desires (a digital hub (forum style) platform for posting recipes and regional filipino dishes.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The system works as expected, meeting all requirements and delivering reliable, accurate results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using this system/software feels easy to use for tasks. The functions are arranged so that the user can complete the task quickly and easily.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**USABILITY \***

4

3

2

1

The user easily recognizes functions on the system are appropriate for their needs (Posting, liking, accessing recipes, etc.).



The functionalities that exist in the system/website are easy for you the user to learn and apply to accomplish what they/you want to do.



## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

The website is easy to use and operate. With the least amount of effort and error possible, users can effectively interact with the functionalities to accomplish the desired results.

☐ ☐ ☐ ☐

The system provides clear instructions to minimize the potential for mistakes.

☐ ☐ ☐ ☐

The system displays a good and simple User Interface for user operability and easy interactions.

☐ ☐ ☐ ☐

Back

Next

Clear form

**PERFORMANCE EFFICIENCY \***

4

3

2

1

The amount of time which the system responds to actions, when performing its functions, meets the desired requirement.

☐☐☐☐

The website is capable to publish and store posts, recipes, and information which includes text, images and videos.

☐☐☐☐

The website can accurately store and display data inputs from the user (this includes posts, images and texts)

☐☐☐☐



**PORTABILITY \***

4

3

2

1

The system is functioning effectively and efficiently which can be accessed to different or evolving hardware, software, platform or browser (chrome, edge, Opera GX, etc.)

☐

☐

☐

☐

Users can access the website in mobile and in desktop applications

☐

☐

☐

☐

Back

Next

Clear form

**RELIABILITY \***

4

3

2

1

The website is  
always reliable in  
normal operation  
and in typical use  
(posting,  
interacting,  
commenting  
etc.)

☐☐☐☐

The website is  
operational and  
accessible when  
required for use.

☐☐☐☐

The website  
operates as  
intended despite  
the presence of  
hardware or  
software faults.

☐☐☐☐

**SECURITY**

4

3

2

1

The system ensures data is accessible only to those who are authorized and have access.

☐☐☐☐

The system prevents unauthorized access to, or modifications of, computer programs or data.

☐☐☐☐**COMMENTS AND SUGGESTIONS:**

Your answer

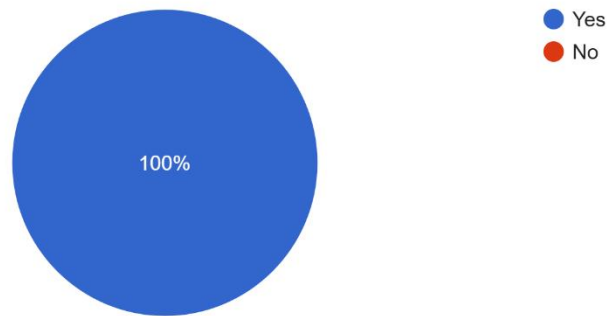
[Back](#)[Next](#)[Clear form](#)

## Appendix E

### Evaluation Results

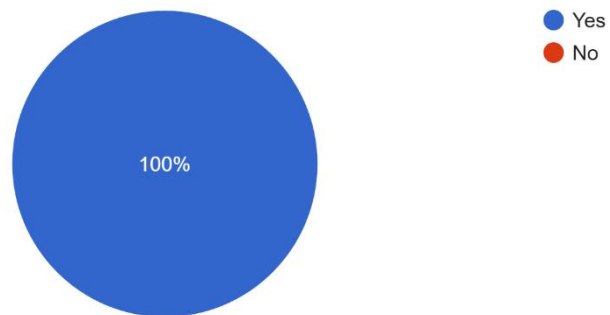
HAVE YOU REGISTERED TO KAWA

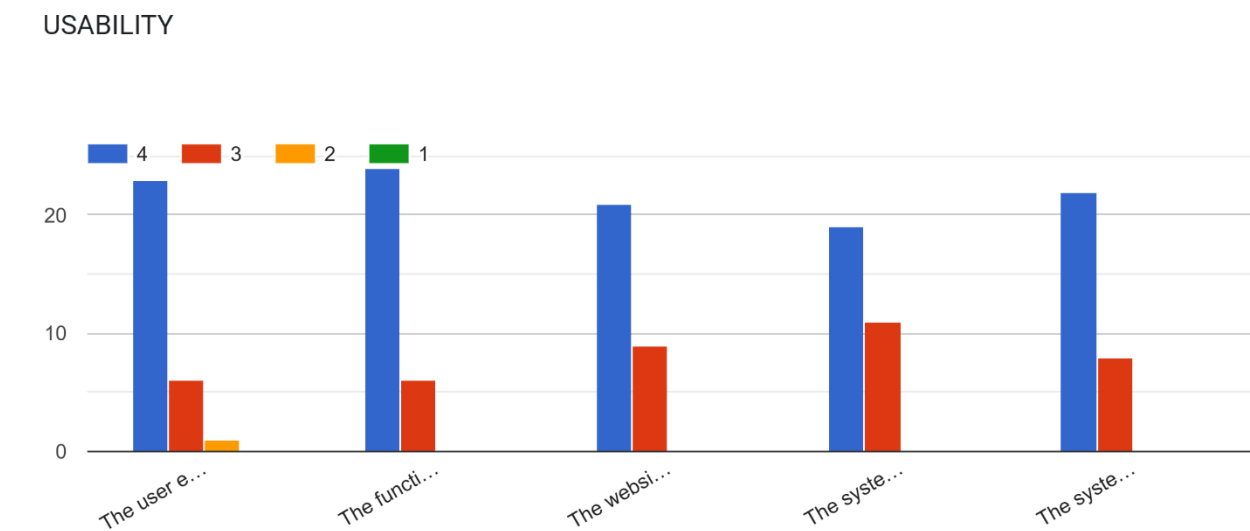
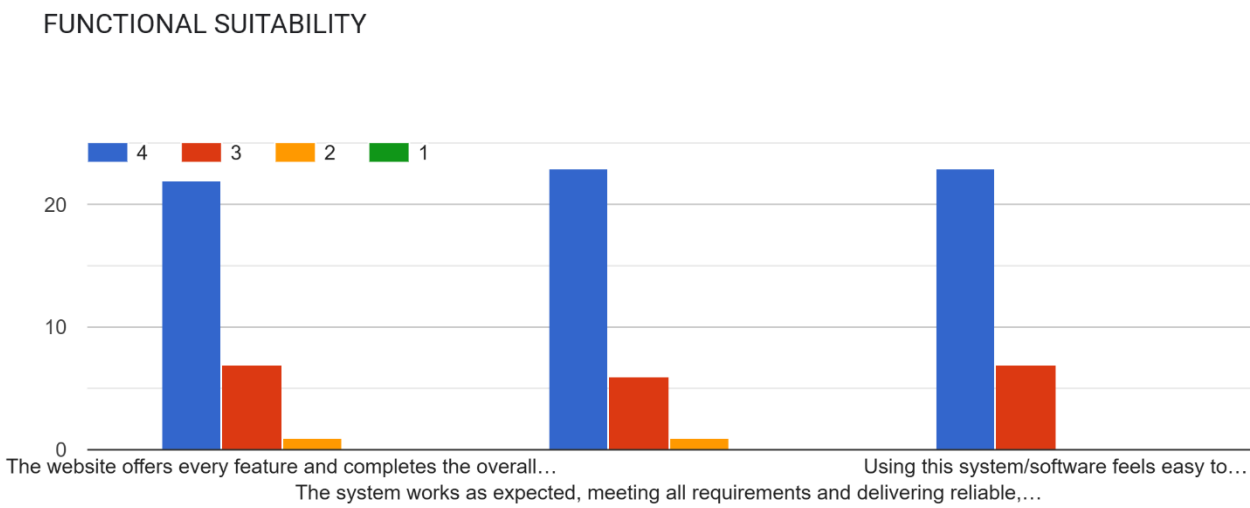
30 responses

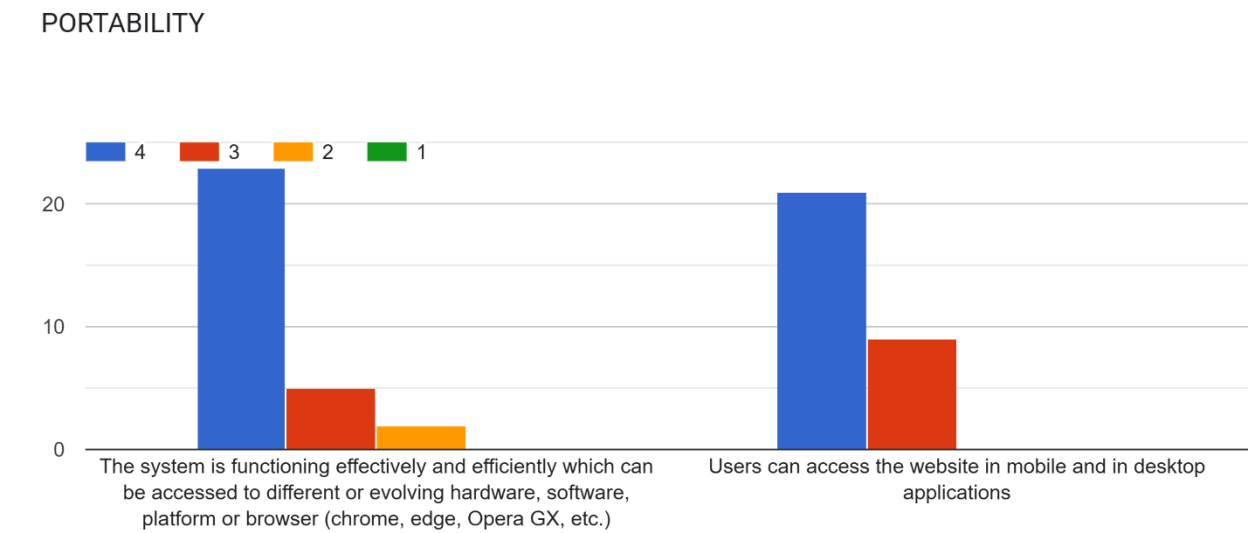
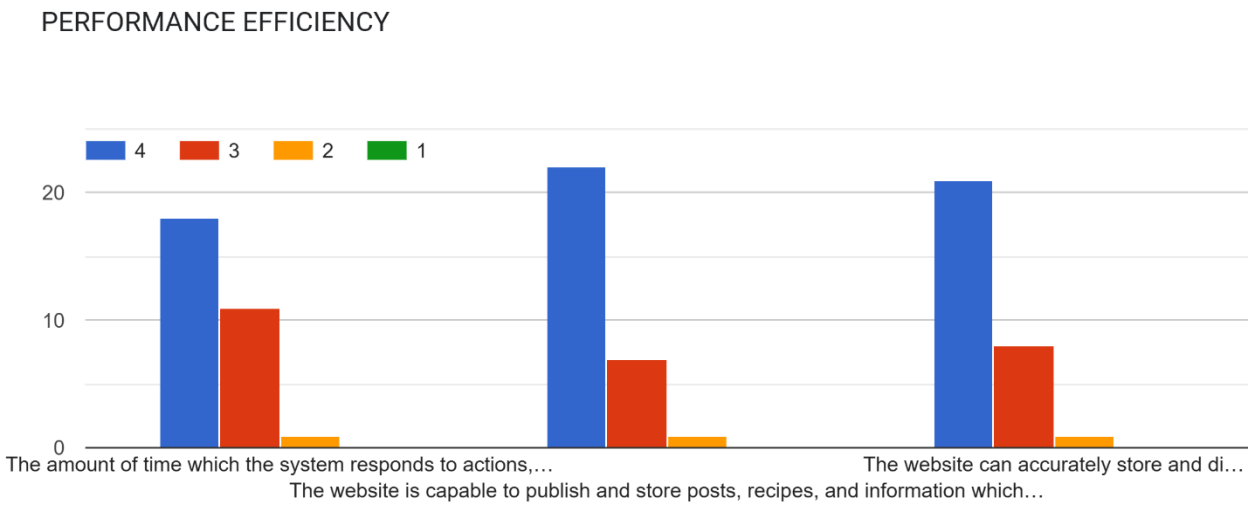


HAVE YOU ACCESSED ALL ITS FEATURES

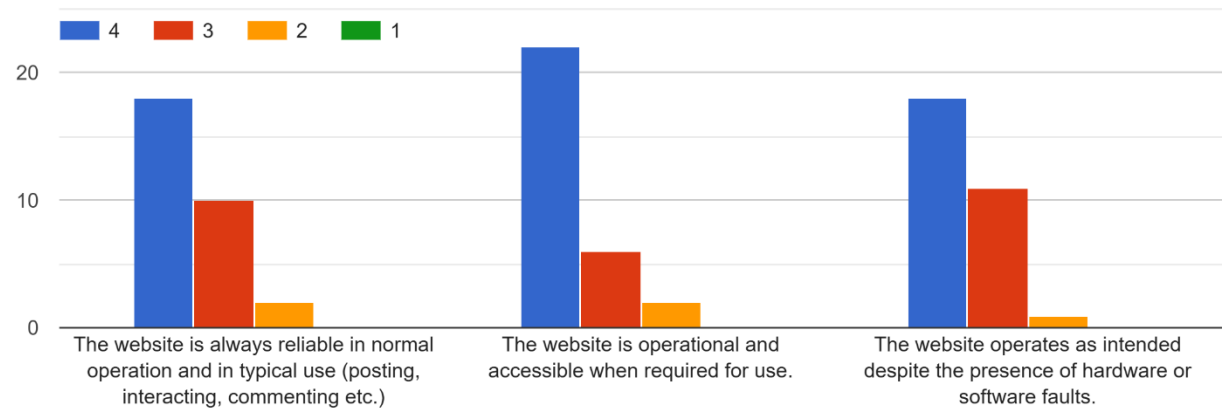
30 responses



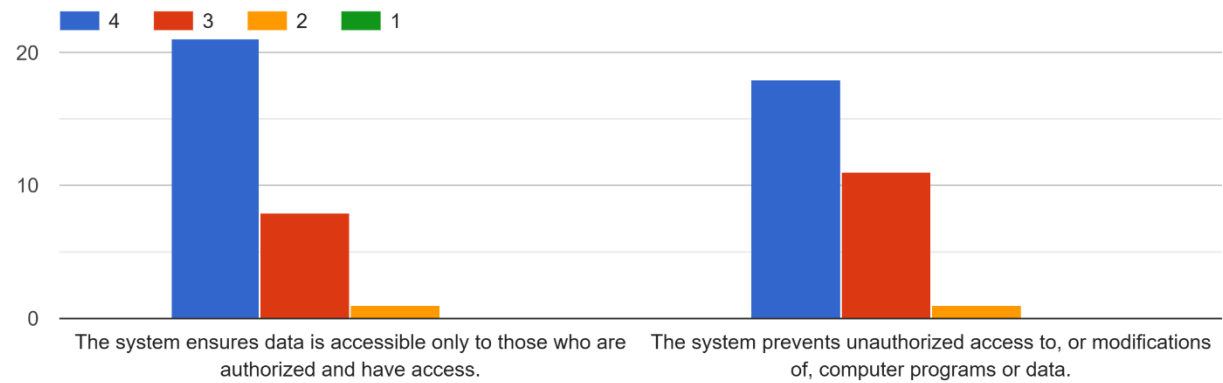




RELIABILITY



SECURITY



## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

## COMMENTS AND SUGGESTIONS:

10 responses

The Website is very accessible to any device I use

Capitalization of letters for words and phrases.

Wala naman

cute ng design wahaha xd

good

1. Since the system is promoting different Filipino dishes, please make the UI more Filipino-style.
2. In the recipe section, make a filter for different regions for easy searching.
3. Make the search bar search for both the users and the recipes.
4. Chat feature.

Admin should also moderating all the contents to avoid unnecessary or useless posts or comments

none



## Appendix F

## Tabulated Results

	FUNCTIONAL SUITABILITY			USABILITY					PERFORMANCE EFFICIENCY			PORTABILITY		RELIABILITY			SECURITY	
Student	Q1	Q2	Q3	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q1	Q2	Q1	Q2	Q3	Q1	Q2
1 Danica Valera	4	4	4	4	4	4	4	4	3	4	3	4	4	3	4	3	4	4
2 Denise Richard	4	4	4	3	4	4	4	3	4	4	4	4	4	4	4	3	4	4
3 Ruby	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4
4 Jed	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5 Aly	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
6 Jerlien Cauntic	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3
7 CJ	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
8 Rona Arjona	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
9 Georgette	4	4	4	3	4	4	4	4	3	4	4	4	4	3	4	4	4	4
10 Cherry	3	3	3	2	3	3	3	3	3	3	2	2	3	3	3	3	2	2

Culinary Enthusiast																		
1 Castillo, Angel Alra A.	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4
2 Jeff	4	4	4	4	3	3	3	3	3	3	3	3	3	2	2	3	3	3
3 Ari	3	4	3	4	4	4	4	4	4	4	4	4	3	4	4	4	4	3
4 Majoy	4	4	4	4	4	4	4	4	3	4	4	4	4	3	4	4	4	4
5 Ivan	4	3	4	4	4	3	3	4	4	4	3	4	3	4	4	4	4	4
6 Brian Alejandro	3	3	4	4	3	3	3	3	3	3	3	3	3	3	4	3	3	3
7 Gwen	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
8 Monica	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3
9 Shern	3	2	3	3	3	3	3	3	2	3	3	2	3	2	2	3	3	3
10 No Name	3	3	4	3	4	3	3	3	3	3	4	3	3	3	3	3	3	3
11 No Name	2	3	4	4	4	4	3	3	3	2	3	4	4	3	4	4	3	3
12 No Name	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
13 No Name	4	4	3	4	4	3	4	4	3	4	4	3	4	4	3	4	4	4
14 No Name	4	4	4	3	4	4	3	4	4	3	3	4	4	4	4	4	4	3
15 No Name	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	4	4	4

[illegible]

**APPENDIX G****Test Case 1**

Test Case Name: Like, Comment and Favorite Post

Application: Kawa Digital Hub

*Table 4. Test Case 1*

Step	Procedures	Expected Result	Result
1	Insert email and password on the login page	The account will login	Success
2	Click the smiling emoji button	The post will be liked	Success
3	Input a text on the comment bar	The comment will be sent to the post	Success
4	Click the bookmark icon	The post was added to the Favorite Page	Success
Precondition		No like, comment and favorite on the post	
Post-condition		A like and comment has been added to the post and the post will appear in Favorite Page	

*\*Success: The expected result has been met.**\*Partial Success: The expected result has been partially met.**\*Precondition: The condition of the website before conducting the test case**\*Post-condition: The condition of the website after conducting the test case*

**APPENDIX H****Test Case 2**

Test Case Name: Text and Media Post

Application: Kawa Digital Hub

*Table 5. Test Case 2*

Step	Procedures	Expected Result	Result
1	Insert text into the Post Creation	The post will be submitted to the administrator	Success
2	Click the Moderate Post in the drop-down menu in administrator account	The website will be redirected to the administrator Moderate Post page	Success
3	Click the green check button	The post will be seen by the other users	Success
4	Click the red trash bin button	The post will not be seen by the other users	Success
Precondition		No test, image or video post has been posted	
Post-condition		The test, image or video post has been seen by the other users in the main page	

*\*Success: The expected result has been met.**\*Partial Success: The expected result has been partially met.**\*Precondition: The condition of the website before conducting the test case**\*Post-condition: The condition of the website after conducting the test case*

**APPENDIX I****Test Case 3**

Test Case Name: Text and Media Post &amp; Delete

Application: Kawa Digital Hub

Table 6. Test Case 3

Step	Procedures	Expected Result	Result
1	Insert 3 posts one text, image, and video in the post creation	The post will be submitted to the administrator	Success
2	Click the Moderate Post in the drop-down menu in administrator account	The website will be redirected to the administrator Moderate Post page	Success
3	Click the green check button for the 3 submitted posts	The post will be seen by the other users	Success
4	Click the ellipsis on the posts	A dropdown menu will show 'delete'	Success
5	Click the delete button for deletion of the 3 posts	The card for the post will be deleted	Partial Success
Precondition		There are test, image or video post has been posted	
Post-condition		The test, image or video post has been seen by the other users in the main page	

*\*Success: The expected result has been met.**\*Partial Success: The expected result has been partially met.**\*Precondition: The condition of the website before conducting the test case**\*Post-condition: The condition of the website after conducting the test case*

**APPENDIX J**

## Test Case 4

Test Case Name: Video Post &amp; Delete

Application: Kawa Digital Hub

Table 7. Test Case 4

Step	Procedures	Expected Result	Result
1	Insert a video in the post creation	The post will be submitted to the administrator	Success
2	Click the Moderate Post in the drop-down menu in administrator account	The website will be redirected to the administrator Moderate Post page	Success
3	Click the green check button for the 3 submitted posts	The post will be seen by the other users	Success
4	Click the ellipsis on the posts	A dropdown menu will show 'delete'	Success
5	Click the delete button for deletion of the post	The card for the post will be deleted	Success
Precondition		There are test, image or video post has been posted	
Post-condition		The test, image or video post has been seen by the other users in the main page	

*\*Success: The expected result has been met.**\*Partial Success: The expected result has been partially met.**\*Precondition: The condition of the website before conducting the test case**\*Post-condition: The condition of the website after conducting the test case*

**APPENDIX K****Test Case 5**

Test Case Name: List of Regional Cuisines and Filipino Foods

Application: Kawa Digital Hub

Table 8. Test Case 5

Step	Procedures	Expected Result	Result
1	Click the Recipe page button in the navigation bar	The website will be redirected to the Recipe Page	Success
2	Click a regional recipe	The description, recipes and the procure on how to make the regional dish will be seen	Success
3	Click the video	The video tutorial will be play	Success
4	Click the bookmark icon	The recipe was added to the Favorite Page	Success
5	Click the Recipe page button in the navigation bar on the administrator account	The website will be redirected to the Recipe Page	Success
6	Click the Add Recipe	The menu for adding recipe will open	Success
7	Input the Image, description, recipe, procedures, the video, and the source.	The recipe will be added to the list	Success
Precondition		No new recipe added to the list and no recipe added to the Favorite Page	
Post-condition		A new recipe added to the list and a recipe added to the Favorite Page	

*\*Success: The expected result has been met.**\*Partial Success: The expected result has been partially met.*

## KAWA: DIGITAL HUB FOR CULINARY ENTHUSIASTS

*\*Precondition: The condition of the website before conducting the test case*

*\*Post-condition: The condition of the website after conducting the test case*

**APPENDIX L****Test Case 6**

Test Case Name: Administrative Roles

Application: Kawa Digital Hub

Table 9. Test Case 6

Step	Procedures	Expected Result	Result
1	Click the Moderate Post in the drop-down menu in administrator account	The website will be redirected to the administrator Moderate Post page	Success
2	Click the green check button	The post will be seen by the other users	Success
3	Click the red trash bin button	The post will not be seen by the other users	Success
4	Click the Dashboard in the drop-down menu in administrator account	The user activities and engagements will be seen	Success
Precondition		No post has been approved	
Post-condition		The post was approved, and the user activities has been seen	

*\*Success: The expected result has been met.*

*\*Partial Success: The expected result has been partially met.*

*\*Precondition: The condition of the website before conducting the test case*

*\*Post-condition: The condition of the website after conducting the test case*

**APPENDIX M****Test Case 7****Test Case Name: Forgot Password****Application: Kawa Digital Hub***Table 10. Test Case 7*

Step	Procedures	Expected Result	Result
1	Click the 'forgot your password?' link in the log in page	The website will be directed to the forgot password page	Success
2	Insert an invalid email that was not registered to kawa	The users will be flashed a message saying that the email entered does not exist in kawa.	Success
3	Insert the valid email that was registered to kawa	The user will receive an email in their valid email account and will be redirected into a form for password reset.	Success
4	The user will enter the wrong OTP	The user will be flashed a message saying that the OTP is wrong or have expired	Success
4	The user will enter the right OTP sent to their email along with the new password	The user will be flashed a message saying that the password was successfully changed, and will be redirected into the log-in page	Success
Precondition		Multiple post has been approved	
Post-condition		The password has been changed for the user.	

*\*Success: The expected result has been met.*

*\*Partial Success: The expected result has been partially met.*

*\*Precondition: The condition of the website before conducting the test case*

*\*Post-condition: The condition of the website after conducting the test case*



**APPENDIX N****Test Case 8**

Test Case Name: Search Function in the Home feed.

Application: Kawa Digital Hub

Table 11. Test Case 7

Step	Procedures	Expected Result	Result
1	Type keyword for contents posted in the kawa home feed then click enter	The feed will show the posts that contains the word typed in the search	Success
2	Click on the advanced search options for finding users	The search bar will have a drop-down form for the user input	Success
3	Type an existing username of the user for searching	The feed will show the posts made by that user	Success
Precondition		Multiple posts have been approved	
Post-condition		The feed will update to the input of the user	

*\*Success: The expected result has been met.*

*\*Partial Success: The expected result has been partially met.*

*\*Precondition: The condition of the website before conducting the test case*

*\*Post-condition: The condition of the website after conducting the test case*

**JOHN MICHAEL M. DELA CRUZ**

Quality Assurance / Analyst / Document Specialist

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**PROFESSIONAL SUMMARY**

As a Quality Assurance / Analyst / Document Specialist, I am proficient at making sure that each task delivered meets the highest requirements for accuracy and quality. I have plenty of experience in producing, putting into practice, and managing thorough documentation and quality assurance procedures. I have excellent analytical skills, a keen attention to detail, and the ability to recognize and resolve problems in data and documentation.

**CORE COMPETENCIES**

- Quality Assurance
- Attention to Detail
- Analytics
- Documentation Management:
- Process Improvement
- Continuous Improvement
- Problem Solving
- Web Development
- Programming
- Datamining

**PROFFESIONAL EXPERIENCE**

Quality Assurance / Analyst / Document Specialist – Cenco Online Clothing & Apparels Store

Quality Assurance / Analyst / Programmer – Handwritten Recognition Machine Learning

Quality Assurance / Analyst / Document Specialist – Mariana Academy of Maritime Studies Inc.

**EDUCATION**

Arellano University Senior High School (2018-2020) – Information and Communication Technology

Technological University of the Philippines (2020 – 2024) – Bachelor of Science Major in Information System

**JOHN HENDRYX C. MEDIANA**

UX/UI Designer / Analyst / Document Specialist

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**PROFESSIONAL SUMMARY**

I'm all about making sure things are done right. As Analyst and Document Specialist, I focus on checking that everything we do is top quality. Whether it's processes or documents, I pay close attention to make sure they're perfect. I also help make complicated stuff easier to understand. If there are any mistakes, I'm there to fix them so our work runs smoothly, and we all succeed.

**CORE COMPETENCIES**

- Management Skills
- Computer Literate
- Creativity
- Documentation Management
- Adaptive
- Problem Solving
- Web Development
- Programming

**PROFFESIONAL EXPERIENCE**

Analyst / Document Specialist – MS Department Store

UX/UI Designer / Document Specialist – Innovative Approaches of Cloud Plus Ticketing System

**EDUCATION**

Santa Isabel College - Manila (2018-2020) – Information and Communication Technology

Technological University of the Philippines (2020 – 2024) – Bachelor of Science Major in Information System

**SHAWN BRYE L. ORDOÑEZ**

Quality Assurance / Analyst / Document Specialist

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**PROFESSIONAL SUMMARY**

As a UI Designer, Project assistance Specialist, and Member Data Management Professional, I provide high-quality, user-centric designs as well as thorough project assistance. I thrive in creating intuitive user interfaces, managing projects with rigorous documentation, and ensuring data accuracy. My analytical talents, attention to detail, and problem-solving abilities produce great results on all jobs.

**CORE COMPETENCIES**

- Attention to Detail
- Analytics
- Documentation Management:
- Process Improvement
- Data Management
- Continuous Improvement
- Problem Solving
- Web Development
- UI Design
- Programming

**PROFFESIONAL EXPERIENCE**

Graphic and UI Designer– Cenco Online Clothing &amp; Apparels Store

UI Designer / Project Support Specialist – Innovative Approaches of Cloud Plus Ticketing System

Member Data Management – PhilHealth Local Health Insurance Office

**EDUCATION**

Lyceum of the Philippines University (2018-2020) – Accountancy, Business and Management

Technological University of the Philippines (2020 – 2024) – Bachelor of Science Major in Information System

**MARK P. BALANSAG**

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**PROFESSIONAL SUMMARY**

I am a highly skilled professional with expertise in troubleshooting, computer networking, and servicing, coupled with a keen eye for user experience through UI/UX design. Additionally, proficient in managing projects and web development, ensuring efficient solutions from concept to completion. I am keen to learn more about this industry from the skills I have today and the skills that I will have in the future, I want to be able to improve consistently and achieve new milestones.

**CORE COMPETENCIES**

- Troubleshooting
- Computer Networking
- Computer Servicing
- UI / UX Design
- Project Management
- Web Design and Programming

**PROFFESIONAL EXPERIENCE**

Support Specialist Intern / Trainee – Mercury Freight International Inc.

**EDUCATION**

Masville Elementary School (2008-2014)

Masville National High School (2014-2018)

United Christian Academy (2018-2020) – Information and Communication Technology  
Technological University of the Philippines (2020 – 2024) – Bachelor of Science Major in Information System