

Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)

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CHAPTER 1

Project Context

Eating is an essential part of daily human life. While its primary purpose is sustenance, it has evolved into a more complex activity influenced by culture, personal preferences, accessibility, and emotional states. Over time, the number of food options has increased dramatically. With the ever-growing number of culinary innovations, restaurants, and food trends, people are presented with an overwhelming number of choices on what to eat.

The decision-making process around food has become increasingly complex. Personal preferences fluctuate daily, influenced by factors such as mood, cravings, budget constraints, dietary restrictions, and exposure to trends seen on social media platforms. For instance, a dish that seemed appealing one day may be unappealing the next. Some meals that do sound appealing may be out of reach due to allergens, financial restrictions, or unavailability in the country they are in, meaning the individual has to compromise on an alternative or a whole different item entirely, contributing to frustrations.

Furthermore, the rise and accessibility of food delivery services such as GrabFood and FoodPanda have made food more accessible than ever. Having so many options available sounds like a good thing; however, it may also lead to a common problem known as decision paralysis—a state where the sheer volume of options makes it difficult to make a choice. Compounding this is the experience of decision fatigue, where the effort required to evaluate numerous options every day becomes emotionally and mentally draining. Food, which should be a source of joy and nourishment, ends up becoming a burden to think of daily. This could lead to individuals gravitating towards convenience over nutritional value, defaulting to similar meals daily, and losing motivation to eat altogether.

The challenge of food decision-making becomes even more complex when it involves a group setting. Different preferences, dietary needs, and budget constraints often result in prolonged discussions with no verdict. Compromise often becomes necessary, but it is not always satisfying. Within Filipino cultural contexts, values such as pakikisama (maintaining harmony), hiya (sense of shame/modesty), and utang ng loob (debt of gratitude) strongly influence group dynamics. This may lead to people withholding their preferences to avoid conflict or being seen as difficult, leading to common indecisive responses such as “Kahit Saan” (“Anywhere is Fine”) or “Ikaw bahala” (“it’s up to you”). When a suggestion is finally made, it is not uncommon for the others to reject it, stating “Sawa na ako diyan” (“I’m tired of that already”). These cultural tendencies are followed to maintain group harmony, hindering the decision-making process further.

Even when hosting, Filipinos want all guests to enjoy their food, heightening the pressure to choose food that everyone else will like. Cooking or ordering food for others can become a source of anxiety, especially when taking into consideration factors like time and budget constraints.

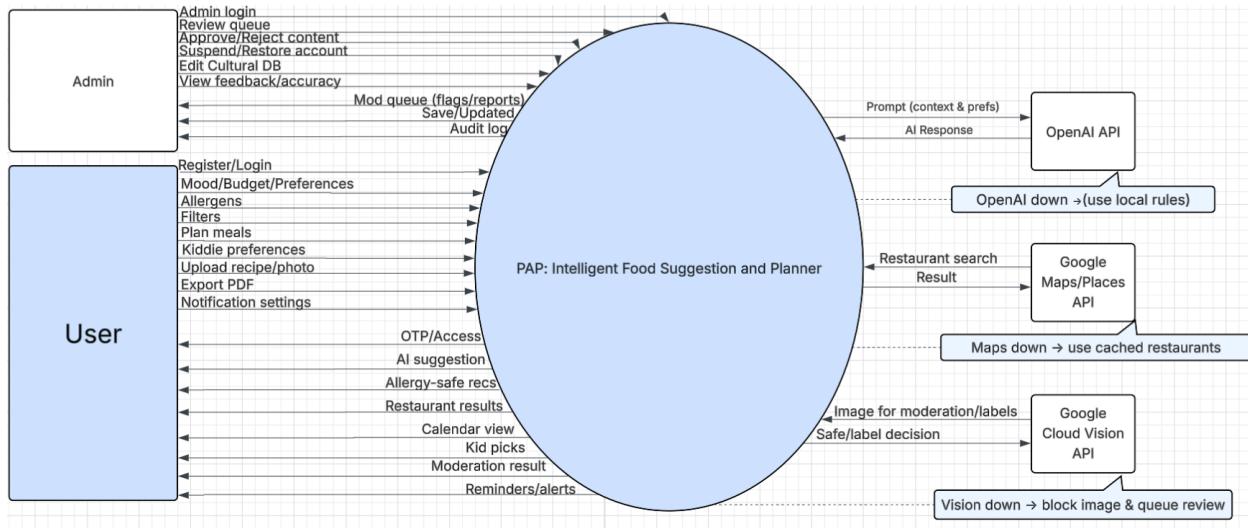


Figure 1.1. Context Diagram of the Food Decision Web Application

This diagram places PAP at the center and shows how it works with end-users, an Admin, and three external services. Users sign up or log in with OTP, then provide mood, budget, preferences, allergens, filters, and Kiddie preferences. PAP returns AI suggestions, allergy-safe options, restaurant results, kid-friendly picks, a calendar view for planned meals, and reminders. Users can upload recipes with photos (PAP moderates images before publishing) and export recipes or meal plans as PDFs.

On the right are the connected services that power key features: OpenAI API for context-aware prompts and responses, Google Maps/Places API for restaurant search and results, and Google Cloud Vision API for image moderation and labels.

An Admin oversees quality and safety. Through PAP, Admins log in, review queued items, approve or reject content, suspend or restore accounts, update the Cultural Food Explorer,

and view feedback or accuracy. PAP returns flagged items, save or update confirmations, and audit logs or analytics.

The diagram also notes resilience. If OpenAI or Maps is unavailable, PAP uses a local rules engine and cached restaurant lists. If Vision is unavailable, PAP blocks the image and queues it for review. Overall, the figure highlights a user-friendly, governed, and fault-tolerant system for smart meal suggestions and planning.

Purpose and Description

The purpose of the system is to assist users in making food-related decisions using Artificial Intelligence (AI) in the form of a conversational chatbot. With the increasing challenge of food choice, the system aims to reduce decision fatigue and decision paralysis and improve the overall user experience in selecting meals to order or prepare.

The proposed AI-powered chatbot will help users, whether choosing only for themselves or in a group setting, decide what to eat by considering various contextual factors. Users can interact with the chatbot, expressing their cravings, dietary restrictions (e.g., halal, vegetarian), current mood, budget, or location. The AI will give a recommendation based on the given prompt.

For group settings, the system can combine individual preferences to suggest options that would satisfy the group as a whole. Taking into consideration cultural and social factors such as Filipino decision-making dynamics, to improve group consensus and reduce conflicts and indecision.

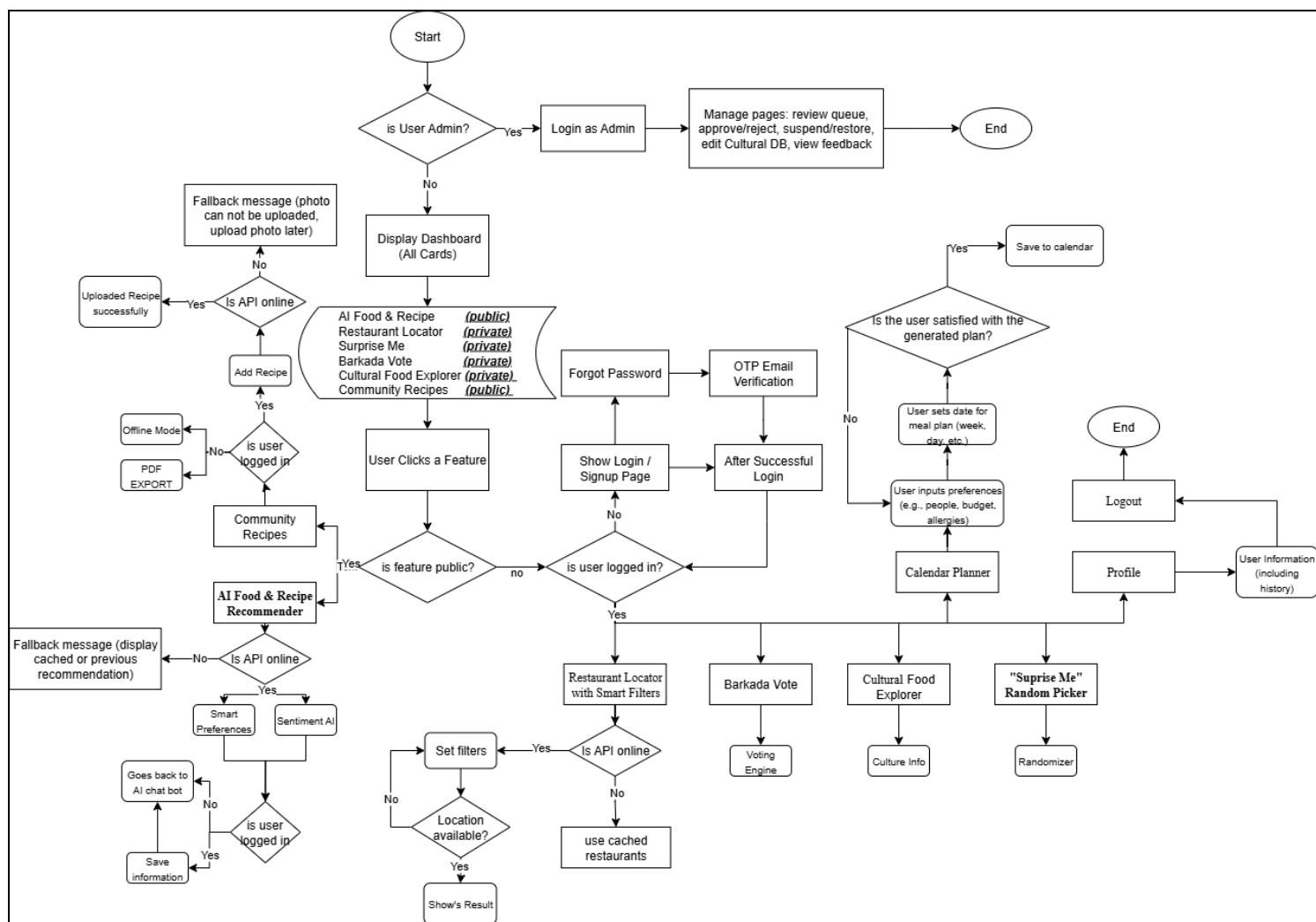


Figure 1.2. Process Flow of the Food Decision Support Web Application

When someone opens PAP, the system first checks whether the visitor is an Admin. Admin users sign in and go straight to management pages where they review flagged items, approve or reject content, suspend or restore accounts, update the Cultural Food Explorer, and read feedback. Everyone else is brought to the dashboard that shows all feature cards: AI Food and Recipe, Restaurant Locator with Smart Filters, Surprise Me Random Picker, Barkada Vote, Cultural Food Explorer, Community Recipes, Calendar Planner, and Profile. Public features open immediately.

Private features ask the user to log in or sign up, complete OTP verification, and then return to the feature originally selected. A forgot-password path is also available.

The AI pathway uses a clear resilience check. Before calling the model, PAP asks “Is the API online?” If it is, the Chatbot with OpenAI API builds a context prompt from saved preferences and current sentiment, then returns tailored suggestions. If it is not, PAP shows a short fallback message and serves a cached or previous recommendation so the user can still continue. Saving any result to the profile or calendar requires login. The Surprise Me picker is separate from the chatbot. It offers a quick random choice that does not depend on user history or AI context.

For place discovery, users open Restaurant Locator and set filters such as distance, cuisine, budget, rating, open now, delivery, and city. PAP checks for location permission if needed, then asks “Is the Maps API online?” If it is, the system queries Google Maps and displays results. If it is not, the system presents a cached list of restaurants grouped by city so users still have options. From the results page, users can view details, open the location in Google Maps, save a choice to the calendar, or export a concise PDF summary.

Community Recipes has two routes. Browsing is public and may include offline or PDF access. Uploading a recipe with a photo requires login and triggers image moderation. PAP asks “Is the Vision API online?” If it is, SafeSearch and label checks determine whether to publish or reject the image. If it is not, PAP explains that the photo cannot be uploaded at the moment and queues it for later review while allowing the text portion to be saved.

The Calendar Planner turns suggestions into a schedule. Users enter the number of people, budget, allergies, and target dates, generate a plan, and confirm if the plan is acceptable. If satisfied, the plan is saved to the calendar. If not, users can adjust inputs and regenerate. The

Profile page centralizes personal information and preferences, and Logout cleanly ends the session. Overall, the flow shows an experience that is straightforward for guests, richer for signed-in users, and resilient during service outages by using explicit “Is API online?” decisions with sensible fallbacks

Objective

General Objective

The general objective of the study is to develop a web application with an AI-powered chatbot that assists users in making personalized and contextual food decisions in both solo or group settings.

Specific Objectives

Specifically, the study aims to:

1. Implement an AI-powered chatbot with sentiment analysis (OpenAI GPT-3.5 + keyword-based detection) to generate food and recipe recommendations that consider user mood, cravings, allergies, and dietary restrictions.
2. Develop a personalized recommendation system that adapts to users preferences and history, supports allergy/ingredient blocking, and includes supplementary planning tools (Calendar and Kiddie Meal Planners).
3. Integrate external services such as Google Maps API for restaurant locator with smart filters (distance, cuisine, budget, operating hours) and Google Cloud Vision API for recipe image moderation.

4. Enable community-driven and offline features by allowing recipe uploads with validation, cultural food exploration, and downloadable (PDF) recipes for offline access.
5. Support group-based decision-making through a Barkada Vote mode that consolidates preferences, prevents vote duplication, and resolves conflicts via weighted scoring and host tie-breakers.

Scope and Limitations

In the development of the web application, users will be able to interact with an AI-powered chatbot that provides food and recipe recommendations based on various factors such as mood, cravings, dietary restrictions, budget, time of day, and available ingredients. Users can also explore nearby restaurants, contribute recipes, vote on group food choices, and access offline content. The system aims to reduce decision fatigue and streamline the food selection process in both solo and group dining contexts.

The following are the scopes of the project:

- The system will include the following key functions: AI chatbot interface, restaurant locator, recipe recommender, group decision support (voting), and offline recipe access.
- The system will allow users to interact with a chatbot that uses AI and sentiment analysis to suggest meals or recipes based on mood and user context.
- The system will use a fine-tuned version of OpenAI GPT-3.5 to provide the personalized food recommendations. This allows the model to consistently follow predefined rules such as adhering to dietary restrictions, formatting outputs in a more structured way, and generating clear and concise responses.

- The system will adapt future recommendations dynamically by incorporating user behavior and past selections, such as chosen restaurants, likes, and dislikes, in the recommendations.
 - The system will track users' previously recommended and selected meals in a history database. When generating new suggestions, the system will consider this history to avoid repeatedly suggesting the same meals. If the options are limited, the system will prioritize similar alternatives or rotate older recommendations after a time period of 3 days.
 - The system will provide restaurant recommendations primarily based on the user's current location or perimeter, utilizing GPS and Google Maps API. Suggestions will be based on filtering options such as distance, cuisine, price, diet, allergens, delivery availability.
 - In the event of chatbot downtime due to OpenAI being down, the system will recommend meals based on the user's stored preferences and past selections in the likes database. If the database is insufficient, the system will extend recommendations to include food categories aligned with the user's recorded preferences.
- The system will include a 'What do you Like?' feature when users create an account. The system will provide the user with different food options and cuisine options where they click everything they like, dislike. This initial form will also ask the user their dietary restrictions and allergies. This allows the system to collect initial food preference data to provide basic personalized recommendations from the start of the user experience.

- The system will determine the user's mood primarily through a keyword-based sentiment analysis of natural language inputs, supplemented by the use of pre-trained NLP models (OpenAI). In addition to text, users may express their mood through emojis, which the system will interpret as sentiment analysis. Contextual cues such as time of day and past behavior may be considered to refine recommendations.
- The system will map particular moods to specific meal categories using predefined datasets, based on general food-mood associations, and will refine dynamically based on user preferences.
- The system will include a smart filtering mechanism for recipes too allowing users to filter results by cuisine, price, diet, allergens, cooking time, and difficulty.
- The system will support a group voting feature (“Barkada Vote Mode”) where users can participate in polls to choose a food or restaurant option as a group. The system will consolidate individual preferences and generate a set of options that maximize common ground among users. The system will prioritize non-negotiable factors such as dietary restrictions and allergies by removing them from the options over negotiable factors like preferences.
 - To prevent ties in a Barkada Vote, the system will let users rate each option on a scale of 1 - 5 based on three factors, value for money, taste, and mood to eat the food at that moment. Each factor will be weighed differently, with taste and mood being weighed 40% each and value for money being weighed for 20%. The average of each option will be calculated and the one with the highest score will be presented to the users.

- The system will have a lobby-based feature for Barkada Vote mode. A host creates a session with a unique 5-digit code and password that others can enter through the website. This can be accessed without logging in. Those who are logged in will have their personalized recommendations easily available to the vote.
 - The system will handle simultaneous votes in group settings by using real-time synchronization and ensuring that multiple submissions are saved correctly without any duplication. Each participant will join a unique lobby code, allowing only one vote per device. The system will session tokens and server-side checks to block repeater or invalid votes.
- The system will allow users to upload and share their own recipes, including optional photos, cooking instructions, and personal notes.
- The system will use Google Cloud Vision API to verify uploaded images. SafeSearch Detection will filter out inappropriate content such as adult, violent , or other inappropriate images rejecting any image with the confidence level of LIKELY or VERY_LIKELY in these categories while Label Detection will ensure that only food-related images with a minimum confidence score of 70% are accepted.
- The system will develop a community recipe uploader that allows users to submit and browse homemade recipes, with offline access features (download) for those with unstable internet connections. The recipes can be downloaded in PDF format.
- The system will include a “Surprise Me” function that offers random food or recipe suggestions to combat indecision.

- The system will integrate with the Google Maps API to show restaurant recommendations in Metro Manila based on filters such as distance, rating, and availability.
 - In the event of a Google Maps API downtime, the system will utilize preloaded, generic, restaurant data available within the website. The fallback recommendations will be organized by the city to ensure users are recommended dining options not too far away from them.
- The system will validate user email addresses by sending a verification code during account creation to ensure the email is active and belongs to an actual user. To prevent duplicate accounts, the system will check new registrations against existing emails in the database.
- The system will provide fallback recommendations if there are no restaurants that match the user's applied filters. This can include searching for restaurants outside of the radius, slightly higher budgets, or different popular local options.
- The system will validate user-uploaded recipes by checking for completeness and clarity. Automated checks include ensuring all required fields are filled. To prevent nonsense or irrelevant recipes, the system will check if the text contains plausible food terms and using simple NLP, can block gibberish and nonsensical characters.
- Cultural dish information will come from verified static sources rather than user contributions to ensure the recipes are accurate, culturally authentic, and complete.
- The system will be designed with mobile performance optimization in mind, ensuring fast load times, responsive layouts, and efficiency in use so that users can seamlessly access the system on smartphones or portable devices.

- The system will also include an Admin panel for simple management of the website. The admin can approve or reject recipes flagged by the system or users, to determine if the recipes were falsely reported or not. The admin will also be in charge of changing the cultural recipe explorer page, linking and adding new recipes or content for dynamics.
- The system will also include an automate archiving mechanisms for user uploaded recipes, wherein if the recipe receives more than five reports within a one-week period the recipe will be archived until reviewed by the Admin. This ensures that potentially inappropriate content is restricted while awaiting moderation.

The following are the limitations of the study:

- The system will initially be limited to restaurant data within **Metro Manila** only. Users outside this area may not receive accurate or complete restaurant suggestions.
- The system will rely on third-party APIs, such as Google Maps for restaurant data and OpenAI/Dialogflow for the chatbot and sentiment analysis functionalities. These services may be subject to usage limits, downtime, or paid subscription requirements beyond a certain threshold. The accuracy of the restaurant information is reliant on the accuracy on Google Maps.
- The AI chatbot will only support English for natural language input in its initial release. The model being used (GPT 3.5) can partially understand Tagalog and Taglish, but isn't reliable enough for it to be used.
- The system will not provide real-time food delivery services or integrate directly with platforms like GrabFood or Foodpanda.

- The quality of recommendations will depend on how complete and accurate the user input is; vague or limited input may reduce the effectiveness of suggestions.
- The system will not include a mobile app or SMS notification support. It will only be accessible through web browsers with a stable internet connection (except for offline recipe downloads).
- The group voting feature will not guarantee agreement or consensus among all users and does not handle interpersonal conflicts. The system will not include the personalized recommendations for unregistered users in Barkada Vote.
- The system will not support real-time chat or direct messaging between users or between users and the system administrator.
- The system will not allow users to upload their recipes from PDFs; instead, they must input the data for their recipes in the respective fields. The system only supports image uploads (e.g. JPG, PNG) and does not support video or document uploads.
- The system will rely on AI image recognition to verify the appropriateness of the image uploaded in recipes, meaning that some inappropriate images can pass through the system if not detected correctly.
- The system will provide generic recommendations when there is not enough data to have personalized recommendations yet. This will happen if the user opts out of answering the initial ‘What do you like?’ form when creating an account.

CHAPTER 2

Review of Related Literature, Studies, and Systems

Review of Related Literature, Studies, and Systems

Food consumption behavior has been a prominent topic in both behavioral and nutritional research. Scholars have emphasized that convenience, perceived food value, and quality greatly shape consumer purchasing decisions, particularly in urban street food settings (Tacardon, Ong, & Gumasing, 2023; Gumasing & Ong, 2023). These factors have been explored through behavioral models such as the Theory of Planned Behavior (TPB), which has been expanded to include variables like taste, mood, and peer influence when assessing consumption intent (Azis & Wibowo, 2024). The predictive accuracy of TPB has improved significantly by incorporating cultural and contextual elements, demonstrating how food choices are influenced by both individual preferences and broader social environments.

The evolution of data science has further expanded opportunities to use machine learning in identifying consumer preference patterns. Techniques like ensemble learning have been applied to uncover key constraints such as limited budget, time, and dietary goals, which frequently drive food choices (Saran & Mandal, 2023). These findings support the development of intelligent systems capable of learning from user behavior over time. Similarly, Zhang et al. (2023) developed a framework using sequence-based learning models that respond to dynamic food decision behavior. By combining short-term and long-term preferences through recurrent neural networks, their system adapts as user behavior and context shift, emphasizing the importance of temporal consumption habits and historical data in shaping personalized recommendations.

Merging machine learning with consumer psychology therefore provides a strong foundation for designing recommendation tools that reflect real-life decision scenarios (Samad et al., 2022).

In addition to technological models, Filipino cultural values are also essential in understanding food decisions. Concepts such as *kapwa* (shared identity), *pakikisama* (group harmony), *hiya* (shame), and *utang na loob* (debt of gratitude) are central to both group and individual choices (Kobayashi, Sevilla, & Rivera, 2024; CourseSidekick, 2023). These values are most visible in social eating contexts, where harmony and empathy guide preferences. Another significant cultural aspect is *pakikiramdam* (sensitivity to others), which influences moral and emotional responsibility in shared dining experiences (Gamoso, 2024). Considering these values is vital when designing systems that aim to resonate with Filipino users.

The rise of online platforms has also transformed how food-related decisions are made. Research shows that users often experience “decision fatigue” when confronted with too many options, as described by Mendoza (2022). At the same time, food-related content on digital platforms has become a means of emotional expression and identity-building (Alejo & Delos Reyes, 2021). Behavioral patterns in online settings now reflect strong influences from digital marketing, peer feedback, and social trends, as confirmed by studies on user activity in food delivery services (Sigar, Massie, & Pandowo, 2021; Lim & Santiago, 2023). Food delivery apps such as GrabFood and Eatigo illustrate these shifts by offering personalized dining options based on location, availability, and order history. GrabFood tailors suggestions using browsing data and proximity-based deals, while Eatigo integrates reservation-based dining with real-time discounts and filters for price and customer ratings (Eatigo, n.d.). These systems show how real-time behavior and contextual information can improve user experience.

Nutrition-focused applications further extend these capabilities. For example, Foodvisor uses artificial intelligence and image recognition to assess meals, track eating habits, and provide immediate nutritional feedback, enabling users to make healthier choices through real-time data analysis (Foodvisor, n.d.). Locally, the Fatchum mobile app was created as a recipe recommendation tool that suggests dishes based on available ingredients. Cruz et al. (2017) evaluated this system and found that usability, age, and gender all influenced user experience, highlighting the need for culturally tailored and demographically sensitive interfaces. Despite their strengths, reviews show that many food-tracking and recommendation systems still lack adaptive, real-time features and do not fully integrate peer influence, cultural values, or emotional context (Samad et al., 2022).

In recent years, AI-powered image moderation has become an essential component in digital platforms that host user-generated content. Technologies such as Google Cloud Vision API provide automated image analysis through features like SafeSearch Detection, which enables systems to detect and filter explicit, violent, or otherwise inappropriate images based on content labeling and confidence scoring. This functionality supports a safer and more respectful digital environment by reducing the manual workload for moderation while maintaining consistency and real-time detection. As emphasized by Spectrum Labs (n.d.), AI-based moderation not only protects users from harmful visuals but also reinforces trust in community-driven platforms. In the context of the Pick-A-Plate (PAP) system—where users may upload images of personal recipes or shared meals—integrating image moderation tools like SafeSearch can help ensure that only appropriate and relevant visuals are accepted. This reinforces the platform's goals of being culturally sensitive, family-friendly, and health-focused, while maintaining content quality and safety (Google Cloud, n.d.).

Public health literature provides valuable insights, particularly in the areas of food planning and dietary habits. Studies indicate that while young individuals are generally aware of food safety and nutritional guidelines, they often struggle to apply them consistently (Padua, 2024). To address this, the Philippine Healthy Eating Index (P-HEI) was developed to evaluate diet quality among Filipino adults and encourage structured eating patterns (Angeles-Agdeppa, Toledo, & Jacquier, 2024). Although the Pick-A-Plate (PAP) system does not directly provide nutritional scoring, its calendar-based meal planning feature motivates users to be more intentional with their food choices. By enabling users to pre-select meals for upcoming days, the system helps promote healthier eating routines through planning, which aligns with public health objectives of structured and mindful consumption.

Wellness psychology also contributes to this discussion by demonstrating how emotional states influence eating behavior. According to the International Sports Sciences Association (2021), individuals experiencing stress or negative emotions tend to crave sugary or fatty comfort foods, while positive moods encourage healthier choices. This cyclical relationship suggests that food choices not only reflect mood but can also affect it. Brennan (2024) expands on this by discussing emotional fluency and its role in eating behavior, noting that emotional eating often stems from unrecognized feelings such as sadness or anxiety. The PERMA model from positive psychology has been proposed as a framework to strengthen emotional resilience and help individuals distinguish between emotional and physical hunger. These insights reinforce the importance of incorporating mood-aware and emotionally responsive filters in food recommendation systems like Pick-A-Plate (PAP), which aims to support mindful eating and overall well-being.

Overall, the reviewed literature, studies, and systems highlight the complex interplay of culture, behavior, mood, and technology in food-related decision-making. While existing platforms demonstrate the potential of personalization, data-driven analysis, and contextual responsiveness, they often overlook cultural sensitivity and emotional intelligence. These findings provide a strong foundation for developing food recommendation systems such as PAP that are behaviorally adaptive, culturally grounded, and emotionally conscious.

Table Synthesis

Table 2.1. Synthesis of the Literature and Studies

No.	Author(s) & Year	Title	Contribution to PAP
1	Tacardon et al. (2023)	Perception of Food Quality and Value	Establishes convenience and perceived quality as primary factors in Filipino food decisions.
2	Azis & Wibowo (2024)	Extended TPB for Street Food	Demonstrates how TPB can be expanded with taste and social context to assess consumption intention.
3	Kobayashi et al. (2024)	Pakikipagkapwa Analytics	Explores Filipino relational values shaping online and group decision-making.
4	CourseSidekick (2023)	Understanding Kapwa and Pakikipagkapwa	Describes the foundational role of kapwa in Filipino values, especially in group harmony.

No.	Author(s) & Year	Title	Contribution to PAP
5	Gamoso (2024)	Ethics and Kapwa via Levinas	Frames Filipino food choices as moral actions rooted in empathy and responsibility.
6	Mendoza (2022)	Decision Overload in Food Apps	Highlights decision fatigue from food delivery apps, justifying PAP's mood/context filtering.
7	Padua (2024)	Food Safety Awareness	Finds a gap between food safety knowledge and practice, suggesting in-app hygiene reminders.
8	Gumasing & Ong (2023)	Food Value and Purchase Intentions	Analyzes how perceived value mediates the relationship between convenience and intention.
9	Saran & Mandal (2023)	Why People Consume Street Food	Uses machine learning to identify key drivers like budget, time, and health—paralleling PAP's logic.
10	Lim & Santiago (2023)	Filipino Consumer Behavior with Korean Products	Combines TPB and ELM to show the influence of peers and trends in food choice.
11	Angeles-Agdeppa et al. (2024)	Philippine Healthy Eating Index (P-HEI)	Provides a tool for assessing Filipino diet quality, supporting PAP's health-driven suggestions.

No.	Author(s) & Year	Title	Contribution to PAP
12	Samad et al. (2022)	Smartphone Apps for Food Tracking	Reviews apps and finds most lack strong AI recommendations; supports PAP's innovation.
13	ISSA (2021)	How Your Mood Affects What You Eat - And How Food Changes Mood	Supports emotional-context-based filtering in PAP.
14	Brennan (2024)	Food and Feelings: How Your Mood is Linked to What You Eat	Supports mood-aware food suggestions using emotional eating insights and the PERMA model.
15	Sigar et al. (2021)	Consumer Behavior and GrabFood	Demonstrates behavioral influences and peer dynamics in digital food orders.
16	Alejo & Delos Reyes (2021)	Digital Food Culture	Shows how online food expression reflects identity, mood, and social interaction in the Philippines.
17	Zhang et al. (2023)	Sequence-Based Personalized Food Recommendation	Proposes an adaptive framework using LSTM to model user behavior over time for personalized recommendations.

No.	Author(s) & Year	Title	Contribution to PAP
18	Eatigo (n.d.)	Restaurant Discount	Demonstrates time-based dining decisions and contextual filtering via discounts and availability.
19	Foodvisor (n.d.)	Personal Nutrition Coach	Provides real-time, image-based food recognition and personalized health suggestions.
20	Google Cloud (n.d.); Spectrum Labs (n.d.)	SafeSearch Detection & AI Moderation for Trust and Safety	Justifies the use of automated content filtering to ensure safe, family-friendly image uploads in user-generated sections of PAP

CHAPTER 3

Technical Background

This chapter details the technical specifications and development processes behind the **Pick-A-Plate** web application. It covers the system's requirements, chosen development tools and methodologies, and visual design elements that guide its structure.

Requirements Analysis

Requirement Analysis is the process of identifying, documenting, and managing the necessary functionalities and conditions that a system must meet. It helps ensure that the software solution aligns with user needs and system constraints before development begins. The requirements are divided into three main categories: functional, non-functional, and software requirements.

Functional Requirements

These are the core features and services that the system must provide to its users:

A. User Registration and Login

The system shall allow users to create an account and log in using their email address and password. To ensure that all accounts belong to real individuals, verification will be handled automatically through an email confirmation process. Upon registration, the system will send a verification link to the provided email address, which must be clicked before the account becomes fully active. Email addresses will undergo both frontend and

backend validation, with the backend confirming the domain's ability to receive messages and enforcing a time-limited verification token. Duplicate accounts will be prevented through a case-insensitive unique index on the email field, and attempts to register with an existing email will return an “Account already exists” notification. Administrators will monitor registration logs and review accounts flagged for suspicious activity or abuse to maintain the integrity of the user base.

B. AI Food and Recipe Recommender

A core feature that utilizes AI to provide intelligent food suggestions. It considers various user inputs such as mood, cravings, dietary restrictions, allergens, and available ingredients. The system uses machine learning algorithms and natural language processing to suggest meals that are personalized and contextually appropriate.

C. Restaurant Locator with Smart Filters

The system shall integrate the Google Maps API to locate nearby restaurants and support filtering by cuisine type, price range, distance, user ratings, opening hours, and delivery availability; if no venues match the active filters, it shall display an empty-state message with suggested actions (e.g., broaden filters, increase search radius, or explore similar cuisine types) and, when applicable, present a clearly labeled fallback list of top-rated restaurants within an extended radius.

D. Recipe and Cultural Food Explorer

The system shall enable users to browse traditional Filipino dishes with cultural origins and preparation methods, and to upload their own recipes subject to pre-publication moderation; uploaded recipes shall be validated for completeness, relevance, and appropriateness via automated checks (e.g., offensive-content filtering) and human

review, classified as either Verified Source (drawn from credible references such as cookbooks or cultural organizations) or Community Contribution (user-submitted with self-reported sources), and in all cases must include a source citation or statement of origin.

E. Surprise Me Feature

The system will provide random food or recipe recommendations to encourage variety while avoiding repetitive suggestions. To achieve this, it will maintain a cooldown list of recently suggested items and apply diversity rules across different cuisine categories. The surprise me feature will not take into consideration user preferences, mood, or previous feedback.

F. Group Voting System

The system shall allow users to create polls, invite others to join, and automatically count votes to determine the most preferred option. Poll creators can choose whether only registered users can vote or if guests can also join by scanning a unique QR code generated by the system. This QR code will lead directly to the poll's voting page, making it quick and easy for participants to access without relying on messaging apps or email. In case of a tie, the creator can decide how to break it by randomly picking from the tied options, making the decision themselves, or holding another vote with just the tied choices. To prevent cheating, each participant will only be able to vote once per poll. This will be enforced using account verification for registered users and unique one-time tokens for guests.

G. Allergy and Ingredient Blocker

Enables users to input allergens or ingredients they wish to avoid. The system uses this

information to intelligently filter out recipes and restaurant options that contain these items, ensuring safe and personalized food recommendations.

H. Calendar Meal Planner

Enables users to organize and plan their meals in advance, reducing daily stress and promoting better budgetary habits. Users can view a calendar interface where each day is divided into meal slots (breakfast, lunch, dinner). They can manually assign meals for each slot or let the AI automatically generate a diverse meal plan for the week based on dietary preferences, budget, and schedule.

I. Kiddie Meal Planner

This feature is tailored to families who want to choose meals or dining options that are suitable and enjoyable for both children and adults. It takes into account the preferences, dislikes, allergies, and dietary needs of both the parents and children, recommending meals or restaurants that strike a balance between kid-friendly and adult-appealing. Highlights restaurants that offer kid menus, with more sophisticated dishes for adults.

J. Forgot Password

If users forget their password, the system provides a secure password recovery process. By entering their registered email, users will receive instructions to reset their password and regain access to their account.

Non-Functional Requirements

Non-functional requirements specify how the system should operate. They are focused on quality attributes such as usability, performance, and security:

A. Performance

The system should efficiently manage multiple concurrent users without noticeable delays in response times. To maintain a smooth user experience, standard pages are expected to load within 3 to 6 seconds on a stable internet connection. Critical features such as the AI chatbot and calendar should also respond within the same time frame. During testing, the application should demonstrate consistent performance under moderate user traffic.

B. Accessibility

The application should be accessible and fully responsive across different devices, including smartphones, tablets, and desktop computers.

C. Reliability

The AI engine and system filters must produce accurate, consistent, and context-aware recommendations. The system should handle exceptions gracefully and operate without frequent failures or crashes, ensuring dependable service delivery. Reliability will be evaluated by ensuring a minimum uptime of 95% during testing.

D. Security

All user data, including login credentials and personal preferences, must be securely stored using industry-standard encryption and authentication protocols. Passwords will be hashed using bcrypt. Authentication sessions must expire after a set period of time (15 minutes) to reduce unauthorized access.

E. Maintainability

The codebase should be modular and well-documented to facilitate future updates, debugging, or feature expansions. Developers should be able to isolate and fix issues

quickly without affecting other parts of the system. Maintainability will be measured through code coverage of at least 70% in unit testing, clear API documentation and consistent use of inline comments across modules.

F. Portability

The application should demonstrate portability by running seamlessly across multiple platforms and devices without requiring significant code changes. It must work on both desktop and mobile devices (Android and iOS), and be accessible through common web browsers such as Chrome, Firefox, Edge, and Safari. The system should achieve at least 90% functional consistency across different browsers and devices to account for minor, non-critical variations in layout or behaviour.

Software Requirements

Software requirements are the necessary applications or software needed by the user before using the application. The software requirements of the system will be the following:

- Any Web Browser
 - Recommended for ReactJS compatibility:
 - Google Chrome
 - Mozilla Firefox
 - Brave Browser
 - Windows, Linux, or macOS for Computer use
 - Recommended minimum operating system:
 - Windows: Windows 10
 - MacOS: macOS 10.13 (High Sierra)
 - Android or iOS for Mobile use

- Recommended minimum version:
 - Android: Android 8.0 (Oreo)
 - iOS: iOS 12
- **Frontend:** ReactJS
- **Backend:** Node.js + Express.js
- **Database:** MongoDB
- **APIs:** Google Maps API, OpenAI API
- **Tools:** GitHub, Postman, Visual Studio Code (VS Code), Figma

Design Methodology



Figure 3.1 Agile Methodology

Source: <https://cdn.sanity.io/images/dnsgqii5/production/3d2306400402e8022404c374f2f627a74dd3aa4d-848x418.webp?auto=format&q=75&dpr=1.25>

The proponents have chosen the **Agile Methodology, specifically the Scrum framework**, Scrum operates not as a linear process but as an iterative, incremental cycle that continues until the product achieves stability and release readiness. Each sprint, typically spanning two to three weeks, encompasses the full spectrum of activities planning, design, development, testing, and review.

In contrast to the waterfall model, where phases occur only once in a fixed sequence, Scrum reintroduces these activities in every sprint, fostering ongoing refinement. This structure enabled the team to respond swiftly to adviser feedback, user input, and technical limitations, ensuring that the project evolved in step with real-world requirements.

The design, development, and testing phases will occur continuously throughout each sprint, allowing the team to adapt and improve the system based on frequent feedback and evaluation. Deployment will follow successful testing and occur at the end of each sprint. Once the system reaches a stable and complete version with no further adjustments needed, the process concludes during the Launch phase.

As demonstrated by Febrianti et al. (2023), the integration of agile methodologies such as Scrum has been shown to improve development efficiency and enhance user experience by promoting adaptability in response to user feedback. The Scrum framework's structure—with defined roles, sprint planning, daily stand-ups, reviews, and retrospectives—supports flexible development while maintaining focus on user needs and technical priorities. The proponents have selected this approach for its ability to make swift adjustments and for the structured guidance it provides throughout the system's development. The six phases of this methodology and how the proponents will utilize each are discussed in the following sections.

Phase I. Planning

Inputs. User research (survey results, interviews, observation logs, draft personas and journeys), adviser requirements, comparative platforms, and risk/cost notes for APIs (OpenAI, Google Maps, Google Cloud Vision).

Activities. Conduct sprint planning, feasibility checks (technology, schedule, team capacity, API quotas), and backlog prioritization. Meet with adviser to align expectations, set measurable goals, and validate direction.

Outputs. Vision & Scope document, initial Software Requirements Specification (SRS), prioritized backlog, personas and journey maps, risk register with mitigations (e.g., rule-based/cached fallbacks), and sprint-level roadmap.

Phase II. Designing

Inputs. Approved backlog, user stories, non-functional requirements (performance, security, accessibility, reliability, maintainability), and adviser guidance.

Activities. Map user flows for all features, finalize system architecture (React frontend, Node.js/Express backend, MongoDB database), draft REST API contracts, create ERD and indexing plan, and evolve wireframes into UI/UX mockups with a design system.

Outputs. Architecture diagrams, database schema/ERD, API specifications, UI/UX mockups (AI Food & Recipe, Restaurant Locator, Surprise Me, Barkada Vote, Cultural Explorer, Community Recipes, Calendar, Profile, Auth), feature blueprint linking user stories to acceptance criteria, and baseline test plan.

Phase III. Development

Inputs. Final designs, API contracts, sprint backlog tasks, selected stack/tools (VS Code, Node.js/Express, React, MongoDB), environment configs, and seeded datasets (cuisines, tags, regions).

Activities. Build features iteratively in sprints: authentication, chatbot, restaurant locator, Barkada Vote, Community Recipes, Cultural Explorer, and Calendar/Kiddie planners. Integrate OpenAI and Google Maps APIs. Implement fallbacks (timeouts, retries, cached data). Develop React components and apply diversity rules to Surprise Me. Perform internal unit testing per sprint.

Outputs. Working feature increments aligned with sprint goals, updated API docs, internal test builds on staging, and developer notes/release logs.

Phase IV. Testing

Inputs. Staging build, test plan/cases, seeded sample data, and acceptance criteria.

Activities. Execute unit, integration, system, usability, negative, and performance tests. Validate chatbot, recipe uploads, restaurant locator, Surprise Me, Barkada Vote, Cultural Explorer, planners, and account features. Log and fix defects; retest until resolved.

Outputs. Executed test case results, issue/defect logs with fixes, performance snapshots (chatbot, planner), usability reports, and consolidated sign-off for deployment readiness.

Phase V. Deployment

Inputs. Fully tested system, deployment scripts/configs, environment credentials, and monitoring/logging setup.

Activities. Perform smoke tests, package and deploy to production, configure hosting/monitoring, track availability, latency, error rates, and fallback triggers.

Outputs. Live production instance, deployment/change logs, monitoring dashboards, and stabilization report.

Phase VI. Review and Launch

Inputs. Production metrics/logs, user feedback, acceptance criteria, and updated risk register.

Activities. Review analytics, validate fallbacks (rule-based and cached data), refine final issues, verify moderation and scope limits, and complete documentation.

Outputs. Stable release, user/admin manuals, launch notes, and formal completion artifacts.

System Design Diagrams

Activity Diagrams

A. Register

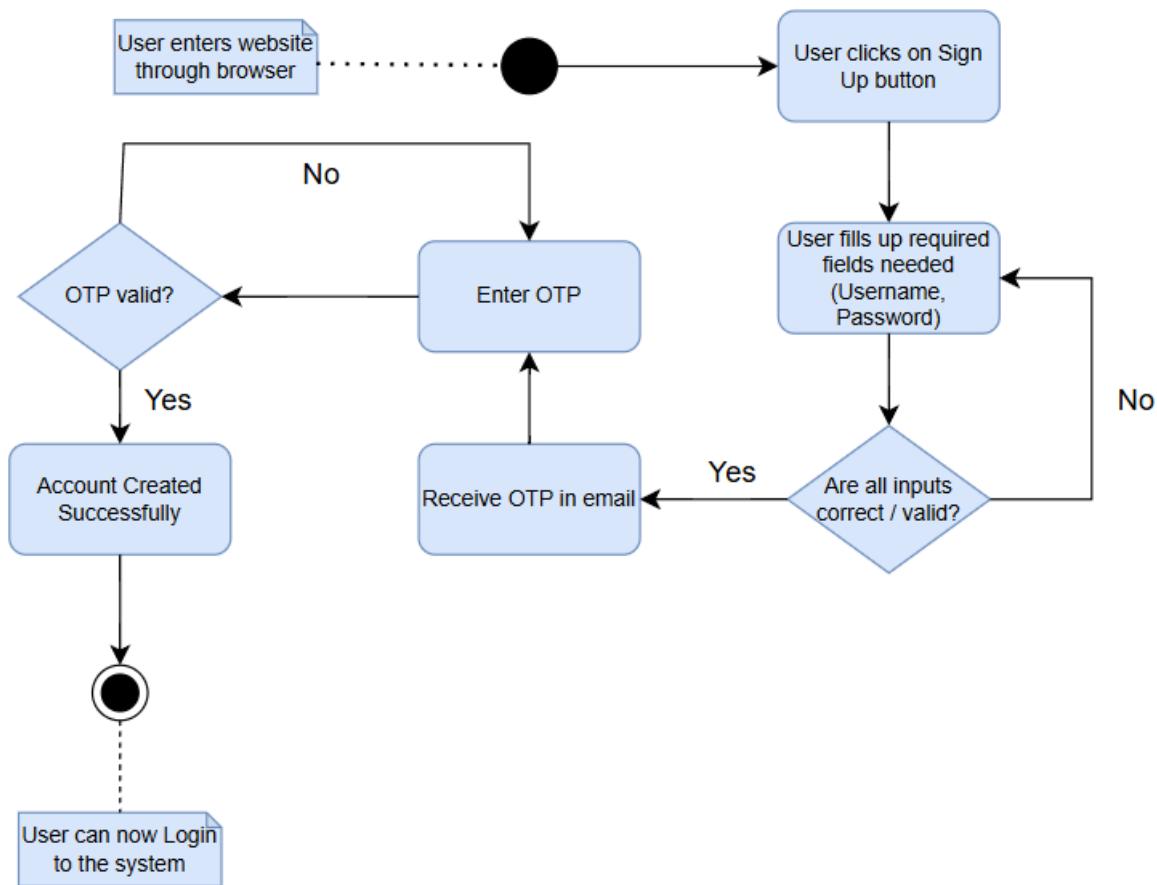


Figure 3.2 Register

This activity diagram outlines the steps a new user takes to register an account in the system. It begins with accessing the registration page, inputting the required information such as name, email, and password, and proceeds to OTP verification through email. Upon successful verification, the user account is created and saved to the system database.

B. Login

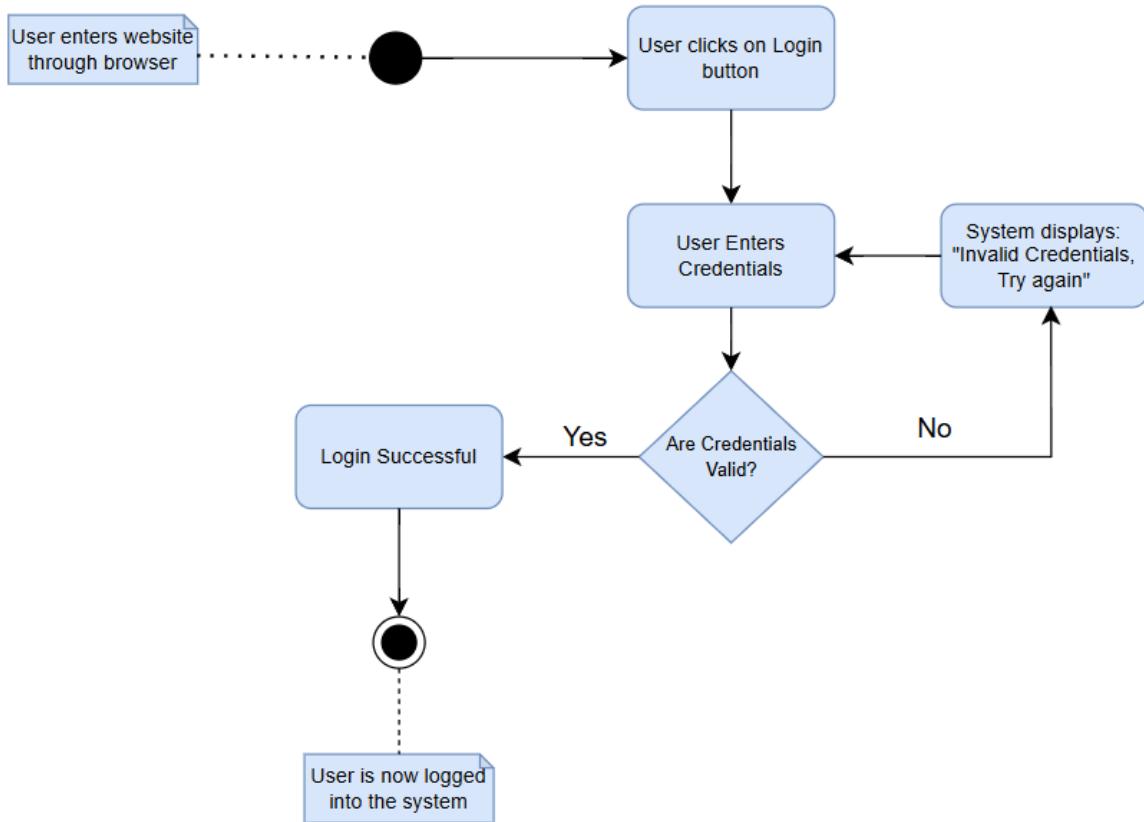


Figure 3.3 Login

The login activity diagram shows the sequence a user follows to access their account. The user inputs login credentials, which are validated against the database. If correct, the system grants access to the dashboard; otherwise, it displays appropriate error messages.

C. Forgot Password

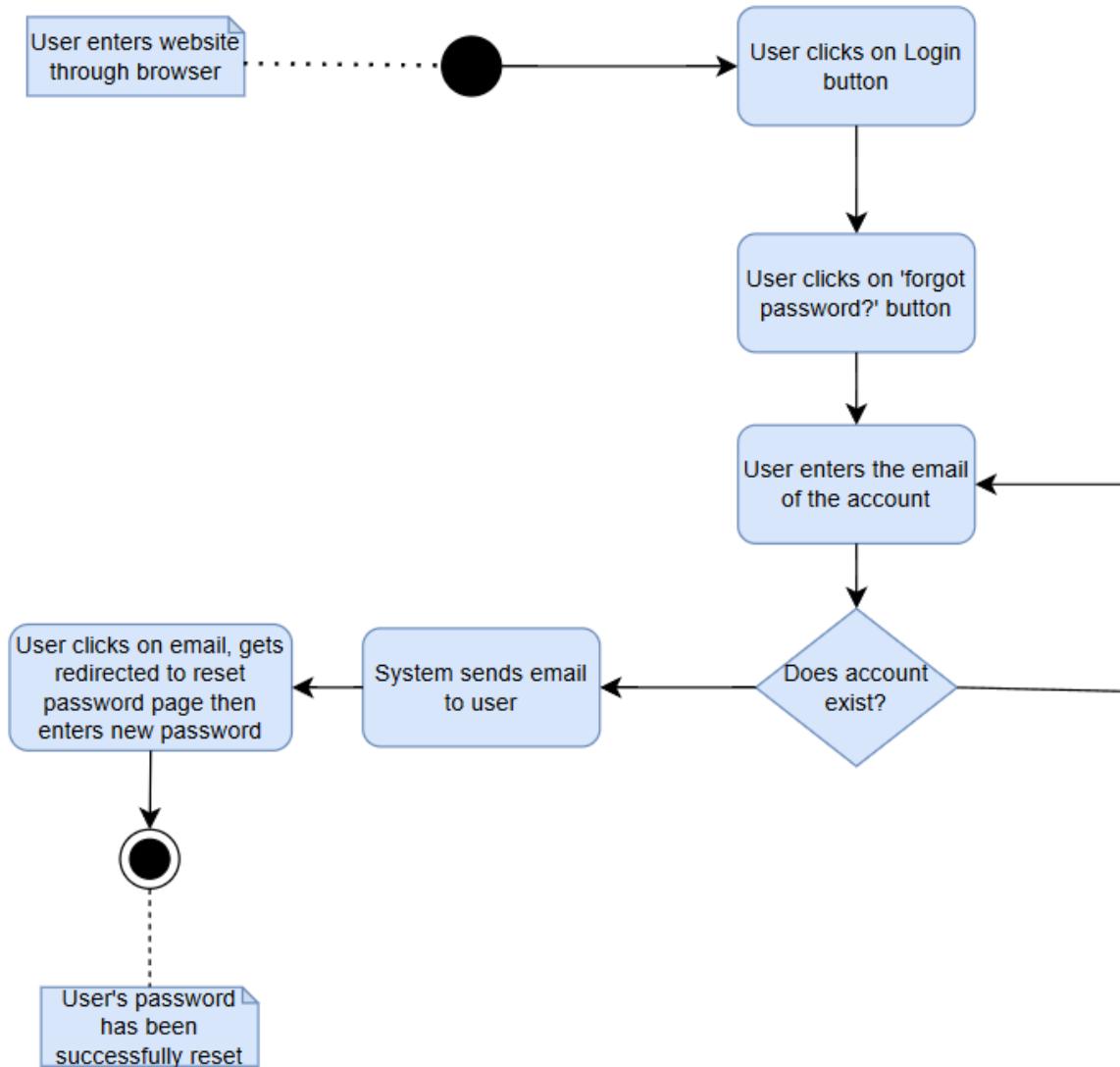


Figure 3.4 Forgot Password

This diagram presents the recovery process when a user forgets their password. The user requests a password reset, receives a verification link or code via email, sets a new password, and updates it in the system after successful validation.

D. AI Chatbot

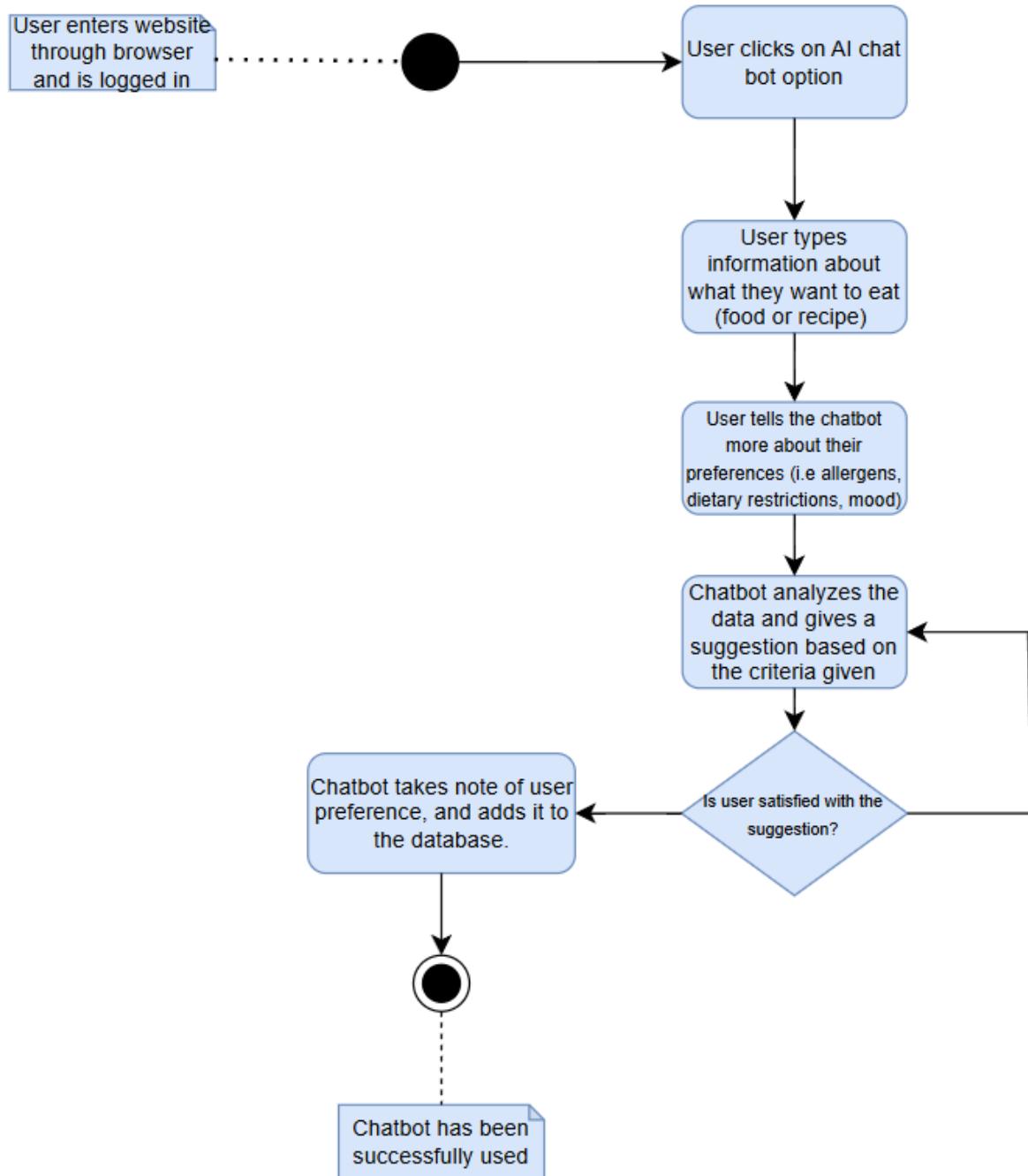


Figure 3.5 AI Chatbot

The activity diagram for the AI chatbot displays how users interact with the system to receive meal suggestions. It begins with user input (e.g., mood, cravings, allergies) and proceeds

with the chatbot processing the input through AI analysis. The system then returns a personalized food or recipe suggestion.

E. Calendar

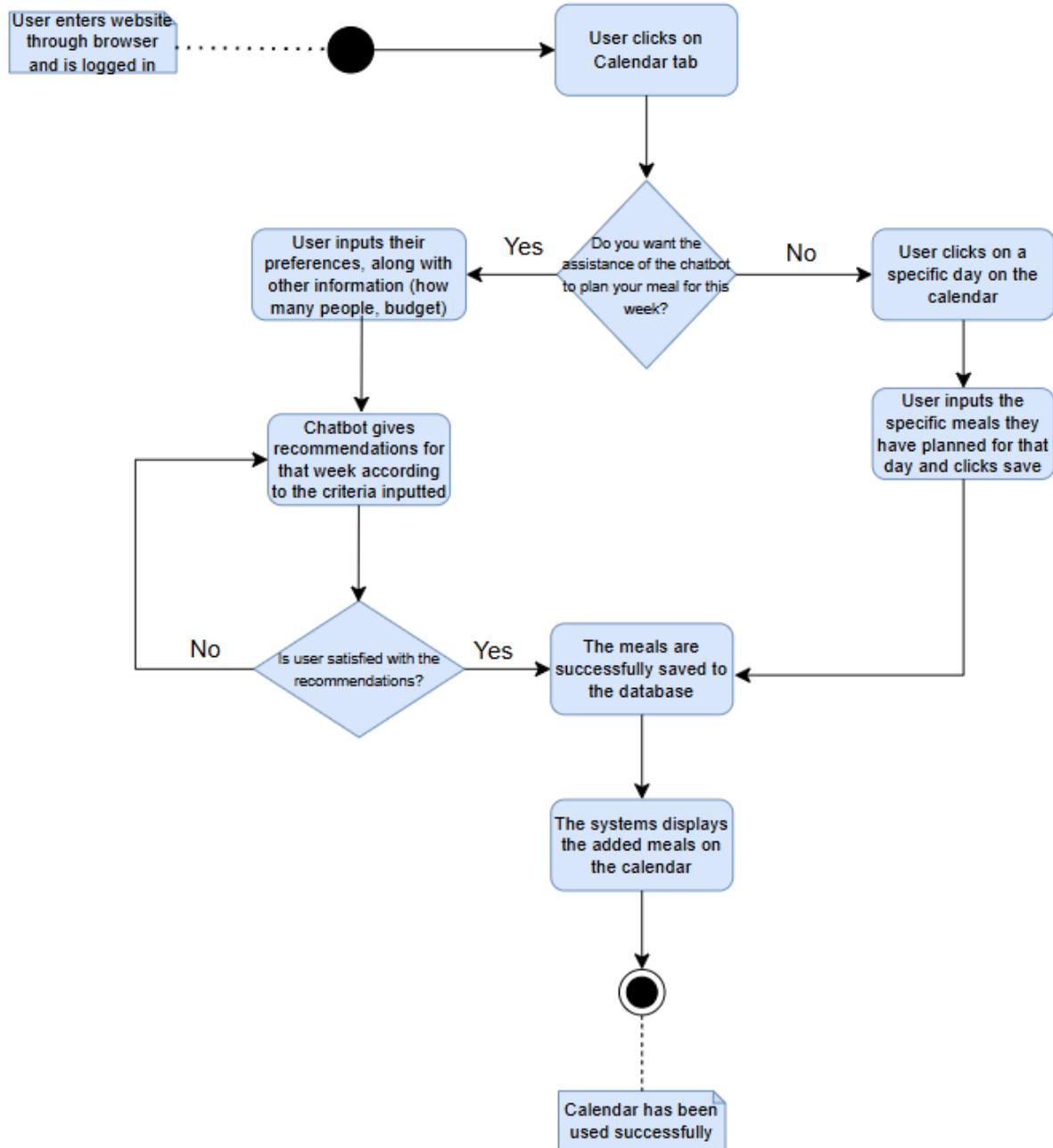


Figure 3.6 Calendar

This diagram shows the workflow of using the calendar meal planner. A user selects a date and either manually inputs meals or uses the AI planner to generate suggestions based on preferences. The meals are then saved and displayed on the calendar.

F. Group Vote

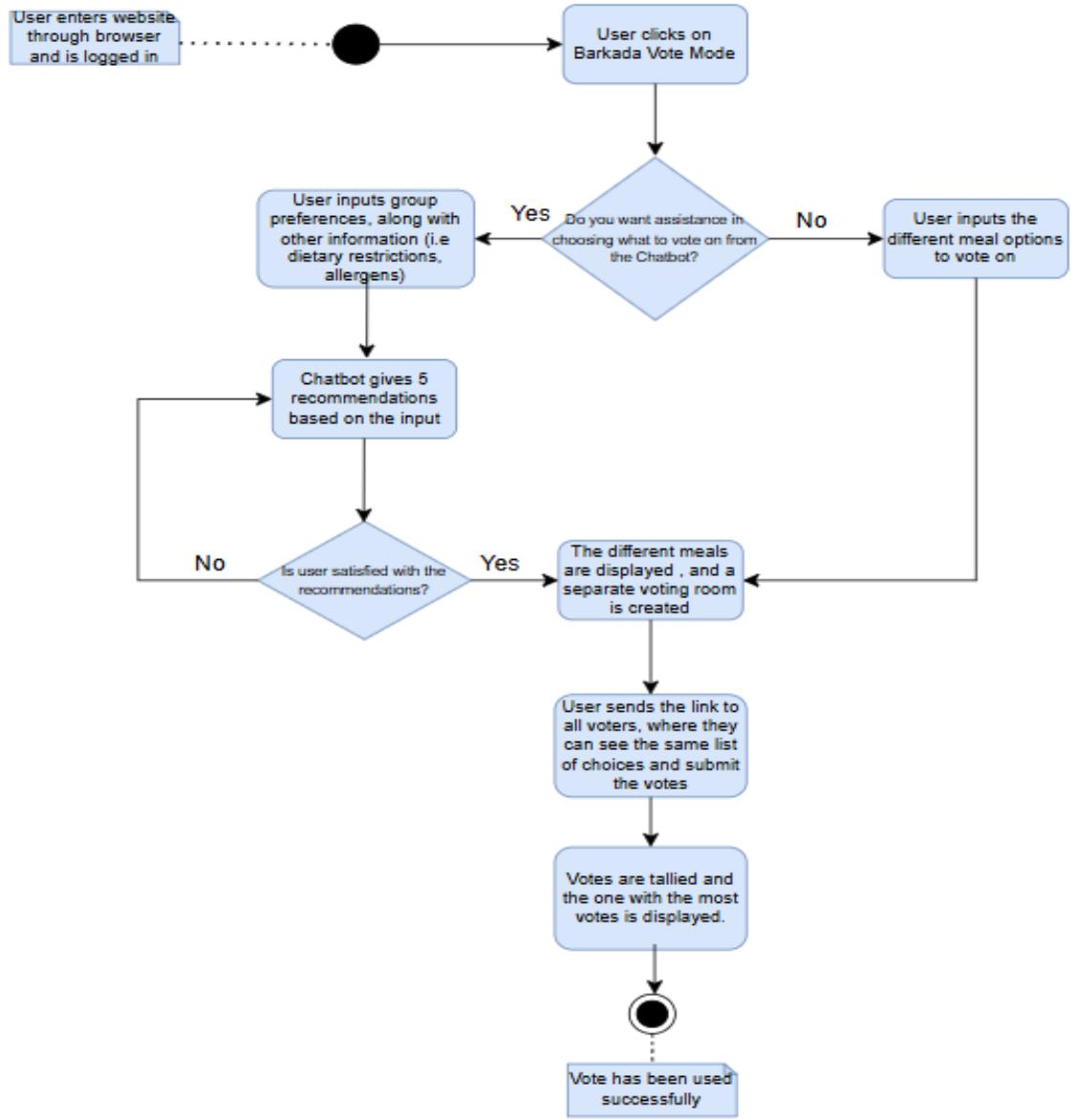


Figure 3.7 Group Vote

The group vote activity diagram explains how users collectively decide on a meal. A user initiates a voting session, inputs options manually or via chatbot, shares the link with others, and all participants submit votes. The system tallies the results and displays the most voted option.

G. Community Recipes

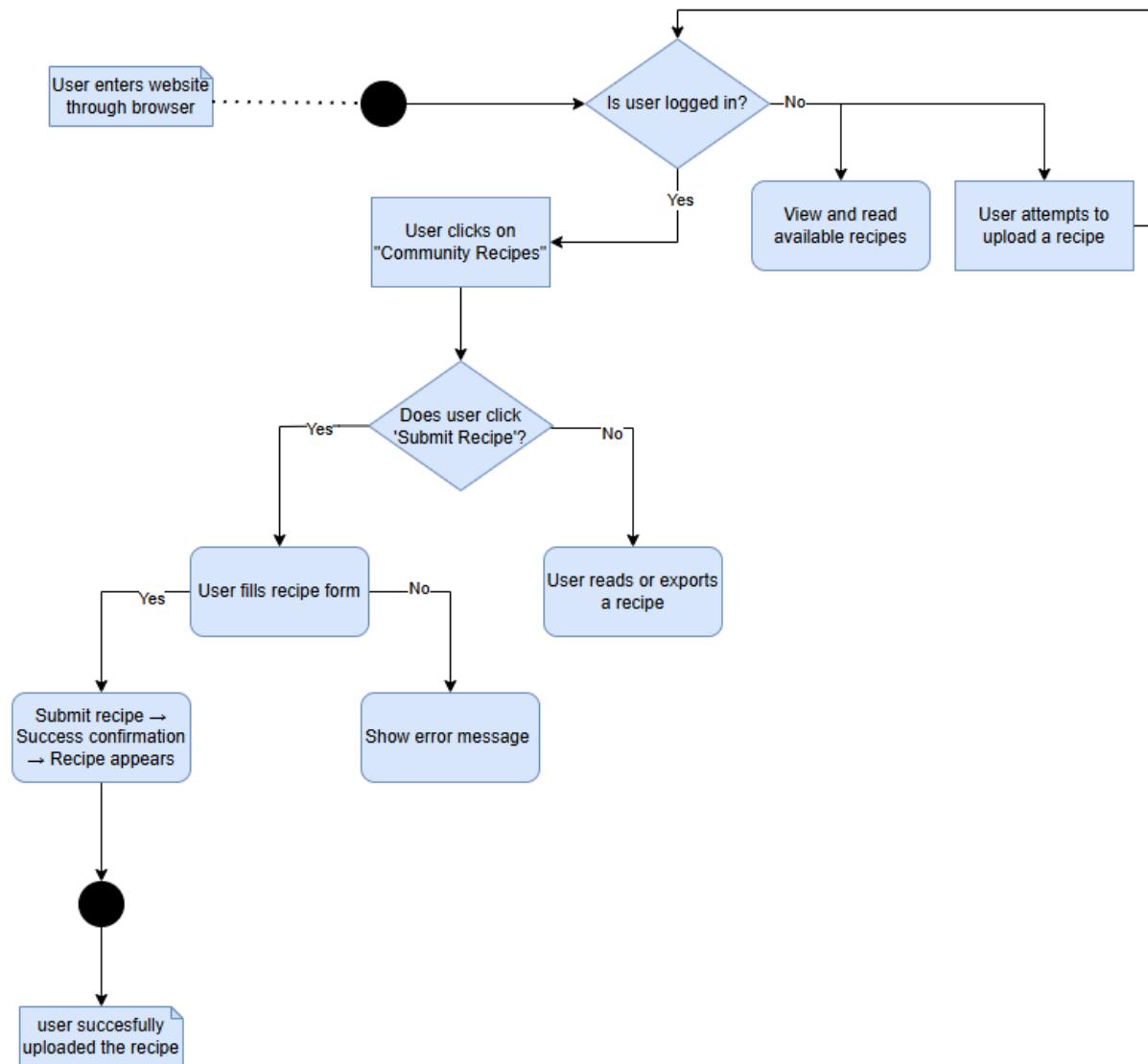


Figure 3.8 Community Recipes

The diagram illustrates the user's interaction with the Community Recipes feature of the Pick-A-Plate web application. It starts when the user accesses the website. The system checks if the user is logged in. Logged-in users can click on the “Community Recipes” option and choose to either read/export existing recipes or submit a new one. If the user proceeds to submit a recipe,

they must complete a recipe form. A successful submission leads to a confirmation and the recipe appearing in the community list. If the form is incomplete, an error message is shown. Meanwhile, users who are not logged in can still browse available recipes but must sign in before uploading. The images are verified by Google Cloud Vision API. This diagram outlines the decision points and outcomes associated with recipe contributions and access.

H. Restaurant Locator

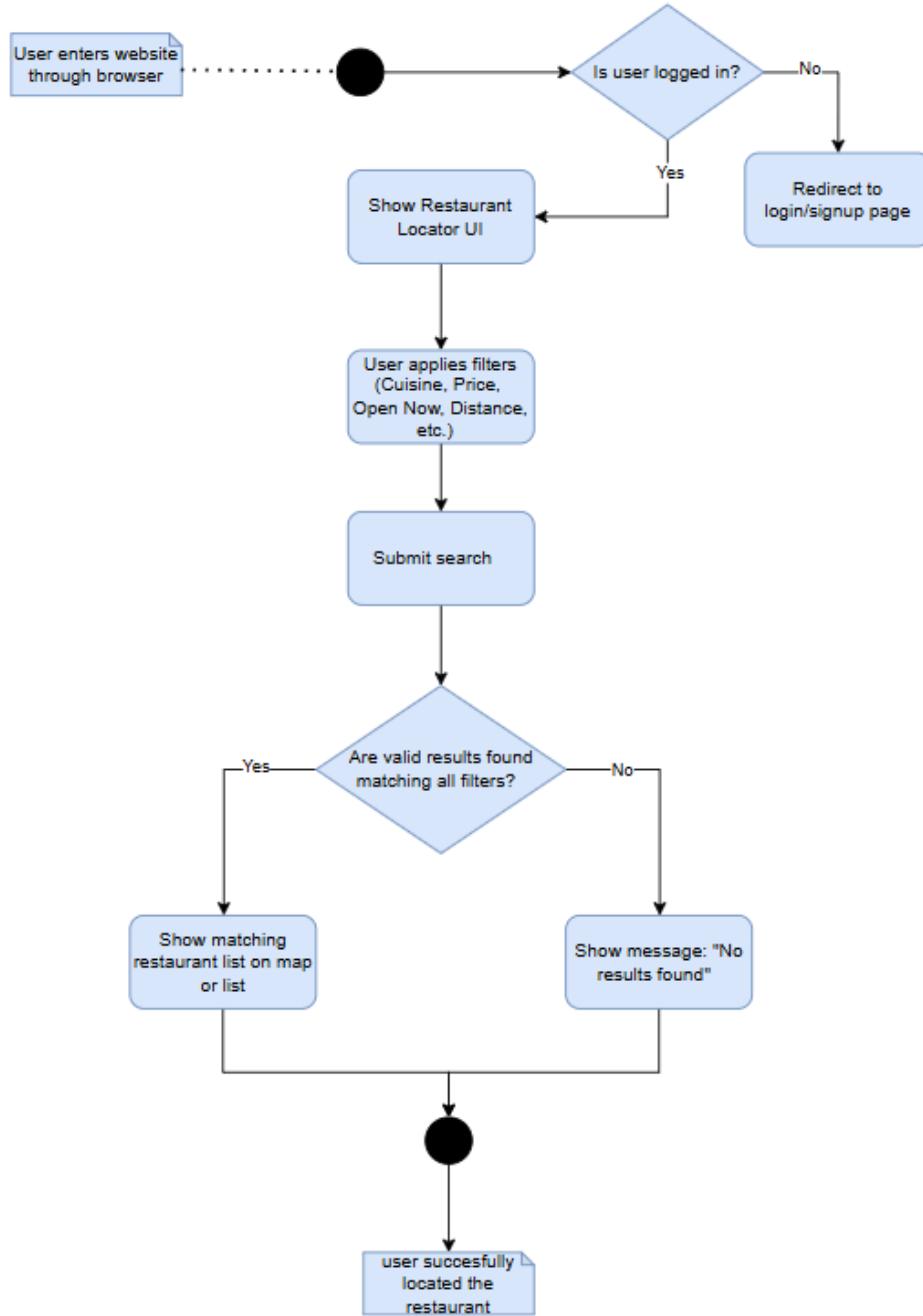


Figure 3.9 Restaurant Locator

This activity diagram presents the process a user follows to utilize the Restaurant Locator feature in the Pick-A-Plate web application. The flow starts when a user accesses the system through a browser. If the user is not logged in, they are redirected to the login or signup page. Once logged in, the user is presented with the Restaurant Locator User Interface. They apply filters to narrow down their search based on cuisine, price, and other preferences. After applying filters, the user submits the search. The system then checks if there are valid results that match all the applied filters. If yes, the user is shown a list of matching restaurants, either on a map or as a list. If no valid results are found, a message indicating "No results found" is displayed. Both outcomes lead to the conclusion that the user has successfully located the restaurant.

Once logged in, the system displays the Restaurant Locator interface. The user then applies various filters such as cuisine type, price range, distance, and whether the restaurant is currently open. After submitting the search, the system checks for valid results that match all selected criteria. If matching results are found, they are displayed on a map or list view. Otherwise, the user receives a “No results found” message. The process concludes when the user successfully locates a restaurant that fits their preferences.

I. Surprise Me

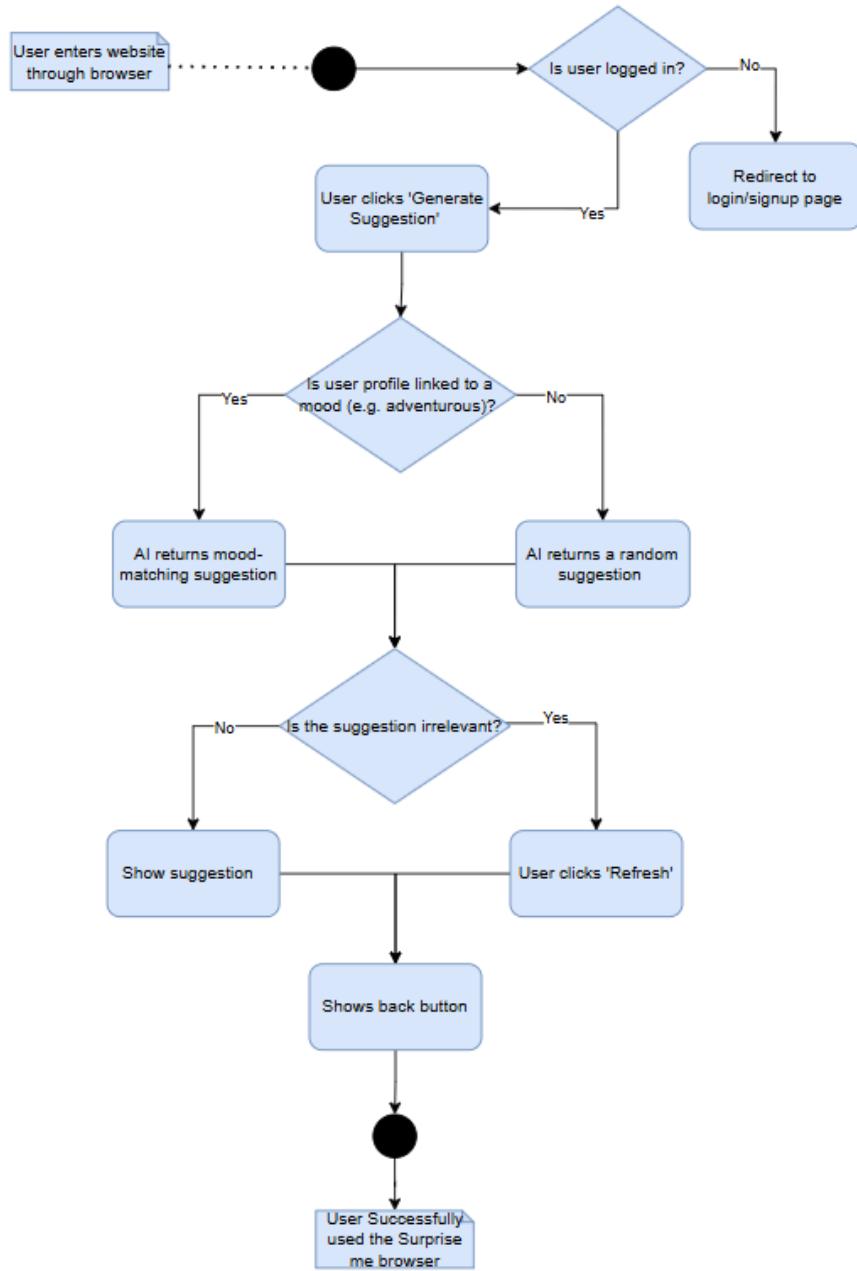


Figure 3.10 Surprise Me

This activity diagram walks through how a user interacts with the "Surprise Me" feature on the Pick-A-Plate website. It begins when a user enters the site through their browser. If the user isn't logged in, they will be redirected to the login or signup page to continue.

Once logged in, the user can click the "Generate Suggestion" button to receive a food or restaurant recommendation. If the user has set a mood in their profile, like adventurous or healthy, the AI uses that to give a mood-matching suggestion. If no mood is linked, the system simply provides a random suggestion. If the suggestion doesn't feel right or relevant, the user has the option to refresh and receive a new one. If the user is happy with the result, they can view the suggestion with the option to go back using a back button. This flow ends with the user successfully using the Surprise Me feature in an easy and personalized way.

J. Cultural Food Explorer

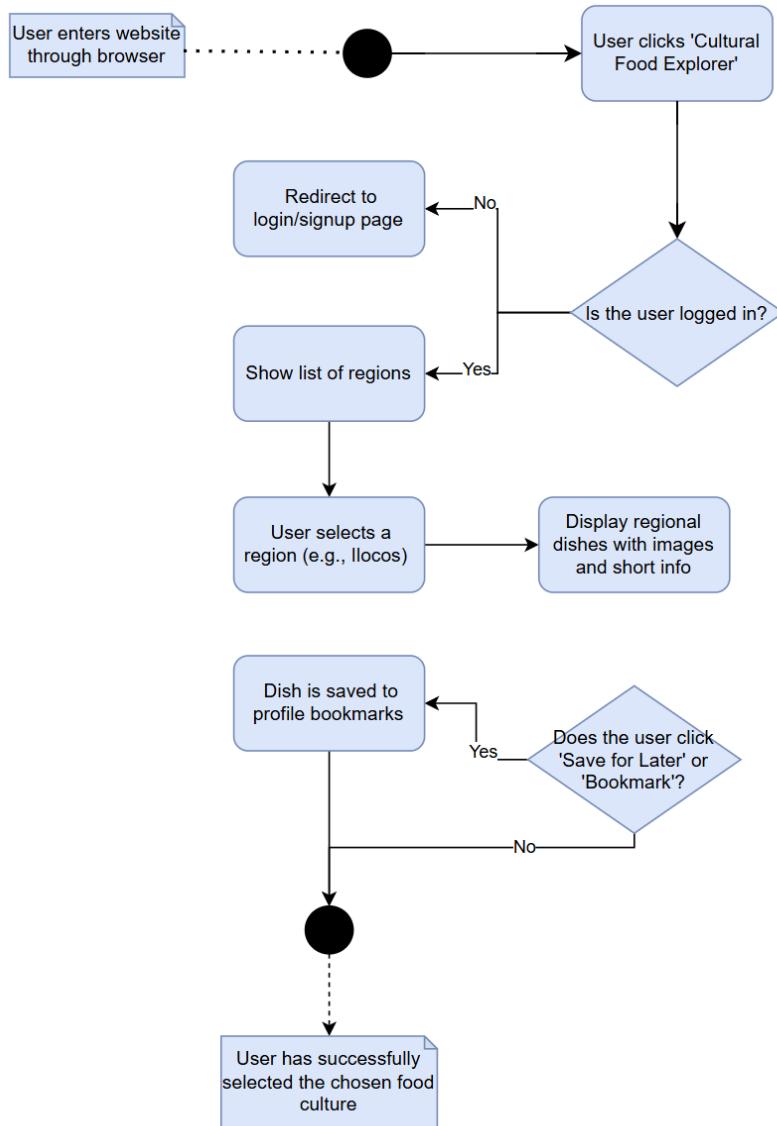


Figure 3.11 Cultural Food Explorer

You visit the website and click on the Cultural Food Explorer feature. Before continuing, the system checks if you are logged in. If not, it sends you to the login or signup page so you can access the content. Once you are logged in, the website shows you a list of regions across the Philippines. You choose a region, for example, Ilocos, and the system displays a collection of regional dishes along with images and short descriptions.

As you explore, you might find a dish that interests you. If you want to revisit it later, you can click Save for Later or Bookmark. The system will then store the dish under your profile. Even if you do not bookmark anything, you can still enjoy browsing the dishes and learning more about their cultural background. In the end, you have successfully explored and discovered more about a regional food culture in a fun and meaningful way.

K. Profile

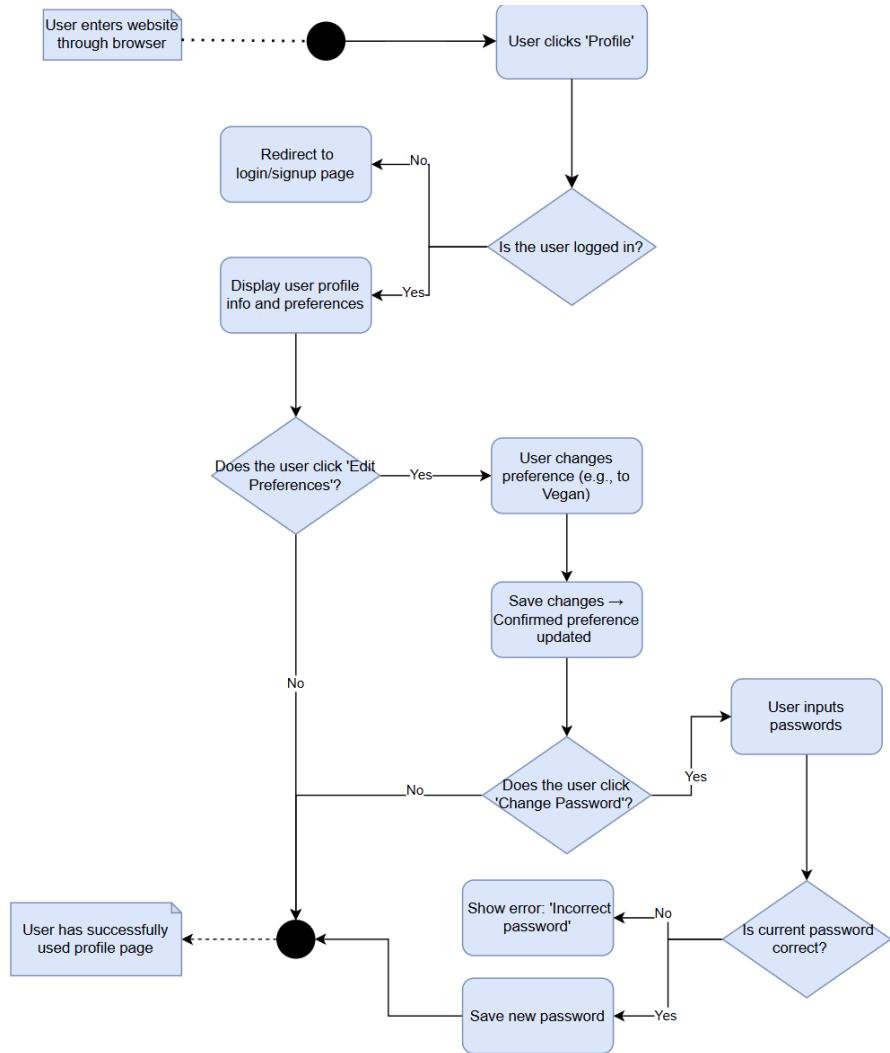


Figure 3.12 Profile

The user begins by entering the website through their browser and clicking on the Profile tab. The system first checks if the user is logged in. If not, they are redirected to the login or signup page to continue. Once logged in, the user is shown their profile information and saved preferences. At this point, they can choose to update their preferences by clicking Edit Preferences. If they do, they are allowed to change settings like their dietary preference. Once they hit save, the system confirms that the changes have been applied.

Next, the user may decide to change their password. If they click the Change Password option, they must enter their current password along with a new one. The system then checks if the current password is correct. If the entered password is wrong, an error message appears saying that the password is incorrect. If the current password is valid, the new password is saved and the update is successful. Once done, the user can leave the page, having successfully reviewed or updated their profile.

Use Case Diagrams

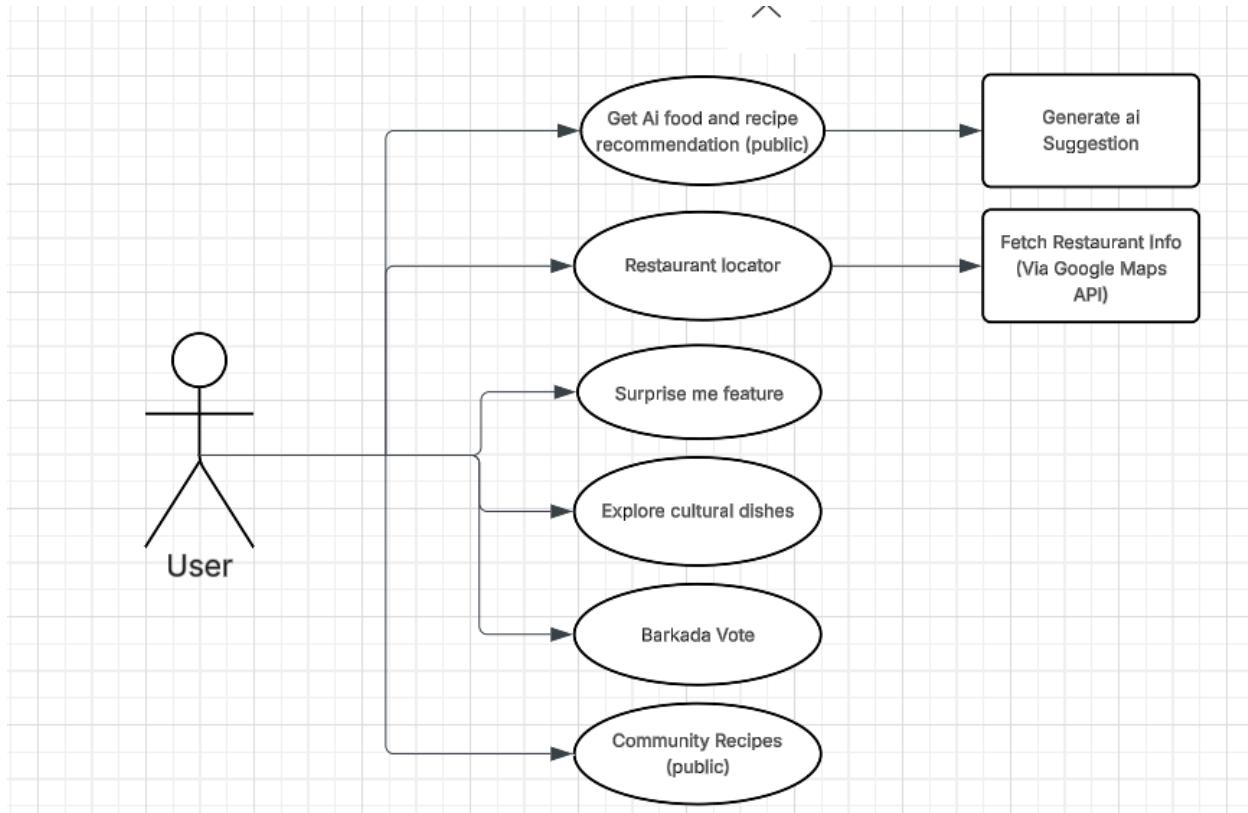


Figure 3.13.1 Use Case Diagram

Figure 3.9 above illustrates the use case diagram of the Pick-A-Plate (PAP) web application. It shows how the user interacts with the system through six core features. The User can receive personalized suggestions through the AI Food & Recipe Recommender, discover random options using the Surprise Me feature, participate in group decision-making via Barkada Vote Mode, upload and explore Filipino dishes through the Community Recipe module, browse regional specialties with the Cultural Food Explorer, and search for nearby food establishments using the Restaurant Locator with Smart Filters. The system also integrates with an AI engine for

mood-based recommendations and a restaurant API for real-time restaurant data, making the overall experience dynamic, personalized, and culturally relevant.

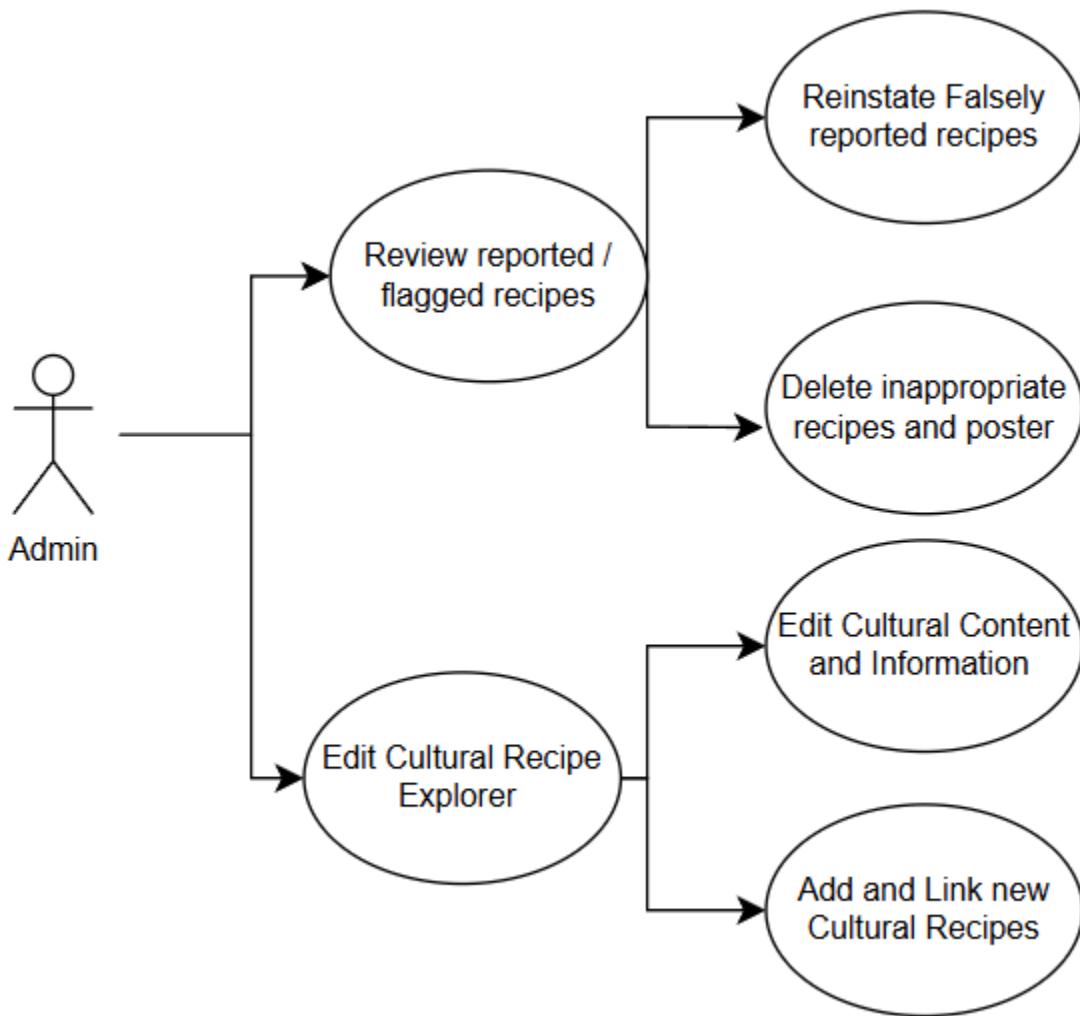


Figure 3.13.2 Admin Use Case Diagram

In the system, the Admin plays a crucial role in maintaining both the quality and relevance of the platform's content. One of their key responsibilities is moderating recipes by reviewing those that have been reported or flagged by users. After evaluation, the Admin can either reinstate recipes if the reports are determined to be false or delete them if they are found to be inappropriate. In addition to recipe moderation, the Admin also manages the Cultural Food

Explorer tab. This includes editing and updating the existing content and information as well as linking new and different recipes to enrich the cultural database. Through these functions, the Admin ensures that the platform remains accurate, engaging, and safe for its users.

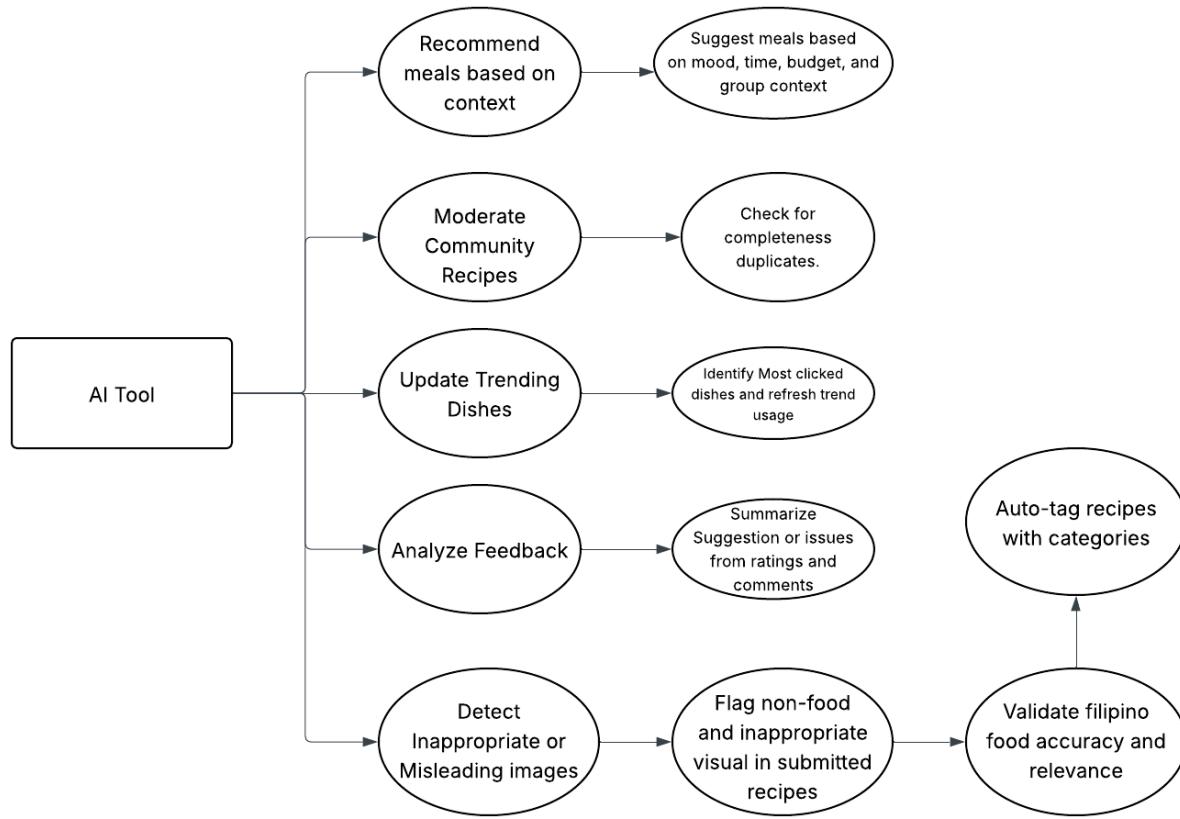


Figure 3.14 AI tool Use Case Diagram

Figure 3.10 above illustrates the internal use case diagram of the AI Tool functioning as an intelligent administrative component within the Pick-A-Plate (PAP) web application. The AI Tool performs multiple system-level roles, including content moderation, user behavior analysis, trend updating, cultural tagging, and personalized food recommendation. Specifically, the AI reviews recipe submissions for completeness and flags inappropriate or misleading images. It updates the trending dishes list based on user interactions, summarizes community feedback to

improve suggestions, and performs contextual validation of uploaded recipes. The AI also recommends meals to users based on their dietary preferences, time of day, mood, and budget. These features enable the system to act responsively and intelligently, reducing the need for human administrators while enhancing user experience with real-time, culturally aware automation.

Database Diagram

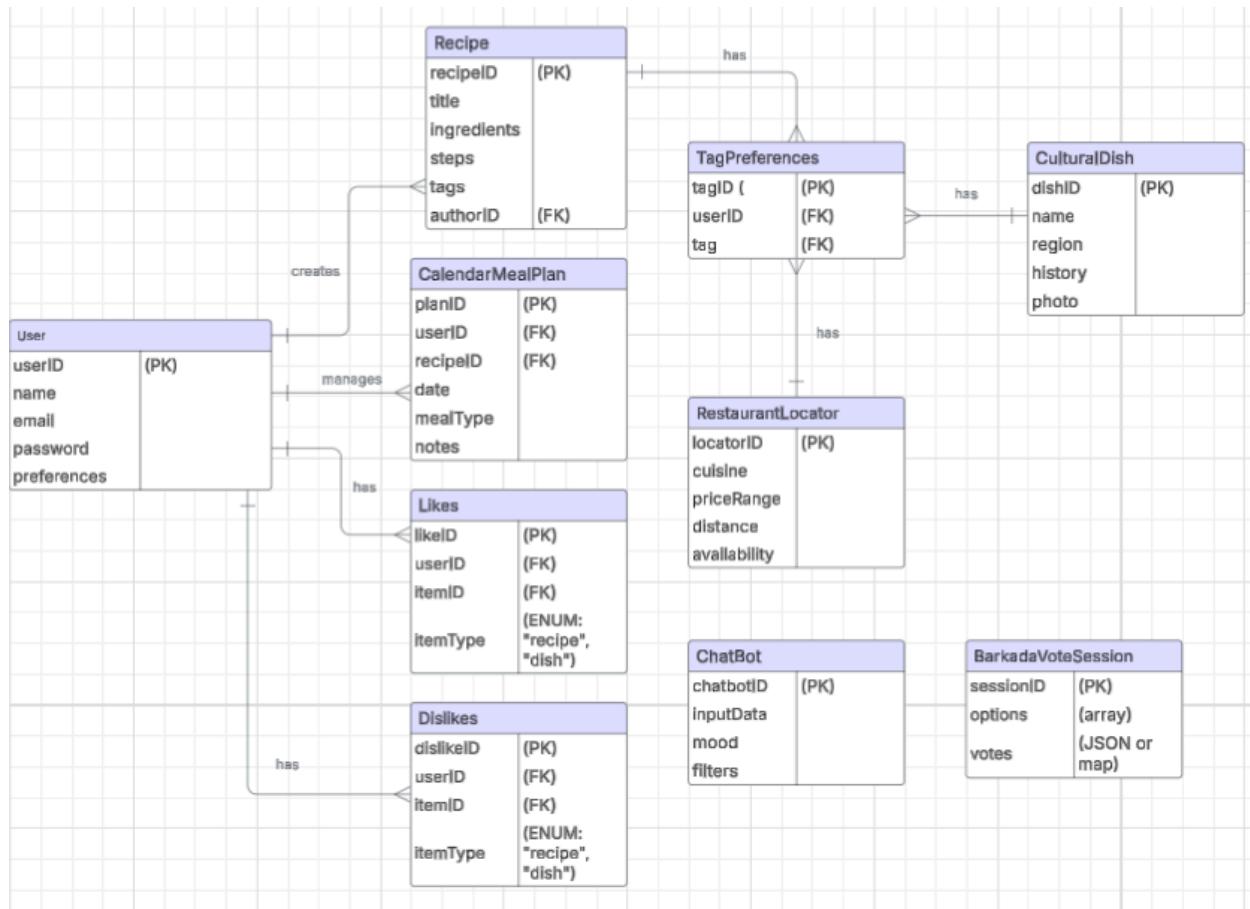


Figure 3.15. Entity Relationship Diagram

The entity-relationship diagram of the Pick-A-Plate web application illustrates how core components interact within the system. A user creates recipes and manages meal plans by linking selected dishes to specific dates and meal types. Users also have preferences through likes, dislikes, and tag associations, which help personalize their experience. The chatbot module uses user inputs like mood and filters to suggest nearby restaurants via the RestaurantLocator. Lastly, the BarkadaVoteSession feature enables users to vote on food options, promoting collaborative decision-making for group dining experiences.

Development plan

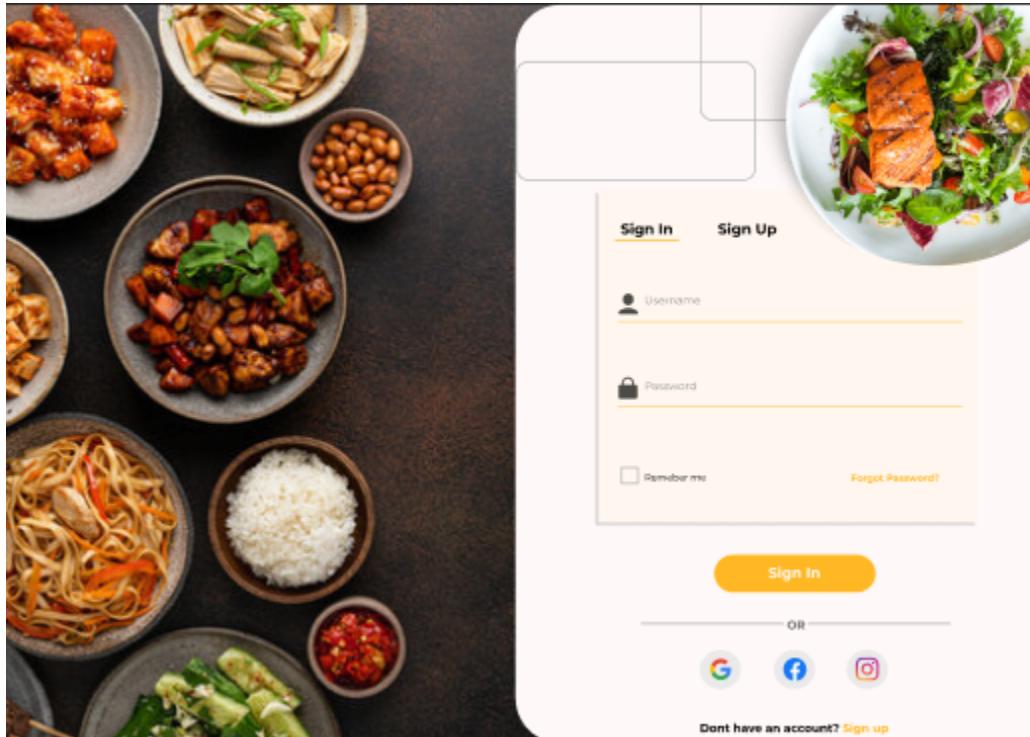


Figure 3.16. Login Page

The Login Page allows returning users to securely access their accounts using their registered credentials. Once logged in, users can enjoy personalized features such as smart food recommendations, saved recipes, and the ability to interact with community content.

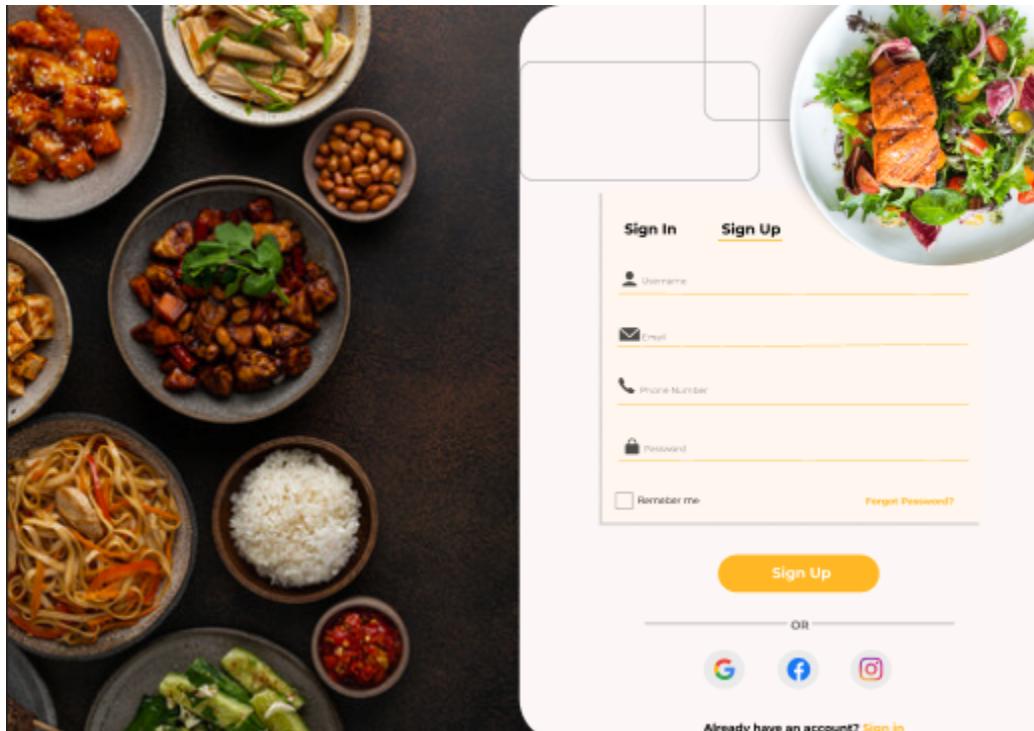


Figure 3.17. Registration Page

The Registration Page enables new users to create an account by entering their personal details and preferences. Creating an account unlocks access to tailored suggestions, the ability to save favorite dishes, upload recipes, and participate in voting and community activities.

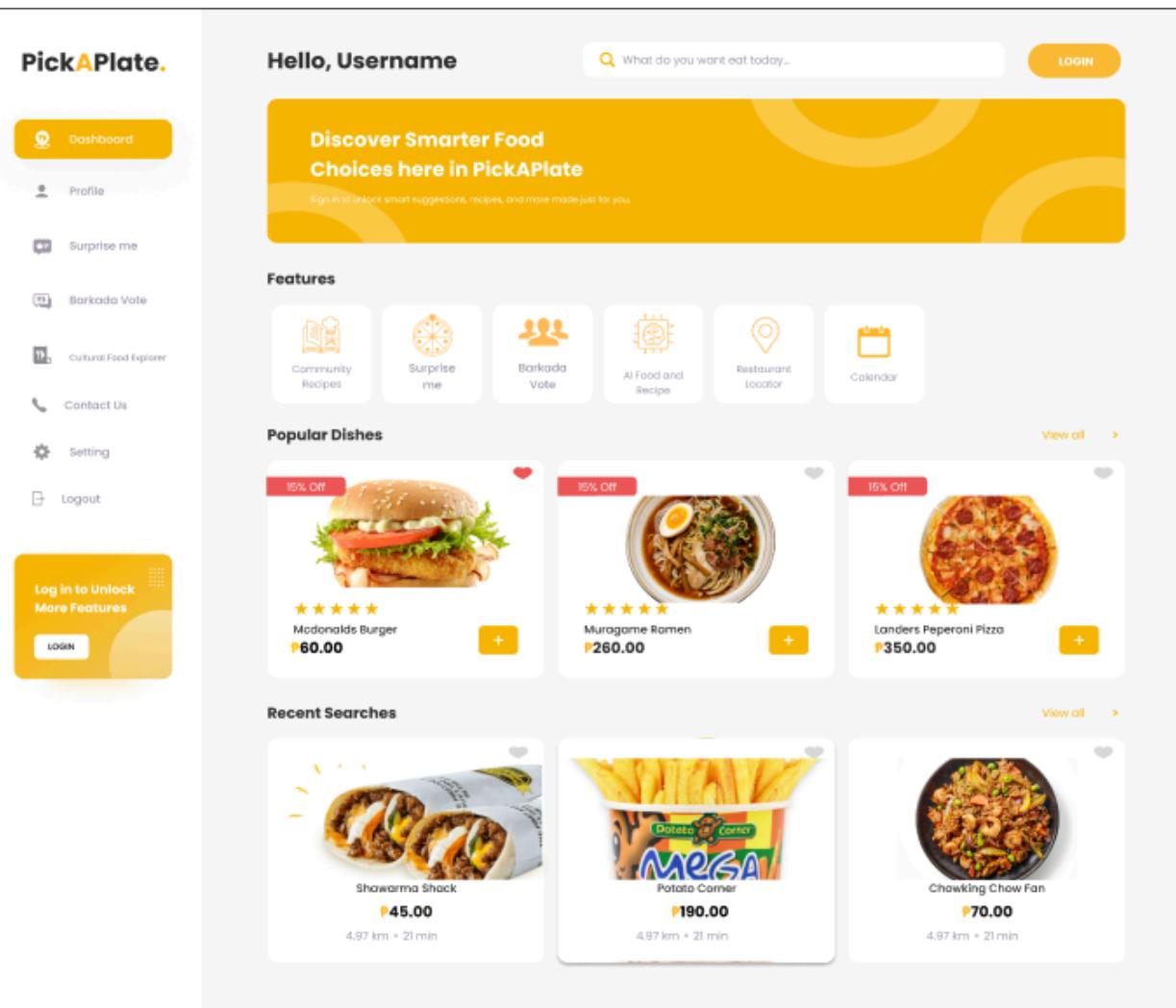


Figure 3.18. Dashboard

The central hub gives users a quick overview of all main features. It displays top dishes, the latest community uploads, quick links to features, and recent searches, all in one place.

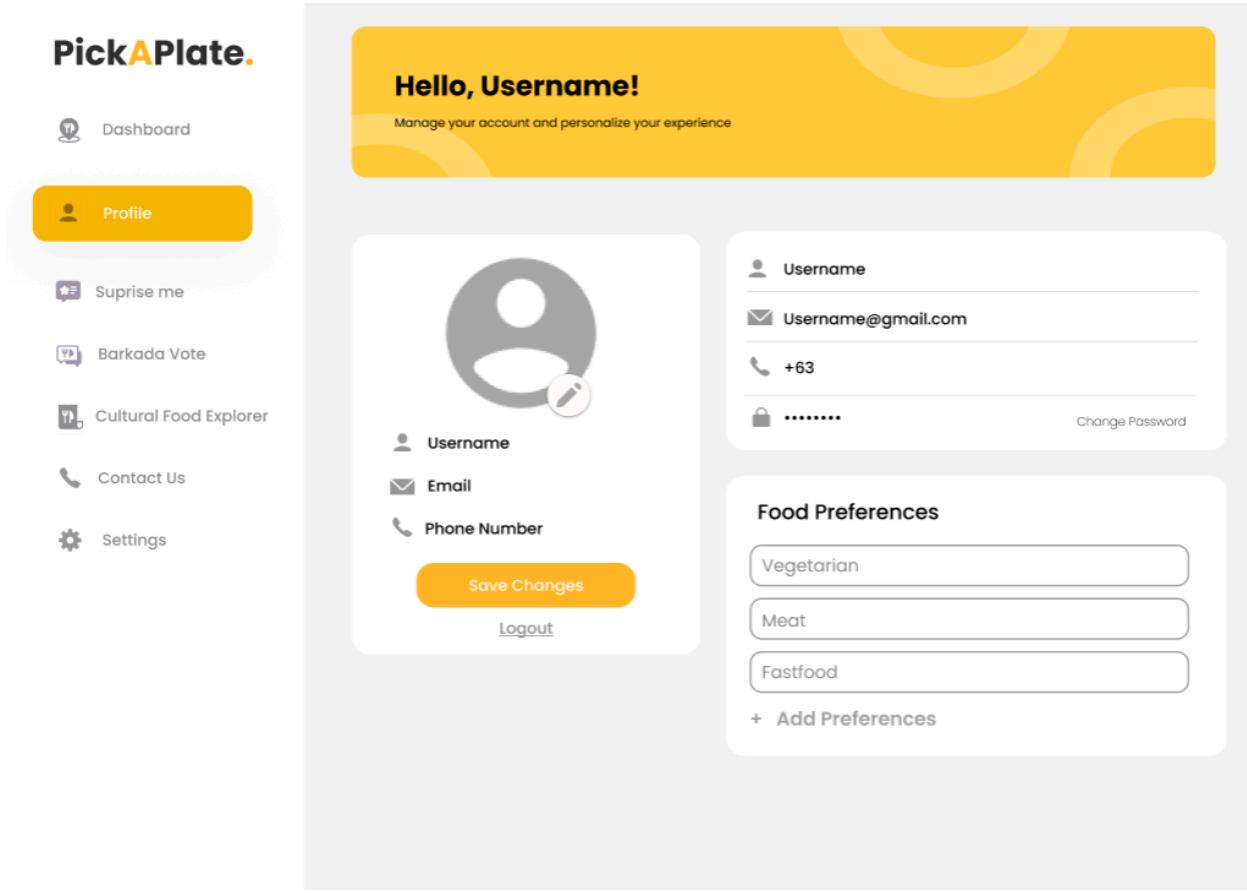


Figure 3.19. Profile Page

Displays user information such as username, bio, dietary preferences, saved recipes, and activity history. Users can edit their personal info and see their uploaded content or bookmarked meals.

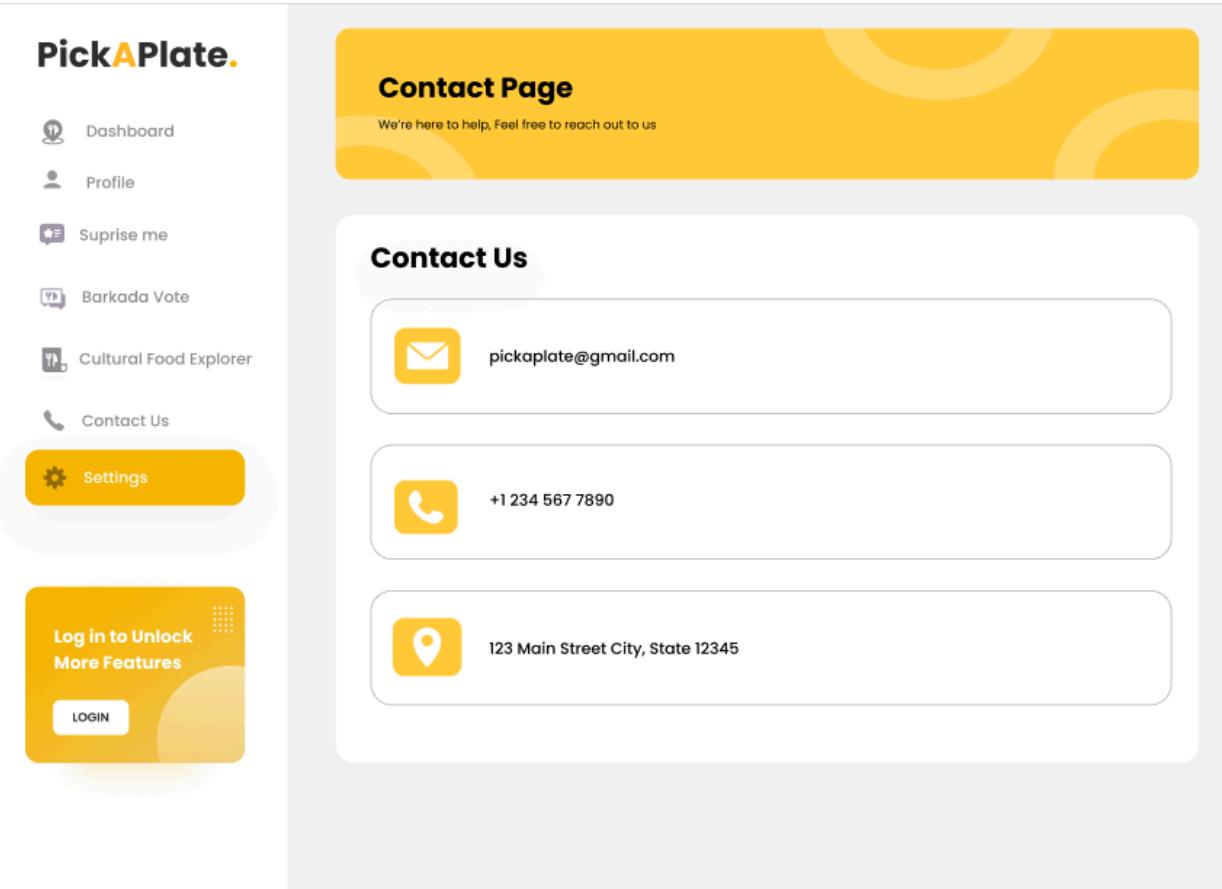
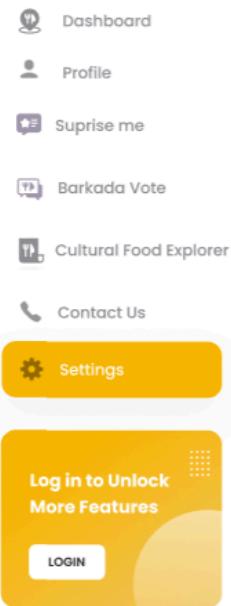


Figure 3.20. ContactPage

Let's users send feedback, report issues, or ask questions about the platform. Includes a contact form and important contact details (email, social media, etc.).

PickAPlate.



General Settings
Manage your account and personalize your experience

Account Settings

- Email Notifications
- Allow Notifications

Security Settings

- Save login info

Allow Location

- Location

Figure 3.21. Setting Page

Provides users with control over their experience. They can manage notification preferences, account privacy, password changes, dietary filters, and other customization options.

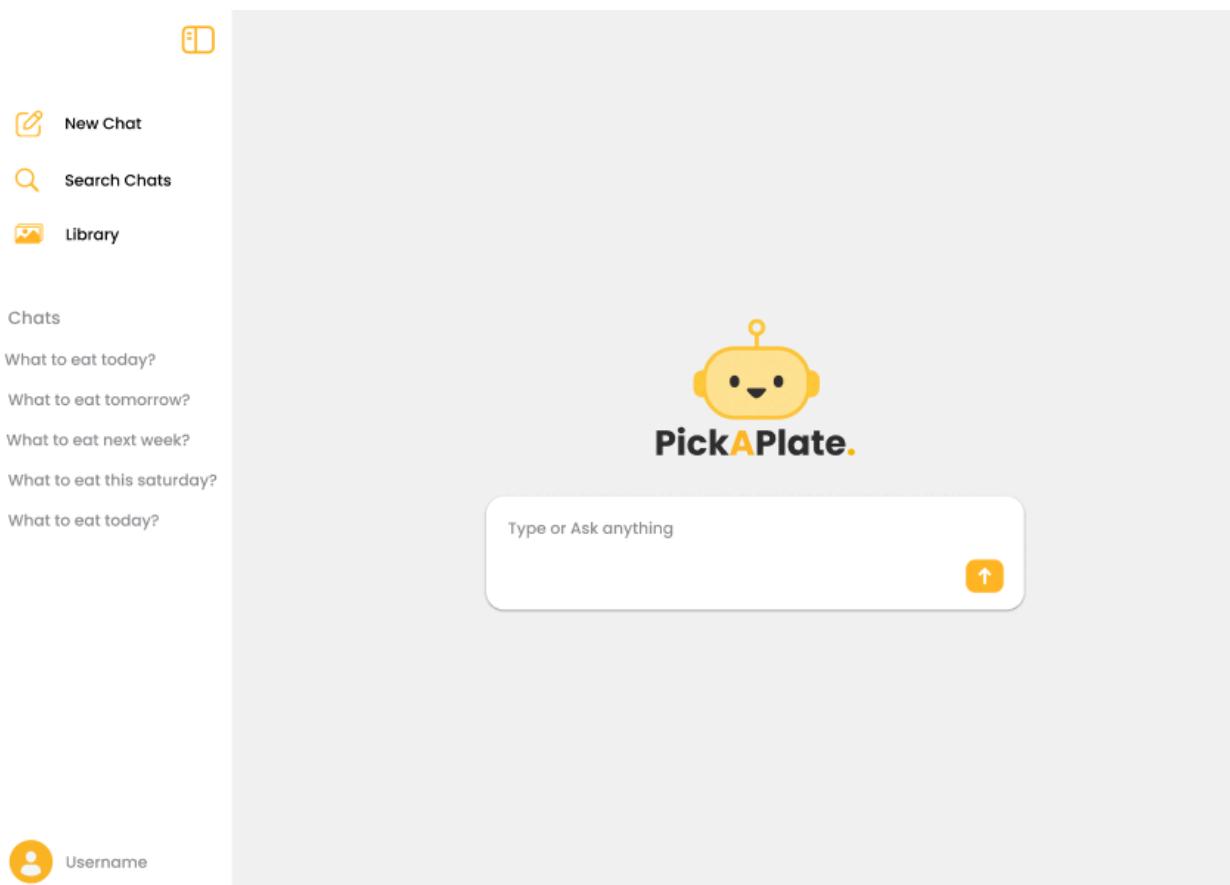


Figure 3.22. AI Food and Recipe Page

This smart feature generates recipe suggestions based on available ingredients or food cravings. Users can type what they have or how they feel, and the AI recommends dishes, complete with steps and nutritional details.

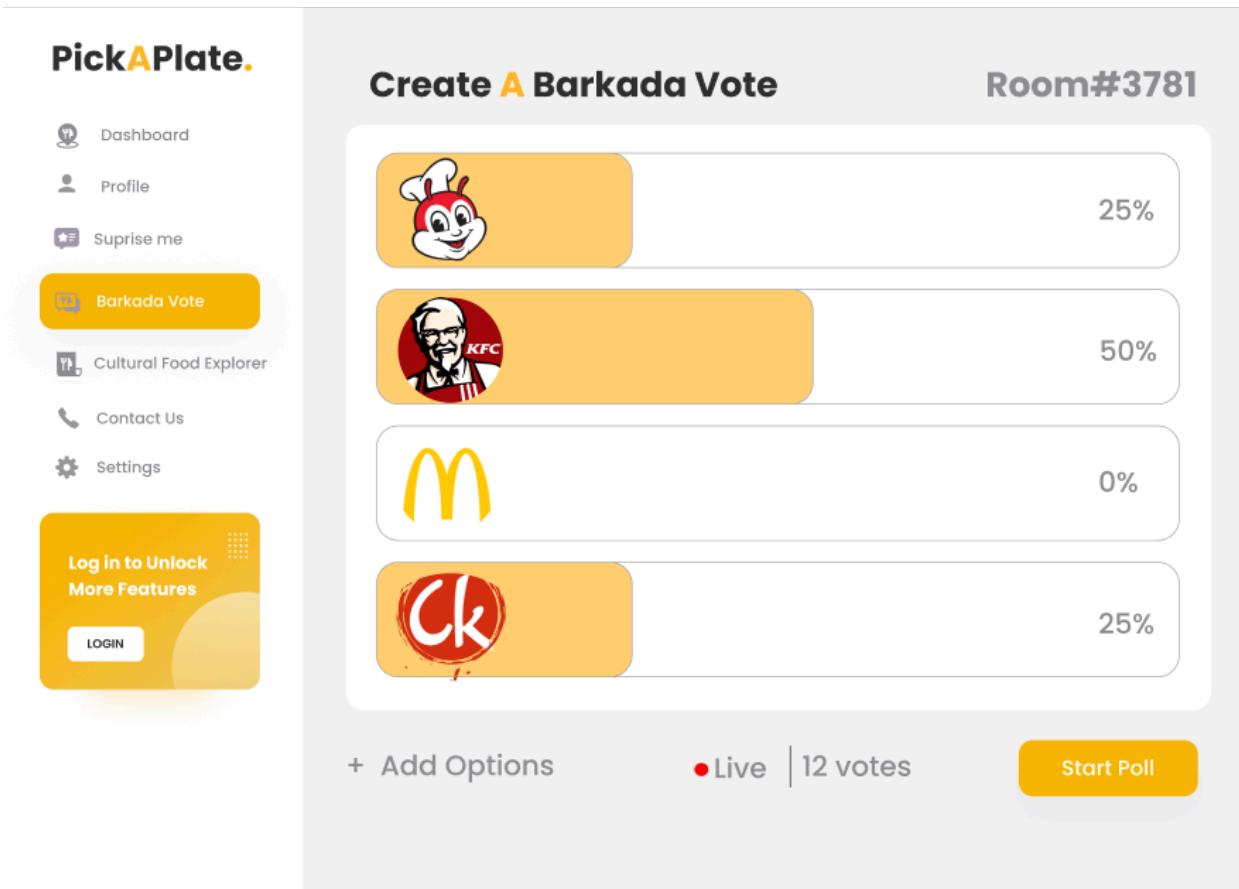


Figure 3.23. Barkada Vote Page

A fun, social feature where users can invite friends to vote on what to eat together. Everyone picks from a list, and the system tallies the votes to suggest the final meal or restaurant. Perfect for group decisions.

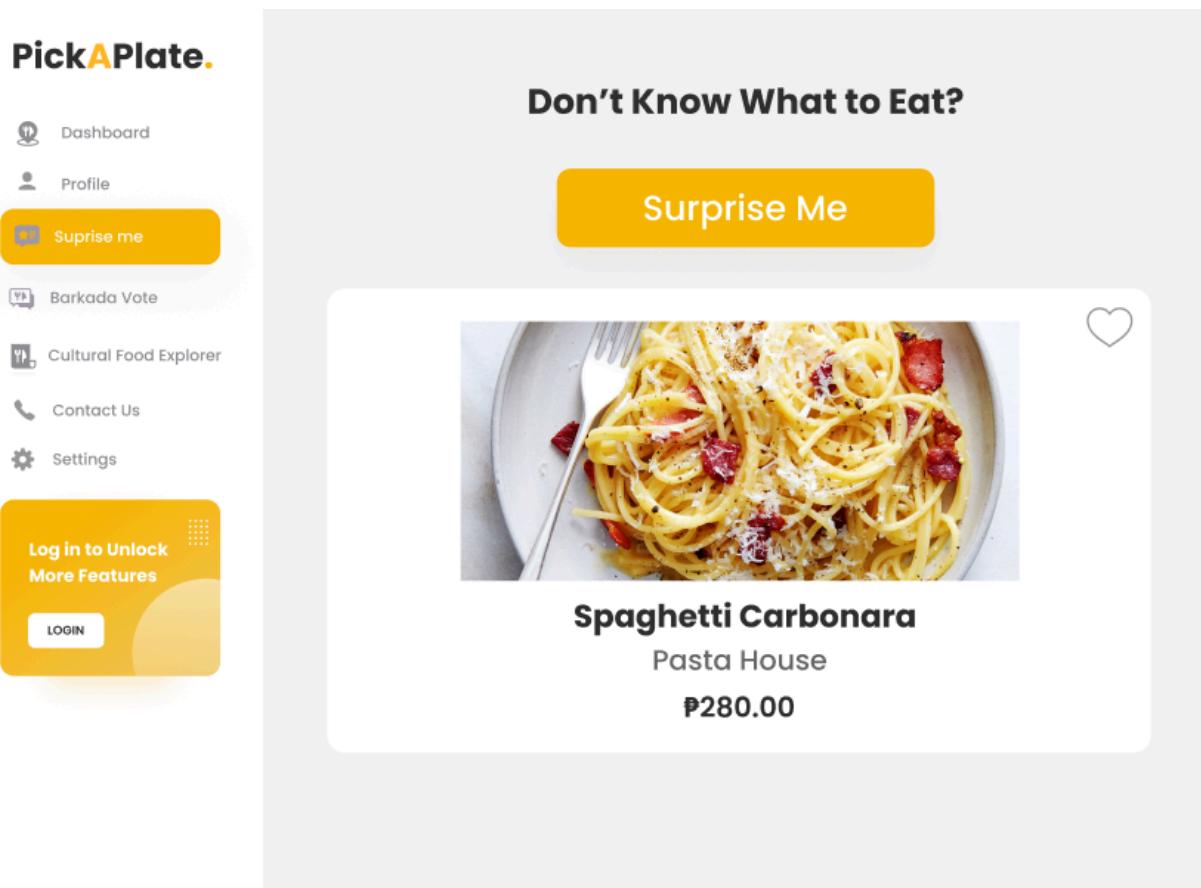


Figure 3.24. Surprise Me Page

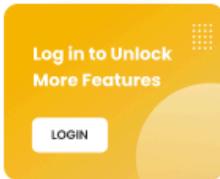
Randomly suggests meals, recipes, or restaurants to help users beat decision fatigue. Users may get results based on past behavior, community trends, or pure randomness, making discovery fun and exciting.

Figure 3.25. Calendar Page

Helps users plan meals in advance with a weekly or monthly view. Meals can be generated by the AI or added manually, complete with budget tracking per day. Ideal for meal-prepping or budget-conscious users.

PickAPlate.

-  Dashboard
-  Profile
-  Surprise me
-  Barkada Vote
-  Cultural Food Explorer
-  Contact Us
-  Settings



Add A Plate

Dish Name

Description

Ingredients

- 
- 
- 

[+ Add Ingredients](#)

Instructions

- 1 Heat the oil in a large pan
- 2 Stir in the curry powder and spices
- 3 Add the coconut milk and simmer

Prep/Cook Time
Difficulty

Personal Notes



Upload a photo
(optional)

Submit 

Figure 3.26. Upload Page

Enables users to contribute their own dishes to the platform. They can fill in details like ingredients, instructions, and personal notes, and optionally upload a food photo. Recipes can also be saved for offline access.

PickAPlate.

- Dashboard
- Profile
- Surprise me
- Barkada Vote
- Cultural Food Explorer
- Contact Us
- Settings

Log in to Unlock
More Features

LOGIN

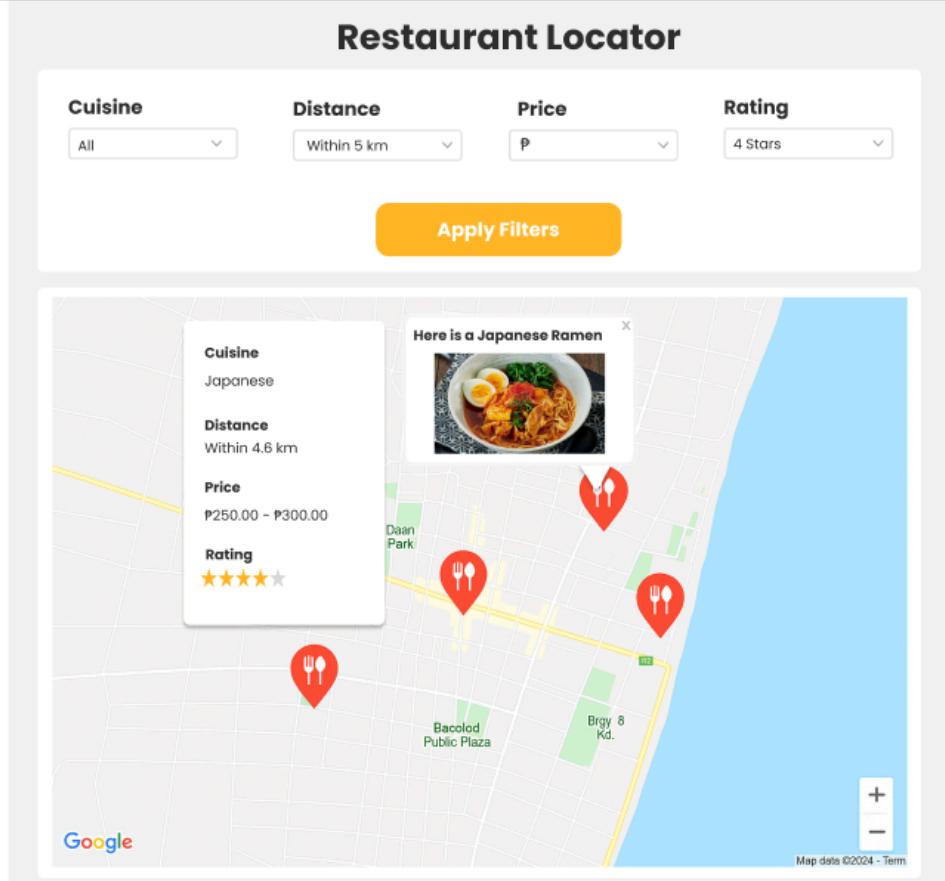


Figure 3.27. Restaurant Locator Page

Integrates with Google Maps to show nearby restaurants with smart filters like cuisine type, price level, distance, and user ratings. Users can explore, select, and even get directions.

PickAPlate.

- Dashboard
- Profile
- Surprise me
- Barkada Vote
- Cultural Food Explorer**
- Contact Us
- Settings

Log in to Unlock More Features

[LOGIN](#)

Select A Region ▾

Explore Filipino Cuisine



Sinigang na Baboy

Sinigang, sometimes anglicized as sour broth, is a Filipino soup or stew characterized by its sour and savory taste. It is most often associated with tamarind, although it can use other sour fruits and leaves as the souring agent such as unripe mangos or rice vinegar.

[Save for Later](#) 



Adobong Manok

Adobo is a popular Filipino dish and cooking process in Philippine cuisine. In its base form, meat, seafood, or vegetables are first browned in oil, and then marinated and simmered in vinegar, salt and/or soy sauce, and garlic. It is often considered the unofficial national dish in the Philippines.

[Save for Later](#) 



Kara-Kare

Kare-kare is a Filipino dish featuring a thick savory peanut sauce. It is generally made from a base of stewed oxtail, beef tripe, pork hocks, calves' feet, pig's feet or trotters, various cuts of pork, beef stew meat, and occasionally abalat.

[Save for Later](#) 



Pork Sisig

Sisig is a Filipino dish made from pork jowl and ears, pork belly, and chicken liver, which is usually seasoned with calamansi, onions, and chili peppers. It originates from the Pampanga region in Luzon. Sisig is a staple of Kapampangan cuisine.

[Save for Later](#) 



Dinuguan

Dinuguan is a Filipino savory stew usually of pork offal and/or meat simmered in a rich, spicy dark gravy of pig blood, garlic, chili, and vinegar.

[Save for Later](#) 



Bulalo

Bulalo is a beef dish from the Philippines. It is a light colored soup which is made by cooking beef shanks and bone marrow until the collagen and fat has melted or dissipated into a clear broth.

[Save for Later](#) 

Figure 3.28. Cultural Food Explorer Page

This page allows users to browse and discover traditional Filipino dishes, including their cultural origins and preparation methods. It features a selection of popular Filipino dishes like Adobo, Sinigang, and Pancit Canton, each accompanied by an image and a brief description.

PickAPlate.

- Dashboard
- Profile
- Surprise me
- Barkada Vote
- Cultural Food Explorer
- Contact Us
- Settings

Log in to Unlock
More Features
 [LOGIN](#)

Community Recipes

[Upload Recipe +](#)



Spaghetti Carbonara

By maria.smith

Prep Time:20min - Easy



Chicken Tikka Masala

By jonathan.tyler

Prep Time:20min - Easy



Vegetable Stir-Fry

By ryan.gossling

Prep Time:20min - Easy



Blueberry Muffins

By kurt.peter

Prep Time:20min - Easy



Tomahawk Steak

By thomas.anderson

Prep Time:20min - Easy



Sinigang na Baboy

By samantha.morgue

Prep Time:20min - Easy

Figure 3.29. Community Recipe Page

Highlights traditional and regional dishes with information on the origin, cultural significance, and where to try or prepare them. Promotes culinary appreciation and education.

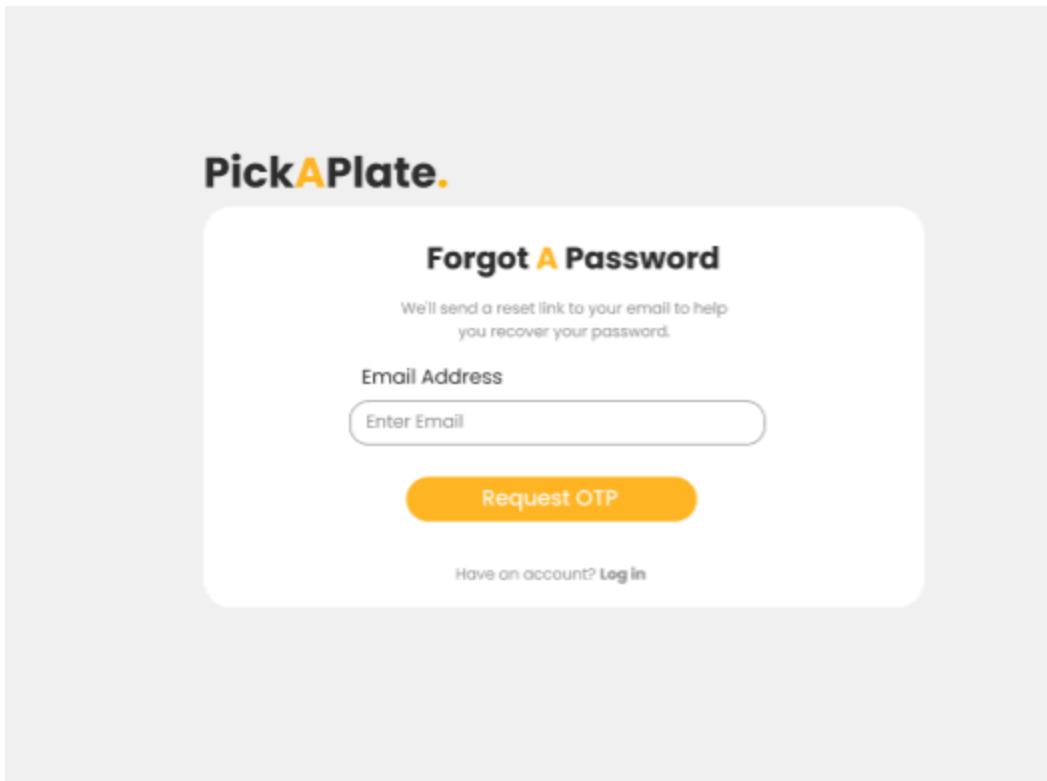


Figure 3.30.1 Forgot password Page

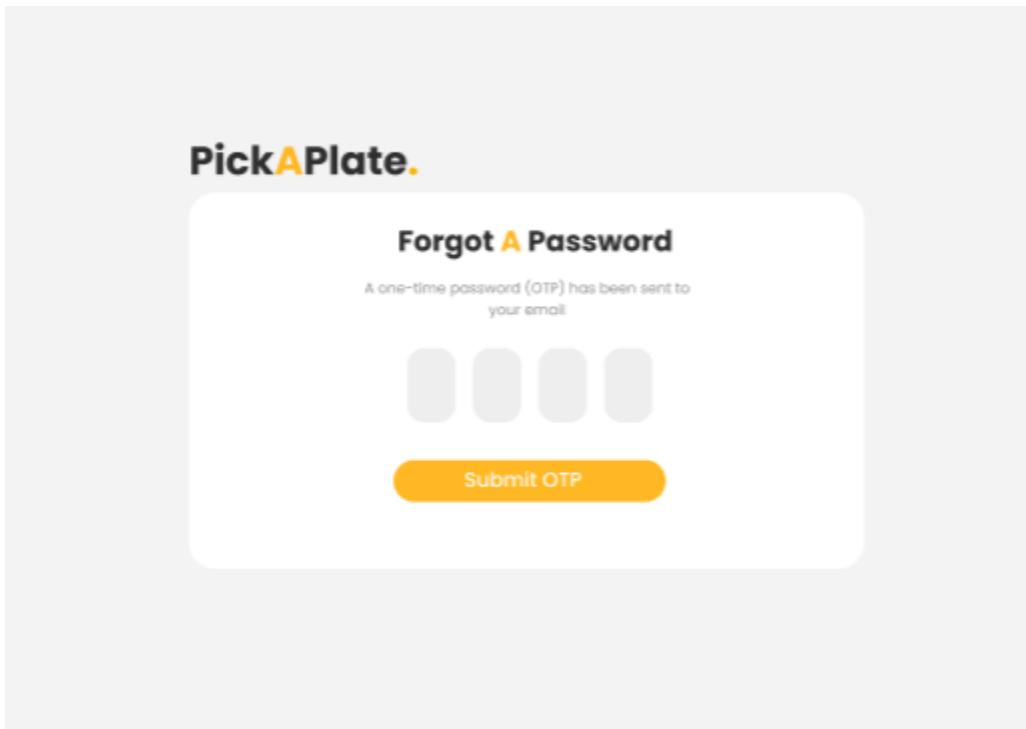


Figure 3.30.2 Forgot Password Page

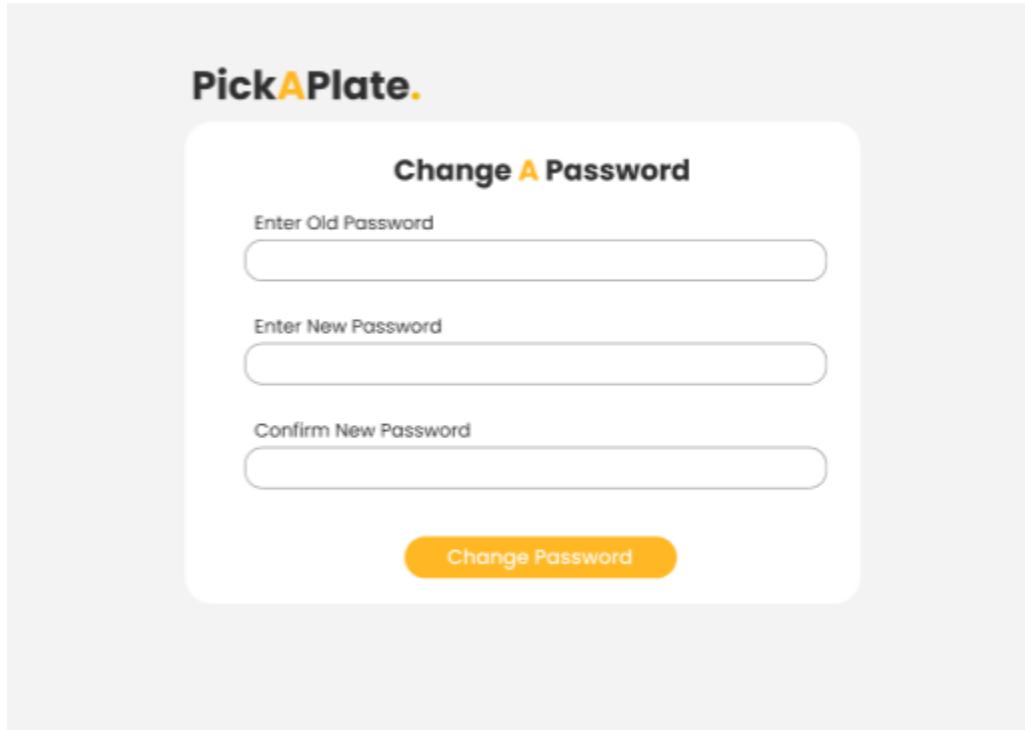


Figure 3.30.3 Forgot password Page

The **Forgot Password** feature of the Pick-A-Plate web application provides users with a secure and user-friendly process to reset their password. The flow begins with an email submission screen where users are asked to enter their registered email address. Once submitted, a one-time password (OTP) is sent to their email to verify their identity. The second screen presents a clean and minimal OTP input interface, allowing users to enter the code they received. Upon successful verification, users are directed to the final screen where they can securely change their password by entering their old password, their new password, and confirming the new entry. The consistent use of a bright yellow button throughout the flow enhances user engagement and clarity. Overall, the design maintains Pick-A-Plate's modern and approachable branding, prioritizing simplicity, trust, and ease of use.

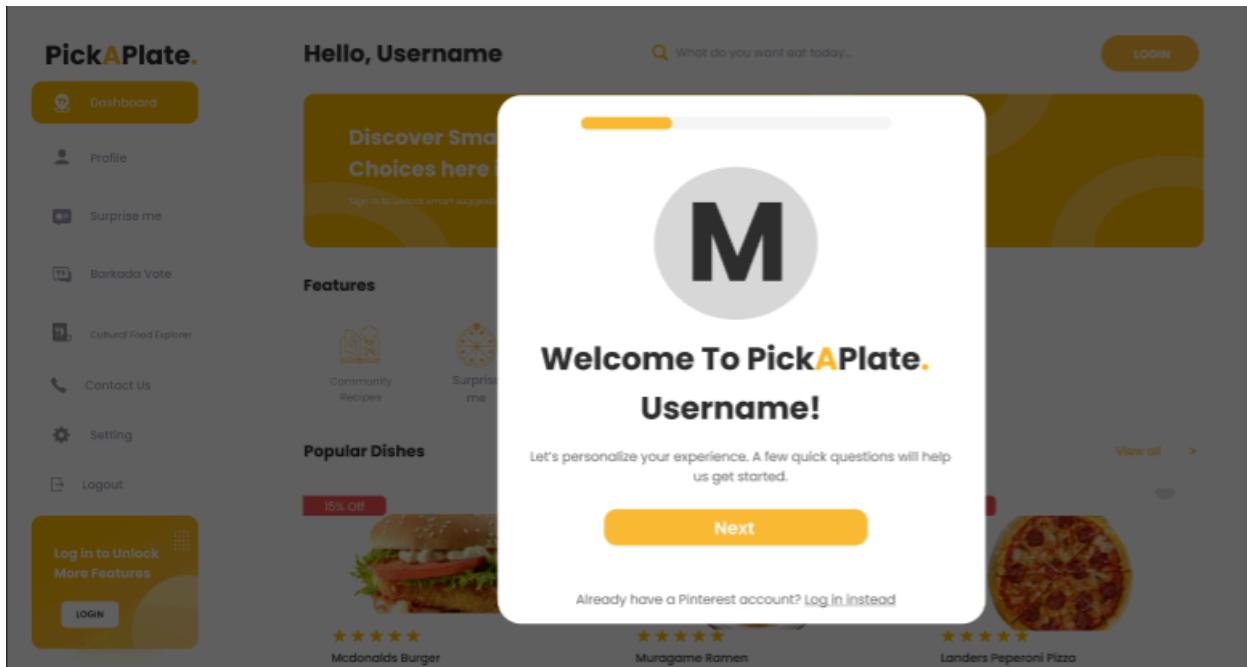


Figure 3.31.1 Initial Preference Form

Shows the welcome prompt that introduces the preference-setting process. Users are informed that their input will help generate better recommendations.

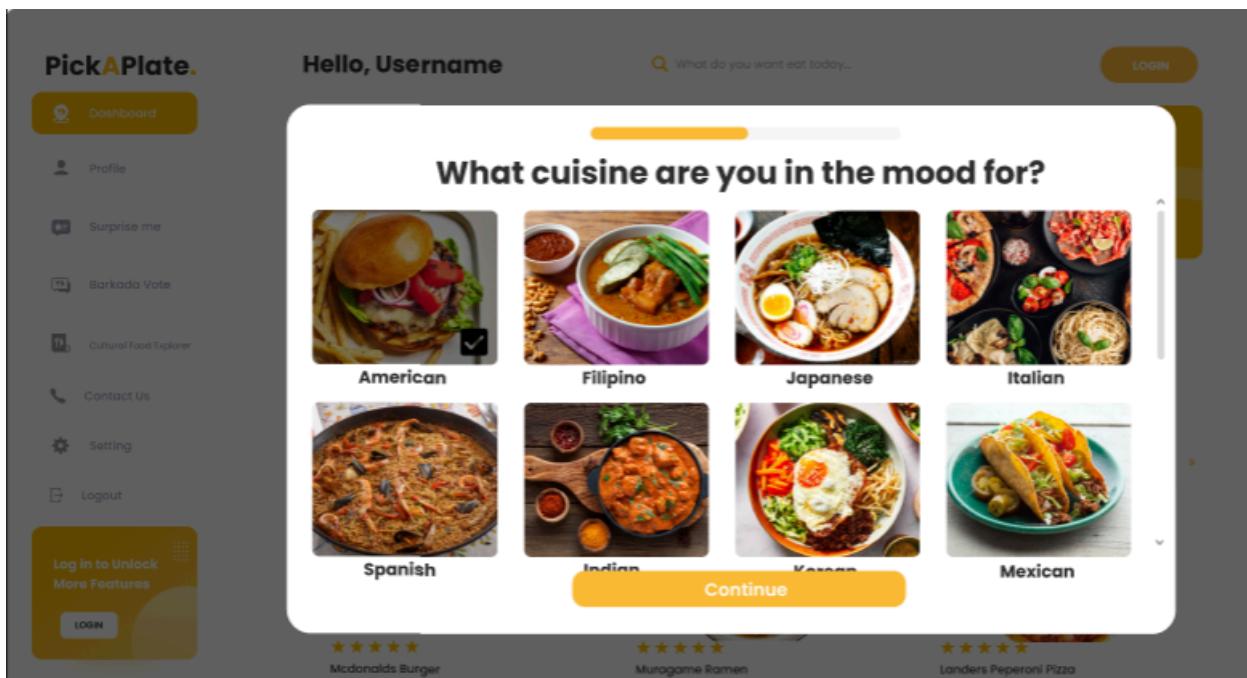


Figure 3.31.2 Initial Preference Form

Presents a selection of cuisines (e.g., American, Filipino, Japanese, Italian, Spanish, Indian, and Mexican), allowing users to indicate which ones they enjoy most.

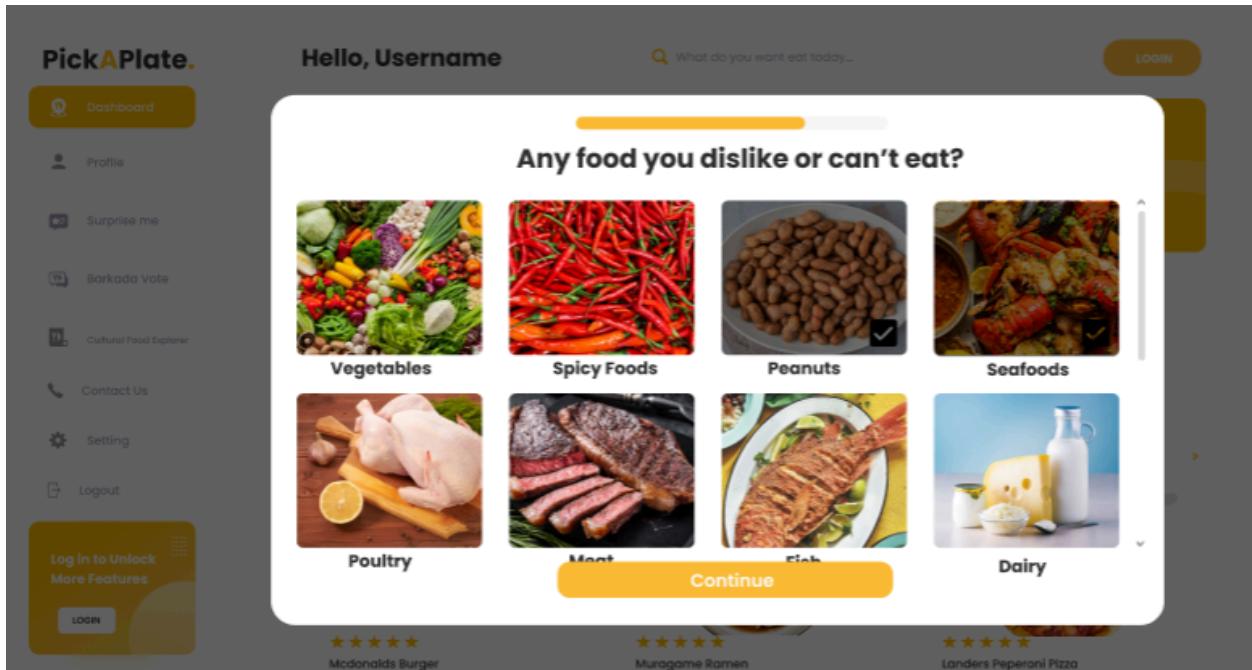


Figure 3.31.3 Initial Preference Form

Focuses on dietary restrictions by asking users to identify foods they dislike or cannot eat, such as vegetables, spicy foods, peanuts, seafood, poultry, meat, or dairy.

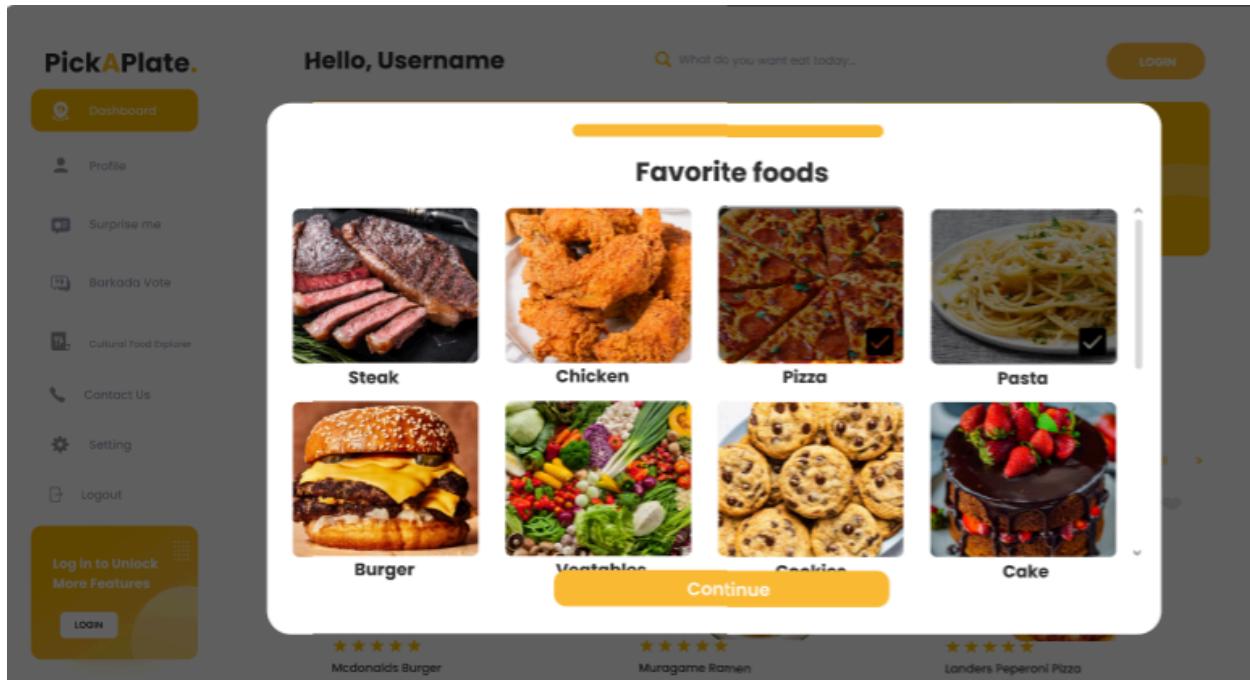


Figure 3.31.4 Initial Preference Form

Captures the user's favorite foods (e.g., steak, chicken, pizza, pasta, burger, vegetables, and cake) to strengthen personalized recommendations.

Test Plan

This section presents the strategy that will be used to test the overall performance and reliability of the Food Decision Support Web Application. The main goal of this testing phase is to ensure that all primary features function correctly and provide a smooth experience for users. The testing will cover major components, including the AI food recommender, recipe browsing, mood-based filtering, restaurant locator, group decision tool, cultural food exploration, calendar meal planning, and account management. Each module will be reviewed to check its functionality, user interface, responsiveness, and performance under typical use and unexpected user behavior.

Test Items

The testing mainly focuses on front-end functionalities and database validations. This includes:

Functions to be Tested:

- User Account System (Sign Up, Login, Logout, Password Recovery)
- Admin Functionality (Remove recipe, Edit Cultural Dishes)
- AI Chatbot for Personalized Food Suggestions
- Recipe Browsing and Community Submissions (Google Cloud Vision API)
- Filtering Based on Mood, Allergies, or Diet Preferences
- Restaurant Locator with Filters
- “Surprise Me” Random Meal Picker
- Group Voting Tool (Barkada Vote Mode)
- Cultural Dish Discovery Module
- Meal Planner with Calendar Integration
- User Profile Settings and Editing

Test Approach

The testing process will be carried out in two major phases. First, internal tests will be done by the developers, followed by a review and hands-on trial by client representatives or selected users. All tests will be done manually using modern browsers like Google Chrome and standard mobile browsers to ensure compatibility.

Stages of Testing

Unit Testing

Each feature will be tested individually. Examples include login functions, chatbot interactions, or saving calendar entries. This ensures that each piece works properly on its own.

Integration Testing

After the individual tests, components will be combined to see if they work together. For example, input from the chatbot should reflect correctly in the user's preferences saved in the database.

System Testing

The complete system will be tested in a simulated environment that mimics real-life use. This confirms that features like voting or meal generation perform properly when used together.

Acceptance Testing

The app will be given to real users or clients to see if it meets their expectations. Any issues found during this phase will be documented and corrected.

Throughout these tests, realistic sample data will be used to mirror actual usage as closely as possible.

Negative testing

The app will also be tested by deliberately inputting invalid, unexpected, or expired inputs to the system in order to observe its behavior and verify that fallback methodologies are implemented correctly. Non-food images and inappropriate images will be tested to confirm that

SafeSearch + Label Detection (Google Cloud Vision API) filtering works correctly. This is to ensure that the system is up to standards in terms of being robust and reliable.

Performance Testing

The app's responsiveness and scalability will be evaluated through load and stress testing. Key modules like the AI chatbot and calendar planner, should respond within a reasonable time (6 seconds). Scalability testing will gradually increase simulated user loads in order to identify breaking points. After interactions with the application such as using the chatbot, completing a group vote, or generating a meal plan , users will be asked to provide feedback on their satisfaction when using the application on a scale from 1 (Very Unsatisfactory) to 5 (Very Satisfactory). This input will be used to determine whether the system is perceived as responsive and reliable.

Item Pass/Fail Criteria

Each testing phase includes its own success standards. A feature will only be marked as successful if it meets all necessary conditions. The criteria for each testing phase are listed below:

Unit Testing:

- The feature runs with no syntax or runtime errors
- Input is handled correctly and delivers the expected result

Functional Testing:

- The system's features must work according to the original design

- Inputs like blank forms or incorrect data should be handled properly

Integration Testing:

- All modules must interact with one another correctly
- No crashes or logical errors should occur when using connected features

Acceptance Testing:

- Performed by the client or selected test users
- All features should work as intended with minimal problems

Performance Testing:

- AI features and the calendar planner should respond quickly, within three to five seconds or less during normal load and within six seconds or less under heavy load.
- The system must remain stable under stress.
- At least 70% of users rate their experience 3 or higher on the satisfaction scale.

Usability Testing:

- Interfaces must be easy to understand and use
- Buttons and labels should be readable and placed where users expect them

All issues will be logged and rated by how severe they are. Problems that are critical or moderately important must be fixed and tested again before the system can be finalized. If any major feature fails, the entire application will be tested again to confirm that the fixes did not cause new issues.

Test Cases Web Application

Table 3.1. Test Cases for AI Chatbot

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query (e.g., 'I want to eat chicken adobo') 4. Provide valid preferences (e.g., no peanuts, feeling happy) 5. Submit the information	The chatbot analyzes the data, returns a suitable food suggestion, and saves the user's preference to the database.		
AI2	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a food query without any preferences 4. Submit the information	Chatbot still returns a general suggestion based on default filters and saves minimal user input.		
AI3	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a vague or invalid input (e.g., 'food') 4. Provide random or empty preferences 5. Submit the information	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.		
AI4	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query 4. Provide preferences 5. Chatbot gives a suggestion 6. Mark the suggestion as unsatisfactory	Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.		
AI5	1. Login to the System 2. Click on the AI Chatbot option	The system shows an error message, indicating that API is		

	3. AI Chatbot down or not implemented yet	down. Fallback method is shown, listing previous liked recipes/restaurants to user.		
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Table 3.2. Test Cases for Community Recipe

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	1. Access the Dashboard 2. Click on 'Community Recipes'	The user can view and read available community-uploaded recipes.		
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.		
CR3	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit'	The recipe is uploaded successfully and appears in the list.		
CR4	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Upload Recipe' 4. Leave some required fields empty 5. Click 'Submit'	The user is shown an error message indicating the missing required fields.		
CR5	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Click on a recipe 4. Click 'Export' or 'Save Offline'	The recipe is downloaded or saved for offline access.		

CR6	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Search for a recipe that doesn't exist	The user is shown a message indicating no results were found.		
CR7	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Attempt to upload invalid file format (.exe, .zip)	The user is shown a message indicating that the file format is not supported.		
CR8	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related	Google Cloud API determines that the image is not food and the user is shown a message indicating that the image uploaded is not food and will not accept the image. Prompts user to upload a different image		
CR9	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision)	Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.		
CR10	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe'	Google Cloud Vision determines that the image is food with a 70% confidence rate,		

	4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food ($\geq 70\%$ Confidence for Google Cloud Vision) 7. Submit	accepting the image and allows user to successfully submit recipe.		
CR11	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click on a Recipe 4. Report with 5 different accounts	System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be archived and not be seen by users		

Table 3.3. Test Cases for Restaurant Locator

TC #3	Steps to Replicate	Expected Result	Actual Result	Status
RL1	1. Log in to the system 2. Click on 'Restaurant Locator' 3. Use the filter to select 'Filipino' cuisine 4. Submit search	A filtered list of Filipino restaurants is displayed.		
RL2	1. Log in to the system 2. Access 'Restaurant Locator' 3. Set price filter to 'PP' 4. Click search	A list of restaurants within the PP price range is displayed.		
RL3	1. Log in to the system 2. Click on 'Restaurant Locator' 3. Select open restaurants only 4. Submit search	Only restaurants currently open are shown.		

RL4	1. Log in 2. Open 'Restaurant Locator' 3. Set distance filter to 5km 4. Click search	Restaurants within a 5km radius are displayed on the map.		
RL5	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + PP + open now) 4. Submit	Results match all selected filters combined.		
RL6	1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.		
RL7.	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down	User is shown a message saying that the API is down and shows a default database of restaurants based in their city.		

Table 3.4. Test Cases for Surprise Me!

TC #4	Steps to Replicate	Expected Result	Actual Result	Status
SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me"	The system returns one random meal or restaurant suggestion.		
SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.		

SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.		
SM4	1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh'	Suggestion is refreshed and a new result is displayed.		

Table 3.5. Test Cases for Barkada Vote

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter group preferences (e.g., dietary restrictions, allergens) 5. Chatbot returns 5 meal options	Chatbot suggests 5 meals based on group input		
BV2	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter invalid preferences (e.g., empty fields or unsupported data)	System shows an error asking to correct or complete the input		
BV3	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Skip the chatbot and manually input meal options	System allows manual entry of meal options		

BV4	<p>1. User continues from valid meal options (either from the chatbot or the manual)</p> <p>2. The system creates a voting room and displays meals</p>	System displays all meals and opens a new voting room		
BV5	<p>1. User sends a generated voting code to other users</p> <p>2. Users go to website and go to Barkada Vote</p> <p>3. Users enter valid code</p>	All users can view and participate in the vote through the code.		
BV6	<p>1. All votes are submitted</p> <p>2. System tallies votes</p> <p>3. Displays the most-voted meal</p> <p>4. User sees the confirmation screen</p>	The winning meal is displayed, and the calendar is marked as used successfully		
BV7	<p>1. User sends a generated voting code to other users</p> <p>2. Users go to website and go to Barkada Vote</p> <p>3. Users enter invalid code</p>	Users cannot enter the room. Application prompts the users that the code is invalid and to try again.		
BV8	<p>1. Users go to website and go to Barkada Vote</p> <p>2. Users enter expired code</p>	Users are prompted that the room they are looking for does not exist or isn't available anymore.		
BV9	<p>1. User sends a generated voting code to other users</p> <p>2. Users go to website and go to Barkada Vote</p> <p>3. Users enter valid code</p> <p>4. Users attempt to vote multiple times</p>	Users are told by the system that they have already voted and cannot vote again, and their reattempt is not counted towards the total.		

Table 3.6. Test Cases for Cultural Food Explorer

TC #6	Steps to Replicate	Expected Result	Actual Result	Status
CFE1	1. Log in to the system 2. Click on 'Cultural Food Explorer' 3. Browse through the list of regions	List of regions and their cultural dishes is displayed.		
CFE2	1. Log in 2. Select a region (e.g., Ilocos) 3. Click to view cultural dishes	Dishes from selected regions are shown with images and brief information.		
CFE3	1. Log in 2. Select a dish from the list 3. View the dish's cultural background and preparation	Dish details are shown, including history, origin, and preparation tips.		
CFE4	1. Access the application as a guest 2. Try clicking on 'Cultural Food Explorer'	User is redirected to the login/signup page before accessing the feature.		
CFE5	1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button	Dish is saved/bookmarked successfully under the user's profile.		

Table 3.7: Test Cases for Calendar

TC #7	Steps to Replicate	Expected Result	Actual Result	Status
CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day 5. Clicks Save	The system saves the meal data and displays it correctly on the calendar		

CF2	<ol style="list-style-type: none"> 1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate 	Chatbot generates a week's meal plan based on input and displays it for confirmation		
CF3	<ol style="list-style-type: none"> 1. Do steps in CF2 2. User is satisfied and clicks Confirm 	The system saves the meals into the calendar and displays them successfully		
CF4	<ol style="list-style-type: none"> 1. Do steps in CF2 2. User is not satisfied with the plan 3. Clicks "Regenerate" 	Chatbot re-generates a new meal plan based on the same inputs		
CF5	<ol style="list-style-type: none"> 1. User attempts to save meals with empty fields or invalid characters 	System shows an error: "Please complete all required fields correctly."		
CF6	<ol style="list-style-type: none"> 1. User selects multiple days and enters valid meal data for each 2. Saves all at once 	All selected days show correct meal data on the calendar		
CF7	<ol style="list-style-type: none"> 1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down 	System tells the user that the API is down , shows previous liked / chosen meals, and prompts user to do it manually.		

Table 3.8. Test Cases for Login

TC #8	Steps to Replicate	Expected Result	Actual Result	Status

L1	<ol style="list-style-type: none"> 1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click "Login" 	The user is logged in successfully and redirected to the dashboard or homepage.		
L2	<ol style="list-style-type: none"> 1. Access the website via a browser 2. Click on the Login button 3. Click 'Login' 	System displays: "Invalid Credentials, Try again." User remains on the login page.		
L3	<ol style="list-style-type: none"> 1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login' 	System shows an error message: "Please enter your credentials."		
L4	<ol style="list-style-type: none"> 1. Enter the correct username but the incorrect password 2. Click 'Login' 	User is shown an error message: 'Account not found'.		
L5	<ol style="list-style-type: none"> 1. Enter a username with invalid characters (e.g., John) 2. Click 'Login' 	System displays input validation errors or blocks suspicious input.		
L6	<ol style="list-style-type: none"> 1. Enter the correct credentials 2. Turn off the internet before clicking 'Login' 	System shows a connection or network error message.		

Table 3.9. Test Cases for Registration

TC #9	Steps to Replicate	Expected Result	Actual Result	Status

R1	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter a valid name, email, and password 3. Submit the form 4. Open the email and check for the OTP 5. Enter the OTP in the verification field 6. Click on ‘Verify’ 	The user receives the OTP, verifies it successfully, and their account is created.		
R2	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter an invalid email format 3. Attempt to submit the form 	The system rejects the input and shows an error saying the email is invalid.		
R3	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter a valid email 3. Enter mismatched passwords 4. Submit the form 	The system prevents submission and notifies the user about the mismatch.		
R4	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid inputs 3. Submit the form 4. Do not open or enter the OTP 5. Wait or close the page 	The account is not created. The system waits for OTP verification.		
R5	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter an incorrect OTP 5. Click ‘Verify’ 	The system shows an error saying the OTP is invalid.		
R6	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 	The system accepts the new OTP and creates the account successfully.		

	6. Click ‘Verify’			
R7	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired	The system notifies the user that the OTP has expired and suggests resending.		
R8	1. Access the ‘Register’ page 2. Enter valid details with an already used email 3. Submit the form	System shows “Email Already in Use”		
R9	1. Access the ‘Register’ page 2. Enter valid details with a weak password 3. Submit the form	System rejects and shows message “Password must include letters and numbers”		

Table 3.10. Test Cases for Profile

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page 3. View user information and preferences	The user’s profile details and preferences are displayed correctly.		
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.		
PR3	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save'	System shows an error message: 'Incorrect current password'.		

PR4	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save' 	Password is updated successfully, and a confirmation message is shown.		
PR5	1. Attempt to access the Profile page without logging in	User is redirected to the login/signup page.		
PR6	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save' 	OTP is sent to email, User enters OTP		
PR7	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter an already registered email 5. Click 'Save' 	System shows error 'Email already in use'		

Table 3.11. Test Case for Logout

TC #11	Steps to Replicate	Expected Result	Actual Result	Status
LO1	<ol style="list-style-type: none"> 1. Log in to the system 2. Navigate to the Profile page 3. Click on the 'Logout' button 	User is logged out and redirected to the home or login page.		

Table 3.12. Test Case for Admin

TC #12	Steps to Replicate	Expected Result	Actual Result	Status
AD1	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is directed to admin dashboard		
AD2	1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials	User is shown a message. "Invalid Credentials, Try again."		
AD3	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe	Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now		
AD4	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is not flagged falsely. 6. Click Delete Recipe	Admin is shown a message that the recipe is successfully Deleted. The recipe is completely deleted from the database and can no longer be accessed.		
AD5	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. Click Edit Cultural Food Explorer 5. Edit 6. Save	The Cultural Food Explorer is properly saved and changed for every user of the website.		

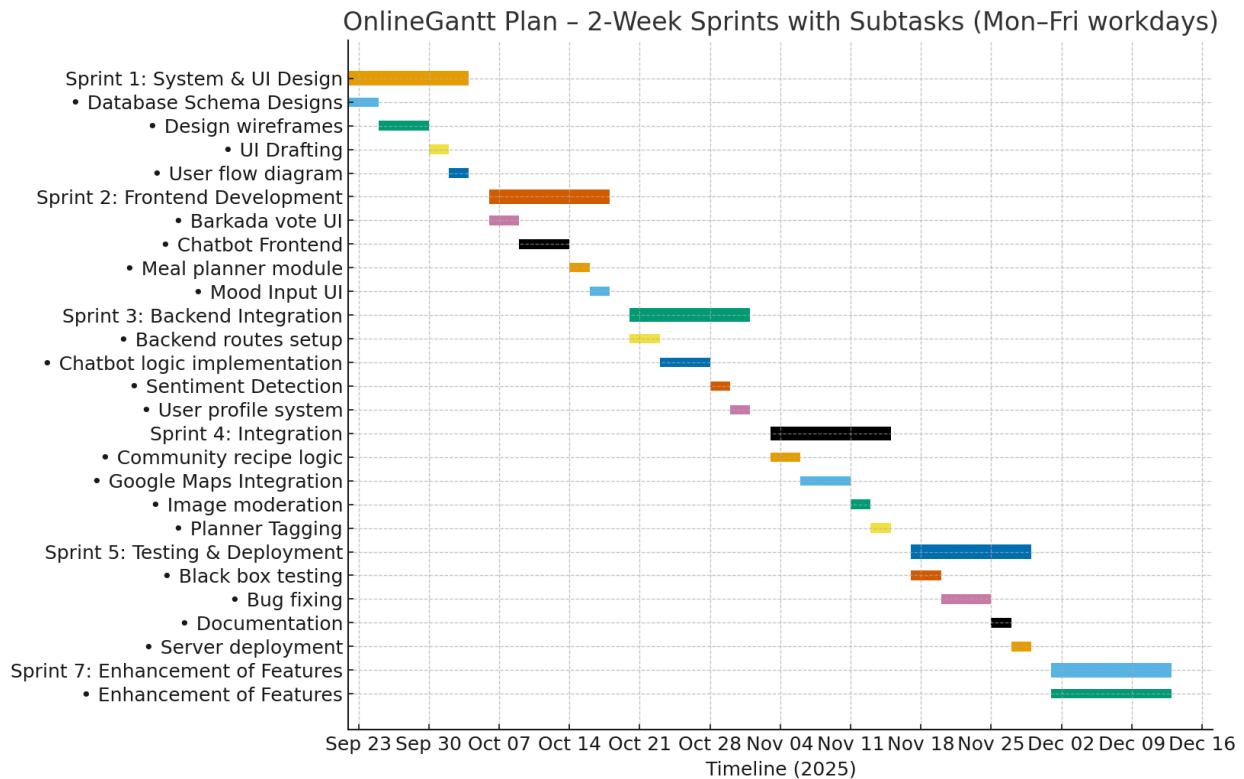


Figure 3.32 Gantt Chart

The Agile Gantt chart for the Pick-A-Plate (PAP) project maps out the entire development timeline from June to December 2025. It begins with the Project Proposal phase during June to July, which includes initial planning, proposal writing, oral defense, and revisions based on panel feedback.

- Sprint 2 (System & UI Design): Covers design wireframes, user flow diagrams, database schema, and UI component drafting.
- Sprint 3 (Frontend Development): Builds the chatbot frontend, mood input UI, meal planner, and Barkada Vote interfaces.
- Sprint 4 (Backend Integration): Focuses on chatbot logic, user profile system, backend routes, and sentiment detection.

- Sprint 5 (Integration): Integrates Google Maps, image moderation via SafeSearch (Google Vision API), recipe logic, and planner tagging.
- Sprint 6 (Testing & Deployment): Conducts black-box testing, debugging, deployment, and documentation writing.
- Optional Sprint 7: Reserved for enhancement features and polishing based on final feedback.

This Gantt chart highlights how PAP applies the Agile methodology through time-boxed sprints, continuous integration, and feature-driven development.

System Usability Scale (SUS) Testing Questionnaire

The System Usability Scale (SUS) is a widely-used, industry-standard questionnaire consisting of 10 items that measure the perceived usability of a system. For the Pick-A-Plate web application, the SUS will be administered to test participants after they have completed their interaction with the system.

SUS Questionnaire Administration

Target Participants: 50 users (mix of students, working professionals, and casual food decision-makers)

When to Administer: After participants complete their assigned test scenarios and before debriefing

Response Scale: 5-point Likert scale

- 1 = Strongly Disagree
- 2 = Somewhat Disagree
- 3 = Neutral
- 4 = Somewhat Agree
- 5 = Strongly Agree

Please enter your participant number: _____

System Usability Scale (SUS)

This is a standard questionnaire that measures the overall usability of a system. Please select the answer that best expresses how you feel about each statement after using the website today.

Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
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e

1. I think I would like to use this tool frequently.

2. I found the tool unnecessarily complex.

3. I thought the tool was easy to use.

4. I think that I would need the support of a technical person to be able to use this system.

5. I found the various functions in this tool were well integrated.

6. I thought there was too much inconsistency in this tool.

7. I would imagine that most people would learn

to use this tool very quickly.

8. I found the tool very cumbersome to use.

9. I felt very confident using the tool.

10. I needed to learn a lot of things before I could get going with this tool.

How likely are you to recommend this website to others? (please circle your answer)

Not at all likely 0 1 2 3 4 5 6 7 8 9
10 Extremely likely

SUS Score Calculation

The SUS score is calculated as follows:

1. For odd-numbered items (1, 3, 5, 7, 9): Subtract 1 from the user response
2. For even-numbered items (2, 4, 6, 8, 10): Subtract the user response from 5
3. Sum all converted responses and multiply by 2.5

Formula: SUS Score = (Sum of converted responses) \times 2.5

Score Range: 0 to 100

SUS Score Interpretation

Score Range	Grade	Adjective Rating	Acceptability
80.3 - 100	A	Excellent	Acceptable
68 - 80.2	B	Good	Acceptable
68	C	Okay	Marginal
51 - 67.9	D	Poor	Marginal
0 - 50.9	F	Awful	Not Acceptable

Target SUS Score for PAP: ≥ 68 (acceptable usability) **Ideal SUS Score for PAP:** ≥ 75 (good to excellent usability)

Chapter 4

Testing and Results

This section provides a summary of the test cases and an overall analysis of the results.

Summary of System Tests Per Function

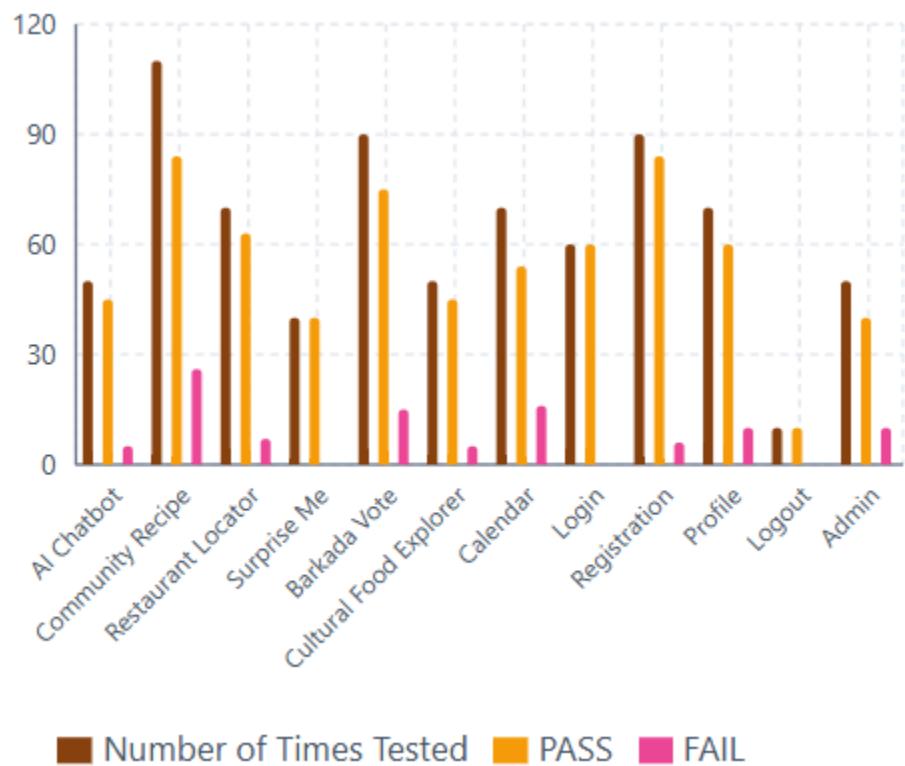


Figure 4.1 Summary of System Tests Per Function

The chart summarizes the unit testing results across all 12 Pick-A-Plate modules, showing steady improvement over successive iterations. Key modules like Community Recipe, Barkada Vote, and Registration achieved high pass rates despite their complexity, while temporary regressions, such as in Cultural Food Explorer, were successfully resolved. By the final iteration, all 76 test

cases passed, confirming the effectiveness of iterative testing and that Pick-A-Plate is fully tested and ready for deployment.

Summary of Test Results Per Module (FINAL TESTING)



Figure 4.2 Summary of System Tests Per Function (FINAL TESTING)

Module	Code	Total Test	Final Status (TEST 10)
AI Chatbot	AI	5	ALL PASS
Community Recipe	CR	11	ALL PASS
Restaurant Locator	RL	7	ALL PASS
Surprise Me	SM	4	ALL PASS
Barkada Vote	BV	9	ALL PASS
Cultural Food Explorer	CFE	5	ALL PASS
Calendar	CF	7	ALL PASS
Login	L	6	ALL PASS
Registration	R	9	ALL PASS
Profile	PR	7	ALL PASS
Logout	LO	1	ALL PASS
Admin	AD	5	ALL PASS

This horizontal bar chart and the table above illustrates the number of test cases passed across all 12 Pick-A-Plate modules. Every bar appears in green, indicating a 100% pass rate for all modules during the final testing phase. The Community Recipe (CR) module shows the highest number of test cases (11), highlighting the complexity of its recipe upload, validation, and reporting functions.

Pass Rate Progress Over Iterations

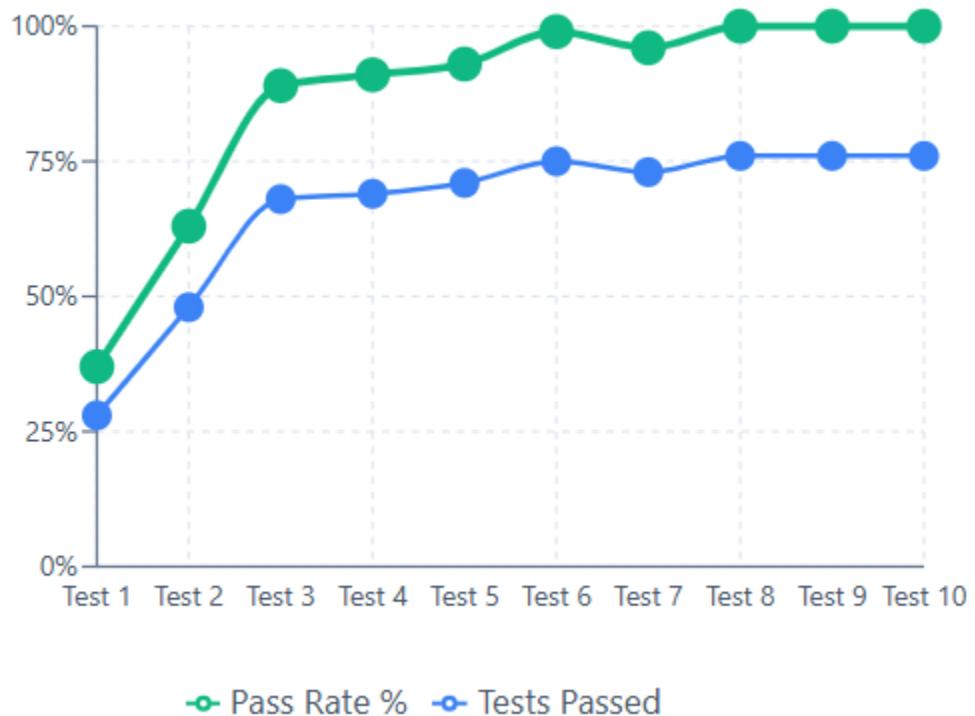


Figure 4.3 Pass Rate Progress Over Iterations

The Pass Rate Progress chart summarizes the system's quality improvements over ten test iterations. Starting at a 37% pass rate in Test 1, major failures occurred in Barkada Vote, Calendar, and Admin modules. Rapid improvements in Tests 2 and 3 brought the pass rate to 89%, followed by gradual stabilization and refinement through Tests 3 to 6. A temporary regression in Test 7 highlighted deployment-specific issues in the Cultural Food Explorer module, which were fully resolved by Test 8. From Tests 8 to 10, all 76 test cases consistently passed, confirming system stability. Overall, the results demonstrate a structured, effective testing process and validate that Pick-A-Plate is fully tested and production-ready, following a typical software quality "S-curve" progression.

Test Cases Analysis

The Pick-A-Plate web application underwent comprehensive functional testing consisting of 76 test cases across 12 modules over a 25-day period from October 30 to November 24, 2025. Testing was conducted in 10 iterative cycles to ensure thorough quality assurance, with each test case designed to verify specific functionality through step-by-step procedures and by comparing actual results against expected outcomes. The tests covered all core features of the application, including AI-powered food suggestions, community recipe management with image moderation, restaurant locator, group voting system, meal planning calendar, user authentication, and administrative controls.

Test cases were distributed according to module complexity and criticality. The Community Recipe module had the highest number of test cases (11), reflecting the complexity of recipe uploads, Google Cloud Vision API image validation, content management, and export functionality. Barkada Vote and Registration modules each had 9 test cases, addressing group voting mechanics and OTP verification. Restaurant Locator, Calendar, and Profile modules each included 7 test cases, covering Google Maps API filtering capabilities, meal planning, and user preference management. The Login module contained 6 test cases for authentication validation, while AI Chatbot and Cultural Food Explorer each had 5 test cases for OpenAI-powered food suggestion algorithms and regional dish exploration. The Admin module included 5 test cases for recipe moderation and content management, Surprise Me had 4 test cases for random suggestion features, and Logout contained a single test case to verify session termination.

The testing process revealed significant insights into the development lifecycle. In the first iteration, only 28 out of 76 test cases passed, representing a 37% pass rate. Major failures were concentrated in modules still under development, such as Barkada Vote, Calendar, and Admin, all of which recorded zero passing tests. By the second iteration, the pass rate improved to 63%, primarily due to OTP verification fixes in the Registration module. By the third iteration, the pass rate reached 89% as major features, including full Barkada Vote functionality, Calendar meal planning, and the complete Admin dashboard, were implemented. This rapid improvement demonstrated the effectiveness of the iterative development approach in addressing critical functionality gaps.

Several critical issues were identified and systematically resolved throughout the testing cycles. The Cultural Food Explorer module experienced a regression in iterations 6 and 7,

where passing tests dropped due to deployment-specific issues affecting image loading and data fetching; this was fully resolved by iteration 8. The Registration module's OTP verification initially struggled but was corrected between iterations 1 and 2, while the Profile module's password change functionality required multiple iterations before achieving full compliance by iteration 5. The Community Recipe module's image moderation feature, powered by Google Cloud Vision API, was successfully validated through test cases CR8, CR9, and CR10, confirming that SafeSearch Detection properly filters inappropriate content and Label Detection ensures only food-related images with a minimum 70% confidence score are accepted.

External API integrations were thoroughly tested to ensure reliability and proper fallback behavior. The Google Cloud Vision API integration for image moderation passed all validation tests, successfully rejecting non-food images and inappropriate content while accepting valid food photos. The Google Maps API integration for the Restaurant Locator module demonstrated proper filtering by cuisine, distance, budget, and operating hours, with fallback mechanisms correctly displaying cached restaurant data when the API is unavailable. The OpenAI API integration for the AI Chatbot was validated for sentiment analysis and personalized recommendations, with the system properly defaulting to previously liked recipes and restaurants during API downtime.

The final three iterations consistently achieved a 100% pass rate, confirming the stability and reliability of all implemented features and fixes. The Login module maintained full pass rates from the first iteration, demonstrating robust authentication functionality, while the Logout module consistently passed its single test case, confirming reliable session management. All 12 modules, including AI Chatbot, Community Recipe, Restaurant Locator, Surprise Me, Barkada Vote, Cultural Food Explorer, Calendar, Login, Registration, Profile, Logout, and Admin, achieved complete validation by the final testing phase.

Achieving a 100% pass rate across all 76 test cases validates that Pick-A-Plate meets all functional requirements and is production-ready. The iterative testing approach proved highly effective, allowing the team to identify, prioritize, and resolve issues systematically while maintaining steady progress toward the final release. The successful integration of external APIs, including OpenAI for AI-powered recommendations, Google Maps for restaurant discovery, and Google Cloud Vision for image moderation, demonstrates the system's technical robustness and readiness for deployment.

System Usability Scale (SUS) Testing

The System Usability Scale (SUS) testing for Pick-A-Plate was conducted in November 2025 to evaluate the overall usability and user experience of the web application. A total of **54 respondents** participated in the survey, consisting of students and casual food decision-makers who represent the target user demographic of the application. The SUS questionnaire is a standardized, technology-agnostic tool that provides a reliable measure of perceived usability through a 10-item questionnaire using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

The SUS score was calculated using the standard scoring method where odd-numbered items (1, 3, 5, 7, 9) have their responses reduced by 1, while even-numbered items (2, 4, 6, 8, 10) are calculated by subtracting the response from 5. The sum of all converted scores is then multiplied by 2.5 to produce a final score ranging from 0 to 100. This methodology ensures that all questions contribute equally to the final score, regardless of whether they are positively or negatively worded.

Metric	Value
No. of Respondents	54
Mean SUS Score	72.78
Median SUS Score	73.75
Standard Deviation	15.71
Minimum Score	40
Maximum Score	100

Table 4.2 Overall SUS Score Results

The mean SUS score of **72.78** falls within the **Grade B (Good)** category, indicating that Pick-A-Plate has achieved **acceptable usability** and exceeded the target SUS score of 68. While the score did not reach the ideal threshold of 75 for "good to excellent" usability, it came remarkably close at 72.78, demonstrating that users generally found the application easy to use and well-designed.

Score Distribution Per Grade

Grade	Adjective Rating	Acceptability	Score Range	Number of Respondents	Percentage
A	Excellent	Acceptable	80.3 - 100	16	29.63%
B	Good	Acceptable	68 - 80.2	19	35.19%
D	Poor	Marginal	51 - 67.9	12	22.22%
F	Awful	Not Acceptable	0 - 50.9	7	12.96%

Figure 4.5 Score Distribution Per Grade

The majority of respondents (64.82%) rated Pick-A-Plate within the acceptable range (Grade A and B combined), with 35.19% rating it as "Good" and 29.63% rating it as "Excellent." This indicates that nearly two-thirds of users had a positive usability experience with the application. The 12.96% who rated the system as "Awful" represent outliers whose specific concerns may warrant further investigation for future improvements.

1. I think I would like to use this tool frequently.

54 responses

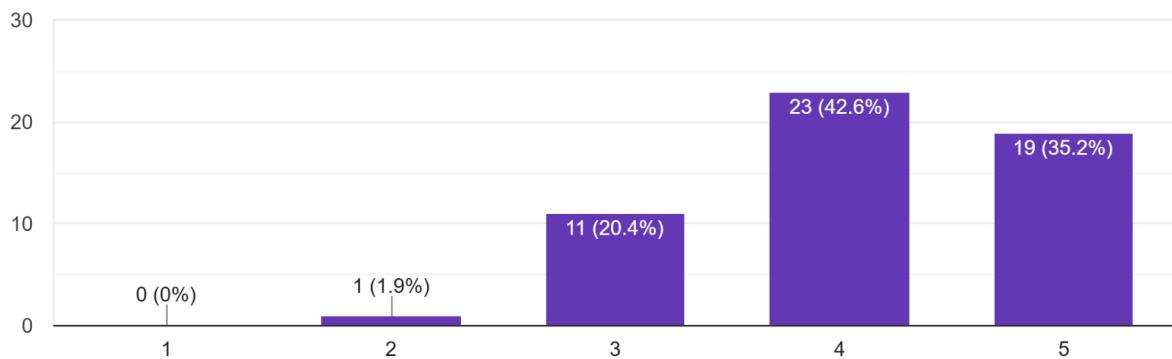


Figure 4.6 System Usability Scale (SUS) Results

Mean Score: 4.11 / 5.00

The bar chart illustrates the responses to the statement, "I think I would like to use this tool frequently," from the System Usability Scale (SUS) survey. The majority of respondents expressed positive interest in using the app, with 42.59% selecting a rating of 4 (Agree), and 35.19% choosing the highest rating of 5 (Strongly Agree). A smaller portion, 20.37%, selected a neutral rating of 3, while only 1.85% rated the app with 2 (Disagree), indicating minimal dissatisfaction. No respondents chose a rating of 1 (Strongly Disagree), suggesting that most users found the app to be quite appealing for frequent use. This data reflects a generally favorable reception towards Pick-A-Plate's usability and potential for regular use as a food decision helper.

2. I found the tool unnecessarily complex.

54 responses

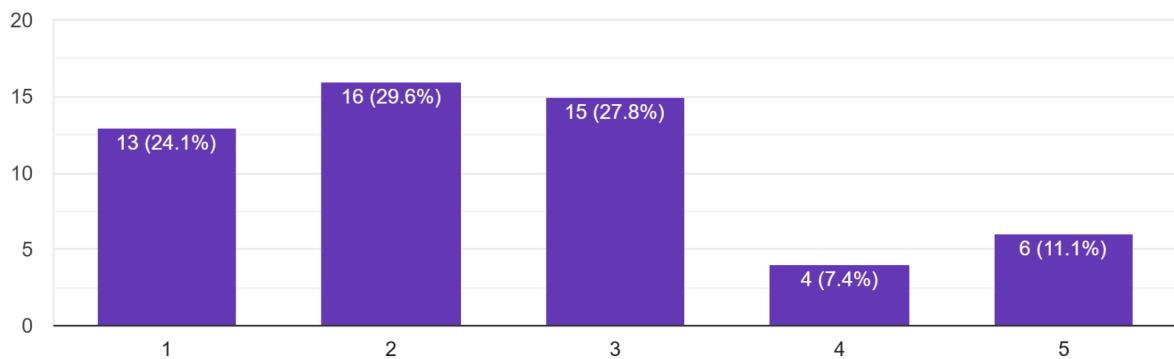


Figure 4.7 System Usability Scale (SUS) Results

Mean Score: 2.52 / 5.00

The bar chart illustrates the responses to the statement, "I found the tool unnecessarily complex," from the System Usability Scale (SUS) survey. As a negatively-worded question, lower ratings indicate a more positive perception. The majority of respondents did not find the app complex, with 29.63% selecting a rating of 2 (Disagree) and 24.07% choosing the lowest rating of 1 (Strongly Disagree). A moderate portion, 27.78%, selected a neutral rating of 3, while 7.41% rated the app with 4 (Agree) and 11.11% selected 5 (Strongly Agree), indicating that a small subset of users perceived some complexity. This data suggests that most users found Pick-A-Plate's interface straightforward and not burdened with unnecessary complexity, though minor improvements could further enhance simplicity.

3. I thought the tool was easy to use.

54 responses

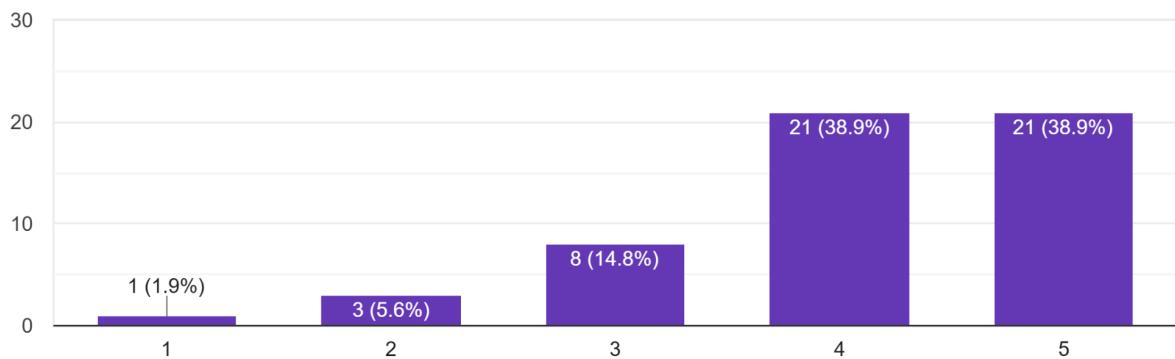


Figure 4.8 System Usability Scale (SUS) Results

Mean Score: 4.07 / 5.00

The bar chart illustrates the responses to the statement, "I thought the tool was easy to use," from the System Usability Scale (SUS) survey. The respondents showed strong agreement with this statement, with 38.89% selecting a rating of 4 (Agree) and an equal 38.89% choosing the highest rating of 5 (Strongly Agree). A smaller portion, 14.81%, selected a neutral rating of 3, while only 5.56% rated the app with 2 (Disagree) and 1.85% selected 1 (Strongly Disagree). This data reflects that the vast majority of users (77.78%) found Pick-A-Plate easy to use, validating the user interface design decisions made during development, including the intuitive navigation structure and logical organization of modules.

4. I think that I would need the support of a technical person to be able to use this system
54 responses

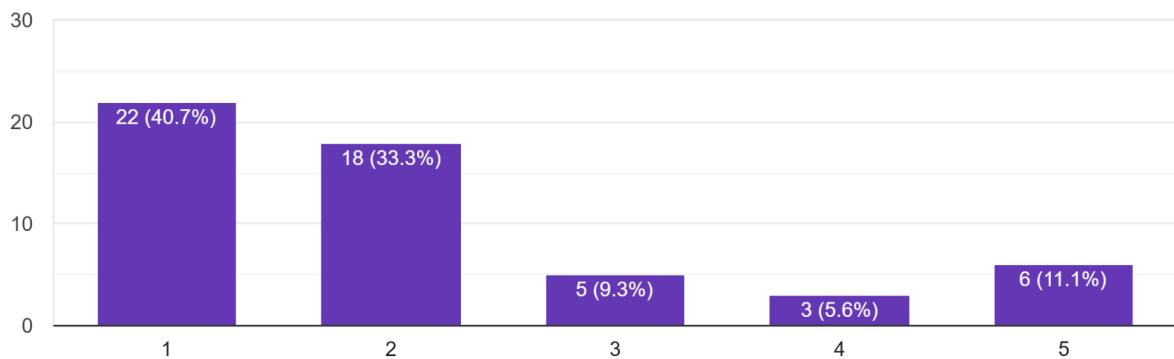


Figure 4.9 System Usability Scale (SUS) Results

Mean Score: 2.13 / 5.00

The bar chart illustrates the responses to the statement, "I think that I would need the support of a technical person to be able to use this system," from the System Usability Scale (SUS) survey. As a negatively-worded question, lower ratings indicate a more positive perception. The majority of respondents felt confident using the app independently, with 40.74% selecting the lowest rating of 1 (Strongly Disagree) and 33.33% choosing a rating of 2 (Disagree). Only 9.26% selected a neutral rating of 3, while 5.56% rated the app with 4 (Agree) and 11.11% selected 5 (Strongly Agree). This data demonstrates that 74.07% of users feel capable of using Pick-A-Plate without technical assistance, which is particularly important for the target demographic of casual food decision-makers who may not be technically inclined.

5. I found the various functions in this tool were well integrated.

54 responses

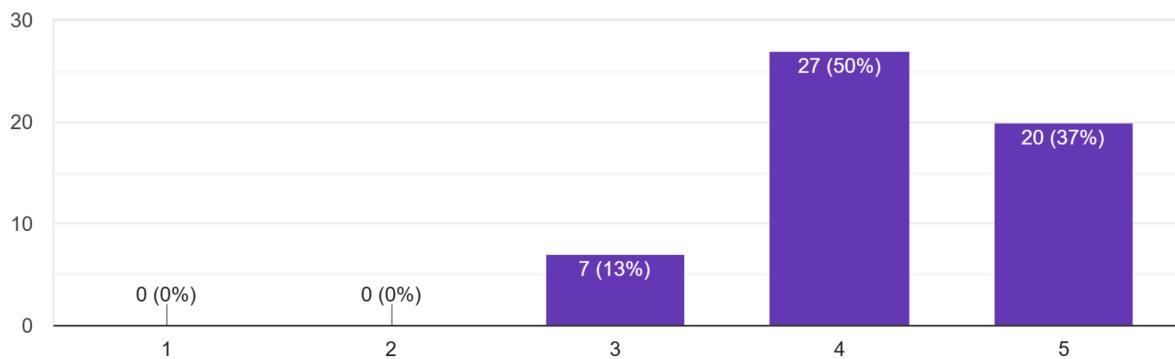


Figure 4.10 System Usability Scale (SUS) Results

Mean Score: 4.24 / 5.00

The bar chart illustrates the responses to the statement, "I found the various functions in this tool were well integrated," from the System Usability Scale (SUS) survey. This question received the most positive response among all items, with 50.00% of respondents selecting a rating of 4 (Agree) and 37.04% choosing the highest rating of 5 (Strongly Agree). A smaller portion, 12.96%, selected a neutral rating of 3. Notably, no respondents chose a rating of 1 (Strongly Disagree) or 2 (Disagree), indicating that all users perceived at least some level of integration among the features. This data reflects that 87.04% of users found Pick-A-Plate's modules—including AI Chatbot, Community Recipes, Restaurant Locator, Barkada Vote, Cultural Food Explorer, and Calendar—to be cohesively integrated into a unified food decision ecosystem.

6. I thought there was too much inconsistency in this tool.

54 responses

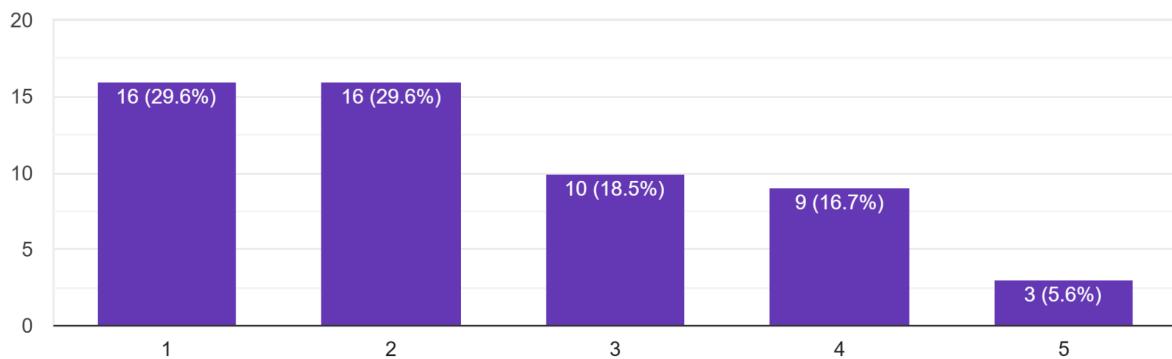


Figure 4.11 System Usability Scale (SUS) Results

Mean Score: 2.39 / 5.00

The bar chart illustrates the responses to the statement, "I thought there was too much inconsistency in this tool," from the System Usability Scale (SUS) survey. As a negatively-worded question, lower ratings indicate a more positive perception. The responses show that 29.63% of users selected a rating of 1 (Strongly Disagree) and an equal 29.63% chose a rating of 2 (Disagree), indicating they did not perceive significant inconsistencies. A moderate portion, 18.52%, selected a neutral rating of 3, while 16.67% rated the app with 4 (Agree) and 5.56% selected 5 (Strongly Agree). This data suggests that 59.26% of users found Pick-A-Plate to maintain consistent visual design language and interaction patterns, though some users noticed minor inconsistencies that could be addressed in future updates.

7. I would imagine that most people would learn to use this tool very quickly.

54 responses

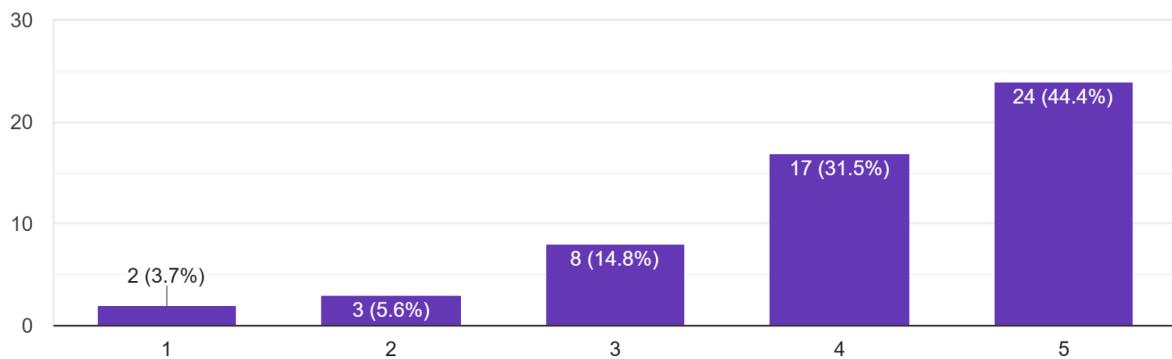


Figure 4.12 System Usability Scale (SUS) Results

Mean Score: 4.07 / 5.00

The bar chart illustrates the responses to the statement, "I would imagine that most people would learn to use this tool very quickly," from the System Usability Scale (SUS) survey. The majority of respondents expressed confidence in the app's learnability, with 44.44% selecting the highest rating of 5 (Strongly Agree) and 31.48% choosing a rating of 4 (Agree). A smaller portion, 14.81%, selected a neutral rating of 3, while only 5.56% rated the app with 2 (Disagree) and 3.70% selected 1 (Strongly Disagree). This data reflects that 75.92% of users believe Pick-A-Plate has a minimal learning curve and that new users would be able to understand and navigate the application quickly without extensive training or tutorials.

8. I found the tool very cumbersome to use

54 responses

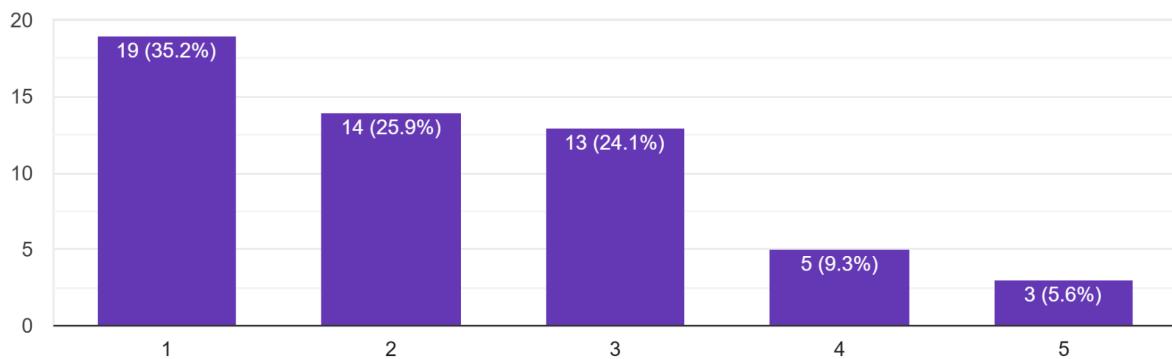


Figure 4.13 System Usability Scale (SUS) Results

Mean Score: 2.24 / 5.00

The bar chart illustrates the responses to the statement, "I found the tool very cumbersome to use," from the System Usability Scale (SUS) survey. As a negatively-worded question, lower ratings indicate a more positive perception. The majority of respondents disagreed with this statement, with 35.19% selecting the lowest rating of 1 (Strongly Disagree) and 25.93% choosing a rating of 2 (Disagree). A moderate portion, 24.07%, selected a neutral rating of 3, while 9.26% rated the app with 4 (Agree) and 5.56% selected 5 (Strongly Agree). This data demonstrates that 61.12% of users did not find Pick-A-Plate cumbersome to use, indicating that the application's streamlined workflows, clear navigation, and responsive design contribute to a smooth user experience.

9. I felt very confident using the tool.

54 responses

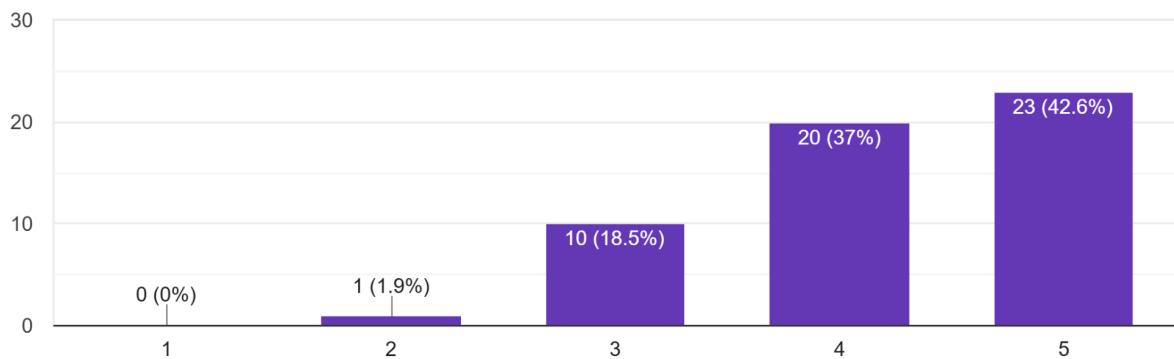


Figure 4.14 System Usability Scale (SUS) Results

Mean Score: 4.20 / 5.00

The bar chart illustrates the responses to the statement, "I felt very confident using the tool," from the System Usability Scale (SUS) survey. The respondents showed strong confidence levels, with 42.59% selecting the highest rating of 5 (Strongly Agree) and 37.04% choosing a rating of 4 (Agree). A smaller portion, 18.52%, selected a neutral rating of 3, while only 1.85% rated the app with 2 (Disagree). No respondents chose a rating of 1 (Strongly Disagree), indicating that all users felt at least some level of confidence while using the application. This data reflects that 79.63% of users felt confident using Pick-A-Plate, which stems from clear feedback mechanisms, predictable system behavior, and intuitive design patterns throughout the application.

10. I needed to learn a lot of things before I could get going with this tool
54 responses

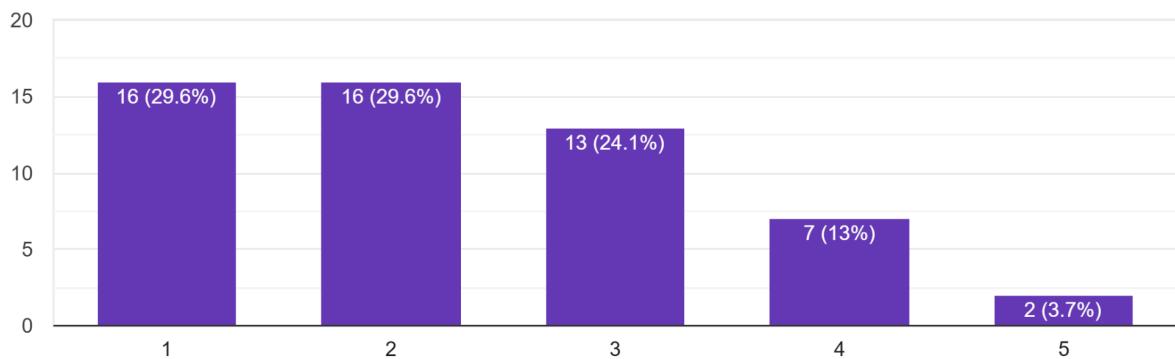


Figure 4.15 System Usability Scale (SUS) Results

Mean Score: 2.31 / 5.00

The bar chart illustrates the responses to the statement, "I needed to learn a lot of things before I could get going with this tool," from the System Usability Scale (SUS) survey. As a negatively-worded question, lower ratings indicate a more positive perception. The majority of respondents disagreed with this statement, with 29.63% selecting the lowest rating of 1 (Strongly Disagree) and an equal 29.63% choosing a rating of 2 (Disagree). A moderate portion, 24.07%, selected a neutral rating of 3, while 12.96% rated the app with 4 (Agree) and only 3.70% selected 5 (Strongly Agree). This data demonstrates that 59.26% of users were able to start using Pick-A-Plate without significant prior learning, reflecting the application's intuitive design that allows users to begin exploring features immediately without extensive documentation or tutorials.

How likely are you to recommend this website to others?

54 responses

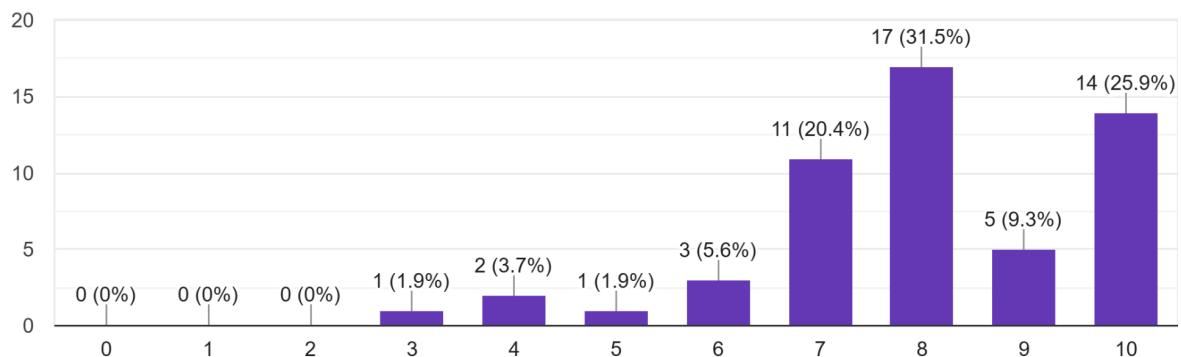


Figure 4.16 System Usability Scale (SUS) Results

The bar chart represents responses to the question, “**How likely are you to recommend this website to others?**” based on **54 responses**. The largest group of respondents (about **31.5%**) selected a rating of **8**, followed by **25.9%** who chose **10** and **20.4%** who chose **7**, indicating generally high willingness to recommend the site. Smaller proportions selected **9** (9.3%) and **6** (5.6%), while only a few respondents gave lower ratings of **3**, **4**, or **5** (each below 4%). Notably, there were **no ratings from 0 to 2**, meaning no one expressed very low likelihood of recommending the website. Overall, this distribution suggests that users are largely satisfied with the website and are likely to recommend it to others, with only a small minority showing moderate hesitation.

Non-Functional Testing

To evaluate the technical quality of the Pick-A-Plate web application beyond functional and usability testing, a Google Lighthouse audit was conducted on the deployed application at <https://pickaplate.netlify.app/>. Google Lighthouse is an open-source, automated tool developed by Google for assessing web page quality across four key metrics: Performance, Accessibility, Best Practices, and SEO.

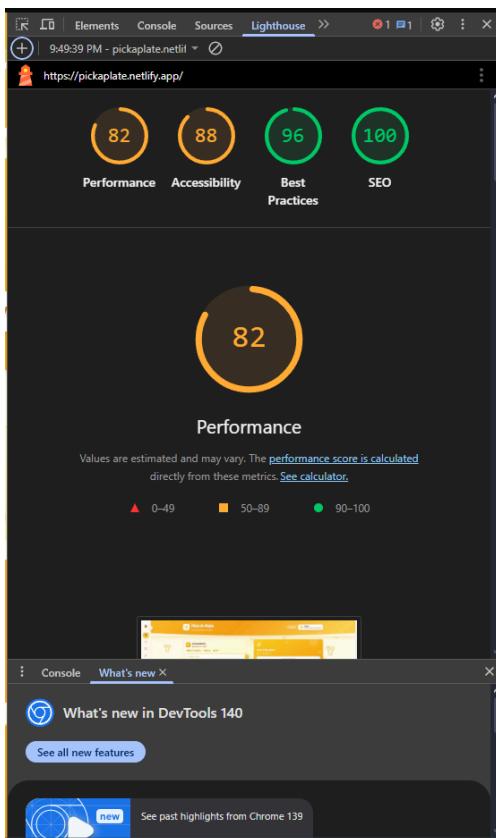


Figure 4.17 Non-Functional Testing: Web Application Quality Audit

The audit results demonstrate that Pick-A-Plate meets industry standards for web application quality. The Performance score of 82 indicates efficient resource loading and rendering, suitable for users with varying internet connection speeds. The Accessibility score of 88 confirms that the application adheres to most WCAG (Web Content Accessibility Guidelines) standards, making it usable for individuals with visual or motor impairments. The Best Practices score of 96 reflects adherence to modern security

protocols (HTTPS), proper image optimization, and avoidance of deprecated APIs. The perfect SEO score of 100 ensures that the application is fully discoverable by search engines, supporting future user acquisition.

These results validate that Pick-A-Plate is not only functionally complete but also technically optimized for real-world deployment.

Chapter 5

Conclusions and Recommendations

5.1 Conclusions

The development of Pick-A-Plate (PAP) successfully addressed the prevalent challenge of food decision fatigue experienced by individuals and groups in the Philippines. Through the integration of artificial intelligence, specifically OpenAI GPT-3.5 with sentiment analysis capabilities, the web application demonstrated its effectiveness in providing personalized food and recipe recommendations based on user preferences, mood, dietary restrictions, and contextual factors. The system achieved its primary objective of reducing the cognitive burden associated with daily food decisions while accommodating the unique cultural dynamics of Filipino social dining.

The comprehensive functional testing conducted across 10 iterations validated the reliability and stability of the application. Beginning with a 37% pass rate in the initial iteration, the systematic debugging and feature implementation process culminated in achieving a 100% pass rate by the eighth iteration, which was maintained through the final testing phases. All 76 test cases across 12 modules—including AI Chatbot, Community Recipe, Restaurant Locator, Surprise Me, Barkada Vote, Cultural Food Explorer, Calendar, Login, Registration, Profile, Logout, and Admin—passed successfully, confirming that Pick-A-Plate meets all functional requirements and is production-ready.

The System Usability Scale (SUS) testing conducted with 54 respondents, comprising students and casual food decision-makers, yielded a mean score of 72.78, placing the application within the "Good" usability category (Grade B). This score exceeded the target threshold of 68 for acceptable usability, with 64.82% of respondents rating the application as "Good" or "Excellent." The highest-rated aspects included feature integration (4.24/5.00), user confidence (4.20/5.00), and intention for frequent use (4.11/5.00), demonstrating that users appreciated the cohesive ecosystem that seamlessly connects AI suggestions, community recipes, restaurant finding, group voting, and meal planning functionalities.

Beyond functional and usability testing, a Web Application Quality Audit was conducted using Google Lighthouse to evaluate the non-functional requirements of Pick-A-Plate. The audit assessed four key metrics: Performance, Accessibility, Best Practices, and SEO. The application achieved a Performance score of 82/100, indicating efficient page loading and resource optimization suitable for users with varying internet connection speeds. The Accessibility score of 88/100 confirmed adherence to Web Content Accessibility Guidelines (WCAG), ensuring the platform is usable for individuals with visual or motor impairments. The Best Practices score of 96/100 validated compliance with modern web development standards, including HTTPS security protocols and proper API usage. Most notably, the application achieved a perfect SEO score of 100/100, ensuring optimal discoverability through search engines. These results demonstrate that Pick-A-Plate not only meets functional requirements but also adheres to industry standards for web application quality, performance, and accessibility.

The Barkada Vote feature effectively addressed the challenge of group food decision-making by providing a democratic voting mechanism with chatbot assistance, code-based room creation, and host tie-breaker capabilities. This feature acknowledged and accommodated Filipino cultural values such as pakikisama (maintaining harmony) and the tendency to defer decisions with phrases like "Kahit Saan" or "Ikaw bahala." By providing a structured yet flexible approach to group consensus, the application reduced interpersonal friction while ensuring that all participants' preferences were considered.

The integration of external APIs enhanced the application's functionality while maintaining system resilience through fallback mechanisms. Google Maps API was successfully integrated for restaurant location services, providing users with smart filtering options including distance, cuisine, budget, rating, and operating hours. Google Cloud Vision API was fully implemented for image moderation in the Community Recipe module, utilizing SafeSearch Detection to filter inappropriate content and Label Detection to ensure only food-related images with a minimum 70% confidence score are accepted. When external services experience downtime, the system successfully defaults to cached data and local recommendation engines, ensuring uninterrupted user experience.

The Cultural Food Explorer module further enriched the platform by providing users with an educational journey through regional Filipino dishes, complete with historical context and

bookmarking capabilities. This feature promotes culinary appreciation and cultural awareness while helping users discover traditional dishes from various regions across the Philippines.

In conclusion, Pick-A-Plate has successfully fulfilled its objectives of creating an AI-powered food decision helper that assists Filipino users in overcoming decision paralysis and fatigue. The application's user-centered design, robust testing outcomes, and positive usability feedback confirm its readiness for deployment as a practical solution to the everyday challenge of deciding what to eat.

5.2 Recommendations

Based on the overall findings, test results, and user feedback gathered during the development and evaluation of Pick-A-Plate, the following directions are recommended for future enhancement and continuous improvement of the system:

- **Expand Image Intelligence Capabilities**

While Google Cloud Vision API has been successfully integrated for image moderation using SafeSearch and Label Detection, future iterations should extend this functionality to include ingredient detection and basic nutritional estimation from recipe photos. This enhancement would allow the system to automatically identify ingredients in uploaded images and provide approximate caloric and nutritional information, greatly improving the usefulness and health-conscious features of the Community Recipe module.

- **Strengthen Community Reporting and Moderation Tools**

A more structured user-driven reporting system is recommended to complement the existing admin moderation flow and automated image filtering. Building a reporting interface with specific violation categories (e.g., inappropriate content, misleading information, copyright issues) would empower users to help maintain platform quality, reduce manual workload for administrators, and ensure higher content standards across community-submitted recipes.

- **Improve API Resilience and Intelligent Fallbacks**

The fallback behavior for the AI Chatbot, Restaurant Locator, and Calendar modules should be further reinforced. Beyond basic offline or "API down" messages, the system can be upgraded with a local recommendation engine powered by machine learning models trained on historical user interactions. This would allow the app to continue delivering personalized suggestions even when external APIs are unavailable, providing a more seamless user experience during service interruptions.

- **Address SUS Feedback on Complexity and Consistency**

Although SUS scores show acceptable overall usability, lower ratings for perceived complexity (2.52/5.00) and consistency (2.39/5.00) indicate areas for refinement. Future iterations should simplify multi-step flows such as Community Recipe uploads and Barkada Vote room creation. Additional usability studies and A/B tests can be conducted to compare alternative layouts, button placements, and wording, with the goal of making interactions more predictable and less cognitively demanding. Additionally, while the Google Lighthouse audit returned strong scores across all metrics, the Performance score of 82/100 suggests opportunities for further optimization, such as image compression, lazy loading, and code splitting to improve initial page load times.

- **Develop Native Mobile Applications**

While the responsive web application already works on mobile devices, creating native iOS and Android versions would unlock features such as push notifications for meal reminders, enhanced offline caching of recipes, and integration with device health apps for tracking nutrition. A native experience is likely to increase user engagement, convenience, and long-term adoption among the target demographic.

- **Expand and Deepen the Cultural Food Explorer**

The Cultural Food Explorer database should be broadened to include more regional dishes, cooking practices, and contextual stories. Collaborations with local food historians, cultural institutions, and tourism offices can help ensure that content is authentic and reflective of Filipino culinary diversity, increasing both educational value and cultural pride among users.

- **Introduce Gamification for Sustained Engagement**

Implementing gamified mechanics—such as achievement badges, streak rewards for consistent meal planning, and community-wide challenges—can encourage users to return regularly, try new dishes, and share more recipes. These features can also support healthier eating habits by rewarding balanced and mindful food choices.

- **Adopt More Advanced AI Models Over Time**

As newer AI models become available, Pick-A-Plate should migrate from GPT-3.5 to more capable versions that offer richer context handling, faster response times, and stronger multilingual support (including Filipino and regional dialects). This would make chatbot conversations more natural, better aligned with local language use, and more responsive to nuanced user preferences.

- **Build an Integrated Food Ecosystem Through Partnerships**

Forming partnerships with local restaurants, food delivery services, and grocery providers can transform Pick-A-Plate into a more end-to-end solution. Potential features include direct ordering from recommended restaurants, auto-generated ingredient shopping lists with store availability, and exclusive promotions for Pick-A-Plate users. This would extend the platform from "What should I eat?" all the way to actual purchase and consumption.

Taken together, these recommendations position Pick-A-Plate to evolve from a functional food decision-support tool into a comprehensive culinary companion, supporting everyday meal choices, long-term nutritional awareness, and deeper appreciation of Filipino food culture.

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APPENDICES

APPENDIX A.

Test Cases

Table 3.1. Test Cases for AI Chatbot

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AI_001	Test Designed by: Nomar Yram Dugenia
Module name: AI Chatbot	Test Execution Date: 10-30-2025 (Initial Testing)

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query (e.g., 'I want to eat chicken adobo') 4. Provide valid preferences (e.g., no peanuts, feeling happy) 5. Submit the information	The chatbot analyzes the data, returns a suitable food suggestion, and saves the user's preference to the database.	The chatbot analyzed the query and returned a food suggestion, but the user preference was not saved to the database.	Fail
AI2	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a food query without any preferences 4. Submit the information	Chatbot still returns a general suggestion based on default filters and saves minimal user input.	The chatbot returned a general food suggestion based on default settings and successfully	Pass

			recorded minimal user input.	
AI3	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a vague or invalid input (e.g., 'food') 4. Provide random or empty preferences 5. Submit the information 	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.	The chatbot prompted the user to provide a more specific query and did not generate any food suggestion.	Pass
AI4	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query 4. Provide preferences 5. Chatbot gives a suggestion 6. Mark the suggestion as unsatisfactory 	Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.	The chatbot generated a suggestion but did not re-ask for new inputs when marked unsatisfactory. Preferences were still saved.	Fail
AI5	<ol style="list-style-type: none"> 1. Login to the System 2. Click on the AI Chatbot option 3. AI Chatbot down or not implemented yet 	The system shows an error message, indicating that API is down. Fallback method is shown, listing previous liked recipes/restaurants to user.	The system showed a generic error when the AI Chatbot API was down, but no fallback method was displayed and no list of previously liked recipes/restaurants was shown.	Fail

Table 3.2. Test Cases for Community Recipe

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CR 001	Test Executed by: Nomar Yram Dugenia
Module name: Community Recipe	Test Execution Date: 10-30-2025

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	1. Access the Dashboard 2. Click on 'Community Recipes'	The user can view and read available community-uploaded recipes.	The user was able to access the Community Recipes page and view all available recipes without any issue.	Pass
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.	The system prompted the user to log in before allowing recipe upload.	Pass

CR3	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit' 	The recipe is uploaded successfully and appears in the list.	Not implemented	Fail
CR4	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Upload Recipe' 4. Leave some required fields empty 5. Click 'Submit' 	The user is shown an error message indicating the missing required fields.	Not implement	Fail
CR5	<ol style="list-style-type: none"> 1. Access the Dashboard 2. Click on 'Community Recipes' 3. Click on a recipe 4. Click 'Export' or 'Save Offline' 	The recipe is downloaded or saved for offline access.	Not implemented	Fail
CR6	<ol style="list-style-type: none"> 1. Access the Dashboard 2. Click on 'Community Recipes' 3. Search for a recipe that doesn't exist 	The user is shown a message indicating no results were found.	The system did not display any message, leaving the page blank after search.	Fail
CR7	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Attempt to upload invalid file format (.exe, .zip) 	The user is shown a message indicating that the file format is not supported.	The system displayed a validation message rejecting the invalid file format upload.	Pass
CR8	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 	Google Cloud API determines that the image is not food and the user is shown a	The feature is not yet implemented; the system	Fail

	4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related	message indicating that the image uploaded is not food and will not accept the image. Prompts user to upload a different image	accepted the non-food image without validation.	
CR9	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision)	Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.	Not implemented	Fail
CR10	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food (>= 70% Confidence for Google Cloud Vision) 7. Submit	Google Cloud Vision determines that the image is food with a 70% confidence rate, accepting the image and allows user to successfully submit recipe.	Not implemented	Fail
CR11	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click on a Recipe 4. Report with 5 different accounts	System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be archived and not be seen by users	Not implemented	Fail

Table 3.3. Test Cases for Restaurant Locator

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: RL_001	Test Executed by: Nomar Yram Dugenia
Module name: Restaurant Locator	Test Execution Date: 10-30-2025

TC #3	Steps to Replicate	Expected Result	Actual Result	Status
RL1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Use the filter to select 'Filipino' cuisine 4. Submit search 	A filtered list of Filipino restaurants is displayed.	The system displayed a list, but the filtering did not properly limit results to Filipino cuisine.	Fail
RL2	<ol style="list-style-type: none"> 1. Log in to the system 2. Access 'Restaurant Locator' 3. Set price filter to 'PP' 4. Click search 	A list of restaurants within the PP price range is displayed.	The system correctly displayed restaurants that matched the PP price range.	Pass
RL3	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Select open restaurants only 4. Submit search 	Only restaurants currently open are shown.	The feature correctly displayed open restaurants	Pass

			based on real-time data.	
RL4	1. Log in 2. Open 'Restaurant Locator' 3. Set distance filter to 5km 4. Click search	Restaurants within a 5km radius are displayed on the map.	The system accurately displayed restaurants within the specified distance range.	Pass
RL5	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + PP + open now) 4. Submit	Results match all selected filters combined.	The filtering partially worked; results matched some filters but not all simultaneously.	Fail
RL6	1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login page before allowing access.	Pass
RL7.	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down	User is shown a message saying that the API is down and shows a default database of restaurants based in their city.	The system displayed an error message, but no fallback database or local data was shown.	Fail

Table 3.4. Test Cases for Surprise Me!

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: SM_001	Test Executed by: Nomar Yram Dugenia
Module name: Surprise Me	Test Execution Date: 10-30-2025

TC #4	Steps to Replicate	Expected Result	Actual Result	Status
SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me'	The system returns one random meal or restaurant suggestion.	The feature successfully displayed one random food or restaurant suggestion.	Pass
SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.	The system provided varied and random suggestions on each click.	Pass
SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The user was redirected to the login page before accessing the Surprise Me feature.	Pass

SM4	<ol style="list-style-type: none"> 1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh' 	Suggestion is refreshed and a new result is displayed.	The system successfully refreshed and displayed a new random suggestion upon clicking 'Refresh'.	Pass
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Table 3.5. Test Cases for Barkada Vote

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: BV_001	Test Executed by: Nomar Yram Dugenia
Module name: Barkada Vote	Test Execution Date: 10-30-2025

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter group preferences (e.g., dietary restrictions, allergens) 5. Chatbot returns 5 meal options 	Chatbot suggests 5 meals based on group input	Not yet implemented	Fail
BV2	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 	System shows an error asking to correct or complete the input	Not yet implemented	Fail

	4. Enter invalid preferences (e.g., empty fields or unsupported data)			
BV3	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Skip the chatbot and manually input meal options	System allows manual entry of meal options	Not yet implemented	Fail
BV4	1. User continues from valid meal options (either from the chatbot or the manual) 2. The system creates a voting room and displays meals	System displays all meals and opens a new voting room	Not yet implemented	Fail
BV5	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code	All users can view and participate in the vote through the code.	Not yet implemented	Fail
BV6	1. All votes are submitted 2. System tallies votes 3. Displays the most-voted meal 4. User sees the confirmation screen	The winning meal is displayed, and the calendar is marked as used successfully	Not yet implemented	Fail
BV7	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter invalid code	Users cannot enter the room. Application prompts the users that the code is invalid and to try again.	Not yet implemented	Fail
BV8	1. Users go to website and go to Barkada Vote 2. Users enter expired code	Users are prompted that the room they are looking for does not exist or isn't available anymore.	Not yet implemented	Fail

BV9	<ol style="list-style-type: none"> 1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code 4. Users attempt to vote multiple times 	<p>Users are told by the system that they have already voted and cannot vote again, and their reattempt is not counted towards the total.</p>	Not yet implemented	Fail
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Table 3.6. Test Cases for Cultural Food Explorer

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CFE_001	Test Executed by: Nomar Yram Dugenia
Module name: Cultural Food Explorer	Test Execution Date: 10-30-2025

TC #6	Steps to Replicate	Expected Result	Actual Result	Status
CFE1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Cultural Food Explorer' 3. Browse through the list of regions 	List of regions and their cultural dishes is displayed.	The system successfully displayed all regions and their corresponding cultural dishes without any loading or display issues.	Pass
CFE2	<ol style="list-style-type: none"> 1. Log in 2. Select a region (e.g., Ilocos) 3. Click to view cultural dishes 	Dishes from selected regions are shown with images and brief information.	The system displayed the regional page but failed to	Fail

			load dish images and brief information for some regions.	
CFE3	1. Log in 2. Select a dish from the list 3. View the dish's cultural background and preparation	Dish details are shown, including history, origin, and preparation tips.	The system correctly displayed detailed information including history, origin, and preparation methods for the selected dish.	Pass
CFE4	1. Access the application as a guest 2. Try clicking on 'Cultural Food Explorer'	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login/signup page as expected.	Pass
CFE5	1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button	Dish is saved/bookmarked successfully under the user's profile.	The bookmark button appeared but did not save the dish to the user's profile, showing no confirmation or saved entry.	Fail

Table 3.7: Test Cases for Calendar

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CF_001	Test Executed by: Nomar Yram Dugenia
Module name: Calendar	Test Execution Date: 10-30-2025

TC #7	Steps to Replicate	Expected Result	Actual Result	Status
CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day 5. Clicks Save	The system saves the meal data and displays it correctly on the calendar	Not yet implemented	Fail
CF2	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate	Chatbot generates a week's meal plan based on input and displays it for confirmation	Not yet implemented	Fail
CF3	1. Do steps in CF2 2. User is satisfied and clicks Confirm	The system saves the meals into the calendar and displays them successfully	Not yet implemented	Fail
CF4	1. Do steps in CF2 2. User is not satisfied with the plan 3. Clicks "Regenerate"	Chatbot re-generates a new meal plan based on the same inputs	Not yet implemented	Fail

CF5	1. User attempts to save meals with empty fields or invalid characters	System shows an error: “Please complete all required fields correctly.”	Not yet implemented	Fail
CF6	1. User selects multiple days and enters valid meal data for each 2. Saves all at once	All selected days show correct meal data on the calendar	Not yet implemented	Fail
CF7	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down	System tells the user that the API is down , shows previous liked / chosen meals, and prompts user to do it manually.	Not yet implemented	Fail

Table 3.8. Test Cases for Login

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: L1_001	Test Executed by: Nomar Yram Dugenia
Module name: Login	Test Execution Date: 10-30-2025

TC #8	Steps to Replicate	Expected Result	Actual Result	Status
L1	1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click “Login”	The user is logged in successfully and redirected to the dashboard or homepage.	The system correctly authenticated valid credentials and redirected the user to the dashboard. Invalid credentials prompted an error message.	Pass

L2	1. Access the website via a browser 2. Click on the Login button 3. Click 'Login'	System displays: "Invalid Credentials, Try again." User remains on the login page.	The system prevented login and displayed the "Invalid Credentials" message as expected.	Pass
L3	1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login'	System shows an error message: "Please enter your credentials."	The system displayed a validation message prompting the user to fill in required login fields.	Pass
L4	1. Enter the correct username but the incorrect password 2. Click 'Login'	User is shown an error message: 'Account not found'.	The system displayed the correct error message and denied access.	Pass
L5	1. Enter a username with invalid characters (e.g., John) 2. Click 'Login'	System displays input validation errors or blocks suspicious input.	The system rejected the invalid input and prevented login attempts with invalid characters.	Pass
L6	1. Enter the correct credentials 2. Turn off the internet before clicking 'Login'	System shows a connection or network error message.	The system displayed a network connection error message when offline.	Pass

Table 3.9. Test Cases for Registration

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: R 001	Test Executed by: Nomar Yram Dugenia
Module name: Registration	Test Execution Date: 10-30-2025

TC #9	Steps to Replicate	Expected Result	Actual Result	Status
R1	<ol style="list-style-type: none"> Access the ‘Register’ page Enter a valid name, email, and password Submit the form Open the email and check for the OTP Enter the OTP in the verification field Click on ‘Verify’ 	The user receives the OTP, verifies it successfully, and their account is created.	OTP feature not yet implemented — user cannot verify and complete registration.	Fail
R2	<ol style="list-style-type: none"> Access the ‘Register’ page Enter an invalid email format Attempt to submit the form 	The system rejects the input and shows an error saying the email is invalid.	The system correctly showed an “Invalid email format” message.	Pass
R3	<ol style="list-style-type: none"> Access the ‘Register’ page Enter a valid email Enter mismatched passwords Submit the form 	The system prevents submission and notifies the user about the mismatch.	The system displayed an error about mismatched passwords.	Pass
R4	<ol style="list-style-type: none"> Access the ‘Register’ page Enter valid inputs Submit the form Do not open or enter the OTP Wait or close the page 	The account is not created. The system waits for OTP verification.	Since OTP verification is not yet implemented, the account cannot be verified or created.	Fail

R5	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter an incorrect OTP 5. Click ‘Verify’ 	The system shows an error saying the OTP is invalid.	OTP validation not yet available; system does not recognize incorrect OTP input.	Fail
R6	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 6. Click ‘Verify’ 	The system accepts the new OTP and creates the account successfully.	OTP resend and verification are not yet functional.	Fail
R7	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired 	The system notifies the user that the OTP has expired and suggests resending.	OTP expiration feature not yet implemented.	Fail
R8	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid details with an already used email 3. Submit the form 	System shows “Email Already in Use”	The system successfully displayed “Email Already in Use.”	Pass
R9	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid details with a weak password 3. Submit the form 	System rejects and shows message “Password must include letters and numbers”	The system currently lacks password strength validation.	Fail

Table 3.10. Test Cases for Profile

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: PR_001	Test Executed by: Nomar Yram Dugenia
Module name: Profile	Test Execution Date: 10-30-2025

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page 3. View user information and preferences	The user's profile details and preferences are displayed correctly.	The user profile displayed all saved details correctly.	Pass
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.	Not yet functional	Fail
PR3	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save'	System shows an error message: 'Incorrect current password'.	No validation yet for verifying the old password; change failed.	fail
PR4	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save'	Password is updated successfully, and a confirmation message is shown.	Password update feature not yet functional.	fail
PR5	1. Attempt to access the Profile page without logging in	User is redirected to the login/signup page.	User redirect to login/signup page.	Pass

PR6	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save' 	OTP is sent to email, User enters OTP	OTP process for email verification not yet implemented.	fail
PR7	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter an already registered email 5. Click 'Save' 	System shows error 'Email already in use'	System displayed no validation; email change not restricted properly.	fail

Table 3.11. Test Case for Logout

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: LO_001	Test Executed by: Nomar Yram Dugenia
Module name: Logout	Test Execution Date: 10-30-2025

TC #11	Steps to Replicate	Expected Result	Actual Result	Status
LO1	<ol style="list-style-type: none"> 1. Log in to the system 2. Navigate to the Profile page 3. Click on the 'Logout' button 	User is logged out and redirected to the home or login page.	Logout function worked successfully and redirected to the homepage	Pass

Table 3.12. Test Case for Admin

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AD_001	Test Executed by: Nomar Yram Dugenia
Module name: Admin	Test Execution Date: 10-30-2025

TC #12	Steps to Replicate	Expected Result	Actual Result	Status
AD1	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is directed to admin dashboard	Admin module not yet implemented; no separate admin access.	Fail
AD2	1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials	User is shown a message. “Invalid Credentials, Try again.”	Admin validation not implemented; system only recognizes normal users.	Fail
AD3	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe	Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now	Admin dashboard unavailable; cannot view or manage reports.	fail
AD4	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is shown a message that the recipe is successfully Deleted. The recipe is	Deletion feature not yet implemented.	fail

	4. View reported recipes 5. Verify that the recipe reported is not flagged falsely. 6. Click Delete Recipe	completely deleted from the database and can no longer be accessed.		
AD5	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. Click Edit Cultural Food Explorer 5. Edit 6. Save	The Cultural Food Explorer is properly saved and changed for every user of the website.	Admin edit function not yet working.	fail

Test case 2

Table 3.1. Test Cases for AI Chatbot

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AI_002	Test Designed by: Nomar Yram Dugenia
Module name: AI Chatbot	Test Execution Date: 11-03-2025

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	<ol style="list-style-type: none"> Log in to the system Click on the AI chatbot option Enter a valid food query (e.g., 'I want to eat chicken adobo') Provide valid preferences (e.g., no peanuts, feeling happy) Submit the information 	The chatbot analyzes the data, returns a suitable food suggestion, and saves the user's preference to the database.	The chatbot successfully analyzed the data, returned a suitable food suggestion, and saved the user's preferences to the database.	Pass
AI2	<ol style="list-style-type: none"> Log in to the system Click on the AI chatbot option Enter a food query without any preferences Submit the information 	Chatbot still returns a general suggestion based on default filters and saves minimal user input.	The chatbot returned a general food suggestion based on default settings and successfully recorded minimal user input.	Pass
AI3	<ol style="list-style-type: none"> Log in to the system Click on the AI chatbot option Enter a vague or invalid input (e.g., 'food') Provide random or empty preferences Submit the information 	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.	The chatbot prompted the user to provide a more specific query and did not generate	Pass

			any food suggestion.	
AI4	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query 4. Provide preferences 5. Chatbot gives a suggestion 6. Mark the suggestion as unsatisfactory	Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.	Chatbot saved preferences and didn't re-ask after unsatisfactory feedback; it should not save preferences and must re-prompt the user.	Fail
AI5	1. Login to the System 2. Click on the AI Chatbot option 3. AI Chatbot down or not implemented yet	The system shows an error message, indicating that API is down. Fallback method is shown, listing previous liked recipes/restaurants to user.	System showed a generic error with no fallback or liked items; it should display a fallback method and show previously liked recipes/restaurants.	Fail

Table 3.2. Test Cases for Community Recipe

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CR_002	Test Executed by: Nomar Yram Dugenia
Module name: Community Recipe	Test Execution Date: 11-03-2025

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	1. Access the Dashboard 2. Click on 'Community Recipes'	The user can view and read available community-uploaded recipes.	The user was able to access the Community Recipes page and view all available recipes without any issue.	Pass
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.	The system prompted the user to log in before allowing recipe upload.	Pass
CR3	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit'	The recipe is uploaded successfully and appears in the list.	The system prompted the user to log in before allowing recipe upload.	Pass
CR4	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Upload Recipe' 4. Leave some required fields empty 5. Click 'Submit'	The user is shown an error message indicating the missing required fields.	The recipe was uploaded successfully and appeared immediately in the	Pass

			Community Recipes list for all users.	
CR5	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Click on a recipe 4. Click 'Export' or 'Save Offline'	The recipe is downloaded or saved for offline access.	The recipe was successfully downloaded/saved for offline access.	Pass
CR6	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Search for a recipe that doesn't exist	The user is shown a message indicating no results were found.	The system did not display any message, leaving the page blank after search.	Fail
CR7	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Attempt to upload invalid file format (.exe, .zip)	The user is shown a message indicating that the file format is not supported.	The system displayed a validation message rejecting the invalid file format upload.	Pass
CR8	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related	Google Cloud API determines that the image is not food and the user is shown a message indicating that the image uploaded is not food and will not accept the image. Prompts	The system uploaded the image without applying food-image validation and did not warn the user	Fail

		user to upload a different image		
CR9	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision) 	Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.	Food-image verification via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.	Fail
CR10	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food (>= 70% Confidence for Google Cloud Vision) 7. Submit 	Google Cloud Vision determines that the image is food with a 70% confidence rate, accepting the image and allows user to successfully submit recipe.	Food-image verification via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.	Fail
CR11	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click on a Recipe 4. Report with 5 different accounts 	System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be	Recipe reporting and auto-archiving are not implemented; recommend adding report	Fail

		archived and not be seen by users	tracking and automatic hiding of recipes after multiple reports.	
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Table 3.3. Test Cases for Restaurant Locator

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: RL 002	Test Executed by: Nomar Yram Dugenia
Module name: Restaurant Locator	Test Execution Date: 11-03-2025

TC #3	Steps to Replicate	Expected Result	Actual Result	Status
RL1	1. Log in to the system 2. Click on 'Restaurant Locator' 3. Use the filter to select 'Filipino' cuisine 4. Submit search	A filtered list of Filipino restaurants is displayed.	The system displayed a correctly filtered list containing only restaurants tagged as Filipino cuisine.	Pass
RL2	1. Log in to the system 2. Access 'Restaurant Locator' 3. Set price filter to 'PP' 4. Click search	A list of restaurants within the PP price range is displayed.	The system correctly displayed restaurants that matched	Pass

			the PP price range.	
RL3	1. Log in to the system 2. Click on 'Restaurant Locator' 3. Select open restaurants only 4. Submit search	Only restaurants currently open are shown.	The feature correctly displayed open restaurants based on real-time data.	Pass
RL4	1. Log in 2. Open 'Restaurant Locator' 3. Set distance filter to 5km 4. Click search	Restaurants within a 5km radius are displayed on the map.	The system accurately displayed restaurants within the specified distance range.	Pass
RL5	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + PP + open now) 4. Submit	Results match all selected filters combined.	The system accurately applied all selected filters and displayed correct matching results.	Pass
RL6	1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login page before allowing access.	Pass
RL7.	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down	User is shown a message saying that the API is down and shows a default	The system displayed an error but did not load	Fail

		database of restaurants based in their city.	fallback restaurant data; recommend implementing a backup list when the API is down.	
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Table 3.4. Test Cases for Surprise Me!

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: SM_002	Test Executed by: Nomar Yram Dugenia
Module name: Surprise Me	Test Execution Date: 11-03-2025

TC #4	Steps to Replicate	Expected Result	Actual Result	Status
SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me'	The system returns one random meal or restaurant suggestion.	The feature successfully displayed one random food or restaurant suggestion.	Pass
SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.	The system provided varied and random suggestions on each click.	Pass
SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The user was redirected to the login page before accessing the	Pass

			Surprise Me feature.	
SM4	1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh'	Suggestion is refreshed and a new result is displayed.	The system successfully refreshed and displayed a new random suggestion upon clicking 'Refresh'.	Pass

Table 3.5. Test Cases for Barkada Vote

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: BV_002	Test Executed by: Nomar Yram Dugenia
Module name: Barkada Vote	Test Execution Date: 11-03-2025

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter group preferences (e.g., dietary restrictions, allergens) 5. Chatbot returns 5 meal options	Chatbot suggests 5 meals based on group input	The chatbot analyzed the group preferences and suggested 5 meal options tailored to the group's input.	Pass

BV2	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter invalid preferences (e.g., empty fields or unsupported data) 	System shows an error asking to correct or complete the input	The system displayed an error message prompting the user to correct or complete invalid preferences before proceeding.	Pass
BV3	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Skip the chatbot and manually input meal options 	System allows manual entry of meal options	The system allowed users to manually input multiple meal options and proceed to the next step without chatbot assistance.	Pass
BV4	<ol style="list-style-type: none"> 1. User continues from valid meal options (either from the chatbot or the manual) 2. The system creates a voting room and displays meals 	System displays all meals and opens a new voting room	The system failed to create a voting room and did not display the meal options; recommend ensuring room creation triggers correctly after valid meal selection.	Fail
BV5	<ol style="list-style-type: none"> 1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code 	All users can view and participate in the vote through the code.	Users could not join the voting room using a valid code; recommend fixing code validation and	Fail

			room access logic.	
BV6	1. All votes are submitted 2. System tallies votes 3. Displays the most-voted meal 4. User sees the confirmation screen	The winning meal is displayed, and the calendar is marked as used successfully	Vote tallying, winning meal display, and calendar update are not yet implemented; recommend implementing vote-counting, result display, and calendar marking.	Fail
BV7	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter invalid code	Users cannot enter the room. Application prompts the users that the code is invalid and to try again.	Invalid-code detection and room entry restrictions are not implemented; recommend adding proper validation and access prevention.	Fail
BV8	1. Users go to website and go to Barkada Vote 2. Users enter expired code	Users are prompted that the room they are looking for does not exist or isn't available anymore.	Expired-code handling is not implemented; recommend adding expiration checks and notifying users appropriately.	Fail
BV9	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote	Users are told by the system that they have already voted and cannot vote again, and	Vote-limit enforcement is not implemented;	Fail

	<p>3. Users enter valid code</p> <p>4. Users attempt to vote multiple times</p>	their reattempt is not counted towards the total.	recommend restricting multiple votes per user and showing a notification when reattempted.	
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Table 3.6. Test Cases for Cultural Food Explorer

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CFE_002	Test Executed by: Nomar Yram Dugenia
Module name: Cultural Food Explorer	Test Execution Date: 11-03-2025

TC #6	Steps to Replicate	Expected Result	Actual Result	Status
CFE1	<p>1. Log in to the system</p> <p>2. Click on 'Cultural Food Explorer'</p> <p>3. Browse through the list of regions</p>	List of regions and their cultural dishes is displayed.	The system successfully displayed all regions and their corresponding cultural dishes without any loading or display issues.	Pass
CFE2	<p>1. Log in</p> <p>2. Select a region (e.g., Ilocos)</p> <p>3. Click to view cultural dishes</p>	Dishes from selected regions are shown with images and brief information.	The chatbot generated a full week's meal plan based on the	Pass

			provided preferences and displayed it for user review and confirmation.	
CFE3	1. Log in 2. Select a dish from the list 3. View the dish's cultural background and preparation	Dish details are shown, including history, origin, and preparation tips.	The system correctly displayed detailed information including history, origin, and preparation methods for the selected dish.	Pass
CFE4	1. Access the application as a guest 2. Try clicking on 'Cultural Food Explorer'	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login/signup page as expected.	Pass
CFE5	1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button	Dish is saved/bookmarked successfully under the user's profile.	The dish was successfully bookmarked under the user's profile, and a confirmation message was shown. It was later visible in the user's	Pass

			saved items list.	
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Table 3.7: Test Cases for Calendar

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CF 002	Test Executed by: Nomar Yram Dugenia
Module name: Calendar	Test Execution Date: 11-03-2025

TC #7	Steps to Replicate	Expected Result	Actual Result	Status
CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day 5. Clicks Save	The system saves the meal data and displays it correctly on the calendar	The system saved the meal data and displayed the meals correctly on the selected calendar date	Pass
CF2	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate	Chatbot generates a week's meal plan based on input and displays it for confirmation	The chatbot did not generate a weekly meal plan; recommend implementing meal-plan generation based on user preferences.	Fail
CF3	1. Do steps in CF2 2. User is satisfied and clicks Confirm	The system saves the meals into the calendar and displays them successfully	Confirmed meals were not saved to the calendar; recommend ensuring confirmed	Fail

			plans are stored and displayed correctly.	
CF4	1. Do steps in CF2 2. User is not satisfied with the plan 3. Clicks “Regenerate”	Chatbot re-generates a new meal plan based on the same inputs	Chatbot regeneration is not implemented; recommend enabling regeneration functionality using the same inputs.	Fail
CF5	1. User attempts to save meals with empty fields or invalid characters	System shows an error: “Please complete all required fields correctly.”	Validation for empty/invalid fields is not implemented; recommend adding proper input checks before saving meals.	Fail
CF6	1. User selects multiple days and enters valid meal data for each 2. Saves all at once	All selected days show correct meal data on the calendar	Bulk-save for multiple days is not implemented; recommend ensuring all selected dates are updated correctly after saving.	Fail
CF7	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down	System tells the user that the API is down , shows previous liked / chosen meals, and prompts user to do it manually.	API downtime handling is not implemented; recommend showing previously liked/selected	Fail

			meals and allowing manual input when the API is down.	
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Table 3.8. Test Cases for Login

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: L 002	Test Executed by: Nomar Yram Dugenia
Module name: Login	Test Execution Date: 11-03-2025

TC #8	Steps to Replicate	Expected Result	Actual Result	Status
L1	1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click "Login"	The user is logged in successfully and redirected to the dashboard or homepage.	The system correctly authenticated valid credentials and redirected the user to the dashboard. Invalid credentials prompted an error message.	Pass
L2	1. Access the website via a browser 2. Click on the Login button 3. Click 'Login'	System displays: "Invalid Credentials, Try again." User	The system prevented login and displayed the "Invalid Credentials"	Pass

		remains on the login page.	message as expected.	
L3	1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login'	System shows an error message: "Please enter your credentials."	The system displayed a validation message prompting the user to fill in required login fields.	Pass
L4	1. Enter the correct username but the incorrect password 2. Click 'Login'	User is shown an error message: 'Account not found'.	The system displayed the correct error message and denied access.	Pass
L5	1. Enter a username with invalid characters (e.g., John) 2. Click 'Login'	System displays input validation errors or blocks suspicious input.	The system rejected the invalid input and prevented login attempts with invalid characters.	Pass
L6	1. Enter the correct credentials 2. Turn off the internet before clicking 'Login'	System shows a connection or network error message.	The system displayed a network connection error message when offline.	Pass

Table 3.9. Test Cases for Registration

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: R_002	Test Executed by: Nomar Yram Dugenia
Module name: Registration	Test Execution Date: 11-03-2025

TC #9	Steps to Replicate	Expected Result	Actual Result	Status
R1	1. Access the ‘Register’ page 2. Enter a valid name, email, and password 3. Submit the form 4. Open the email and check for the OTP 5. Enter the OTP in the verification field 6. Click on ‘Verify’	The user receives the OTP, verifies it successfully, and their account is created.	The user received the OTP via email, successfully entered it, and the system created and activated the account.	Pass
R2	1. Access the ‘Register’ page 2. Enter an invalid email format 3. Attempt to submit the form	The system rejects the input and shows an error saying the email is invalid.	The system correctly showed an “Invalid email format” message.	Pass
R3	1. Access the ‘Register’ page 2. Enter a valid email 3. Enter mismatched passwords 4. Submit the form	The system prevents submission and notifies the user about the mismatch.	The system displayed an error about mismatched passwords.	Pass
R4	1. Access the ‘Register’ page 2. Enter valid inputs 3. Submit the form 4. Do not open or enter the OTP 5. Wait or close the page	The account is not created. The system waits for OTP verification.	The system did not create or activate the account without OTP verification and kept the registration pending until a valid OTP was entered.	Pass
R5	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form	The system shows an error saying the OTP is invalid.	The system displayed an “Invalid OTP” error	Pass

	4. Enter an incorrect OTP 5. Click ‘Verify’		and did not create the account until a correct OTP was provided.	
R6	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 6. Click ‘Verify’	The system accepts the new OTP and creates the account successfully.	The system successfully resent a new OTP, accepted it when entered, and completed account creation.	Pass
R7	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired	The system notifies the user that the OTP has expired and suggests resending.	The system displayed a message that the OTP had expired and prompted the user to request a new OTP..	Pass
R8	1. Access the ‘Register’ page 2. Enter valid details with an already used email 3. Submit the form	System shows “Email Already in Use”	The system successfully displayed “Email Already in Use.”	Pass
R9	1. Access the ‘Register’ page 2. Enter valid details with a weak password 3. Submit the form	System rejects and shows message “Password must include letters and numbers”	The system rejected the weak password and showed a message indicating that the password must include letters and numbers and meet minimum	Pass

			strength requirements.	
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Table 3.10. Test Cases for Profile

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: PR 002	Test Executed by: Nomar Yram Dugenia
Module name: Profile	Test Execution Date: 11-03-2025

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page 3. View user information and preferences	The user's profile details and preferences are displayed correctly.	The user profile displayed all saved details correctly.	Pass
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.	The system saved the updated dietary preference as "Vegan" and applied it correctly to subsequent meal and restaurant suggestions.	Pass
PR3	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save'	System shows an error message: 'Incorrect current password'.	System did not display an error when an incorrect current password was entered; recommend implementing	Fail

			proper validation to prevent password changes with wrong credentials.	
P4	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save'	Password is updated successfully, and a confirmation message is shown.	Password update functionality failed; new password was not saved and no confirmation was shown; recommend ensuring password changes are correctly processed and confirmed to the user.	Fail
PR5	1. Attempt to access the Profile page without logging in	User is redirected to the login/signup page.	User redirect to login/signup page.	Pass
PR6	1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save'	OTP is sent to email, User enters OTP	The system sent an OTP to the new email address, verified it successfully when entered, and updated the user's email.	Pass
PR7	1. Log in 2. Go to Profile 3. Click 'Change Email'	System shows error 'Email already in use'	The system displayed an "Email already in	Pass

	<p>4. Enter an already registered email</p> <p>5. Click 'Save'</p>		use" error message and did not change the email to a duplicate address.	
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Table 3.11. Test Case for Logout

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: LO 002	Test Executed by: Nomar Yram Dugenia
Module name: Logout	Test Execution Date: 11-03-2025

TC #11	Steps to Replicate	Expected Result	Actual Result	Status
LO1	<p>1. Log in to the system</p> <p>2. Navigate to the Profile page</p> <p>3. Click on the 'Logout' button</p>	User is logged out and redirected to the home or login page.	Logout function worked successfully and redirected to the homepage	Pass

Table 3.12. Test Case for Admin

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AD 002	Test Executed by: Nomar Yram Dugenia
Module name: Admin	Test Execution Date: 11-03-2025

TC #12	Steps to Replicate	Expected Result	Actual Result	Status
AD1	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is directed to admin dashboard	Admin module not yet implemented; no separate admin access.	Fail
AD2	1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials	User is shown a message. "Invalid Credentials, Try again."	Admin validation not implemented; system only recognizes normal users.	Fail
AD3	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe	Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now	Admin dashboard unavailable; cannot view or manage reports.	fail
AD4	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is not flagged falsely. 6. Click Delete Recipe	Admin is shown a message that the recipe is successfully Deleted. The recipe is completely deleted from the database and can no longer be accessed.	Deletion feature not yet implemented.	fail
AD5	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	The Cultural Food Explorer is properly saved and changed for every user of the website.	Admin edit function not	fail

	4. Click Edit Cultural Food Explorer 5. Edit 6. Save		yet working.	
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Table 3.1. Test Cases for AI Chatbot

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AI 003	Test Executed by: Nomar Yram Dugenia
Module name: AI Chatbot	Test Execution Date: 11-06-2025

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query (e.g., 'I want to eat chicken adobo') 4. Provide valid preferences (e.g., no peanuts, feeling happy) 5. Submit the information	The chatbot analyzes the data, returns a suitable food suggestion, and saves the user's preference to the database.	The chatbot successfully analyzed the data, returned a suitable food suggestion, and saved the user's preferences to the database.	Pass
AI2	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a food query without any preferences 4. Submit the information	Chatbot still returns a general suggestion based on default filters and saves minimal user input.	The chatbot returned a general food suggestion based on default settings and successfully	Pass

			recorded minimal user input.	
AI3	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a vague or invalid input (e.g., 'food') 4. Provide random or empty preferences 5. Submit the information 	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.	The chatbot prompted the user to provide a more specific query and did not generate any food suggestion.	Pass
AI4	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query 4. Provide preferences 5. Chatbot gives a suggestion 6. Mark the suggestion as unsatisfactory 	Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.	The chatbot re-prompted the user for new inputs when the suggestion was marked unsatisfactory and did not save any preferences until the user confirmed satisfaction.	Pass
AI5	<ol style="list-style-type: none"> 1. Login to the System 2. Click on the AI Chatbot option 3. AI Chatbot down or not implemented yet 	The system shows an error message, indicating that API is down. Fallback method is shown, listing previous liked recipes/restaurants to user.	The system shows an error message indicating that the API is down. A fallback method is shown, listing previous liked recipes/restau	Pass

			rants to the user.	
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Table 3.2. Test Cases for Community Recipe

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CR_003	Test Executed by: Nomar Yram Dugenia
Module name: Community Recipe	Test Execution Date: 11-06-2025

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	1. Access the Dashboard 2. Click on 'Community Recipes'	The user can view and read available community-uploaded recipes.	The user was able to access the Community Recipes page and view all available recipes without any issue.	Pass
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.	The system prompted the user to log in before allowing recipe upload.	Pass

CR3	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit' 	The recipe is uploaded successfully and appears in the list.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass
CR4	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Upload Recipe' 4. Leave some required fields empty 5. Click 'Submit' 	The user is shown an error message indicating the missing required fields.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass
CR5	<ol style="list-style-type: none"> 1. Access the Dashboard 2. Click on 'Community Recipes' 3. Click on a recipe 4. Click 'Export' or 'Save Offline' 	The recipe is downloaded or saved for offline access.	The system displayed clear validation error messages indicating	Pass

			which required fields were missing and prevented submission until they were completed.	
CR6	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Search for a recipe that doesn't exist	The user is shown a message indicating no results were found.	The system did not display any message, leaving the page blank after search.	Pass
CR7	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Attempt to upload invalid file format (.exe, .zip)	The user is shown a message indicating that the file format is not supported.	The system displayed a validation message rejecting the invalid file format upload.	Pass
CR8	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related	Google Cloud API determines that the image is not food and the user is shown a message indicating that the image uploaded is not food and will not accept the image. Prompts user to upload a different image	The system uploaded the image without applying food-image validation and did not warn the user	Fail

CR9	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision) 	<p>Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.</p>	<p>Food-image verification via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.</p>	Fail
CR10	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food (>= 70% Confidence for Google Cloud Vision) 7. Submit 	<p>Google Cloud Vision determines that the image is food with a 70% confidence rate, accepting the image and allows user to successfully submit recipe.</p>	<p>Food-image verification via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.</p>	Fail
CR11	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click on a Recipe 4. Report with 5 different accounts 	<p>System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be archived and not be seen by users</p>	<p>Recipe reporting and auto-archiving are not implemented; recommend adding report tracking and automatic hiding of</p>	Fail

			recipes after multiple reports.	
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Table 3.3. Test Cases for Restaurant Locator

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: RL 003	Test Executed by: Nomar Yram Dugenia
Module name: Restaurant Locator	Test Execution Date: 11-06-2025

TC #3	Steps to Replicate	Expected Result	Actual Result	Status
RL1	<ol style="list-style-type: none"> Log in to the system Click on 'Restaurant Locator' Use the filter to select 'Filipino' cuisine Submit search 	A filtered list of Filipino restaurants is displayed.	The system displayed a correctly filtered list containing only restaurants tagged as Filipino cuisine.	Pass
RL2	<ol style="list-style-type: none"> Log in to the system Access 'Restaurant Locator' Set price filter to 'PP' Click search 	A list of restaurants within the PP price range is displayed.	The system correctly displayed restaurants that matched the PP price range.	Pass

RL3	1. Log in to the system 2. Click on 'Restaurant Locator' 3. Select open restaurants only 4. Submit search	Only restaurants currently open are shown.	The feature correctly displayed open restaurants based on real-time data.	Pass
RL4	1. Log in 2. Open 'Restaurant Locator' 3. Set distance filter to 5km 4. Click search	Restaurants within a 5km radius are displayed on the map.	The system accurately displayed restaurants within the specified distance range.	Pass
RL5	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + PP + open now) 4. Submit	Results match all selected filters combined.	The system accurately applied all selected filters and displayed correct matching results.	Pass
RL6	1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login page before allowing access.	Pass
RL7.	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down	User is shown a message saying that the API is down and shows a default database of restaurants based in their city.	The system displayed an error but did not load fallback restaurant data;	Fail

			recommend implementing a backup list when the API is down.	
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Table 3.4. Test Cases for Surprise Me!

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: SM_003	Test Executed by: Nomar Yram Dugenia
Module name: Surprise Me	Test Execution Date: 11-06-2025

TC #4	Steps to Replicate	Expected Result	Actual Result	Status
SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me'	The system returns one random meal or restaurant suggestion.	The feature successfully displayed one random food or restaurant suggestion.	Pass
SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.	The system provided varied and random suggestions on each click.	Pass
SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The user was redirected to the login page before accessing the Surprise Me feature.	Pass

SM4	<ol style="list-style-type: none"> 1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh' 	Suggestion is refreshed and a new result is displayed.	The system successfully refreshed and displayed a new random suggestion upon clicking 'Refresh'.	Pass
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Table 3.5. Test Cases for Barkada Vote

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: BV 003	Test Executed by: Nomar Yram Dugenia
Module name: Barkada Vote	Test Execution Date: 11-06-2025

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter group preferences (e.g., dietary restrictions, allergens) 5. Chatbot returns 5 meal options 	Chatbot suggests 5 meals based on group input	The chatbot analyzed the group preferences and suggested 5 meal options tailored to the group's input.	Pass
BV2	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter invalid preferences (e.g., empty fields or unsupported data) 	System shows an error asking to correct or complete the input	The system displayed an error message prompting the user to correct or complete invalid	Pass

			preferences before proceeding.	
BV3	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Skip the chatbot and manually input meal options	System allows manual entry of meal options	The system allowed users to manually input multiple meal options and proceed to the next step without chatbot assistance.	Pass
BV4	1. User continues from valid meal options (either from the chatbot or the manual) 2. The system creates a voting room and displays meals	System displays all meals and opens a new voting room	The system created a voting room, displayed all the selected meal options, and allowed participants to begin voting.	Pass
BV5	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code	All users can view and participate in the vote through the code.	All users who entered a valid voting code successfully joined the voting room and were able to view and participate in the vote.	Pass
BV6	1. All votes are submitted 2. System tallies votes 3. Displays the most-voted meal 4. User sees the confirmation screen	The winning meal is displayed, and the calendar is marked as used successfully	The system tallied all votes, displayed the winning meal, and updated the calendar to	Pass

			mark the meal and date as used, along with a confirmation screen.	
BV7	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter invalid code	Users cannot enter the room. Application prompts the users that the code is invalid and to try again.	Users who entered an invalid code were prevented from joining and were shown a message indicating that the code was invalid, with a prompt to try again.	Pass
BV8	1. Users go to website and go to Barkada Vote 2. Users enter expired code	Users are prompted that the room they are looking for does not exist or isn't available anymore.	The system informed users that the voting room was expired or no longer available when they entered an expired code.	Pass
BV9	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code 4. Users attempt to vote multiple times	Users are told by the system that they have already voted and cannot vote again, and their reattempt is not counted towards the total.	The system allowed each user to vote only once and showed a message that they had already voted when they attempted to	Pass

			vote again; additional attempts were not counted.	
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Table 3.6. Test Cases for Cultural Food Explorer

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CFE 003	Test Executed by: Nomar Yram Dugenia
Module name: Cultural Food Explorer	Test Execution Date: 11-06-2025

TC #6	Steps to Replicate	Expected Result	Actual Result	Status
CFE1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Cultural Food Explorer' 3. Browse through the list of regions 	List of regions and their cultural dishes is displayed.	The system successfully displayed all regions and their corresponding cultural dishes without any loading or display issues.	Pass
CFE2	<ol style="list-style-type: none"> 1. Log in 2. Select a region (e.g., Ilocos) 3. Click to view cultural dishes 	Dishes from selected regions are shown with images and brief information.	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user	Pass

			review and confirmation.	
CFE3	1. Log in 2. Select a dish from the list 3. View the dish's cultural background and preparation	Dish details are shown, including history, origin, and preparation tips.	The system correctly displayed detailed information including history, origin, and preparation methods for the selected dish.	Pass
CFE4	1. Access the application as a guest 2. Try clicking on 'Cultural Food Explorer'	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login/signup page as expected.	Pass
CFE5	1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button	Dish is saved/bookmarked successfully under the user's profile.	The dish was successfully bookmarked under the user's profile, and a confirmation message was shown. It was later visible in the user's saved items list.	Pass

Table 3.7: Test Cases for Calendar

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)

Test Case	
Test Case ID: CF 003	Test Executed by: Nomar Yram Dugenia
Module name: Calendar	Test Execution Date: 11-06-2025

TC #7	Steps to Replicate	Expected Result	Actual Result	Status
CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day 5. Clicks Save	The system saves the meal data and displays it correctly on the calendar	The system saved the meal data and displayed the meals correctly on the selected calendar date.	Pass
CF2	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate	Chatbot generates a week's meal plan based on input and displays it for confirmation	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.	Pass
CF3	1. Do steps in CF2 2. User is satisfied and clicks Confirm	The system saves the meals into the calendar and displays them successfully	Upon confirmation, the system saved all generated meals into the calendar and displayed them correctly across the selected dates.	Pass
CF4	1. Do steps in CF2 2. User is not satisfied with the plan	Chatbot re-generates a new meal plan	The chatbot regenerated a new weekly	Pass

	3. Clicks “Regenerate”	based on the same inputs	meal plan using the same input preferences and displayed the updated plan for review.	
CF5	1. User attempts to save meals with empty fields or invalid characters	System shows an error: “Please complete all required fields correctly.”	Validation for empty/invalid fields is not implemented; recommend adding proper input checks before saving meals.	Fail
CF6	1. User selects multiple days and enters valid meal data for each 2. Saves all at once	All selected days show correct meal data on the calendar	All selected days were updated, and each date showed the correct meal data on the calendar after saving.	Pass
CF7	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down	System tells the user that the API is down , shows previous liked / chosen meals, and prompts user to do it manually.	API downtime handling is not implemented; recommend showing previously liked/selected meals and allowing manual input when the API is down.	Fail

Table 3.8. Test Cases for Login

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: L 003	Test Executed by: Nomar Yram Dugenia
Module name: Login	Test Execution Date: 11-06-2025

TC #8	Steps to Replicate	Expected Result	Actual Result	Status
L1	<ol style="list-style-type: none"> 1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click "Login" 	The user is logged in successfully and redirected to the dashboard or homepage.	The system correctly authenticated valid credentials and redirected the user to the dashboard. Invalid credentials prompted an error message.	Pass
L2	<ol style="list-style-type: none"> 1. Access the website via a browser 2. Click on the Login button 3. Click 'Login' 	System displays: "Invalid Credentials, Try again." User remains on the login page.	The system prevented login and displayed the "Invalid Credentials" message as expected.	Pass
L3	<ol style="list-style-type: none"> 1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login' 	System shows an error message: "Please enter your credentials."	The system displayed a validation message prompting the user to fill in required login fields.	Pass

L4	1. Enter the correct username but the incorrect password 2. Click 'Login'	User is shown an error message: 'Account not found'.	The system displayed the correct error message and denied access.	Pass
L5	1. Enter a username with invalid characters (e.g., John) 2. Click 'Login'	System displays input validation errors or blocks suspicious input.	The system rejected the invalid input and prevented login attempts with invalid characters.	Pass
L6	1. Enter the correct credentials 2. Turn off the internet before clicking 'Login'	System shows a connection or network error message.	The system displayed a network connection error message when offline.	Pass

Table 3.9. Test Cases for Registration

TC #9	Steps to Replicate	Expected Result	Actual Result	Status
R1	1. Access the 'Register' page 2. Enter a valid name, email, and password 3. Submit the form 4. Open the email and check for the OTP 5. Enter the OTP in the verification field 6. Click on 'Verify'	The user receives the OTP, verifies it successfully, and their account is created.	The user received the OTP via email, successfully entered it, and the system created and activated the account.	Pass
R2	1. Access the 'Register' page 2. Enter an invalid email format 3. Attempt to submit the form	The system rejects the input and shows an error saying the email is invalid.	The system correctly showed an "Invalid email format" message.	Pass

R3	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter a valid email 3. Enter mismatched passwords 4. Submit the form 	The system prevents submission and notifies the user about the mismatch.	The system displayed an error about mismatched passwords.	Pass
R4	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid inputs 3. Submit the form 4. Do not open or enter the OTP 5. Wait or close the page 	The account is not created. The system waits for OTP verification.	The system did not create or activate the account without OTP verification and kept the registration pending until a valid OTP was entered.	Pass
R5	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter an incorrect OTP 5. Click ‘Verify’ 	The system shows an error saying the OTP is invalid.	The system displayed an “Invalid OTP” error and did not create the account until a correct OTP was provided.	Pass
R6	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 6. Click ‘Verify’ 	The system accepts the new OTP and creates the account successfully.	The system successfully resent a new OTP, accepted it when entered, and completed account creation.	Pass
R7	<ol style="list-style-type: none"> 1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired 	The system notifies the user that the OTP has expired and suggests resending.	The system displayed a message that the OTP had expired and prompted the user to	Pass

			request a new OTP..	
R8	1. Access the 'Register' page 2. Enter valid details with an already used email 3. Submit the form	System shows "Email Already in Use"	The system successfully displayed "Email Already in Use."	Pass
R9	1. Access the 'Register' page 2. Enter valid details with a weak password 3. Submit the form	System rejects and shows message "Password must include letters and numbers"	The system rejected the weak password and showed a message indicating that the password must include letters and numbers and meet minimum strength requirements.	Pass

Table 3.10. Test Cases for Profile

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page 3. View user information and preferences	The user's profile details and preferences are displayed correctly.	The user profile displayed all saved details correctly.	Pass
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.	The system saved the updated dietary preference as "Vegan" and applied it	Pass

			correctly to subsequent meal and restaurant suggestions.	
PR3	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save' 	System shows an error message: 'Incorrect current password'.	The system displayed an "Incorrect current password" error message and did not change the password	Pass
PR4	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save' 	Password is updated successfully, and a confirmation message is shown.	The system failed to update the password or show a confirmation message; recommend ensuring password changes are correctly processed and confirmed to the user.	Fail
PR5	1. Attempt to access the Profile page without logging in	User is redirected to the login/signup page.	User redirect to login/signup page.	Pass
PR6	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save' 	OTP is sent to email, User enters OTP	The system sent an OTP to the new email address, verified it successfully when entered, and updated	Pass

			the user's email.	
7	1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter an already registered email 5. Click 'Save'	System shows error 'Email already in use'	The system displayed an "Email already in use" error message and did not change the email to a duplicate address.	Pass

Table 3.11. Test Case for Logout

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: LO 003	Test Executed by: Nomar Yram Dugenia
Module name: Logout	Test Execution Date: 11-06-2025

TC #11	Steps to Replicate	Expected Result	Actual Result	Status
LO1	1. Log in to the system 2. Navigate to the Profile page 3. Click on the 'Logout' button	User is logged out and redirected to the home or login page.	Logout function worked successfully and redirected to the homepage	Pass

Table 3.12. Test Case for Admin

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AD 003	Test Executed by: Nomar Yram Dugenia
Module name: Admin	Test Execution Date: 11-06-2025

TC #12	Steps to Replicate	Expected Result	Actual Result	Status
AD1	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is directed to admin dashboard	The system recognized valid admin credentials and redirected the user to the dedicated admin dashboard.	Pass

AD2	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials 	User is shown a message. “Invalid Credentials, Try again.”	The system rejected invalid admin credentials and displayed the message “Invalid Credentials, Try again.”	Pass
AD3	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe 	Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now	The admin dashboard displayed the reported recipes, allowed reinstatement of falsely flagged recipes, showed a success message, and made the reinstated recipe visible and searchable to all users.	Pass
AD4	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is not flagged falsely. 6. Click Delete Recipe 	Admin is shown a message that the recipe is successfully Deleted. The recipe is completely deleted from the database and can no longer be accessed.	The admin successfully deleted the confirmed problematic recipe, received a success message, and the recipe	Pass

			was permanently removed from the database and no longer accessible.	
AD5	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. Click Edit Cultural Food Explorer 5. Edit 6. Save 	<p>The Cultural Food Explorer is properly saved and changed for every user of the website.</p>	<p>The admin was able to edit Cultural Food Explorer entries, save changes successfully, and all updates were reflected correctly for all users..</p>	Pass

Test 4

Table 3.1. Test Cases for AI Chatbot

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)
Test Case

Test Case ID: AI 004	Test Executed by: Nomar Yram Dugenia
Module name: AI Chatbot	Test Execution Date: 11-10-2025

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query (e.g., 'I want to eat chicken adobo') 4. Provide valid preferences (e.g., no peanuts, feeling happy) 5. Submit the information 	The chatbot analyzes the data, returns a suitable food suggestion, and saves the user's preference to the database.	The chatbot successfully analyzed the data, returned a suitable food suggestion, and saved the user's preferences to the database.	Pass
AI2	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a food query without any preferences 4. Submit the information 	Chatbot still returns a general suggestion based on default filters and saves minimal user input.	The chatbot returned a general food suggestion based on default settings and successfully recorded minimal user input.	Pass
AI3	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a vague or invalid input (e.g., 'food') 4. Provide random or empty preferences 5. Submit the information 	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.	The chatbot prompted the user to provide a more specific query and did not generate any food suggestion.	Pass

AI4	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query 4. Provide preferences 5. Chatbot gives a suggestion 6. Mark the suggestion as unsatisfactory 	<p>Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.</p>	<p>The chatbot re-prompted the user for new inputs when the suggestion was marked unsatisfactory and did not save any preferences until the user confirmed satisfaction.</p>	Pass
AI5	<ol style="list-style-type: none"> 1. Login to the System 2. Click on the AI Chatbot option 3. AI Chatbot down or not implemented yet 	<p>The system shows an error message, indicating that API is down. Fallback method is shown, listing previous liked recipes/restaurants to user.</p>	<p>The system shows an error message indicating that the API is down. A fallback method is shown, listing previous liked recipes/restaurants to the user.</p>	Pass

Table 3.2. Test Cases for Community Recipe

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CR_004	Test Executed by: Nomar Yram Dugenia
Module name: Community Recipes	Test Execution Date: 11-10-2025

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	1. Access the Dashboard 2. Click on 'Community Recipes'	The user can view and read available community-uploaded recipes.	The user was able to access the Community Recipes page and view all available recipes without any issue.	Pass
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.	The system prompted the user to log in before allowing recipe upload.	Pass
CR3	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit'	The recipe is uploaded successfully and appears in the list.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass

CR4	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Upload Recipe' 4. Leave some required fields empty 5. Click 'Submit' 	The user is shown an error message indicating the missing required fields.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass
CR5	<ol style="list-style-type: none"> 1. Access the Dashboard 2. Click on 'Community Recipes' 3. Click on a recipe 4. Click 'Export' or 'Save Offline' 	The recipe is downloaded or saved for offline access.	The system displayed clear validation error messages indicating which required fields were missing and prevented submission until they were completed.	Pass
CR6	<ol style="list-style-type: none"> 1. Access the Dashboard 2. Click on 'Community Recipes' 3. Search for a recipe that doesn't exist 	The user is shown a message indicating no results were found.	The system did not display any message, leaving the	Pass

			page blank after search.	
CR7	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Attempt to upload invalid file format (.exe, .zip)	The user is shown a message indicating that the file format is not supported.	The system displayed a validation message rejecting the invalid file format upload.	Pass
CR8	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related	Google Cloud API determines that the image is not food and the user is shown a message indicating that the image uploaded is not food and will not accept the image. Prompts user to upload a different image	The system uploaded the image without applying food-image validation and did not warn the user	Fail
CR9	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision)	Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.	Food-image verification via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.	Fail
CR10	1. Login with valid user credentials	Google Cloud Vision determines that the	Food-image verification	Fail

	<p>2. Click on 'Community Recipes'</p> <p>3. Click 'Submit Recipe'</p> <p>4. Enter valid recipe details</p> <p>5. Click 'Upload Image'</p> <p>6. Upload an image that is food ($\geq 70\%$ Confidence for Google Cloud Vision)</p> <p>7. Submit</p>	<p>image is food with a 70% confidence rate, accepting the image and allows user to successfully submit recipe.</p>	<p>via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.</p>	
CR11	<p>1. Login with valid user credentials</p> <p>2. Click on 'Community Recipes'</p> <p>3. Click on a Recipe</p> <p>4. Report with 5 different accounts</p>	<p>System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be archived and not be seen by users</p>	<p>Recipe reporting and auto-archiving are not implemented; recommend adding report tracking and automatic hiding of recipes after multiple reports.</p>	Fail

Table 3.3. Test Cases for Restaurant Locator

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: RI_004	Test Executed by: Nomar Yram Dugenia
Module name: Restaurant Locator	Test Execution Date: 11-10-2025

TC #3	Steps to Replicate	Expected Result	Actual Result	Status

RL1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Use the filter to select 'Filipino' cuisine 4. Submit search 	A filtered list of Filipino restaurants is displayed.	The system displayed a correctly filtered list containing only restaurants tagged as Filipino cuisine.	Pass
RL2	<ol style="list-style-type: none"> 1. Log in to the system 2. Access 'Restaurant Locator' 3. Set price filter to 'PP' 4. Click search 	A list of restaurants within the PP price range is displayed.	The system correctly displayed restaurants that matched the PP price range.	Pass
RL3	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Select open restaurants only 4. Submit search 	Only restaurants currently open are shown.	The feature correctly displayed open restaurants based on real-time data.	Pass
RL4	<ol style="list-style-type: none"> 1. Log in 2. Open 'Restaurant Locator' 3. Set distance filter to 5km 4. Click search 	Restaurants within a 5km radius are displayed on the map.	The system accurately displayed restaurants within the specified distance range.	Pass

RL5	<ol style="list-style-type: none"> 1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + PP + open now) 4. Submit 	Results match all selected filters combined.	The system accurately applied all selected filters and displayed correct matching results.	Pass
RL6	<ol style="list-style-type: none"> 1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card 	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login page before allowing access.	Pass
RL7.	<ol style="list-style-type: none"> 1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down 	User is shown a message saying that the API is down and shows a default database of restaurants based in their city.	The system displayed an error but did not load fallback restaurant data; recommend implementing a backup list when the API is down.	Fail

Table 3.4. Test Cases for Surprise Me!

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)
Test Case

Test Case ID: SM_004	Test Executed by: Nomar Yram Dugenia
Module name: Surprise Me	Test Execution Date: 11-10-2025

TC #4	Steps to Replicate	Expected Result	Actual Result	Status
SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me'	The system returns one random meal or restaurant suggestion.	The feature successfully displayed one random food or restaurant suggestion.	Pass
SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.	The system provided varied and random suggestions on each click.	Pass
SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The user was redirected to the login page before accessing the Surprise Me feature.	Pass
SM4	1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh'	Suggestion is refreshed and a new result is displayed.	The system successfully refreshed and displayed a new random suggestion upon clicking 'Refresh'.	Pass

Table 3.5. Test Cases for Barkada Vote

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: BV_004	Test Executed by: Nomar Yram Dugenia
Module name: Barkada Vote	Test Execution Date: 11-10-2025

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter group preferences (e.g., dietary restrictions, allergens) 5. Chatbot returns 5 meal options 	Chatbot suggests 5 meals based on group input	The chatbot analyzed the group preferences and suggested 5 meal options tailored to the group's input.	Pass
BV2	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter invalid preferences (e.g., empty fields or unsupported data) 	System shows an error asking to correct or complete the input	The system displayed an error message prompting the user to correct or complete invalid preferences before proceeding.	Pass

BV3	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Skip the chatbot and manually input meal options	System allows manual entry of meal options	The system allowed users to manually input multiple meal options and proceed to the next step without chatbot assistance.	Pass
BV4	1. User continues from valid meal options (either from the chatbot or the manual) 2. The system creates a voting room and displays meals	System displays all meals and opens a new voting room	The system created a voting room, displayed all the selected meal options, and allowed participants to begin voting.	Pass
BV5	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code	All users can view and participate in the vote through the code.	All users who entered a valid voting code successfully joined the voting room and were able to view and participate in the vote.	Pass
BV6	1. All votes are submitted 2. System tallies votes 3. Displays the most-voted meal 4. User sees the confirmation screen	The winning meal is displayed, and the calendar is marked as used successfully	The system tallied all votes, displayed the winning meal, and updated the calendar to mark the meal and date as	Pass

			used, along with a confirmation screen.	
BV7	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter invalid code	Users cannot enter the room. Application prompts the users that the code is invalid and to try again.	Users who entered an invalid code were prevented from joining and were shown a message indicating that the code was invalid, with a prompt to try again.	Pass
BV8	1. Users go to website and go to Barkada Vote 2. Users enter expired code	Users are prompted that the room they are looking for does not exist or isn't available anymore.	The system informed users that the voting room was expired or no longer available when they entered an expired code.	Pass
BV9	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code 4. Users attempt to vote multiple times	Users are told by the system that they have already voted and cannot vote again, and their reattempt is not counted towards the total.	The system allowed each user to vote only once and showed a message that they had already voted when they attempted to vote again; additional	Pass

			attempts were not counted.	
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Table 3.6. Test Cases for Cultural Food Explorer

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CFE_004	Test Executed by: Nomar Yram Dugenia
Module name: Cultural Food Explorer	Test Execution Date: 11-10-2025

TC #6	Steps to Replicate	Expected Result	Actual Result	Status
CFE1	1. Log in to the system 2. Click on 'Cultural Food Explorer' 3. Browse through the list of regions	List of regions and their cultural dishes is displayed.	The system successfully displayed all regions and their corresponding cultural dishes without any loading or display issues.	Pass
CFE2	1. Log in 2. Select a region (e.g., Ilocos) 3. Click to view cultural dishes	Dishes from selected regions are shown with images and brief information.	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.	Pass
CFE3	1. Log in 2. Select a dish from the list	Dish details are shown, including	The system correctly	Pass

	3. View the dish's cultural background and preparation	history, origin, and preparation tips.	displayed detailed information including history, origin, and preparation methods for the selected dish.	
CFE4	1. Access the application as a guest 2. Try clicking on 'Cultural Food Explorer'	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login/signup page as expected.	Pass
CFE5	1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button	Dish is saved/bookmarked successfully under the user's profile.	The dish was successfully bookmarked under the user's profile, and a confirmation message was shown. It was later visible in the user's saved items list.	Pass

Table 3.7: Test Cases for Calendar

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CF_004	Test Executed by: Nomar Yram Dugenia
Module name: Calendar	Test Execution Date: 11-10-2025

TC #7	Steps to Replicate	Expected Result	Actual Result	Status
CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day 5. Clicks Save	The system saves the meal data and displays it correctly on the calendar	The system saved the meal data and displayed the meals correctly on the selected calendar date.	Pass
CF2	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate	Chatbot generates a week's meal plan based on input and displays it for confirmation	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.	Pass
CF3	1. Do steps in CF2 2. User is satisfied and clicks Confirm	The system saves the meals into the calendar and displays them successfully	Upon confirmation, the system saved all generated meals into the calendar and displayed them correctly across the selected dates.	Pass
CF4	1. Do steps in CF2 2. User is not satisfied with the plan 3. Clicks "Regenerate"	Chatbot re-generates a new meal plan based on the same inputs	The chatbot regenerated a new weekly meal plan using the same input preferences and displayed	Pass

			the updated plan for review.	
CF5	1. User attempts to save meals with empty fields or invalid characters	System shows an error: “Please complete all required fields correctly.”	The system showed an error: “Please complete all required fields correctly” and prevented saving until all fields were valid.	Pass
CF6	1. User selects multiple days and enters valid meal data for each 2. Saves all at once	All selected days show correct meal data on the calendar	All selected days were updated, and each date showed the correct meal data on the calendar after saving.	Pass
CF7	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down	System tells the user that the API is down, shows previous liked / chosen meals, and prompts user to do it manually.	API downtime handling is not implemented; recommend showing previously liked/selected meals and allowing manual input when the API is down.	Fail

Table 3.8. Test Cases for Login

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)
Test Case

Test Case ID: L 004	Test Executed by: Nomar Yram Dugenia
Module name: Login	Test Execution Date: 11-10-2025

TC #8	Steps to Replicate	Expected Result	Actual Result	Status
L1	1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click "Login"	The user is logged in successfully and redirected to the dashboard or homepage.	The system correctly authenticated valid credentials and redirected the user to the dashboard. Invalid credentials prompted an error message.	Pass
L2	1. Access the website via a browser 2. Click on the Login button 3. Click 'Login'	System displays: "Invalid Credentials, Try again." User remains on the login page.	The system prevented login and displayed the "Invalid Credentials" message as expected.	Pass
L3	1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login'	System shows an error message: "Please enter your credentials."	The system displayed a validation message prompting the user to fill in required login fields.	Pass
L4	1. Enter the correct username but the incorrect password 2. Click 'Login'	User is shown an error message: 'Account not found'.	The system displayed the correct error message and denied access.	Pass

L5	1. Enter a username with invalid characters (e.g., John) 2. Click ‘Login’	System displays input validation errors or blocks suspicious input.	The system rejected the invalid input and prevented login attempts with invalid characters.	Pass
L6	1. Enter the correct credentials 2. Turn off the internet before clicking ‘Login’	System shows a connection or network error message.	The system displayed a network connection error message when offline.	Pass

Table 3.9. Test Cases for Registration

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: R_004	Test Executed by: Nomar Yram Dugenia
Module name: Registration	Test Execution Date: 11-10-2025

TC #9	Steps to Replicate	Expected Result	Actual Result	Status
R1	1. Access the ‘Register’ page 2. Enter a valid name, email, and password 3. Submit the form 4. Open the email and check for the OTP 5. Enter the OTP in the verification field 6. Click on ‘Verify’	The user receives the OTP, verifies it successfully, and their account is created.	The user received the OTP via email, successfully entered it, and the system created and activated the account.	Pass
R2	1. Access the ‘Register’ page 2. Enter an invalid email format 3. Attempt to submit the form	The system rejects the input and shows an error saying the email is invalid.	The system correctly showed an “Invalid email	Pass

			format” message.	
R3	1. Access the ‘Register’ page 2. Enter a valid email 3. Enter mismatched passwords 4. Submit the form	The system prevents submission and notifies the user about the mismatch.	The system displayed an error about mismatched passwords.	Pass
R4	1. Access the ‘Register’ page 2. Enter valid inputs 3. Submit the form 4. Do not open or enter the OTP 5. Wait or close the page	The account is not created. The system waits for OTP verification.	The system did not create or activate the account without OTP verification and kept the registration pending until a valid OTP was entered.	Pass
R5	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter an incorrect OTP 5. Click ‘Verify’	The system shows an error saying the OTP is invalid.	The system displayed an “Invalid OTP” error and did not create the account until a correct OTP was provided.	Pass
R6	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 6. Click ‘Verify’	The system accepts the new OTP and creates the account successfully.	The system successfully resent a new OTP, accepted it when entered, and completed account creation.	Pass
R7	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired	The system notifies the user that the OTP has expired and suggests resending.	The system displayed a message that the OTP had expired and	Pass

			prompted the user to request a new OTP..	
R8	1. Access the ‘Register’ page 2. Enter valid details with an already used email 3. Submit the form	System shows “Email Already in Use”	The system successfully displayed “Email Already in Use.”	Pass
R9	1. Access the ‘Register’ page 2. Enter valid details with a weak password 3. Submit the form	System rejects and shows message “Password must include letters and numbers”	The system rejected the weak password and showed a message indicating that the password must include letters and numbers and meet minimum strength requirements.	Pass

Table 3.10. Test Cases for Profile

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: PR_004	Test Executed by: Nomar Yram Dugenia
Module name: Profile	Test Execution Date: 11-10-2025

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page	The user’s profile details and	The user profile displayed all	Pass

	3. View user information and preferences	preferences are displayed correctly.	saved details correctly.	
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.	The system saved the updated dietary preference as "Vegan" and applied it correctly to subsequent meal and restaurant suggestions.	Pass
PR3	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save'	System shows an error message: 'Incorrect current password'.	The system displayed an "Incorrect current password" error message and did not change the password	Pass
PR4	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save'	Password is updated successfully, and a confirmation message is shown.	The system failed to update the password or show a confirmation message; recommend ensuring password changes are correctly processed and confirmed to the user.	Fail
PR5	1. Attempt to access the Profile page without logging in	User is redirected to the login/signup page.	User redirect to login/signup page.	Pass

PR6	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save' 	OTP is sent to email, User enters OTP	The system sent an OTP to the new email address, verified it successfully when entered, and updated the user's email.	Pass
PR7	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter an already registered email 5. Click 'Save' 	System shows error 'Email already in use'	The system displayed an "Email already in use" error message and did not change the email to a duplicate address.	Pass

Table 3.11. Test Case for Logout

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: LO_004	Test Executed by: Nomar Yram Dugenia
Module name: Logout	Test Execution Date: 11-10-2025

TC #11	Steps to Replicate	Expected Result	Actual Result	Status
LO1	<ol style="list-style-type: none"> 1. Log in to the system 2. Navigate to the Profile page 3. Click on the 'Logout' button 	User is logged out and redirected to the home or login page.	Logout function worked successfully and redirected to the homepage	Pass

Table 3.12. Test Case for Admin

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AD_004	Test Executed by: Nomar Yram Dugenia
Module name: Admin	Test Execution Date: 11-10-2025

TC #12	Steps to Replicate	Expected Result	Actual Result	Status
AD1	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is directed to admin dashboard	The system recognized valid admin credentials and redirected the user to the dedicated admin dashboard.	Pass
AD2	1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials	User is shown a message. “Invalid Credentials, Try again.”	The system rejected invalid admin credentials and displayed the message “Invalid Credentials, Try again.”	Pass

AD3	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe 	<p>Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now</p>	<p>The admin dashboard displayed the reported recipes, allowed reinstatement of falsely flagged recipes, showed a success message, and made the reinstated recipe visible and searchable to all users.</p>	Pass
AD4	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is not flagged falsely. 6. Click Delete Recipe 	<p>Admin is shown a message that the recipe is successfully Deleted. The recipe is completely deleted from the database and can no longer be accessed.</p>	<p>The admin successfully deleted the confirmed problematic recipe, received a success message, and the recipe was permanently removed from the database and no longer accessible.</p>	Pass

AD5	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. Click Edit Cultural Food Explorer 5. Edit 6. Save 	<p>The Cultural Food Explorer is properly saved and changed for every user of the website.</p>	<p>The admin was able to edit Cultural Food Explorer entries, save changes successfully, and all updates were reflected correctly for all users..</p>	Pass
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Test 5

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AI_005	Test Executed by: Nomar Yram Dugenia
Module name: AI Chatbot	Test Execution Date: 11-13-2025

Table 3.1. Test Cases for AI Chatbot

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query (e.g., 'I want to eat chicken adobo') 	<p>The chatbot analyzes the data, returns a suitable food suggestion, and saves</p>	<p>The chatbot successfully analyzed the data, returned</p>	Pass

	4. Provide valid preferences (e.g., no peanuts, feeling happy) 5. Submit the information	the user's preference to the database.	a suitable food suggestion, and saved the user's preferences to the database.	
AI2	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a food query without any preferences 4. Submit the information	Chatbot still returns a general suggestion based on default filters and saves minimal user input.	The chatbot returned a general food suggestion based on default settings and successfully recorded minimal user input.	Pass
AI3	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a vague or invalid input (e.g., 'food') 4. Provide random or empty preferences 5. Submit the information	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.	The chatbot prompted the user to provide a more specific query and did not generate any food suggestion.	Pass
AI4	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query 4. Provide preferences 5. Chatbot gives a suggestion 6. Mark the suggestion as unsatisfactory	Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.	The chatbot re-prompted the user for new inputs when the suggestion was marked unsatisfactory and did not save any	Pass

			preferences until the user confirmed satisfaction.	
AI5	1. Login to the System 2. Click on the AI Chatbot option 3. AI Chatbot down or not implemented yet	The system shows an error message, indicating that API is down. Fallback method is shown, listing previous liked recipes/restaurants to user.	The system shows an error message indicating that the API is down. A fallback method is shown, listing previous liked recipes/restaurants to the user.	Pass

Table 3.2. Test Cases for Community Recipe

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CR 005	Test Executed by: Nomar Yram Dugenia
Module name: Community Recipe	Test Execution Date: 11-13-2025

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	1. Access the Dashboard 2. Click on 'Community Recipes'	The user can view and read available community-uploaded recipes.	The user was able to access the Community Recipes page and view all	Pass

			available recipes without any issue.	
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.	The system prompted the user to log in before allowing recipe upload.	Pass
CR3	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit'	The recipe is uploaded successfully and appears in the list.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass
CR4	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Upload Recipe' 4. Leave some required fields empty 5. Click 'Submit'	The user is shown an error message indicating the missing required fields.	The recipe was uploaded successfully and appeared immediately in the Community	Pass

			Recipes list for all users.	
CR5	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Click on a recipe 4. Click 'Export' or 'Save Offline'	The recipe is downloaded or saved for offline access.	The system displayed clear validation error messages indicating which required fields were missing and prevented submission until they were completed.	Pass
CR6	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Search for a recipe that doesn't exist	The user is shown a message indicating no results were found.	The system did not display any message, leaving the page blank after search.	Pass
CR7	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image'	The user is shown a message indicating that the file format is not supported.	The system displayed a validation message rejecting the invalid file	Pass

	6. Attempt to upload invalid file format (.exe, .zip)		format upload.	
CR8	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related	Google Cloud API determines that the image is not food and the user is shown a message indicating that the image uploaded is not food and will not accept the image. Prompts user to upload a different image	The system uploaded the image without applying food-image validation and did not warn the user	Fail
CR9	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision)	Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.	Food-image verification via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.	Fail
CR10	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food (>= 70% Confidence for Google Cloud Vision) 7. Submit	Google Cloud Vision determines that the image is food with a 70% confidence rate, accepting the image and allows user to successfully submit recipe.	Food-image verification via Google Cloud Vision API is not implemented; recommend integrating confidence checks to	Fail

			ensure only valid food images are accepted.	
CR11	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click on a Recipe 4. Report with 5 different accounts 	<p>System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be archived and not be seen by users</p>	<p>Recipe reporting and auto-archiving are not implemented; recommend adding report tracking and automatic hiding of recipes after multiple reports.</p>	Fail

Table 3.3. Test Cases for Restaurant Locator

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: RL 005	Test Executed by: Nomar Yram Dugenia
Module name: Restaurant Locator	Test Execution Date: 11-13-2025

TC #3	Steps to Replicate	Expected Result	Actual Result	Status
RL1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Use the filter to select 'Filipino' cuisine 4. Submit search 	<p>A filtered list of Filipino restaurants is displayed.</p>	<p>The system displayed a correctly filtered list containing</p>	Pass

			only restaurants tagged as Filipino cuisine.	
RL2	1. Log in to the system 2. Access 'Restaurant Locator' 3. Set price filter to '₱₱' 4. Click search	A list of restaurants within the ₱₱ price range is displayed.	The system correctly displayed restaurants that matched the ₱₱ price range.	Pass
RL3	1. Log in to the system 2. Click on 'Restaurant Locator' 3. Select open restaurants only 4. Submit search	Only restaurants currently open are shown.	The feature correctly displayed open restaurants based on real-time data.	Pass
RL4	1. Log in 2. Open 'Restaurant Locator' 3. Set distance filter to 5km 4. Click search	Restaurants within a 5km radius are displayed on the map.	The system accurately displayed restaurants within the specified distance range.	Pass
RL5	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + ₱₱ + open now) 4. Submit	Results match all selected filters combined.	The system accurately applied all selected filters and displayed correct matching results.	Pass

RL6	1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login page before allowing access.	Pass
RL7.	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down	User is shown a message saying that the API is down and shows a default database of restaurants based in their city.	The system displayed an error but did not load fallback restaurant data; recommend implementing a backup list when the API is down.	Fail

Table 3.4. Test Cases for Surprise Me!

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: SM 005	Test Executed by: Nomar Yram Dugenia
Module name: Surprise Me	Test Execution Date: 11-13-2025

TC #4	Steps to Replicate	Expected Result	Actual Result	Status

SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me'	The system returns one random meal or restaurant suggestion.	The feature successfully displayed one random food or restaurant suggestion.	Pass
SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.	The system provided varied and random suggestions on each click.	Pass
SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The user was redirected to the login page before accessing the Surprise Me feature.	Pass
SM4	1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh'	Suggestion is refreshed and a new result is displayed.	The system successfully refreshed and displayed a new random suggestion upon clicking 'Refresh'.	Pass

Table 3.5. Test Cases for Barkada Vote

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: BV 005	Test Executed by: Nomar Yram Dugenia
Module name: Barkada Vote	Test Execution Date: 11-13-2025

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter group preferences (e.g., dietary restrictions, allergens) 5. Chatbot returns 5 meal options	Chatbot suggests 5 meals based on group input	The chatbot analyzed the group preferences and suggested 5 meal options tailored to the group's input.	Pass
BV2	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter invalid preferences (e.g., empty fields or unsupported data)	System shows an error asking to correct or complete the input	The system displayed an error message prompting the user to correct or complete invalid preferences before proceeding.	Pass
BV3	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Skip the chatbot and manually input meal options	System allows manual entry of meal options	The system allowed users to manually input multiple meal options and proceed to the next step without chatbot assistance.	Pass

BV4	1. User continues from valid meal options (either from the chatbot or the manual) 2. The system creates a voting room and displays meals	System displays all meals and opens a new voting room	The system created a voting room, displayed all the selected meal options, and allowed participants to begin voting.	Pass
BV5	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code	All users can view and participate in the vote through the code.	All users who entered a valid voting code successfully joined the voting room and were able to view and participate in the vote.	Pass
BV6	1. All votes are submitted 2. System tallies votes 3. Displays the most-voted meal 4. User sees the confirmation screen	The winning meal is displayed, and the calendar is marked as used successfully	The system tallied all votes, displayed the winning meal, and updated the calendar to mark the meal and date as used, along with a confirmation screen.	Pass
BV7	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter invalid code	Users cannot enter the room. Application prompts the users that the code is invalid and to try again.	Users who entered an invalid code were prevented	Pass

			from joining and were shown a message indicating that the code was invalid, with a prompt to try again.	
BV8	1. Users go to website and go to Barkada Vote 2. Users enter expired code	Users are prompted that the room they are looking for does not exist or isn't available anymore.	The system informed users that the voting room was expired or no longer available when they entered an expired code.	Pass
BV9	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code 4. Users attempt to vote multiple times	Users are told by the system that they have already voted and cannot vote again, and their reattempt is not counted towards the total.	The system allowed each user to vote only once and showed a message that they had already voted when they attempted to vote again; additional attempts were not counted.	Pass

Table 3.6. Test Cases for Cultural Food Explorer

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CFE 005	Test Executed by: Nomar Yram Dugenia
Module name: Cultural Food Explorer	Test Execution Date: 11-13-2025

TC #6	Steps to Replicate	Expected Result	Actual Result	Status
CFE1	1. Log in to the system 2. Click on 'Cultural Food Explorer' 3. Browse through the list of regions	List of regions and their cultural dishes is displayed.	The system successfully displayed all regions and their corresponding cultural dishes without any loading or display issues.	Pass
CFE2	1. Log in 2. Select a region (e.g., Ilocos) 3. Click to view cultural dishes	Dishes from selected regions are shown with images and brief information.	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.	Pass
CFE3	1. Log in 2. Select a dish from the list 3. View the dish's cultural background and preparation	Dish details are shown, including history, origin, and preparation tips.	The system correctly displayed detailed information including history, origin, and preparation methods for the selected dish.	Pass

CFE4	1. Access the application as a guest 2. Try clicking on 'Cultural Food Explorer'	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login/signup page as expected.	Pass
CFE5	1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button	Dish is saved/bookmarked successfully under the user's profile.	The dish was successfully bookmarked under the user's profile, and a confirmation message was shown. It was later visible in the user's saved items list.	Pass

Table 3.7: Test Cases for Calendar

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CF_005	Test Executed by: Nomar Yram Dugenia
Module name: Calendar	Test Execution Date: 11-13-2025

TC #7	Steps to Replicate	Expected Result	Actual Result	Status
CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day 5. Clicks Save	The system saves the meal data and displays it correctly on the calendar	The system saved the meal data and displayed the meals correctly on	Pass

			the selected calendar date.	
CF2	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate	Chatbot generates a week's meal plan based on input and displays it for confirmation	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.	Pass
CF3	1. Do steps in CF2 2. User is satisfied and clicks Confirm	The system saves the meals into the calendar and displays them successfully	Upon confirmation, the system saved all generated meals into the calendar and displayed them correctly across the selected dates.	Pass
CF4	1. Do steps in CF2 2. User is not satisfied with the plan 3. Clicks "Regenerate"	Chatbot re-generates a new meal plan based on the same inputs	The chatbot regenerated a new weekly meal plan using the same input preferences and displayed the updated plan for review.	Pass
CF5	1. User attempts to save meals with empty fields or invalid characters	System shows an error: "Please complete all required fields correctly."	The system showed an error: "Please complete all required fields correctly" and prevented	Pass

			saving until all fields were valid.	
CF6	1. User selects multiple days and enters valid meal data for each 2. Saves all at once	All selected days show correct meal data on the calendar	All selected days were updated, and each date showed the correct meal data on the calendar after saving.	Pass
CF7	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down	System tells the user that the API is down , shows previous liked / chosen meals, and prompts user to do it manually.	API downtime handling is not implemented; recommend showing previously liked/selected meals and allowing manual input when the API is down.	Pass

Table 3.8. Test Cases for Login

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: L 005	Test Executed by: Nomar Yram Dugenia
Module name: Login	Test Execution Date: 11-13-2025

TC #8	Steps to Replicate	Expected Result	Actual Result	Status

L1	<ol style="list-style-type: none"> 1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click "Login" 	The user is logged in successfully and redirected to the dashboard or homepage.	The system correctly authenticated valid credentials and redirected the user to the dashboard. Invalid credentials prompted an error message.	Pass
L2	<ol style="list-style-type: none"> 1. Access the website via a browser 2. Click on the Login button 3. Click 'Login' 	System displays: "Invalid Credentials, Try again." User remains on the login page.	The system prevented login and displayed the "Invalid Credentials" message as expected.	Pass
L3	<ol style="list-style-type: none"> 1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login' 	System shows an error message: "Please enter your credentials."	The system displayed a validation message prompting the user to fill in required login fields.	Pass
L4	<ol style="list-style-type: none"> 1. Enter the correct username but the incorrect password 2. Click 'Login' 	User is shown an error message: 'Account not found'.	The system displayed the correct error message and denied access.	Pass
L5	<ol style="list-style-type: none"> 1. Enter a username with invalid characters (e.g., John) 2. Click 'Login' 	System displays input validation errors or blocks suspicious input.	The system rejected the invalid input and prevented login attempts with invalid characters.	Pass

L6	1. Enter the correct credentials 2. Turn off the internet before clicking 'Login'	System shows a connection or network error message.	The system displayed a network connection error message when offline.	Pass
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Table 3.9. Test Cases for Registration

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: R_005	Test Executed by: Nomar Yram Dugenia
Module name: Registration	Test Execution Date: 11-13-2025

TC #9	Steps to Replicate	Expected Result	Actual Result	Status
R1	1. Access the 'Register' page 2. Enter a valid name, email, and password 3. Submit the form 4. Open the email and check for the OTP 5. Enter the OTP in the verification field 6. Click on 'Verify'	The user receives the OTP, verifies it successfully, and their account is created.	The user received the OTP via email, successfully entered it, and the system created and activated the account.	Pass
R2	1. Access the 'Register' page 2. Enter an invalid email format 3. Attempt to submit the form	The system rejects the input and shows an error saying the email is invalid.	The system correctly showed an "Invalid email format" message.	Pass
R3	1. Access the 'Register' page 2. Enter a valid email 3. Enter mismatched passwords 4. Submit the form	The system prevents submission and notifies the user about the mismatch.	The system displayed an error about mismatched passwords.	Pass

R4	1. Access the ‘Register’ page 2. Enter valid inputs 3. Submit the form 4. Do not open or enter the OTP 5. Wait or close the page	The account is not created. The system waits for OTP verification.	The system did not create or activate the account without OTP verification and kept the registration pending until a valid OTP was entered.	Pass
R5	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter an incorrect OTP 5. Click ‘Verify’	The system shows an error saying the OTP is invalid.	The system displayed an “Invalid OTP” error and did not create the account until a correct OTP was provided.	Pass
R6	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 6. Click ‘Verify’	The system accepts the new OTP and creates the account successfully.	The system successfully resent a new OTP, accepted it when entered, and completed account creation.	Pass
R7	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired	The system notifies the user that the OTP has expired and suggests resending.	The system displayed a message that the OTP had expired and prompted the user to request a new OTP..	Pass
R8	1. Access the ‘Register’ page 2. Enter valid details with an already used email 3. Submit the form	System shows “Email Already in Use”	The system successfully displayed “Email	Pass

			Already in Use.”	
R9	1. Access the ‘Register’ page 2. Enter valid details with a weak password 3. Submit the form	System rejects and shows message “Password must include letters and numbers”	The system rejected the weak password and showed a message indicating that the password must include letters and numbers and meet minimum strength requirements.	Pass

Table 3.10. Test Cases for Profile

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: PR_005	Test Executed by: Nomar Yram Dugenia
Module name: Profile	Test Execution Date: 11-13-2025

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page 3. View user information and preferences	The user’s profile details and preferences are displayed correctly.	The user profile displayed all saved details correctly.	Pass
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.	The system saved the updated dietary preference as “Vegan” and applied it	Pass

			correctly to subsequent meal and restaurant suggestions.	
PR3	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save' 	System shows an error message: 'Incorrect current password'.	The system displayed an "Incorrect current password" error message and did not change the password	Pass
PR4	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save' 	Password is updated successfully, and a confirmation message is shown.	The system verified the current password, updated the password successfully, and showed a confirmation message; password changes are correctly processed and confirmed to the user.	Pass
PR5	1. Attempt to access the Profile page without logging in	User is redirected to the login/signup page.	User redirect to login/signup page.	Pass
PR6	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save' 	OTP is sent to email, User enters OTP	The system sent an OTP to the new email address, verified it successfully when entered, and updated	Pass

			the user's email.	
7	1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter an already registered email 5. Click 'Save'	System shows error 'Email already in use'	The system displayed an "Email already in use" error message and did not change the email to a duplicate address.	Pass

Table 3.11. Test Case for Logout

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: LO 005	Test Executed by: Nomar Yram Dugenia
Module name: Logout	Test Execution Date: 11-13-2025

TC #11	Steps to Replicate	Expected Result	Actual Result	Status
LO1	1. Log in to the system 2. Navigate to the Profile page 3. Click on the 'Logout' button	User is logged out and redirected to the home or login page.	Logout function worked successfully and redirected to the homepage	Pass

Table 3.12. Test Case for Admin

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AD 005	Test Executed by: Nomar Yram Dugenia

TC #12	Steps to Replicate	Expected Result	Actual Result	Status
AD1	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is directed to admin dashboard	The system recognized valid admin credentials and redirected the user to the dedicated admin dashboard.	Pass
AD2	1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials	User is shown a message. "Invalid Credentials, Try again."	The system rejected invalid admin credentials and displayed the message "Invalid Credentials, Try again."	Pass
AD3	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe	Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now	The admin dashboard displayed the reported recipes, allowed reinstatement of falsely flagged recipes, showed a	Pass

			success message, and made the reinstated recipe visible and searchable to all users.	
AD4	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is not flagged falsely. 6. Click Delete Recipe 	<p>Admin is shown a message that the recipe is successfully Deleted. The recipe is completely deleted from the database and can no longer be accessed.</p>	<p>The admin successfully deleted the confirmed problematic recipe, received a success message, and the recipe was permanently removed from the database and no longer accessible.</p>	Pass
AD5	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. Click Edit Cultural Food Explorer 5. Edit 6. Save 	<p>The Cultural Food Explorer is properly saved and changed for every user of the website.</p>	<p>The admin was able to edit Cultural Food Explorer entries, save changes successfully, and all</p>	Pass

			updates were reflected correctly for all users..	
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Test 6

Table 3.1. Test Cases for AI Chatbot

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AI 006	Test Executed by: Nomar Yram Dugenia
Module name: AI Chatbot	Test Execution Date: 11-17-2025

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query (e.g., 'I want to eat chicken adobo') 4. Provide valid preferences (e.g., no peanuts, feeling happy) 5. Submit the information	The chatbot analyzes the data, returns a suitable food suggestion, and saves the user's preference to the database.	The chatbot successfully analyzed the data, returned a suitable food suggestion, and saved the user's preferences to the database.	Pass
AI2	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a food query without any preferences	Chatbot still returns a general suggestion based on default	The chatbot returned a general food suggestion	Pass

	4. Submit the information	filters and saves minimal user input.	based on default settings and successfully recorded minimal user input.	
AI3	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a vague or invalid input (e.g., 'food') 4. Provide random or empty preferences 5. Submit the information	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.	The chatbot prompted the user to provide a more specific query and did not generate any food suggestion.	Pass
AI4	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query 4. Provide preferences 5. Chatbot gives a suggestion 6. Mark the suggestion as unsatisfactory	Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.	The chatbot re-prompted the user for new inputs when the suggestion was marked unsatisfactory and did not save any preferences until the user confirmed satisfaction.	Pass
AI5	1. Login to the System 2. Click on the AI Chatbot option 3. AI Chatbot down or not implemented yet	The system shows an error message, indicating that API is down. Fallback method is shown, listing previous liked	The system shows an error message indicating that the API is down. A fallback	Pass

		recipes/restaurants to user.	method is shown, listing previous liked recipes/restaurants to the user.	
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Table 3.2. Test Cases for Community Recipe

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CR_006	Test Executed by: Nomar Yram Dugenia
Module name: Community Recipe	Test Execution Date: 11-17-2025

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	1. Access the Dashboard 2. Click on 'Community Recipes'	The user can view and read available community-uploaded recipes.	The user was able to access the Community Recipes page and view all available recipes without any issue.	Pass
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.	The system prompted the user to log in before allowing recipe upload.	Pass

CR3	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit' 	The recipe is uploaded successfully and appears in the list.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass
CR4	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Upload Recipe' 4. Leave some required fields empty 5. Click 'Submit' 	The user is shown an error message indicating the missing required fields.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass
CR5	<ol style="list-style-type: none"> 1. Access the Dashboard 2. Click on 'Community Recipes' 3. Click on a recipe 4. Click 'Export' or 'Save Offline' 	The recipe is downloaded or saved for offline access.	The system displayed clear validation error messages indicating	Pass

			which required fields were missing and prevented submission until they were completed.	
CR6	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Search for a recipe that doesn't exist	The user is shown a message indicating no results were found.	The system did not display any message, leaving the page blank after search.	Pass
CR7	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Attempt to upload invalid file format (.exe, .zip)	The user is shown a message indicating that the file format is not supported.	The system displayed a validation message rejecting the invalid file format upload.	Pass
CR8	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related	Google Cloud API determines that the image is not food and the user is shown a message indicating that the image uploaded is not food and will not accept the image. Prompts user to upload a different image	The system uploaded the image without applying food-image validation and did not warn the user	Fail

CR9	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision) 	<p>Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.</p>	<p>Food-image verification via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.</p>	Pass
CR10	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food (>= 70% Confidence for Google Cloud Vision) 7. Submit 	<p>Google Cloud Vision determines that the image is food with a 70% confidence rate, accepting the image and allows user to successfully submit recipe.</p>	<p>Food-image verification via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.</p>	Pass
CR11	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click on a Recipe 4. Report with 5 different accounts 	<p>System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be archived and not be seen by users</p>	<p>Recipe reporting and auto-archiving are not implemented; recommend adding report tracking and automatic hiding of</p>	Pass

			recipes after multiple reports.	
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Table 3.3. Test Cases for Restaurant Locator

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: RL 006	Test Executed by: Nomar Yram Dugenia
Module name: Restaurant Locator	Test Execution Date: 11-17-2025

TC #3	Steps to Replicate	Expected Result	Actual Result	Status
RL1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Use the filter to select 'Filipino' cuisine 4. Submit search 	A filtered list of Filipino restaurants is displayed.	The system displayed a correctly filtered list containing only restaurants tagged as Filipino cuisine.	Pass
RL2	<ol style="list-style-type: none"> 1. Log in to the system 2. Access 'Restaurant Locator' 3. Set price filter to 'PP' 4. Click search 	A list of restaurants within the PP price range is displayed.	The system correctly displayed restaurants that matched the PP price range.	Pass

RL3	1. Log in to the system 2. Click on 'Restaurant Locator' 3. Select open restaurants only 4. Submit search	Only restaurants currently open are shown.	The feature correctly displayed open restaurants based on real-time data.	Pass
RL4	1. Log in 2. Open 'Restaurant Locator' 3. Set distance filter to 5km 4. Click search	Restaurants within a 5km radius are displayed on the map.	The system accurately displayed restaurants within the specified distance range.	Pass
RL5	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + PP + open now) 4. Submit	Results match all selected filters combined.	The system accurately applied all selected filters and displayed correct matching results.	Pass
RL6	1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login page before allowing access.	Pass
RL7.	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down	User is shown a message saying that the API is down and shows a default database of restaurants based in their city.	The system displayed an error but did not load fallback restaurant data;	Pass

			recommend implementing a backup list when the API is down.	
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Table 3.4. Test Cases for Surprise Me!

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: SM_006	Test Executed by: Nomar Yram Dugenia
Module name: Surprise Me	Test Execution Date: 11-17-2025

TC #4	Steps to Replicate	Expected Result	Actual Result	Status
SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me'	The system returns one random meal or restaurant suggestion.	The feature successfully displayed one random food or restaurant suggestion.	Pass
SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.	The system provided varied and random suggestions on each click.	Pass

SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The user was redirected to the login page before accessing the Surprise Me feature.	Pass
SM4	1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh'	Suggestion is refreshed and a new result is displayed.	The system successfully refreshed and displayed a new random suggestion upon clicking 'Refresh'.	Pass

Table 3.5. Test Cases for Barkada Vote

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: BV 006	Test Executed by: Nomar Yram Dugenia
Module name: Barkada Vote	Test Execution Date: 11-17-2025

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance	Chatbot suggests 5 meals based on group input	The chatbot analyzed the group	Pass

	4. Enter group preferences (e.g., dietary restrictions, allergens) 5. Chatbot returns 5 meal options		preferences and suggested 5 meal options tailored to the group's input.	
BV2	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter invalid preferences (e.g., empty fields or unsupported data)	System shows an error asking to correct or complete the input	The system displayed an error message prompting the user to correct or complete invalid preferences before proceeding.	Pass
BV3	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Skip the chatbot and manually input meal options	System allows manual entry of meal options	The system allowed users to manually input multiple meal options and proceed to the next step without chatbot assistance.	Pass
BV4	1. User continues from valid meal options (either from the chatbot or the manual) 2. The system creates a voting room and displays meals	System displays all meals and opens a new voting room	The system created a voting room, displayed all the selected meal options, and allowed participants to begin voting.	Pass
BV5	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote	All users can view and participate in the vote through the code.	All users who entered a valid voting code	Pass

	3. Users enter valid code		successfully joined the voting room and were able to view and participate in the vote.	
BV6	1. All votes are submitted 2. System tallies votes 3. Displays the most-voted meal 4. User sees the confirmation screen	The winning meal is displayed, and the calendar is marked as used successfully	The system tallied all votes, displayed the winning meal, and updated the calendar to mark the meal and date as used, along with a confirmation screen.	Pass
BV7	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter invalid code	Users cannot enter the room. Application prompts the users that the code is invalid and to try again.	Users who entered an invalid code were prevented from joining and were shown a message indicating that the code was invalid, with a prompt to try again.	Pass
BV8	1. Users go to website and go to Barkada Vote 2. Users enter expired code	Users are prompted that the room they are looking for does not	The system informed users that the voting room	Pass

		exist or isn't available anymore.	was expired or no longer available when they entered an expired code.	
BV9	<ol style="list-style-type: none"> 1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code 4. Users attempt to vote multiple times 	Users are told by the system that they have already voted and cannot vote again, and their reattempt is not counted towards the total.	The system allowed each user to vote only once and showed a message that they had already voted when they attempted to vote again; additional attempts were not counted.	Pass

Table 3.6. Test Cases for Cultural Food Explorer

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CFE 006	Test Executed by: Nomar Yram Dugenia
Module name: Cultural Food Explorer	Test Execution Date: 11-17-2025

TC #6	Steps to Replicate	Expected Result	Actual Result	Status
CFE1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Cultural Food Explorer' 3. Browse through the list of regions 	List of regions and their cultural dishes is displayed.	The system successfully displayed all regions and their corresponding cultural dishes without any	Pass

			loading or display issues.	
CFE2	1. Log in 2. Select a region (e.g., Ilocos) 3. Click to view cultural dishes	Dishes from selected regions are shown with images and brief information.	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.	Pass
CFE3	1. Log in 2. Select a dish from the list 3. View the dish's cultural background and preparation	Dish details are shown, including history, origin, and preparation tips.	The system correctly displayed detailed information including history, origin, and preparation methods for the selected dish.	Pass
CFE4	1. Access the application as a guest 2. Try clicking on 'Cultural Food Explorer'	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login/signup page as expected.	Pass
CFE5	1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button	Dish is saved/bookmarked successfully under the user's profile.	The dish was successfully bookmarked under the user's profile,	Pass

			and a confirmation message was shown. It was later visible in the user's saved items list.	
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Table 3.7: Test Cases for Calendar

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CF_006	Test Executed by: Nomar Yram Dugenia
Module name: Calendar	Test Execution Date: 11-17-2025

TC #7	Steps to Replicate	Expected Result	Actual Result	Status
CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day 5. Clicks Save	The system saves the meal data and displays it correctly on the calendar	The system saved the meal data and displayed the meals correctly on the selected calendar date.	Pass
CF2	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate	Chatbot generates a week's meal plan based on input and displays it for confirmation	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.	Pass

CF3	1. Do steps in CF2 2. User is satisfied and clicks Confirm	The system saves the meals into the calendar and displays them successfully	Upon confirmation, the system saved all generated meals into the calendar and displayed them correctly across the selected dates.	Pass
CF4	1. Do steps in CF2 2. User is not satisfied with the plan 3. Clicks “Regenerate”	Chatbot re-generates a new meal plan based on the same inputs	The chatbot regenerated a new weekly meal plan using the same input preferences and displayed the updated plan for review.	Pass
CF5	1. User attempts to save meals with empty fields or invalid characters	System shows an error: “Please complete all required fields correctly.”	The system showed an error: “Please complete all required fields correctly” and prevented saving until all fields were valid.	Pass
CF6	1. User selects multiple days and enters valid meal data for each 2. Saves all at once	All selected days show correct meal data on the calendar	All selected days were updated, and each date showed the correct meal data on the calendar after saving.	Pass

CF7	<ol style="list-style-type: none"> 1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down 	<p>System tells the user that the API is down, shows previous liked / chosen meals, and prompts user to do it manually.</p>	<p>API downtime handling is not implemented; recommend showing previously liked/selected meals and allowing manual input when the API is down.</p>	Pass
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Table 3.8. Test Cases for Login

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: L 006	Test Executed by: Nomar Yram Dugenia
Module name: Login	Test Execution Date: 11-17-2025

TC #8	Steps to Replicate	Expected Result	Actual Result	Status
L1	<ol style="list-style-type: none"> 1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click "Login" 	<p>The user is logged in successfully and redirected to the dashboard or homepage.</p>	<p>The system correctly authenticated valid credentials and redirected the user to the dashboard. Invalid credentials prompted an error message.</p>	Pass
L2	<ol style="list-style-type: none"> 1. Access the website via a browser 2. Click on the Login button 	<p>System displays: "Invalid Credentials, Try again." User</p>	<p>The system prevented login and displayed</p>	Pass

	3. Click 'Login'	remains on the login page.	the "Invalid Credentials" message as expected.	
L3	1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login'	System shows an error message: "Please enter your credentials."	The system displayed a validation message prompting the user to fill in required login fields.	Pass
L4	1. Enter the correct username but the incorrect password 2. Click 'Login'	User is shown an error message: 'Account not found'.	The system displayed the correct error message and denied access.	Pass
L5	1. Enter a username with invalid characters (e.g., John) 2. Click 'Login'	System displays input validation errors or blocks suspicious input.	The system rejected the invalid input and prevented login attempts with invalid characters.	Pass
L6	1. Enter the correct credentials 2. Turn off the internet before clicking 'Login'	System shows a connection or network error message.	The system displayed a network connection error message when offline.	Pass

Table 3.9. Test Cases for Registration

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: R_006	Test Executed by: Nomar Yram Dugenia
Module name: Registration	Test Execution Date: 11-17-2025

TC #9	Steps to Replicate	Expected Result	Actual Result	Status
R1	1. Access the ‘Register’ page 2. Enter a valid name, email, and password 3. Submit the form 4. Open the email and check for the OTP 5. Enter the OTP in the verification field 6. Click on ‘Verify’	The user receives the OTP, verifies it successfully, and their account is created.	The user received the OTP via email, successfully entered it, and the system created and activated the account.	Pass
R2	1. Access the ‘Register’ page 2. Enter an invalid email format 3. Attempt to submit the form	The system rejects the input and shows an error saying the email is invalid.	The system correctly showed an “Invalid email format” message.	Pass
R3	1. Access the ‘Register’ page 2. Enter a valid email 3. Enter mismatched passwords 4. Submit the form	The system prevents submission and notifies the user about the mismatch.	The system displayed an error about mismatched passwords.	Pass
R4	1. Access the ‘Register’ page 2. Enter valid inputs 3. Submit the form 4. Do not open or enter the OTP 5. Wait or close the page	The account is not created. The system waits for OTP verification.	The system did not create or activate the account without OTP verification and kept the registration pending until a valid OTP was entered.	Pass
R5	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form	The system shows an error saying the OTP is invalid.	The system displayed an “Invalid OTP” error	Pass

	4. Enter an incorrect OTP 5. Click ‘Verify’		and did not create the account until a correct OTP was provided.	
R6	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 6. Click ‘Verify’	The system accepts the new OTP and creates the account successfully.	The system successfully resent a new OTP, accepted it when entered, and completed account creation.	Pass
R7	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired	The system notifies the user that the OTP has expired and suggests resending.	The system displayed a message that the OTP had expired and prompted the user to request a new OTP..	Pass
R8	1. Access the ‘Register’ page 2. Enter valid details with an already used email 3. Submit the form	System shows “Email Already in Use”	The system successfully displayed “Email Already in Use.”	Pass
R9	1. Access the ‘Register’ page 2. Enter valid details with a weak password 3. Submit the form	System rejects and shows message “Password must include letters and numbers”	The system rejected the weak password and showed a message indicating that the password must include letters and numbers and meet minimum	Pass

			strength requirements.	
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Table 3.10. Test Cases for Profile

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: PR 006	Test Executed by: Nomar Yram Dugenia
Module name: Profile	Test Execution Date: 11-17-2025

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page 3. View user information and preferences	The user's profile details and preferences are displayed correctly.	The user profile displayed all saved details correctly.	Pass
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.	The system saved the updated dietary preference as "Vegan" and applied it correctly to subsequent meal and restaurant suggestions.	Pass
PR3	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save'	System shows an error message: 'Incorrect current password'.	The system displayed an "Incorrect current password" error message and did not change the password	Pass

PR4	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save' 	<p>Password is updated successfully, and a confirmation message is shown.</p>	<p>The system verified the current password, updated the password successfully, and showed a confirmation message; password changes are correctly processed and confirmed to the user.</p>	Pass
PR5	<ol style="list-style-type: none"> 1. Attempt to access the Profile page without logging in 	<p>User is redirected to the login/signup page.</p>	<p>User redirect to login/signup page.</p>	Pass
PR6	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save' 	<p>OTP is sent to email, User enters OTP</p>	<p>The system sent an OTP to the new email address, verified it successfully when entered, and updated the user's email.</p>	Pass
7	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter an already registered email 5. Click 'Save' 	<p>System shows error 'Email already in use'</p>	<p>The system displayed an "Email already in use" error message and did not change the email to a duplicate address.</p>	Pass

Table 3.11. Test Case for Logout

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: LO 006	Test Executed by: Nomar Yram Dugenia
Module name: Logout	Test Execution Date: 11-17-2025

TC #11	Steps to Replicate	Expected Result	Actual Result	Status
LO1	1. Log in to the system 2. Navigate to the Profile page 3. Click on the 'Logout' button	User is logged out and redirected to the home or login page.	Logout function worked successfully and redirected to the homepage	Pass

Table 3.12. Test Case for Admin

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AD 006	Test Executed by: Nomar Yram Dugenia
Module name: Admin	Test Execution Date: 11-17-2025

TC #12	Steps to Replicate	Expected Result	Actual Result	Status
AD1	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is directed to admin dashboard	The system recognized valid admin credentials and	Pass

			redirected the user to the dedicated admin dashboard.	
AD2	1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials	User is shown a message. "Invalid Credentials, Try again."	The system rejected invalid admin credentials and displayed the message "Invalid Credentials, Try again."	Pass
AD3	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe	Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now	The admin dashboard displayed the reported recipes, allowed reinstatement of falsely flagged recipes, showed a success message, and made the reinstated recipe visible and searchable to all users.	Pass
AD4	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is shown a message that the recipe is successfully Deleted. The recipe is	The admin successfully deleted the confirmed	Pass

	<p>4. View reported recipes</p> <p>5. Verify that the recipe reported is not flagged falsely.</p> <p>6. Click Delete Recipe</p>	completely deleted from the database and can no longer be accessed.	problematic recipe, received a success message, and the recipe was permanently removed from the database and no longer accessible.	
AD5	<p>1. Enter website</p> <p>2. Go to Login</p> <p>3. Add Valid Admin Login Credentials</p> <p>4. Click Edit Cultural Food Explorer</p> <p>5. Edit</p> <p>6. Save</p>	The Cultural Food Explorer is properly saved and changed for every user of the website.	The admin was able to edit Cultural Food Explorer entries, save changes successfully, and all updates were reflected correctly for all users..	Pass

Test 7
Table 3.1. Test Cases for AI Chatbot

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)
Test Case

Test Case ID: AI 007	Test Executed by: Nomar Yram Dugenia
Module name: AI Chatbot	Test Execution Date: 11-20-2025

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query (e.g., 'I want to eat chicken adobo') 4. Provide valid preferences (e.g., no peanuts, feeling happy) 5. Submit the information 	The chatbot analyzes the data, returns a suitable food suggestion, and saves the user's preference to the database.	The chatbot successfully analyzed the data, returned a suitable food suggestion, and saved the user's preferences to the database.	Pass
AI2	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a food query without any preferences 4. Submit the information 	Chatbot still returns a general suggestion based on default filters and saves minimal user input.	The chatbot returned a general food suggestion based on default settings and successfully recorded minimal user input.	Pass
AI3	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a vague or invalid input (e.g., 'food') 4. Provide random or empty preferences 5. Submit the information 	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.	The chatbot prompted the user to provide a more specific query and did not generate any food suggestion.	Pass

AI4	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query 4. Provide preferences 5. Chatbot gives a suggestion 6. Mark the suggestion as unsatisfactory 	<p>Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.</p>	<p>The chatbot re-prompted the user for new inputs when the suggestion was marked unsatisfactory and did not save any preferences until the user confirmed satisfaction.</p>	Pass
AI5	<ol style="list-style-type: none"> 1. Login to the System 2. Click on the AI Chatbot option 3. AI Chatbot down or not implemented yet 	<p>The system shows an error message, indicating that API is down. Fallback method is shown, listing previous liked recipes/restaurants to user.</p>	<p>The system shows an error message indicating that the API is down. A fallback method is shown, listing previous liked recipes/restaurants to the user.</p>	Pass

Table 3.2. Test Cases for Community Recipe

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CR 007	Test Executed by: Nomar Yram Dugenia
Module name: Community Recipe	Test Execution Date: 11-20-2025

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	1. Access the Dashboard 2. Click on 'Community Recipes'	The user can view and read available community-uploaded recipes.	The user was able to access the Community Recipes page and view all available recipes without any issue.	Pass
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.	The system prompted the user to log in before allowing recipe upload.	Pass
CR3	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit'	The recipe is uploaded successfully and appears in the list.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass
CR4	1. Login with valid user credentials	The user is shown an error message		Pass

	<p>2. Click on 'Community Recipes'</p> <p>3. Click 'Upload Recipe'</p> <p>4. Leave some required fields empty</p> <p>5. Click 'Submit'</p>	indicating the missing required fields.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	
CR5	<p>1. Access the Dashboard</p> <p>2. Click on 'Community Recipes'</p> <p>3. Click on a recipe</p> <p>4. Click 'Export' or 'Save Offline'</p>	The recipe is downloaded or saved for offline access.	The system displayed clear validation error messages indicating which required fields were missing and prevented submission until they were completed.	Pass
CR6	<p>1. Access the Dashboard</p> <p>2. Click on 'Community Recipes'</p> <p>3. Search for a recipe that doesn't exist</p>	The user is shown a message indicating no results were found.	The system did not display any message, leaving the	Pass

			page blank after search.	
CR7	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Attempt to upload invalid file format (.exe, .zip)	The user is shown a message indicating that the file format is not supported.	The system displayed a validation message rejecting the invalid file format upload.	Pass
CR8	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related	Google Cloud API determines that the image is not food and the user is shown a message indicating that the image uploaded is not food and will not accept the image. Prompts user to upload a different image	The system uploaded the image without applying food-image validation and did not warn the user	Pass
CR9	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision)	Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.	Food-image verification via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.	Pass
CR10	1. Login with valid user credentials	Google Cloud Vision determines that the	Food-image verification	Pass

	<p>2. Click on 'Community Recipes'</p> <p>3. Click 'Submit Recipe'</p> <p>4. Enter valid recipe details</p> <p>5. Click 'Upload Image'</p> <p>6. Upload an image that is food ($\geq 70\%$ Confidence for Google Cloud Vision)</p> <p>7. Submit</p>	<p>image is food with a 70% confidence rate, accepting the image and allows user to successfully submit recipe.</p>	<p>via Google Cloud Vision API is not implemented; recommend integrating confidence checks to ensure only valid food images are accepted.</p>	
CR11	<p>1. Login with valid user credentials</p> <p>2. Click on 'Community Recipes'</p> <p>3. Click on a Recipe</p> <p>4. Report with 5 different accounts</p>	<p>System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be archived and not be seen by users</p>	<p>Recipe reporting and auto-archiving are not implemented; recommend adding report tracking and automatic hiding of recipes after multiple reports.</p>	Pass

Table 3.3. Test Cases for Restaurant Locator

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: RL 007	Test Executed by: Nomar Yram Dugenia
Module name: Restaurant Locator	Test Execution Date: 11-20-2025

TC #3	Steps to Replicate	Expected Result	Actual Result	Status

RL1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Use the filter to select 'Filipino' cuisine 4. Submit search 	A filtered list of Filipino restaurants is displayed.	The system displayed a correctly filtered list containing only restaurants tagged as Filipino cuisine.	Pass
RL2	<ol style="list-style-type: none"> 1. Log in to the system 2. Access 'Restaurant Locator' 3. Set price filter to 'PP' 4. Click search 	A list of restaurants within the PP price range is displayed.	The system correctly displayed restaurants that matched the PP price range.	Pass
RL3	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Select open restaurants only 4. Submit search 	Only restaurants currently open are shown.	The feature correctly displayed open restaurants based on real-time data.	Pass
RL4	<ol style="list-style-type: none"> 1. Log in 2. Open 'Restaurant Locator' 3. Set distance filter to 5km 4. Click search 	Restaurants within a 5km radius are displayed on the map.	The system accurately displayed restaurants within the specified distance range.	Pass

RL5	<ol style="list-style-type: none"> 1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + PP + open now) 4. Submit 	Results match all selected filters combined.	The system accurately applied all selected filters and displayed correct matching results.	Pass
RL6	<ol style="list-style-type: none"> 1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card 	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login page before allowing access.	Pass
RL7.	<ol style="list-style-type: none"> 1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down 	User is shown a message saying that the API is down and shows a default database of restaurants based in their city.	The system displayed an error but did not load fallback restaurant data; recommend implementing a backup list when the API is down.	Pass

Table 3.4. Test Cases for Surprise Me!

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: SM 007	Test Executed by: Nomar Yram Dugenia
Module name: Surprise Me	Test Execution Date: 11-20-2025

TC #4	Steps to Replicate	Expected Result	Actual Result	Status
SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me'	The system returns one random meal or restaurant suggestion.	The feature successfully displayed one random food or restaurant suggestion.	Pass
SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.	The system provided varied and random suggestions on each click.	Pass
SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The user was redirected to the login page before accessing the Surprise Me feature.	Pass
SM4	1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh'	Suggestion is refreshed and a new result is displayed.	The system successfully refreshed and displayed a new random suggestion upon clicking 'Refresh'.	Pass

Table 3.5. Test Cases for Barkada Vote

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: BV 007	Test Executed by: Nomar Yram Dugenia
Module name: Barkada Vote	Test Execution Date: 11-20-2025

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	<ol style="list-style-type: none"> User logs in Click on 'Barkada Vote Mode' Choose to receive chatbot assistance Enter group preferences (e.g., dietary restrictions, allergens) Chatbot returns 5 meal options 	Chatbot suggests 5 meals based on group input	The chatbot analyzed the group preferences and suggested 5 meal options tailored to the group's input.	Pass
BV2	<ol style="list-style-type: none"> User logs in Click on 'Barkada Vote Mode' Choose to receive chatbot assistance Enter invalid preferences (e.g., empty fields or unsupported data) 	System shows an error asking to correct or complete the input	The system displayed an error message prompting the user to correct or complete invalid preferences before proceeding.	Pass
BV3	<ol style="list-style-type: none"> User logs in Click on 'Barkada Vote Mode' Skip the chatbot and manually input meal options 	System allows manual entry of meal options	The system allowed users to manually input multiple meal options and proceed	Pass

			to the next step without chatbot assistance.	
BV4	1. User continues from valid meal options (either from the chatbot or the manual) 2. The system creates a voting room and displays meals	System displays all meals and opens a new voting room	The system created a voting room, displayed all the selected meal options, and allowed participants to begin voting.	Pass
BV5	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code	All users can view and participate in the vote through the code.	All users who entered a valid voting code successfully joined the voting room and were able to view and participate in the vote.	Pass
BV6	1. All votes are submitted 2. System tallies votes 3. Displays the most-voted meal 4. User sees the confirmation screen	The winning meal is displayed, and the calendar is marked as used successfully	The system tallied all votes, displayed the winning meal, and updated the calendar to mark the meal and date as used, along with a confirmation screen.	Pass

BV7	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter invalid code	Users cannot enter the room. Application prompts the users that the code is invalid and to try again.	Users who entered an invalid code were prevented from joining and were shown a message indicating that the code was invalid, with a prompt to try again.	Pass
BV8	1. Users go to website and go to Barkada Vote 2. Users enter expired code	Users are prompted that the room they are looking for does not exist or isn't available anymore.	The system informed users that the voting room was expired or no longer available when they entered an expired code.	Pass
BV9	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code 4. Users attempt to vote multiple times	Users are told by the system that they have already voted and cannot vote again, and their reattempt is not counted towards the total.	The system allowed each user to vote only once and showed a message that they had already voted when they attempted to vote again; additional attempts were not counted.	Pass

Table 3.6. Test Cases for Cultural Food Explorer

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)
Test Case

Test Case ID: CFE_007	Test Executed by: Nomar Yram Dugenia
Module name: Cultural Food Explorer	Test Execution Date: 11-20-2025

TC #6	Steps to Replicate	Expected Result	Actual Result	Status
CFE1	1. Log in to the system 2. Click on 'Cultural Food Explorer' 3. Browse through the list of regions	List of regions and their cultural dishes is displayed.	The system successfully displayed all regions and their corresponding cultural dishes without any loading or display issues.	Pass
CFE2	1. Log in 2. Select a region (e.g., Ilocos) 3. Click to view cultural dishes	Dishes from selected regions are shown with images and brief information.	On hosted deployment, dishes from the selected region did not load properly (images/info missing); recommend fixing API/data fetching paths for production..	Fail
CFE3	1. Log in 2. Select a dish from the list 3. View the dish's cultural background and preparation	Dish details are shown, including history, origin, and preparation tips.	Dish details (history, origin, preparation) failed to load on the hosted version; recommend	Fail

			checking the database/API endpoints and CORS settings.d dish.	
CFE4	1. Access the application as a guest 2. Try clicking on 'Cultural Food Explorer'	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login/signup page as expected.	Pass
CFE5	1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button	Dish is saved/bookmarked successfully under the user's profile.	Bookmarking did not work on the hosted version (no save action occurred); recommend reviewing backend routes and authentication tokens in production.	Fail

Table 3.7: Test Cases for Calendar

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CF_007	Test Executed by: Nomar Yram Dugenia
Module name: Calendar	Test Execution Date: 11-20-2025

TC #7	Steps to Replicate	Expected Result	Actual Result	Status

CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day 5. Clicks Save	The system saves the meal data and displays it correctly on the calendar	The system saved the meal data and displayed the meals correctly on the selected calendar date.	Pass
CF2	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate	Chatbot generates a week's meal plan based on input and displays it for confirmation	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.	Pass
CF3	1. Do steps in CF2 2. User is satisfied and clicks Confirm	The system saves the meals into the calendar and displays them successfully	Upon confirmation, the system saved all generated meals into the calendar and displayed them correctly across the selected dates.	Pass
CF4	1. Do steps in CF2 2. User is not satisfied with the plan 3. Clicks "Regenerate"	Chatbot re-generates a new meal plan based on the same inputs	The chatbot regenerated a new weekly meal plan using the same input preferences and displayed the updated plan for review.	Pass

CF5	1. User attempts to save meals with empty fields or invalid characters	System shows an error: “Please complete all required fields correctly.”	The system showed an error: “Please complete all required fields correctly” and prevented saving until all fields were valid.	Pass
CF6	1. User selects multiple days and enters valid meal data for each 2. Saves all at once	All selected days show correct meal data on the calendar	All selected days were updated, and each date showed the correct meal data on the calendar after saving.	Pass
CF7	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down	System tells the user that the API is down, shows previous liked / chosen meals, and prompts user to do it manually.	API downtime handling is not implemented; recommend showing previously liked/selected meals and allowing manual input when the API is down.	Pass

Table 3.8. Test Cases for Login

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: L 007	Test Executed by: Nomar Yram Dugenia
Module name: Login	Test Execution Date: 11-20-2025

TC #8	Steps to Replicate	Expected Result	Actual Result	Status
L1	1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click "Login"	The user is logged in successfully and redirected to the dashboard or homepage.	The system correctly authenticated valid credentials and redirected the user to the dashboard. Invalid credentials prompted an error message.	Pass
L2	1. Access the website via a browser 2. Click on the Login button 3. Click 'Login'	System displays: "Invalid Credentials, Try again." User remains on the login page.	The system prevented login and displayed the "Invalid Credentials" message as expected.	Pass
L3	1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login'	System shows an error message: "Please enter your credentials."	The system displayed a validation message prompting the user to fill in required login fields.	Pass

L4	1. Enter the correct username but the incorrect password 2. Click 'Login'	User is shown an error message: 'Account not found'.	The system displayed the correct error message and denied access.	Pass
L5	1. Enter a username with invalid characters (e.g., John) 2. Click 'Login'	System displays input validation errors or blocks suspicious input.	The system rejected the invalid input and prevented login attempts with invalid characters.	Pass
L6	1. Enter the correct credentials 2. Turn off the internet before clicking 'Login'	System shows a connection or network error message.	The system displayed a network connection error message when offline.	Pass

Table 3.9. Test Cases for Registration

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: R_007	Test Executed by: Nomar Yram Dugenia
Module name: Registration	Test Execution Date: 11-20-2025

TC #9	Steps to Replicate	Expected Result	Actual Result	Status
R1	1. Access the 'Register' page 2. Enter a valid name, email, and password 3. Submit the form 4. Open the email and check for the OTP 5. Enter the OTP in the verification field 6. Click on 'Verify'	The user receives the OTP, verifies it successfully, and their account is created.	The user received the OTP via email, successfully entered it, and the system created and activated the account.	Pass

R2	1. Access the ‘Register’ page 2. Enter an invalid email format 3. Attempt to submit the form	The system rejects the input and shows an error saying the email is invalid.	The system correctly showed an “Invalid email format” message.	Pass
R3	1. Access the ‘Register’ page 2. Enter a valid email 3. Enter mismatched passwords 4. Submit the form	The system prevents submission and notifies the user about the mismatch.	The system displayed an error about mismatched passwords.	Pass
R4	1. Access the ‘Register’ page 2. Enter valid inputs 3. Submit the form 4. Do not open or enter the OTP 5. Wait or close the page	The account is not created. The system waits for OTP verification.	The system did not create or activate the account without OTP verification and kept the registration pending until a valid OTP was entered.	Pass
R5	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter an incorrect OTP 5. Click ‘Verify’	The system shows an error saying the OTP is invalid.	The system displayed an “Invalid OTP” error and did not create the account until a correct OTP was provided.	Pass
R6	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 6. Click ‘Verify’	The system accepts the new OTP and creates the account successfully.	The system successfully resent a new OTP, accepted it when entered, and completed account creation.	Pass

R7	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired	The system notifies the user that the OTP has expired and suggests resending.	The system displayed a message that the OTP had expired and prompted the user to request a new OTP..	Pass
R8	1. Access the ‘Register’ page 2. Enter valid details with an already used email 3. Submit the form	System shows “Email Already in Use”	The system successfully displayed “Email Already in Use.”	Pass
R9	1. Access the ‘Register’ page 2. Enter valid details with a weak password 3. Submit the form	System rejects and shows message “Password must include letters and numbers”	The system rejected the weak password and showed a message indicating that the password must include letters and numbers and meet minimum strength requirements.	Pass

Table 3.10. Test Cases for Profile

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: PR_007	Test Executed by: Nomar Yram Dugenia
Module name: Profile	Test Execution Date: 11-20-2025

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page 3. View user information and preferences	The user's profile details and preferences are displayed correctly.	The user profile displayed all saved details correctly.	Pass
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.	The system saved the updated dietary preference as "Vegan" and applied it correctly to subsequent meal and restaurant suggestions.	Pass
PR3	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save'	System shows an error message: 'Incorrect current password'.	The system displayed an "Incorrect current password" error message and did not change the password	Pass
PR4	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save'	Password is updated successfully, and a confirmation message is shown.	The system verified the current password, updated the password successfully, and showed a confirmation message; password changes are correctly	Pass

			processed and confirmed to the user.	
PR5	1. Attempt to access the Profile page without logging in	User is redirected to the login/signup page.	User redirect to login/signup page.	Pass
PR6	1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save'	OTP is sent to email, User enters OTP	The system sent an OTP to the new email address, verified it successfully when entered, and updated the user's email.	Pass
7	1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter an already registered email 5. Click 'Save'	System shows error 'Email already in use'	The system displayed an "Email already in use" error message and did not change the email to a duplicate address.	Pass

Table 3.11. Test Case for Logout

TC #11	Steps to Replicate	Expected Result	Actual Result	Status
LO1	1. Log in to the system 2. Navigate to the Profile page 3. Click on the 'Logout' button	User is logged out and redirected to the home or login page.	Logout function worked successfully and redirected	Pass

			to the homepage	
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Table 3.12. Test Case for Admin

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AD 007	Test Executed by: Nomar Yram Dugenia
Module name: Admin	Test Execution Date: 11-20-2025

TC #12	Steps to Replicate	Expected Result	Actual Result	Status
AD1	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is directed to admin dashboard	The system recognized valid admin credentials and redirected the user to the dedicated admin dashboard.	Pass
AD2	1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials	User is shown a message. “Invalid Credentials, Try again.”	The system rejected invalid admin credentials and displayed the message “Invalid Credentials, Try again.”	Pass

AD3	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe 	<p>Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now</p>	<p>The admin dashboard displayed the reported recipes, allowed reinstatement of falsely flagged recipes, showed a success message, and made the reinstated recipe visible and searchable to all users.</p>	Pass
AD4	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is not flagged falsely. 6. Click Delete Recipe 	<p>Admin is shown a message that the recipe is successfully Deleted. The recipe is completely deleted from the database and can no longer be accessed.</p>	<p>The admin successfully deleted the confirmed problematic recipe, received a success message, and the recipe was permanently removed from the database and no longer accessible.</p>	Pass

AD5	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. Click Edit Cultural Food Explorer 5. Edit 6. Save 	<p>The Cultural Food Explorer is properly saved and changed for every user of the website.</p>	<p>The admin was able to edit Cultural Food Explorer entries, save changes successfully, and all updates were reflected correctly for all users..</p>	Pass
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Test 8
Table 3.1. Test Cases for AI Chatbot

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AI_008	Test Executed by: Nomar Yram Dugenia
Module name: AI Chatbot	Test Execution Date: 11-24-2025

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query (e.g., 'I want to eat chicken adobo') 	<p>The chatbot analyzes the data, returns a suitable food suggestion, and saves</p>	<p>The chatbot successfully analyzed the data, returned</p>	Pass

	4. Provide valid preferences (e.g., no peanuts, feeling happy) 5. Submit the information	the user's preference to the database.	a suitable food suggestion, and saved the user's preferences to the database.	
AI2	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a food query without any preferences 4. Submit the information	Chatbot still returns a general suggestion based on default filters and saves minimal user input.	The chatbot returned a general food suggestion based on default settings and successfully recorded minimal user input.	Pass
AI3	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a vague or invalid input (e.g., 'food') 4. Provide random or empty preferences 5. Submit the information	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.	The chatbot prompted the user to provide a more specific query and did not generate any food suggestion.	Pass
AI4	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query 4. Provide preferences 5. Chatbot gives a suggestion 6. Mark the suggestion as unsatisfactory	Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.	The chatbot re-prompted the user for new inputs when the suggestion was marked unsatisfactory and did not save any	Pass

			preferences until the user confirmed satisfaction.	
AI5	1. Login to the System 2. Click on the AI Chatbot option 3. AI Chatbot down or not implemented yet	The system shows an error message, indicating that API is down. Fallback method is shown, listing previous liked recipes/restaurants to user.	The system shows an error message indicating that the API is down. A fallback method is shown, listing previous liked recipes/restaurants to the user.	Pass

Table 3.2. Test Cases for Community Recipe

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CR_008	Test Executed by: Nomar Yram Dugenia
Module name: Community Recipe	Test Execution Date: 11-24-2025

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	1. Access the Dashboard 2. Click on 'Community Recipes'	The user can view and read available community-uploaded recipes.	The user was able to access the Community Recipes page	Pass

			and view all available recipes without any issue.	
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.	The system prompted the user to log in before allowing recipe upload.	Pass
CR3	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit'	The recipe is uploaded successfully and appears in the list.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass
CR4	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Upload Recipe' 4. Leave some required fields empty 5. Click 'Submit'	The user is shown an error message indicating the missing required fields.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list	Pass

			for all users.	
CR5	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Click on a recipe 4. Click 'Export' or 'Save Offline'	The recipe is downloaded or saved for offline access.	The system displayed clear validation error messages indicating which required fields were missing and prevented submission until they were completed.	Pass
CR6	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Search for a recipe that doesn't exist	The user is shown a message indicating no results were found.	The system did not display any message, leaving the page blank after search.	Pass
CR7	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Attempt to upload invalid file format (.exe, .zip)	The user is shown a message indicating that the file format is not supported.	The system displayed a validation message rejecting the invalid file format upload.	Pass

CR8	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related 	<p>Google Cloud API determines that the image is not food and the user is shown a message indicating that the image uploaded is not food and will not accept the image. Prompts user to upload a different image</p>	<p>The system uploaded the image without applying food-image validation and did not warn the user</p>	Pass
CR9	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision) 	<p>Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.</p>	<p>Google Cloud Vision API analyzed the uploaded image and returned a confidence score below 40%. The system displayed a message prompting the user to upload a clearer image, preventing low-quality submissions from being accepted.</p>	Pass
CR10	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 	<p>Google Cloud Vision determines that the image is food with a 70% confidence rate, accepting the image and allows user to</p>	<p>When Google Maps API was unavailable, the system displayed a</p>	Pass

	<p>6. Upload an image that is food (>= 70% Confidence for Google Cloud Vision)</p> <p>7. Submit</p>	<p>successfully submit recipe.</p>	<p>message informing the user of the service interruption and automatically loaded a fallback database of restaurants organized by city. Users were able to browse pre-cached restaurant options within their selected area.</p>	
CR11	<p>1. Login with valid user credentials</p> <p>2. Click on 'Community Recipes'</p> <p>3. Click on a Recipe</p> <p>4. Report with 5 different accounts</p>	<p>System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be archived and not be seen by users</p>	<p>When Google Maps API was unavailable, the system displayed a message informing the user of the service interruption and automatically loaded a fallback database of restaurants organized by city. Users</p>	Pass

			were able to browse pre-cached restaurant options within their selected area.	
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Table 3.3. Test Cases for Restaurant Locator

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: RL 008	Test Executed by: Nomar Yram Dugenia
Module name: Restaurant Locator	Test Execution Date: 11-24-2025

TC #3	Steps to Replicate	Expected Result	Actual Result	Status
RL1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Use the filter to select 'Filipino' cuisine 4. Submit search 	A filtered list of Filipino restaurants is displayed.	The system displayed a correctly filtered list containing only restaurants tagged as Filipino cuisine.	Pass
RL2	<ol style="list-style-type: none"> 1. Log in to the system 2. Access 'Restaurant Locator' 3. Set price filter to 'PP' 4. Click search 	A list of restaurants within the PP price range is displayed.	The system correctly displayed restaurants	Pass

			that matched the PP price range.	
RL3	1. Log in to the system 2. Click on 'Restaurant Locator' 3. Select open restaurants only 4. Submit search	Only restaurants currently open are shown.	The feature correctly displayed open restaurants based on real-time data.	Pass
RL4	1. Log in 2. Open 'Restaurant Locator' 3. Set distance filter to 5km 4. Click search	Restaurants within a 5km radius are displayed on the map.	The system accurately displayed restaurants within the specified distance range.	Pass
RL5	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + PP + open now) 4. Submit	Results match all selected filters combined.	The system accurately applied all selected filters and displayed correct matching results.	Pass
RL6	1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login page before allowing access.	Pass
RL7.	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down	User is shown a message saying that the API is down and	When Google Maps API was	Pass

		shows a default database of restaurants based in their city.	unavailable, the system displayed a message informing the user of the service interruption and automatically loaded a fallback database of restaurants organized by city. Users were able to browse pre-cached restaurant options within their selected area.	
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Table 3.4. Test Cases for Surprise Me!

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: SM 008	Test Executed by: Nomar Yram Dugenia
Module name: Surprise Me	Test Execution Date: 11-24-2025

TC #4	Steps to Replicate	Expected Result	Actual Result	Status

SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me'	The system returns one random meal or restaurant suggestion.	The feature successfully displayed one random food or restaurant suggestion.	Pass
SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.	The system provided varied and random suggestions on each click.	Pass
SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The user was redirected to the login page before accessing the Surprise Me feature.	Pass
SM4	1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh'	Suggestion is refreshed and a new result is displayed.	The system successfully refreshed and displayed a new random suggestion upon clicking 'Refresh'.	Pass

Table 3.5. Test Cases for Barkada Vote

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: BV_008	Test Executed by: Nomar Yram Dugenia
Module name: Barkada Vote	Test Execution Date: 11-24-2025

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	<ol style="list-style-type: none"> User logs in Click on 'Barkada Vote Mode' Choose to receive chatbot assistance Enter group preferences (e.g., dietary restrictions, allergens) Chatbot returns 5 meal options 	Chatbot suggests 5 meals based on group input	The chatbot analyzed the group preferences and suggested 5 meal options tailored to the group's input.	Pass
BV2	<ol style="list-style-type: none"> User logs in Click on 'Barkada Vote Mode' Choose to receive chatbot assistance Enter invalid preferences (e.g., empty fields or unsupported data) 	System shows an error asking to correct or complete the input	The system displayed an error message prompting the user to correct or complete invalid preferences before proceeding.	Pass
BV3	<ol style="list-style-type: none"> User logs in Click on 'Barkada Vote Mode' Skip the chatbot and manually input meal options 	System allows manual entry of meal options	The system allowed users to manually input multiple meal options and proceed to the next step without	Pass

			chatbot assistance.	
BV4	1. User continues from valid meal options (either from the chatbot or the manual) 2. The system creates a voting room and displays meals	System displays all meals and opens a new voting room	The system created a voting room, displayed all the selected meal options, and allowed participants to begin voting.	Pass
BV5	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code	All users can view and participate in the vote through the code.	All users who entered a valid voting code successfully joined the voting room and were able to view and participate in the vote.	Pass
BV6	1. All votes are submitted 2. System tallies votes 3. Displays the most-voted meal 4. User sees the confirmation screen	The winning meal is displayed, and the calendar is marked as used successfully	The system tallied all votes, displayed the winning meal, and updated the calendar to mark the meal and date as used, along with a confirmation screen.	Pass
BV7	1. User sends a generated voting code to other users	Users cannot enter the room. Application prompts the users that	Users who entered an invalid code	Pass

	2. Users go to website and go to Barkada Vote 3. Users enter invalid code	the code is invalid and to try again.	were prevented from joining and were shown a message indicating that the code was invalid, with a prompt to try again.	
BV8	1. Users go to website and go to Barkada Vote 2. Users enter expired code	Users are prompted that the room they are looking for does not exist or isn't available anymore.	The system informed users that the voting room was expired or no longer available when they entered an expired code.	Pass
BV9	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code 4. Users attempt to vote multiple times	Users are told by the system that they have already voted and cannot vote again, and their reattempt is not counted towards the total.	The system allowed each user to vote only once and showed a message that they had already voted when they attempted to vote again; additional attempts were not counted.	Pass

Table 3.6. Test Cases for Cultural Food Explorer

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CFE_008	Test Executed by: Nomar Yram Dugenia
Module name: Cultural Food Explorer	Test Execution Date: 11-24-2025

TC #6	Steps to Replicate	Expected Result	Actual Result	Status
CFE1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Cultural Food Explorer' 3. Browse through the list of regions 	List of regions and their cultural dishes is displayed.	The system successfully displayed all regions and their corresponding cultural dishes without any loading or display issues.	Pass
CFE2	<ol style="list-style-type: none"> 1. Log in 2. Select a region (e.g., Ilocos) 3. Click to view cultural dishes 	Dishes from selected regions are shown with images and brief information.	Dishes from the selected region loaded correctly, including images and descriptions. No missing data or loading errors were encountered.	Pass
CFE3	<ol style="list-style-type: none"> 1. Log in 2. Select a dish from the list 3. View the dish's cultural background and preparation 	Dish details are shown, including history, origin, and preparation tips.	Dish details (history, origin, preparation method) loaded completely and displayed as intended in the hosted version of the system.	Pass

CFE4	1. Access the application as a guest 2. Try clicking on 'Cultural Food Explorer'	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login/signup page as expected.	Pass
CFE5	1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button	Dish is saved/bookmarked successfully under the user's profile.	The user was able to successfully bookmark dishes, and the bookmarked items were saved and displayed in the user's account without issues.	Pass

Table 3.7: Test Cases for Calendar

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CF_008	Test Executed by: Nomar Yram Dugenia
Module name: Calendar	Test Execution Date: 11-24-2025

TC #7	Steps to Replicate	Expected Result	Actual Result	Status
CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day	The system saves the meal data and displays it correctly on the calendar	The system saved the meal data and displayed the meals	Pass

	5. Clicks Save		correctly on the selected calendar date.	
CF2	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate	Chatbot generates a week's meal plan based on input and displays it for confirmation	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.	Pass
CF3	1. Do steps in CF2 2. User is satisfied and clicks Confirm	The system saves the meals into the calendar and displays them successfully	Upon confirmation, the system saved all generated meals into the calendar and displayed them correctly across the selected dates.	Pass
CF4	1. Do steps in CF2 2. User is not satisfied with the plan 3. Clicks "Regenerate"	Chatbot re-generates a new meal plan based on the same inputs	The chatbot regenerated a new weekly meal plan using the same input preferences and displayed the updated plan for review.	Pass
CF5	1. User attempts to save meals with empty fields or invalid characters	System shows an error: "Please complete all required fields correctly."	The system showed an error: "Please complete all required fields correctly" and	Pass

			prevented saving until all fields were valid.	
CF6	1. User selects multiple days and enters valid meal data for each 2. Saves all at once	All selected days show correct meal data on the calendar	All selected days were updated, and each date showed the correct meal data on the calendar after saving.	Pass
CF7	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down	System tells the user that the API is down, shows previous liked / chosen meals, and prompts user to do it manually.	When the AI chatbot API was unavailable, the system notified the user of the service interruption and displayed their previously liked and selected meals as suggestions. The system also prompted the user to manually input meals for their calendar, ensuring uninterrupted meal planning functionality	Pass

Table 3.8. Test Cases for Login

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: L 008	Test Executed by: Nomar Yram Dugenia
Module name: Login	Test Execution Date: 11-24-2025

TC #8	Steps to Replicate	Expected Result	Actual Result	Status
L1	1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click "Login"	The user is logged in successfully and redirected to the dashboard or homepage.	The system correctly authenticated valid credentials and redirected the user to the dashboard. Invalid credentials prompted an error message.	Pass
L2	1. Access the website via a browser 2. Click on the Login button 3. Click 'Login'	System displays: "Invalid Credentials, Try again." User remains on the login page.	The system prevented login and displayed the "Invalid Credentials" message as expected.	Pass
L3	1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login'	System shows an error message: "Please enter your credentials."	The system displayed a validation message prompting the user to fill in required login fields.	Pass

L4	1. Enter the correct username but the incorrect password 2. Click 'Login'	User is shown an error message: 'Account not found'.	The system displayed the correct error message and denied access.	Pass
L5	1. Enter a username with invalid characters (e.g., John) 2. Click 'Login'	System displays input validation errors or blocks suspicious input.	The system rejected the invalid input and prevented login attempts with invalid characters.	Pass
L6	1. Enter the correct credentials 2. Turn off the internet before clicking 'Login'	System shows a connection or network error message.	The system displayed a network connection error message when offline.	Pass

Table 3.9. Test Cases for Registration

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: R_008	Test Executed by: Nomar Yram Dugenia
Module name: Registration	Test Execution Date: 11-24-2025

TC #9	Steps to Replicate	Expected Result	Actual Result	Status
R1	1. Access the 'Register' page 2. Enter a valid name, email, and password 3. Submit the form 4. Open the email and check for the OTP 5. Enter the OTP in the verification field 6. Click on 'Verify'	The user receives the OTP, verifies it successfully, and their account is created.	The user received the OTP via email, successfully entered it, and the system created and activated the account.	Pass

R2	1. Access the ‘Register’ page 2. Enter an invalid email format 3. Attempt to submit the form	The system rejects the input and shows an error saying the email is invalid.	The system correctly showed an “Invalid email format” message.	Pass
R3	1. Access the ‘Register’ page 2. Enter a valid email 3. Enter mismatched passwords 4. Submit the form	The system prevents submission and notifies the user about the mismatch.	The system displayed an error about mismatched passwords.	Pass
R4	1. Access the ‘Register’ page 2. Enter valid inputs 3. Submit the form 4. Do not open or enter the OTP 5. Wait or close the page	The account is not created. The system waits for OTP verification.	The system did not create or activate the account without OTP verification and kept the registration pending until a valid OTP was entered.	Pass
R5	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter an incorrect OTP 5. Click ‘Verify’	The system shows an error saying the OTP is invalid.	The system displayed an “Invalid OTP” error and did not create the account until a correct OTP was provided.	Pass
R6	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 6. Click ‘Verify’	The system accepts the new OTP and creates the account successfully.	The system successfully resent a new OTP, accepted it when entered, and completed account creation.	Pass

R7	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired	The system notifies the user that the OTP has expired and suggests resending.	The system displayed a message that the OTP had expired and prompted the user to request a new OTP..	Pass
R8	1. Access the ‘Register’ page 2. Enter valid details with an already used email 3. Submit the form	System shows “Email Already in Use”	The system successfully displayed “Email Already in Use.”	Pass
R9	1. Access the ‘Register’ page 2. Enter valid details with a weak password 3. Submit the form	System rejects and shows message “Password must include letters and numbers”	The system rejected the weak password and showed a message indicating that the password must include letters and numbers and meet minimum strength requirements.	Pass

Table 3.10. Test Cases for Profile

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: PR_008	Test Executed by: Nomar Yram Dugenia
Module name: Profile	Test Execution Date: 11-24-2025

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page 3. View user information and preferences	The user's profile details and preferences are displayed correctly.	The user profile displayed all saved details correctly.	Pass
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.	The system saved the updated dietary preference as "Vegan" and applied it correctly to subsequent meal and restaurant suggestions.	Pass
PR3	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save'	System shows an error message: 'Incorrect current password'.	The system displayed an "Incorrect current password" error message and did not change the password	Pass
PR4	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save'	Password is updated successfully, and a confirmation message is shown.	The system verified the current password, updated the password successfully, and showed a confirmation message; password changes are correctly	Pass

			processed and confirmed to the user.	
PR5	1. Attempt to access the Profile page without logging in	User is redirected to the login/signup page.	User redirect to login/signup page.	Pass
PR6	1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save'	OTP is sent to email, User enters OTP	The system sent an OTP to the new email address, verified it successfully when entered, and updated the user's email.	Pass
7	1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter an already registered email 5. Click 'Save'	System shows error 'Email already in use'	The system displayed an "Email already in use" error message and did not change the email to a duplicate address.	Pass

Table 3.11. Test Case for Logout

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: LO_008	Test Executed by: Nomar Yram Dugenia
Module name: Logout	Test Execution Date: 11-24-2025

TC #11	Steps to Replicate	Expected Result	Actual Result	Status

LO1	<ol style="list-style-type: none"> 1. Log in to the system 2. Navigate to the Profile page 3. Click on the 'Logout' button 	User is logged out and redirected to the home or login page.	Logout function worked successfully and redirected to the homepage	Pass
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Table 3.12. Test Case for Admin

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AD_008	Test Executed by: Nomar Yram Dugenia
Module name: Admin	Test Execution Date: 11-24-2025

TC #12	Steps to Replicate	Expected Result	Actual Result	Status
AD1	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 	Admin is directed to admin dashboard	The system recognized valid admin credentials and redirected the user to the dedicated admin dashboard.	Pass
AD2	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials 	User is shown a message. "Invalid Credentials, Try again."	The system rejected invalid admin credentials	Pass

			and displayed the message “Invalid Credentials, Try again.”	
AD3	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe 	Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now	The admin dashboard displayed the reported recipes, allowed reinstatement of falsely flagged recipes, showed a success message, and made the reinstated recipe visible and searchable to all users.	Pass
AD4	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is not flagged falsely. 6. Click Delete Recipe 	Admin is shown a message that the recipe is successfully Deleted. The recipe is completely deleted from the database and can no longer be accessed.	The admin successfully deleted the confirmed problematic recipe, received a success message, and the recipe was permanently removed from the	Pass

			database and no longer accessible.	
AD5	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. Click Edit Cultural Food Explorer 5. Edit 6. Save 	<p>The Cultural Food Explorer is properly saved and changed for every user of the website.</p>	<p>The admin was able to edit Cultural Food Explorer entries, save changes successfully, and all updates were reflected correctly for all users..</p>	Pass

Test 9
Table 3.1. Test Cases for AI Chatbot

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AI_009	Test Executed by: Nomar Yram Dugenia
Module name: AI Chatbot	Test Execution Date: 11-24-2025

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 	The chatbot analyzes the data, returns a	The chatbot successfully	Pass

	<p>3. Enter a valid food query (e.g., 'I want to eat chicken adobo')</p> <p>4. Provide valid preferences (e.g., no peanuts, feeling happy)</p> <p>5. Submit the information</p>	suitable food suggestion, and saves the user's preference to the database.	analyzed the data, returned a suitable food suggestion, and saved the user's preferences to the database.	
AI2	<p>1. Log in to the system</p> <p>2. Click on the AI chatbot option</p> <p>3. Enter a food query without any preferences</p> <p>4. Submit the information</p>	Chatbot still returns a general suggestion based on default filters and saves minimal user input.	The chatbot returned a general food suggestion based on default settings and successfully recorded minimal user input.	Pass
AI3	<p>1. Log in to the system</p> <p>2. Click on the AI chatbot option</p> <p>3. Enter a vague or invalid input (e.g., 'food')</p> <p>4. Provide random or empty preferences</p> <p>5. Submit the information</p>	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.	The chatbot prompted the user to provide a more specific query and did not generate any food suggestion.	Pass
AI4	<p>1. Log in to the system</p> <p>2. Click on the AI chatbot option</p> <p>3. Enter a valid food query</p> <p>4. Provide preferences</p> <p>5. Chatbot gives a suggestion</p> <p>6. Mark the suggestion as unsatisfactory</p>	Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.	The chatbot re-prompted the user for new inputs when the suggestion was marked unsatisfactory	Pass

			and did not save any preferences until the user confirmed satisfaction.	
AI5	1. Login to the System 2. Click on the AI Chatbot option 3. AI Chatbot down or not implemented yet	The system shows an error message, indicating that API is down. Fallback method is shown, listing previous liked recipes/restaurants to user.	The system shows an error message indicating that the API is down. A fallback method is shown, listing previous liked recipes/restaurants to the user.	Pass

Table 3.2. Test Cases for Community Recipe

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CR 009	Test Executed by: Nomar Yram Dugenia
Module name: Community Recipe	Test Execution Date: 11-24-2025

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	1. Access the Dashboard 2. Click on 'Community Recipes'	The user can view and read available	The user was able to access the	Pass

		community-uploaded recipes.	Community Recipes page and view all available recipes without any issue.	
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.	The system prompted the user to log in before allowing recipe upload.	Pass
CR3	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit'	The recipe is uploaded successfully and appears in the list.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass
CR4	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Upload Recipe' 4. Leave some required fields empty 5. Click 'Submit'	The user is shown an error message indicating the missing required fields.	The recipe was uploaded successfully and appeared immediately in the	Pass

			Community Recipes list for all users.	
CR5	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Click on a recipe 4. Click 'Export' or 'Save Offline'	The recipe is downloaded or saved for offline access.	The system displayed clear validation error messages indicating which required fields were missing and prevented submission until they were completed.	Pass
CR6	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Search for a recipe that doesn't exist	The user is shown a message indicating no results were found.	The system now properly displays a " No results found " message when searching for a non-existing recipe..	Pass
CR7	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe'	The user is shown a message indicating that the file format is not supported.	The system displayed a validation message	Pass

	4. Enter valid recipe details 5. Click 'Upload Image' 6. Attempt to upload invalid file format (.exe, .zip)		rejecting the invalid file format upload.	
CR8	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related	Google Cloud API determines that the image is not food and the user is shown a message indicating that the image uploaded is not food and will not accept the image. Prompts user to upload a different image	The system uploaded the image without applying food-image validation and did not warn the user	Pass
CR9	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision)	Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.	Google Cloud Vision API analyzed the uploaded image and returned a confidence score below 40%. The system displayed a message prompting the user to upload a clearer image, preventing low-quality submissions from being accepted.	Pass

CR10	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food ($\geq 70\%$ Confidence for Google Cloud Vision) 7. Submit 	<p>Google Cloud Vision determines that the image is food with a 70% confidence rate, accepting the image and allows user to successfully submit recipe.</p>	<p>Google Cloud Vision API successfully verified the uploaded image as food-related with a confidence score of 70% or higher. The system accepted the image and allowed the user to proceed with recipe submission..</p>	Pass
CR11	<ol style="list-style-type: none"> 1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click on a Recipe 4. Report with 5 different accounts 	<p>System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be archived and not be seen by users</p>	<p>The system successfully tracked reports from 5 different user accounts. After the fifth report, the recipe was automatically archived and removed from the public recipe list.</p>	Pass

Table 3.3. Test Cases for Restaurant Locator

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)

Test Case	
Test Case ID: RL 009	Test Executed by: Nomar Yram Dugenia
Module name: Restaurant Locator	Test Execution Date: 11-24-2025

TC #3	Steps to Replicate	Expected Result	Actual Result	Status
RL1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Use the filter to select 'Filipino' cuisine 4. Submit search 	A filtered list of Filipino restaurants is displayed.	The system displayed a correctly filtered list containing only restaurants tagged as Filipino cuisine.	Pass
RL2	<ol style="list-style-type: none"> 1. Log in to the system 2. Access 'Restaurant Locator' 3. Set price filter to 'PP' 4. Click search 	A list of restaurants within the PP price range is displayed.	The system correctly displayed restaurants that matched the PP price range.	Pass
RL3	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Restaurant Locator' 3. Select open restaurants only 4. Submit search 	Only restaurants currently open are shown.	The feature correctly displayed open restaurants based on real-time data.	Pass

RL4	<ol style="list-style-type: none"> 1. Log in 2. Open 'Restaurant Locator' 3. Set distance filter to 5km 4. Click search 	Restaurants within a 5km radius are displayed on the map.	The system accurately displayed restaurants within the specified distance range.	Pass
RL5	<ol style="list-style-type: none"> 1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + PP + open now) 4. Submit 	Results match all selected filters combined.	The system accurately applied all selected filters and displayed correct matching results.	Pass
RL6	<ol style="list-style-type: none"> 1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card 	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login page before allowing access.	Pass
RL7.	<ol style="list-style-type: none"> 1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down 	User is shown a message saying that the API is down and shows a default database of restaurants based in their city.	When Google Maps API was unavailable, the system displayed a message informing the user of the service interruption and automatically loaded a	Pass

			fallback database of restaurants organized by city. Users were able to browse pre-cached restaurant options within their selected area.	
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Table 3.4. Test Cases for Surprise Me!

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: SM_009	Test Executed by: Nomar Yram Dugenia
Module name: Surprise Me	Test Execution Date: 11-24-2025

TC #4	Steps to Replicate	Expected Result	Actual Result	Status
SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me'	The system returns one random meal or restaurant suggestion.	The feature successfully displayed one random food or restaurant suggestion.	Pass

SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.	The system provided varied and random suggestions on each click.	Pass
SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The user was redirected to the login page before accessing the Surprise Me feature.	Pass
SM4	1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh'	Suggestion is refreshed and a new result is displayed.	The system successfully refreshed and displayed a new random suggestion upon clicking 'Refresh'.	Pass

Table 3.5. Test Cases for Barkada Vote

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: BV_009	Test Executed by: Nomar Yram Dugenia
Module name: Barkada Vote	Test Execution Date: 11-24-2025

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter group preferences (e.g., dietary restrictions, allergens) 5. Chatbot returns 5 meal options 	Chatbot suggests 5 meals based on group input	The chatbot analyzed the group preferences and suggested 5 meal options tailored to the group's input.	Pass
BV2	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter invalid preferences (e.g., empty fields or unsupported data) 	System shows an error asking to correct or complete the input	The system displayed an error message prompting the user to correct or complete invalid preferences before proceeding.	Pass
BV3	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Skip the chatbot and manually input meal options 	System allows manual entry of meal options	The system allowed users to manually input multiple meal options and proceed to the next step without chatbot assistance.	Pass
BV4	<ol style="list-style-type: none"> 1. User continues from valid meal options (either from the chatbot or the manual) 2. The system creates a voting room and displays meals 	System displays all meals and opens a new voting room	The system created a voting room, displayed all the selected	Pass

			meal options, and allowed participants to begin voting.	
BV5	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code	All users can view and participate in the vote through the code.	All users who entered a valid voting code successfully joined the voting room and were able to view and participate in the vote.	Pass
BV6	1. All votes are submitted 2. System tallies votes 3. Displays the most-voted meal 4. User sees the confirmation screen	The winning meal is displayed, and the calendar is marked as used successfully	The system tallied all votes, displayed the winning meal, and updated the calendar to mark the meal and date as used, along with a confirmation screen.	Pass
BV7	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter invalid code	Users cannot enter the room. Application prompts the users that the code is invalid and to try again.	Users who entered an invalid code were prevented from joining and were shown a message indicating that	Pass

			the code was invalid, with a prompt to try again.	
BV8	1. Users go to website and go to Barkada Vote 2. Users enter expired code	Users are prompted that the room they are looking for does not exist or isn't available anymore.	The system informed users that the voting room was expired or no longer available when they entered an expired code.	Pass
BV9	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code 4. Users attempt to vote multiple times	Users are told by the system that they have already voted and cannot vote again, and their reattempt is not counted towards the total.	The system allowed each user to vote only once and showed a message that they had already voted when they attempted to vote again; additional attempts were not counted.	Pass

Table 3.6. Test Cases for Cultural Food Explorer

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CFE 009	Test Executed by: Nomar Yram Dugenia
Module name: Cultural Food Explorer	Test Execution Date: 11-24-2025

TC #6	Steps to Replicate	Expected Result	Actual Result	Status

CFE1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Cultural Food Explorer' 3. Browse through the list of regions 	List of regions and their cultural dishes is displayed.	The system successfully displayed all regions and their corresponding cultural dishes without any loading or display issues.	Pass
CFE2	<ol style="list-style-type: none"> 1. Log in 2. Select a region (e.g., Ilocos) 3. Click to view cultural dishes 	Dishes from selected regions are shown with images and brief information.	Dishes from the selected region loaded correctly, including images and descriptions. No missing data or loading errors were encountered.	Pass
CFE3	<ol style="list-style-type: none"> 1. Log in 2. Select a dish from the list 3. View the dish's cultural background and preparation 	Dish details are shown, including history, origin, and preparation tips.	Dish details (history, origin, preparation method) loaded completely and displayed as intended in the hosted version of the system.	Pass
CFE4	<ol style="list-style-type: none"> 1. Access the application as a guest 	User is redirected to the login/signup page	The system redirected the guest user to	Pass

	2. Try clicking on 'Cultural Food Explorer'	before accessing the feature.	the login/signup page as expected.	
CFE5	1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button	Dish is saved/bookmarked successfully under the user's profile.	The user was able to successfully bookmark dishes, and the bookmarked items were saved and displayed in the user's account without issues.	Pass

Table 3.7: Test Cases for Calendar

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CF 009	Test Executed by: Nomar Yram Dugenia
Module name: Calendar	Test Execution Date: 11-24-2025

TC #7	Steps to Replicate	Expected Result	Actual Result	Status
CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day 5. Clicks Save	The system saves the meal data and displays it correctly on the calendar	The system saved the meal data and displayed the meals correctly on the selected calendar date.	Pass

CF2	<ol style="list-style-type: none"> 1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate 	<p>Chatbot generates a week's meal plan based on input and displays it for confirmation</p>	<p>The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.</p>	Pass
CF3	<ol style="list-style-type: none"> 1. Do steps in CF2 2. User is satisfied and clicks Confirm 	<p>The system saves the meals into the calendar and displays them successfully</p>	<p>Upon confirmation, the system saved all generated meals into the calendar and displayed them correctly across the selected dates.</p>	Pass
CF4	<ol style="list-style-type: none"> 1. Do steps in CF2 2. User is not satisfied with the plan 3. Clicks "Regenerate" 	<p>Chatbot re-generates a new meal plan based on the same inputs</p>	<p>The chatbot regenerated a new weekly meal plan using the same input preferences and displayed the updated plan for review.</p>	Pass
CF5	<ol style="list-style-type: none"> 1. User attempts to save meals with empty fields or invalid characters 	<p>System shows an error: "Please complete all required fields correctly."</p>	<p>The system showed an error: "Please complete all required fields correctly" and prevented saving until all fields were valid.</p>	Pass

CF6	1. User selects multiple days and enters valid meal data for each 2. Saves all at once	All selected days show correct meal data on the calendar	All selected days were updated, and each date showed the correct meal data on the calendar after saving.	Pass
CF7	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down	System tells the user that the API is down, shows previous liked / chosen meals, and prompts user to do it manually.	When the AI chatbot API was unavailable, the system notified the user of the service interruption and displayed their previously liked and selected meals as suggestions. The system also prompted the user to manually input meals for their calendar, ensuring uninterrupted meal planning functionality.	Pass

Table 3.8. Test Cases for Login

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: L 009	Test Executed by: Nomar Yram Dugenia

TC #8	Steps to Replicate	Expected Result	Actual Result	Status
L1	1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click "Login"	The user is logged in successfully and redirected to the dashboard or homepage.	The system correctly authenticated valid credentials and redirected the user to the dashboard. Invalid credentials prompted an error message.	Pass
L2	1. Access the website via a browser 2. Click on the Login button 3. Click 'Login'	System displays: "Invalid Credentials, Try again." User remains on the login page.	The system prevented login and displayed the "Invalid Credentials" message as expected.	Pass
L3	1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login'	System shows an error message: "Please enter your credentials."	The system displayed a validation message prompting the user to fill in required login fields.	Pass
L4	1. Enter the correct username but the incorrect password 2. Click 'Login'	User is shown an error message: 'Account not found'.	The system displayed the correct error message and denied access.	Pass

L5	1. Enter a username with invalid characters (e.g., John) 2. Click ‘Login’	System displays input validation errors or blocks suspicious input.	The system rejected the invalid input and prevented login attempts with invalid characters.	Pass
L6	1. Enter the correct credentials 2. Turn off the internet before clicking ‘Login’	System shows a connection or network error message.	The system displayed a network connection error message when offline.	Pass

Table 3.9. Test Cases for Registration

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: R_009	Test Executed by: Nomar Yram Dugenia
Module name: Registration	Test Execution Date: 11-24-2025

TC #9	Steps to Replicate	Expected Result	Actual Result	Status
R1	1. Access the ‘Register’ page 2. Enter a valid name, email, and password 3. Submit the form 4. Open the email and check for the OTP 5. Enter the OTP in the verification field 6. Click on ‘Verify’	The user receives the OTP, verifies it successfully, and their account is created.	The user received the OTP via email, successfully entered it, and the system created and activated the account.	Pass
R2	1. Access the ‘Register’ page 2. Enter an invalid email format 3. Attempt to submit the form	The system rejects the input and shows an error saying the email is invalid.	The system correctly showed an “Invalid email	Pass

			format” message.	
R3	1. Access the ‘Register’ page 2. Enter a valid email 3. Enter mismatched passwords 4. Submit the form	The system prevents submission and notifies the user about the mismatch.	The system displayed an error about mismatched passwords.	Pass
R4	1. Access the ‘Register’ page 2. Enter valid inputs 3. Submit the form 4. Do not open or enter the OTP 5. Wait or close the page	The account is not created. The system waits for OTP verification.	The system did not create or activate the account without OTP verification and kept the registration pending until a valid OTP was entered.	Pass
R5	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter an incorrect OTP 5. Click ‘Verify’	The system shows an error saying the OTP is invalid.	The system displayed an “Invalid OTP” error and did not create the account until a correct OTP was provided.	Pass
R6	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 6. Click ‘Verify’	The system accepts the new OTP and creates the account successfully.	The system successfully resent a new OTP, accepted it when entered, and completed account creation.	Pass
R7	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired	The system notifies the user that the OTP has expired and suggests resending.	The system displayed a message that the OTP had expired and	Pass

			prompted the user to request a new OTP..	
R8	1. Access the ‘Register’ page 2. Enter valid details with an already used email 3. Submit the form	System shows “Email Already in Use”	The system successfully displayed “Email Already in Use.”	Pass
R9	1. Access the ‘Register’ page 2. Enter valid details with a weak password 3. Submit the form	System rejects and shows message “Password must include letters and numbers”	The system rejected the weak password and showed a message indicating that the password must include letters and numbers and meet minimum strength requirements.	Pass

Table 3.10. Test Cases for Profile

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: PR_009	Test Executed by: Nomar Yram Dugenia
Module name: Profile	Test Execution Date: 11-24-2025

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page	The user’s profile details and	The user profile displayed all	Pass

	3. View user information and preferences	preferences are displayed correctly.	saved details correctly.	
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.	The system saved the updated dietary preference as "Vegan" and applied it correctly to subsequent meal and restaurant suggestions.	Pass
PR3	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save'	System shows an error message: 'Incorrect current password'.	The system displayed an "Incorrect current password" error message and did not change the password	Pass
PR4	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save'	Password is updated successfully, and a confirmation message is shown.	The system verified the current password, updated the password successfully, and showed a confirmation message; password changes are correctly processed and confirmed to the user.	Pass
PR5	1. Attempt to access the Profile page without logging in	User is redirected to the login/signup page.	User redirect to	Pass

			login/signup page.	
PR6	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save' 	OTP is sent to email, User enters OTP	The system sent an OTP to the new email address, verified it successfully when entered, and updated the user's email.	Pass
PR7	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter an already registered email 5. Click 'Save' 	System shows error 'Email already in use'	The system displayed an "Email already in use" error message and did not change the email to a duplicate address.	Pass

Table 3.11. Test Case for Logout

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: LO 009	Test Executed by: Nomar Yram Dugenia
Module name: Logout	Test Execution Date: 11-24-2025

TC #11	Steps to Replicate	Expected Result	Actual Result	Status
LO1	<ol style="list-style-type: none"> 1. Log in to the system 2. Navigate to the Profile page 3. Click on the 'Logout' button 	User is logged out and redirected to the home or login page.	Logout function worked successfully	Pass

			and redirected to the homepage	
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Table 3.12. Test Case for Admin

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AD 009	Test Executed by: Nomar Yram Dugenia
Module name: Admin	Test Execution Date: 11-24-2025

TC #12	Steps to Replicate	Expected Result	Actual Result	Status
AD1	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is directed to admin dashboard	The system recognized valid admin credentials and redirected the user to the dedicated admin dashboard.	Pass
AD2	1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials	User is shown a message. “Invalid Credentials, Try again.”	The system rejected invalid admin credentials and displayed the message “Invalid	Pass

			Credentials, Try again.”	
AD3	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe 	<p>Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now</p>	<p>The admin dashboard displayed the reported recipes, allowed reinstatement of falsely flagged recipes, showed a success message, and made the reinstated recipe visible and searchable to all users.</p>	Pass
AD4	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is not flagged falsely. 6. Click Delete Recipe 	<p>Admin is shown a message that the recipe is successfully Deleted. The recipe is completely deleted from the database and can no longer be accessed.</p>	<p>The admin successfully deleted the confirmed problematic recipe, received a success message, and the recipe was permanently removed from the database and no longer accessible.</p>	Pass

AD5	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. Click Edit Cultural Food Explorer 5. Edit 6. Save 	<p>The Cultural Food Explorer is properly saved and changed for every user of the website.</p>	<p>The admin was able to edit Cultural Food Explorer entries, save changes successfully, and all updates were reflected correctly for all users..</p>	Pass
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Test 10
Table 3.1. Test Cases for AI Chatbot

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AI_010	Test Executed by: Nomar Yram Dugenia
Module name: AI Chatbot	Test Execution Date: 11-24-2025

TC #1	Steps to Replicate	Expected Result	Actual Result	Status
AI1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query (e.g., 'I want to eat chicken adobo') 	<p>The chatbot analyzes the data, returns a suitable food suggestion, and saves</p>	<p>The chatbot successfully analyzed the data, returned a suitable</p>	Pass

	4. Provide valid preferences (e.g., no peanuts, feeling happy) 5. Submit the information	the user's preference to the database.	food suggestion, and saved the user's preferences to the database.	
AI2	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a food query without any preferences 4. Submit the information	Chatbot still returns a general suggestion based on default filters and saves minimal user input.	The chatbot returned a general food suggestion based on default settings and successfully recorded minimal user input.	Pass
AI3	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a vague or invalid input (e.g., 'food') 4. Provide random or empty preferences 5. Submit the information	Chatbot prompts the user to re-enter a clearer input and does not proceed with a suggestion.	The chatbot prompted the user to provide a more specific query and did not generate any food suggestion.	Pass
AI4	1. Log in to the system 2. Click on the AI chatbot option 3. Enter a valid food query 4. Provide preferences 5. Chatbot gives a suggestion 6. Mark the suggestion as unsatisfactory	Chatbot re-asks for new inputs and does not save preferences; the system stays in a loop until the user is satisfied.	The chatbot re-prompted the user for new inputs when the suggestion was marked unsatisfactory and did not save any preferences	Pass

			until the user confirmed satisfaction.	
AI5	<p>1. Login to the System 2. Click on the AI Chatbot option 3. AI Chatbot down or not implemented yet</p>	<p>The system shows an error message, indicating that API is down. Fallback method is shown, listing previous liked recipes/restaurants to user.</p>	<p>The system shows an error message indicating that the API is down. A fallback method is shown, listing previous liked recipes/restaurants to the user.</p>	Pass

Table 3.2. Test Cases for Community Recipe

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CR_010	Test Executed by: Nomar Yram Dugenia
Module name: Community Recipe	Test Execution Date: 11-24-2025

TC #2	Steps to Replicate	Expected Result	Actual Result	Status
CR1	<p>1. Access the Dashboard 2. Click on 'Community Recipes'</p>	<p>The user can view and read available community-uploaded recipes.</p>	<p>The user was able to access the Community Recipes page and view all</p>	Pass

			available recipes without any issue.	
CR2	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Attempt to upload a recipe without logging in	The user is prompted to log in before uploading.	The system prompted the user to log in before allowing recipe upload.	Pass
CR3	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Submit'	The recipe is uploaded successfully and appears in the list.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list for all users.	Pass
CR4	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Upload Recipe' 4. Leave some required fields empty 5. Click 'Submit'	The user is shown an error message indicating the missing required fields.	The recipe was uploaded successfully and appeared immediately in the Community Recipes list	Pass

			for all users.	
CR5	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Click on a recipe 4. Click 'Export' or 'Save Offline'	The recipe is downloaded or saved for offline access.	The system displayed clear validation error messages indicating which required fields were missing and prevented submission until they were completed.	Pass
CR6	1. Access the Dashboard 2. Click on 'Community Recipes' 3. Search for a recipe that doesn't exist	The user is shown a message indicating no results were found.	The system now properly displays a " No results found " message when searching for a non-existing recipe.	Pass
CR7	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image'	The user is shown a message indicating that the file format is not supported.	The system displayed a validation message rejecting the invalid file	Pass

	6. Attempt to upload invalid file format (.exe, .zip)		format upload.	
CR8	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is not food related	Google Cloud API determines that the image is not food and the user is shown a message indicating that the image uploaded is not food and will not accept the image. Prompts user to upload a different image	The system uploaded the image without applying food-image validation and did not warn the user	Pass
CR9	1. Login with valid user credentials 2. Click on 'Community Recipes' 3. Click 'Submit Recipe' 4. Enter valid recipe details 5. Click 'Upload Image' 6. Upload an image that is food, but blurry. (< 40% confidence for Google Cloud Vision)	Google Cloud Vision API can not determine the image quality. User is shown a message indicating that the image uploaded is too blurry to verify and prompts to upload different image.	Google Cloud Vision API analyzed the uploaded image and returned a confidence score below 40%. The system displayed a message prompting the user to upload a clearer image, preventing low-quality submissions from being accepted.	Pass
CR10	1. Login with valid user credentials 2. Click on 'Community Recipes'	Google Cloud Vision determines that the image is food with a	Google Cloud Vision API successfully	Pass

	<p>3. Click 'Submit Recipe'</p> <p>4. Enter valid recipe details</p> <p>5. Click 'Upload Image'</p> <p>6. Upload an image that is food ($\geq 70\%$ Confidence for Google Cloud Vision)</p> <p>7. Submit</p>	<p>70% confidence rate, accepting the image and allows user to successfully submit recipe.</p>	<p>verified the uploaded image as food-related with a confidence score of 70% or higher. The system accepted the image and allowed the user to proceed with recipe submission.</p>	
CR11	<p>1. Login with valid user credentials</p> <p>2. Click on 'Community Recipes'</p> <p>3. Click on a Recipe</p> <p>4. Report with 5 different accounts</p>	<p>System will show 'Thank you for reporting, we will look into this' and then after 5 reports, the recipe will automatically be archived and not be seen by users</p>	<p>The system successfully tracked reports from 5 different user accounts. After the fifth report, the recipe was automatically archived and removed from the public recipe list.</p>	Pass

Table 3.3. Test Cases for Restaurant Locator

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: RL 010	Test Executed by: Nomar Yram Dugenia
Module name: Restaurant Locator	Test Execution Date: 11-24-2025

TC #3	Steps to Replicate	Expected Result	Actual Result	Status
RL1	<ol style="list-style-type: none"> Log in to the system Click on 'Restaurant Locator' Use the filter to select 'Filipino' cuisine Submit search 	A filtered list of Filipino restaurants is displayed.	The system displayed a correctly filtered list containing only restaurants tagged as Filipino cuisine.	Pass
RL2	<ol style="list-style-type: none"> Log in to the system Access 'Restaurant Locator' Set price filter to 'PP' Click search 	A list of restaurants within the PP price range is displayed.	The system correctly displayed restaurants that matched the PP price range.	Pass
RL3	<ol style="list-style-type: none"> Log in to the system Click on 'Restaurant Locator' Select open restaurants only Submit search 	Only restaurants currently open are shown.	The feature correctly displayed open restaurants based on real-time data.	Pass
RL4	<ol style="list-style-type: none"> Log in Open 'Restaurant Locator' Set distance filter to 5km Click search 	Restaurants within a 5km radius are displayed on the map.	The system accurately displayed restaurants within the specified	Pass

			distance range.	
RL5	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Apply multiple filters (e.g., Korean + PP + open now) 4. Submit	Results match all selected filters combined.	The system accurately applied all selected filters and displayed correct matching results.	Pass
RL6	1. Try to access 'Restaurant Locator' as a guest 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login page before allowing access.	Pass
RL7.	1. Log in to the system 2. Go to 'Restaurant Locator' 3. Google Maps API is down	User is shown a message saying that the API is down and shows a default database of restaurants based in their city.	The system displayed an error but did not load fallback restaurant data; recommend implementing a backup list when the API is down.	Pass

Table 3.4. Test Cases for Surprise Me!

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)

Test Case	
Test Case ID: SM_010	Test Executed by: Nomar Yram Dugenia
Module name: Surprise Me	Test Execution Date: 11-24-2025

TC #4	Steps to Replicate	Expected Result	Actual Result	Status
SM1	1. Log in to the system 2. Click on 'Surprise Me' feature 3. Click 'Surprise Me'	The system returns one random meal or restaurant suggestion.	The feature successfully displayed one random food or restaurant suggestion.	Pass
SM2	1. Log in to the system 2. Click on 'Surprise Me' 3. Click 'Generate Suggestion' multiple times	Different suggestions are shown with each click to simulate randomness.	The system provided varied and random suggestions on each click.	Pass
SM3	1. Attempt to access 'Surprise Me' without logging in 2. Click on the feature card	User is redirected to the login/signup page before accessing the feature.	The user was redirected to the login page before accessing the Surprise Me feature.	Pass
SM4	1. Log in 2. Use 'Surprise Me' and get an unexpected or irrelevant suggestion 3. Click 'Refresh'	Suggestion is refreshed and a new result is displayed.	The system successfully refreshed and displayed a new random suggestion upon clicking 'Refresh'.	Pass

Table 3.5. Test Cases for Barkada Vote

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: BV_010	Test Executed by: Nomar Yram Dugenia
Module name: Barkada Vote	Test Execution Date: 11-24-2025

TC #5	Steps to Replicate	Expected Result	Actual Result	Status
BV1	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter group preferences (e.g., dietary restrictions, allergens) 5. Chatbot returns 5 meal options 	Chatbot suggests 5 meals based on group input	The chatbot analyzed the group preferences and suggested 5 meal options tailored to the group's input.	Pass
BV2	<ol style="list-style-type: none"> 1. User logs in 2. Click on 'Barkada Vote Mode' 3. Choose to receive chatbot assistance 4. Enter invalid preferences (e.g., empty fields or unsupported data) 	System shows an error asking to correct or complete the input	The system displayed an error message prompting the user to correct or complete invalid preferences	Pass

			before proceeding.	
BV3	1. User logs in 2. Click on 'Barkada Vote Mode' 3. Skip the chatbot and manually input meal options	System allows manual entry of meal options	The system allowed users to manually input multiple meal options and proceed to the next step without chatbot assistance.	Pass
BV4	1. User continues from valid meal options (either from the chatbot or the manual) 2. The system creates a voting room and displays meals	System displays all meals and opens a new voting room	The system created a voting room, displayed all the selected meal options, and allowed participants to begin voting.	Pass
BV5	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code	All users can view and participate in the vote through the code.	All users who entered a valid voting code successfully joined the voting room and were able to view and participate in the vote.	Pass
BV6	1. All votes are submitted 2. System tallies votes 3. Displays the most-voted meal 4. User sees the confirmation screen	The winning meal is displayed, and the calendar is marked as used successfully	The system tallied all votes, displayed the winning meal, and updated the calendar to mark the	Pass

			meal and date as used, along with a confirmation screen.	
BV7	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter invalid code	Users cannot enter the room. Application prompts the users that the code is invalid and to try again.	Users who entered an invalid code were prevented from joining and were shown a message indicating that the code was invalid, with a prompt to try again.	Pass
BV8	1. Users go to website and go to Barkada Vote 2. Users enter expired code	Users are prompted that the room they are looking for does not exist or isn't available anymore.	The system informed users that the voting room was expired or no longer available when they entered an expired code.	Pass
BV9	1. User sends a generated voting code to other users 2. Users go to website and go to Barkada Vote 3. Users enter valid code 4. Users attempt to vote multiple times	Users are told by the system that they have already voted and cannot vote again, and their reattempt is not counted towards the total.	The system allowed each user to vote only once and showed a message that they had already voted when they attempted to vote again;	Pass

			additional attempts were not counted.	
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Table 3.6. Test Cases for Cultural Food Explorer

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: CFE 010	Test Executed by: Nomar Yram Dugenia
Module name: Cultural Food Explorer	Test Execution Date: 11-24-2025

TC #6	Steps to Replicate	Expected Result	Actual Result	Status
CFE1	<ol style="list-style-type: none"> 1. Log in to the system 2. Click on 'Cultural Food Explorer' 3. Browse through the list of regions 	List of regions and their cultural dishes is displayed.	The system successfully displayed all regions and their corresponding cultural dishes without any loading or display issues.	Pass
CFE2	<ol style="list-style-type: none"> 1. Log in 2. Select a region (e.g., Ilocos) 3. Click to view cultural dishes 	Dishes from selected regions are shown with images and brief information.	Dishes from the selected region loaded correctly, including images and descriptions. No missing data or loading errors were encountered.	Pass

CFE3	<ol style="list-style-type: none"> 1. Log in 2. Select a dish from the list 3. View the dish's cultural background and preparation 	Dish details are shown, including history, origin, and preparation tips.	Dish details (history, origin, preparation method) loaded completely and displayed as intended in the hosted version of the system.	Pass
CFE4	<ol style="list-style-type: none"> 1. Access the application as a guest 2. Try clicking on 'Cultural Food Explorer' 	User is redirected to the login/signup page before accessing the feature.	The system redirected the guest user to the login/signup page as expected.	Pass
CFE5	<ol style="list-style-type: none"> 1. Log in 2. Click on a dish 3. Click the 'Save for Later' or 'Bookmark' button 	Dish is saved/bookmarked successfully under the user's profile.	The user was able to successfully bookmark dishes, and the bookmarked items were saved and displayed in the user's account without issues.	Pass

Table 3.7: Test Cases for Calendar

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)
Test Case

Test Case ID: CF_010	Test Executed by: Nomar Yram Dugenia
Module name: Calendar	Test Execution Date: 11-24-2025

TC #7	Steps to Replicate	Expected Result	Actual Result	Status
CF1	1. User logs into the website 2. Click on the Calendar tab 3. Choose to manually select a date 4. Input meals for that day 5. Clicks Save	The system saves the meal data and displays it correctly on the calendar	The system saved the meal data and displayed the meals correctly on the selected calendar date.	Pass
CF2	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. Input weekly preferences (people, budget, etc.) 5. Clicks Generate	Chatbot generates a week's meal plan based on input and displays it for confirmation	The chatbot generated a full week's meal plan based on the provided preferences and displayed it for user review and confirmation.	Pass
CF3	1. Do steps in CF2 2. User is satisfied and clicks Confirm	The system saves the meals into the calendar and displays them successfully	Upon confirmation, the system saved all generated meals into the calendar and displayed them correctly across the selected dates.	Pass
CF4	1. Do steps in CF2 2. User is not satisfied with the plan 3. Clicks "Regenerate"	Chatbot re-generates a new meal plan based on the same inputs	The chatbot regenerated a new weekly meal plan	Pass

			using the same input preferences and displayed the updated plan for review.	
CF5	1. User attempts to save meals with empty fields or invalid characters	System shows an error: "Please complete all required fields correctly."	The system showed an error: "Please complete all required fields correctly" and prevented saving until all fields were valid.	Pass
CF6	1. User selects multiple days and enters valid meal data for each 2. Saves all at once	All selected days show correct meal data on the calendar	All selected days were updated, and each date showed the correct meal data on the calendar after saving.	Pass
CF7	1. User logs in 2. Clicks on Calendar tab 3. Chooses to use chatbot assistance 4. API down	System tells the user that the API is down, shows previous liked / chosen meals, and prompts user to do it manually.	When the AI chatbot API was unavailable, the system notified the user of the service interruption and displayed their previously liked and selected meals as suggestions. The system	Pass

			also prompted the user to manually input meals for their calendar, ensuring uninterrupted meal planning functionality.	
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Table 3.8. Test Cases for Login

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: L_010	Test Executed by: Nomar Yram Dugenia
Module name: Login	Test Execution Date: 11-24-2025

TC #8	Steps to Replicate	Expected Result	Actual Result	Status
L1	1. Access the website via a browser 2. Click on the Login button 3. Enter a valid username and password 4. Enter an incorrect username or password 5. Click "Login"	The user is logged in successfully and redirected to the dashboard or homepage.	The system correctly authenticated valid credentials and redirected the user to the dashboard. Invalid credentials prompted an error message.	Pass
L2	1. Access the website via a browser 2. Click on the Login button 3. Click 'Login'	System displays: "Invalid Credentials, Try again." User remains on the login page.	The system prevented login and displayed the "Invalid Credentials" message as expected.	Pass

L3	1. Click on the Login button 2. Leave the username and password fields empty 3. Click 'Login'	System shows an error message: "Please enter your credentials."	The system displayed a validation message prompting the user to fill in required login fields.	Pass
L4	1. Enter the correct username but the incorrect password 2. Click 'Login'	User is shown an error message: 'Account not found'.	The system displayed the correct error message and denied access.	Pass
L5	1. Enter a username with invalid characters (e.g., John) 2. Click 'Login'	System displays input validation errors or blocks suspicious input.	The system rejected the invalid input and prevented login attempts with invalid characters.	Pass
L6	1. Enter the correct credentials 2. Turn off the internet before clicking 'Login'	System shows a connection or network error message.	The system displayed a network connection error message when offline.	Pass

Table 3.9. Test Cases for Registration

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: R_010	Test Executed by: Nomar Yram Dugenia
Module name: Registration	Test Execution Date: 11-24-2025

TC #9	Steps to Replicate	Expected Result	Actual Result	Status
R1	1. Access the ‘Register’ page 2. Enter a valid name, email, and password 3. Submit the form 4. Open the email and check for the OTP 5. Enter the OTP in the verification field 6. Click on ‘Verify’	The user receives the OTP, verifies it successfully, and their account is created.	The user received the OTP via email, successfully entered it, and the system created and activated the account.	Pass
R2	1. Access the ‘Register’ page 2. Enter an invalid email format 3. Attempt to submit the form	The system rejects the input and shows an error saying the email is invalid.	The system correctly showed an “Invalid email format” message.	Pass
R3	1. Access the ‘Register’ page 2. Enter a valid email 3. Enter mismatched passwords 4. Submit the form	The system prevents submission and notifies the user about the mismatch.	The system displayed an error about mismatched passwords.	Pass
R4	1. Access the ‘Register’ page 2. Enter valid inputs 3. Submit the form 4. Do not open or enter the OTP 5. Wait or close the page	The account is not created. The system waits for OTP verification.	The system did not create or activate the account without OTP verification and kept the registration pending until a valid OTP was entered.	Pass
R5	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form	The system shows an error saying the OTP is invalid.	The system displayed an “Invalid OTP” error	Pass

	4. Enter an incorrect OTP 5. Click ‘Verify’		and did not create the account until a correct OTP was provided.	
R6	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Resend OTP 5. Enter the new OTP 6. Click ‘Verify’	The system accepts the new OTP and creates the account successfully.	The system successfully resent a new OTP, accepted it when entered, and completed account creation.	Pass
R7	1. Access the ‘Register’ page 2. Enter valid details 3. Submit the form 4. Enter OTP after it has expired	The system notifies the user that the OTP has expired and suggests resending.	The system displayed a message that the OTP had expired and prompted the user to request a new OTP..	Pass
R8	1. Access the ‘Register’ page 2. Enter valid details with an already used email 3. Submit the form	System shows “Email Already in Use”	The system successfully displayed “Email Already in Use.”	Pass
R9	1. Access the ‘Register’ page 2. Enter valid details with a weak password 3. Submit the form	System rejects and shows message “Password must include letters and numbers”	The system rejected the weak password and showed a message indicating that the password must include letters and numbers and meet minimum	Pass

			strength requirements.	
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Table 3.10. Test Cases for Profile

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: PR 010	Test Executed by: Nomar Yram Dugenia
Module name: Profile	Test Execution Date: 11-24-2025

TC #10	Steps to Replicate	Expected Result	Actual Result	Status
PR1	1. Log in to the system 2. Navigate to the Profile page 3. View user information and preferences	The user's profile details and preferences are displayed correctly.	The user profile displayed all saved details correctly.	Pass
PR2	1. Log in 2. Go to Profile 3. Click 'Edit Preferences' 4. Change dietary preference to 'Vegan' 5. Save changes	Changes are saved, and the new preference is applied to future suggestions.	The system saved the updated dietary preference as "Vegan" and applied it correctly to subsequent meal and restaurant suggestions.	Pass
PR3	1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter the incorrect current password 5. Click 'Save'	System shows an error message: 'Incorrect current password'.	The system displayed an "Incorrect current password" error message and did not change the password	Pass

PR4	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Password' 4. Enter a valid current password and a matching new password 5. Click 'Save' 	<p>Password is updated successfully, and a confirmation message is shown.</p>	<p>The system verified the current password, updated the password successfully, and showed a confirmation message; password changes are correctly processed and confirmed to the user.</p>	Pass
PR5	<ol style="list-style-type: none"> 1. Attempt to access the Profile page without logging in 	<p>User is redirected to the login/signup page.</p>	<p>User redirect to login/signup page.</p>	Pass
PR6	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter a valid, non-registered email 5. Click 'Save' 	<p>OTP is sent to email, User enters OTP</p>	<p>The system sent an OTP to the new email address, verified it successfully when entered, and updated the user's email.</p>	Pass
PR7	<ol style="list-style-type: none"> 1. Log in 2. Go to Profile 3. Click 'Change Email' 4. Enter an already registered email 5. Click 'Save' 	<p>System shows error 'Email already in use'</p>	<p>The system displayed an "Email already in use" error message and did not change the email to a duplicate address.</p>	Pass

Table 3.11. Test Case for Logout

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: LO_010	Test Executed by: Nomar Yram Dugenia
Module name: Logout	Test Execution Date: 11-24-2025

TC #11	Steps to Replicate	Expected Result	Actual Result	Status
LO1	1. Log in to the system 2. Navigate to the Profile page 3. Click on the 'Logout' button	User is logged out and redirected to the home or login page.	Logout function worked successfully and redirected to the homepage	Pass

Table 3.12. Test Case for Admin

Project Name: Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web App)	
Test Case	
Test Case ID: AD_010	Test Executed by: Nomar Yram Dugenia
Module name: Admin	Test Execution Date: 11-24-2025

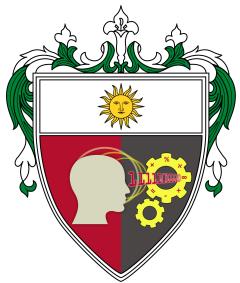
TC #12	Steps to Replicate	Expected Result	Actual Result	Status

AD1	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials	Admin is directed to admin dashboard	The system recognized valid admin credentials and redirected the user to the dedicated admin dashboard.	Pass
AD2	1. Enter website 2. Go to Login 3. Add invalid Admin Login Credentials	User is shown a message. "Invalid Credentials, Try again."	The system rejected invalid admin credentials and displayed the message "Invalid Credentials, Try again."	Pass
AD3	1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is flagged falsely. 6. Click Reinstate Recipe	Admin is shown message that the recipe is successfully reinstated. Recipe should be searchable and seen by all users now	The admin dashboard displayed the reported recipes, allowed reinstatement of falsely flagged recipes, showed a success message, and made the reinstated recipe visible and searchable to all users.	Pass

AD4	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. View reported recipes 5. Verify that the recipe reported is not flagged falsely. 6. Click Delete Recipe 	<p>Admin is shown a message that the recipe is successfully Deleted. The recipe is completely deleted from the database and can no longer be accessed.</p>	<p>The admin successfully deleted the confirmed problematic recipe, received a success message, and the recipe was permanently removed from the database and no longer accessible.</p>	Pass
AD5	<ol style="list-style-type: none"> 1. Enter website 2. Go to Login 3. Add Valid Admin Login Credentials 4. Click Edit Cultural Food Explorer 5. Edit 6. Save 	<p>The Cultural Food Explorer is properly saved and changed for every user of the website.</p>	<p>The admin was able to edit Cultural Food Explorer entries, save changes successfully, and all updates were reflected correctly for all users..</p>	Pass



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This is to certify that **Ms. Cheryl Anne Gonzales Alonzo** of the **Food Technology Department** has **reviewed, assessed, and validated** the recipe contents, culinary data, and food-related information integrated within the capstone project entitled:

“Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web Application)”

Ms. Alonzo thoroughly examined the recipes, ingredients, preparation procedures, and related content presented in the system to ensure their **accuracy, correctness, and adherence to proper food standards and practices**. Her evaluation confirms that the recipe information embedded within the Pick-A-Plate (PAP) web application is **authentic, reliable, and aligned with professional and academic food principles**.

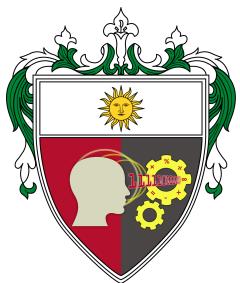
Furthermore, **Ms. Alonzo has expressed her interest in helping moderate and provide guidance for the Pick-A-Plate web application**, supporting its continuous refinement and development.

Validated by:

Ms. Cheryl Anne Gonzalez Alonzo
Food Management Department
University of Santo Tomas



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This is to certify that **Mr. Kristoffee Virgil Mejia Cruz** of the **Food Management Department** has **reviewed, assessed, and validated** the recipe contents, culinary data, and food-related information integrated within the capstone project entitled:

“Pick-A-Plate (PAP) — Your AI Food Decision Helper (Web Application)”

Mr. Cruz carefully examined the recipes, ingredients, preparation procedures, and related content presented in the system to ensure their **accuracy, correctness, and adherence to proper food standards and practices**. His evaluation confirms that the recipe information embedded within the Pick-A-Plate (PAP) web application is **authentic, reliable, and aligned with professional and academic food principles**.

Furthermore, **Mr. Cruz has expressed his interest in helping moderate and provide guidance for the Pick-A-Plate web application**, contributing to its ongoing improvement and quality.

Validated by

Mr. Kristoffee Virgil Mejia Cruz
Food Technology Department
Centro Escolar University

