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A MOBILE APPLICATION FOR PERSONALIZED DIET PLAN USING ARTIFICIAL INTELLIGENCE

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ABSTRACT

Despite the growing awareness of healthy eating habits, many individuals, especially college students, struggle to maintain a balanced diet due to a busy schedule filled with academic responsibilities and extracurricular activities. Due to the limited time for meal preparation, they may skip meals or opt for high-calorie and low-nutrition food choices. Thus, this GenZDiet mobile application leverages Artificial Intelligence (AI) to provide personalised diet plans tailored to individual health goals, dietary preferences, and nutritional needs. To evaluate its usability, a survey was conducted with 30 respondents aged between 18 and 24 years old using a Google form based on the Computer System Usability Questionnaire (CSUQ) framework. Key evaluation criteria include ease of use, clarity of information and security assurance, navigation and interface design, usefulness, and satisfaction. The findings indicated intense user satisfaction, with over 50% of respondents strongly agreeing that the app is intuitive and easy to navigate. Notably, 53.3% of respondents strongly agreed that the interface was user-friendly, and 50% respondents reported high satisfaction in meeting dietary expectations. However, minor improvements were identified, such as AI-driven recommendations, expanding the meal database, and refining the user interface. Overall, the study demonstrates that GenZDiet achieves a positive result and has potential as a practical tool for supporting healthier eating habits in the long term.

Keywords: Artificial Intelligence, balanced diet, mobile application, personalised diet plan, usability evaluation

INTRODUCTION

Health issues have become a highly prominent topic of discussion in recent years. As awareness of having chronic disease, heart disease, or mental health issues is rising, individuals are very conscious of the need for personalised diet plans to cater to their health requirements (Guan et al., 2023). A personalised diet

plan refers to a list of food menus that guide someone in adopting a specific diet. Its bespoke approach is the balanced nutrition designed for the individual's genetic differences, health conditions, and dietary preferences. Specifically, eating a balanced and nutritious diet is essential to creating healthy eating habits throughout life. Moreover, a healthy diet provides the nutrients needed to strengthen the immune system and improve sleep.

Despite the increasing recognition of the importance of personalised diets, data from the British Medical Journal shows that about 80.5% of individuals engage in meal preparation and or cooking. However, they often rely on high-calorie food, while only 24.1% would eat a balanced food such as rice, meat, vegetables, and fruits (Yahia et al., 2008). This indicates a widespread gap between knowledge and action when it comes to healthy eating (Tok et al., 2018). Furthermore, the World Health Organisation (WHO) has identified unhealthy diets as the leading risk factor for the development of non-communicable diseases, further underscoring the need for personalised dietary interventions (Al-Jawaldeh & Abbass, 2022).

Despite the growing demands for personalised diet plans, many existing programs or resources offer only general recommendations that fail to address the specific health needs and goals of individuals. Moreover, there is a lack of guidance on how individuals can effectively transition from general advice to a personalised diet plan that is both practical and sustainable. A GenZDiet personalised diet app serves as the ultimate tool for individuals looking to optimise their health through tailored plans. This study aims to develop a mobile application for a personalised diet plan using Artificial Intelligence (AI).

Therefore, a computer system usability questionnaire (CSUQ) framework is developed that focuses on several key factors: Ease of Use, Clarity of Information and Security Assurance, Navigation and Interface Design, Usefulness, and Satisfaction (Acala & Talirongan, 2023). A survey was conducted among 30 respondents to analyse the app's functionality and interface design. By analysing an individual's health data, preferences, and goals, the app integrates cutting-edge technology such as Artificial Intelligence (AI) to create customised recommendations that support not only better health outcomes but also greater ease in adopting and maintaining a balanced diet.

This paper is organised into six sections. Following this introduction, Section 2 discusses related work, analysing existing research in personalised diet applications. Section 3 emphasises the project's significance. Section 4 presents the methodology, detailing the design and implementation of the system. Section 5 discusses the development phase, including system modelling and functionality. Section 6 highlights the discussion and findings derived from user evaluations. Finally, Section 7 discusses the system impact, limitations, and recommendations for future improvements.

RELATED WORK

Many people consume unbalanced diets with significant nutrient deficiencies, such as low intake of fruits, vegetables, and proteins. Research has shown that mobile applications with AI-driven personalised diet meals can improve users' adherence to a balanced diet by 30% compared to traditional dietary tracking methods (Wang et al., 2025). Besides, wearable-integrated health applications exhibited greater engagement in the personalised diet plan, reinforcing the role of real-time tracking in sustaining healthy habits (Khoshmanesh et al., 2021).

Mobile apps are increasingly being used to deliver and support nutrition interventions in community settings. To design a unique application for a personalised diet plan, several studies are conducted to compare three existing apps in the Google Play Store: "Eat This Much", "MyFitnesspal", and "LifeSum".

The comparison focuses on evaluating the strengths and limitations of each app. The insight gained helped in developing a more advanced and personalised diet application that meets user needs and preferences.

The first existing app is the Eat This Much App (The Automatic Meal Planner - Eat This Much, 2025). The Eat This Much application is a personalised meal planning app based on dietary preferences, restrictions, and goals. The app offers a high level of customisation, allowing the user to choose types of meals, the complexity of preparation, and portion size. Besides, it also provides meal recommendations tailored to specific goals, such as calorie intake and diet type, that are best suited for the professional meal planner.

The app's limitation is that the food database offers only a small selection of meals, and the interface design is somewhat cluttered and less intuitive. The app is more focused on meal planning and generating a list of meals instead of calorie tracking.

The second existing app is MyFitnessPal (Calorie Tracker & BMR Calculator to Reach Your Goals | MyFitnessPal, 2025). It is a generalised fitness and nutrition tracking app designed for fitness enthusiasts and athletes who want to track their food and overall nutrition. The interface is easy to navigate and contains an extensive food database that makes it simple to track meals, calorie intake, and nutrients. The limitations include inconsistent updating of weight, inaccuracies, incorrect portion sizes, and the conscious or subconscious failure to enter consumed food and drink.

The third app is the LifeSum app (Lifesum - Healthy Eating. Simplified., 2025). LifeSum is a holistic health and lifestyle app that provides a user-friendly interface and includes a variety of food databases. It focuses more on personalised plans and calorie tracking for individuals accustomed to weight loss, muscle gain, and medical dietary requirements. The limitation of this app is that it is suitable for those who care about wellness and a balanced diet, rather than dieting or muscle gains. The summary of the existing applications is presented in Table 1 below.

Table 1

Comparison between the existing app

Feature	Eat This Much	MyFitnessPal	LifeSum
Interface Design	Clutter and less intuitive	Easy to navigate	User-friendly interface
Food Database	Limited	Large and diverse	Limited
Calorie Tracking	No	Yes	Yes
Best Suited	Professional meal planner	Athletes, fitness enthusiasts	Casual dieters, wellness seekers
Personalized and Customized	Personalised based on user goal (Diet type, size portion)	Personalised based on fitness and nutrition tracking	Personalised based on weight loss, muscle gain and health goals

The development of the GenZDiet application aims to raise awareness about the importance of both mental and physical health. A balanced diet plays a crucial role in influencing mood, stress levels, and cognitive functions. Maintaining a balanced diet can help to improve focus, memory, and overall well-being.

Students often face a fast-paced lifestyle filled with academic pressures, irregular schedules, and limited access to healthy food options (Iqra, 2024). These factors contribute to unhealthy eating habits such as meal skipping, excessive caffeine intake, and reliance on fast or junk food (Mizia et al., 2021). By following the personalised diet plans, students can get sufficient proteins, fats, carbohydrates, vitamins, and minerals to support their health and overall well-being.

A balanced diet plays a crucial role in supporting brain function, reducing stress levels, and enhancing memory and concentration. The development of the GenZDiet personalised diet app has significant potential in promoting healthier eating habits and long-term health. Proper nutrition helped regulate hormones and neurotransmitters, directly impacting mental, emotional, and academic performance. Through the GenZDiet app, students can ensure they are receiving an appropriate amount of proteins, fats, carbohydrates, and vitamins needed to maintain their health and overall well-being.

The GenZDiet addresses these challenges by offering tailored diet plans based on individual needs, preferences, and health goals. This personalisation can increase the relevance and effectiveness of the recommendations, making it easier for the students to adapt to short-term and improve their long-term lifestyle. These include better sleep quality, a stronger immune system, reduced risk of chronic disease, improved digestion, and enhanced emotional stability.

METHODOLOGY

The development of the GenZDiet application followed an Agile methodology. Agile methodology is a project management framework that breaks a project down into several dynamic phases, commonly known as sprints (What Is Agile Methodology? - GeeksforGeeks, 2025). Agile is divided into several phases, and each contributes to the continuous improvement and incremental delivery throughout the development lifecycle.

Firstly, it begins with the project initiation and planning phases, which focus on identifying issues and problems of existing similar applications. This phase involves researching to understand the limitations of current apps that offer personalised diet plans. The research includes reviewing journals, articles, and other relevant sources to gather insights into user requirements. This requirement will be translated into the specific features and functionality to develop the application. The stakeholders involved in this project are the college students.

Subsequently, moving to the design and gathering of requirements phases. The personalised diet application is designed based on the stakeholder preferences and needs. The application will feature an intuitive user interface and interactive elements, enabling users to input their data and select from various meals easily. Developed the use cases and low-fidelity prototypes to gain a deeper understanding of how the application may function. Use a UI/UX design tool such as Figma to develop the interface layout, functional buttons, and overall screen flows.

After finalising the design, the development and implementation phase were carried out. It involved developing a personalised diet plan application using Firebase for backend development and Flutter (Dart) for the frontend mobile interface. Firebase is used to handle the backend logic and data preprocessing, while Flutter enables the cross-platform functionality on Android devices. It will translate the design and specification into actual working code to meet the requirements and objectives outlined in the initial phase of the project's development. Creation of core functionalities such as user profiles, diet preferences, calorie intake, dietary restrictions, and meal types. All the information will be stored in the back-end databases.

Once the application was developed, testing and quality assurance were conducted to ensure all components functioned effectively and met user expectations. This phase involves application testing and user evaluation. During application testing, the focus was on verifying the functions of the components, such as performance testing on the backend, functionality of buttons, and ensuring the code is free from bugs. The evaluation involves 30 respondents who are randomly selected to assess the ease of use, clarity of information, security assurance, navigation and interface, usefulness, and satisfaction. Based on the testing result, the interface and content will be improved to provide a more comprehensive application with full functionality and enhanced user experience.

Besides, a comprehensive plan is created to ensure a smooth deployment process without any downtime. In this phase, all the documents, such as the user manual, system requirements, and final report, are finalised to ensure the smooth deployment and ongoing support. Continuous improvement focused on the functionality adjustment, market-driven adjustment, or responsiveness to new requirements.

The final phase focused on the review phase. The application allows the user and stakeholders to assess its usability and functionality. Through their feedback, it can ensure that the application meets the expectations and functionality requirements of the end user. The feedback acts as a foundation for ongoing improvement and guides the application development to ensure its success after launch. Continuous refinement and interactive updates are essential for ensuring long-term user engagement and system effectiveness.

DEVELOPMENT

The development of the Personalised Diet Plan application was guided by user-centric principles to ensure accessibility, functionality, and efficiency. The process began with a thorough requirements analysis as tabulated in Table 2, ensuring the system functionalities align with the needs and expectations. The correct modelling methodology and tools were essential to map out how users would interact with the app and how different features would integrate to provide a seamless experience. The process involves the use case diagram in Figure 1, the sequential diagram in Figure 2, and the flowchart diagram in Figure 3, which visually represent the app's structural elements, including user interactions, system processes, and data flow. These diagrams were developed through Draw.io.

Table 2

Key Requirements of a Personalised Diet Plan

Requirement ID	Requirement Description
RQ01	Manage account
RD02	Sign Up Account
RD03	Login Account
RD04	Physical Profile
RD05	Diet Plan Management
RD06	Reminder and Notification
RD07	Calorie Calculator
RD08	Dashboard
RD09	Calendar
RD10	Advanced Search

Figure 1

Use Case Diagram of GenZDiet Personalised Diet Plan

The use case diagram, as illustrated in Figure 1, provides a comprehensive overview of the app functionalities and the interaction between the user and the platform. It serves as an essential tool for understanding how different users engage with the app and navigate through its various features. Based on the sequence diagram in Figure 2, two distinct user roles can be defined: student and admin. The students can create a personalised diet app and explore features like the drink tracker, nutrient tracker, meal recipes, health tips, and other interesting functionalities. In contrast, the admin has broader control over the user management, security settings, and content moderation. This diagram ensures both roles can navigate the app easily and effortlessly.

Figure 2

Sequence Diagram of Personalised Diet Plan

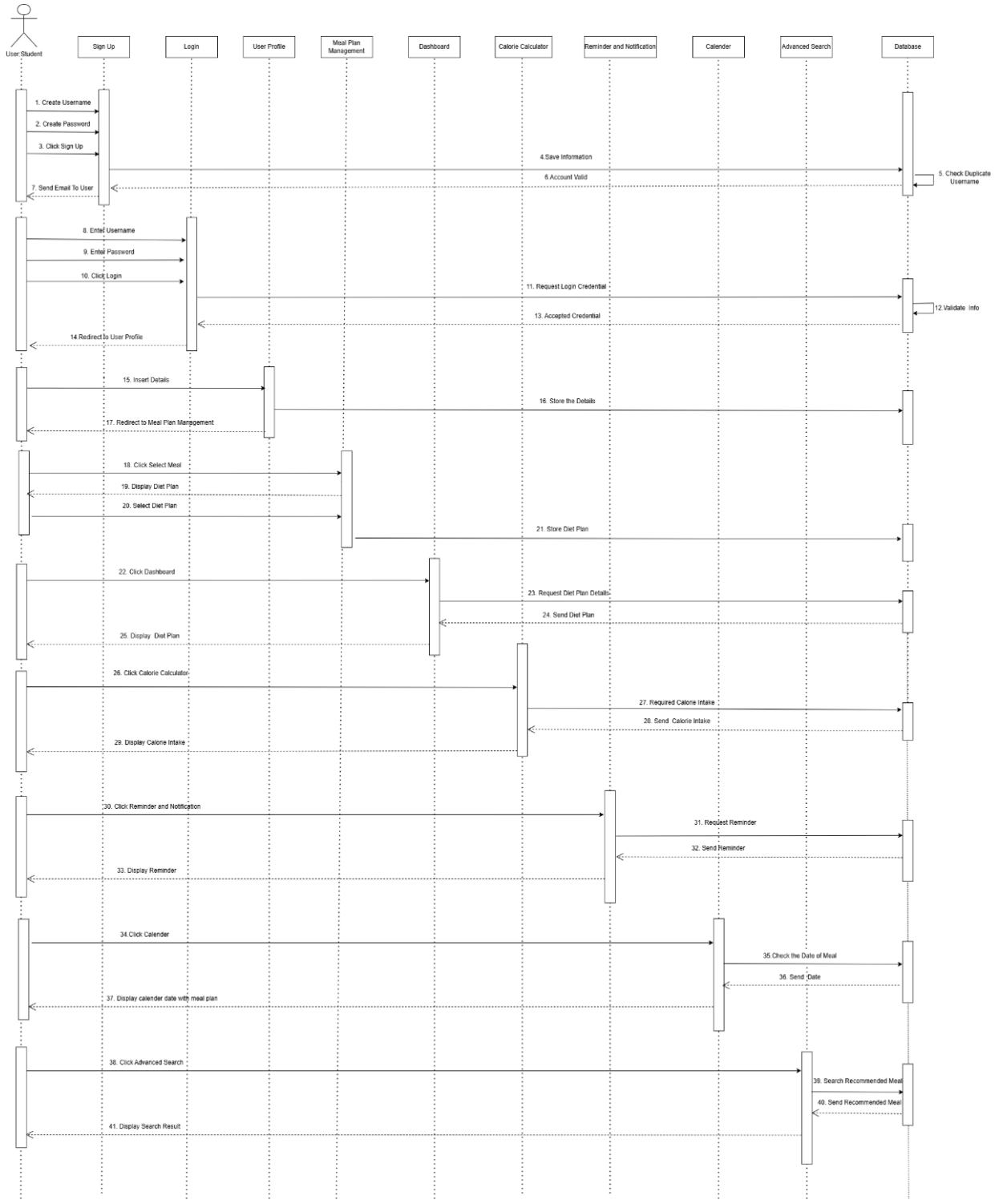
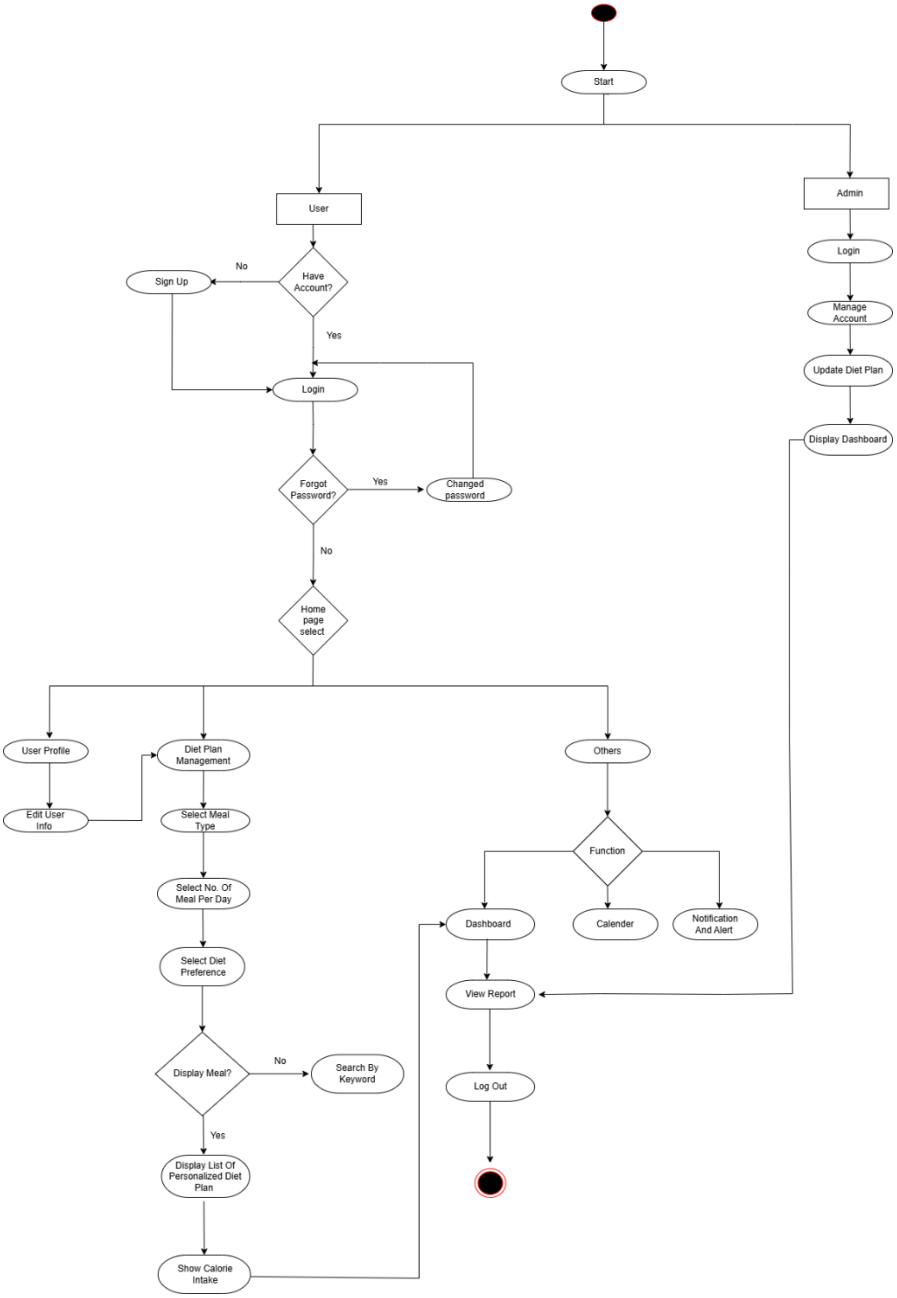


Figure 3

Flow Chart Diagram of Personalised Diet Plan

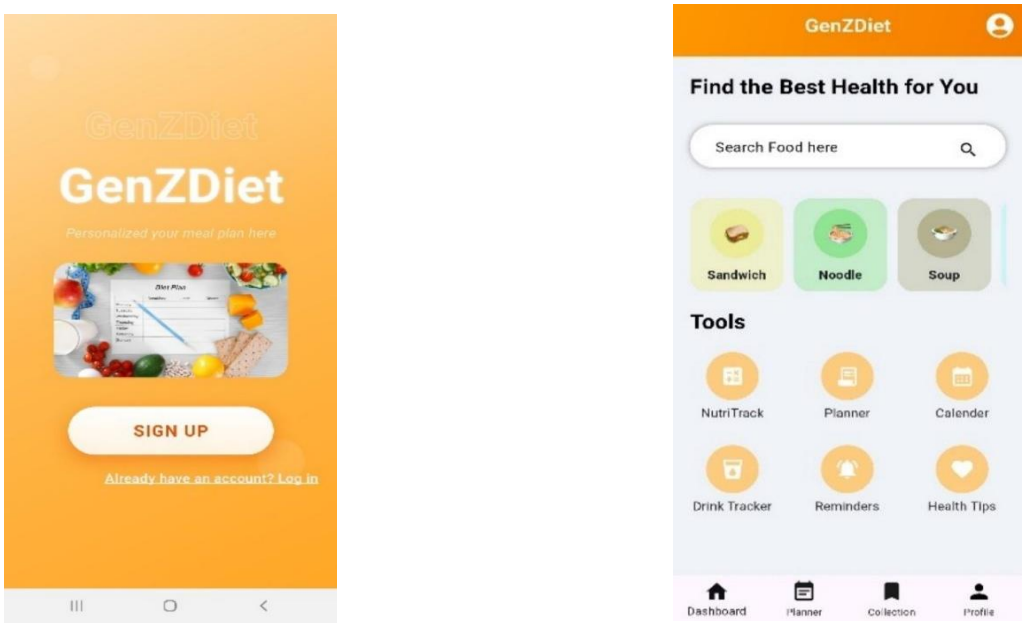


The application comprises several core modules to support users in achieving the objective. The flowchart in Figure 3 outlines a user flow or navigation menu for a system, likely related to account management and email preferences. It starts with user authentication (Sign-up, Login, and forgot password) and progresses to account management. Key features include selecting the mail preference. The flow ends with auxiliary functions such as Dashboard, Calendar, and log out. The structure is hierarchical, guiding users from initial access to logging out.

Figure 4

Interface of the Personalised Diet Plan

The designed interfaces of the developed GenZ diet mobile application are illustrated in Figure 4 (a) and (b).



(a) Main Page (b) Dashboard Page

FINDINGS AND DISCUSSION

The assessment items for evaluating the app's functionality and usability were collected through a questionnaire created using Google Forms. The questionnaire was created using the Computer System Usability questionnaire (CSUQ) framework and designed to collect feedback from 30 respondents regarding their experience with the app. It consists of two types of data: quantitative and qualitative. The quantitative data use a Likert Scale ranging from 1-5, where one represents “strongly disagree”, 2 represents “disagree”, three represents “neutral”, four represents “agree”, and five represents “strongly agree”. The qualitative data is collected through open-ended questions.

Evaluation Criteria

The collected data was evaluated using four criteria based on the Computer System Usability questionnaire (CSUQ) framework to gauge the application's performance.

1. Ease of use. This section evaluates how easily the respondents could navigate and integrate with the app. It focuses on how well the respondent understands its features and how user-friendly it is.
2. Clarity of Information and Security Assurance. This section focuses on evaluating the performance of the GenZDiet app in terms of the clear information presented, accuracy of the AI responses, and level of security respondents feel while using the app.
3. Navigation and Interface Design. This section focuses on how respondents interact with the app’s layout, navigate through its various features, and overall design. It evaluates how user-friendly and accessible the app is, allowing the user to explore it without confusion.
4. Usefulness and Satisfaction. This section measures the usefulness of the app and overall satisfaction with its features and experiences.

Key Demographic Insights

Analysis of demographic data revealed that the focus is on college students aged 18 to 24 years among the 30 respondents. For ages 21-23, the highest percentage was achieved at 56.7%, while ages 18-20 had 26.7%, and ages 24 and above had 16.7%. The gender distribution revealed a significant skew, with 63.3% female respondents compared to 36.7% male respondents. Female student tends to use the app as part of maintaining a healthy lifestyle and managing their weight. Male students, on the other hand, tended to use the app less frequently as they often preferred physical training or gym-based exercise over digital health tools. Table 3 presents a detailed demographic breakdown.

Table 3

Demographic Analysis

Description		Frequency	Percentage (%)
Gender	Male	11	36.7
	Female	19	63.3
Age	18-20	8	26.7
	21-23	17	56.7
	24 and above	5	16.7

Usage of the Personalised Diet App

Most of the respondents (60%) were unfamiliar with or had not used any diet or meal planning application before. In contrast, only 40% respondents had prior experience using such an app. When asked about the primary goal of using the diet or meal planner, the most common responses were maintaining a healthy lifestyle, chosen by 14 respondents (46.7%), followed by improving eating habits by seven respondents (23.3%), and weight loss by nine respondents (30%). Notably, none of the respondents selected medical dietary requirements as their primary goals. Table 4 provides a detailed breakdown of these usage and frequency trends.

Table 4

Usage of the Personalised Diet App

Description		Frequency	Percentage (%)
Have you used any diet or meal planning apps before?	Yes	12	40
	No	18	60
What is your main goal in using a diet or meal planner?	Maintain a healthy lifestyle	14	46.7
	Improve eating habits	7	23.3
	Weight loss	9	30
	Medical dietary requirements	0	0

Accessibility and effectiveness of the Personalised Diet Plan

The evaluation of section B in the questionnaire focused on assessing the respondents' usability and functionality, including ease of use, clarity of information, security assurance, navigation, interface design, and overall usefulness and satisfaction. The frequency and average percentage in Tables 5 to 8 revealed positive evaluations, with most respondents assigning scores of four or five, which correspond to 'agree' and 'strongly agree'. Notably, only a small negative response was recorded for 'disagree', and no respondents selected the lowest rating of 1 "strongly disagree".

Table 5

Section B: Ease of Use

Items	Statements	1	2	3	4	5
1	The GenZDiet is easy to navigate.	0	0	4 (13.3%)	10 (33.3%)	16 (53.3%)
2	I can understand the app navigation and flow.	0	1 (3.3%)	4 (13.3%)	10 (33.3%)	15 (50%)
3	It is simple to log meals and track calories using the app.	0	1 (3.3%)	4 (13.3%)	10 (33.3%)	15 (50%)
4	I could easily complete basic tasks like sign up, log in and dashboard without any instructions.	0	0	5 (16.7%)	10 (33.3%)	15 (50%)

Table 5 focuses on how easy the user interacts with the GenZDiet app. It looks at how well the user can navigate the app, log meals, understand the layout, and complete basic tasks. The GenZDiet App is easy to navigate. Out of 30 respondents, an overwhelming 53.3% "strongly agree". This suggests that many user respondents selected "strongly agree" because they found the app easy to navigate, whether they were first-time users or had prior experience with it.

The app navigation and flow also perform strongly in meeting the user's needs. A total of 15 respondents (50%) "strongly agree". The high number of respondents selected strongly agree, as the app has a clean design with an intuitive icon and logical flow.

Among the respondents, 15 respondents (50%) strongly agreed that the app is simple to log meals and track calories. The percentage of respondents is almost the same across the surveyed statements, strongly suggesting that the app is efficient and straightforward in tracking calories. The design of choices makes it easy for them to monitor their calorie consumption without confusion.

Most respondents (50%) "strongly agree with finding it easy to complete basic tasks like signing up, logging in, and viewing the dashboard without any instructions. The same agreement percentage rate suggests that the app has an exceptionally intuitive interface, allowing users to smoothly scroll through all the features independently.

The results presented in Table 5 indicate that the GenZDiet app is highly user-friendly. The majority of respondents either agree or strongly agree that the app is easy to navigate, understand, and use for everyday tasks. These findings reflect that the app is intensely focused on usability, making it suitable for users.

Table 6

Clarity of Information and Security Assurance

Items	Statements	1	2	3	4	5
1	The food item provides clear and understandable ingredients, preparation time, and cooking steps.	0	0	4 (13.3%)	11 (36.7%)	15 (50%)
2	The advanced search returns accurate results based on the ingredient and keywords.	0	0	4 (13.3%)	12 (40%)	14 (46.7%)
3	Nutritional and calorie information was easy to understand.	0	1 (3.3%)	3 (10%)	11 (36.7%)	15 (50%)
4	The sign-up and login features worked correctly without technical issues.	0	1 (3.3%)	4 (13.3%)	10 (33.3%)	15 (50%)
5	The GenZDiet app allows the user to change their password at any time.	0	1 (3.3%)	2 (6.7%)	12 (40%)	15 (50%)

Table 6 delves into the clarity of information and security assurance in the GenZDiet app. This section includes five items related to the clarity of food-related content. Regarding the recipe content, 50% of respondents strongly agreed that ingredients, preparation time, and cooking steps were clearly presented, indicating that the app successfully makes cooking processes accessible.

Based on the advanced search, return accurate results based on the ingredient and keywords. 14 respondents, who comprised 46.7% strongly agreed. These results indicate that the advanced search algorithm is effective in delivering relevant and accurate results when the user inputs specific ingredients or keywords. Nutritional and calorie information was well-received, with 50% strongly agreeing that visual aids, such as colour-coded sections and an intuitive icon, break down nutritional data into digestible and user-friendly formats.

Security features received equally positive feedback. Half of the respondents strongly agreed that the sign-up and login features worked correctly without technical issues. Similarly, 50% of respondents strongly agreed with the password change flexibility, showing the app's commitment to user-friendly security measures.

Overall, these findings indicate that the app successfully combines explicit, informative content with dependable functionality. Most respondents strongly agreed that the app provides understandable ingredient and nutrition information, and the advanced search tool delivers accurate results. These positive results suggest that the app successfully builds user trust through both clarity of content and dependable account management functions.

Table 7

Navigation and Interface Design

Items	Statements	1	2	3	4	5
1	The app's features are intuitive and easy to understand.	0	0	4 (13.3%)	10 (33.3%)	16 (53.3%)
2	The features of the home/dashboard screen can be returned at any time without confusion.	0	0	4 (13.3%)	10 (33.3%)	14 (46.7%)
3	The layout of the app and navigation felt intuitive and user-friendly.	0	0	3 (10%)	14 (46.7%)	13 (43.3%)
4	It was easy to move between sections (e.g., planner, dashboard, collection).	0	1 (3.3%)	3 (10%)	11 (36.7%)	15 (50%)

Meanwhile, Table 7 focuses on the user feedback regarding the design, layout, and navigational experience of the GenZDiet app. The responses help to assess how well users can interact with the app's interface without confusion or difficulty. Out of 30 respondents, 53.3% strongly agreed that the app's features are intuitive and easy to use, and there were no negative responses. This indicates that the user can easily access and utilise various functions without confusion or difficulty.

The feature home/dashboard screen can be returned at any time without confusion. Among the respondents, 14 respondents (46.7%) "strongly agreed". These findings show that respondents can easily navigate and return to the home or dashboard page. This ease of navigation can reduce anxiety and help users feel more confident in further engagement with the app features. For the overall layout and navigation, a majority of 13 respondents 43.3% strongly agreed that the app is user-friendly. The majority agreed rather than strongly agreed, reflecting high satisfaction and ease in finding needed features independently.

Half of the respondents (50%) strongly agreed it was easy to move between sections like planner, dashboard, and collection. The high percentage of strong agreement suggests that the app's structure and content organisation allow respondents to move between sections and explore various features efficiently.

Overall, the feedback indicates that the users find the app intuitive, well-organised, and easy to navigate. Most respondents agreed or strongly agreed that they could access features, return to the home screen, and move between sections smoothly. The high level of agreement suggests that the app's layout and design effectively support user experience, reducing confusion and increasing confidence while exploring various functions.

Table 8

Usefulness and Satisfaction

Items	Statements	1	2	3	4	5
1	The app helps me feel more in control of my diet planning.	0	0	3 (10%)	12 (40%)	15 (50%)
2	The app can be used regularly.	0	0	3 (10%)	12 (40%)	15 (50%)
3	The app is helpful overall.	0	0	2 (6.7%)	15 (50%)	13 (43.3%)
4	The app meets my expectations and satisfaction.	0	0	2 (6.7%)	12 (40%)	16 (53.3%)

Table 8 summarises users' perceptions of the GenZDiet app's effectiveness and overall satisfaction. The data highlights how well the app supports users in managing their diet, its suitability for regular use, and how well it meets user expectations. Half of the respondents (50%) strongly agreed that the app helps them feel more in control of their diet, highlighting its role in supporting personal health and nutrition goals.

Similarly, 50% of respondents strongly agreed that the app can be used regularly. This suggests the app's ease of navigation and practical features make it suitable for daily use, encouraging long-term healthy habits. When asked about the overall usefulness, most respondents (50%) agreed. This indicates that the app is valuable and reliable for the user, but needs further improvement to increase the user experience.

For the expressing satisfaction statement, 53.3% of respondents strongly agreed that the app met their expectations and satisfaction levels. This suggests that the app's design and usability contribute positively to user engagement.

The result from Table 8 indicates high satisfaction and perceived value among users. Most respondents agreed or strongly agreed that the app helps them feel in control of their diet, is suitable for regular use, and meets their expectations. While the app is generally considered valid, there is room for further improvement to enhance the user experience.

CONCLUSION

The study explored the development and evaluation of the GenZDiet personalised diet app, which achieved a positive result, indicating a strong foundation in usability, functionality, interface design, and overall user satisfaction among the target respondents. A high percentage of strong agreements across evaluation criteria, including ease of use, clarity of information, security assurance, interface design, usefulness, and satisfaction, suggests that the application is nearly ready for broader deployment. The positive feedback indicates that the app's user interface is intuitive, and its features are effective in achieving the user's dietary goals.

Despite the success, there is room for further improvement. Insight gathered from testing is valuable for identifying opportunities to increase the user experience in future development. User feedback suggests integrating an AI-driven recommendation that can personalise meal planning and a drink tracker function. Future research should also consider adding reminder features to prompt users to eat meals and drink water regularly, as well as expanding the database of meal plans and recipes to accommodate diverse dietary

preferences. Ensuring diversity in nutritional and calorie information within dietary recommendations can enhance accessibility and effectiveness for the user.

Moreover, the interface design can be improved by standardising visual elements, incorporating more engaging images, adding tutorial videos for new users, and enhancing navigation between the sections to ensure seamless exploration of content. These insights underscore the importance of iterative development to enhance the app's usability further and provide smoother navigation.

In the long term, the application can serve as a healthy eating tracker, supporting users in making sustainable lifestyle changes. By helping users focus on balanced diets and reduce their intake of unhealthy or fast food, the app can play a meaningful role in long-term wellness. Continuous enhancements and iterative usability testing will be key to improving user interaction and meeting users' needs and preferences. Future studies should further explore the integration of social features, such as community support, to motivate users in their health and wellness journeys.

In a nutshell, the GenZDiet personalised diet plan application has shown great potential in promoting healthy eating habits. With continuous improvements and thoughtful enhancements, it has the potential to become a valuable and practical application for supporting long-term health and well-being.

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