



Faculty of Computer Science and Information Technology

MYAI-FITDY: AI-POWERED WORKOUT, FASTING, AND DIET PLANNER WITH PROGRESS TRACKING MOBILE APPLICATION

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Bachelor of Software Engineering with Honours

2025

**MYAI-FITDY: AI-POWERED WORKOUT, FASTING, AND DIET PLANNER
WITH PROGRESS TRACKING MOBILE APPLICATION**

IRDINA IMAANI BINTI MD RAZANI

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requirement for the degree of
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**MYAI-FITDY: APLIKASI MUDAH ALIH PERANCANG SENAMAN, PUASA, DAN
DIET BERASASKAN AI DENGAN PENJEJAKAN KEMAJUAN**

IRDINA IMAANI BINTI MD RAZANI

Projek ini merupakan salah satu keperluan untuk
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ABSTRACT

MyAI-FitDy is a user-friendly mobile application designed to assist busy individuals in managing their health and wellness goals. The app focuses on providing personalized workout suggestions, fasting duration tracking, calorie monitoring, and progress visualization. With a straightforward AI-powered chatbot, MyAI-FitDy offers basic workout recommendations based on user preferences and fitness goals. Its fasting tracker enables users to set and monitor fasting durations with start and end notifications, while the calorie tracker simplifies meal logging through manual entries or a predefined list of common foods. Users can track their progress with intuitive charts, promoting consistency and motivation. MyAI-FitDy's simplicity and efficiency make it an ideal solution for anyone striving to maintain a healthy lifestyle within a packed schedule.

ABSTRAK

MyAI-FitDy ialah aplikasi mudah alih yang mesra pengguna, direka untuk membantu individu yang sibuk menguruskan matlamat kesihatan dan kesejahteraan mereka. Aplikasi ini menumpukan pada menyediakan cadangan senaman yang diperibadikan, penjejakan tempoh berpuasa, pemantauan kalori, dan visualisasi kemajuan. Dengan chatbot yang dikuasakan oleh AI yang mudah digunakan, MyAI-FitDy menawarkan cadangan senaman asas berdasarkan keutamaan dan matlamat kecergasan pengguna. Penjejak puasanya membolehkan pengguna menetapkan dan memantau tempoh puasa dengan pemberitahuan mula dan tamat, manakala penjejak kalori memudahkan pencatatan makanan melalui entri manual atau senarai makanan biasa yang telah ditetapkan. Pengguna boleh menjejak kemajuan mereka melalui carta intuitif, yang memupuk konsistensi dan motivasi. Kesederhanaan dan kecekapan MyAI-FitDy menjadikannya penyelesaian yang ideal untuk sesiapa sahaja yang berusaha mengekalkan gaya hidup sihat dalam jadual yang padat.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

In today's fast-paced world, maintaining a healthy lifestyle is challenging, particularly for those with hectic schedules like students and working professionals. Balancing exercise routines, tracking fasting schedules, and managing calorie intake can often feel overwhelming. This leads to irregular fitness habits and a lack of effective health management tools tailored to individual needs.

MyAI-FitDy addresses these challenges by introducing a simple, user-friendly mobile application that integrates essential wellness features. Unlike overly complex fitness apps, MyAI-FitDy focuses on delivering practical solutions through an AI-powered chatbot for basic workout suggestions, a fasting tracker for managing fasting schedules, and calorie tracking tools for meal logging. The app further includes progress visualization tools to help users monitor their fitness journey effectively.

The AI chatbot serves as a virtual fitness guide, providing users with tailored workout advice based on their preferences and goals. The fasting tracker simplifies fasting management by setting reminders for start and end times, while the calorie tracker offers an easy way to log meals manually or from a predefined list. By combining these features, MyAI-FitDy empowers users to achieve their fitness goals, even with a busy lifestyle.

1.2 Problem Statement

In today's fast-moving society, many individuals struggle to maintain a balanced lifestyle due to demanding schedules. The inability to consistently exercise, manage fasting schedules, or track calorie intake leads to unhealthy habits and unmet fitness goals. Existing fitness applications often lack personalization and are overly complex, making them less effective for users seeking straightforward solutions.

MyAI-FitDy addresses this gap by providing an accessible and efficient app that simplifies fitness management. With an AI-powered chatbot offering basic workout guidance, a fasting tracker to monitor schedules, and a calorie tracker for meal logging, the app ensures users can maintain a healthy lifestyle without added complexity. This project aims to deliver a practical, easy-to-use tool that empowers users to achieve their wellness goals, even amidst their busy routines.

1.3 Scope

MyAI-FitDy is designed to offer a simplified health management solution for busy individuals. The app provides essential features tailored to users' fitness and wellness needs.

1. **Target Users:** The primary audience includes students, working professionals, and anyone with a packed schedule who seeks a straightforward way to manage their fitness goals.
2. **AI-Driven Workout Chatbot:** The chatbot delivers basic workout suggestions, providing a user-friendly virtual assistant to guide exercise routines
3. **Fasting Tracker:** This feature allows users to set and track fasting durations with notifications for start and end times.
4. **Calorie Tracking:** A manual entry system and predefined food list enable users to monitor calorie intake without complexity.
5. **Progress Visualization:** Simple charts and reports provide users with a clear view of their fitness journey, promoting consistency and motivation.

1.4 Objective

- To design fitness mobile application with simple progress visualization tools for tracking fitness achievements over time with artificial intelligence.
- To develop the application that contain AI-chatbot for workout recommendations with fasting and calorie tracker include weight progress.
- To evaluate the overall integration of AI, fitness, fasting, and calorie tracking features in the mobile application.

1.5 Brief Methodology

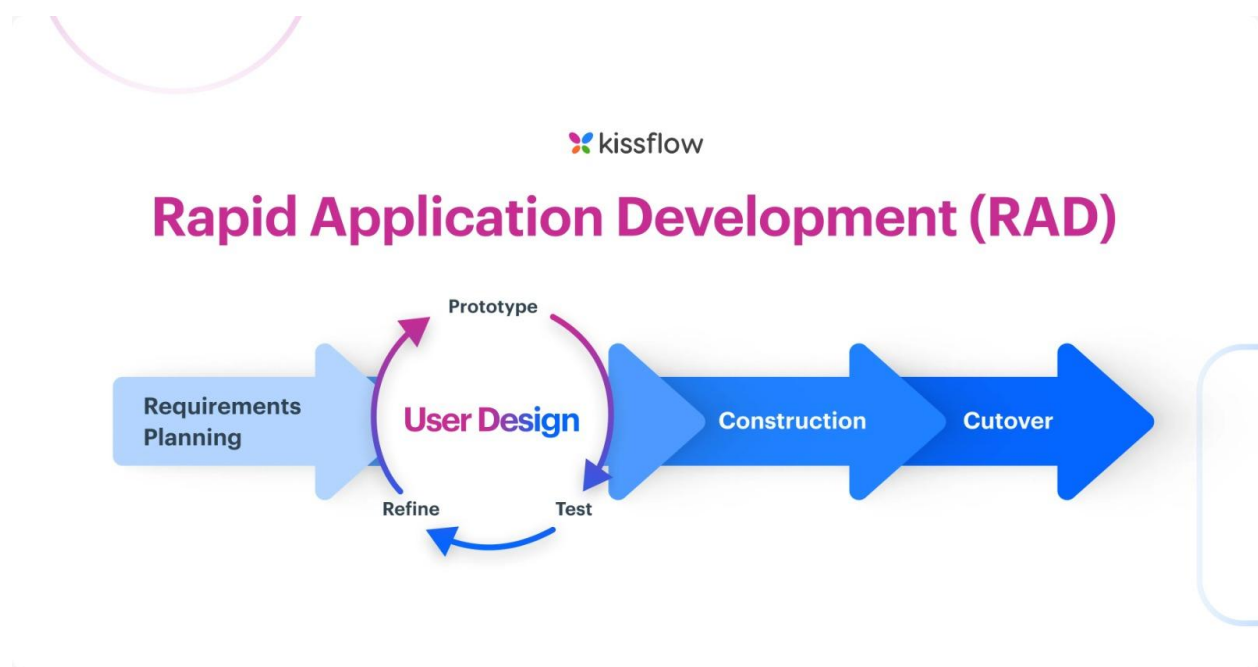


Figure 1 RAD Methodology

The creation of the MyAI-FitDy application will utilize the Rapid Application Development (RAD) methodology to ensure efficient and iterative progress in its development.

1. **Requirements Planning Phase:** This initial phase involves gathering user needs through surveys or existing research. Key requirements for the app include an AI-powered chatbot, fasting tracker, calorie tracking tools, and progress visualization. The focus is on simplicity and aligning features with user expectations and technical feasibility.
2. **User Design Phase:** During this phase, users and developers collaborate closely to create prototypes and mockups using tools like Figma. Wireframes and initial designs will prioritize user-friendly navigation and a visually appealing interface. User feedback will guide iterative refinements to ensure the app meets usability and functional requirements.
3. **Construction Phase:** In this phase, the application was built using React for the frontend and Supabase for backend services like authentication and data storage. Once completed,

the web app was converted into an APK using a web-to-APK tool to allow mobile installation and testing.

4. **Cutover Phase:** This final phase includes testing, deployment, and user feedback. Rigorous testing will ensure the app's functionality and usability. A pilot launch to a small group will provide insights for further improvements. After incorporating feedback, the app will be deployed to a broader audience.

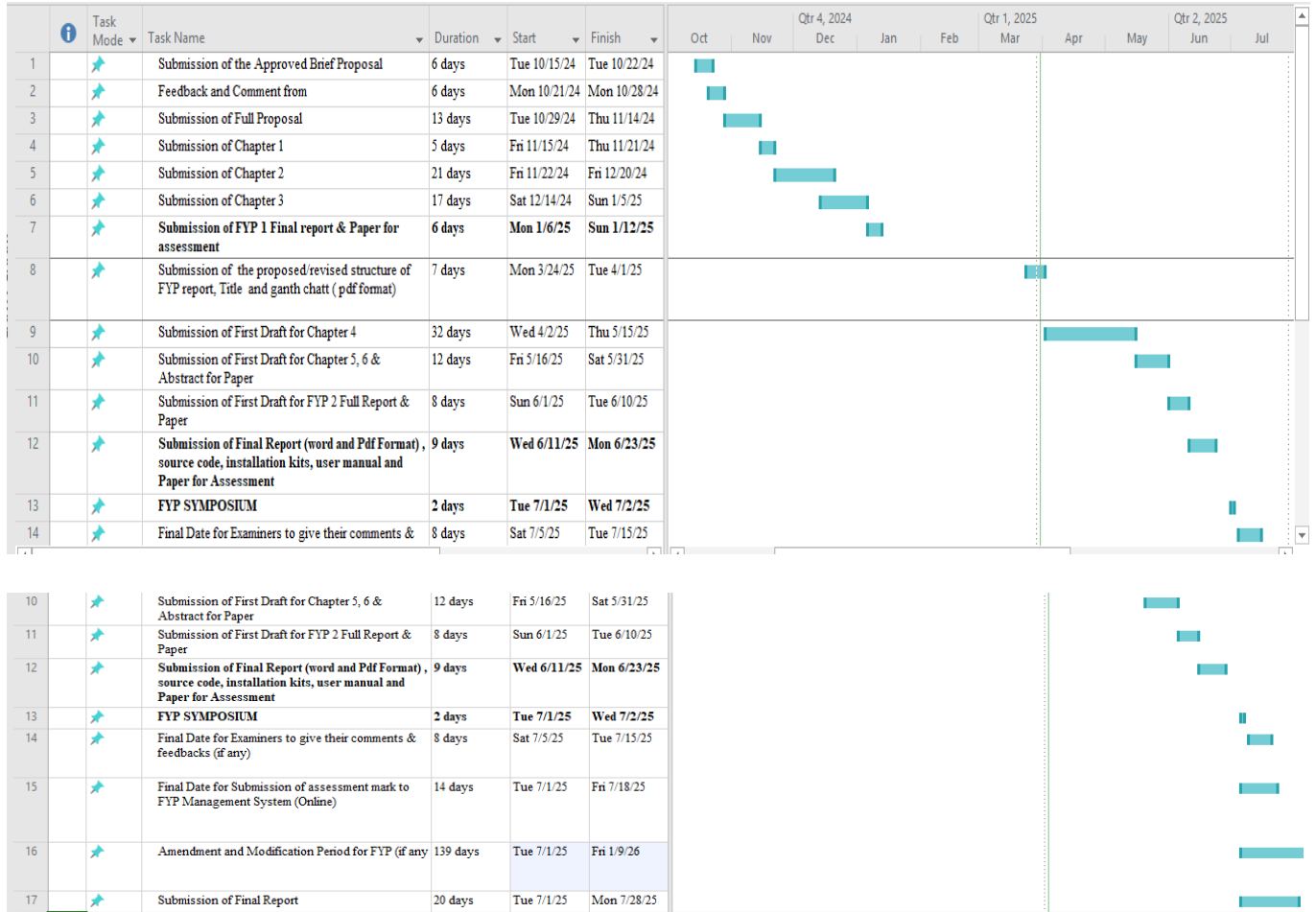
1.6 Significance of Project

MyAI-FitDy promotes healthier living by providing simple, effective tools for fitness and nutrition management. Its AI-driven chatbot offers users a personalized approach to exercise, while the fasting and calorie trackers simplify health management for busy individuals. By integrating essential wellness features into one platform, the app empowers users to achieve their fitness goals with minimal effort, fostering a healthier and more balanced lifestyle.

1.7 Project Schedule

Figure 2 shows the project schedule illustrated in a Gantt Chart Diagram for this project.

Figure 2 Gantt Chart for FYP



1.8 Expected Outcome

The expected outcome of the MyAI-FitDy project is a functional, user-friendly mobile application that provides an integrated solution for managing fitness, fasting, and dietary goals. The app will deliver personalized workout recommendations through an AI-powered chatbot, helping users tailor their exercise routines to suit their fitness levels and preferences. It will simplify fasting management by enabling users to set and track fasting durations with automated reminders. Additionally, the calorie tracking feature will allow users to log meals easily, using either manual entry or a predefined list of common foods, ensuring accurate dietary monitoring.

To enhance user engagement, the app will include progress tracking through intuitive charts, offering clear visualizations of users' achievements over time. This feature aims to motivate users to remain consistent in their health journeys. Overall, MyAI-FitDy is expected to bridge the gap between complex fitness applications and the need for an all-in-one, accessible tool tailored to the busy lifestyles of its target audience. By fostering a more balanced approach to health and wellness, the app aspires to promote better fitness habits and improve users' overall quality of life.

1.9 Project Outline

Chapter 1: Introduction

This chapter provides general explanation about the project. It includes the background of the project, problem statement, objectives, project scope, methodology, expected outcome, significance of the project and project schedules.

Chapter 2: Literature Review

This chapter discusses the review and study done on similar existing systems. Comparisons between existing systems are made to evaluate the advantages and shortcomings of each system, thereby providing a clear view for the features and functionalities to be included in the proposed system.

Chapter 3: Requirement Analysis and Design

This chapter describes the methodology used in resolving the problem. This section also covers the analysis and design for the solution. The overall processes, functions, features and interface will act as guidelines for the whole project.

Chapter 4: Development and Implementation

This chapter discusses the development and implementation of the proposed system, providing details about the development of the mobile application.

Chapter 5: Testing and Evaluation

This chapter discusses the testing and evaluation of the proposed system, providing details about the interface design. The future review is required to improve and document the progress of the project.

Chapter 6: Conclusion and Future Works

This chapter consists of summary of project, the limitations, future works, and conclusion.

CHAPTER 2: LITERATURE REVIEW

2.1 Overview

In this chapter, background study, review of existing system, the comparison between existing system and proposed system, details of the proposed system with justification will be briefly explained.

2.2 Background Study

The rapid evolution of mobile health applications has revolutionized how individuals manage fitness and wellness goals, offering convenience and accessibility that were previously unattainable. These applications cater to various health management aspects, including workout planning, dietary tracking, and lifestyle modifications. The adoption of mobile technology for health has been driven by the increasing awareness of lifestyle diseases, which are among the leading causes of mortality globally. Research highlights that personalized tools, particularly those powered by artificial intelligence (AI), significantly enhance user engagement by providing tailored recommendations and interactive experiences (Smith & Jones, 2023). AI-driven applications can analyze user data to offer adaptive features such as customized workout plans, dietary suggestions, and behavioral tracking, fostering a more targeted approach to health management (Doe et al., 2022).

Intermittent fasting and calorie tracking are emerging trends in the wellness industry, supported by research for their efficacy in weight management and overall health improvement. Studies show that intermittent fasting contributes to better metabolic function, reduced inflammation, and improved insulin sensitivity (de Cabo & Mattson, 2019). Meanwhile, calorie tracking has been identified as an effective strategy for weight loss and maintenance, with tools simplifying the process for users (Centers for Disease Control and Prevention [CDC], 2022). However, these techniques are often treated in isolation, requiring users to juggle multiple apps for exercise tracking, fasting schedules, and meal logging. This fragmented approach can reduce engagement and increase the likelihood of discontinuation, as users may find it cumbersome to integrate data from various platforms.

Despite the plethora of fitness and health apps available, many lack an integrated approach that addresses the multi-faceted needs of users. Applications focusing on a single aspect, such as calorie counting or workout plans, fail to consider the interplay of different wellness factors. Additionally, overly complex user interfaces and a lack of personalization deter users from sustained engagement (Doe et al., 2022). By merging essential features such as AI-driven workout recommendations, fasting tracking, and calorie monitoring into one cohesive platform, MyAI-FitDy aims to address these gaps. Integrating these components in a single application not only enhances usability but also promotes consistency, ensuring users can manage their wellness goals more effectively, even with demanding schedules.

2.3 Review On Existing System

In this section, three existing systems will be reviewed: *Fasting - Intermittent Fasting*, *Lifesum* and *30-Day Fitness Challenge* applications. Each of these systems has its own characteristics, advantages, and disadvantages.

2.3.1 Fasting - Intermittent Fasting App by Leap Fitness Group

The **Fasting - Intermittent Fasting app**, developed by Leap Fitness Group, is a specialized tool for individuals practicing intermittent fasting. It provides robust features such as customizable fasting plans, reminders for starting and breaking fasts, and real-time tracking to ensure users can adhere to their schedules effectively. Its clean interface allows for easy selection of fasting protocols, such as the popular 16:8 schedule, while also offering the flexibility to create personalized plans tailored to unique needs.

A significant strength of the app lies in its educational resources, which provide insights into the physiological changes during fasting. This feature not only motivates users but also aids in understanding the health benefits of fasting, including metabolic improvements and weight management. The inclusion of hydration reminders underscores its focus on maintaining overall health. However, while the free features are comprehensive, premium subscriptions provide access to detailed meal plans and recipes, which some users feel could offer more value compared to similar apps. The feature in this app such as:

- **Home/Dashboard:** Displaying fasting progress and remaining time in the current fasting window.
- **Fasting Plan Selection:** Screens showing available fasting schedules (e.g., 16:8, 18:6) and the option to customize plans.

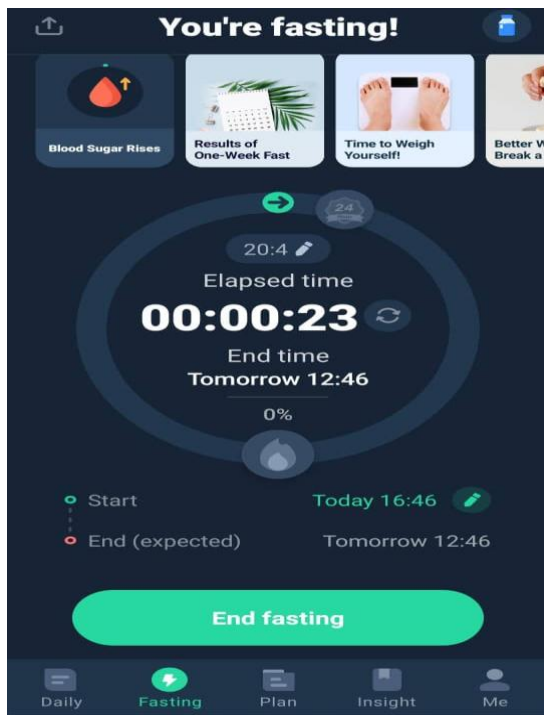


Figure 3 Home/Dashboard



Figure 4 Fasting Plan Selection

2.3.2 Lifesum

Lifesum stands out as a versatile wellness application focused on nutritional management and calorie tracking. The app's extensive food database enables precise meal logging, allowing users to monitor calorie intake and tailor their diet according to fitness goals. Lifesum further enhances its utility by providing personalized diet plans and recommendations based on individual preferences and goals, ensuring a customized approach to health management.

Despite its robust dietary features, Lifesum does not cater to fasting management or advanced workout customization. This limitation positions it primarily as a nutritional aid rather than a holistic fitness solution. For premium users, Lifesum offers additional features, such as macro tracking, custom recipes, and detailed health insights, appealing to those seeking more advanced dietary guidance. However, the absence of an integrated approach that includes workout and fasting features limits its appeal for users aiming for a comprehensive wellness app. The feature in this app such as:

- **Dashboard/Overview:** Showcasing calorie tracking, health score, or daily progress.
- **Food Logging:** Screenshot of the food diary and its extensive database (e.g., barcode scanner or meal entry).
- **Progress Tracker:** A summary or trend chart of calorie intake or weight loss progress over time.

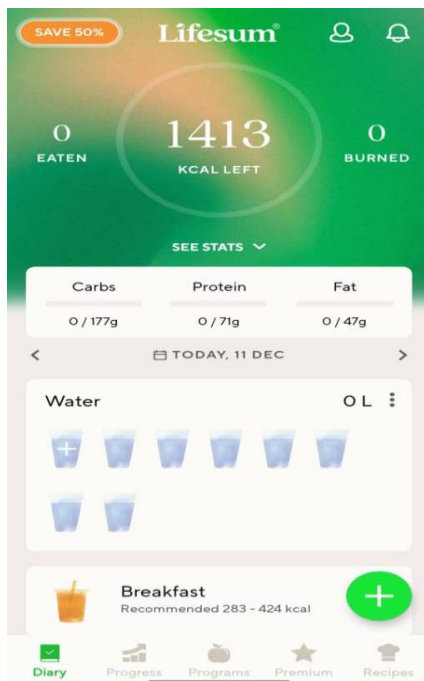


Figure 5 Dashboard/Overview

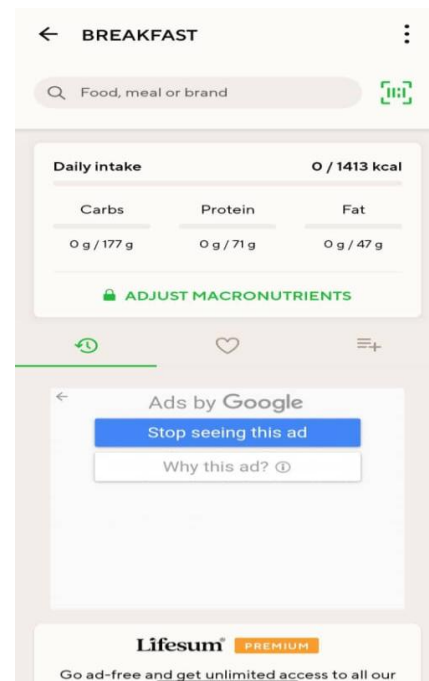


Figure 6 Food Logging



Figure 7 Progress Tracker

2.3.3 30-Day Fitness Challenge

The **30-Day Fitness Challenge** app is targeted at users looking for structured and progressive workout routines. It offers personalized daily exercise plans that adapt as users' advance, making it ideal for beginners or those with limited time for fitness. The simplicity of its design and focus on gradual progression fosters consistency and engagement, encouraging users to stick with their fitness routines.

However, the app's focus on workouts alone limits its scope as a multifunctional wellness solution. Unlike Lifesum or the Fasting app, it does not include calorie tracking or fasting management features. This narrow specialization caters well to users who prioritize physical fitness but may not meet the needs of those seeking an all-encompassing health management tool. While effective in its domain, its singular focus highlights the need for more integrated platforms in the health and wellness space. The feature in this app such as:

- **Daily Workout Plan:** Showing personalized exercise routines for a day.
- **Workout Instructions:** Screens that provide step-by-step or animated guides for exercises.

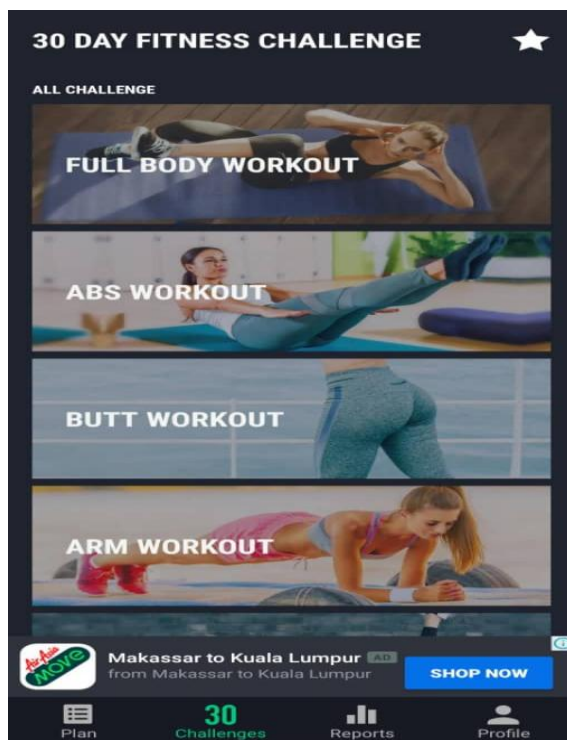


Figure 6 Daily Workout Plan

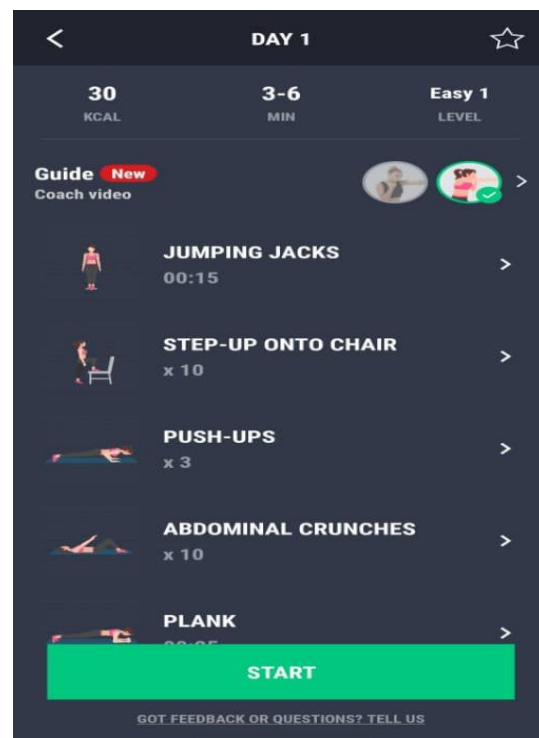


Figure 7 Workout Instructions

2.4 Comparison Between Existing Systems

This table and explanation underscore how **MyAI-FitDy** distinguishes itself by integrating features of existing apps into one comprehensive solution while leveraging AI for enhanced personalization and user engagement.

Table 1 Comparison Existing System

Feature	Fasting Intermittent Fasting	- Lifesum	30-Day Fitness Challenge	Proposed System: MyAI-FitDy
Progress Tracking	Basic visual indicators	Detailed logs and trend charts	Basic completion tracking	Visualized charts with insights
AI Features	None	Limited dietary suggestions	None	AI-powered workout chatbot
Fasting Tracker	Comprehensive	None	None	Integrated fasting tracker
Calorie Tracker	None	Comprehensive	None	Manual input with predefined food list
Workout Personalization	None	None	Structured routines	Tailored to user preferences

1. Progress Tracking

Progress tracking is an essential feature in wellness apps as it allows users to monitor their achievements over time. *Fasting Tracker Apps*, like those by Leap Fitness Group, provide basic visual indicators such as timers and progress bars to track fasting durations. While these tools are useful for beginners, they lack in-depth insights or comprehensive visual representations. *Lifesum*, on the other hand, excels with detailed tracking features, including logs, trend analysis, and progress charts, offering users a holistic view of their dietary and weight management journey. *30-Day Fitness Challenge* keeps track of workout completion but does not provide comprehensive

progress visualizations, limiting its functionality to short-term fitness goals. **MyAI-FitDy**, however, aims to surpass these limitations by integrating visualized charts for fasting, calorie intake, and workout progress, providing users with a broader and clearer understanding of their overall wellness progression.

2. AI Features

AI-driven tools have proven to increase personalization and user engagement. *Fasting Tracker Apps* typically lack AI functionalities, relying on static timers and reminders. *Lifesum* incorporates limited AI, offering personalized dietary suggestions and nutritional plans, but it does not extend AI capabilities to fitness or fasting features. Similarly, *30-Day Fitness Challenge* does not employ AI, as its workout routines are pre-programmed and lack dynamic adaptation. **MyAI-FitDy** differentiates itself by introducing an AI-powered workout chatbot. This chatbot actively interacts with users, designing tailored fitness routines, adapting based on progress, and providing real-time motivation, making it a standout feature among wellness apps.

3. Fasting Tracker

Fasting features are a core component of wellness for users pursuing intermittent fasting. *Fasting Tracker Apps* like the one by Leap Fitness Group offer robust capabilities, including customizable fasting plans, reminders, and real-time tracking, catering specifically to fasters. These apps also include educational content to support fasting journeys. However, they are specialized tools and do not integrate calorie tracking or workout management. *Lifesum* does not include fasting functionalities, as it focuses on diet and calorie management. Similarly, *30-Day Fitness Challenge* lacks fasting features as its sole focus is fitness routines. In contrast, **MyAI-FitDy** integrates a fasting tracker alongside calorie and workout management, providing a one-stop solution for holistic wellness.

4. Calorie Tracker

Tracking calorie intake is crucial for dietary management and weight control. *Fasting Tracker Apps* lack calorie tracking capabilities, limiting their use to fasting management alone. *Lifesum*, however, excels in this area with an extensive food database, calorie logs, and macro-nutrient analysis, making it an excellent tool for dietary management. *30-Day Fitness Challenge* does not

address calorie tracking, as it centers on exercise programs. **MyAI-FitDy** incorporates a simplified calorie tracking system, offering manual input and a predefined food list. While it does not match the complexity of Lifesum's database, this feature is sufficient for users seeking a balanced integration of fasting, diet, and workouts.

5. Workout Personalization

Personalized workout routines are vital for achieving specific fitness goals. *Fasting Tracker Apps* do not include workout personalization features, as they are focused on fasting. *Lifesum* also lacks workout customization, remaining concentrated on nutritional aspects. *30-Day Fitness Challenge* excels in this area, offering structured and progressive workout plans tailored to user fitness levels, but it does not integrate dietary or fasting support. **MyAI-FitDy** combines the best of all worlds, using AI to tailor workout routines based on individual fitness goals, current levels, and progress. This comprehensive approach ensures a balanced focus on fitness and wellness, unlike the single-purpose functionality of existing apps.

These comparisons illustrate that while current apps excel in specific areas, **MyAI-FitDy** combines their best features into a unified, AI-powered solution, making it an innovative and comprehensive tool for fitness, fasting, and diet management.

2.5 Proposed System

The MyAI-FitDy app is a revolutionary approach to fitness and wellness that integrates AI-powered technology to provide a personalized and holistic experience. Unlike existing apps, which specialize in one area such as fasting, diet, or workout routines, MyAI-FitDy combines all of these components into a single platform. The primary innovation of this system is its AI-powered workout chatbot, which customizes fitness routines based on users' goals, preferences, and progress. This feature leverages machine learning algorithms to analyze user input, track progress, and adapt workout plans over time, ensuring the most effective exercise routines for each user. The AI component also provides continuous feedback and motivation, making the fitness journey interactive and dynamic.

Additionally, MyAI-FitDy integrates a comprehensive fasting tracker that allows users to choose or create custom fasting schedules. This feature includes automatic reminders, detailed insights into metabolic changes during fasting periods, and hydration notifications, enhancing the user experience by keeping them engaged and informed. Unlike other fasting apps that operate in isolation, MyAI-FitDy combines fasting with fitness and dietary management, making it a comprehensive tool for overall wellness. The calorie tracker within the app supports manual entry and has predefined food lists, allowing users to efficiently monitor their intake and maintain a balanced diet. These features are carefully designed to work in tandem, ensuring that users can manage their fitness, fasting, and nutrition with ease.

In essence, MyAI-FitDy was developed to meet the growing demand for an all-in-one wellness solution. By utilizing AI technology, the system adapts to the individual needs of each user, whether they are new to fitness or experienced athletes. The integration of fasting management, calorie tracking, and personalized workouts into a single platform sets MyAI-FitDy apart from existing applications that address these areas separately. This seamless integration enhances user experience and boosts the effectiveness of each aspect of the wellness journey, making it a powerful tool for anyone committed to improving their health and fitness.

2.6 Technology and Tools Used In The Development Of Proposed System

This section will explain on the software and programming language that will be used to develop the proposed application, **MyAI-FitDy**. The detail on the approach and tool will be described further below.

2.6.1 Dialogflow



Figure 8 Dialogflow

Dialogflow, a Google-owned natural language processing (NLP) platform, is an integral tool for developing conversational AI applications. It allows developers to create powerful chatbots that can understand and respond to user queries in a human-like manner. This tool is especially suited for applications like MyAI-FitDy, where user interaction is central. Dialogflow supports multiple languages and integrates easily with various messaging platforms, making it ideal for creating cross-platform AI-powered features. It uses machine learning to interpret user inputs, understand the context, and generate relevant responses. In the context of MyAI-FitDy, Dialogflow enables the AI workout chatbot to provide tailored workout recommendations, track progress, and offer motivational support, all through natural language processing (Google Cloud, 2023). Furthermore, its integration with Google Cloud allows for scalable deployments and real-time processing, ensuring the system remains responsive and adaptive to user needs (Dastin, 2022). By leveraging Dialogflow's pre-built intents and entity recognition, the chatbot can quickly interpret user commands related to fitness and health, improving user engagement and satisfaction.

2.6.2 React (with Vite Build Tool)



Figure 9 React

The frontend of **MyAI-FitDy** was developed using React, a component-based JavaScript library offering high performance through its virtual DOM and reusable components (Maratkhar & Adkar, 2021). To enhance development speed and efficiency, the Vite build tool was used, providing an instant dev server and hot module replacement out of the box, and leveraging esbuild and Rollup for fast, optimized builds (Codeanywhere, 2024). Key features such as the chatbot, fasting tracker, workout planner, and progress dashboard were built using React's component-based structure, allowing for better code organization and maintainability. The UI was styled using Tailwind CSS for responsive layouts and ShadCN UI for modern components, resulting in a clean and user-friendly design across devices. React's rich ecosystem and integration capabilities with APIs like Supabase and Dialogflow made it an ideal choice for this project.

2.6.3 Visual Studio Code

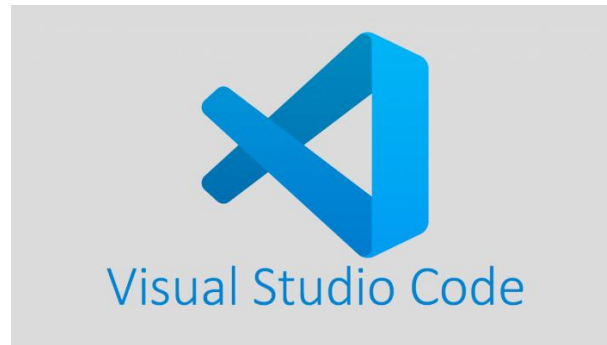


Figure 10 Visual Studio Code

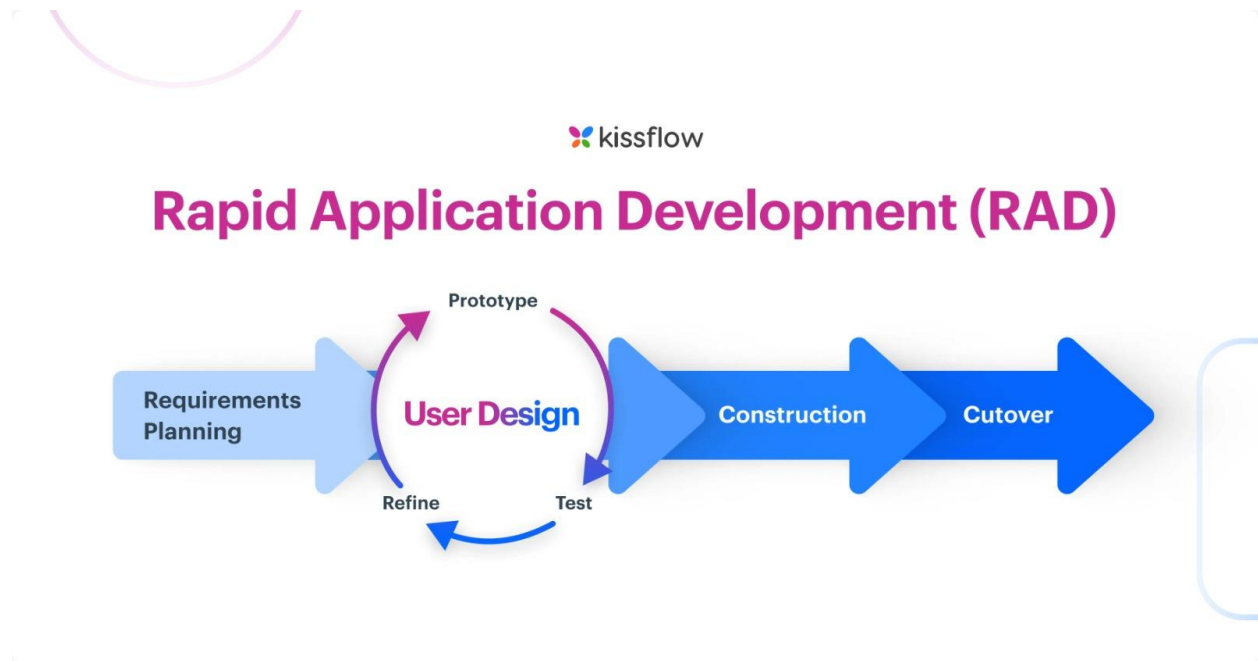
Visual Studio Code (VS Code), developed by Microsoft, is a widely adopted code editor known for its lightweight performance and powerful capabilities, making it especially suitable for development environments with limited hardware resources. For the development of MyAI-FitDy, VS Code played a central role as the primary development environment due to its fast performance and extensive customization options. It supports a wide range of programming languages, including JavaScript and JSX, which are essential for building React-based applications. The editor offers built-in Git integration for version control, a robust debugging system, and an extensive marketplace of extensions. For this project, essential extensions such as ESLint (for code linting), Prettier (for code formatting), and React Snippets (for faster React development) were used to streamline coding practices and maintain code quality. Additionally, VS Code's live server and terminal features allowed smooth integration with Vite, Supabase, and DialogFlow during development. Its active community and regular updates make it a reliable tool for both beginner and experienced developers.

2.7 Summary

This chapter discussed the features available from 3 existing similar mobile applications. Then comparison is made between them to analyze the types of features offered and the proposed features for MyAI-FitDy. The proposed system features are also discussing. In addition, all the tools and technology for developing the proposed system were explained inside this chapter.

CHAPTER 3: REQUIREMENT ANALYSIS AND DESIGN

3.1 Introduction



In this chapter, the methodology chosen for the development of "MyAI-FitDy" will be explained and described in detail. The methodology selected for this project is Rapid Application Development (RAD). The Rapid Application Development (RAD) methodology is a dynamic and iterative approach to software development that emphasizes quick and efficient delivery of high-quality systems through user involvement, continuous feedback, and iterative prototyping. Unlike traditional methodologies such as the Waterfall model, RAD focuses on adaptability and swift iterations to address evolving user requirements and ensure the final product aligns closely with user expectations. RAD breaks down the development process into distinct phases: requirements planning, user design, construction, and cutover, with each phase overlapping and allowing for concurrent activities. This iterative nature ensures that any issues or improvements are identified and resolved early, minimizing costly revisions at later stages (Pressman, 2014).

For this project, RAD is particularly well-suited due to its emphasis on flexibility and user-centric design. The development of the "MyAI-FitDy" mobile application, which incorporates features such as a workout chatbot, fasting tracker, calorie intake manual logging, and progress tracking, requires constant user feedback to refine its functionality and user interface. The incremental

delivery of features allows for testing and validation of each module, ensuring that the core functionalities meet the requirements before adding more advanced features. For instance, the development of the workout chatbot as the initial focus can be iteratively tested with user input before progressing to the fasting tracker and calorie intake functionalities. This phased approach enables the project to adapt to feedback and changing priorities effectively (Pawar, 2016).

By adopting the RAD methodology, the project aligns with the goals of rapid prototyping and incremental development, which are critical for delivering a polished application within a limited timeframe. The requirements planning phase involves gathering user needs and understanding the expectations for each feature of the application. The user design phase focuses on creating interactive prototypes that represent the intended functionality, providing a visual representation for stakeholders to review. The construction phase emphasizes building the actual system in increments, incorporating user feedback from the prototypes into the final design. Lastly, the cutover phase ensures a seamless transition to a fully functional application with minimal disruption (Sommerville, 2016).

Overall, the RAD methodology enables the project to maintain a high level of responsiveness to user needs, deliver working prototypes early, and ensure continuous improvement throughout the development lifecycle. This methodology's iterative and user-focused approach makes it ideal for developing the "MyAI-FitDy" application, which demands a robust yet adaptable design to meet the diverse needs of its users.

3.1.1 Requirement Analysis

This section outlines the key requirements for the development and implementation of the "MyAI-FitDy" application. It includes hardware and software requirements, functional and non-functional requirements. These requirements form the foundation for ensuring that the system meets its intended purpose while being efficient, user-friendly, and adaptable. Due to hardware limitations, the project was adapted to use lightweight tools and a web-based approach, later packaged into a mobile application format.

3.1.1.1 Hardware requirements

The hardware requirements specify the tools and platforms necessary for the development and execution of the "MyAI-FitDy" application.

Table 2 Hardware requirements

Developer's system	- Laptop with at least 4GB RAM - Dual-core or better CPU (e.g., Intel i3/i5 or AMD Ryzen 3/5) - At least 128GB storage
Mobile device for testing	- Android smartphone - Minimum 3GB RAM - Android 9.0 (Pie) or higher

3.1.1.2 Software requirement

The software stack used in this project focused on web technologies and cloud services for development simplicity and cross-platform compatibility.

Table 3 Software requirements

Software	Requirement
Operating System	Window 10 and above
Code Editor	Visual Studio Code
Tools	React

3.1.1.3 Functional requirements

The functional requirements define the core functionalities the application must deliver:

1. **Workout Chatbot:** An AI-powered chatbot that provides workout routines and guidance based on user input.
2. **Fasting Tracker:** A feature to log fasting periods and display progress.
3. **Calorie Intake Logging:** A manual entry system for users to track daily calorie consumption.
4. **Progress Tracking:** A graphical representation of weight and fitness progress.

3.1.1.4 Non-Functional requirements

The non-functional requirements ensure the system's performance and usability standards:

1. **Performance:** The application should respond to user inputs within 1–2 seconds.
2. **Scalability:** The system must handle multiple users and expand features if required.
3. **Usability:** The user interface must be simple and intuitive for first-time users.

3.2 System Development Methodology

The development of the **MyAI-FitDy** application follows the **Rapid Application Development (RAD)** methodology. RAD is a type of incremental model that emphasizes quick prototyping and iterative feedback rather than traditional linear development. The development cycle consists of four phases: **Requirement Planning**, **User Design**, **Construction**, and **Cutover**. Each phase is described in detail below.

3.2.1 Requirement Planning

In the **Requirement Planning** phase, the main goal is to gather and define the system requirements. During this phase, essential features for the application are identified, and user needs are prioritized. For **MyAI-FitDy**, these needs include the integration of three core features: **AI workout chatbot**, **a fasting tracker**, and **a calorie intake manual**.

The requirements were gathered through discussions with the project supervisor and stakeholders to ensure that the final product meets both user expectations and business goals. The time frame and resource constraints were also considered to ensure the project's feasibility. This phase includes defining clear objectives, understanding potential challenges, and drafting a rough scope of the application to be built.

A survey has been conducted and distributed to 17 respondents to gather their opinion about their preference on the features in the fitness application and about their knowledge with fitness. The purpose is to see the rationality of the proposed this application. Figure 8 illustrates that there are 6 males and 11 females has taken part in this survey.

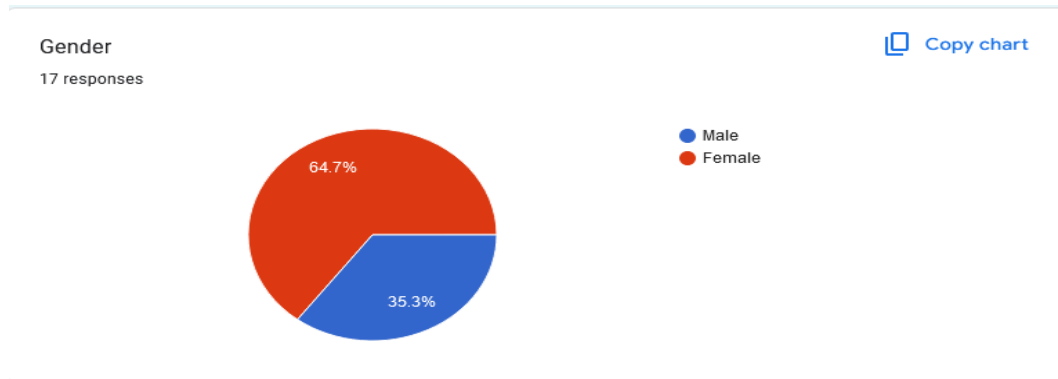


Figure 8 Statistic of gender of respondents

Figure 9 represents frequency of respondents engage in physical exercise. There are 6 respondents will engage once a week. 5 of the respondents engage 2-3 times a week while 4 respondents rarely and 2 respondents daily engage in physical exercise.

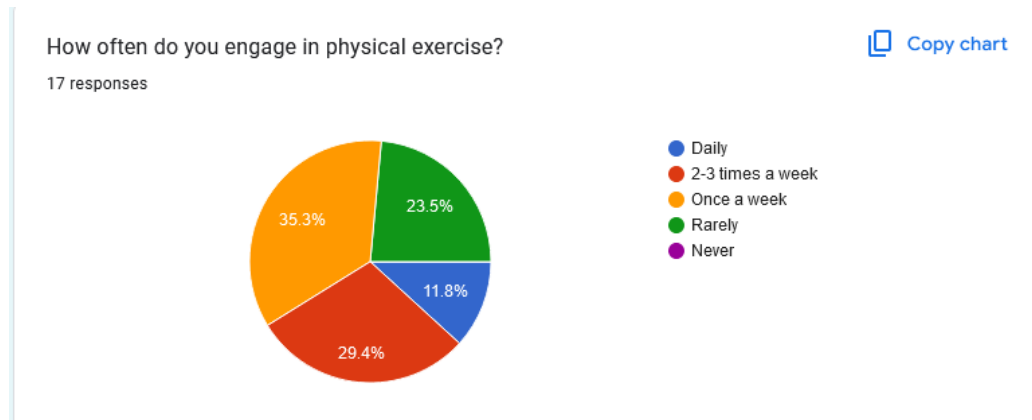


Figure 9 Statistic of respondents' engage in physical exercise

Figure 10 represents respondents's opinion about kind of workouts they prefer. All the preferences will be use for chatbot data.

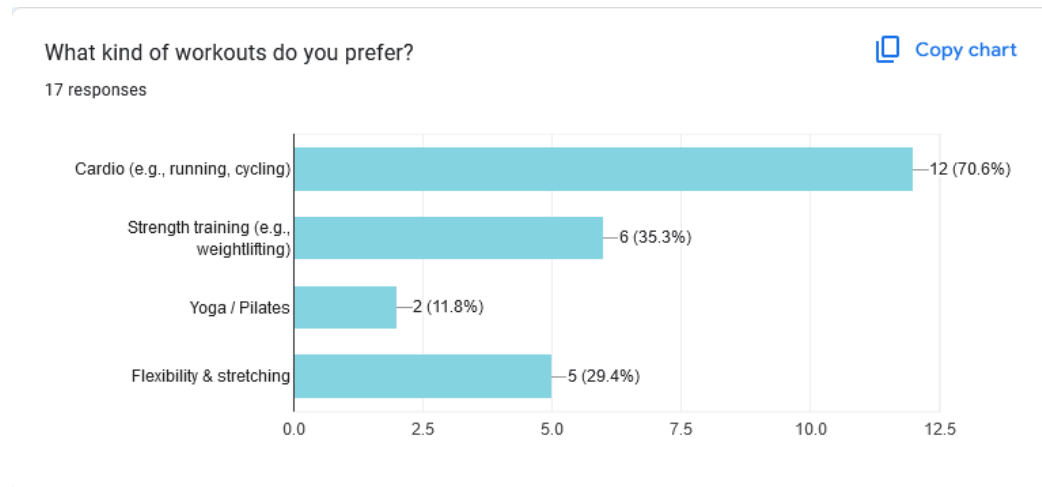


Figure 10 Statistic of analysis for workout preference

Figure 11 shows that information that the respondents most use an app to track calorie intake. So, basically fitness application need easy of calorie tracker fo they can use the application.

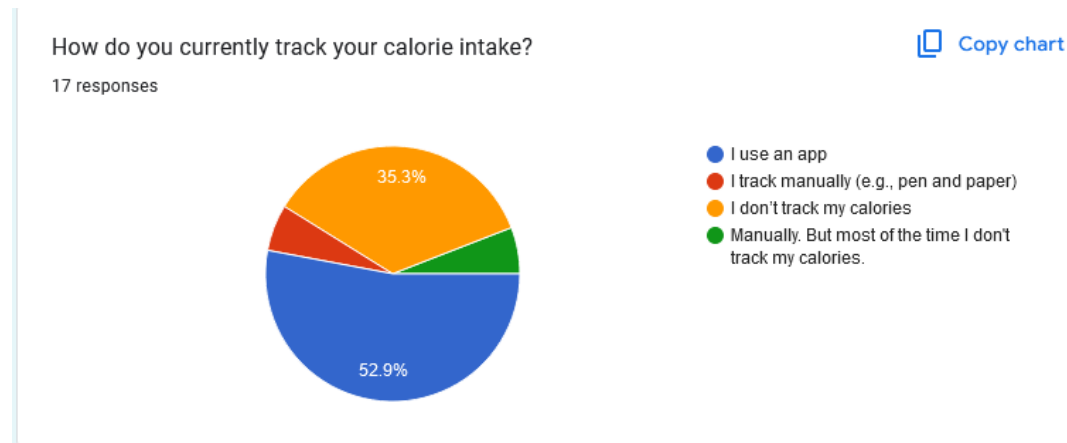


Figure 11 Statistic of whether respondents track calorie intake

Figure 12 illustrates that the platform the respondents prefer to track their fasting time using application. Most of the respondents interested traking fasting hour using application while some depends how the feature for fasting tracking.

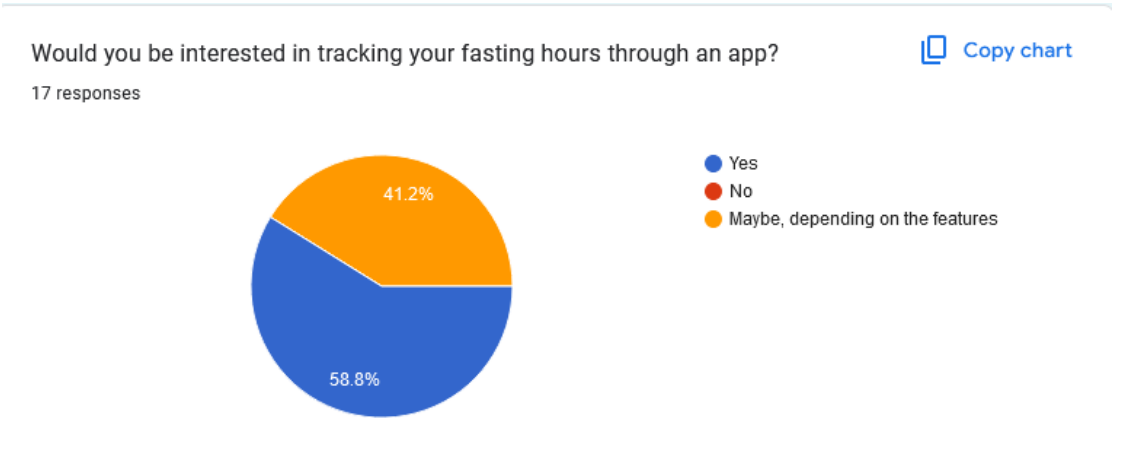


Figure 12 Statistic of respondents' interested in tracking fasting hours

Lastly, Figure 13 represents all respondents opinion that motivate to use a fitness app regularly. This means that all this feaure like AI-workout chatbot, fasting and calorie tracker, and progress visualizations is main component in the fitness application for this consultation process.

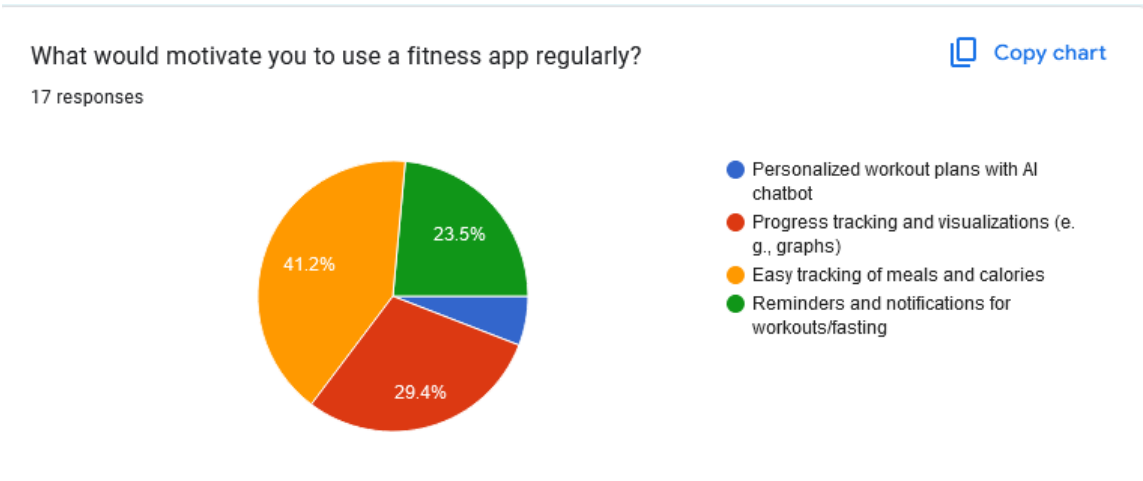


Figure 13 Statistic of motivation to using fitness app

3.2.2 User Design

The **User Design** phase focuses on creating the user interface and experience, ensuring the product is user-friendly and meets the requirements outlined during planning. In this phase, the design is developed based on feedback from users, and the prototype is created to demonstrate the potential features and layout of the application.

3.2.2.1 Prototype

A prototype of the **MyAI-FitDy** app was created to illustrate its core functionalities and user flow. This prototype allows stakeholders to visualize how the app will look and operate, including the workout chatbot, fasting tracker, and calorie intake manual. It also includes basic interactions, such as how users input and track their workout routines, fasting times, and calorie intake. The purpose of the prototype is to obtain early feedback and refine the design to meet the users' needs.

3.2.2.2 Testing

Once the prototype is created, it undergoes initial testing to identify any usability or functionality issues. This testing phase involves both developers and potential users, with the goal of discovering any user experience (UX) challenges or feature bugs. In the case of **MyAI-FitDy**, testing ensures that the chatbot understands user inputs correctly, the fasting tracker records the user's data accurately, and the calorie intake manual functions as expected. The feedback gathered from this testing is used to refine the app's design and functionality.

3.2.2.3 Refine

After initial testing, the app undergoes refinement based on user feedback. This phase involves making improvements to the user interface, optimizing the user experience, and fixing any bugs identified during testing. The goal is to ensure the application meets user expectations while maintaining efficiency and effectiveness. In this phase, the workout chatbot's conversation flow is refined, the fasting tracker interface is adjusted, and the calorie intake manual is streamlined for better usability.

3.2.3 Construction

During the **Construction** phase, the application's actual development begins. This includes coding the core functionalities, setting up databases and implementing all the previously designed features. For **MyAI-FitDy**, the construction phase includes:

- **Implementing the workout chatbot:** Using an AI framework, the chatbot is designed to help users create personalized workout routines.
- **Building the fasting tracker:** The system is designed to track the fasting time and log users' fasting activities.
- **Creating the calorie intake manual:** This feature allows users to manually input their food and calorie intake and track their diet progress.

All features are integrated into the app, and the system is fully developed according to the initial specifications outlined in the planning phase.

3.2.4 Cutover

The **Cutover** phase is the final phase where the application is transitioned from development to production. During this phase, all final tests are conducted to ensure everything works seamlessly. The app is then deployed to the app stores (Google Play, App Store) or made available for download.

In this phase, training is provided to users (if applicable), and final feedback is collected to make sure all features work as intended in the real-world environment. After successful deployment, maintenance and updates will be carried out as necessary to improve the app's performance and to fix any issues that may arise post-launch.

3.3 System Analysis and Design

3.3.1 Use Case Diagram

Use Case diagram is an UML diagram that shows the system which consists of user cases and actor/actors. It also describes how a user uses the system to accomplish a goal. Below is the use case diagram for MyAI-Fitdy App and its descriptions of every use case.

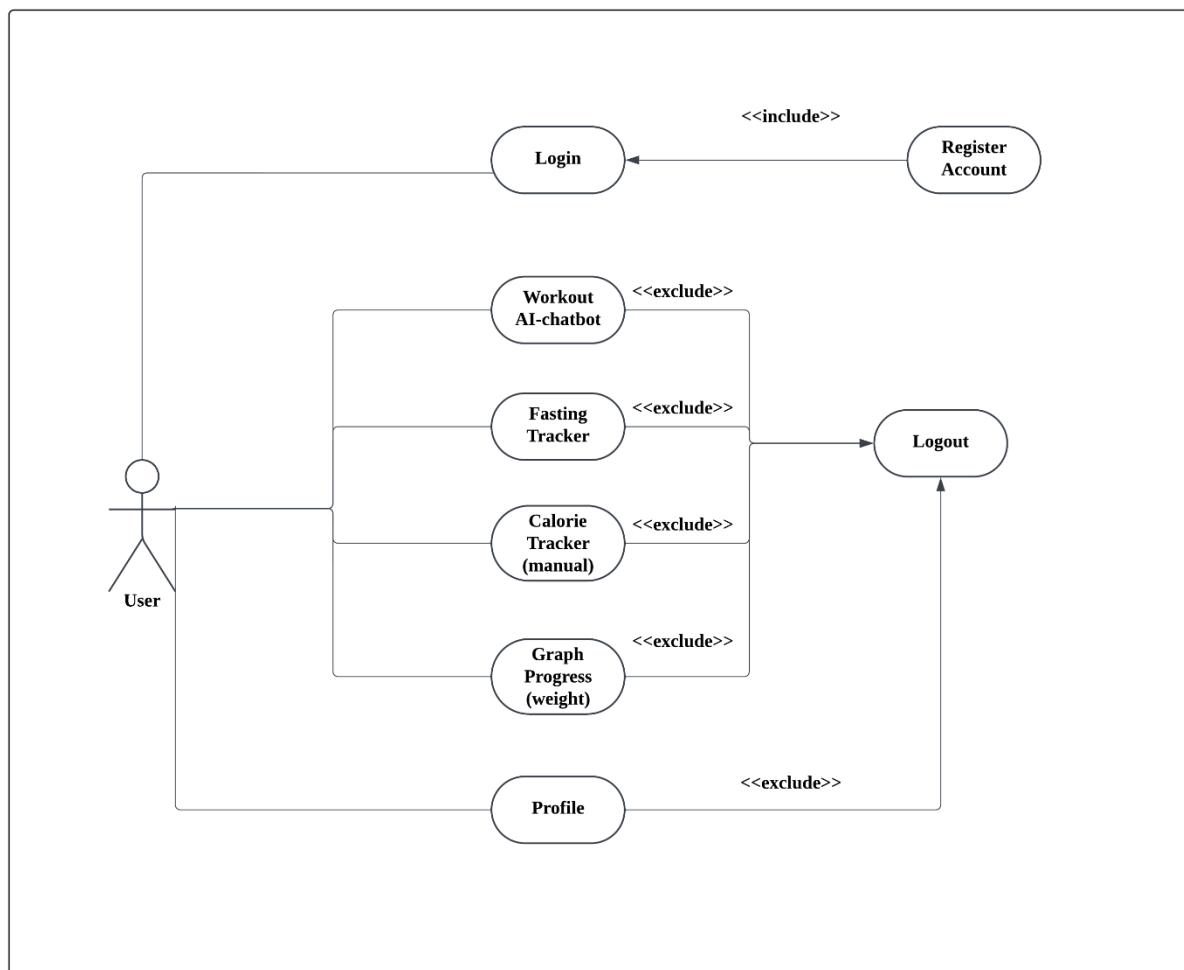


Figure 14 Use case diagram

Table 4 Use case for login

Use Case	Login
Description	Allows the user to log in to their account to access all features.
Pre-conditions	The user must have a registered account.
Post-conditions	The user can access other features or log out.
Main Flow	1. User opens the application. 2. User enters their login credentials. 3. System verifies the credentials. 4. User gains access to the main interface.

Table 5 Use Case for Register Account

Use Case	Register Account
Description	Enables the user to create a new account to access the application.
Pre-conditions	None.
Post-conditions	The user can log in to the app.
Main Flow	1. User selects "Register" option. 2. User fills in the required details. 3. System validates the input and creates an account. 4. User receives a confirmation and can log in.

Table 6 Use Case for Workout AI Chatbot

Use Case	Workout AI Chatbot
Description	Provides users with personalized workout plans through AI.
Pre-conditions	User must log in.
Post-conditions	The user can view other features or log out.
Main Flow	1. User selects the Workout AI Chatbot feature. 2. User interacts with the chatbot. 3. Chatbot suggests workout routines. 4. User follows the suggested workout.

Table 7 Use Case for Fasting Tracker

Use Case	Fasting Tracker
Description	Allows users to log and track their fasting periods.
Pre-conditions	User must log in.
Post-conditions	The user can view other features or log out.
Main Flow	1. User selects the Fasting Tracker feature. 2. User logs their fasting start and end times. 3. System calculates fasting duration. 4. User views their fasting history.

Table 8 Use Case for Calorie Tracker

Use Case	Calorie Tracker
Description	Allows users to manually input food and calorie intake.
Pre-conditions	User must log in.
Post-conditions	The user can view other features or log out.
Main Flow	1. User selects the Calorie Tracker feature. 2. User inputs food and calories consumed. 3. System stores and displays calorie intake data. 4. User reviews their daily or weekly calorie logs.

Table 9 Use Case for Graph Progress (Weight)

Use Case	Graph Progress (Weight)
Description	Displays the user's weight progress in a graphical format.
Pre-conditions	User must log in.
Post-conditions	The user can view other features or log out.
Main Flow	1. User selects the Graph Progress feature. 2. System retrieves stored weight data. 3. System generates a graph showing progress over time. 4. User reviews their weight progress.

3.3.2 Sequence diagram

Sequence diagram is a diagram that shows the flow of messages, events, actions that exist between objects. This diagram also shows the concurrent processes and activations. This diagram typically used during analysis and design phase so the developer will understand much better flow of how the system or application works. When used as documentation, user can use this diagram for reference.

From Figure 15, we can see that end user interact with the application to perform any activities or functions. Some data or information are retrieves from Firebase that act as database to be display in the application. For example, new user will have to register to the application to create an account. User information will then save into the database. Next user can login into the application once their account verified. User can then view his/her information in the profile section of the application.

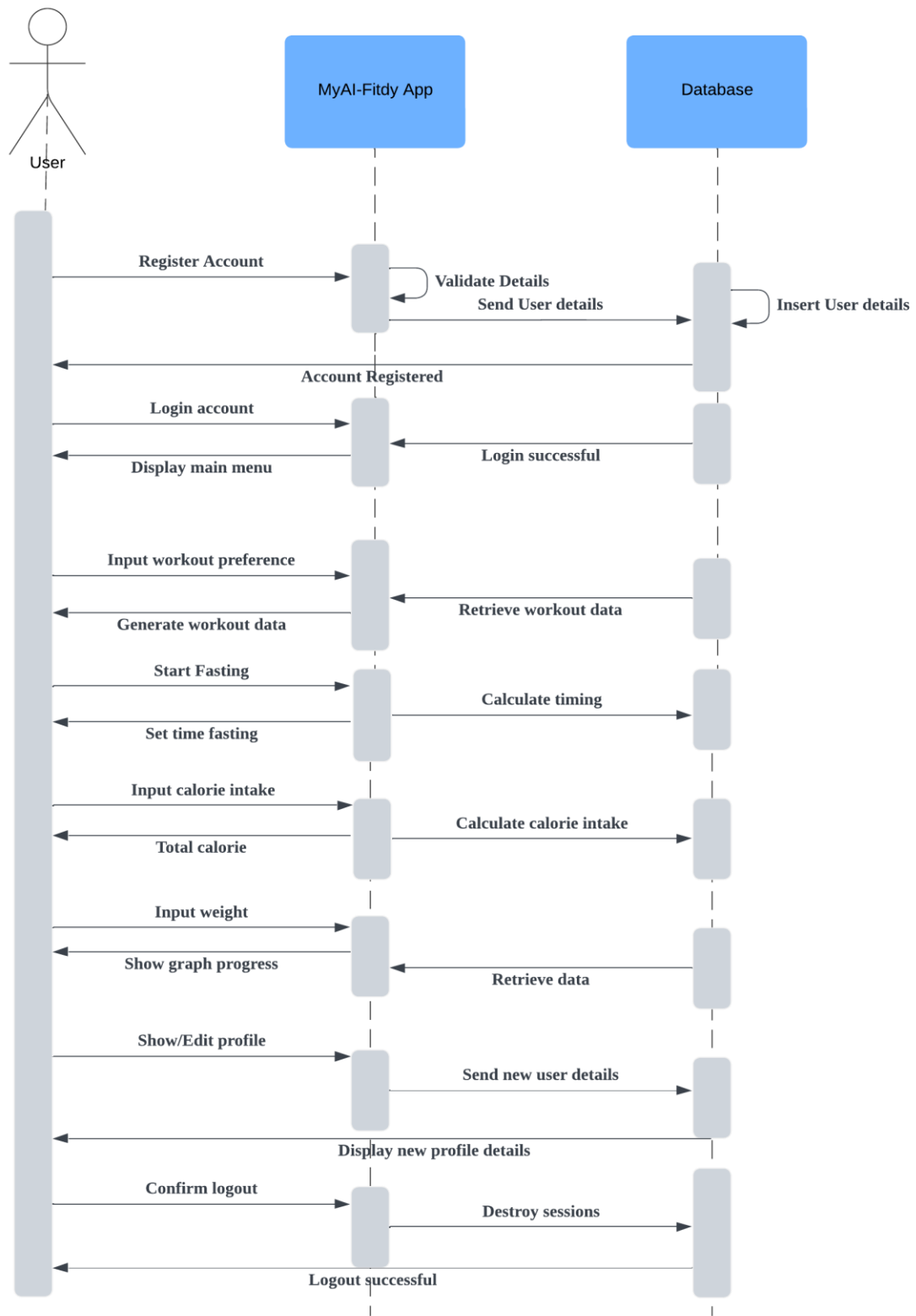


Figure 15 Sequence Diagram

3.3.3 Activity Diagram

Activity diagram is the variation of special case of a state machine, in which the states are activities representing the performance of operations and transitions are activated by the completion of the operations.

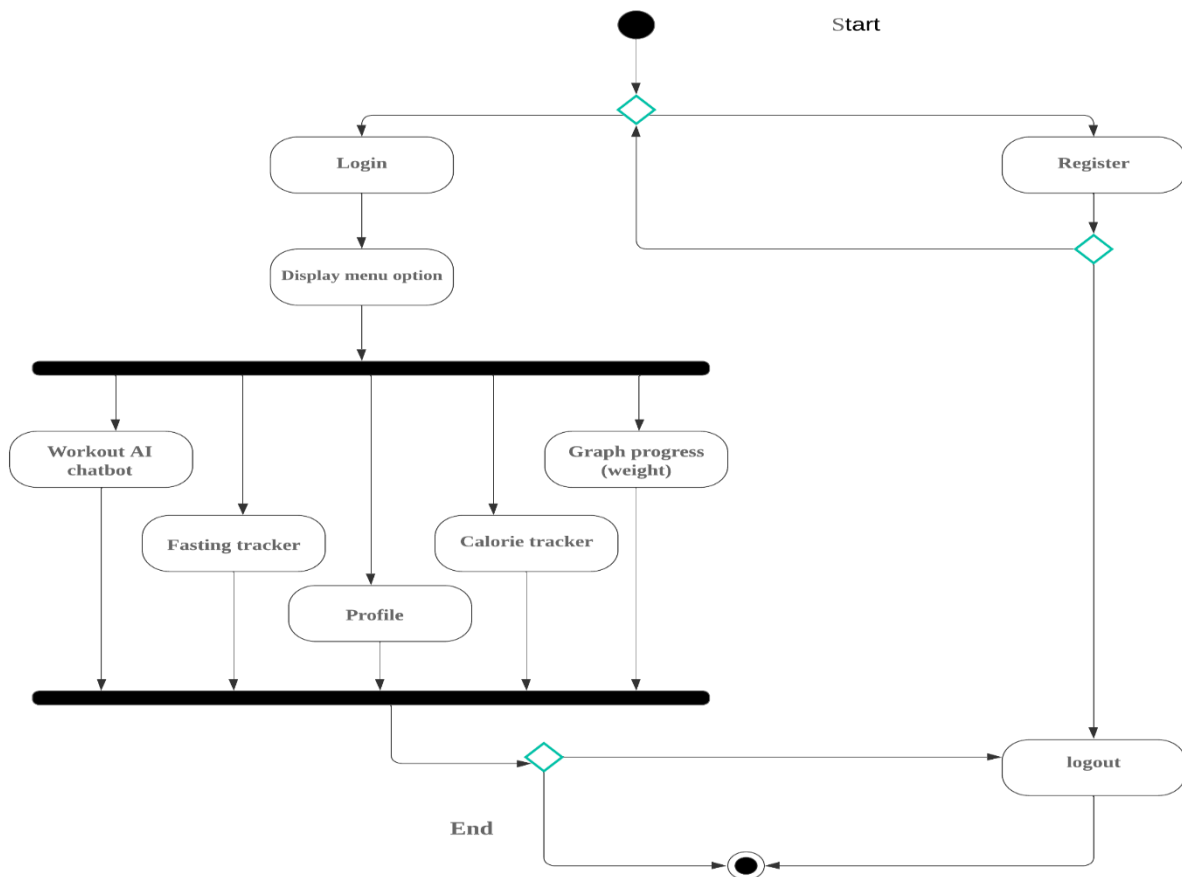


Figure 16 Activity Diagram

Figure 16 is the activity diagram. The activity starts when user open the application and selecting to login for the registered user or register if have not done yet. Next, user is free to choose any features that they want. Lastly, user can logout from the application or leave it login.

3.3.4 Graphical User Interface

For the proposed user interface, wireframes are used. Wireframes is an essential design tool because it shows more compare to block frames design. It shows the early design of any software development project. Wireframes contains proposed functions, structure and content of develop application design. Wireframes also shows the interaction between each layout.

Below are wireframes layout for the proposed application, MyAI-Fitdy App (Figure 17 – Figure 24).

Register

MyAI-Fitdy

Email

Password

LOGIN

DON'T HAVE AN ACCOUNT? SIGN UP

FORGOT PASSWORD?

Figure 17 Login

Register

Create Account

Email

Password

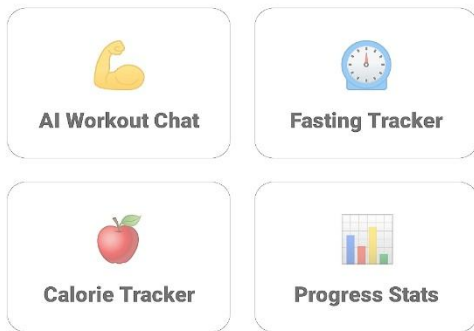
Confirm Password

CREATE ACCOUNT

ALREADY HAVE AN ACCOUNT? LOGIN

Figure 18 Register

Welcome to MyAI-Fitdy



Weight Progress

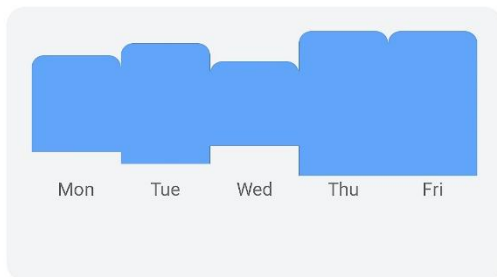


Figure 19 Main Menu

My Profile

User profile form with the following fields and buttons:

- Username**: John Doe
- Email**: john@example.com
- SAVE CHANGES** (Blue button)
- CANCEL** (Gray button)
- LOGOUT** (Red button)

Figure 20 Profile

AI Workout Assistant

Hello! I'm your AI workout assistant. What type of workout are you looking for today?

Hi

Workout today?

Type your workout question...

Figure 21 AI-workout chatbot

Calorie Tracker

Add Meal

Dinner

Snack

Description (e.g., Oatmeal with banana)

Calories

ADD MEAL

Today's Total

0 calories

Today's Meals

Snack	Brb 16:51:41 GMT+0800 (+08)	59 cal
-------	--------------------------------	--------

Figure 22 Calorie tracker

Fasting Tracker

Start Your Fast

00:00:00

Target: 16 hours

Fasting Duration

24H

Figure 23 Fasting Tracker

Weight Progress

Add Weight Entry

Weight (kg)

Note (optional)

ADD ENTRY

Current Weight

Total Change

--

--

Weekly Progress

History

Figure 24 Graph progress (weight)

Figure 17 illustrates the wireframe design for the login section of the proposed application. In this section, users are required to input their email and password to gain access to the application, ensuring a secure and personalized experience.

Following this, Figure 18 represents the registration section of the application. This feature allows new users to create an account seamlessly. The system is designed with a robust database that prevents duplicate usernames by detecting existing entries, ensuring unique user identification.

Next, Figure 19 showcases the main menu section of the application. This central hub provides users with access to all the application's features, with a graph-based interface prominently displayed on the main page for better visual engagement and usability. In Figure 20, the profile section is presented, where users can manage their personal details within the app.

Moving forward, Figure 21 depicts the AI Workout Chatbot section, where users can interact with an intelligent chatbot that recommends workout routines based on their individual needs. In Figure 22, the focus shifts to the calorie tracker section, which enables users to calculate their total calorie intake efficiently and manually log calorie information for better tracking.

Subsequently, Figure 23 highlights the fasting tracker section, designed to help users initiate and monitor their fasting durations. This feature provides a detailed overview of their fasting schedules, promoting better self-discipline and health management.

Finally, Figure 24 illustrates the weight progress section, which features a graph-based visualization to help users track their weight changes over time. This functionality allows users to input their weight periodically and observe their progress through an intuitive graphical representation, making it easier to stay motivated and achieve their fitness goals.

3.4 Summary

After careful consideration and evaluation, Rapid Application Development is selected as a methodology to develop MyAI-FitDy. This is because RAD less focuses on planning and more focus on its development. This reduce the development time significantly and more flexible on the changes that will be requested from the supervisor on some functionalities. Generally, RAD consists of four main phases which are requirement planning, user design, construction, and cutover phase. Moreover, a drafted design and system requirements is proposed along with use case diagram, sequence diagram, activity diagram, and graphical user interface.

Chapter 4: Implementation

4.1 Introduction

This chapter outlines the implementation process of the “MyAI-FitDy” application. The implementation is divided into two key areas: the logical implementation, which focuses on the underlying functionalities and interactions, and the interface implementation, which centers on the visual components and user interaction flows.

The development was carried out using React for the frontend, Supabase for backend services and authentication, and Dialog flow’s API for AI-powered chatbot interaction. Due to hardware limitations that restricted the use of full mobile-native environments like Android Studio and emulators, the application was developed as a responsive web app and later packaged into an APK using a mobile web-to-APK conversion service. This approach ensured the application could still be deployed and tested on Android devices.

4.2 Installation and Configuration of Development Tools

Before the development began, several tools and platforms were installed and configured to facilitate the building and deployment process.

4.2.1 Visual Studio Code

The major code editor used for the creation of the "MyAI-FitDy" application was Visual Studio Code (VS Code). This decision was influenced by its lightweight performance, cross-platform interoperability, and extensive set of tools for JavaScript and React-based programming. Because the project was built with React, having a strong and contemporary editor like VS Code helps provide an effective and manageable coding experience throughout the development lifecycle.

VS Code has a user-friendly interface and numerous of extensions, making it extremely customizable for various project requirements. It also offers important developer features like

IntelliSense (smart code recommendations), built-in Git integration, debugging tools, and an integrated terminal, all of which improve the development workflow. Its versatility and speed were especially useful given the developer's hardware constraints, as it ran smoothly on computers with minimal memory and storage.

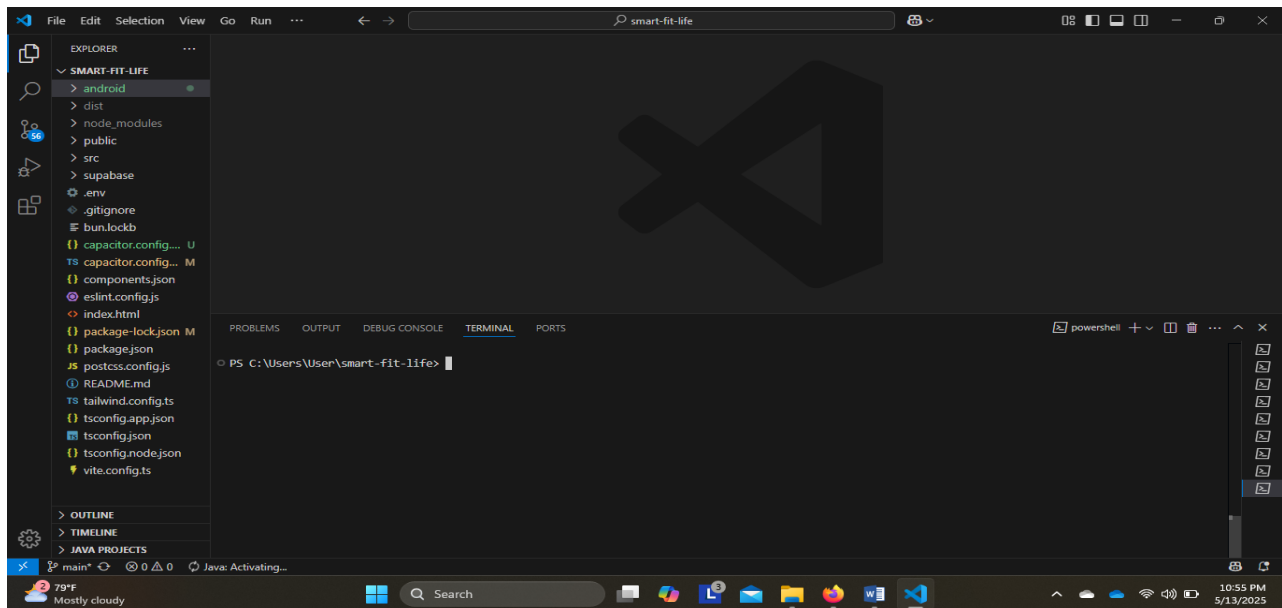


Figure 25 Visual Studio Code for MyAIFitDy Code

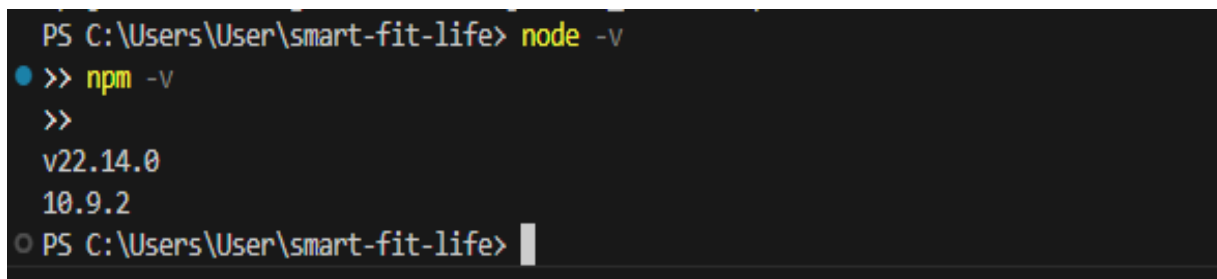
Several useful plugins were added to improve the coding process. ESLint, for example, was used to enforce standard JavaScript syntax norms and ensure uniform code quality while also detecting mistakes early on. This was notably important in verifying that the React components adhered to recommended practices and avoided possible issues. Another major feature, Prettier, was added to automatically format code for improved readability and organization. This saved time on manual formatting and facilitated cooperation by keeping the codebase clean and standardized.

Additionally, the React Snippets plugin was used to accelerate the construction of React components. It included prepared code templates for typical structures like as functional components, useState hooks, and prop handling. This not only boosted efficiency, but also decreased the likelihood of syntax errors while coding recurring patterns in the program. The integrated terminal in VS Code allows the developer to do operations like starting the React server, installing packages using npm, and initiating a test build without leaving the editor. This

centralized workspace reduced context switching and increased overall attention throughout development.

4.2.2 Node.js and npm

Node.js and npm (Node Package Manager) were used extensively in the development of the "MyAI-FitDy" application to manage its dependencies and operate the development server. Node.js is a sophisticated, open-source runtime environment for executing JavaScript code outside of a web browser. It is extensively used in current online and mobile development, particularly for React-based apps, since it enables developers to create scalable and fast software with JavaScript on both the client and server sides.

A screenshot of a Windows command prompt window. The title bar is partially visible at the top. The command prompt shows the following sequence of commands and outputs: 1. The prompt is 'PS C:\Users\User\smart-fit-life>'. 2. The user enters 'node -v', and the output is 'v22.14.0'. 3. The user enters 'npm -v', and the output is '10.9.2'. 4. The prompt returns to 'PS C:\Users\User\smart-fit-life>'. The text is displayed in a light blue font on a black background. There are some small colored icons (a blue circle and a grey circle) to the left of the second and fourth lines of text respectively.

```
PS C:\Users\User\smart-fit-life> node -v
v22.14.0
PS C:\Users\User\smart-fit-life> npm -v
10.9.2
PS C:\Users\User\smart-fit-life>
```

Figure 26 Node.js and npm for MyAI-FitDy run server

Node.js was required to build and execute the React app locally. It laid the groundwork for script execution, development tool management, and the app's build process. Using Node.js, the developer could start the project using the create-react-app command, which created a full React development environment with little configuration. This program constructed the project structure and installed Webpack, Babel, and other tools required to build and serve the React code.

Along with Node.js, npm was the package manager that installed and managed all of the project's third-party libraries and tools. Npm gives developers access to a wide ecosystem of open-source JavaScript libraries and tools. Several npm packages were installed for "MyAI-FitDy" such as react, react-router-dom, axios, and chart.js. These programs supplied critical functionality such as page routing, API queries, and visualizing user progress via charts and graphs.

Npm also handled versioning and dependency management, ensuring that all libraries in the project were compatible and up to date. This reduced package conflicts and allowed the developer

to focus on the app's logic and features rather than the underlying infrastructure. Furthermore, npm scripts were regularly used during the development process to launch the local development server (npm start), generate optimized production builds (npm run build), and test the app. These scripts optimized many portions of development, testing, and deployment, making the workflow more efficient and automated.

4.2.3 Supabase

Supabase was chosen as the backend-as-a-service (BaaS) platform for the "MyAI-FitDy" application, which serves as the primary solution for user data management, authentication, and real-time database operations. Supabase is an open-source alternative to Firebase that comes with a collection of strong capabilities out of the box, including a PostgreSQL database, authentication services, and RESTful APIs, allowing development to stay lightweight and controllable despite minimal local resources.

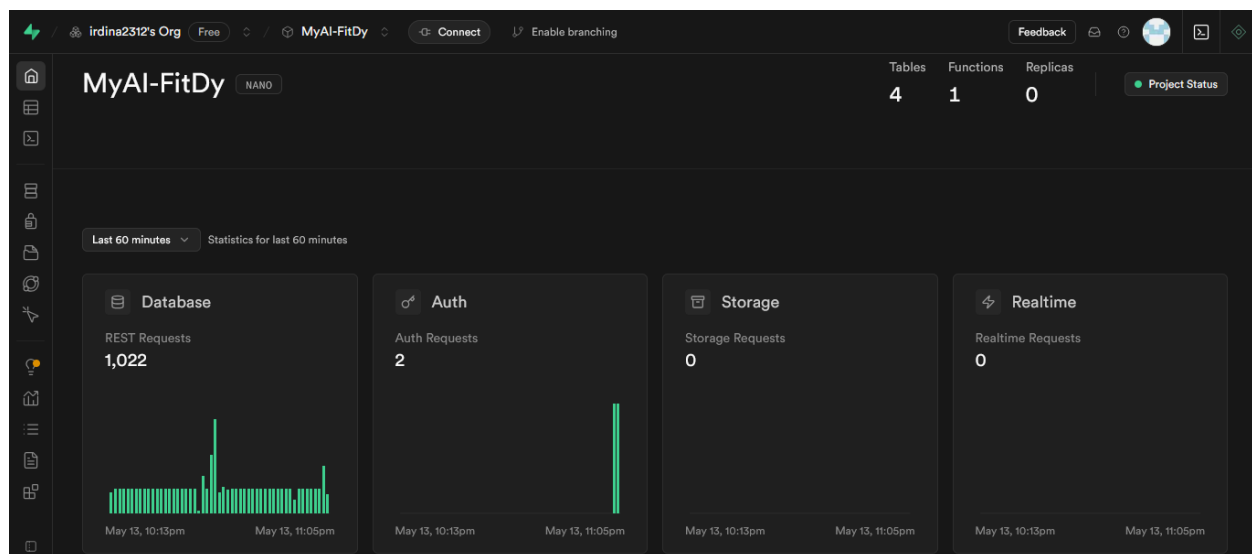


Figure 27 Supabase interface for MYAI-FitDy

One of the main reasons we chose Supabase was its simplicity of connection with JavaScript and React-based frontends. It provided pre-configured database services that didn't require manual server configuration or backend code. This was very useful for this project since it allowed the developer to create, read, update, and delete (CRUD) data straight from the frontend application via secure API calls. Supabase supplied a PostgreSQL database with an easy-to-use dashboard for

managing tables, examining logs, and testing queries, which eliminated the need for complicated backend software.

Supabase also plays an important part in user authentication. The platform allowed a variety of login methods, including email/password and third-party OAuth providers, however this project centered on simple email authentication. Using the built-in Supabase authentication module, the project was able to register users, log them in, manage session tokens, and handle logouts with little setup. This guaranteed that user data and personalized features such as workout history and progress monitoring were safe and unique to each individual.

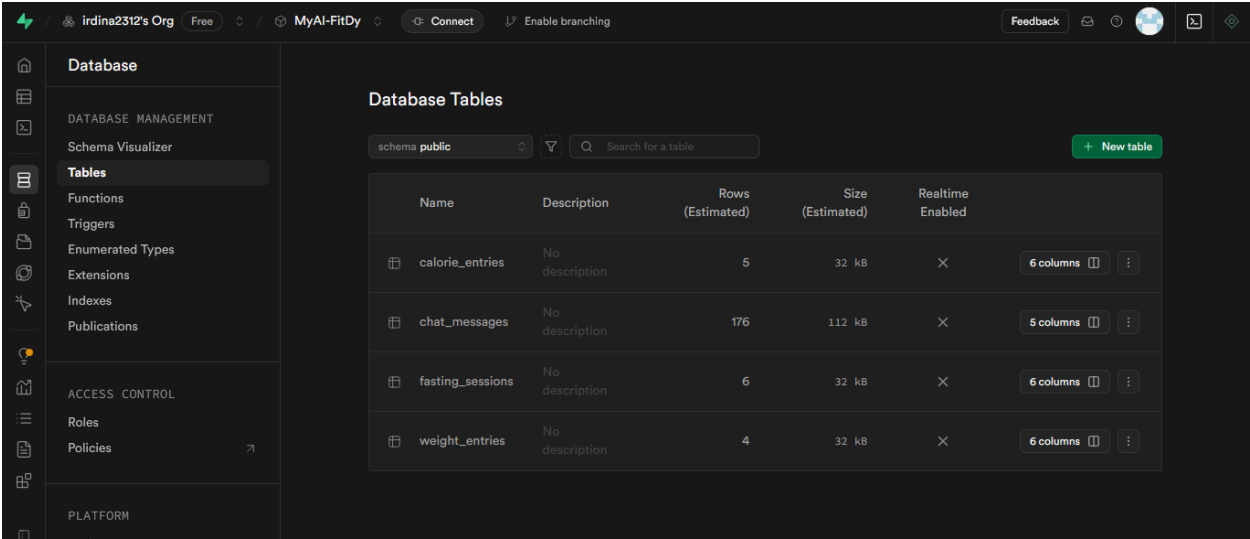


Figure 28 Database Supabase of MyAI-Fitdy

Furthermore, Supabase had real-time capabilities, which meant that any changes to the database would be immediately reflected in the frontend application. While real-time updates were not actively used in this version of the program, they enabled future scalability by allowing for the addition of features such as live progress updates, AI coaching notifications, and real-time fasting timers.

Furthermore, Supabase's REST and GraphQL APIs allowed the frontend app to communicate with the backend easily. Data such as user profiles, fasting logs, and workout records were kept in organised tables, and the frontend could access them using secure API queries. Supabase also contained role-based access controls (RBAC), which ensured that sensitive actions could only be done by authenticated users.

4.2.4 Dialogflow

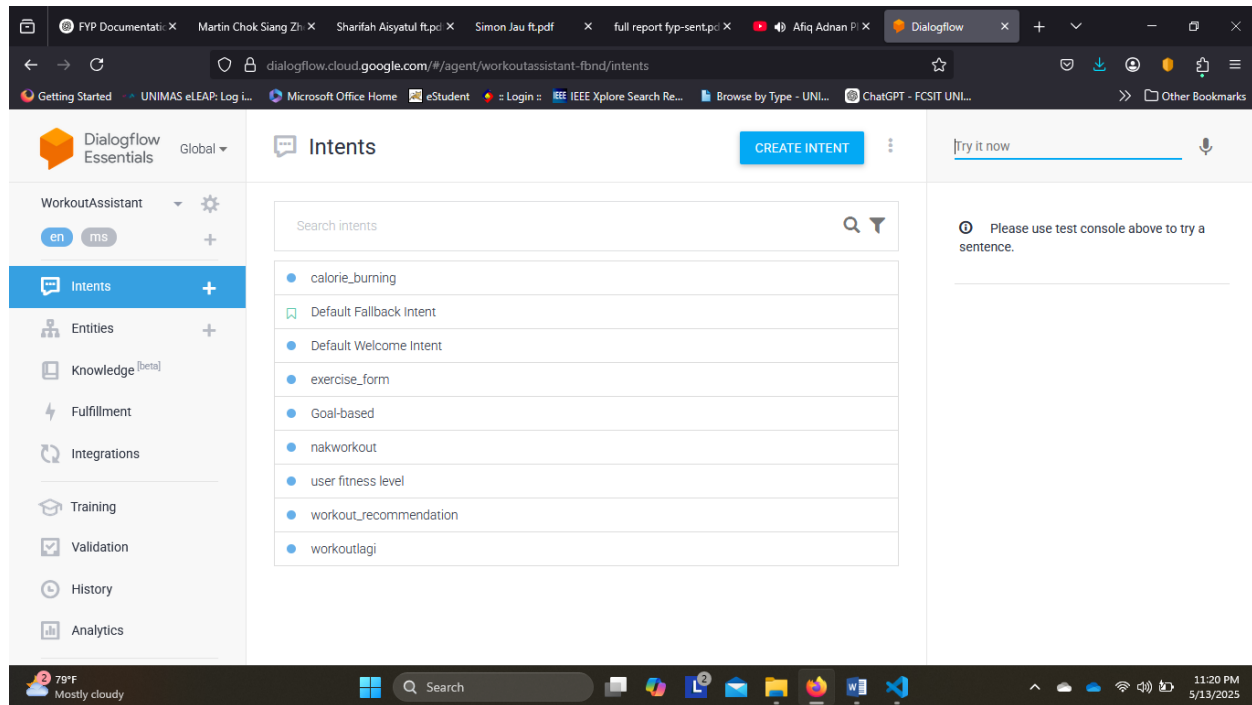


Figure 29 Dialogflow Essentials for MYAI-FitDy

Dialogflow Essentials, a Google natural language understanding (NLU) platform, was utilized to construct the AI chatbot functionality in MyAI-FitDy. Dialogflow enables developers to design intents based on preset user input patterns that are then translated to automated answers. In this project, numerous intents were created to handle certain user questions, including `calorie_burning`, `workout_recommendation`, `exercise_form`, and `user fitness status`. Each purpose contains sample words (training data) to assist Dialogflow interpret user inputs, as well as customizable responses that lead the user via fitness-related ideas and tips.

Dialogflow was integrated with the MyAI-FitDy web application by connecting to the frontend via its REST API. When users engage with the chatbot in the app, they send HTTP POST requests to Dialogflow's `detectIntent` API. Dialogflow evaluates the text, matches it to the most appropriate intent, and delivers a structured answer. This response is then shown in a React-based chatbot interface. This design enables smooth real-time engagement and intelligent, context-aware

responses, making the chatbot an important interactive tool for helping users through their fitness and fasting regimens.

4.2.5 APK Packaging and Deployment

After the development of the MyAI-FitDy web application using React, the project required transformation into a mobile-friendly format. This was achieved through a web-to-APK packaging service, which converted the completed web application into an Android Package (APK) file. This step allowed the app to be installed and tested directly on Android smartphones.

This method was chosen due to the developer's hardware limitations, where traditional tools such as Android Studio, which require high system resources, could not be effectively used.

Table 10 Reason for Using Web-to-APK Packaging

Challenge /Constraint	Description
Limited RAM and Storage	The development laptop had low memory (RAM) and limited disk space.
Heavy Native Tools	Android Studio and emulators consume significant resources and were impractical.
Alternative Solution	A web-to-APK converter was chosen to avoid system performance issues.

4.3 MyAI-Fitdy application features

The UI was created using React components and stylised with Tailwind CSS. The design used a lavender colour palette, with rounded buttons and cards for a nice and welcome appearance. Key screens include:

4.3.1 Registration

To utilize the MyAI-FitDy application's register feature, click the "Register" button located on the application's first interface. During the registration process, users must provide their complete name, email address, password, and password verification. This information is required to establish a secure and personalized account for the user. After filling out all of the forms correctly, the user may submit their information by clicking the "Register" button. Depending on the security settings, the system may ask users to verify their accounts via a verification page or step after registration. After successfully verifying, the user needs log in with the registered email and password to access the application's primary features.

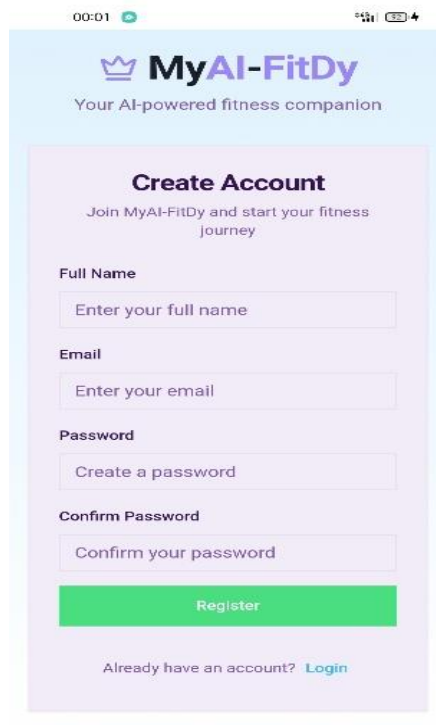
The image shows a mobile application interface for registration. At the top, there's a status bar with '00:01' and battery/signal icons. Below that is a header with the 'MyAI-FitDy' logo (a crown icon) and the tagline 'Your AI-powered fitness companion'. The main content area is a light purple card titled 'Create Account' with the subtitle 'Join MyAI-FitDy and start your fitness journey'. It contains four input fields: 'Full Name' (placeholder: 'Enter your full name'), 'Email' (placeholder: 'Enter your email'), 'Password' (placeholder: 'Create a password'), and 'Confirm Password' (placeholder: 'Confirm your password'). A prominent green 'Register' button is at the bottom of the form. Below the button, it says 'Already have an account? Login' with 'Login' as a blue link. The entire screen has a light blue background.

Figure 30 Register Page for MyAI-FitDy

4.3.2 Login

Users are led to the login interface when they run the MyAI-FitDy application. To access their personal fitness dashboard, individuals must input their registered email address and password into the areas indicated in Figure 31. Users will be able to successfully access the app after entering the necessary credentials and hitting the "Login" button.

Users who have forgotten their password can click the "Forgot password?" link situated beneath the password entry form. This step will take them to the Reset Password page (Figure 31) and request them to input their registered email address. After providing their email address, users must click the "Send Reset Link" option to get a password reset link by email. This link will let them safely create a new password and restore access to their account. If necessary, users can return to the login page by selecting "Back to login" at the bottom of the reset page. This approach guarantees that users may safely restore their accounts while still having secure access to the app's functionality.

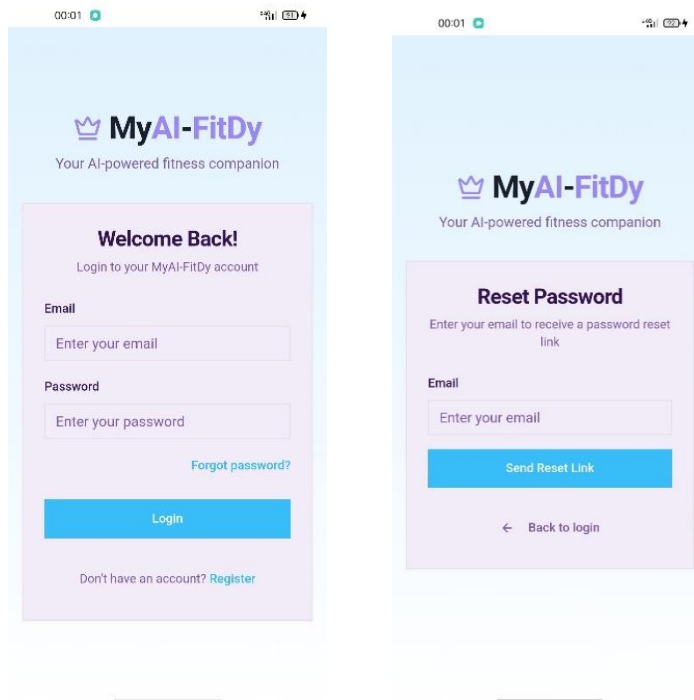


Figure 31 Login Page and Reset Password of MyAI-FitDy

4.3.3 Dashboard

After successfully logging in, users are led to the MyAI-FitDy application's Dashboard, which serves as the primary control centre for navigating the app. On this dashboard, visitors are greeted by a personalized Fitness Summary section at the top, which offers a brief snapshot of their daily or weekly progress. This may include information such as total calorie target, fasting progress, active minutes, and the user's current weight. Below the summary, visitors will see a series of feature buttons organized in a user-friendly structure, each reflecting a major function of the program. These buttons are AI Workout Chatbot, Fasting Tracker, Calorie Tracker, and Progress Tracking Graph. To make the experience more interesting, each button is accompanied by a little badge or symbol that emphasizes fresh changes, current status, or alerts, such as how many exercises are left for the day or an alarm if fasting is in process. These badges are designed to excite and stimulate users to use the app on a regular basis and stick to a fitness program. The dashboard serves as a primary platform for customers to quickly track their health journey and use all of the resources provided through MyAI-FitDy.

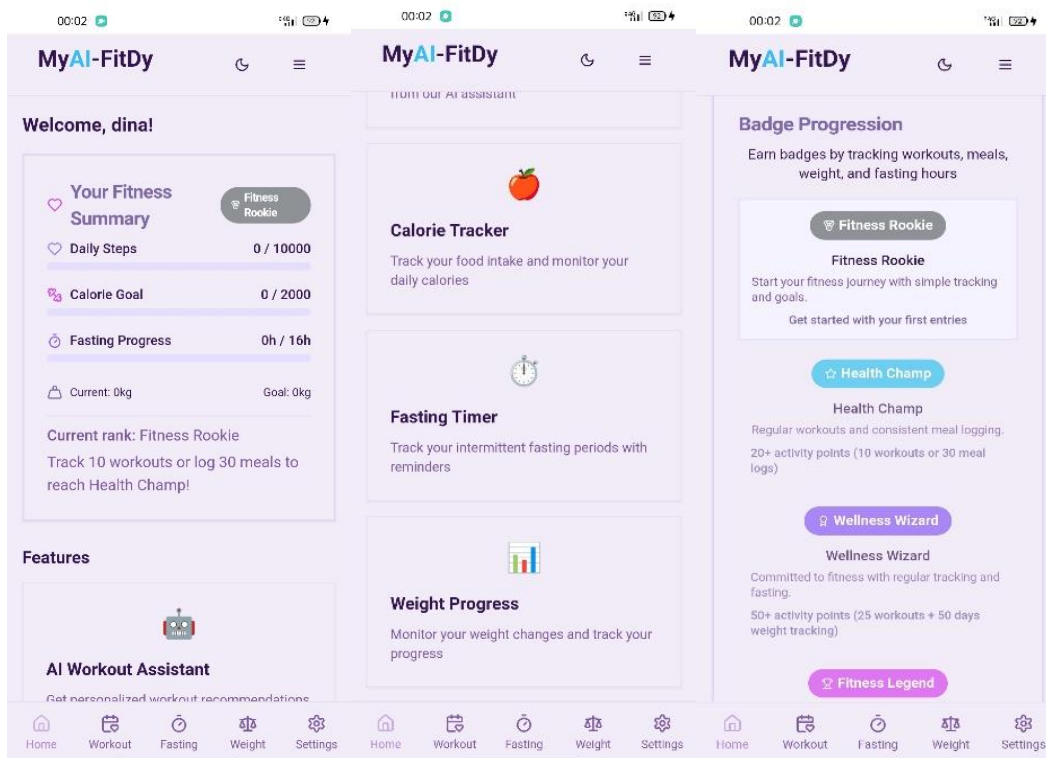


Figure 32 Dashboard of MyAI-FitDy

4.3.4 Profile and setting

In addition to fitness functions, the MyAI-FitDy app has a Profile Page where users may check basic account information. On this page, users may view the email address linked with their account as well as the date they joined the application, allowing them to keep track of how long they've been using it. This page has a clean and straightforward structure that focusses on identity and account information, allowing users to always validate and manage their personal data as needed.

Following the profile page, users may access the Settings Page, which improves the app's personalization capabilities. One of the primary tools offered here is the colour scheme selector, which allows users to tailor the app's visual look to their tastes. This feature allows users to select from a range of colour palettes, making the app UI more bright, engaging, and tailored to their own preferences. This customization option not only enhances the user experience but also offers a new layer of engagement, enabling users to feel more engaged and at ease when using the app.

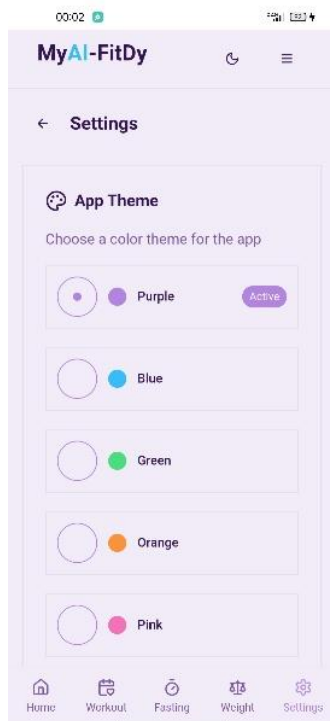


Figure 33 Setting Page of MyAI-FitDy

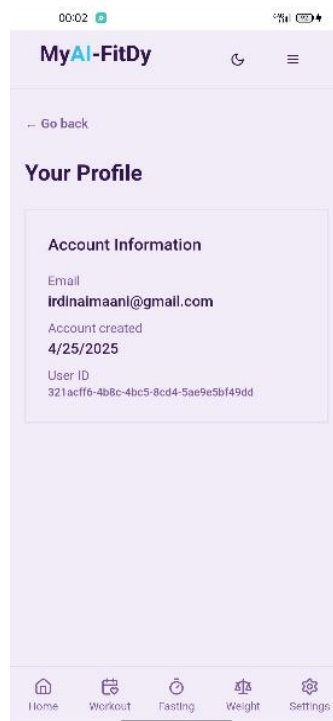


Figure 34 Profile page of MyAI-FitDy

4.3.5 AI workout assistant

To utilise the AI Workout Assistant on the MyAI-FitDy app, first hit the "AI Workout Assistant" button on the dashboard. When the page is opened, users will be greeted by a chatbot-like interface. The assistant will start by asking the user a few basic questions about their fitness objectives (e.g., lose weight, gain muscle), current fitness level (beginning, moderate, or advanced), and workout preferences (e.g., cardio, yoga, or strength training). Users can just text their replies into the conversation, and the AI will analyse them to offer a personalised fitness regimen.

After getting the plan, the user may follow the stated exercises on a daily basis, with the assistant fully explaining the sets and repetitions. If the user wishes to change the exercise or request a specific routine (e.g., "Give me a 10-minute abs workout"), they may put it into the conversation and the assistant will immediately answer with a different plan. The assistant will also keep track of what the user has accomplished and provide motivating feedback or reminders. This enables users to interact intuitively with the app and make modifications at any time based on how they feel, making the training experience more adaptable, led, and motivational.

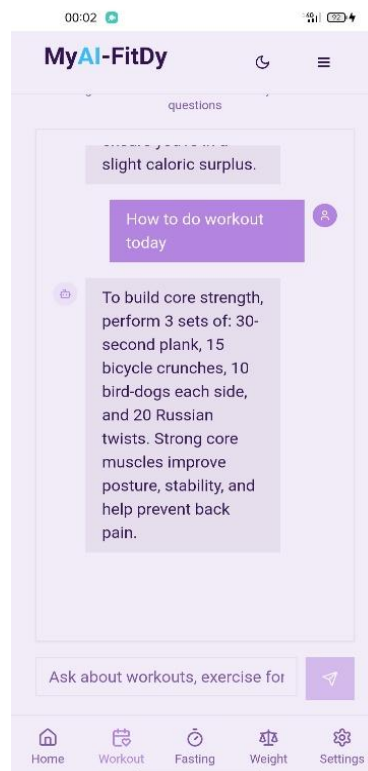


Figure 35 AI Workout Assistant For MyAI-FitDy

4.3.6 Calorie Tracker

To utilise the Calorie Tracker function in the MyAI-FitDy app, touch the "Calorie Tracker" button on the dashboard. In this area, users can manually enter the names of the meals they eat during the day into the input field. For example, users may input "fried rice" or "apple," and the device will either enable them to enter the calories manually or utilise the built-in AI-powered meal recommendation tool.

When the user starts inputting the name of the meal, the AI will automatically propose the most likely matches, along with an estimated calorie count for each item. This makes it quick and easy for users to track their meals without having to go elsewhere. Once inputted, the calorie counts are kept and shown in a daily total, allowing users to keep conscious of their intake. Users may continue to add breakfast, lunch, supper, and snacks throughout the day. This tool not only encourages healthier eating habits, but it also helps users manage their calories more effectively and accurately using AI.

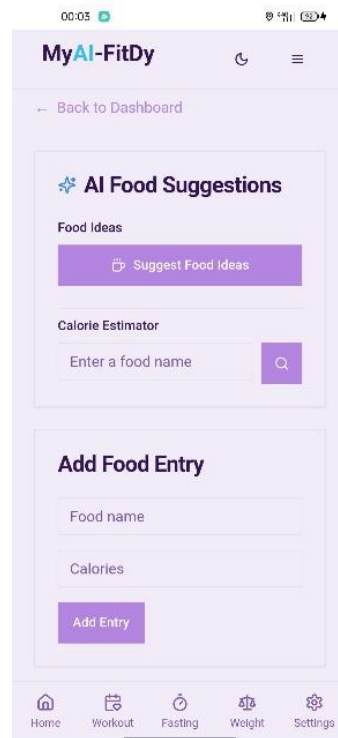


Figure 36 Calorie tracker Page for MyAI-FitDy

4.3.7 Fasting Timer

To utilise the Fasting Timer function in the MyAI-FitDy app, press the "Fasting Tracker" option on the dashboard. This part features a simple and straightforward UI with two primary buttons: "Start Fast" and "End Fast." When a user is ready to start fasting, they may simply hit the "Start Fast" button, and the app will begin recording the start time. During the fasting period, a live countdown counter or monitoring display will indicate how long the fast has been running.

When the user is ready to break their fast, they can select the "End Fast" button. The software will then automatically compute and display the fast's overall length (for example, 14 hours and 20 minutes). This enables users to simply monitor and manage their intermittent fasting programs without having to track them manually. The software may also save fasting history over time, allowing users to track their success and consistency. This function is very useful for those who use intermittent fasting for health or weight management reasons.

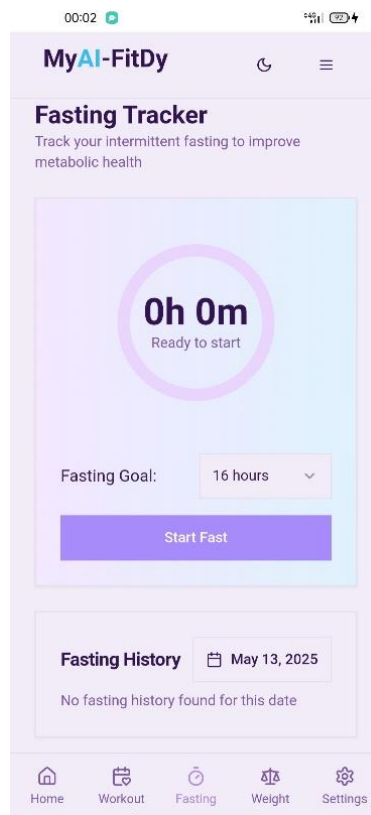


Figure 37 Fasting Timer Page for MyAI-FitDy

4.3.8 Weight Progress

To utilise the Weight Progress function in the MyAI-FitDy app, press the "Weight Tracker" button on the main screen. In this area, users are presented with a simple and visually appealing interface that allows them to input and track their body weight over time. When a user enters their current weight, the app captures the information together with the date, allowing for precise tracking of weight fluctuations. The interactive progress graph that appears on the screen is an important part of this functionality. This graph visualizes the user's weight entries over days or weeks, making it easier to detect trends such as steady weight reduction or rise.

The graph is supposed to be straightforward and understandable, with distinct lines and data points representing development over time. This visual feedback assists users in staying motivated and making educated decisions about their food, exercise, or fasting habits. Users can also navigate through their past entries or pick particular date ranges to better understand their progress. This tool helps users keep accountable to their fitness goals and track the efficacy of their workout or diet routines.

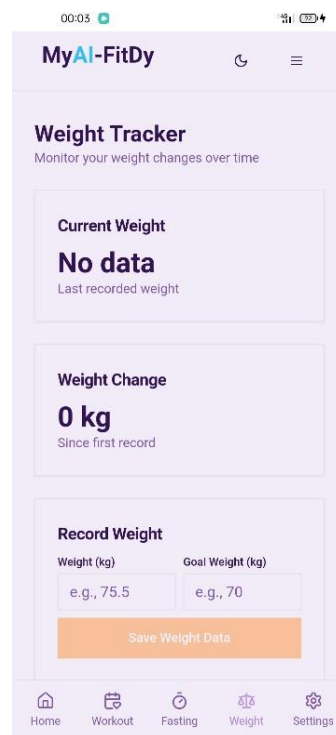


Figure 38 Weight Progress Page for MyAI-FitDy

4.4 Summary

This chapter has detailed the implementation of the proposed application, MyAI-FitDy. It began with the installation and configuration of essential development tools such as Visual Studio Code, Supabase, and Dialogflow. The logical implementation of each core feature including authentication, fasting tracker, workout AI assistant, calorie tracker, and weight progress tracking was thoroughly explained. Additionally, the process of packaging the web application into a mobile APK format was discussed, highlighting the use of a web-to-APK service due to hardware limitations. The final mobile application offers users a smooth and native-like experience while maintaining full access to all functional features.

Chapter 5: Testing

5.1 Introduction

The testing and evaluation phase is a critical part of the MyAI-FitDy development lifecycle and was conducted after the implementation of each core feature. This phase aims to ensure that all functionalities work as intended and meet the project's objectives. A structured testing plan was applied to validate each component of the application, focusing on functionality, usability, and overall performance.

Testing was categorized into two main types: functional testing and non-functional testing. Functional testing assessed whether features like user authentication, fasting tracker, calorie tracker, AI chatbot, and weight progress tracking operated correctly. Non-functional testing included usability testing, which involved real users interacting with the application to provide feedback on its ease of use, design, and overall user experience. The feedback was collected using a questionnaire to further evaluate the system's effectiveness in helping users manage their fitness, fasting, and diet routines.

5.2 Functional Testing

Functional testing is performed to ensure that each module of the *MyAI-FitDy* application performs its intended function according to the system requirements. This type of testing focuses on the user interface, interactions, and outputs of each feature to ensure that users can successfully complete their fitness, fasting, and weight tracking activities.

Tables 11 to 16 provide a detailed overview of the test cases for each major functionality in the app, including the AI workout assistant, fasting tracker, calorie tracker and weight progress tracker. These tables outline various input scenarios, expected outputs, actual outputs, and whether each test case passed or failed. The test cases are designed to ensure the robustness, usability, and correctness of the features from the user's perspective.

Test Case – AI Workout Assistant Chatbot

Testing Objective: To verify that the chatbot responds appropriately to common greetings and identity-related queries.

Table 11 Test Case - AI Workout Assistant Chatbot

Test ID	Test Case	Input Data (User Phrase)	Expected Result	Actual Result	Pass/Fail	Comments
F001	Default greeting	“Hi”, “Hello”, “Hey”	Chatbot responds with “Hi! How can I assist you today?”	Chatbot responded correctly	Pass	Greeting functionality works as expected
F002	Identity response	“Please give workout suggestion?”	“Do a squat around 5 minutes.”	Chatbot gave correct response	Pass	Intent matched correctly

Test Case – Fasting Tracker (Start)

Testing Objective: To confirm the functionality of initiating a fasting session and ensuring timer functionality.

Table 12 Test Case - Fasting Tracker (Start)

Test ID	Test Case	Input Action	Expected Result	Actual Result	Pass/Fail	Comments
F010	Start fasting	Tap “Start Fast” button	Timer starts, tracking time continuously	Timer started and updated in real-time	Pass	Data sent to Supabase

F011	Prevent duplicate	Tap “Start Fast” again	Alert or block user from starting another session	App prevented second fast	Pass	Duplicate fasting blocked
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Test Case – Fasting Tracker (End)

Testing Objective: To validate the process of ending a fasting session and storing the fasting duration.

Table 13 Test Case - Fasting Tracker (End)

Test ID	Test Case	Input Action	Expected Result	Actual Result	Pass/Fail	Comments
F012	End fasting	Tap “End Fast” button	Timer stops, and duration is calculated and displayed	Timer stopped, correct time shown	Pass	Duration saved to user history
F013	End without start	Tap “End Fast” directly	Display error: “You have not started a fast.”	Appropriate error shown	Pass	Validation logic functions properly

Test Case – Weight Progress Tracker

Testing Objective: To ensure that users can enter, view, and track their weight over time using a visual graph.

Table 14 Test Case – Weight Progress Tracker

Test ID	Test Case	Input Action	Expected Result	Actual Result	Pass/Fail	Comments
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F020	Add weight entry	Enter “65kg” on 01/05/2025	Data saved, graph updated	Graph updated and data saved to Supabase	Pass	Recharts used for visual feedback
F021	View progress	Navigate to “Weight Progress” section	View graph of weight trend	Weight trend displayed correctly	Pass	Visual summary is clear and useful

Test Case – Calorie Tracker

Testing Objective: To ensure users can input their daily calorie intake and view total calories consumed.

Table 15 Test Case – Calorie Tracker

Test ID	Test Case	Input Action	Expected Result	Actual Result	Pass/Fail	Comments
F030	Add calorie entry	Enter “Banana - 90 kcal” on 01/05/2025	Entry added and daily total updated	Calories displayed correctly	Pass	Supabase stores each entry
F031	View total calories	Open Calorie Tracker on a specific day	Shows list of items and total calories consumed	Displayed list with correct total	Pass	Daily breakdown is accurate
F032	Delete entry	Tap delete on one food item	Selected entry removed, total recalculated	Entry deleted and total updated	Pass	Deletion syncs with Supabase

Test Case – Login and Register

Testing Objective: To verify that users can register and log in with valid credentials, and that the system handles validation and errors appropriately.

Table 16 Test Case – Login and Register

Test ID	Test Case	Input Action	Expected Result	Actual Result	Pass/Fail	Comments
F040	User registration	Enter valid name, email, password, confirm password	Account successfully created and redirected to login	Registration successful	Pass	New user data saved in Supabase
F041	Registration validation	Leave password confirmation empty	Show validation error	Error message shown	Pass	Required field validation works
F042	User login	Enter correct email and password	Redirect to dashboard	User logged in	Pass	Session created and user authenticated
F043	Invalid login	Enter correct email, wrong password	Show “Invalid credentials” error	Error message shown	Pass	Login validation logic works
F044	Empty login fields	Leave email or password blank	Show “Please fill in all fields” warning	Warning displayed	Pass	Form validation triggered

5.3 Non-Functionality Testing

Non-functional testing focusses on components of the system that impact the overall experience and long-term usability but are unrelated to specific functionality. These include system dependability, usability, performance efficiency, maintainability, and compatibility.

This type of testing guarantees that the MyAI-FitDy application not only works, but also runs smoothly, is easy to maintain, and gives a great user experience across all platforms. The following table summarizes the non-functional tests performed for important parts of the application:

Test Case – Non-Functional Testing

Table 17 Test case - Non-Functional Testing

Test ID	Test Case	Expected Result	Actual Result
NF001	Reliability	App handles invalid input gracefully (e.g empty fields, invalid login, chatbot fallback).	App shows proper validation messages and chatbot replies with fallback intent.
NF002	Usability	User can navigate app easily also features are intuitive and user-friendly.	Users reported ease of use during testing. Navigation and inputs were clear.
NF003	Efficiency	App responds to user interactions (login, chatbot, tracker buttons) within 2–5 seconds.	All responses were under 5 seconds with system remains smooth and responsive.
NF004	Maintainability	System is easy to update, especially chatbot intents and Supabase schema.	Chatbot and database changes can be done easily without major rework.
NF005	Compatibility	App works properly across devices (web browser + Android APK).	All features functioned well on Android and desktop browsers.

NF006	Security	Only authenticated users can access workout, fasting, and calorie tracker features.	Login system restricts unauthorized access and secure API calls to Supabase used.
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A usability testing survey was carried out using Google Forms to assess usability and user satisfaction. The form was given to chosen responders, who evaluated the program and offered comments on its interface, usability, and overall experience. The following section summarises the findings from this usability testing session.

5.3.1 Usability Testing

Usability testing is conducted to evaluate how user-friendly and effective the system is for end users. For this project, usability testing was carried out using a questionnaire to gather feedback from users regarding their experience with the application.

A total of 11 respondents participated in the testing, consisting of 3 males and 8 females. The full questionnaire is provided in **Appendix B**. The figures below present the charts and graphical representations of the respondents' feedback.

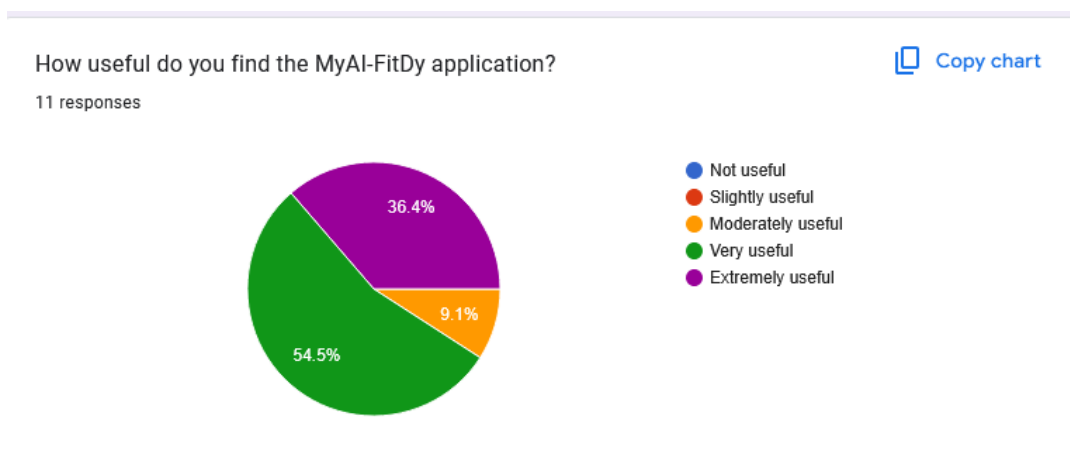


Figure 39 Pie Chart on respondent find useful of MyAI-FitDy

Figure 39 shows that all the respondents find that MyAI-FitDy is very useful.

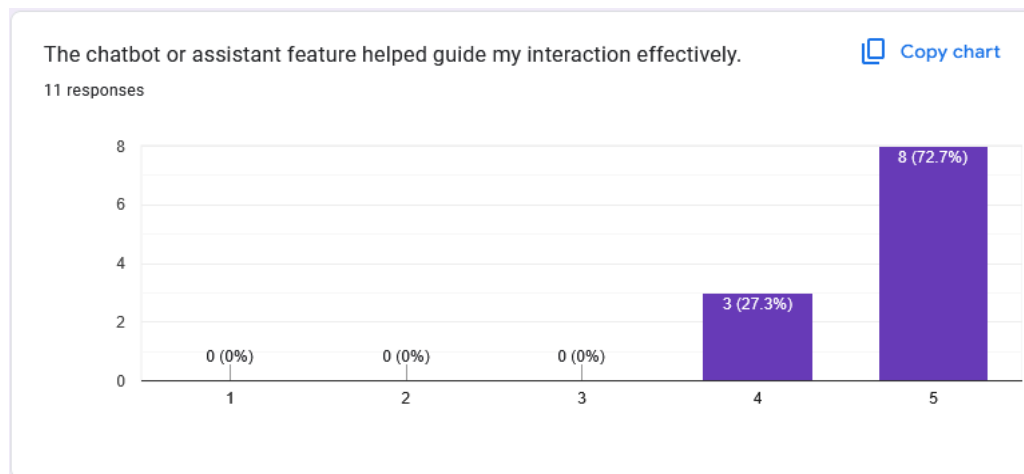


Figure 40 Graph on respondent about chatbot

Figure 40 shows that all respondent agree that the chatbot helped their interaction effectively.

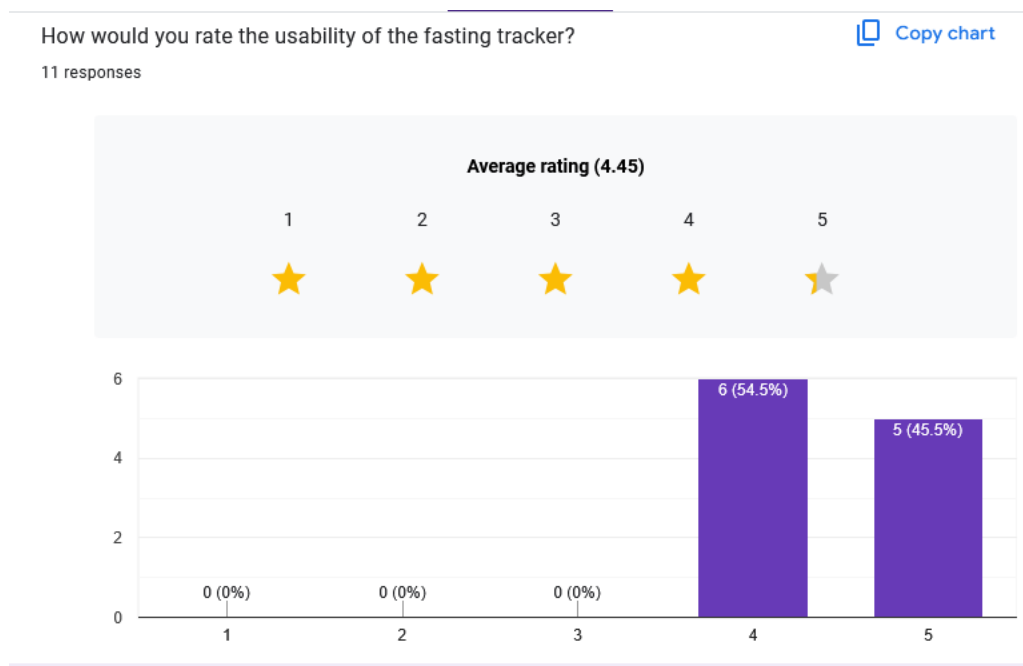


Figure 41 Graph on respondent about usability of fasting tracker

Figure 41 shows that all respondent rate 4 star for fasting tracker function in this application.

Was the weight tracking graph easy to understand?

 [Copy chart](#)

11 responses

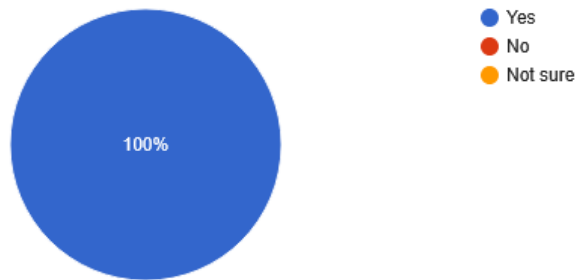


Figure 42 Pic Chart on respond to weight tracking graph

Figure 42 shows that all the respondents agree that the weight tracking graph easy to understand.

How would you rate the usability of the calorie tracker?

 [Copy chart](#)

11 responses

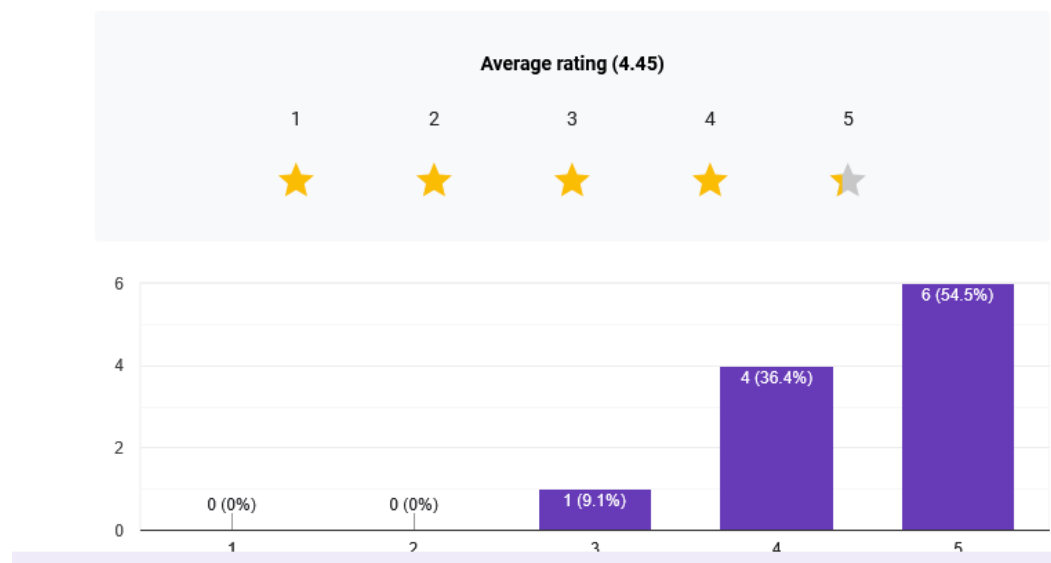


Figure 43 Graph on rate usability of the calorie tracker

Figure 43 shows that all the respondents rate 5 star for function of calorie tracker in this application.

Was the app responsive and smooth during usage?

 Copy chart

11 responses

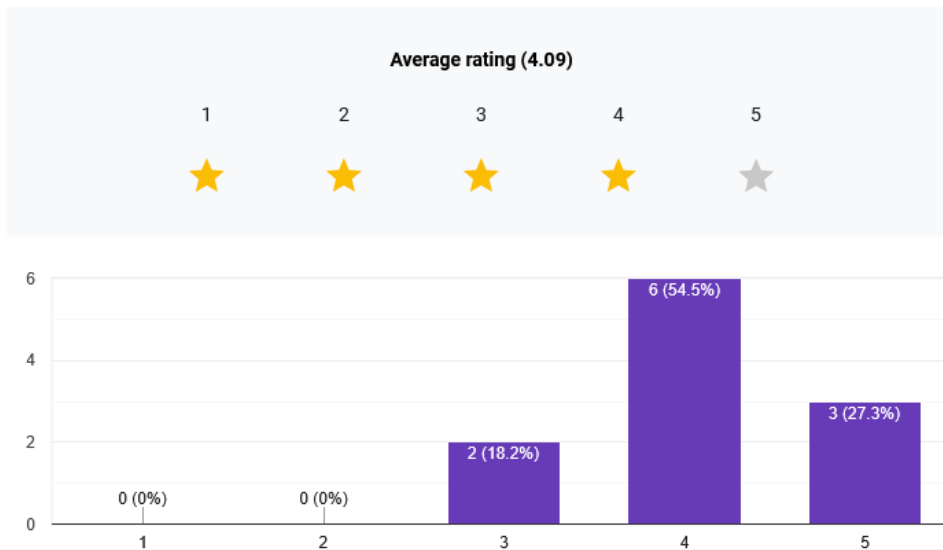


Figure 44 Bar chart on respond to app responsive and smooth

Figure 44 that 6 respondents strongly agree by rate 4 star that the app is very responsive and smooth during usage.

I was able to find the all features without difficulty.

 Copy chart

11 responses

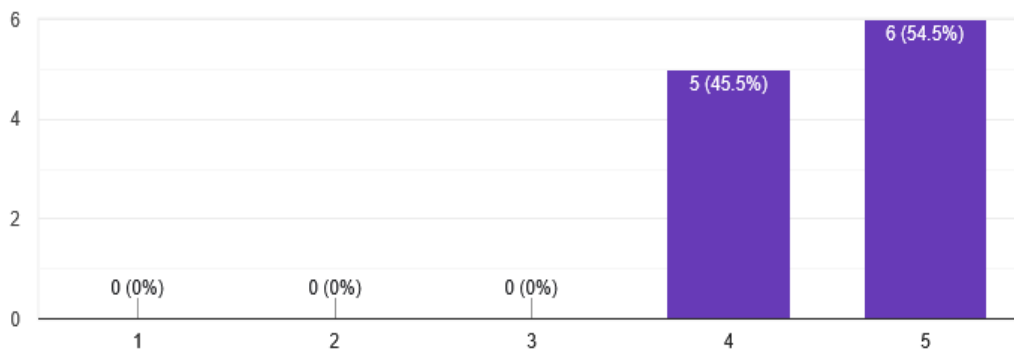


Figure 45 Bar Chart on respond to find all the features without difficulty

Figure 45 shows that all respondents agree that they can find all the feature in this application easily.

The visual design and layout were attractive and well-organized.

 Copy chart

11 responses

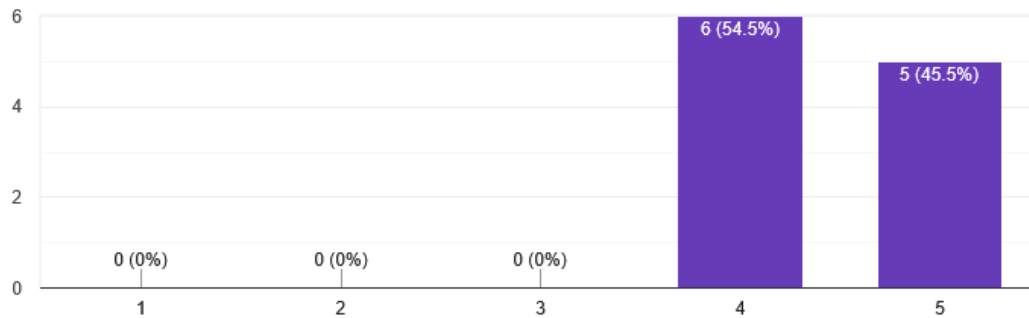


Figure 46 Bar Chart on respond to the visual design and layout the application

Figure 46 shows that all respondents agree that the visual design and layout of this application were attractive and well-organized. Huge amount of the respondents agrees too

What did you find most useful or enjoyable about this application?

11 responses

Calorie tracker AI

Easy to use

Good and pretty app

Calorie tracker

This apps is fast and unique

Fasting tracker

This apps are useful when I want to fasting very great

Weight tracker

Neat simple

Figure 47 Some answers that respondents share about this application

5.4 Summary

The MyAI-FitDy application has gone through several testing stages to guarantee that it fulfils both functional and non-functional criteria. The app's major features, including the AI chatbot, fasting tracker, calorie tracker, and weight progress graph, were reviewed for usefulness and usability via usability testing and user feedback. The results show that the app does a good job of helping users manage their exercise, fasting, and eating.

However, like with any system, there is always room for development. User input has offered useful insights that will help drive future improvements and additions. The next chapter will go over the existing system's limitations in depth, as well as ideas for future changes to maximize the app's value and efficacy.

Chapter 6: Conclusion and Future Works

6.1 Introduction

This chapter analyses the project's accomplishments in light of the initial aims. It assesses how successfully each target was satisfied throughout the development and execution of the MyAI-FitDy application. Furthermore, the limits identified throughout the development process are addressed, and recommendations for future upgrades and enhancements are made.

6.2 Objective Achievement

There are three main objectives identified in this project. Table 18 shows the achievement of each objective based on the results from testing and evaluation.

Table 18 Objective Achievement

No	Objective	Achievement
1	To design a fitness mobile application with simple progress visualization tools for tracking fitness achievements over time with artificial intelligence.	The MyAI-FitDy mobile application was successfully built with a user-friendly interface and features such as weight progress monitoring and visual charts. These tools enable users to track their fitness progress over time in a straightforward and natural way. The inclusion of AI improves engagement and user assistance.
2	To develop the application that contains an AI chatbot for workout recommendations with fasting and calorie tracker including weight progress.	The application was built with React and coupled with Dialogflow to power the AI chatbot. The chatbot can react to workout-related requests in English language. To help with fitness and health tracking, the app contains a functional fasting timer, calorie intake meter, and a weight trend chart.
3	To evaluate the overall integration of AI, fitness, fasting, and calorie	The mobile application underwent usability testing with 10 people. Based on their input, the features were

	tracking features in the mobile application.	determined to be helpful and accessible. Most users thought that the app achieves its goals by combining a useful AI assistant with necessary fitness monitoring elements in a single integrated system.
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6.3 Limitation of the Proposed System

Several constraints were observed when developing MyAI-FitDy. One important restriction is that the AI chatbot generates accurate replies mostly through keyword matching and predetermined intents. While this strategy offers structure, it restricts the chatbot's ability to grasp varied or sophisticated user inputs, particularly those including slang or spelling mistakes.

Another restriction is a dependency on internet access. Because the app employs an AI model via Dialogflow and data storage using Supabase, a consistent internet connection is necessary for both chatbot interaction and user data synchronisation. This might be a barrier for users in rural or underserved locations.

Finally, the AI chatbot has limited memory and is unable to recall lengthy user discussions or past session histories. This inhibits the continuity of contact, perhaps reducing the personalization of fitness instruction.

6.4 Future Works

The *MyAI-FitDy* app has potential for further improvements and enhancements in future development phases. These are some areas to consider:

- I. **Improved features and functionality.**
To provide a more comprehensive health solution, include additional features like daily exercise reminders, AI-generated nutrition recommendations, and stress or sleep tracking.
- II. **Improved AI capabilities.**
More conversational data may be used to train the chatbot's natural language comprehension, allowing it to reply more accurately to flexible or unexpected user inputs.
- III. **Multilingual and localised support.**
Increase the chatbot's linguistic skills, particularly to better accommodate Bahasa Malaysia and maybe other regional languages. This would increase the app's accessibility to a wider range of user groups.
- IV. **Offline Access**
Introduce minimal offline capabilities, such as the ability for users to track meals or exercises without internet connectivity, with auto-syncing when the connection is restored.
- V. **Integration of Wearable Devices**
Allow synchronization with wearable health trackers (such as smartwatches or fitness bands) to capture real-time physical data, resulting in more personalized suggestions.
- VI. **User Account History and Smart Suggestions.**
Allow the AI to analyse user behaviour and offer intelligent advice or motivational messages based on previous data, hence increasing user retention and pleasure.

6.5 Summary

The MyAI-FitDy mobile application has accomplished its primary goal of combining fitness, fasting, and calorie tracking with an AI-powered chatbot. Despite a number of restrictions, including dependency on intent-based interaction, limited language flexibility, and the requirement for persistent internet connectivity, the program provides a good platform for health-conscious users. Future developments, such as enhanced AI interaction, wearable integration, and localised language support, have the potential to greatly improve user experience and functionality. These enhancements will guarantee that MyAI-FitDy continues to evolve and better fulfil the different demands of its users.

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Appendices

1) Requirements Questionnaire

Final Year Project Survey: MyAI-Fitdy: AI-powered Workout, Fasting and Diet Planner with Progress Tracking Mobile Application

B *I* U  

Hello, and thank you for visiting my survey!

My name is Irdina Imaani binti Md Razani, and I am a final-year Software Engineering student at UNIMAS. As part of my final year project titled " **MyAI-Fitdy: AI-powered Workout, Fasting and Diet Planner with Progress Tracking Mobile Application** " I am conducting this survey to gather data that will help shape my research and application development.

Your participation is greatly appreciated, and your input will contribute significantly to the success of my project. The survey will only take a few minutes to complete, and all responses will remain confidential.

For any enquiries, feel free to reach out to me!
Contact: 010-5378431

Gender *

☐ Male

☐ Female

How often do you engage in physical exercise? *

☐ Daily

☐ 2-3 times a week

☐ Once a week

☐ Rarely

☐ Never

What kind of workouts do you prefer? *

- ☐ Cardio (e.g., running, cycling)
- ☐ Strength training (e.g., weightlifting)
- ☐ Yoga / Pilates
- ☐ Flexibility & stretching
- ☐ Other...

How do you currently track your calorie intake? *

- ☐ I use an app
- ☐ I track manually (e.g., pen and paper)
- ☐ I don't track my calories
- ☐ Other...

Would you be interested in tracking your fasting hours through an app? *

- ☐ Yes
- ☐ No
- ☐ Maybe, depending on the features

What would motivate you to use a fitness app regularly? *

- ☐ Personalized workout plans with AI chatbot
- ☐ Progress tracking and visualizations (e.g., graphs)
- ☐ Easy tracking of meals and calories
- ☐ Reminders and notifications for workouts/fasting
- ☐ Other...

2) Usability Questionnaire

FYP2 Final Year Project Survey: MyAI-Fitdy: AI-powered Workout, Fasting and Diet Planner with Progress Tracking Mobile Application

B *I* U  

Hello, and thank you for visiting my survey!

My name is Irdina Imaani binti Md Razani, and I am a final-year Software Engineering student at UNIMAS. As part of my final year project titled " **MyAI-Fitdy: AI-powered Workout, Fasting and Diet Planner with Progress Tracking Mobile Application** " I am conducting this survey to gather data that will help shape my research and application development.

Your participation is greatly appreciated, and your input will contribute significantly to the success of my project. The survey will only take a few minutes to complete, and all responses will remain confidential.

For any enquiries, feel free to reach out to me!

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Contact: 010-5378431

Thank you for your time and support! ✨

Gender *

☐ Male

☐ Female

Did you ever used a fitness app before? *

- ☐ Yes
- ☐ No

How often do you use fitness or fasting tracking apps? *

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Often
- ☐ Very Often

How useful do you find the MyAI-FitDy application? *

- ☐ Not useful
- ☐ Slightly useful
- ☐ Moderately useful
- ☐ Very useful
- ☐ Extremely useful

Was the AI chatbot able to answer your questions clearly? *

- ☐ Yes
- ☐ No
- ☐ Sometimes

How would you rate the usability of the fasting tracker? *



How would you rate the usability of the calorie tracker? *

1	2	3	4	5
☆	☆	☆	☆	☆

Was the weight tracking graph easy to understand? *

- ☐ Yes
- ☐ No
- ☐ Not sure

Was the app responsive and smooth during usage? *

1	2	3	4	5
☆	☆	☆	☆	☆

Do you think MyAI-FitDy meets its main objective of helping users manage fitness and fasting? *

- ☐ Yes
- ☐ No
- ☐ Maybe

Would you recommend MyAI-FitDy to others? *

- ☐ Definitely not
- ☐ Probably not
- ☐ Not sure
- ☐ Probably yes
- ☐ Definitely yes

The app was easy to navigate and understand. *

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

I was able to find the all features without difficulty. *

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

The chatbot or assistant feature helped guide my interaction effectively. *

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

The visual design and layout were attractive and well-organized. *

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

What part of the app was confusing or difficult to use? *

- ☐ AI Workout Assistant
- ☐ Calorie tracker
- ☐ Fasting Timer
- ☐ Weight Progress

What did you find most useful or enjoyable about this application? *

Long-answer text