



**AN-NAJAH NATIONAL UNIVERSITY
FACULTY OF ENGINEERING AND
INFORMATION TECHNOLOGY
COMPUTER ENGINEERING
DEPARTMENT**

*Software Graduation Project
Diet Wizard*

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PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE BACHELOR'S
DEGREE IN COMPUTER ENGINEERING.

Dedication

To the ones who supported us and fueled our journey—our families, friends, and mentors. This project is as much yours as it is ours. Thank you from our hearts for the unwavering support.

Acknowledgment

We extend our heartfelt gratitude to the entire An-Najah National University community and our dedicated teachers for their invaluable support and guidance. Our sincere appreciation goes to our families and friends who stood by us through thick and thin, providing unwavering encouragement.

A special acknowledgment is reserved for Dr. Manar Qamhieh, our supervisor, whose time, support, and trust were instrumental in the success of our project.

Disclaimer

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Contents

Dedication	1
Acknowledgment	2
Disclaimer	3
Abstract	9
1 Introduction	10
1.1 Problem Statement	10
1.2 Significance	10
1.3 Objectives and Scope	11
1.4 Report Organization	11
2 Theoretical Background and Previous Work	12
2.1 Background	12
2.1.1 Learning New Technologies in a Short Time	12
2.1.2 Designing a User-Friendly Experience Quickly	12
2.1.3 The Effects of the Intense War on the Gaza Strip	12
3 Literature Review	13
3.1 Emerging Trends in Digital Health Solutions	13
3.2 Special Attributes of Our Platform	13
3.2.1 Unified Approach to Diet and Fitness	13
3.2.2 Seamless Coach Communication	13
3.2.3 Real-Time Progress Tracking	13
3.3 Similar Projects	14
4 Development Strategy and Technology	14
4.1 Mobile Application	14
4.2 Web Application	14
4.3 Database	15

4.4	Firebase	15
4.5	External API	15
4.6	Testing and QA	15
5	Implementation and Features	16
5.1	Sign-in and Sign-up	16
5.2	Main Page	19
5.3	Notifications Page	21
5.4	Chat Page	21
5.5	Community Page	22
5.6	My Post Page	24
5.7	Marketplace Page	24
5.8	BMI Page	25
5.9	BFP Page	27
5.10	Add Product Page	28
5.11	Shopping Page	29
5.11.1	Cart Product Shopping	29
5.12	Food Page	31
5.12.1	Cart Food	32
5.13	Report Pages	33
5.14	Show Coaches Pages	34
5.15	Timer Pages	35
5.16	Reminder Page	36
5.17	Water Intake Page	37
5.18	Coach Life	38
5.19	Goals Page	39
5.20	Chat Bot Page	41
5.21	User Template Page	42
5.22	Progress Photo Page	43
5.23	Coach Rating Page	44
5.24	Weight Report Page	46

5.25	Diary Food Page	47
5.26	Profile Page	54
5.27	More Page	54
5.28	Admin Web Pages	55
5.28.1	Login Page	55
5.28.2	Main Page	56
5.28.3	Exercises Page	57
5.28.4	Show All Exercises Page	58
5.28.5	Category Exercises Page	59
5.28.6	Product Page	60
5.28.7	User And Coach Page	61
6	Future Work	62
7	Conclusion and Recommendations	62
7.1	Conclusion	62
7.2	Recommendations	63
8	Bibliography	64

List of Figures

1	Sign-in Page	16
2	Sign-up Page	17
4	Main Page	19
5	Coach Information's And Feature Main Page	20
6	Notifications Page	21
7	Chatting Page	22
8	Community Page	23
9	My Post Page	24
10	Marketplace Page	25
11	BMI Page	26
12	BFP Page	27
13	Add Product Page	28
14	Shopping Page	29
15	Cart Product Shopping Page	30
16	Food Page	31
17	Cart Food Page	32
18	Report Page	33
19	Coaches Page	34
20	Timer Page	35
21	Reminder Page	36
22	Water Intake Page	37
23	Coach Life Page	38
25	Goals Page	40
26	Chat Bot	41
27	User Template Page	42
28	Progress Photo Page	43
30	Coach Rating Page	45
31	Weight Report Page	46
32	Diary Food Page	48

38	Profile Page	54
39	More Page	55
40	Login Page Admin	56
41	Main Page For Admin	56
42	Main Page Category For Admin	57
43	Exercises Page For Admin	57
44	Show All Exercises Page For Admin	58
45	Category Exercises Page For Admin	59
46	Example Type of muscle(ABS) Page For Admin	59
48	Product Page For Admin	60
49	User And Coach Page For Admin	61
50	Coaches Information's Page For Admin	61
51	Users Information's Page For Admin	62

Abstract

Our project is an easy and fun app and website designed to help individuals achieve fitness goals. Introducing DietWizard, an all-in-one platform that simplifies diet and fitness management, making it easier to lose weight and maintain a healthy lifestyle. One major problem with current diet-related apps is the difficulty users face in connecting with their coaches. Typically, they have to switch between multiple apps or social media platforms to communicate and track progress, which can be confusing and inconvenient. DietWizard solves this by combining diet tracking and fitness coaching into a single, seamless platform. Users can track their food intake and fitness progress, whether they aim to lose weight or maintain their current weight. The app caters to three types of users: normal users, who are individuals wanting to lose weight or maintain a healthy lifestyle; coaches, who provide guidance, support, and personalized advice; and administrators, who ensure the smooth operation of the platform and manage content. Key features of the app include login/signup for easy access, target selection for choosing goals like losing weight or maintaining weight, a community section for engaging with other users and sharing experiences, a daily summary for getting an overview of progress and achievements, exercise pages for accessing various workout routines, a food diary for logging daily food intake, a water consumption tracker for monitoring hydration levels, and a marketplace for finding and purchasing fitness-related products. Coaches have access to specialized features such as profile information management, trainee management, community posting, and direct chat functionality with trainees. Administrators can add coaches, foods, exercises, and manage the platform's content to ensure quality and smooth operations. DietWizard also integrates notifications to keep users informed about their goals and progress. We are developing a mobile application to ensure accessibility and convenience. In summary, DietWizard is a comprehensive solution for managing diet and fitness, offering a user-friendly interface tailored to meet the needs of individuals, coaches, and administrators.

1 Introduction

In today's rapidly evolving fitness and wellness landscape, many people struggle with managing their diet and fitness goals effectively. Our project introduces DietWizard, a comprehensive mobile application designed to address these challenges by providing a unified platform for diet tracking and fitness coaching. DietWizard simplifies the process of losing weight and maintaining a healthy lifestyle by integrating all necessary tools in one place. Users can easily track their food intake and fitness progress, while coaches can provide personalized guidance and support, all within a single, seamless platform. Administrators ensure the smooth operation of the app, resolving disputes and managing content to maintain a high-quality user experience. By combining diet tracking, fitness coaching, and community support, DietWizard offers a holistic solution tailored to meet the diverse needs of individuals, coaches, and administrators in their journey towards better health and fitness.

1.1 Problem Statement

The main problem we're addressing is that many individuals struggle to manage their diet and fitness goals effectively. Currently, there isn't a single platform where users can easily track their food intake, monitor their fitness progress, and communicate with their coaches. People often have to use multiple apps or social media platforms to keep track of their diet and fitness, which can be confusing and inefficient. Additionally, coaches find it challenging to provide consistent guidance and support due to the fragmented nature of existing tools.

Another significant issue is the lack of integration between diet tracking and fitness coaching. Users often face difficulties in receiving personalized advice tailored to their specific goals, whether it's losing weight or maintaining a healthy lifestyle. This disjointed approach makes it hard for individuals to stay motivated and achieve their fitness objectives.

Our project aims to solve these problems by creating DietWizard, an app and website where all necessary tools for diet and fitness management are integrated into one platform. This will streamline the process, making it easier for users to achieve their health goals and for coaches to provide effective support. DietWizard will offer a seamless, comprehensive solution that caters to the diverse needs of individuals, coaches, and administrators in the fitness and wellness community.

1.2 Significance

The significance of DietWizard lies in its integrated approach to diet and fitness management, offering a single platform for tracking food intake, monitoring fitness progress, and communicating with coaches. This simplifies the user experience, enhances motivation, and improves results. For coaches, it provides streamlined tools for efficient support and better client relationships. Administrators benefit from smooth operation and content

management. Overall, DietWizard revolutionizes health management by making it more accessible and effective for all users.

1.3 Objectives and Scope

1. Simplify Diet and Fitness Tracking :
Create an intuitive platform where users can easily log their food intake, monitor fitness progress, and stay motivated towards their health goals.
2. Enhance Communication :
Facilitate seamless communication between users and coaches .
3. Integrate Essential Tools :
Combine all necessary diet and fitness management tools into one app, eliminating the need for multiple platforms and improving user convenience.
4. Support Personalized Plans :
Enable coaches to design and track personalized diet and fitness plans for their trainees, ensuring tailored advice that aligns with individual goals.

1.4 Report Organization

- Second Chapter(Theoretical Background and Previous Work):
This chapter explores the project’s inception, key challenges, and the impact of external factors such as the ongoing conflict in the Gaza Strip.
- Third Chapter (Literature Review):
This chapter explores the process of choosing the project idea and establishing the project goals. It reviews emerging trends in digital health solutions, the special attributes of the platform, and similar projects.
- Fourth Chapter (Development Strategy and Technology):
This chapter details the development strategy and the technologies used for creating the mobile and web applications and databases.
- Fifth Chapter (Implementation and Features):
This chapter provides a detailed description of the implementation process and the features of the application, including various pages and functionalities offered by DietWizard.
- Sixth Chapter (Future Work):
This chapter outlines potential future enhancements and additional features that could be integrated into the platform to improve its functionality and user experience.
- Seventh Chapter (Conclusion and Recommendations):

This chapter concludes the project and offers recommendations for the continual improvement and efficacy of DietWizard.

2 Theoretical Background and Previous Work

In this chapter, we explore the beginnings of our project and the challenges we encountered throughout its development.

2.1 Background

The idea for our project emerged from a clear need to address the issues faced by individuals struggling with overweight and obesity. Recognizing the health risks such as heart disease and diabetes, we saw the importance of managing diet and fitness effectively. Current diet-related applications often fail to seamlessly connect users with their coaches, requiring multiple apps or social media platforms to track progress and communicate, leading to confusion. Thus, the concept of the DietWizard Application was born—a unified platform that combines diet tracking and fitness coaching, making it easier for users to achieve their health goals by keeping everything in one place.

2.1.1 Learning New Technologies in a Short Time

Limited time was one of the big challenges we faced. We only had four months to quickly learn and use new programming tools and techniques. This difficult task required a lot of hard work and good time management to finish our project on time. In addition to the presence of other materials and internship, this requires more time and effort.

2.1.2 Designing a User-Friendly Experience Quickly

Creating an app that looks good and is easy to use was a big challenge, especially with a short deadline. Making sure the app worked well on different devices added to the difficulty, given the limited time we had for development.

2.1.3 The Effects of the Intense War on the Gaza Strip

The biggest challenge we faced was the brutal war on the Gaza Strip that started on 7/10 and is still ongoing as the report is being written. This war took a heavy mental and emotional toll on our team. Coping with the psychological effects of the war while trying to stay focused on our project was very difficult. The war caused not only emotional stress but also logistical problems, making it hard for us to communicate and work together effectively.

3 Literature Review

This chapter provides an overview of the background research that informed the development of our unique Tracking platform. While there are existing websites offering similar services, our project distinguishes itself with several innovative features tailored for today's diet persons.

3.1 Emerging Trends in Digital Health Solutions

In recent years, there has been a growing interest in integrated digital health platforms that consolidate diet tracking, fitness coaching. These platforms aim to streamline the user experience by offering a one-stop solution for individuals seeking to improve their health and fitness.

3.2 Special Attributes of Our Platform

The success of any digital health platform hinges on its ability to offer unique and valuable features that set it apart from existing solutions. In this section, we explore the special attributes of the DietWizard Application that distinguish it from other diet and fitness management platforms and apps.

3.2.1 Unified Approach to Diet and Fitness

Unlike traditional applications that segregate diet tracking and fitness coaching into separate interfaces, DietWizard adopts a unified approach by integrating these components into a single platform. This cohesive design not only simplifies the user experience but also enhances the effectiveness of health management by providing users with a comprehensive toolkit for achieving their goals.

3.2.2 Seamless Coach Communication

One of the standout features of DietWizard is its seamless communication interface, which facilitates direct interaction between users and their coaches. Unlike existing applications that often require users to switch between multiple apps or social media platforms to connect with their coaches, DietWizard offers an integrated messaging system within the platform. This eliminates the need for cumbersome communication workflows and ensures that users can easily seek guidance and support from their coaches whenever needed.

3.2.3 Real-Time Progress Tracking

Monitoring progress is a crucial aspect of any diet and fitness regimen, and DietWizard excels in this regard with its real-time tracking capabilities. Users can effortlessly track

their dietary intake, exercise routines, and progress towards their fitness goals within the app.better health and fitness.

3.3 Similar Projects

We researched similar projects and apps and found that while some partially covered aspects of our idea, they lacked key features we aim to provide. Specifically, existing apps did not include a seamless chat function between trainers and their trainees. This gap highlights the unique value DietWizard brings to the market by integrating comprehensive diet and fitness tracking with robust communication tools, enhancing the user experience and ensuring effective support and guidance from coaches.

4 Development Strategy and Technology

4.1 Mobile Application

To make DietWizard easy to use for everyone, we created a mobile app packed with all the important features. We used Flutter to build the app because it lets us write just one set of code that works on different devices, saving us time and effort. Flutter has a strong community and can make fast and powerful apps, which is perfect for what we need. With features like hot reload (which quickly shows changes) and lots of ready-made tools, Flutter helps our developers work fast and make sure the app runs smoothly for users.

4.2 Web Application

For DietWizard's web component, we crafted a comprehensive and accessible website that includes all the functionalities present in our mobile app. To achieve this, we utilized Node.js with Express for the backend and Vanilla JavaScript, HTML, CSS, and Bootstrap for the frontend. Node.js and Express were chosen for their robustness and scalability, allowing us to build a high-performance web platform. The MVC (Model-View-Controller) architecture ensures efficient management of the website's logic and presentation, enhancing maintainability and scalability.

Vanilla JavaScript, along with HTML and CSS, was used to create a dynamic and interactive user interface. Bootstrap was incorporated to streamline the design process and ensure a responsive layout, providing users with a seamless and engaging experience across various devices.

A unique feature of our website is the inclusion of a control panel designed specifically for administrators and supervisors. This control panel, developed with the same Node.js, Express, and Vanilla JavaScript technologies, provides a streamlined interface for managing the platform's content, user activities, and overall functionality.

4.3 Database

For our DietWizard project, we selected MongoDB as the preferred database to pair with our Node.js backend. MongoDB's seamless integration with Node.js and its flexible, schema-less nature make it an ideal choice for our application's needs. Utilizing MongoDB with Node.js allows for efficient handling of JSON-like documents, which aligns well with the JavaScript environment of our full-stack development.

MongoDB's powerful query language simplifies database interactions, facilitating efficient management of operations with Node.js and various Object Data Mappers like Mongoose. This combination boosts scalability and performance. Its open-source nature and strong community support ensure cost-effectiveness, ample troubleshooting resources, and best practices. MongoDB's scalability, high performance, and advanced security features make it reliable for handling large data volumes and complex queries securely and efficiently, aligning perfectly with our aim of developing a robust and scalable fitness management platform.

4.4 Firebase

Firebase is paramount for software application chatting due to its real-time database capabilities, enabling instant messaging without delay. Its synchronization across devices ensures seamless communication experiences for users regardless of platform or location. Firebase Authentication provides robust security measures, safeguarding sensitive user data within the chat application. Additionally, Firebase Cloud Messaging ensures efficient message delivery, enhancing the reliability of the chatting platform.

4.5 External API

To enhance the functionality of DietWizard, we integrated the Ninja API to provide detailed nutrition information. The Nutrition API from Ninja API extracts nutrition data using natural language processing. To calculate the corresponding nutrition data accurately.

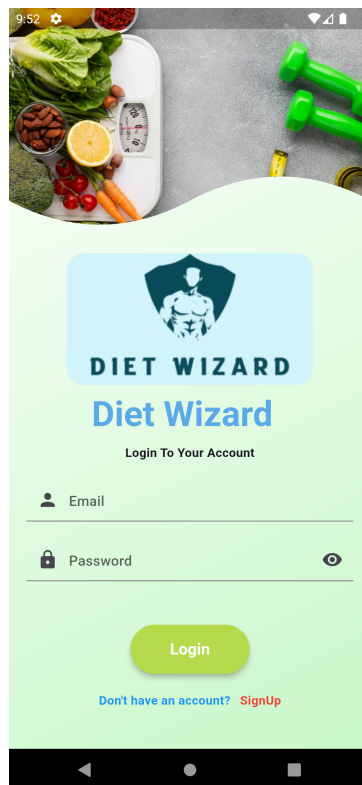
4.6 Testing and QA

For testing and ensuring the quality of our platform, especially the backend functions, we rely on a tool called Postman. Postman is great because it lets us test our server's responses and requests without needing the front end to be ready. This means we can check if our app's backend is working correctly, like making sure it sends back the right data when asked. We use Postman to run tests on different parts of our app's backend, helping us catch any issues early on. This way, we make sure everything runs smoothly and efficiently, providing a reliable and seamless experience for our users.

5 Implementation and Features

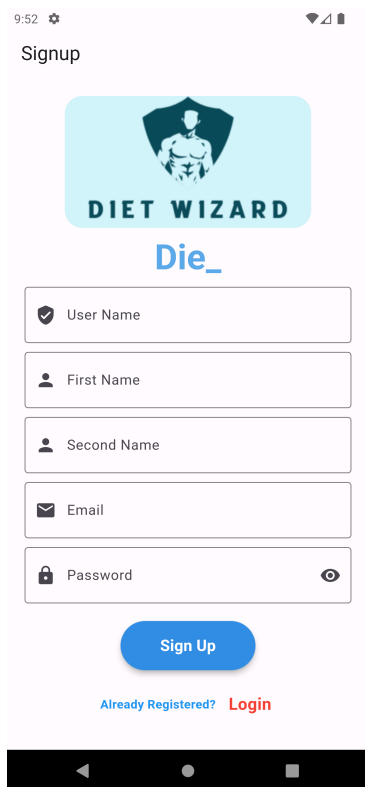
5.1 Sign-in and Sign-up

When you open the app on your Mobile , the first thing you see is the login page. This page is for Normal User , Coaches, and Admin. If you're new, you can set up a new account. Just click on "SignUp" and type in some details like your User name, First Name , Second Name, Email, and Password. After you fill in your info and we check it, you'll go to the Target Page Then Choose Activity Level Then Specific information Then TDEE Calculators, After that if user is coach go to coach information .

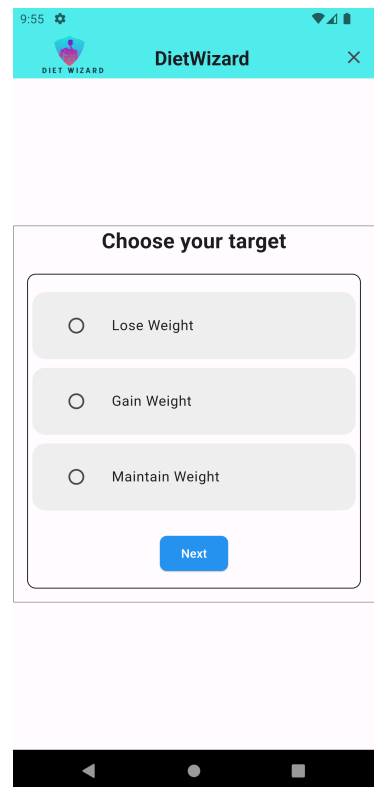


(a) Login Page

Figure 1: Sign-in Page

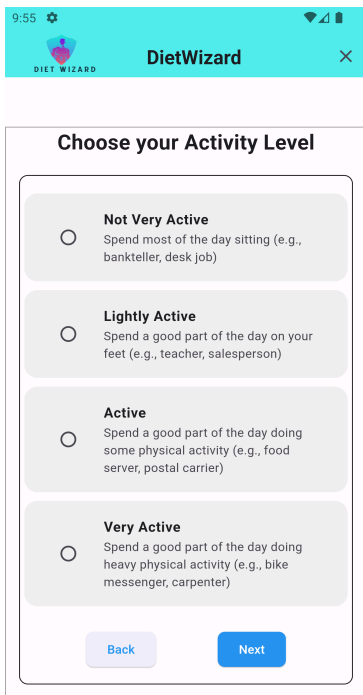


(a) Sign up User

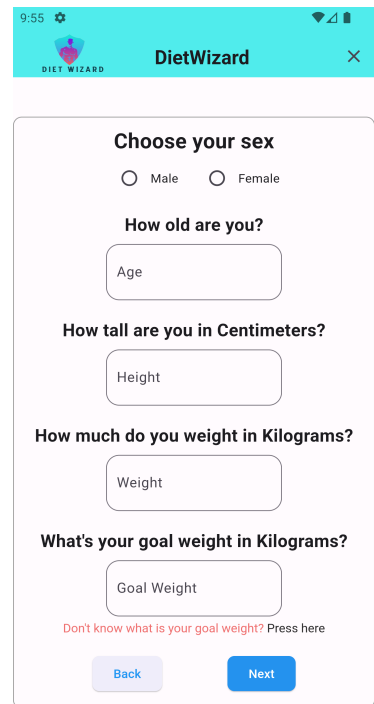


(b) Choose Target User

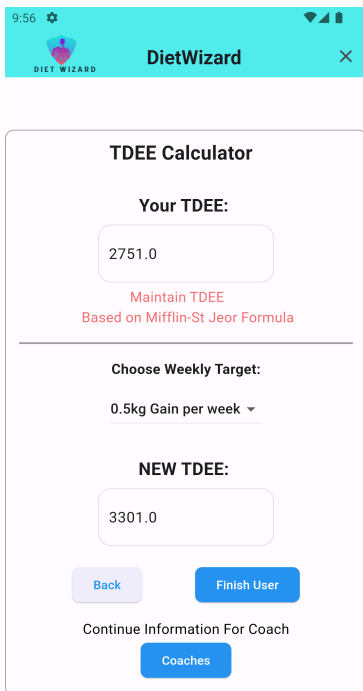
Figure 2: Sign-up Page



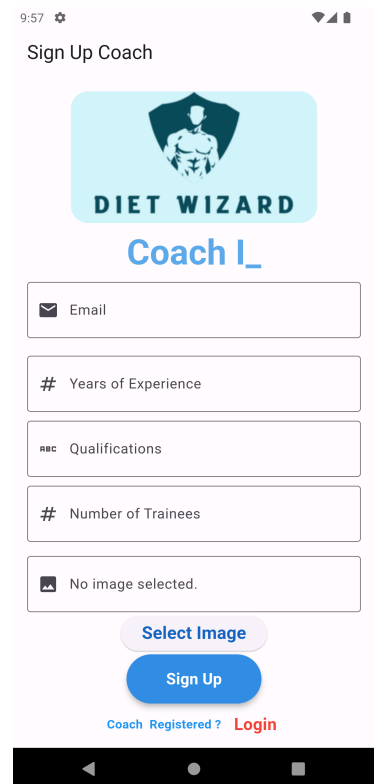
(a) Choose Activity Level



(b) Specific information



(c) TDEE Calculators

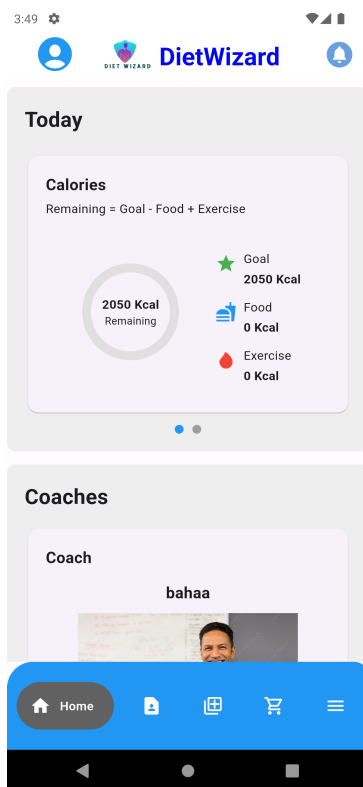


(d) Information Coach

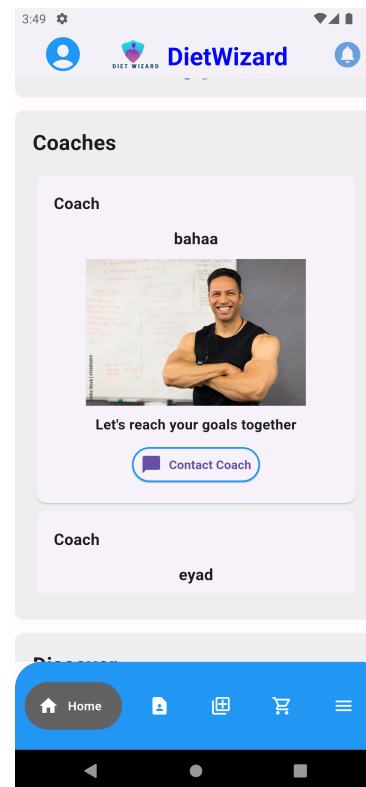
5.2 Main Page

This is the main (home) page, the first page you see when you sign in. It includes:

- 1- A summary of today's calorie and macro consumption.
- 2- A section displaying the coaches available in the system.
- 3- Discover features that allow users to navigate and interact.

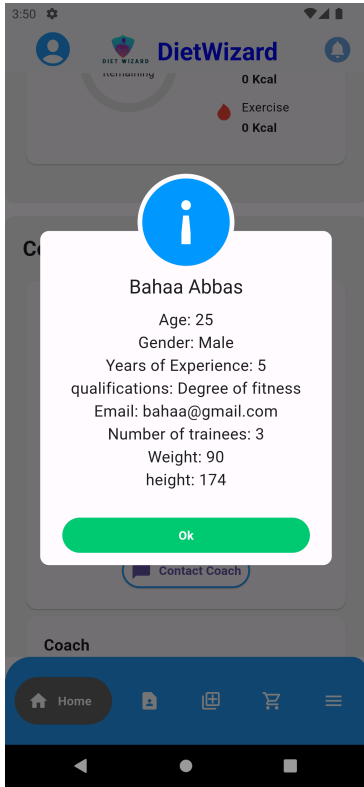


(a) Main Page

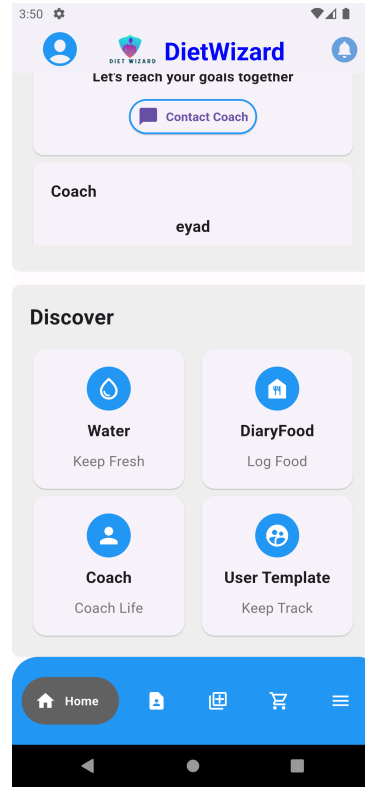


(b) Show coaches

Figure 4: Main Page



(a) Coaches Informations.

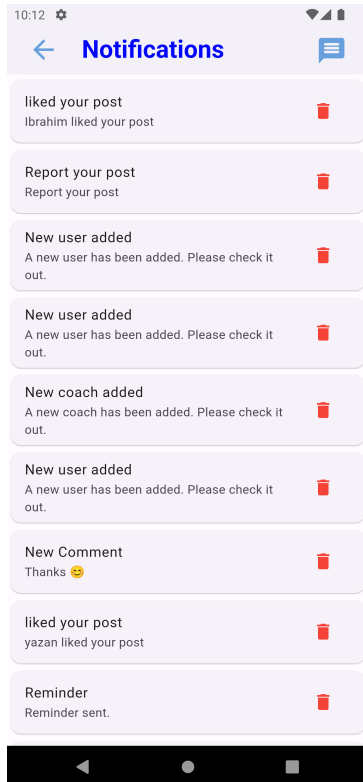


(b) Feature Main Page

Figure 5: Coach Information's And Feature Main Page

5.3 Notifications Page

This is the Notification page where notifications are displayed for the user.

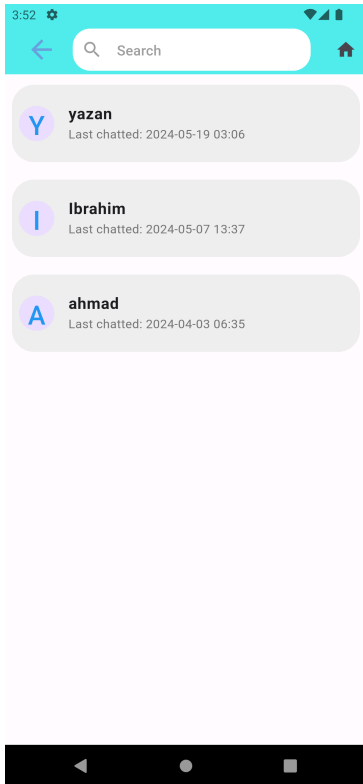


(a) Notifications Page

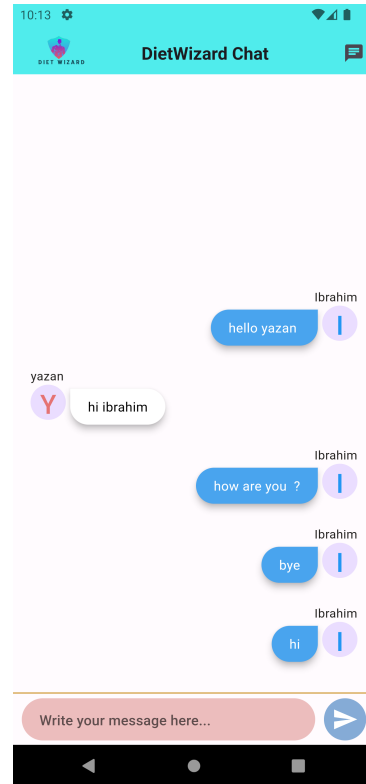
Figure 6: Notifications Page

5.4 Chat Page

This is the Chatting page. Here, you can see the users you've already chatted with and the last time you interacted with them. There's also a search field to find a specific user to chat with. If you select any chat, the messages and content of that conversation will be displayed.



(a) List chat

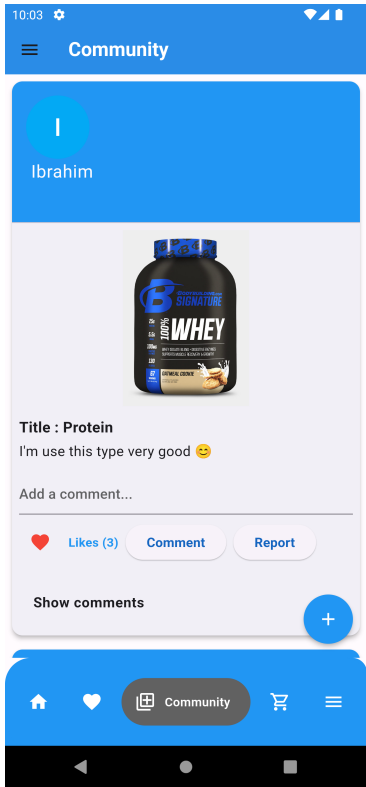


(b) Chat messages

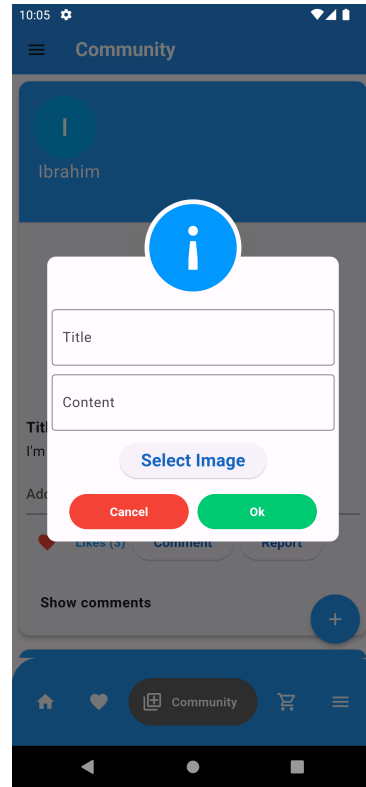
Figure 7: Chatting Page

5.5 Community Page

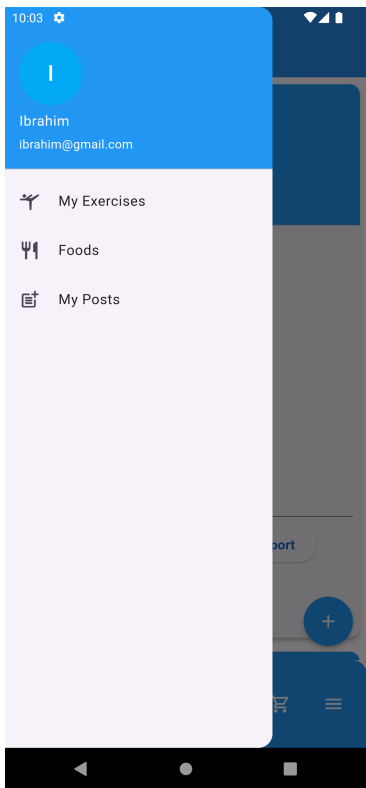
This page displays posts from all users. Anyone can share their thoughts about a product, and others can give their opinions. Posts can get likes and comments. If a post violates the rules and is reported by enough users, it will be automatically hidden. The administrator will also receive a notification about the reported post. In addition, it contains a button to add the post and a side bar to access some pages.



(a) Community



(b) Add Post

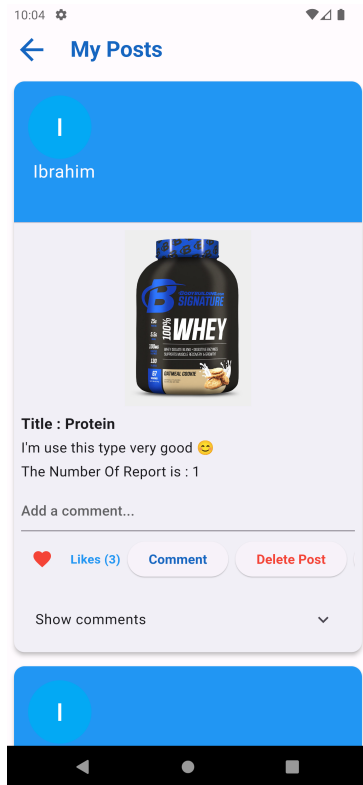


(c) Sidebar

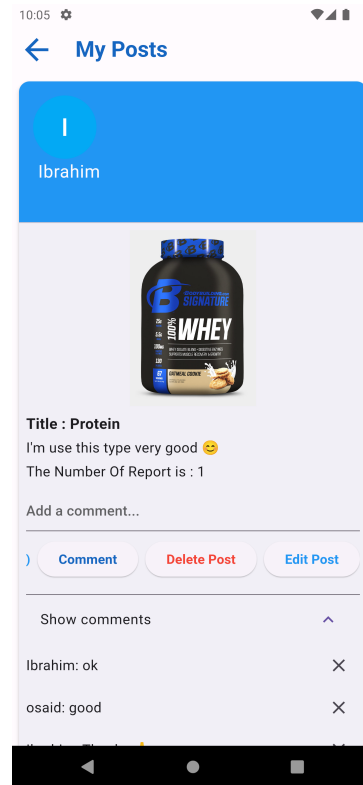
Figure 8: Community Page

5.6 My Post Page

This page displays your posts, and through it you notice the number of reports about the post, in addition to deleting any comment, modifying the post, and deleting the post.



(a) My Post

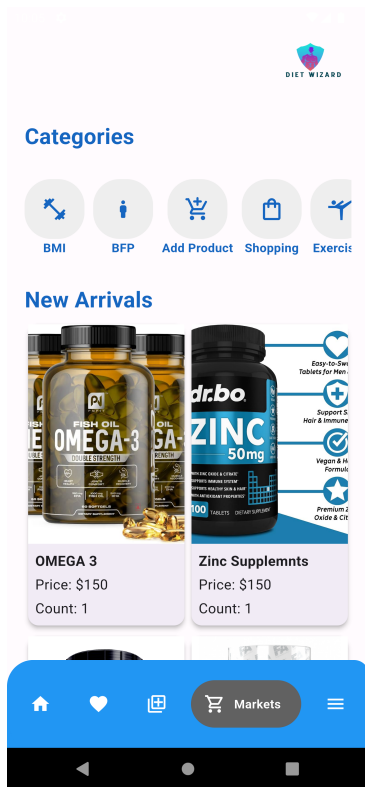


(b) Edit My Post

Figure 9: My Post Page

5.7 Marketplace Page

This page has links to many other pages that are easy to reach from here. It also shows the most recently added products.

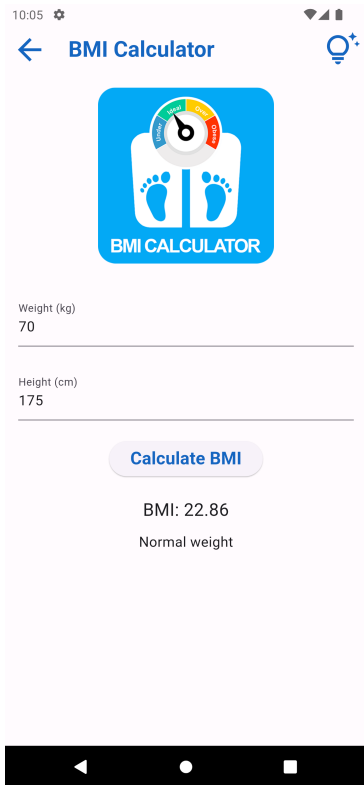


(a) Marketplace

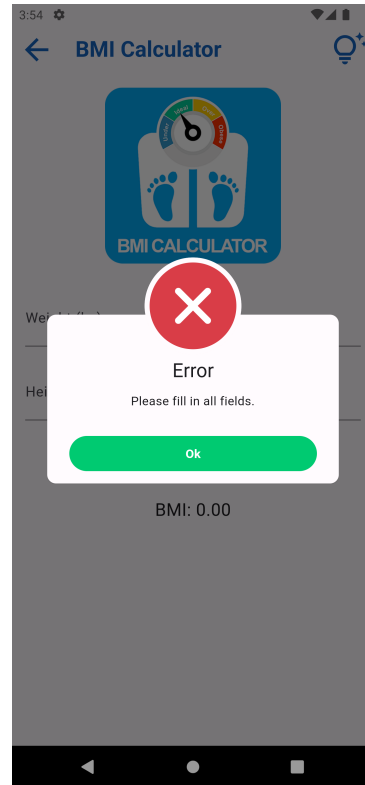
Figure 10: Marketplace Page

5.8 BMI Page

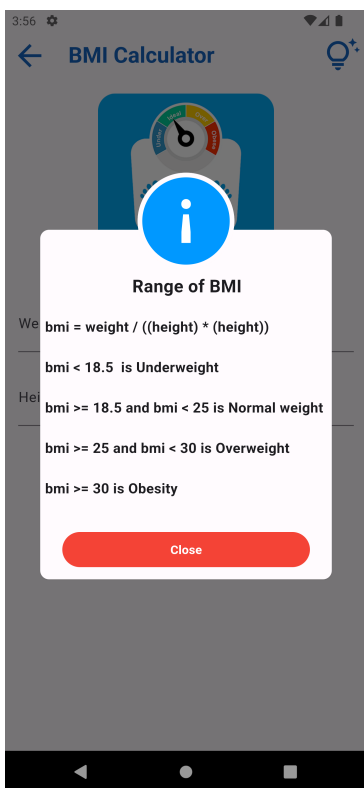
This page calculates your body mass index (BMI) when you enter your weight and height. There is a button at the top that explains how the calculation works. If you try to calculate without filling in all the fields, a dialog will appear to alert you.



(a) BMI



(b) BMI Error

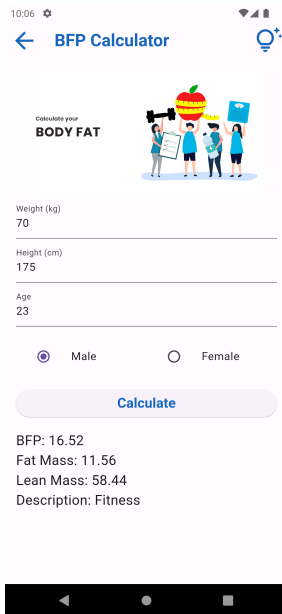


(c) Hint BMI

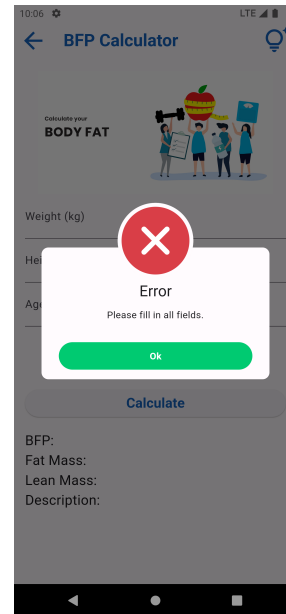
Figure 11: BMI Page

5.9 BFP Page

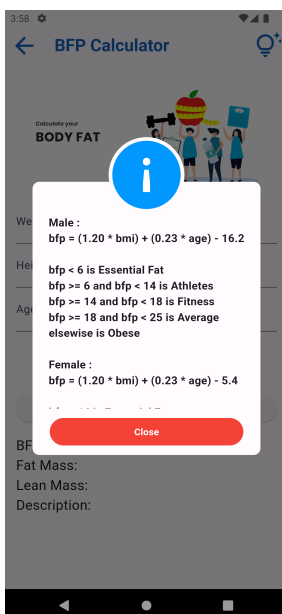
This page calculates your body fat percentage (BFP) when you enter your weight, height, age, and gender. A button at the top explains how the calculation works. If you try to calculate without filling in all the fields, a dialog will appear to alert you.



(a) BFP



(b) BFP ERROR

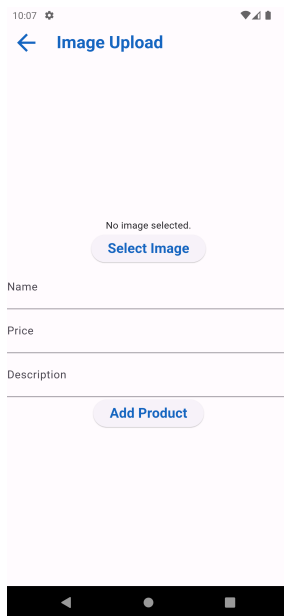


(c) Hint BFP

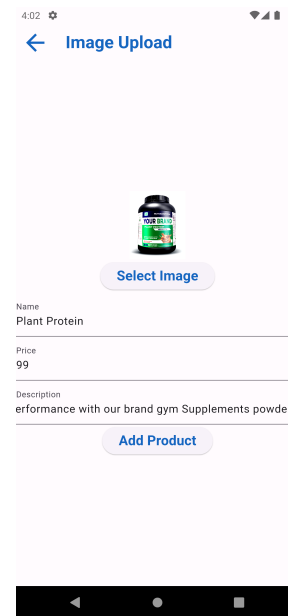
Figure 12: BFP Page

5.10 Add Product Page

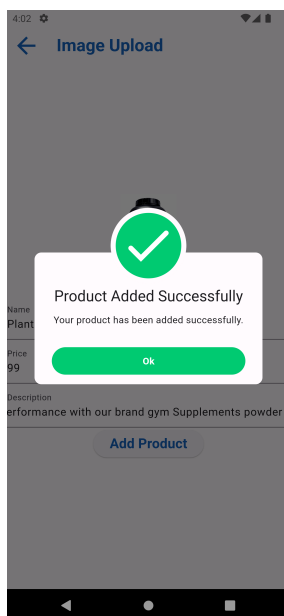
This page is only visible to the admin. Here, the admin can add products by entering the product name, price, description, and selecting an image. If the product is added successfully, a dialog will appear.



(a) Add Product Page



(b) Added product

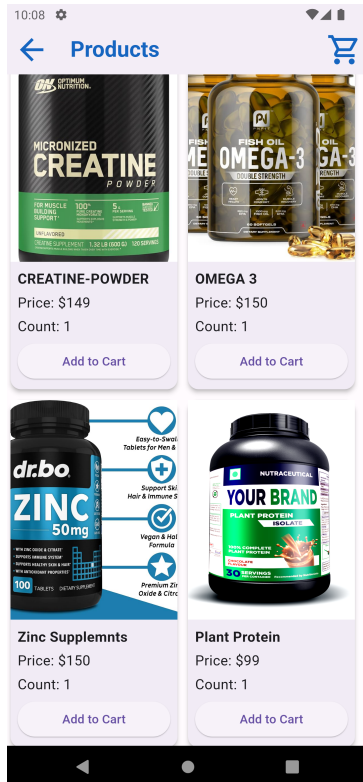


(c) Added Successful Dialog

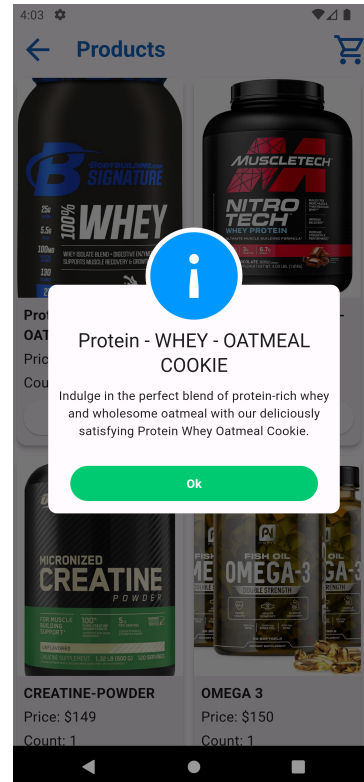
Figure 13: Add Product Page

5.11 Shopping Page

This page is for all users to buy products. It shows the product image, name, price, and available quantity. When you click on a product, you can see its description.



(a) Shopping Page

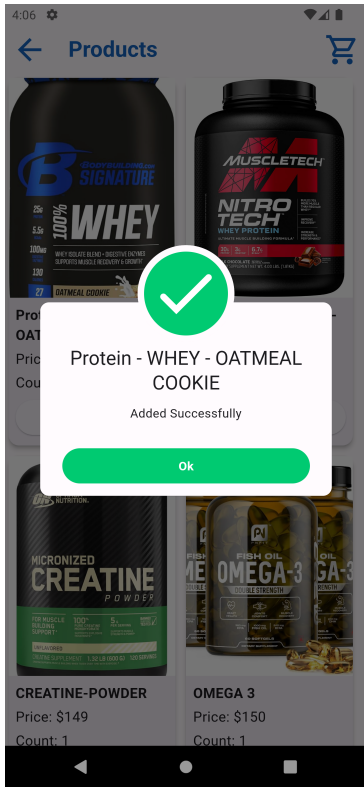


(b) Information Product

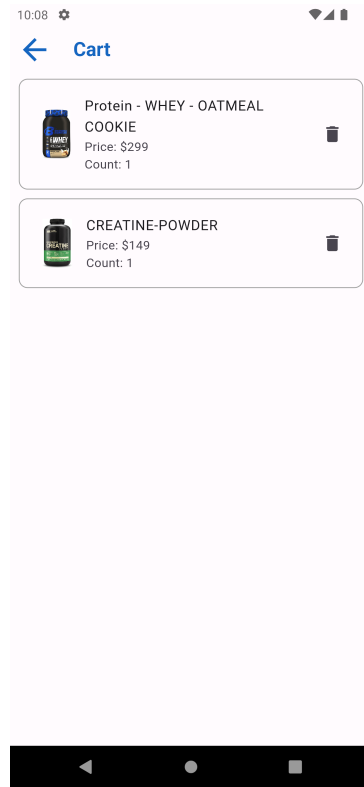
Figure 14: Shopping Page

5.11.1 Cart Product Shopping

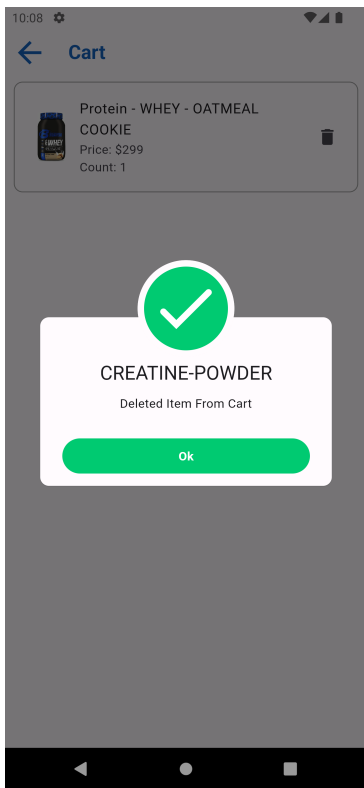
This page continues from the previous one. To buy a product, click "Add to Cart." If the product is added successfully, a dialog appears. Clicking the shopping cart shows all added products. To remove a product, click the trash bin icon.



(a) Add Product To Cart



(b) Cart Item

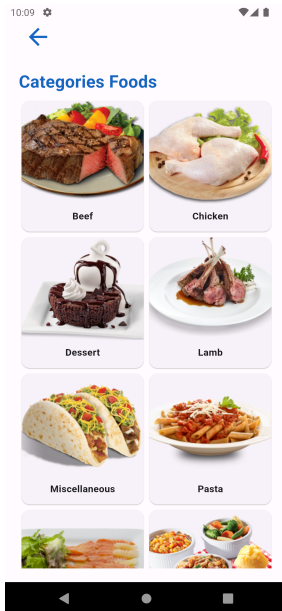


(c) Deleted Successful Dialog

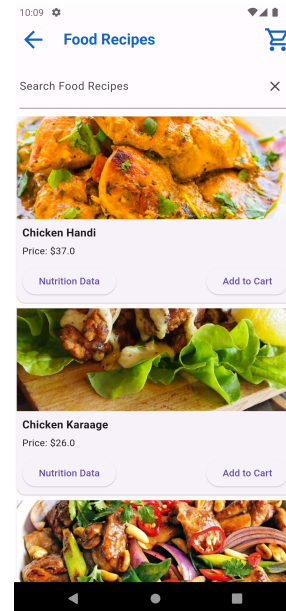
Figure 15: Cart Product Shopping Page

5.12 Food Page

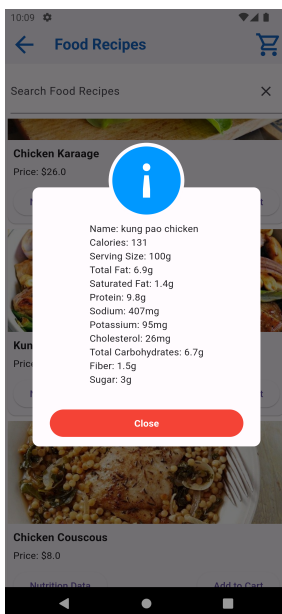
This page is all about food types. When you click on a type, you'll see a list of meals in that category. Each meal shows its picture, name, and price. Clicking on a meal shows its cooking method and ingredients. Clicking on "Nutrition Data" shows the percentages of vitamins in the meal.



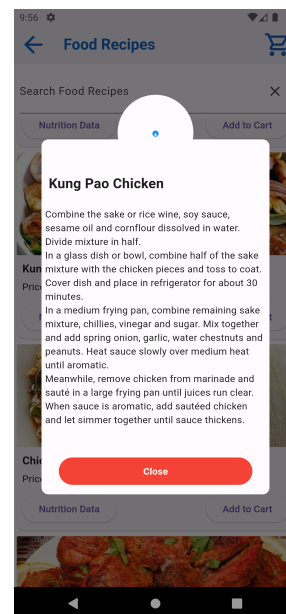
(a) Food Types



(b) Food List



(c) Nitration Food

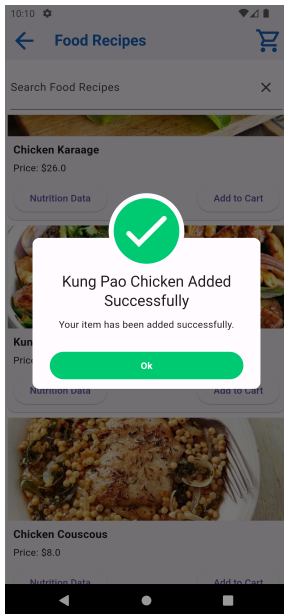


(d) Description Food

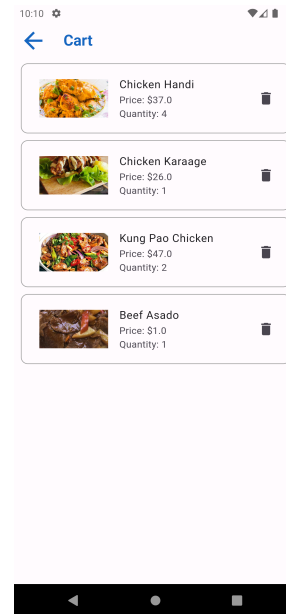
Figure 16: Food Page

5.12.1 Cart Food

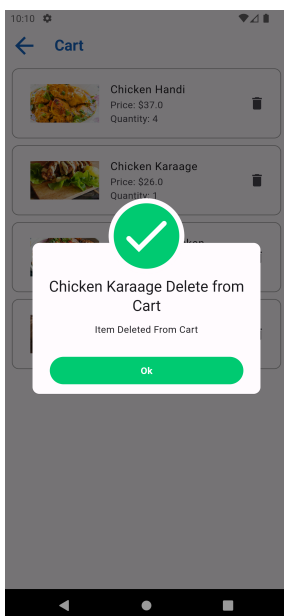
This page continues from the previous one. To buy a meal, click "Add to Cart." If the meal is added successfully, a dialog appears. Clicking the shopping cart shows all added meals. To remove a meal, click the trash bin icon.



(a) Add To Cart Food



(b) Cart Food

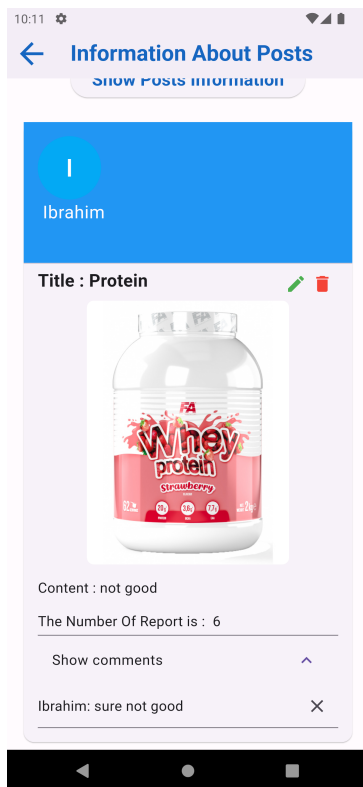


(c) Delete Food From Cart

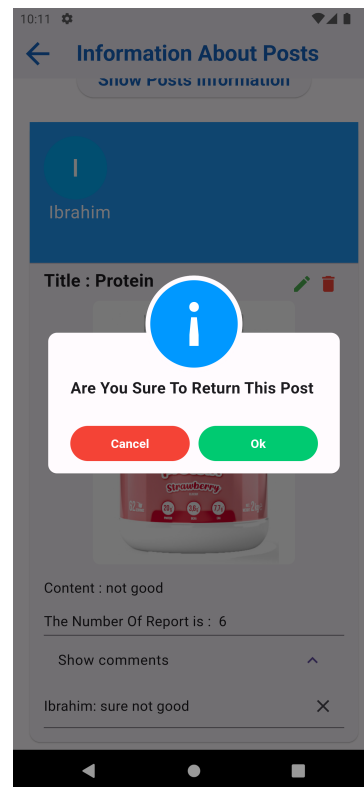
Figure 17: Cart Food Page

5.13 Report Pages

This page is for the admin. When users report a post that's automatically hidden, it shows up here for the admin to review. The admin can either bring the post back or delete it. If it's brought back, the post owner gets a notification.



(a) Report Posts

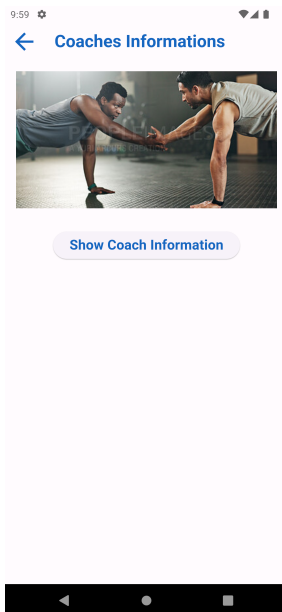


(b) Return Post

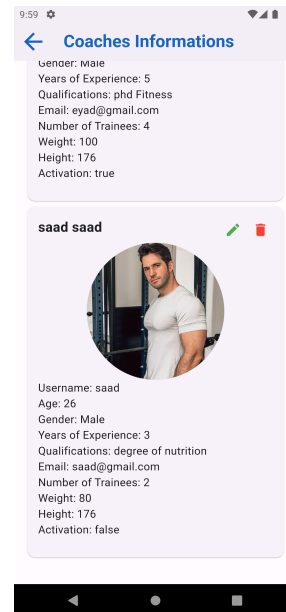
Figure 18: Report Page

5.14 Show Coaches Pages

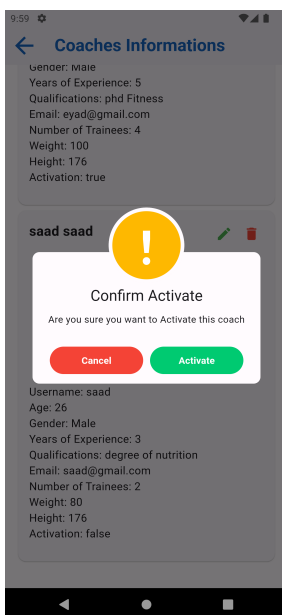
This page is for the admin to see all the coaches who signed up. When a coach signs up and fills in all the info, the admin gets a notification. But at first, the coach is just a normal user. Once the admin approves, the status changes to "coach," and they can access special coach pages.



(a) Show Coaches



(b) Information's Coshes

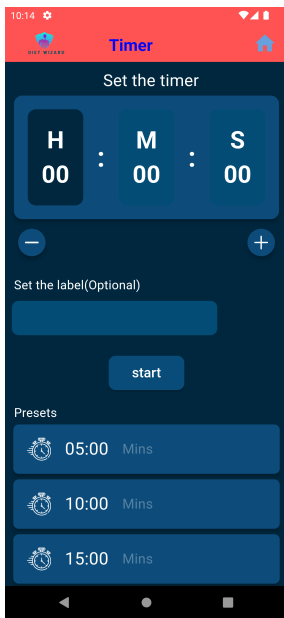


(c) Activate Coach

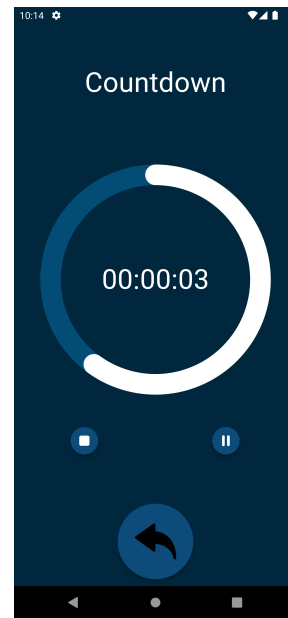
Figure 19: Coaches Page

5.15 Timer Pages

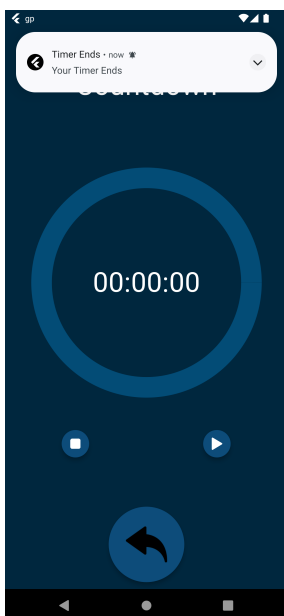
The Timer page allows you to set a countdown timer with an optional label and includes preset timers. When running the timer, you can use the pause and reset buttons. Once the timer ends, it notifies you, and you have the option to start it again.



(a) Timer Page



(b) Timer

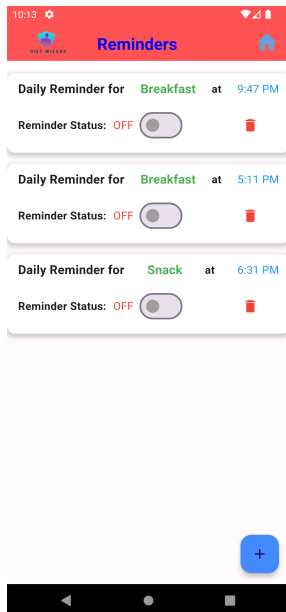


(c) Timer Notifications

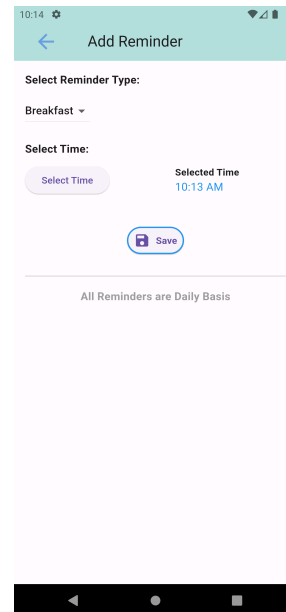
Figure 20: Timer Page

5.16 Reminder Page

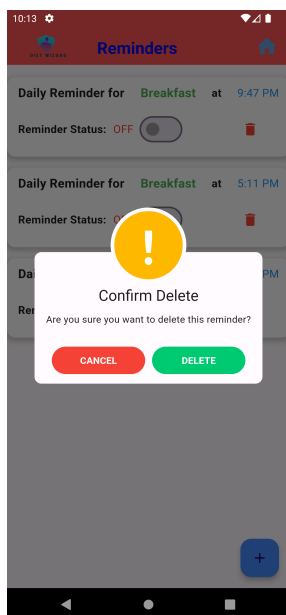
This is the Reminder page, where you can view the reminders you've created. Each reminder has a status indicating if it is ON or OFF, and there is a button to delete the reminder. Additionally, you can set reminders for specific types, such as breakfast or dinner, by choosing the type and setting the timer.



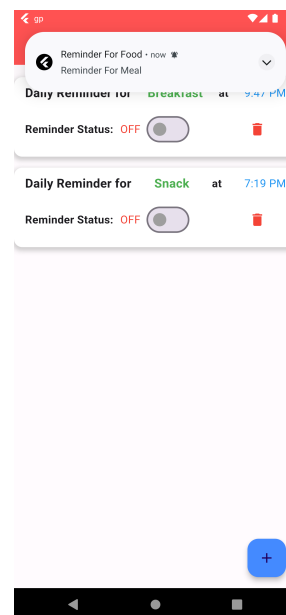
(a) Reminder Page



(b) Add Reminder



(c) Delete Reminder

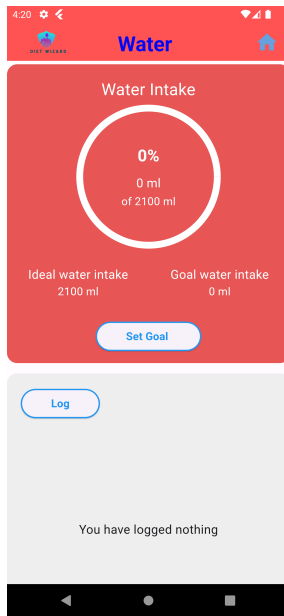


(d) Notification Reminder

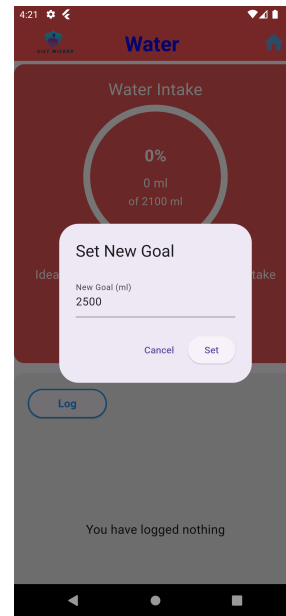
Figure 21: Reminder Page

5.17 Water Intake Page

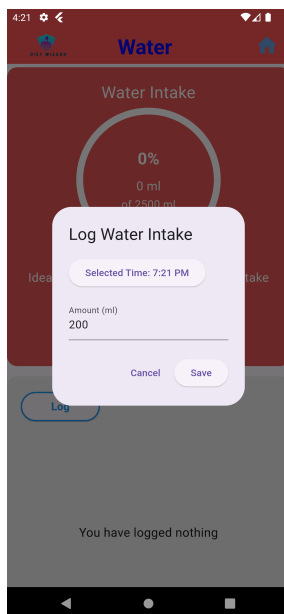
The Water Intake page allows you to view your water intake, featuring an ideal intake pre-calculated based on your information and a goal intake you can set using the 'Set Goal' button. It includes a log summary displaying intake by time and amount, an edit button for modifying or deleting entries, and a Monday-based weekly summary showing daily logged intake.



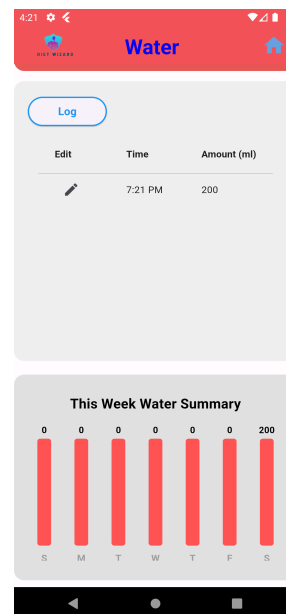
(a) Water Intake Page



(b) Water Set Goal



(c) Log Water

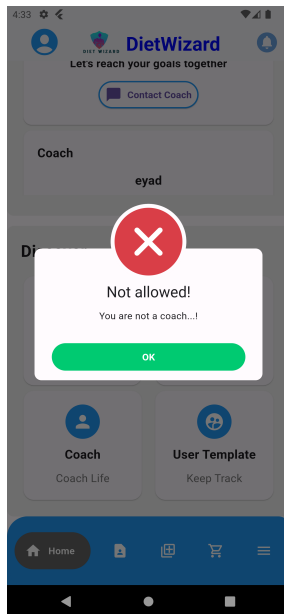


(d) Water Summary

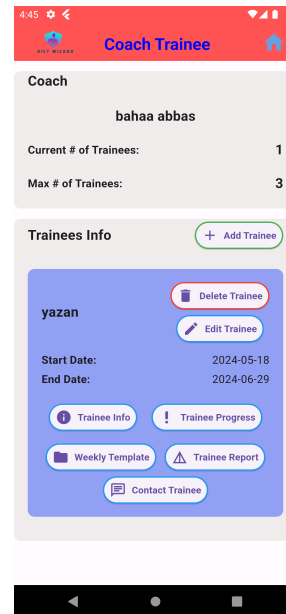
Figure 22: Water Intake Page

5.18 Coach Life

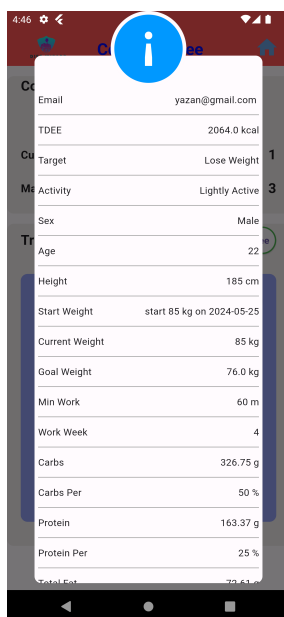
The Coach page, accessible only to coaches, includes coach details displaying the coach's name, current number of trainees, and the maximum number of trainees they can manage. It also lists all the trainees with an 'Add Trainee' button for new additions. For each trainee, there is a summary of their name, subscription dates, and five interactive buttons: Trainee Info for detailed information, Trainee Progress for logged diary entries, Weekly Template for weekly interaction, Trainee Report for trainee reports, and Contact for chatting with the trainee.



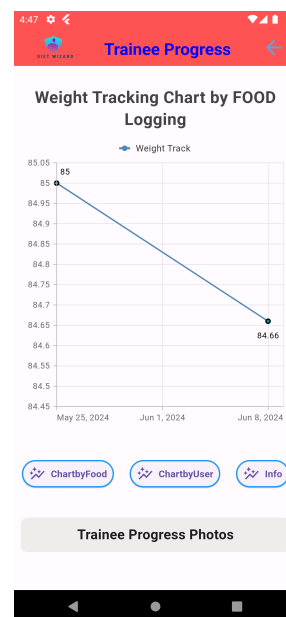
(a) Users Not Allowed



(b) Coach Trainee

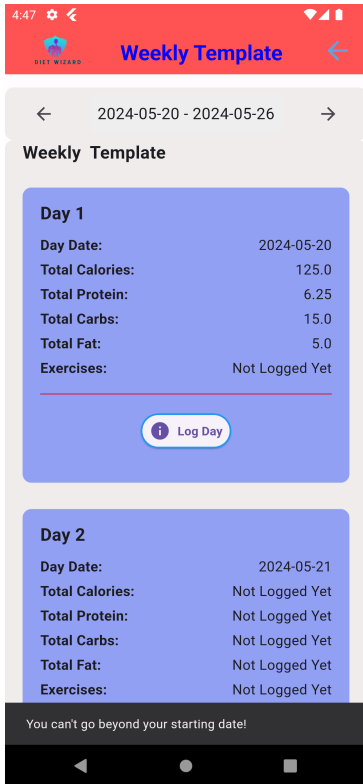


(c) Trainee Info



(d) Trainee Report

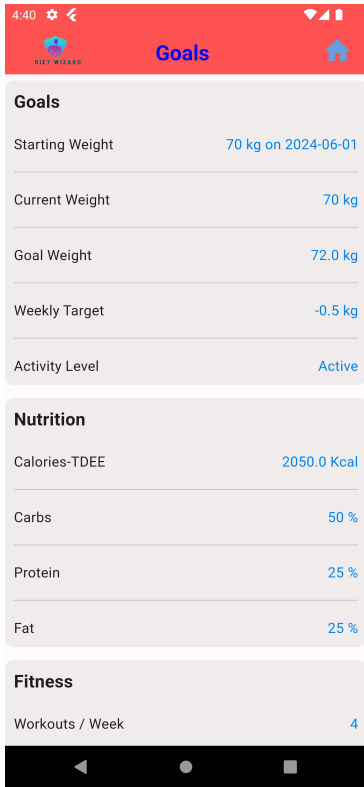
Figure 23: Coach Life Page



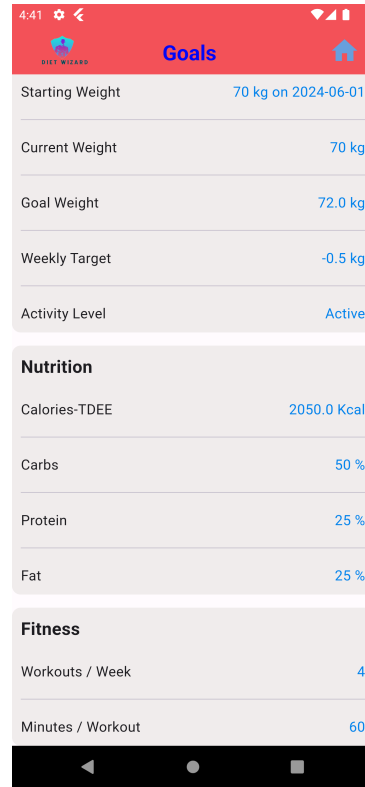
(a) Trainee Weekly Template

5.19 Goals Page

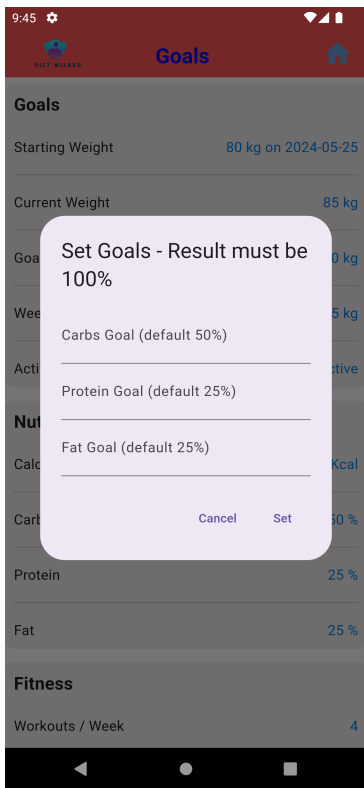
This is the Goals page, where the user's goals are displayed. Users can also update and change their goals from this page.



(a) Goals Page



(b) Goals Page



(c) Edit Goals

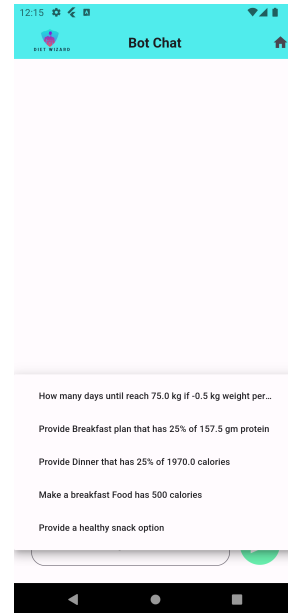
Figure 25: Goals Page

5.20 Chat Bot Page

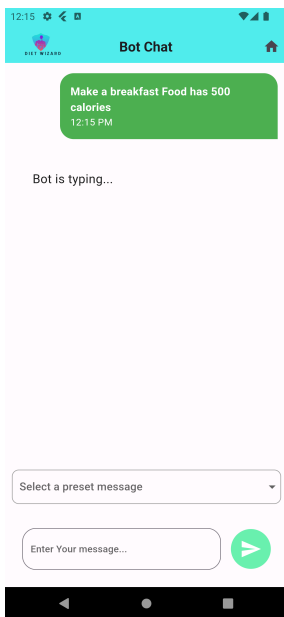
Integrate the Google AI Studio Gemini API to implement a chatbot. Include a preset question that fetches user data from the backend to complete the sample questions.



(a) Chat Bot



(b) Preset Questions



(c) Ask and Bot Typing

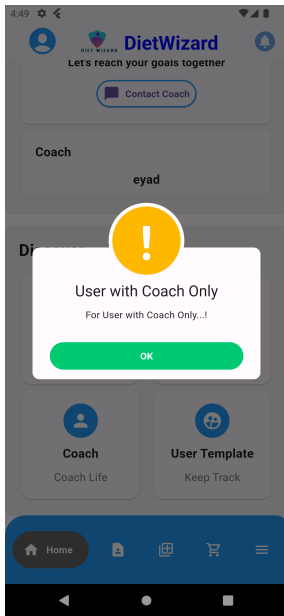


(d) Weekly Template

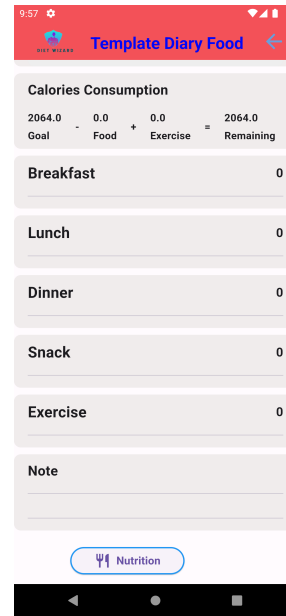
Figure 26: Chat Bot

5.21 User Template Page

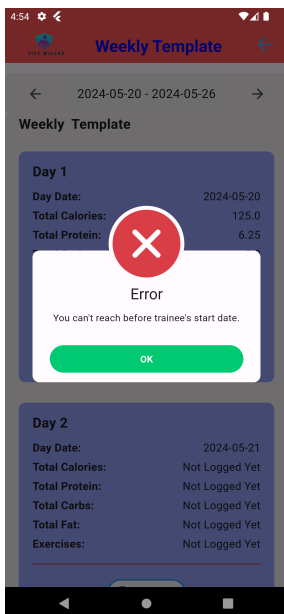
This is the User Template page, accessible only to users with a coach subscription. The page displays the weekly logs, allowing users to navigate through weekly views to see the information filled in by their coach for each day.



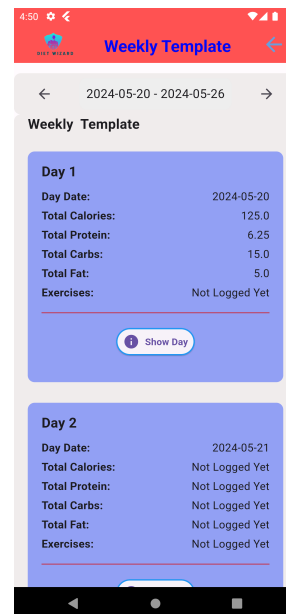
(a) Not Allowed



(b) Template Diary Food



(c) Show Day Error



(d) Weekly Template

Figure 27: User Template Page

5.22 Progress Photo Page

This is the Progress Photo page, where users can view their logged photos to track body progress. The page includes:

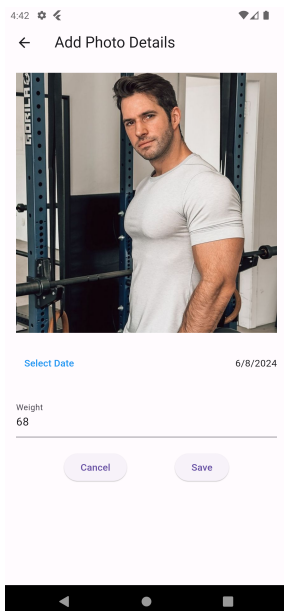
- 1- An 'Add Photo' button to upload a new image, along with - details such as the date and weight.
- 2- Options to edit or delete existing photos.



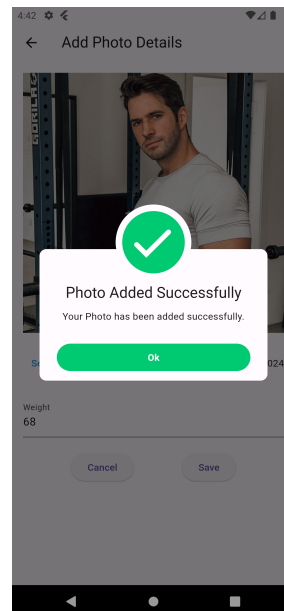
(a) Progress Photo Page



(b) choose Photo

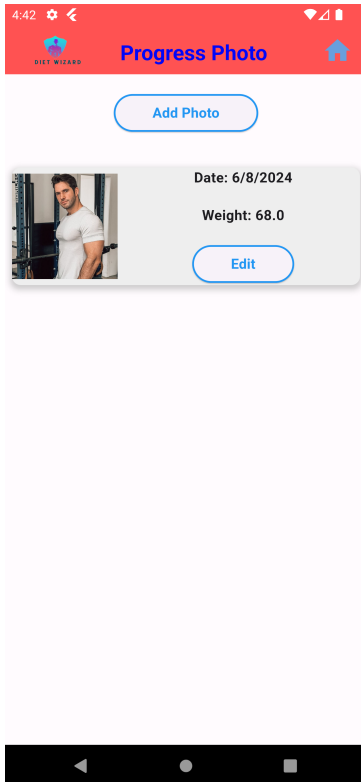


(c) Select Photo



(d) Save Photo

Figure 28: Progress Photo Page



(a) Trainee Weekly Template

5.23 Coach Rating Page

This is the Coaches Page, accessible to everyone. It displays all available coaches.

The page features:

- A search field to search by coach name.
- A search filter to sort coaches by:
 1. Number of Rates: Sorting coaches by the highest number of rates.
 2. Highest Rating: Sorting coaches by the highest rating.

- Coach information including:

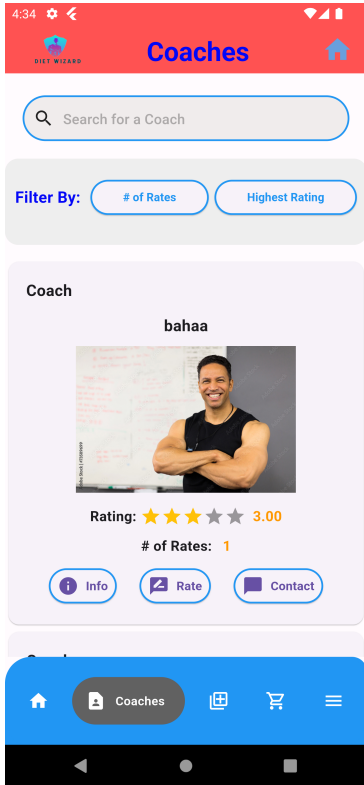
Coach name , Coach picture , Current Rating and Current number of rates .

- Buttons for interaction:

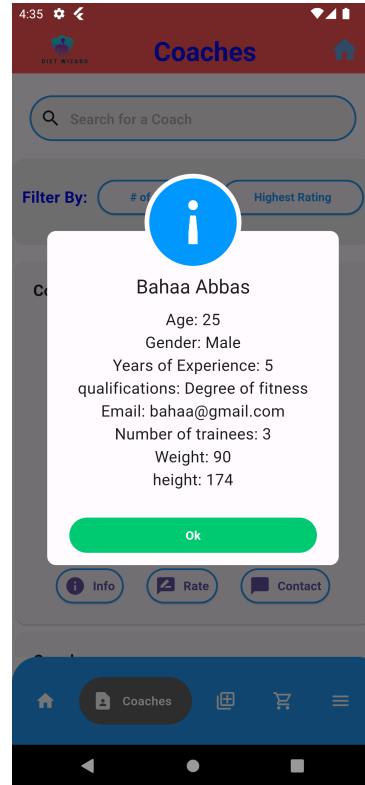
A. Info button: Displays coach information.

B. Contact button: Allows users to initiate a chat with the coach.

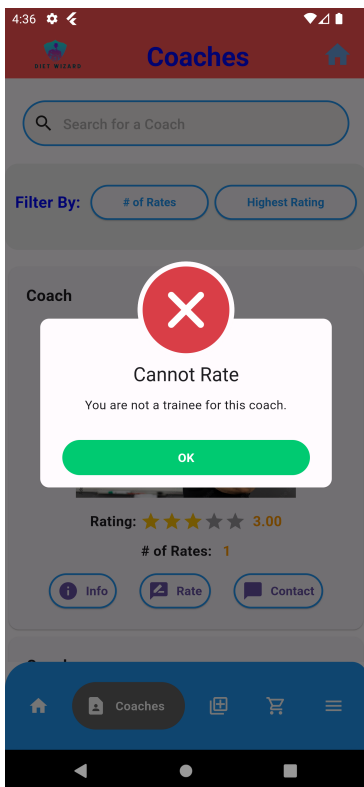
C. Rate button: Enables trainees to anonymously rate the coach (only trainees for this coach can rate).



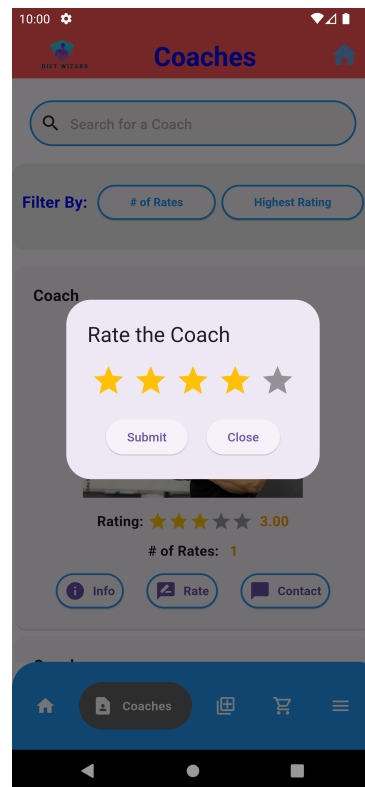
(a) Coach Rating Page



(b) Coach Informations



(c) For Admin : Coach Rating Error

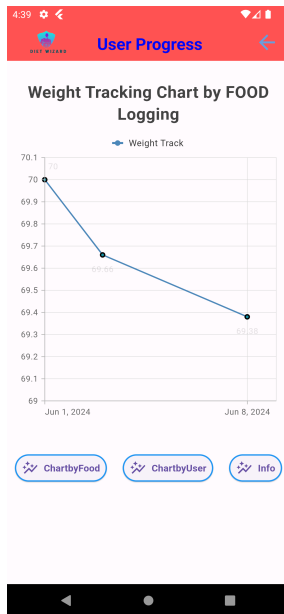


(d) For Trainee : Coach Rating Successfully

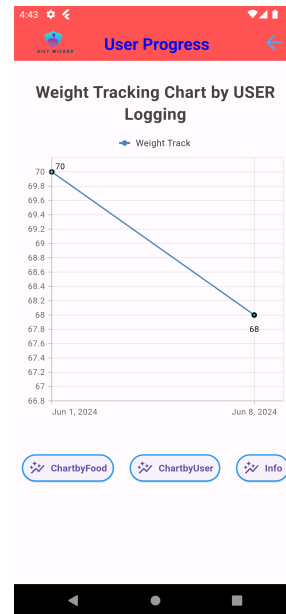
Figure 30: Coach Rating Page

5.24 Weight Report Page

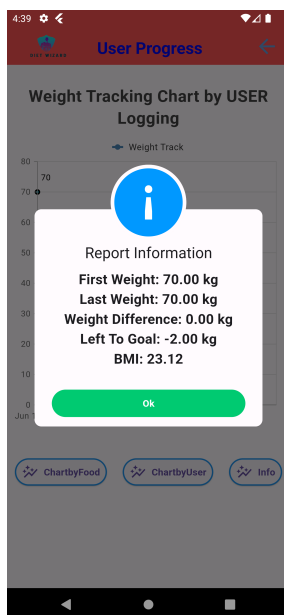
The Weight Report page displays weight data in a line chart and includes three buttons: one to show the weight chart based on logged food progress, another to display the chart based on user-submitted weight progress, and an info button providing additional information about the weight report.



(a) Weight Report By Food



(b) Weight Report By User



(c) Weight Report By Info

Figure 31: Weight Report Page

5.25 Diary Food Page

Here is the Diary Food page, which represents the daily summary for food, exercise, and nutrition.

When users navigate to this page, it first displays the current day with arrows to navigate to the next or previous selected date.

Calories Consumption Info

- Goal Calories: Calculated based on user information or set by the user on the Goals page.

-Food Calories: Calories consumed from food.

-Exercise Calories: Calories burned from exercises.

-Remaining Calories: - Positive (+): Indicates how many calories are left to consume to reach the goal.

- Zero (0): Indicates that the goal calories have been met, with nothing left to consume.

-Negative (-): Indicates how many calories need to be burned to return to the goal.

Meal and Exercise Logging

The page provides options to add food or exercises under categories such as breakfast, lunch, dinner, snacks, and exercise.

For example, to add food for breakfast, click the 'Add Food' button under the breakfast section, navigate to a new page to add the food, and then view the calories consumed for each category.

Notes

There is a section to set a note for the day.

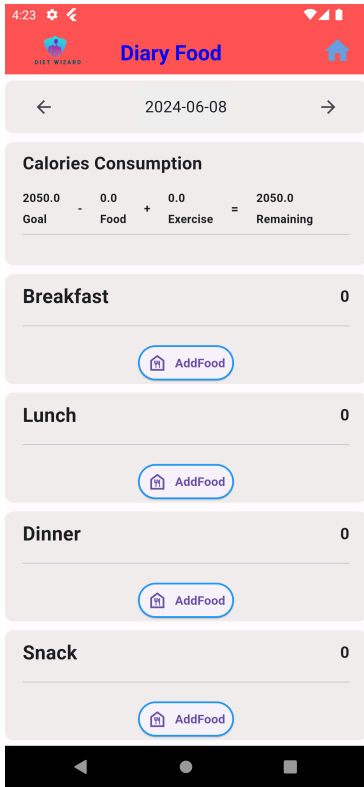
Navigation

A button at the bottom of the page allows navigation to the nutrition data page.

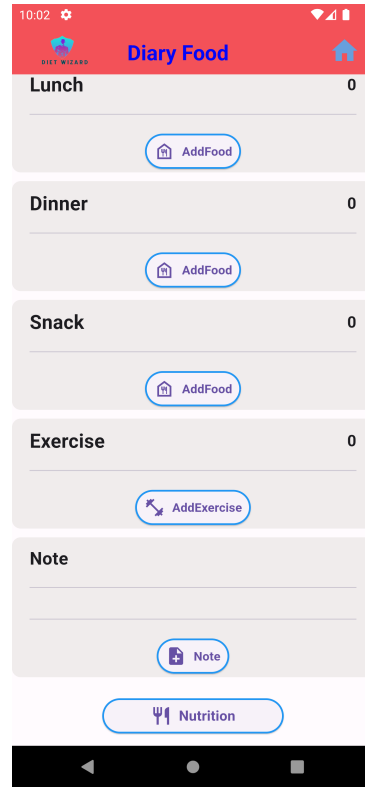
Nutrition Page

1. Calories Summary: - Displays calories consumption from breakfast, lunch, etc., using a circular progress indicator. - Shows the total and goal calories.

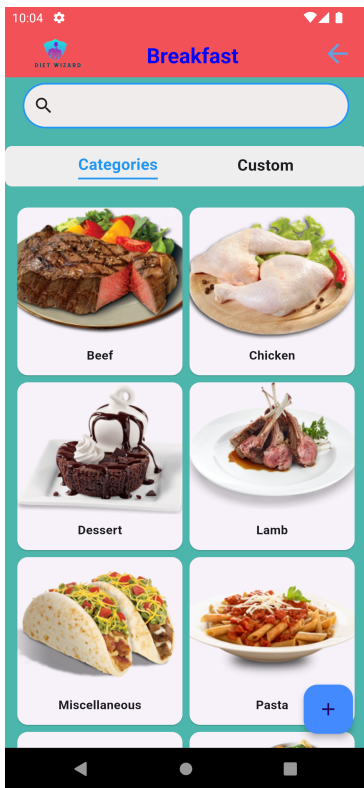
2. Nutrients Summary: - Displays nutrient consumption with a progress line indicator. - Shows the total, goal, and remaining amounts for each nutrient. - Clicking on a specific nutrient opens a new page displaying the summary for that nutrient.



(a) Diary Food Page



(b) Diary Food Page

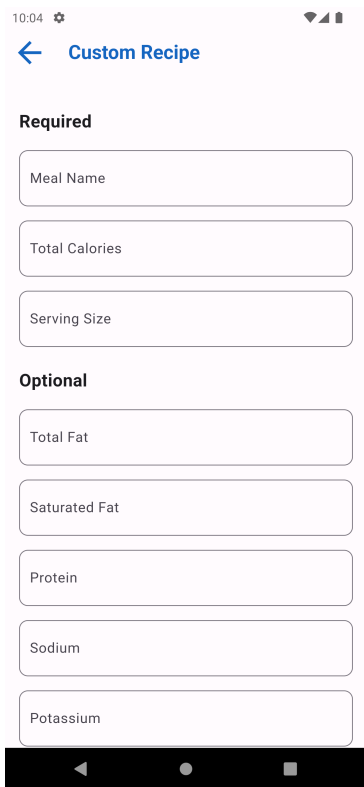


(c) Food Menu

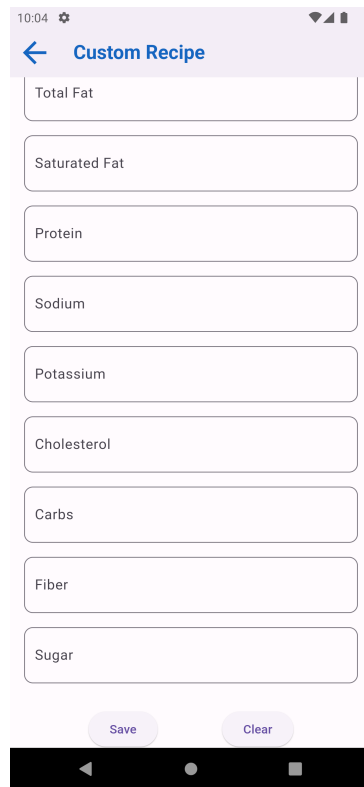


(d) Food Custom

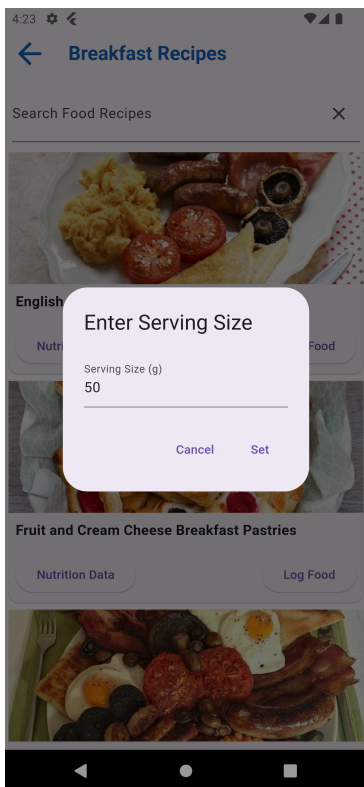
Figure 32: Diary Food Page



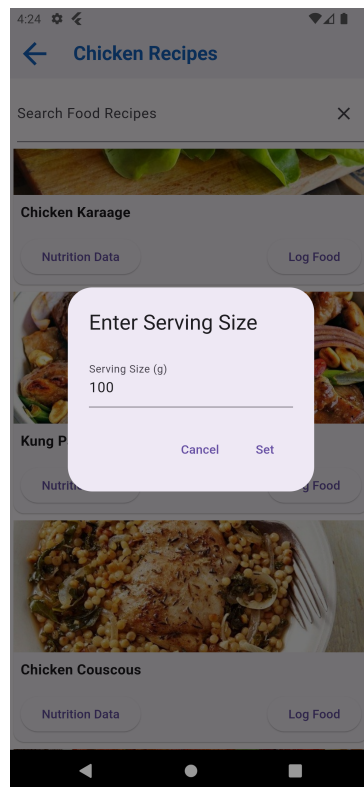
(a) Custom Recipe



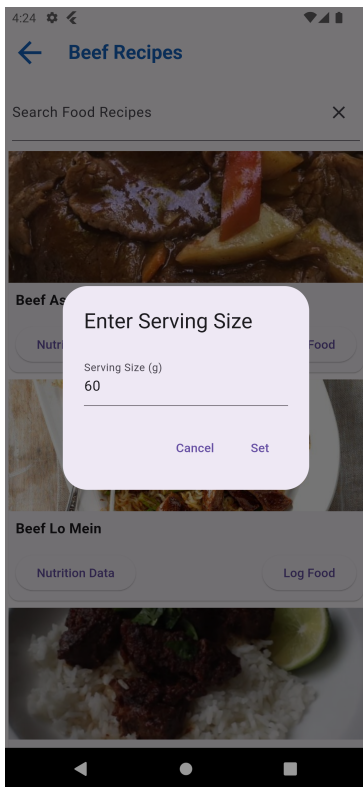
(b) Custom Recipe



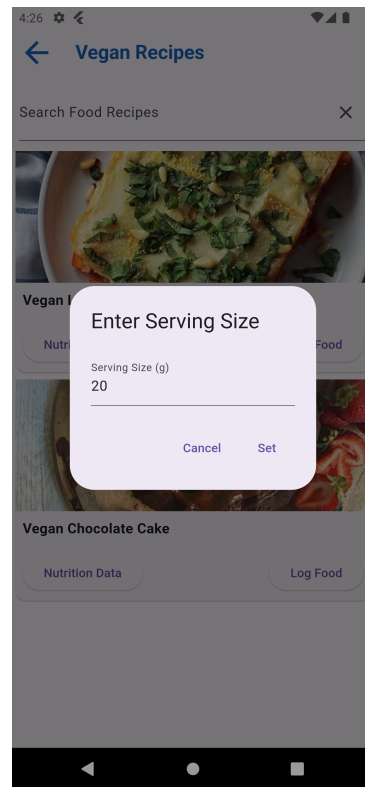
(c) Add Breakfast Food



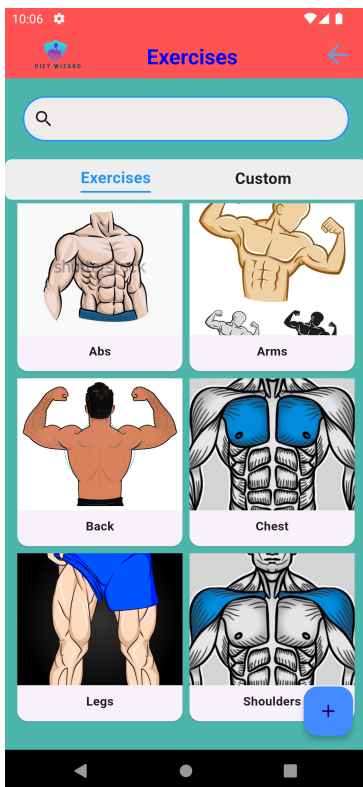
(d) Add Lunch Food



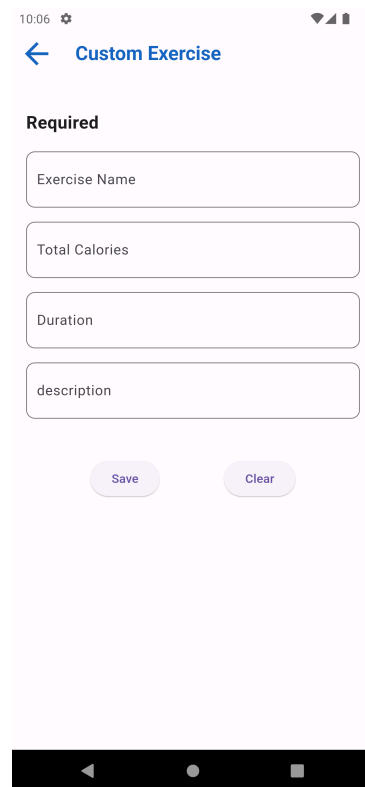
(a) Add Dinner Food



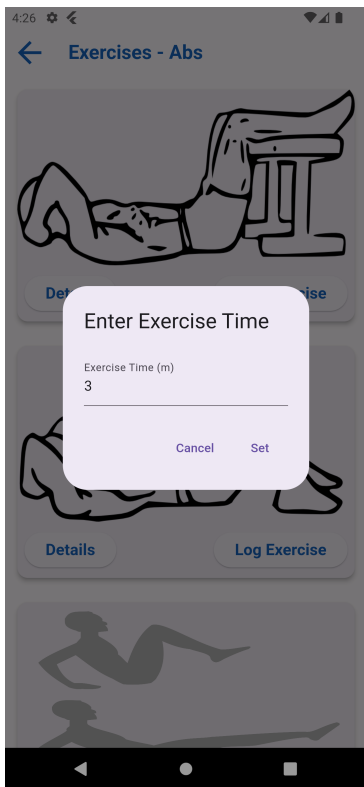
(b) Add Snack Food



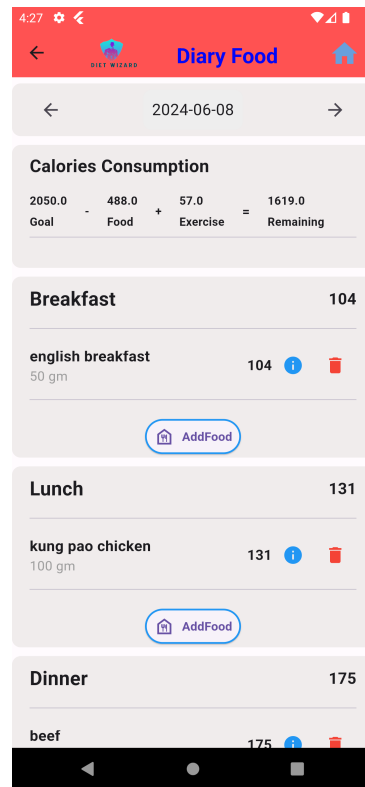
(c) Exercises Page



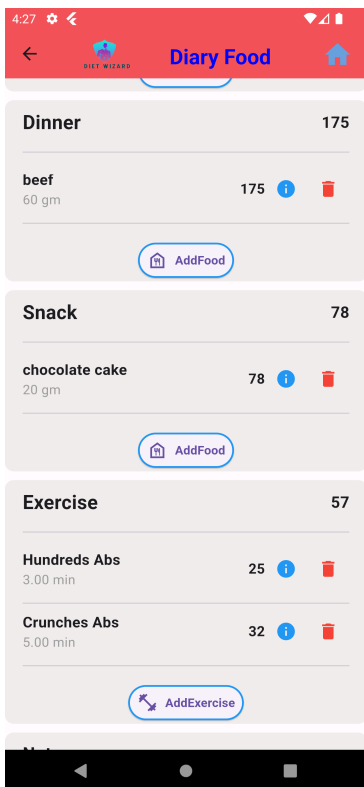
(d) Exercises Custom Page



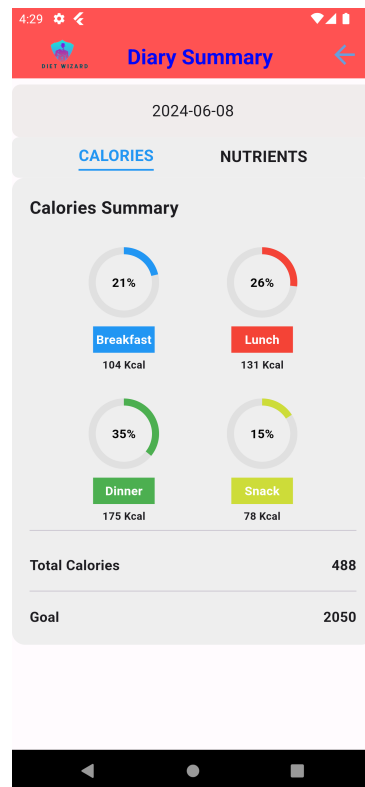
(a) Add Exercise



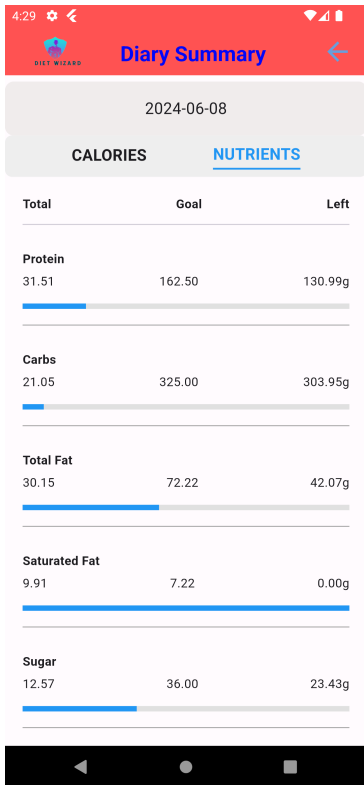
(b) Diary Summery



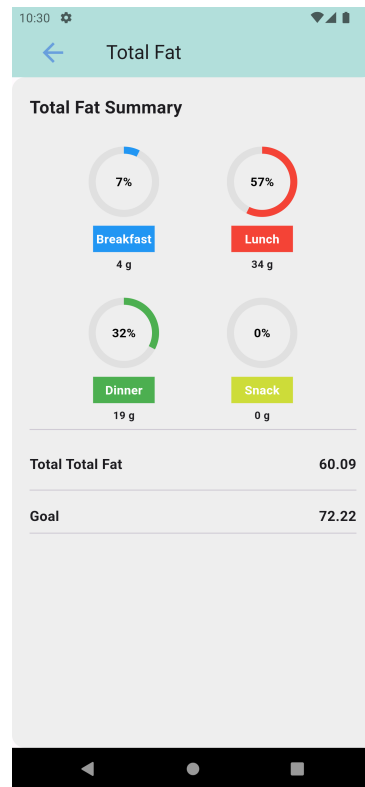
(c) Diary Summery



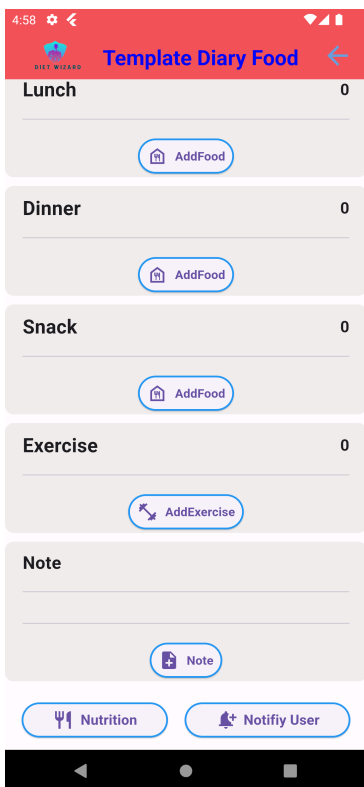
(d) Diary Calories Summery



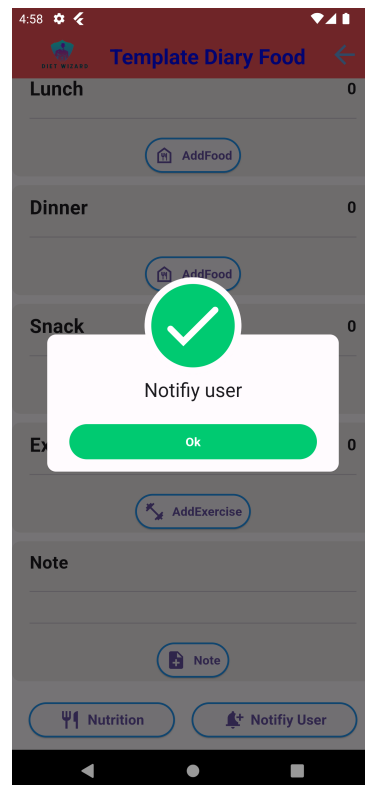
(a) Diary Nutrients Summary



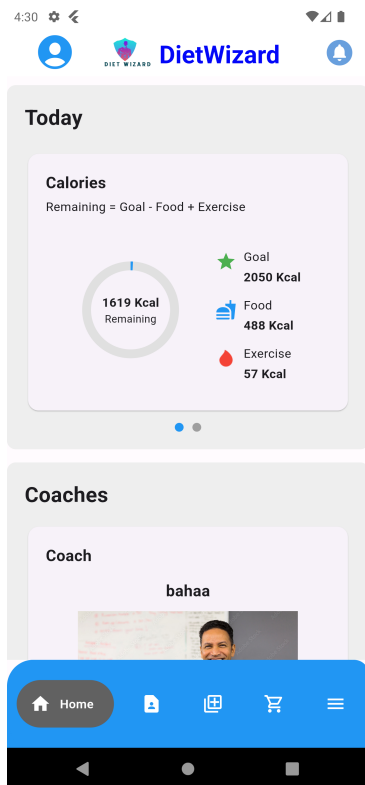
(b) Total Fat Page



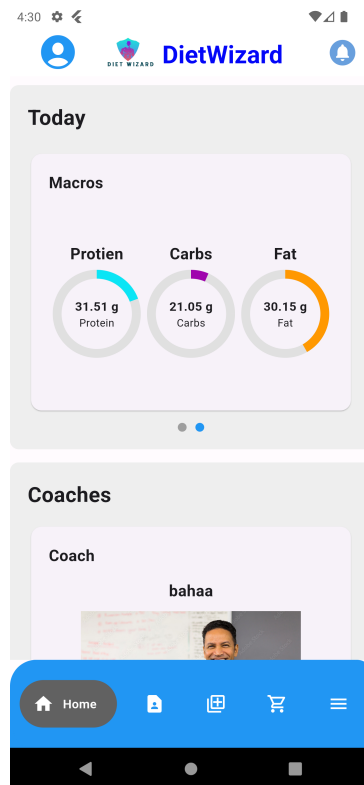
(c) Notify User Page



(d) Notify User successful Page



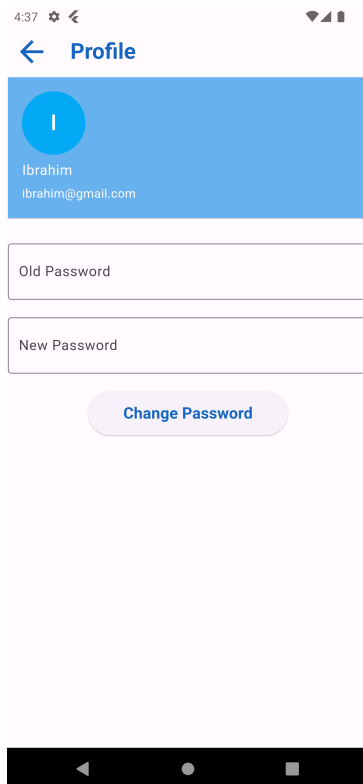
(a) Summery Calories Main Page



(b) Summery Macros Main Page

5.26 Profile Page

This page is for everyone. It shows your username and email, and you can change your password here.



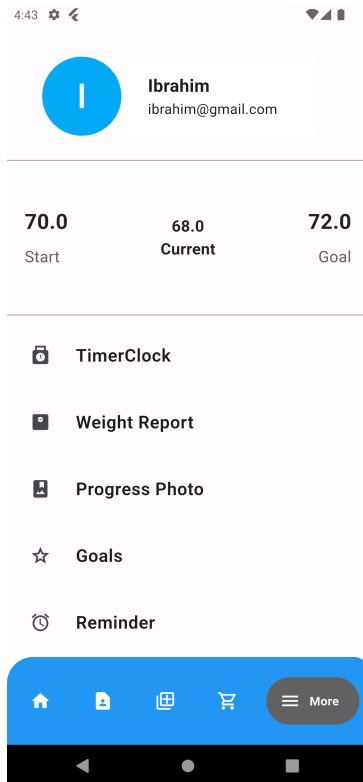
(a) Profile Page

Figure 38: Profile Page

5.27 More Page

This is the More page, accessible from the bottom navigation bar. It displays:

- 1- Username and email information.
- 2- Summary of weight progress, including start weight, current weight using a circular progress bar, and goal weight.
- 3- Pages for interaction.
- 4- A Log out button to return to the sign-in/sign-up page.



(a) More Page

Figure 39: More Page

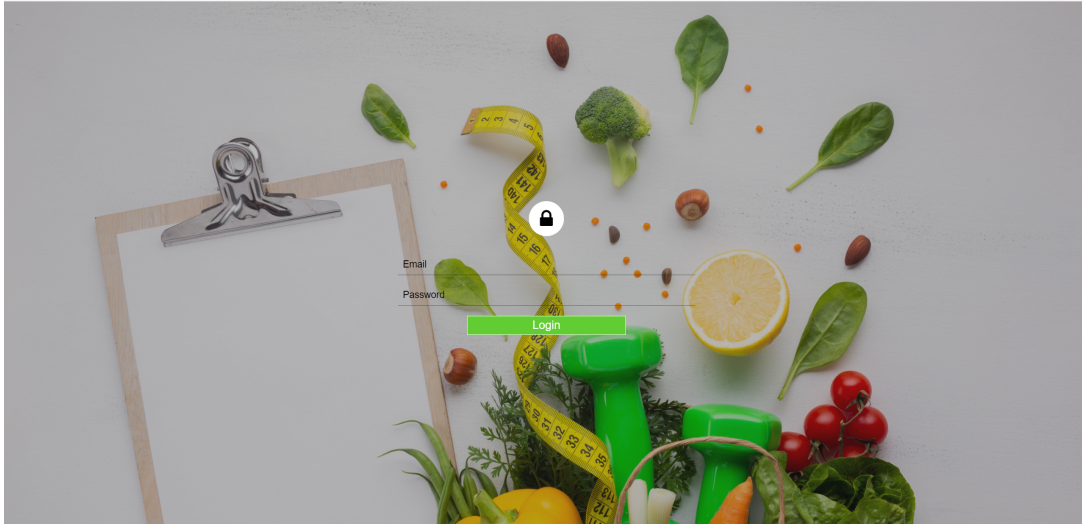
5.28 Admin Web Pages

This is For Admin to control our application in :

- 1- User and Coach Management: Administrators can view and manage all users and coaches, providing efficient support.
- 2- Product Operations: Administrators can add, delete, and manage products in the app, keeping the marketplace updated and relevant.
- 3- Exercise Management: The control panel allows administrators to add, delete, and update exercise routines, ensuring users have access to the latest and most effective workouts.

5.28.1 Login Page

This is Login page just For admin .

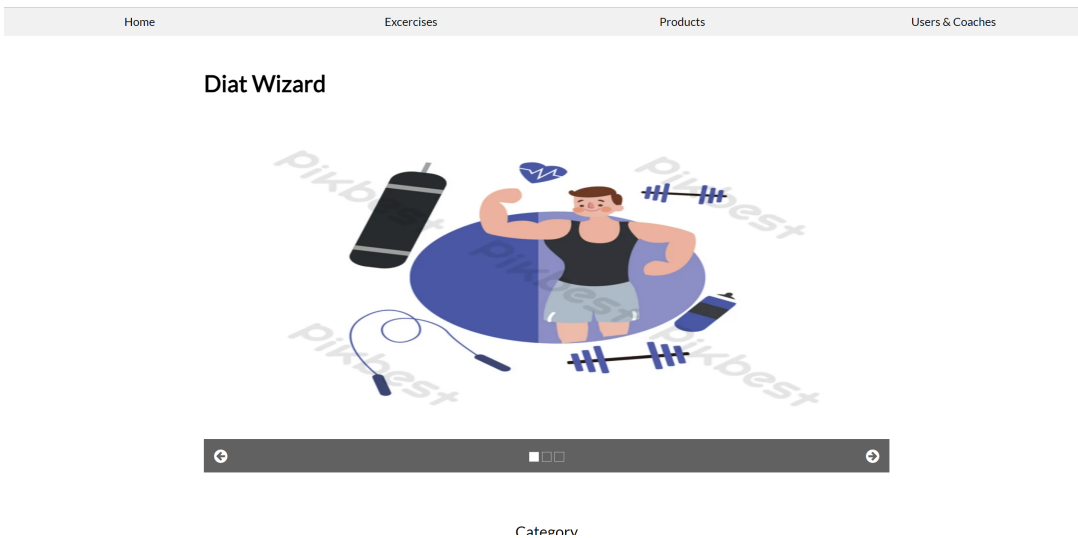


(a) Login Page Admin

Figure 40: Login Page Admin

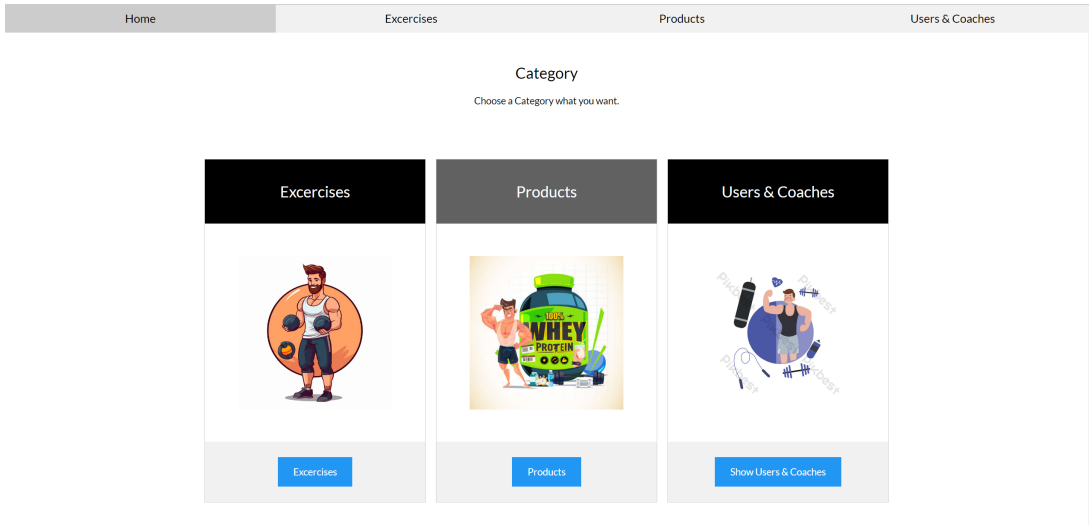
5.28.2 Main Page

This is Main page just For admin .



(a) Main Page For Admin

Figure 41: Main Page For Admin

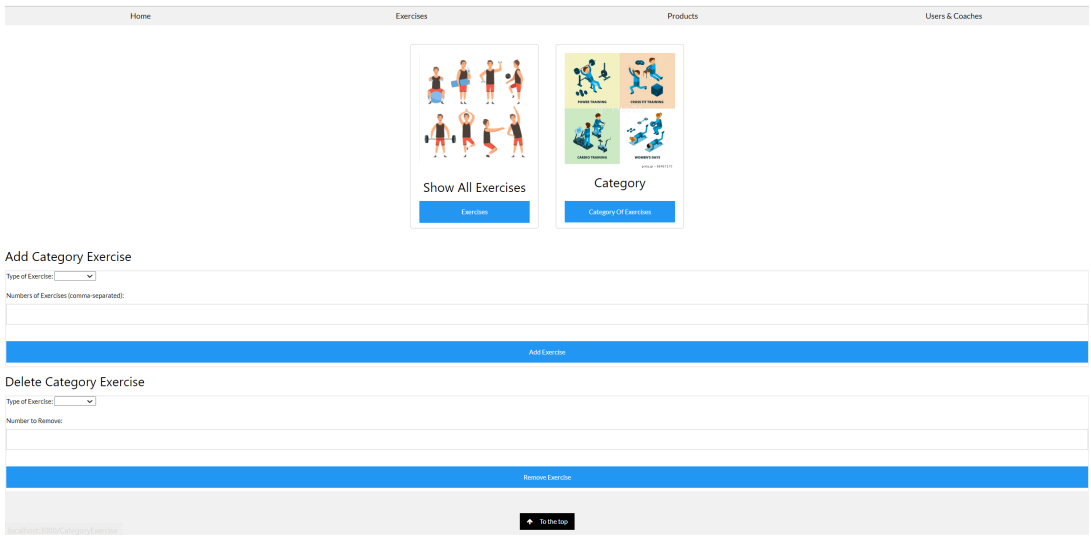


(a) Main Page Category For Admin

Figure 42: Main Page Category For Admin

5.28.3 Exercises Page

This is Exercises page just For admin , in this page have 2 Section show all exercise and Category Exercise in addition to have 2 part to add or delete exercises .



(a) Exercises Page For Admin




Figure 43: Exercises Page For Admin


5.28.4 Show All Exercises Page

show all exercise without depend on type of muscle.

Home	Exercises	Products	Users & Coaches
------	-----------	----------	-----------------

Exercise List

- 
id exercise: 3 / name exercise: Hundreds Abs / time exercise: 3 min / description exercise: where you repeatedly pump your arms while holding your legs at a 45-degree angle / calories exercise: 25 kcal
- 
id exercise: 7 / name exercise: exercise / time exercise: 5min / description exercise: move / calories exercise: 100kcal
- 
id exercise: 11 / name exercise: exercise / time exercise: 5min / description exercise: move / calories exercise: 100kcal

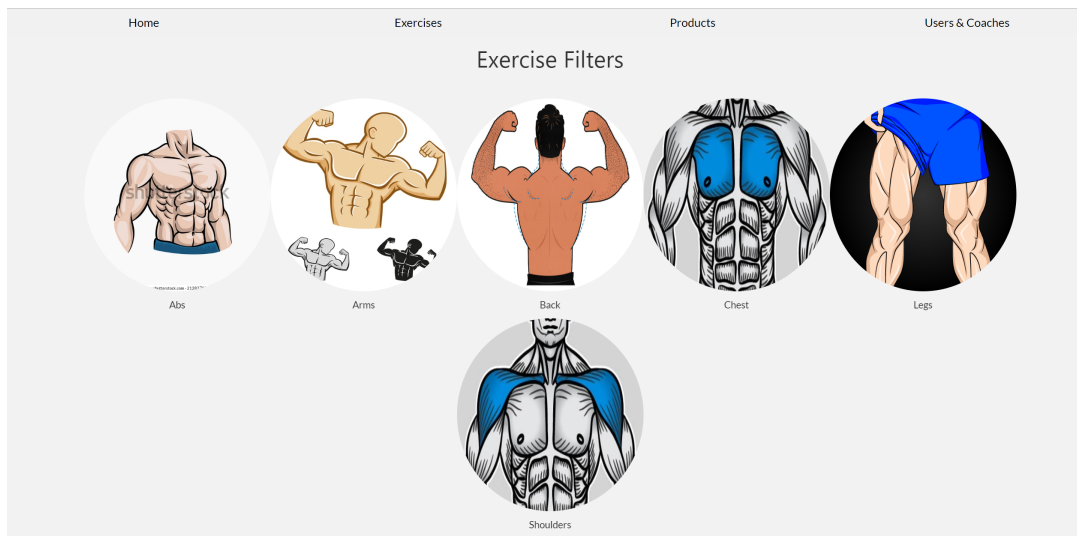


(a) Show All Exercises Page
For Admin

Figure 44: Show All Exercises Page For Admin

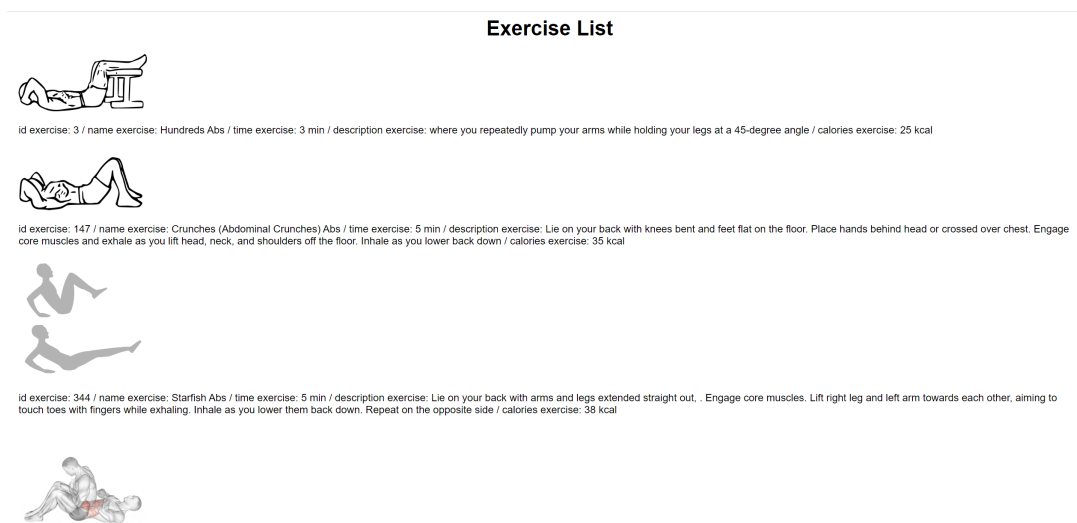
5.28.5 Category Exercises Page

show all exercise depend on type of muscle .



(a) Category Exercises Page
For Admin

Figure 45: Category Exercises Page For Admin



(a) Example Type of muscle(ABS) Page For Admin

Figure 46: Example Type of muscle(ABS) Page For Admin

5.28.6 Product Page

This is page for 4 operation (Add/Delete/search/update) for product .

Home	Exercises	Products	Users & Coaches
------	-----------	----------	-----------------

Welcome To Products Page

Add Product

Name Product

Price Product

Description Product

Upload Image

No file chosen

[Add Product](#)

Search Product

Name of Product

[Search Product](#)

(a) Product Page For Admin

Home	Exercises	Products	Users & Coaches
------	-----------	----------	-----------------

Delete Product

Name of Product

Price of product

[Delete Product](#)

Update Price Product

Name of Product

Price of product

New Price of product

[Update Product](#)

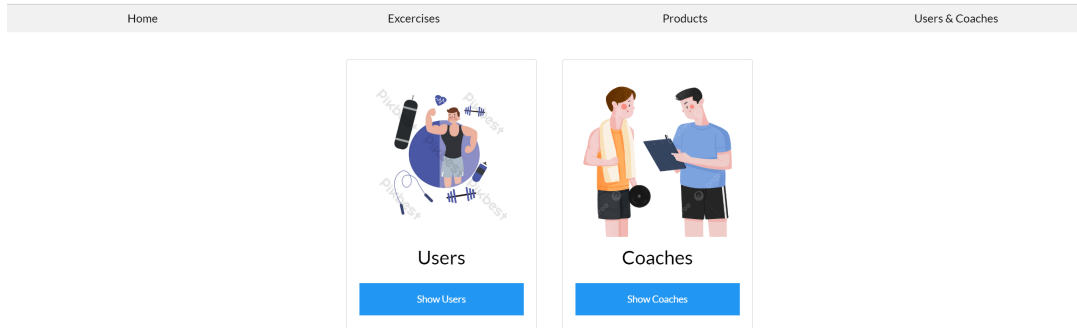
[↑ To the top](#)

(a) Product Page For Admin

Figure 48: Product Page For Admin

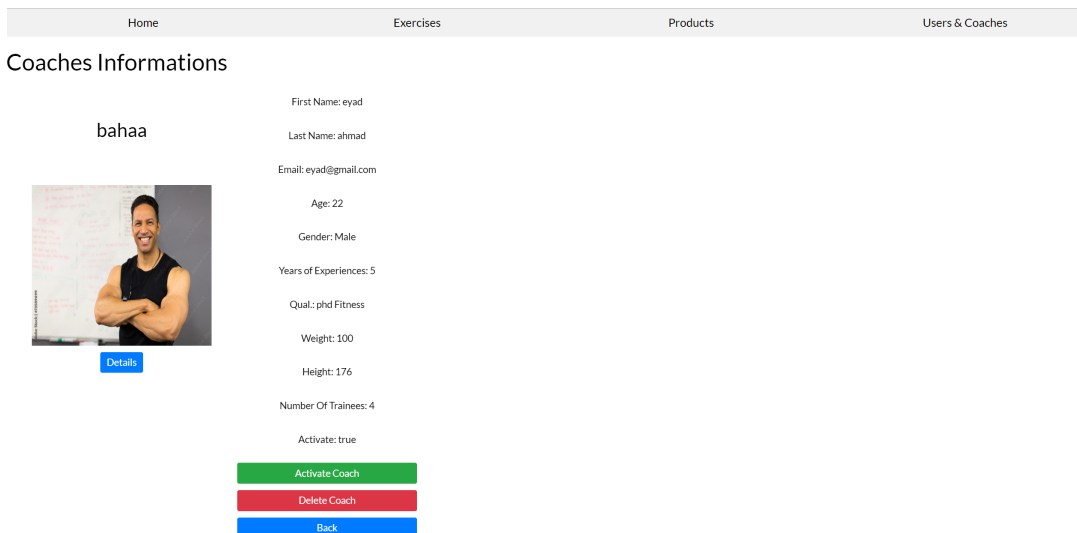
5.28.7 User And Coach Page

This page has two sections: Users and Coaches. Each section shows all the information about the users or coaches.



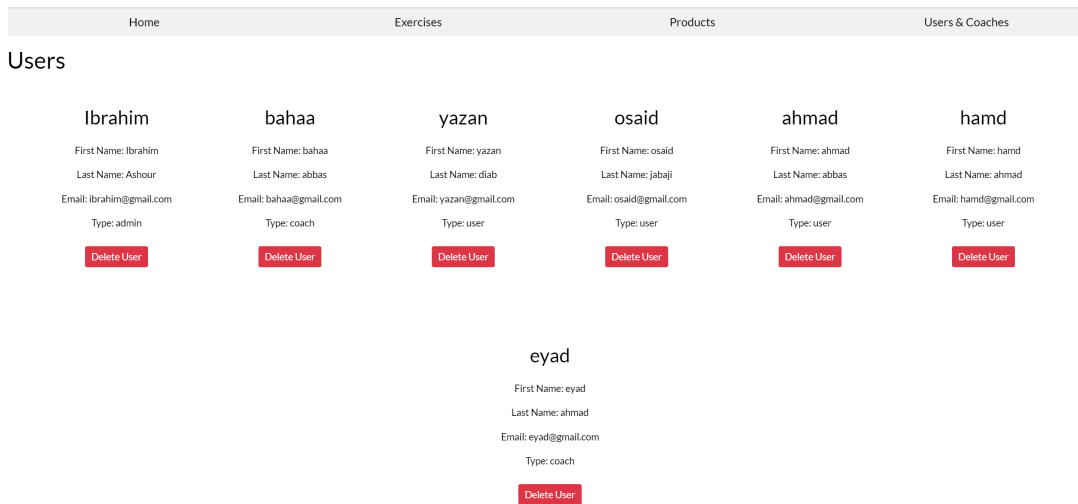
(a) User And Coach Page
For Admin

Figure 49: User And Coach Page For Admin



(a) Coaches Information's
Page For Admin

Figure 50: Coaches Information's Page For Admin



(a) Users Information's Page For Admin

Figure 51: Users Information's Page For Admin

6 Future Work

What we aim to accomplish as future work is:

1. Integrating smartwatch data to track fitness habits in real-time.
2. Implementing Video Calling and interaction features to make real-time communication and collaboration easier for users.
3. Introducing the ability to Export/Import Daily logs for diary information, allowing users to easily manage and transfer their data across different platforms and devices.

7 Conclusion and Recommendations

7.1 Conclusion

DietWizard is a comprehensive solution designed to address the fragmented nature of diet and fitness management tools. By integrating diet tracking, fitness coaching, and community support into a single platform, DietWizard effectively simplifies the process for users aiming to lose weight, build muscle, or maintain a healthy lifestyle. The platform also enhances communication between users and coaches, allowing for personalized guidance and support. The holistic approach of DietWizard caters to the diverse needs of individuals, coaches, and administrators, ultimately fostering a healthier and more connected fitness community.

7.2 Recommendations

Here are some suggestions to keep our platform growing and working well:

- **Keep Improving :**
Regularly update and make the platform better using feedback from users and new technology to stay useful and effective.
- **Build More Partnerships :**
Work with more schools, companies, and content creators to provide a wider range of resources for our users.
- **Make It More Accessible:**
Improve the platform's features to make sure everyone can use it easily, no matter their abilities or learning styles.
- **Support Research :**
Keep researching new educational tools and teaching methods to keep making the platform better.
- **Team Collaboration with UX/UI :**
Ensure our team works closely with UX/UI designers to create a user-friendly and visually appealing platform.

8 Bibliography

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- Awesome Notifications :
<https://pub.dev/Notifications>
- Firebase :
<https://firebase.google.com/>