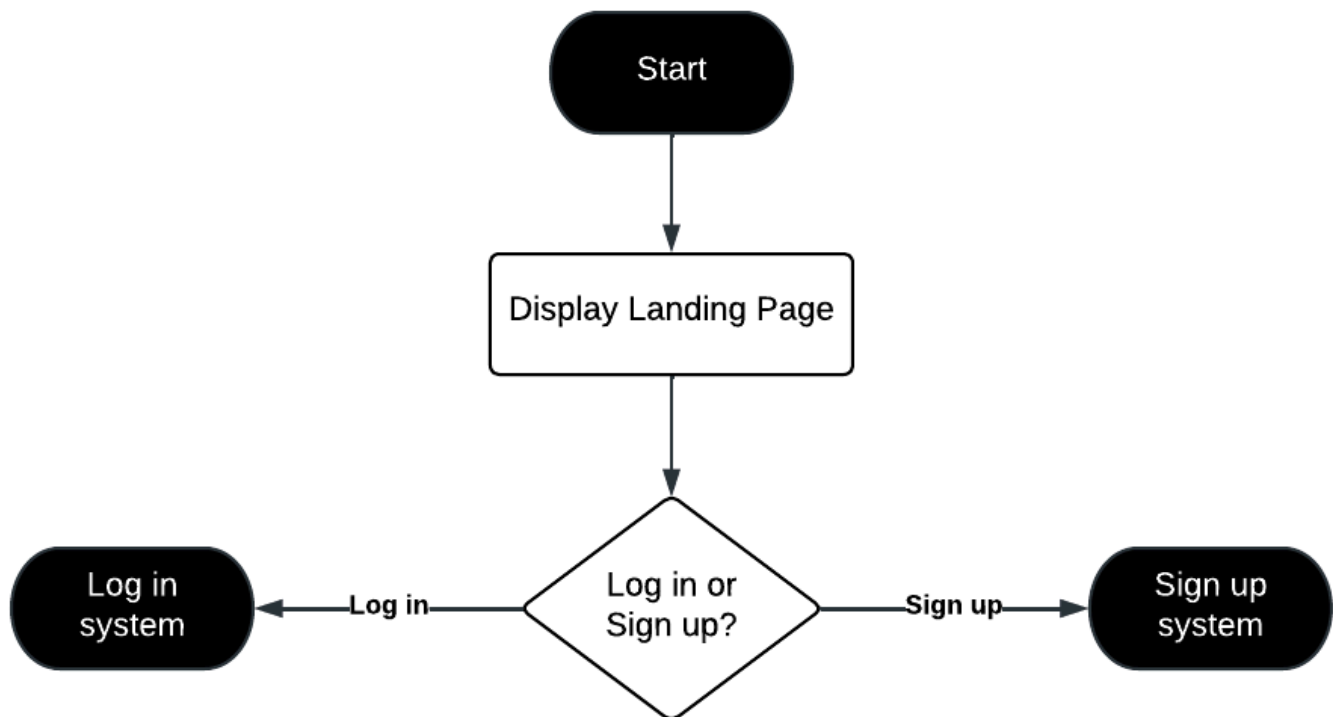
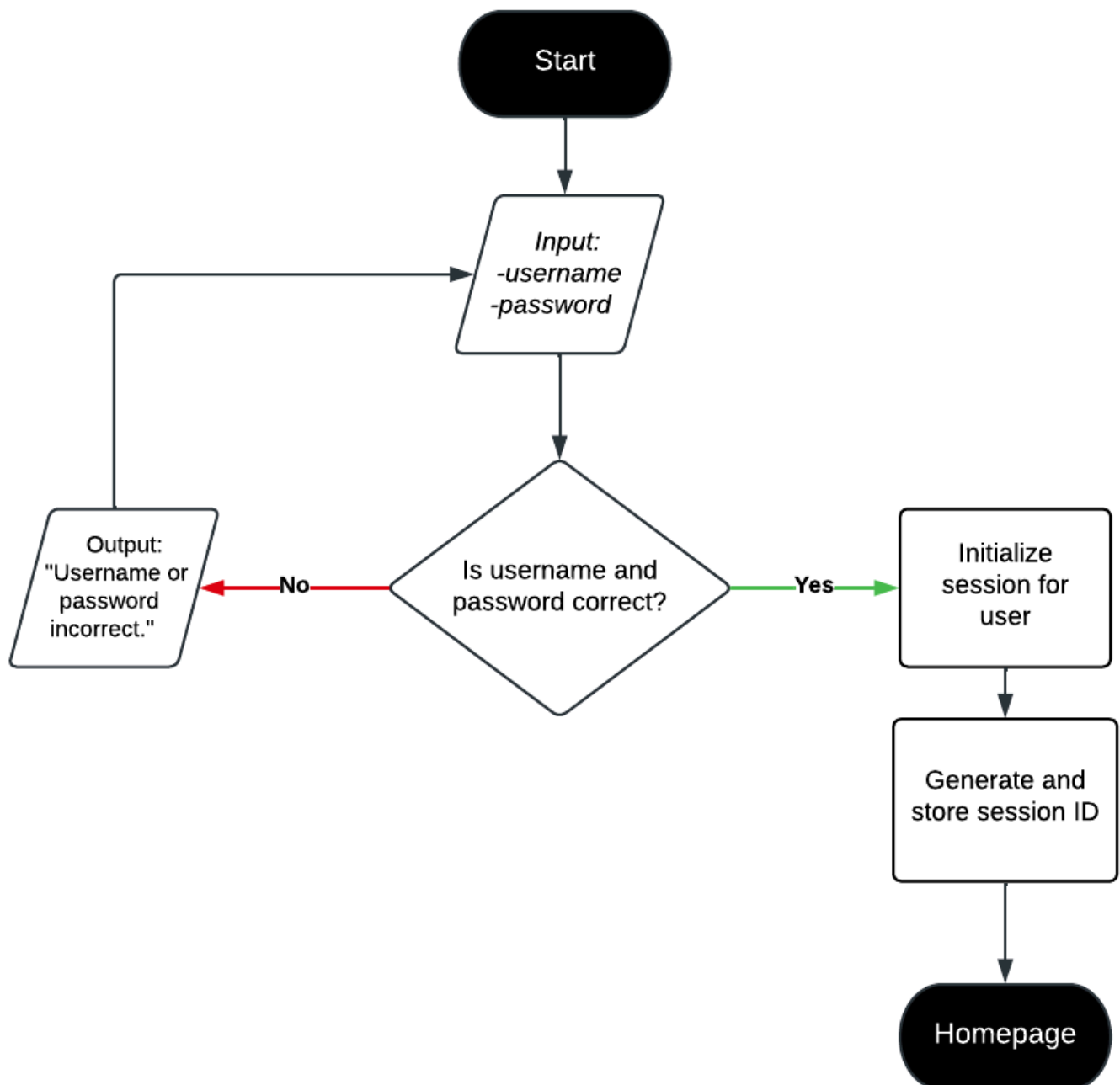


Algorithmic Flowcharts:**Figure 1 - Landing Page**

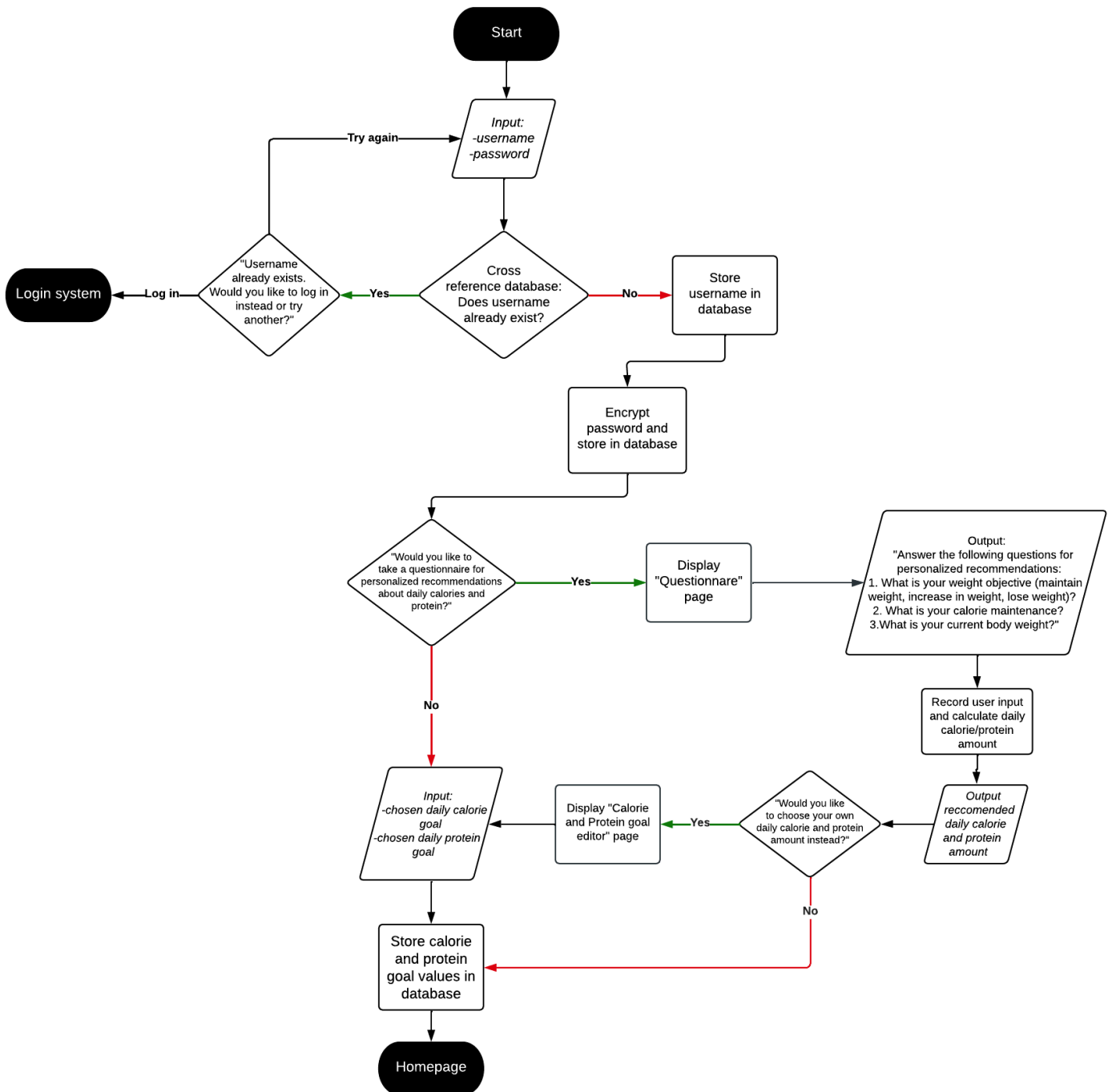
This flowchart is a simple illustration of how the landing page will work. The purpose of the landing page is to direct you to the log in or sign up systems, which are both accessed through buttons.

Figure 2 - Log in System



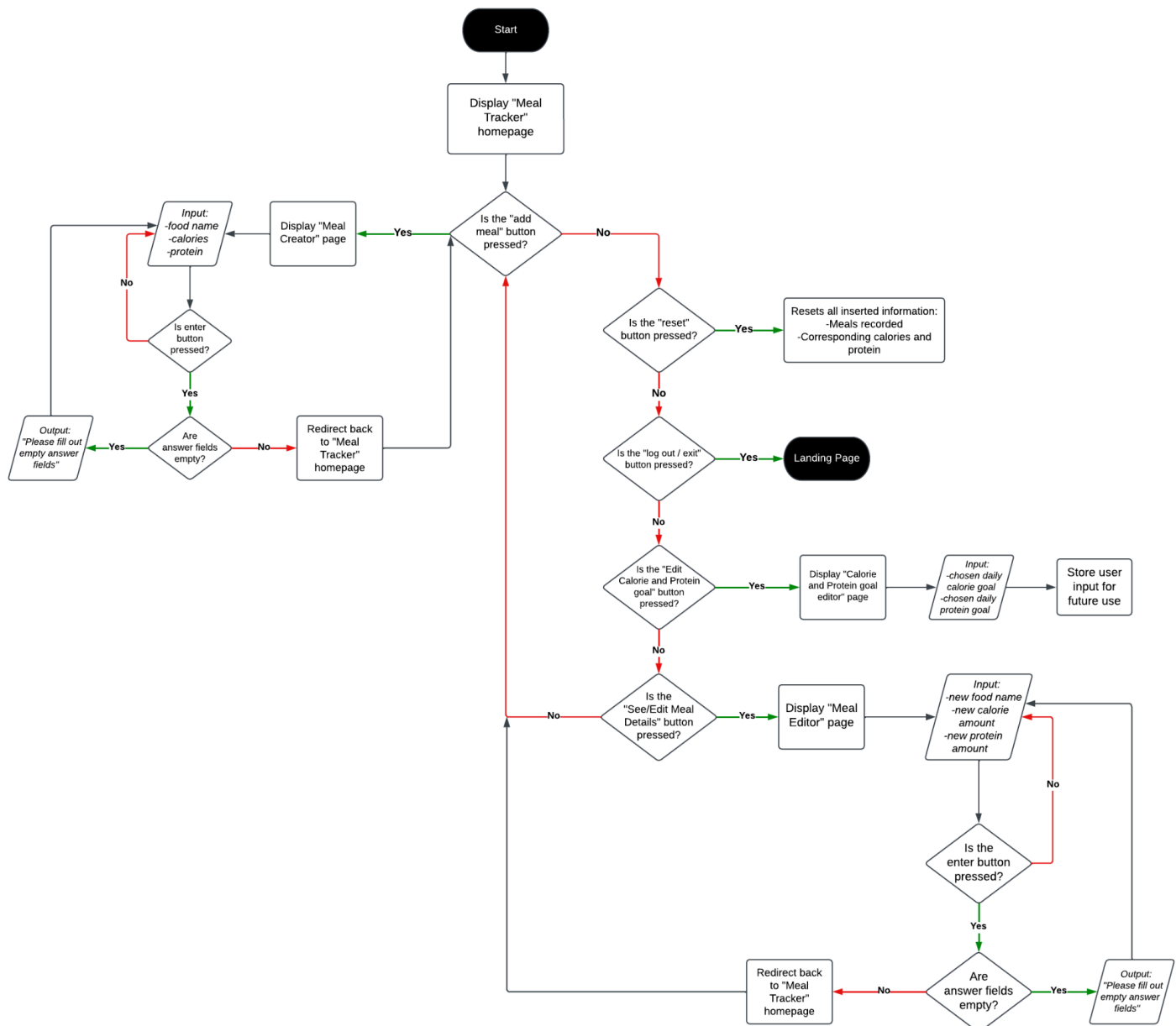
This flowchart is a simple illustration of the log in system and what happens when you interact with the login page.

Figure 3 - Sign up System



This flowchart shows how the sign up system will work. It firstly has user authentication and cross references the database to check if a username exists. If it does not exist and password/email/username requirements are met, a new account is created and it follows the process as outlined in the flowchart.

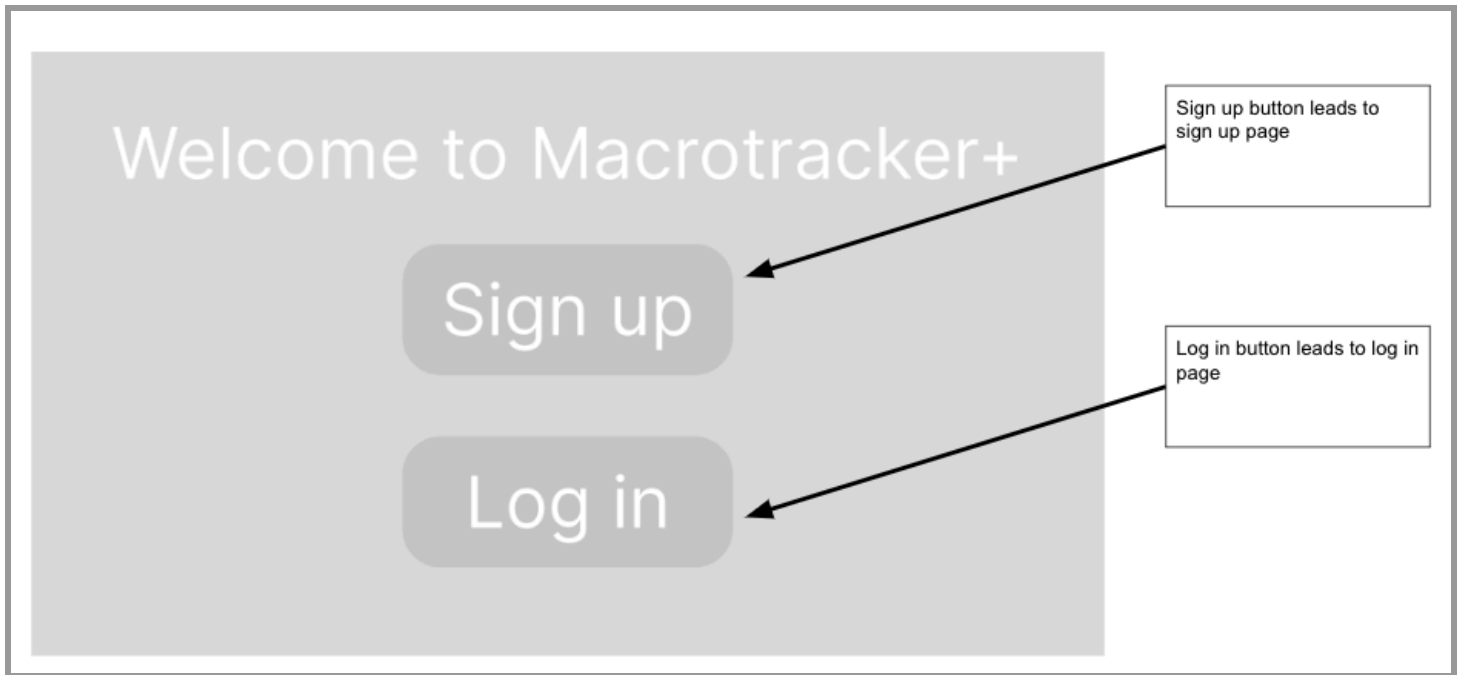
Figure 4 - Homepage



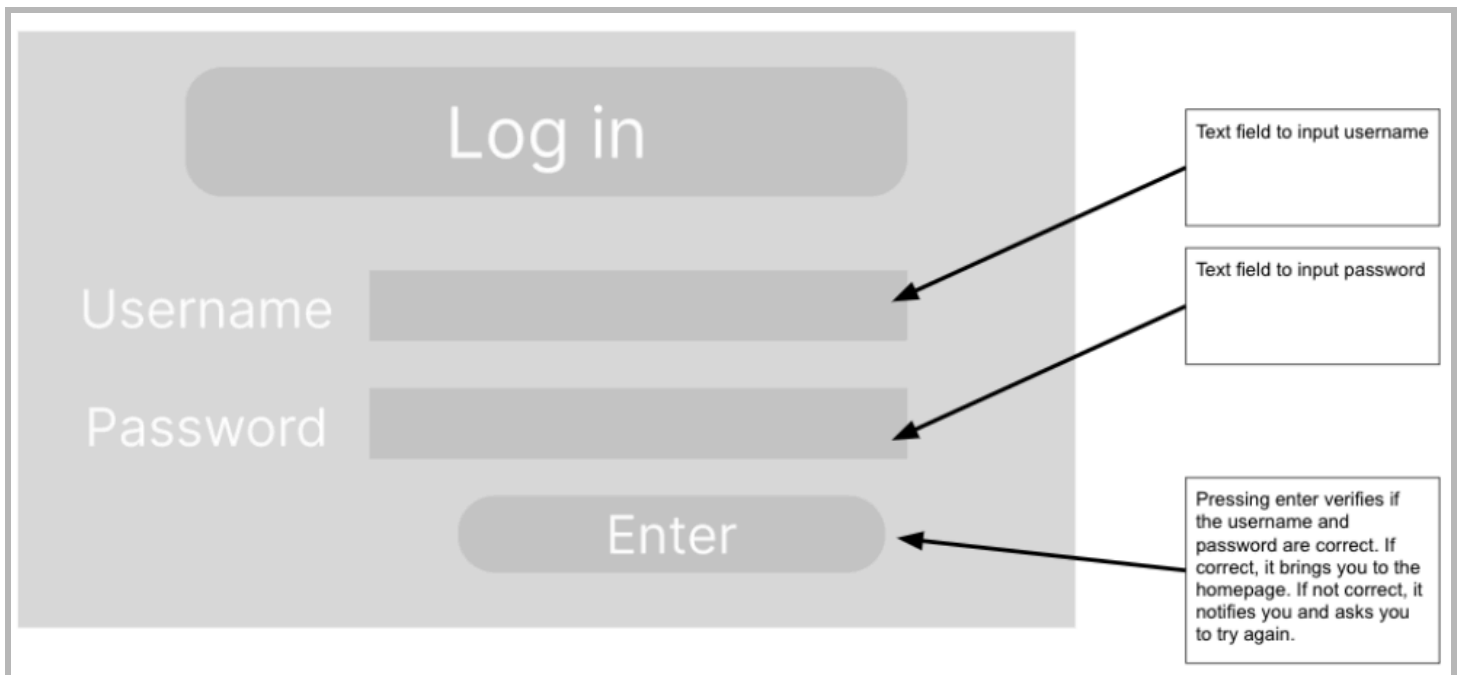
This flowchart shows how the home page system will work. The homepage will display meals, with an add meal button, a reset or delete meal button, a logout button, an edit calorie and protein goal button, a see/edit meals button, and a meal creator button. All of these buttons lead you to various pages and fields, as outlined in the flowchart.

Graphical Visualizations of Output:

Landing Page



Log in Page



Sign up Page

The sign up page features a central form with a 'Sign up' title, 'Username' and 'Password' labels, input fields, and an 'Enter' button. Annotations explain the functionality: the input fields are for username and password, and the 'Enter' button triggers a database check. If the username exists, a message is shown, and if not, the user is added to the database and redirected to the questionnaire choice page.

Sign up

Username

Password

Enter

Text field to input username

Text field to input password

Pressing enter cross references the database and checks if the same username exists.

If username exists, the message "Username already exists. Would you like to log in instead or try another?" appears below the Enter button

If username doesn't exist, the username and encrypted password gets stored in the database, and you're led to questionnaire choice page.

Questionnaire Choice Page

The questionnaire choice page asks the user if they want to take a questionnaire for personalized recommendations. It features 'Yes' and 'No' buttons. Annotations indicate that pressing 'Yes' leads to the 'Questionnaire Page' and pressing 'No' leads to the 'Calorie and Protein Goal Editor'.

Would you like to take a questionnaire for personalized recommendations about daily calories and protein?

Yes

No

Pressing the "Yes" button leads you to the "Questionnaire Page"

Pressing the "No" button leads you to the "Calorie and Protein Goal Editor"

Questionnaire Page

The questionnaire page features a central form area with a title 'Questions' and a subtitle 'Answer the following questions for personalized recommendations'. It contains three questions: a multiple-choice question about weight objectives, and two text input fields for calorie maintenance and current body weight. An 'Enter' button is at the bottom. Annotations on the right explain the functionality of each element.

Questions
Answer the following questions for personalized recommendations

1. What is your weight objective?
a) maintain weight
b) increase in weight
c) lose weight

2. What is your calorie maintenance?
[Text Input Field]

3. What is your current body weight?
[Text Input Field]

Enter

Annotations:

- Multiple choice question. The choice chosen by the user will be recorded and used for calculations for recommended daily calorie and protein amounts
- Text fields allow numeric data types only. Units will be specified. The numbers inputted will be recorded and used for calculations for recommended daily calorie and protein amounts
- Pressing the "Enter" button leads you to the "Questionnaire Results" page

Questionnaire Results Page

The results page displays the calculated recommended daily amounts of calories (x) and protein (y) based on the user's input. It then asks if the user wants to choose their own daily calorie and protein amount, with 'Yes' and 'No' buttons. Annotations on the right describe the logic for each button press.

Based on the questionnaire,
Your recommended daily amount of calories is: x
Your recommended daily amount of protein is: y

Would you like to choose your own daily calorie and protein amount instead?

Yes No

Annotations:

- Values x and y will be calculated using the user input from users on the "Questionnaire" page
- If the user presses the "No" button, they will be led to the homepage, automatically logged in with their newly signed up account and account information from the questionnaire
- If the user presses the "Yes" button, they will be led to the "Calorie and Protein Goal Editor" page where they can choose their own daily goals.

Calorie and Protein Goal Editor Page

The UI for the 'Calorie and Protein Goal Editor' page features a central form with a title bar at the top. Below the title, there are four input fields arranged in a 2x2 grid. The left column contains 'Current Calorie Goal: x' and 'Current Protein Goal: y'. The right column contains 'New Calorie Goal: _____' and 'New Protein Goal: _____'. Below these fields is a large, rounded 'ENTER' button. Three callout boxes provide additional context: one on the left explains that 'x' and 'y' represent previous goals or are blank; one in the center explains that the 'ENTER' button saves the new goals and returns the user to the homepage; and one on the right explains that the input fields only accept numeric data.

Calorie and Protein Goal

Current Calorie Goal: x New Calorie Goal: _____

Current Protein Goal: y New Protein Goal: _____

ENTER

Values x and y will be the former daily calorie and protein goals. If there are none yet, it'll show up as blank

Pressing the "Enter" button leads you to the homepage, and saves the newly inputted daily calorie and protein goals

Text fields allow numeric data types only. Units will be specified. The numbers inputted will be recorded to the user's account and displayed on the homepage.

Homepage

The homepage layout includes a top navigation bar with 'Log out/Exit' and 'Edit Calorie and Protein Goal' links. Below the navigation bar, a summary section displays 'Current Calories: x', 'Goal Calories: y', 'Calories Remaining: y - x', 'Current Protein: x', 'Goal Protein: y', and 'Protein Remaining: y - x'. The main content area is a 'Meal Tracker' table listing various meals with corresponding 'See/Edit Meal Details' links. At the bottom of the table are two 'ADD NEW MEAL' buttons. Three callout boxes provide details: one for the 'Log out/Exit' button, one for the 'Edit Calorie and Protein Goal' link, and one for the meal details links. A fourth callout box explains the logic for the 'ADD NEW MEAL' buttons.

Pressing this button signs you out and takes you to the landing page. All your information from that session is saved.

This text is a hyperlink that leads to the "Calorie and Protein Goal Editor" page

Current Protein/Calories: displays the total calories and protein added up from all your meals.
Goal Calories/Protein: displays your previously determined daily calorie and protein goals
Calories/Protein remaining: calculates the amount of calories you have remaining for that day to reach your goal.

Buttons lead you to Meal Creator Page. If it's an edit meal button, the previous info is already on the fields and it updates the same meal. If it's an add meal button, the fields are blank

Log out/Exit **Edit Calorie and Protein Goal**

Current Calories: x
Goal Calories: y
Calories Remaining: y - x

Current Protein: x
Goal Protein: y
Protein Remaining: y - x

Meal Tracker

Chicken Vindaloo Curry	See/Edit Meal Details
Lasagna	See/Edit Meal Details
Couscous	See/Edit Meal Details
Spaghetti Bolognese	See/Edit Meal Details
Chips	See/Edit Meal Details
Chocolate Chip Cookies	See/Edit Meal Details
N/A	ADD NEW MEAL
N/A	ADD NEW MEAL

Meal Creator/Editor Page

The image shows a UI mockup for a 'Meal Creator' page. It features a title bar at the top with the text 'Meal Creator'. Below the title bar are three input fields: 'Insert Food Name: _____', 'Insert Calories: _____', and 'Insert Protein: _____'. Each input field has a corresponding label to its right. The 'Insert Food Name' label points to the first input field. The 'Insert Calories' and 'Insert Protein' labels point to their respective input fields. Below these input fields is a large, rounded rectangular button labeled 'ENTER'. An arrow points from the 'ENTER' button to a label that reads 'Enter button leads you to home page and saves inputted meal'.

Test Plan:

Action to be Tested (<i>Success Criteria</i>)	Test Methods
Authentication: Working Sign up and Login System	Sign up with a certain email and password, then log in with the same info.
Questionnaire: calculations for recommended daily calorie and protein amounts	Take a questionnaire and see results. Alter values (fitness objectives, gender, etc.) and see what results it gives to ensure the results are logical and change based on what you input.
Home Page. Displays meal logs, calorie and protein amounts, and navigation bar	Does the home page display meal logs, calorie and protein amounts, and a navigation bar? Check for each of these features
The user is capable of adding, editing, and deleting meals	Create a meal, then edit, then delete it, showcasing all three features.
Calorie/Protein Total and Remaining: calculations displaying these values	Show how the calculations work by changing the calorie/protein goal numbers and adding new meal logs to change the current calories/protein and consequently calories/protein remaining