

# *BALANCED BITE*

Mobile App

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CAIMA-506-1503 | App Development for Mobile Devices

# Market Research

## Project Intention

My app is a recipe app designed to help individuals achieve a balanced diet and maintain a healthy lifestyle. My primary goal is to provide users with a platform where they can access nutritious and delicious recipes, learn about portion control, cooking techniques, and healthy ingredients. The app will count the steps taken and calories burned during daily activity, in addition to providing a nutrition display and fitness tracker, which will help my users stay active and eat healthy. Since users can upload their own healthy recipes and create shopping lists, my app will also serve as a recipe journal.

## Target Audience

The app is designed for people who want to improve their lifestyle by maintaining a balanced diet and fitness routine without having to go to a nutritionist.

## User Personas



User persona

### Betty Mel

#### B I O

Betty, a 24-year-old student in a lively college town, is embarking on a journey towards a healthier lifestyle. As a beginner in both cooking and fitness, Betty faces the challenges of limited time and budget. Eager to learn simple and quick recipes, Betty aims to establish a basic fitness routine and gradually incorporate healthier habits into her student life.

#### G O A L S

Learn simple and quick recipes.  
Establish a basic fitness routine.  
Improve overall well-being through gradual changes.

#### M O T I V A T I O N S

Eager to learn simple and quick recipes to kickstart a healthier lifestyle.  
Aims to establish a basic fitness routine to improve overall well-being.  
Seeks guidance and motivation to gradually adopt healthier habits in a budget-friendly manner.

#### B e h a v i o u r s

New to cooking and fitness routines.  
Interested in adopting a healthier lifestyle.  
Limited cooking skills and kitchen experience.

#### C h a l l e n g e s

Limited budget for specialized ingredients.  
Balancing studies with health goals.  
Needs guidance on starting a fitness journey.

#### T e c h U s a g e

Prefers user-friendly apps with beginner-friendly features.  
Relies on online resources for health and fitness advice.  
Seeks motivation through social media platforms.

"You will never always be motivated. You have to be disciplined"

**AGE** 24

**Gender** Female

**STATUS** Single

**EDUCATION LEVEL** Diplome in health & social care

**CAREER** Full-time student





"I don't diet and exercise. I eat and train."

**AGE** 32

**Gender** Male

**STATUS** Married

**EDUCATION LEVEL** B.A. degree in I.T.

**CAREER** Software Developer



User persona

# John Eles

## B I O

Meet John, a 32-year-old software developer residing in the suburbs. John is passionate about weight training and intense workouts to build muscle mass. His dedication to fitness is complemented by a high-protein diet. Striving to achieve his fitness goals, John looks for protein-rich recipes and efficient ways to monitor and improve his workout routines.

## G O A L S

Gain muscle mass.

Find protein-rich recipes.

Track and monitor workout progress.

## M O T I V A T I O N S

Aims to gain muscle mass and improve overall fitness.

Seeks protein-rich recipes to support his high-protein diet.

Motivated by progress tracking and achieving workout milestones.

## B e h a v i o u r s

Enjoys intense workouts and weight training.

Follows a high-protein diet.

Interested in muscle building and maintaining fitness levels.

## C h a l l e n g e s

Balancing work and fitness commitments.

Needs quick and hearty meals for muscle recovery.

Struggles with staying consistent with meal planning.

## T e c h U s a g e

Utilizes fitness apps for workout routines.

Enjoys tracking nutrition through mobile apps.

Uses smart devices for health monitoring.

User persona

# Jessica Jones

## B I O

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Jessica, a 28-year-old marketing expert who works in the city centre, manages her demanding career with a dedication to a healthy lifestyle. She enjoys cooking and being active despite her hectic schedule. Jessica looks for easy recipes that are healthy and in line with her fitness goals in order to keep her life in balance.

## B e h a v i o u r s

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Enjoys cooking but has a busy lifestyle.  
Strives for a balanced diet.  
Regularly engages in fitness activities.  
Values time efficiency.

## G O A L S

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Maintain a healthy lifestyle.  
Discover quick and nutritious recipes.  
Achieve fitness and weight management goals.

## M O T I V A T I O N S

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Values apps that simplify healthy living.  
Inspired by success stories of others.  
Interested in personalised nutrition advice.

## C h a l l e n g e s

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Limited time for elaborate meal preparation.  
Needs guidance on portion control.  
Looks for numerous healthy dishes.

## T e c h U s a g e

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Prefers mobile apps for quick access to recipes.  
Uses a fitness tracker for activity monitoring.  
Engaged in social media to find inspiration for fitness



"Discipline is the bridge between goals and accomplishments."

**AGE** 28

**Gender** Female

**STATUS** Single

**EDUCATION LEVEL** B.A. degree in marketing

**CAREER** Marketing professional



## Competitors

### 1. MyFitnessPal by Under Armour

**Target Audience:** A wide range of people use MyFitnessPal, including those who are interested in comprehensive nutrition tracking, athletes, and those who are trying to control their weight.

**Popularity:** Has millions of downloads on various platforms, making it widely known.

**Design choices and features:** MyFitnessPal has a user-friendly interface, an enormous food recipes to choose from, a barcode reader, and social media integration. It gives comprehensive nutrition tracking and works with a range of fitness devices.

**Strengths:** Extensive food database, strong community support, seamless integration with fitness devices.

**Weaknesses:** The free version has advertisements, and some users may find the interface to be too confusing.

**What I like:** The goal tracking and reminder features of MyFitnessPal, which let users create custom fitness and health objectives, are what I like best about this app. The app helps users stay on track with their daily calorie intake, exercise, and other health-related goals by sending out reminders and notifications.

### 2. Yummly

**Target Audience:** Yummly serves to people who want unique recipe suggestions based on diet limits, taste preferences, and overall health objectives.

**Popularity:** Popular, particularly with those looking to plan meals and get ideas for recipes.

**Design choices and features:** Yummly values visual appeal in its user-friendly design. Meal planning tools, shopping lists, and customised recipe recommendations are all included.

**Strengths:** Various recipes, visually appealing design, and personalised recommendations.

**Weaknesses:** The user interface may seem messy to some users.

**What I like:** I love the app's feature that allows users to add items to their shopping lists.

### 3. Fitbit App

**Target Audience:** Fitbit serves to people who are interested in fitness and general health, with a focus on activity tracking and, as of late, nutrition monitoring.

**Popularity:** Extremely popular, particularly by Fitbit users who enjoy exercising.

**Design choices and features:** Fitbit's design is simple and clear. It has tools for monitoring sleep, exercise, nutrition, and steps. The Fitbit app connects with the device without any issues.

**Strengths:** Complete health monitoring, compatibility with Fitbit devices, and a simple user interface.

**Weaknesses:** Compared to apps that are specifically focused on nutrition, the nutrition tracking feature may not be as strong.

**What I like:** Fitbit's ability to offer recommendations and insights based on user data is something I like. To help users in making decisions regarding their health and well-being, this also includes suggestions for sleep, workout routines, and other personalised insights.

### 4. Lose It!

**Target Audience:** Lose It! serves to individuals focused on weight loss, healthy eating, and fitness tracking.

**Popularity:** Significant user base and popular.

**Design choices and features:** The layout of Lose It! is simple and easy to use. It has functions like a food journal, exercise tracking, barcode scanning, and a friendly community.

**Strengths:** Simple food tracking with a barcode scanner, an engaging community, and a user-friendly interface.

**Weaknesses:** A premium subscription might be needed for some advanced features.

**What I like:** The large food database that is accessible in Lose It! is what I like about this app! It offers a large selection of food items, including several well-known brands and restaurant selections, giving users plenty of choices for precise meal tracking.



# Technical Document

## My App

I will have four different pages. On the home page, users can browse recipes to choose a healthy dish to make. Adding a recipes page will allow users to store and share their recipes in a single convenient spot. Users can add, remove, and delete items from a shopping list and move the ingredients from a recipe view to a list on this page. Additionally, I'll have a page that tracks users' steps and calories burned. The user of my app will have, to login with an existing account or register for a new account.

## App Features

### Primary Features

1. **View Healthy Recipes:** Users can browse a selection of nutritious and delicious recipes to help them maintain a balanced diet. By looking at various recipes, users can learn about portion control, cooking techniques, and healthy ingredients. This feature directs users on how to cook healthy meals. This also helps them decide what to cook for specific meals or occasions, ensuring they have a balanced and healthy diet.

This feature will be placed in the homepage as an "ion-card". The page will have a selection of "ion-cards" and when a specific recipe card is clicked, one whole recipe will be shown.

2. **Add Recipes:** Users can add their own recipes, making it possible to make changes and include their favourite foods. My idea behind this is to increase nutrition knowledge and motivate people to eat well, users of the app can share their own healthy recipes with the community. As an easy access, users no longer need to look for their go-to recipes elsewhere because this feature gives them a central location to save and retrieve them.

I will be making use of "ion-label", "ion-input" and "ion-button", ion-input for users to put their recipe data and ion-button to submit the data. "Ion-cards" so when the user submits the data, the data is represented into an "ion-card".

3. **Camera native feature:** User can take pictures of their food or ingredients; this feature will be joint with the add recipe feature.

Here I will install the camera "npm install @capacitor/camera"  
"npx cap sync" to import the camera feature.

4. **Create a Shopping List:** Users can easily add ingredients from their chosen recipes to a virtual shopping list. This simplifies meal planning and ensures that they purchase the necessary items for their preferred dishes when they go shopping. Items in the shopping cart can be added, removed, and edited by the user. The list can then be deleted after finishing. My goal with this feature is to make it simple for users to find the ingredients they require without having to go through the entire recipe; instead, they can quickly find the ingredients in the shopping list. Together with the ability to remove an entire list, users will also be able to add or remove items from the shopping list page.

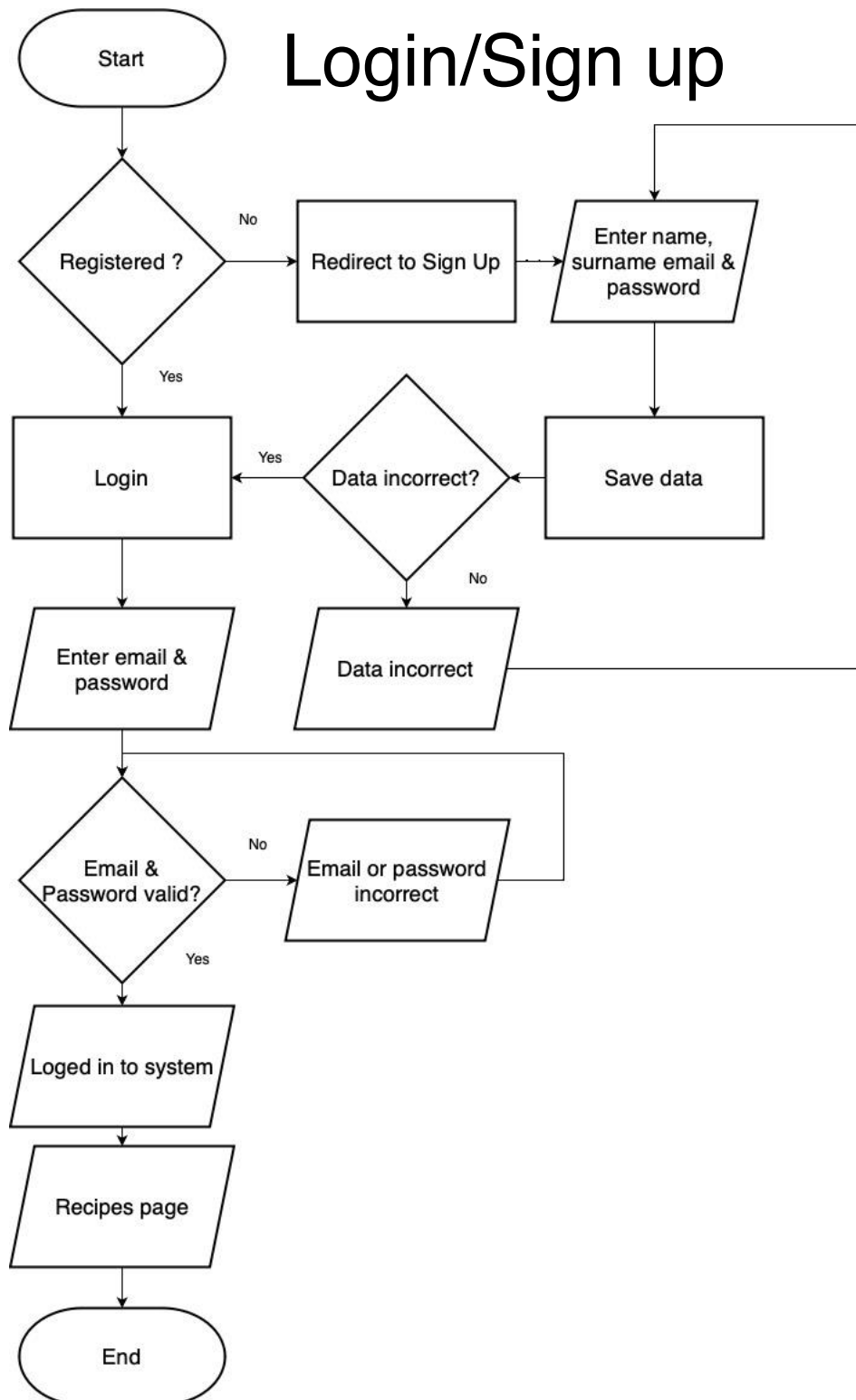
To create the shopping list page will make use of “ion-list” to put the data into a list, I will make use of “ion-button” so the users can add/remove items or delete the whole list and “ion-input” for users to add new things to the list. I might make use of the “ion-checkbox” for users to mark the items as done when at the supermarket.

## Secondary Features

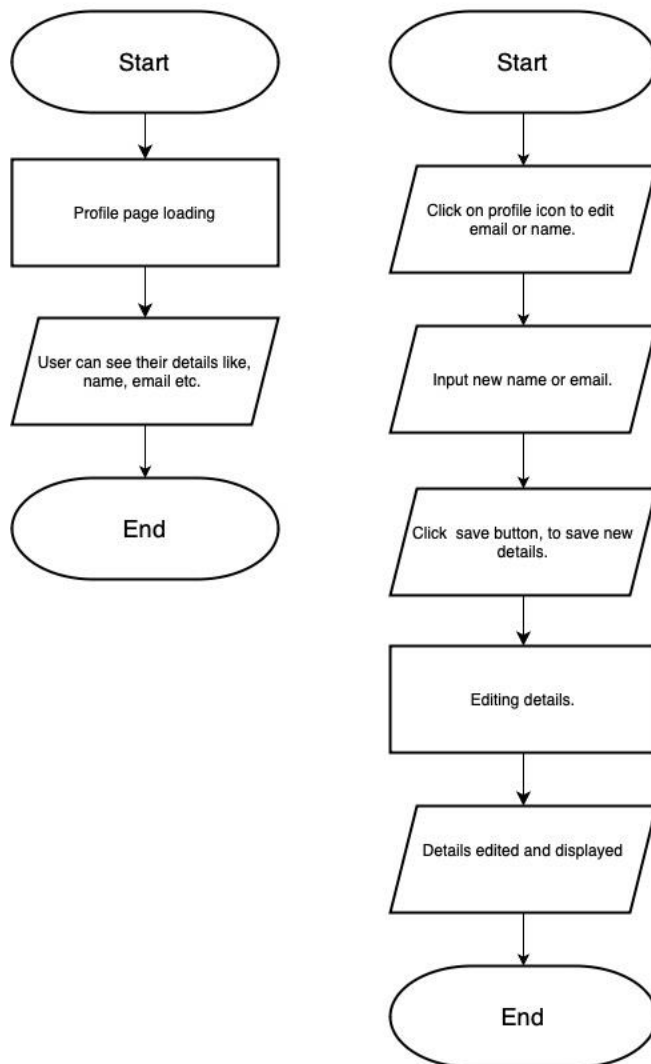
5. **Track Steps and Fat Burn:** The app includes fitness tracking features that help users monitor their daily physical activity, including the number of steps taken and calories burned. This data is essential to understand their daily energy use.
6. **Calorie and Nutrition Monitoring:** The app calculates and displays important nutritional information, such as the number of calories, protein, and other nutrients users can consume based on their daily activity levels. This function helps users more effectively manage their dietary intake.

## Flowchart

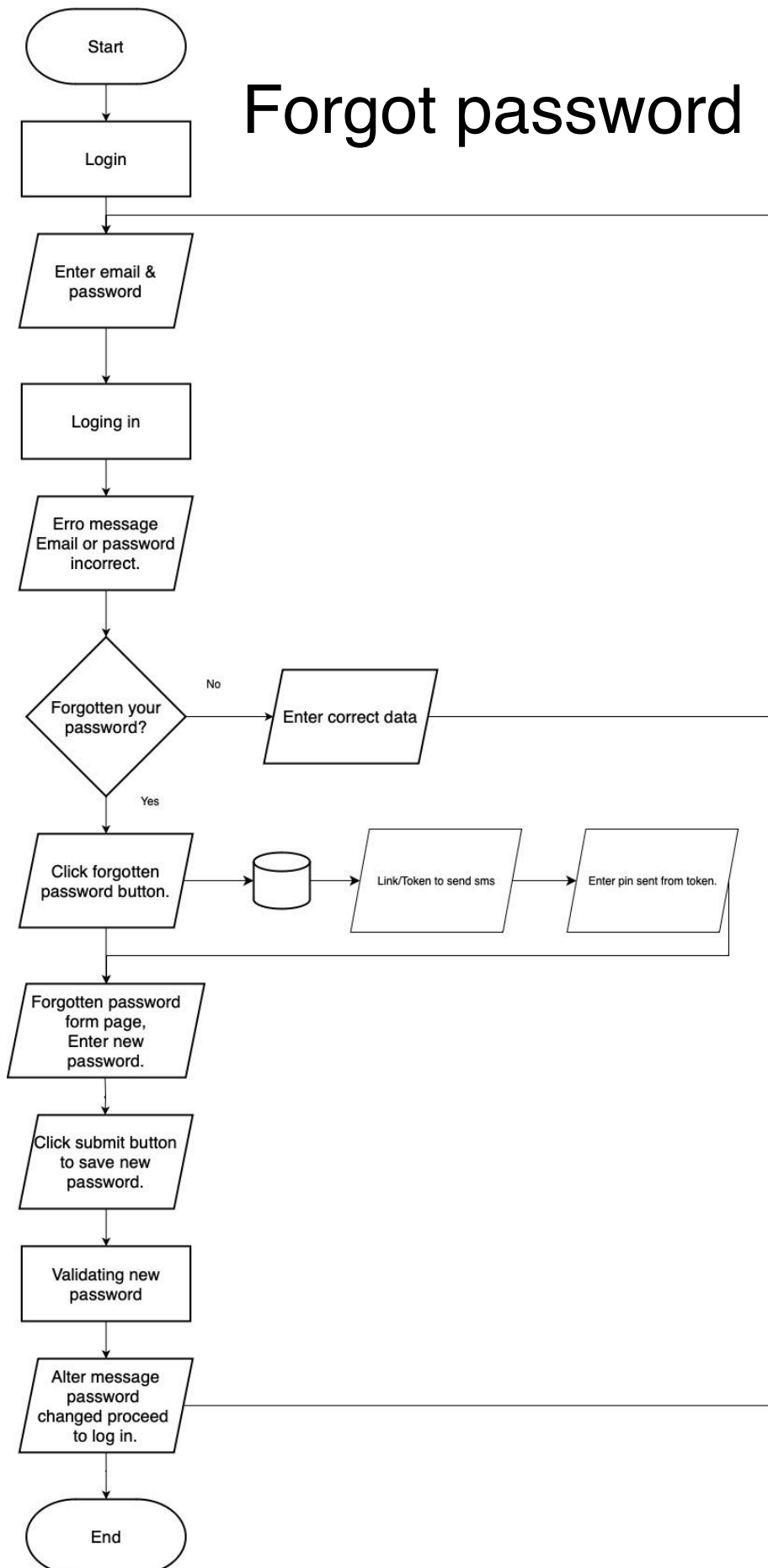
# Login/Sign up



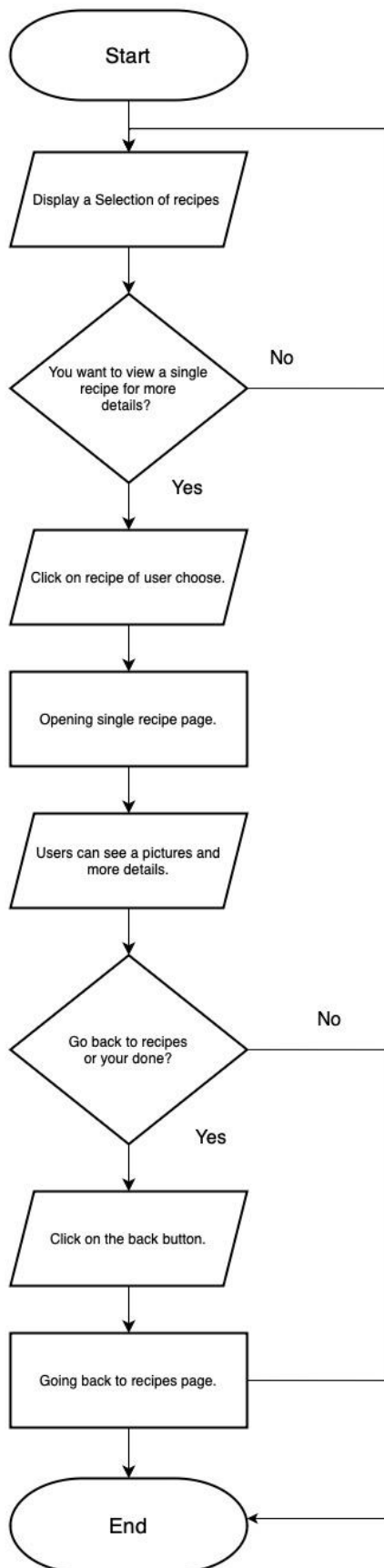
## Editing Profile details



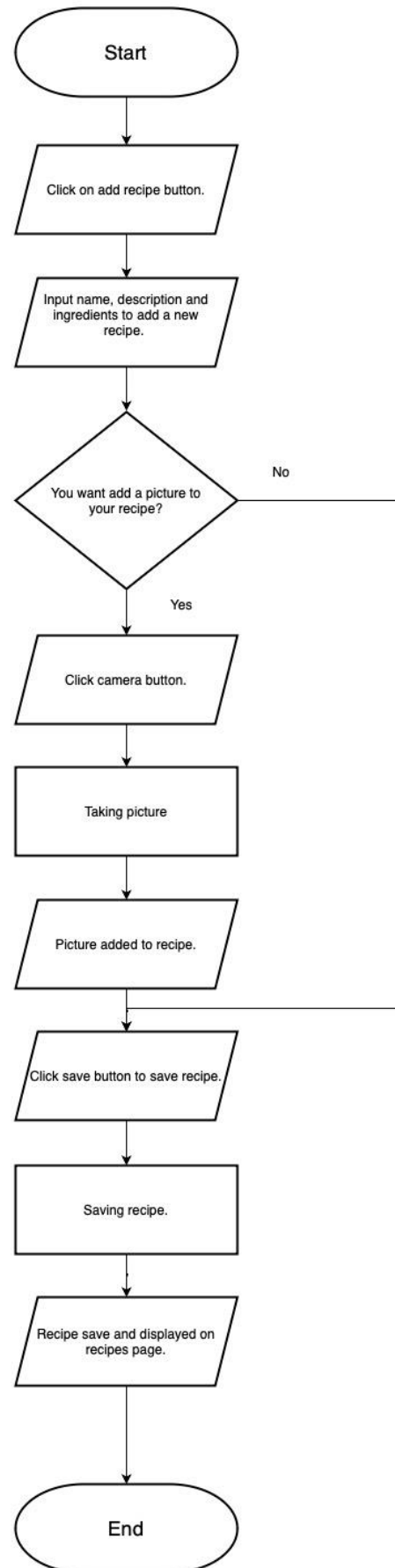
# Forgot password



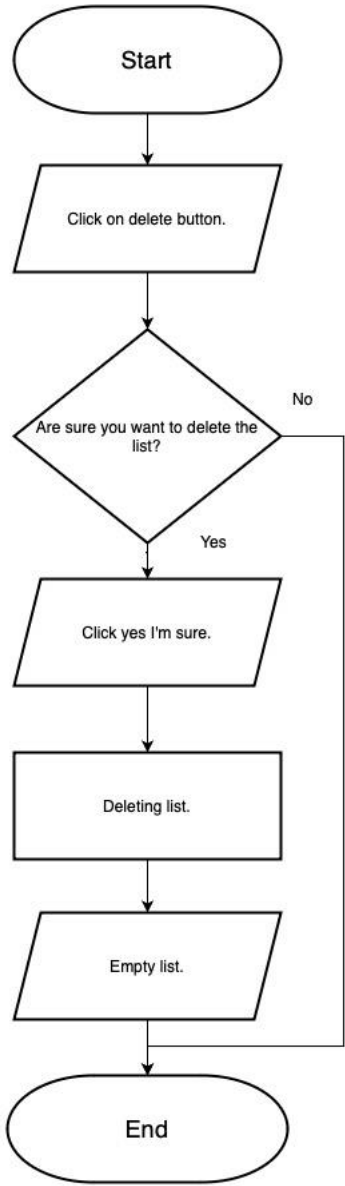
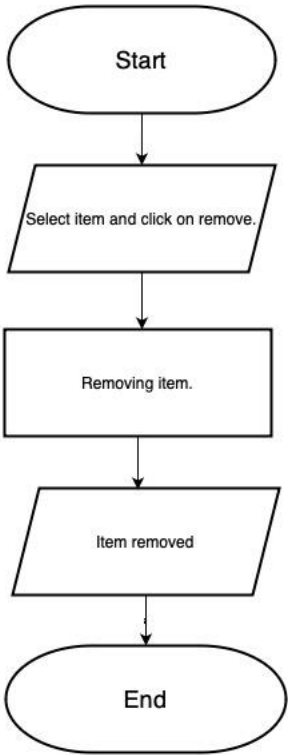
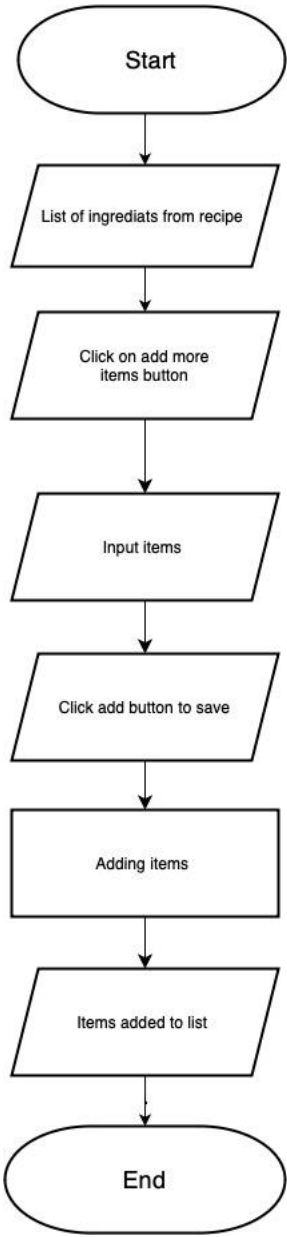
## Viewing Recipes



## Adding Recipe

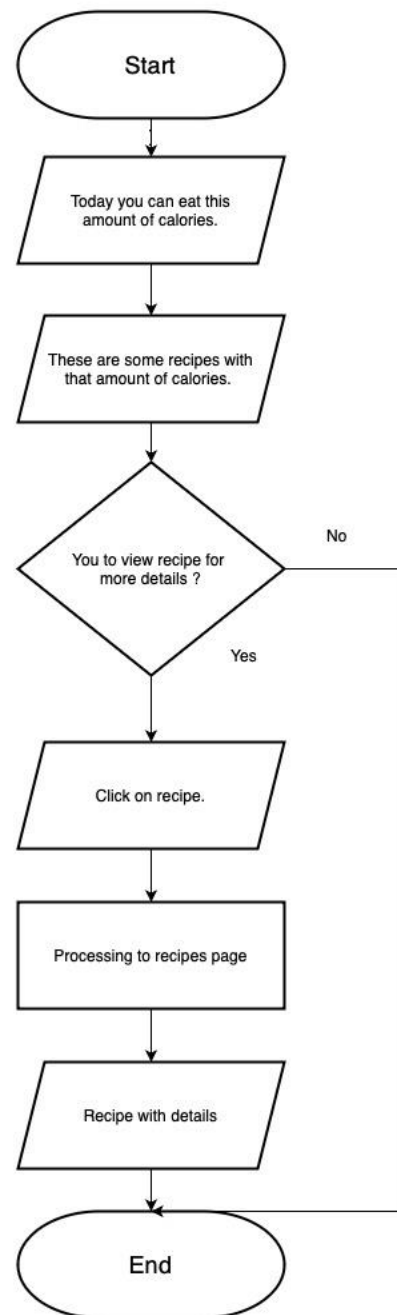
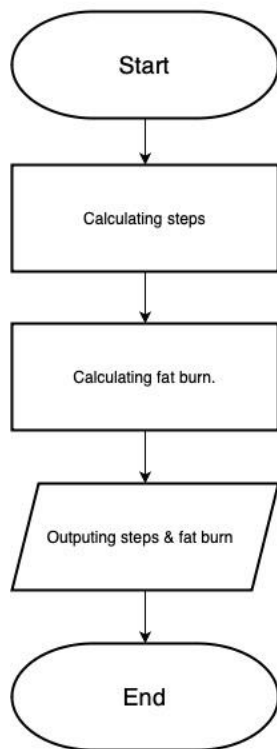


# Shopping List feature





## Tracking step/fat burn & Displaying it.



## IPO Chart

Input	Process	Output
Clicks "Login" button to enter existing username and password.	Verify the entered login information with the database.  Log the user in and take them to the main content of the app if their credentials are valid.	The home page is displayed if the user has successfully logged in.
User clicks on the "Register" or "Create Account" button if you don't have an account.	Send the user to a page with a registration form.	Display form.
User inputs necessary information like name, username, password, and email and click on "submit" button.	Validating the entered information and creating a new database user account.	Confirmation message indicating successful registration then proceed to login.
Click on "forgotten" password.	<ol style="list-style-type: none"><li>1. App generates a unique password reset link/token and sends it to the provided contact information (email or phone number).</li><li>2. If the identification information is valid, send a password reset notification containing the unique link/token via the selected communication channel (email or SMS).</li></ol>	

Click on provided link sent by (email or SMS)	App validates the token to ensure its authenticity and not expired.	User provides a new password form.
Input new password.	App validates the new password and updates it in the database.	Display a confirmation message indicating that the password has been successfully reset and if applicable, inform the user that their password has been updated.
By clicking the filled-in name and email go to profile page to edit details.	Profile page loading.	Form with details is displayed.
By selecting the filled-in example name and input new name.	Check to see if the updated data is correct and matches the necessary requirements (valid email format, for example). Update the user's database profile information if the edits are valid.	The user's updated profile details, such as their new email address and name, are displayed.
User can choose from a selection of recipes.	Get and show a range of nutritious recipe choices from the database.	User sees a selection of healthy recipes.
Click on chosen recipes to view details of a single recipe.	Recipe single page opening with more details.	Details like ingredients, instructions, and nutritional information are shown.
Click "back" button on the single recipe card.	Going back to the recipe's selection page.	Back to seeing a selection of healthy recipes.
User clicks the "Add Recipe" button.	Send the user to a recipe form page where they can fill out their name, contact information, ingredient list, and even upload a photo.	Output details form page.
User inputs recipe details.	User filling form with data.	Form fields are filled with ingredients, instruction, and information.
User accesses the camera feature within the "Add	Capture and process images of food.	Image is attached to form in an image field.

Recipe" section with an "Add image" button.		
Click on save button to save recipe.	Validating the entered information and saving the user-provided recipe data and attached picture to the database.	Confirmation message and the added recipe is now visible in the app's recipe selection as a card.
User selects ingredients from a recipe and adds them to the shopping list.	Retrieve the ingredients from the selected recipe.	Display the ingredients in a virtual shopping list with an "Add/Remove Item" and "delete" button.
Click "Add" items button in shopping list page to add items and click "add" once again to submit.	Validating the entered items and adding them to the shopping list.	Updated shopping list with both recipe ingredients and user-added items.
User selects an item in the shopping list and clicks the "Remove" button.	Removing the selected item from the shopping list.	Updated shopping list without the removed item.
User clicks the "Delete List" button.	Confirm user's intention to delete the entire list and remove all items from the shopping list.	Empty shopping list, indicating that the entire list has been deleted.
App collects fitness data from the device's sensors.	Monitor and update step count and calories burned.	Show users' daily physical activity data so they can monitor their progress towards fitness.
App considers user's daily activity levels.	Calculate and display nutritional information, including calories and protein.	Users receive insights into their dietary intake and can make informed choices for a balanced diet.
Clicking on tab	Move users between pages. Forward and backwards.	Users go to a different page according to the chosen tab.

# Design Document

## Colour scheme

I am making use of a 4-colour scheme because an app's design can be made simpler and more consistent by using a four-color scheme, which also makes the app look clean and organised.



## Typography

Font type “Arial” because it clean, simple, and widely available. Heading size 36 and bold, subheading size 24 bold, and body text size 16. On dark background I will use light text and the opposite for light background. Heading size of small card 20 and text size 12. Welcome page heading size 64 and bold.

# Balanced Diet

### Egg & Bacon Mini Casseroles

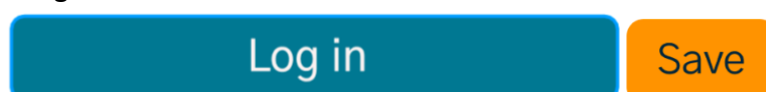
302 Cal

#### Ingredients

1. Lorem Ipsum is simply dummy.
2. Lorem Ipsum is simply dummy.
3. Lorem Ipsum is simply dummy.
4. Lorem Ipsum is simply dummy.
5. Lorem Ipsum is simply dummy.

## UI Components

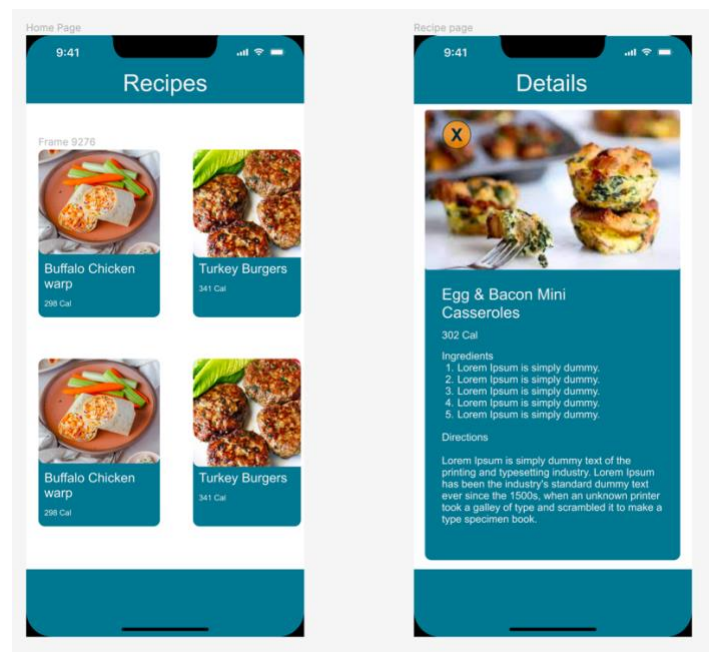
My login/Sing up primary button will be coloured using “1C768F”, solid, and, having a rounded edge of 6. My other primary button will be coloured using “FA991C”, solid, and having a rounded edge of 10.



My secondary buttons will be my back buttons coloured “FA991C”, with an opacity of 70% and with a stroke of size 1 and “032539”.



I will be making use of a tab so user can go forward and backwards between pages. My card when clicked for view it will open as a whole page with a dark background and light text. Input text area and input image layout for my adding recipes page.



## Wireframes

Figma link: <https://www.figma.com/file/rLcvRyHB2AOAoSKtmFKVWy/Balanced-diet?type=design&node-id=0%3A1&mode=design&t=7UUUGGgBs5KsSZ2a-1>

