

Carbs Buddy

Carbs Buddy is a diabetes management application focused on helping individuals improve their eating habits and to keep track of their nutritional intake.

Chukwuebuka
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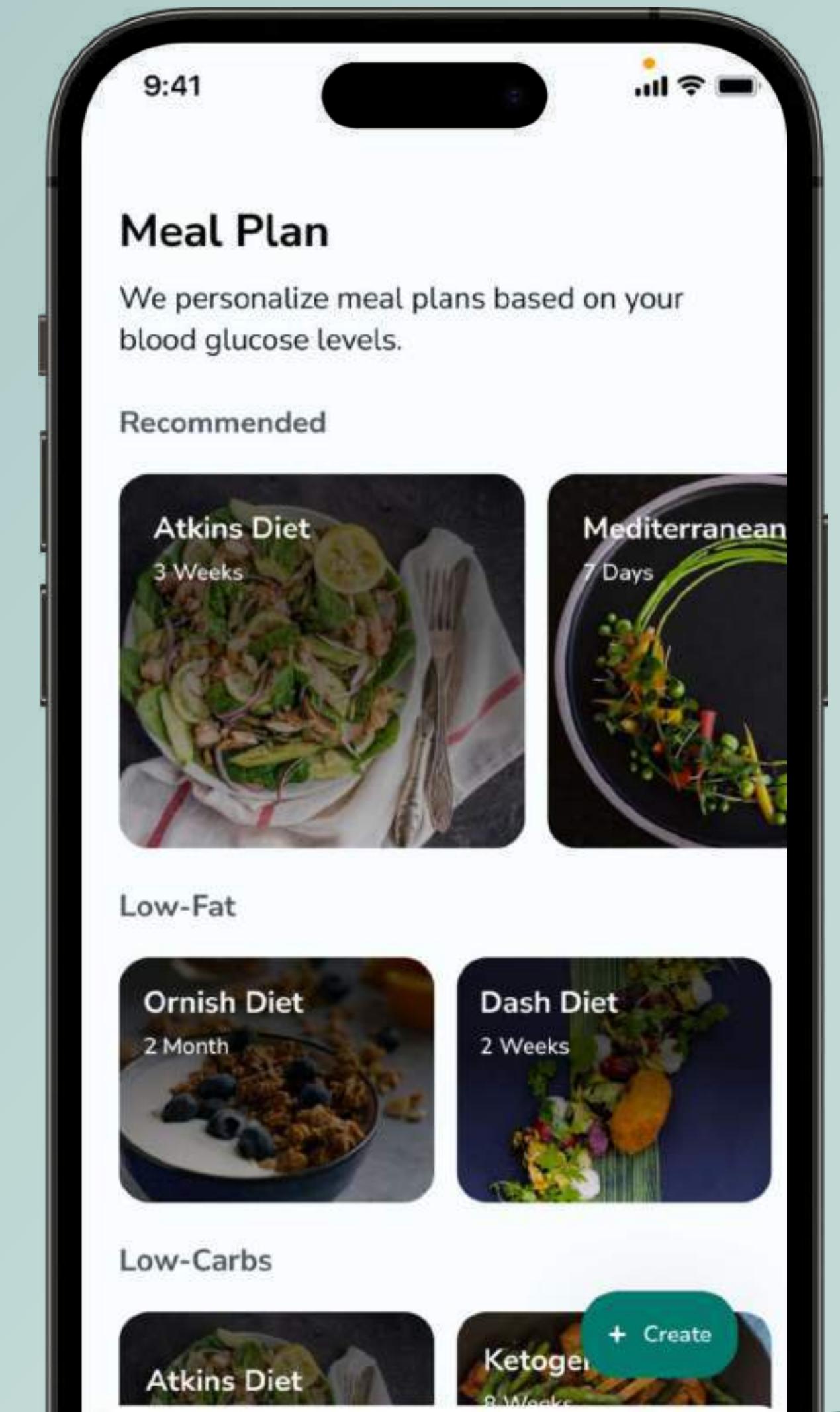
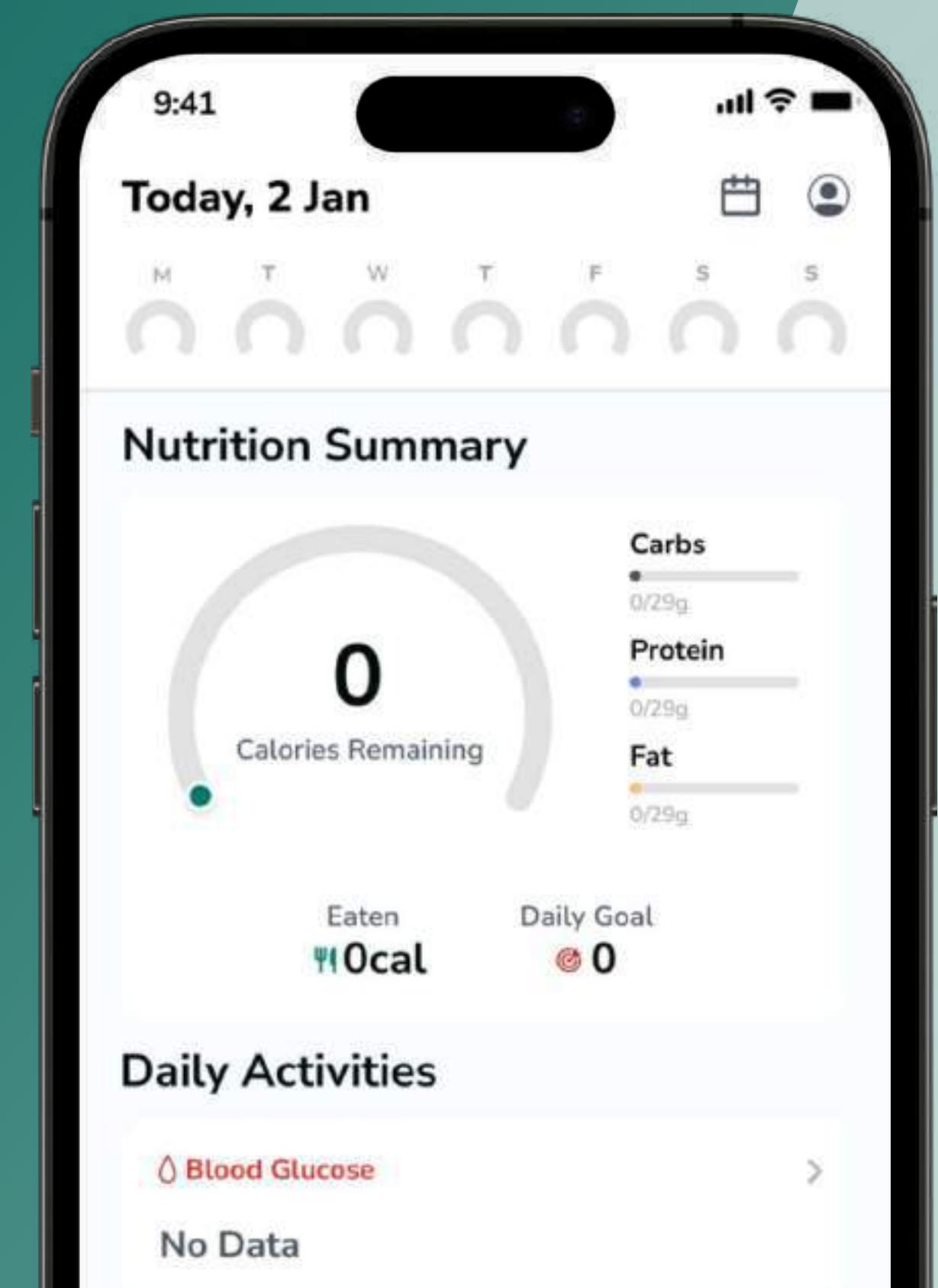
Victor
Churchill

Shamim
Hadad

Tools



Course: CMP 7217 - Visual Interface Design



Introduction

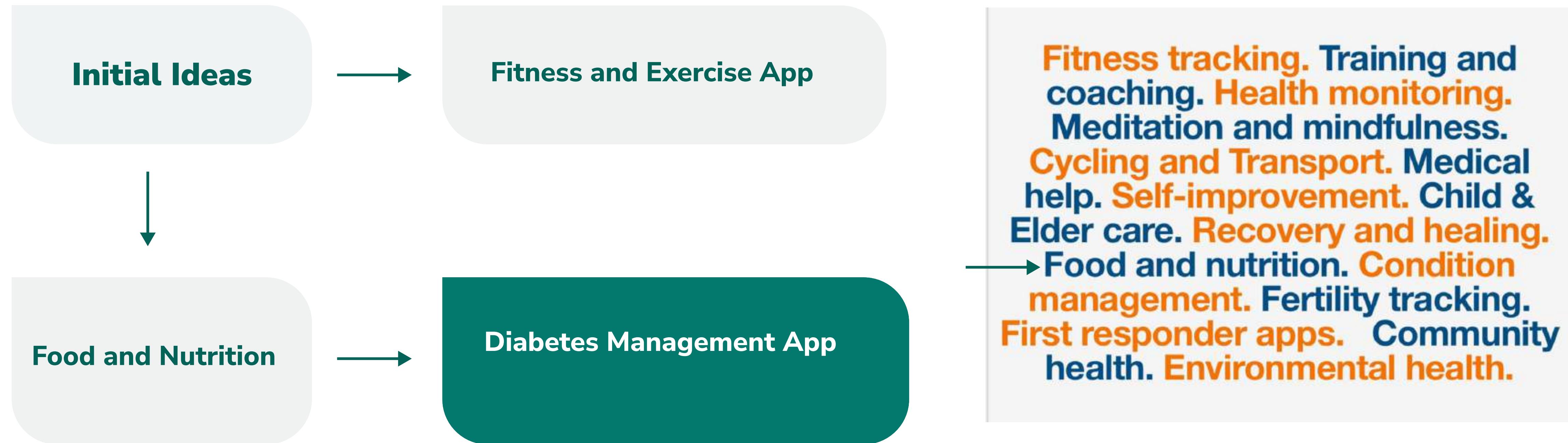
The Problem

Proposed Solution

Design Process

Competitive Research

Why We Selected This Topic

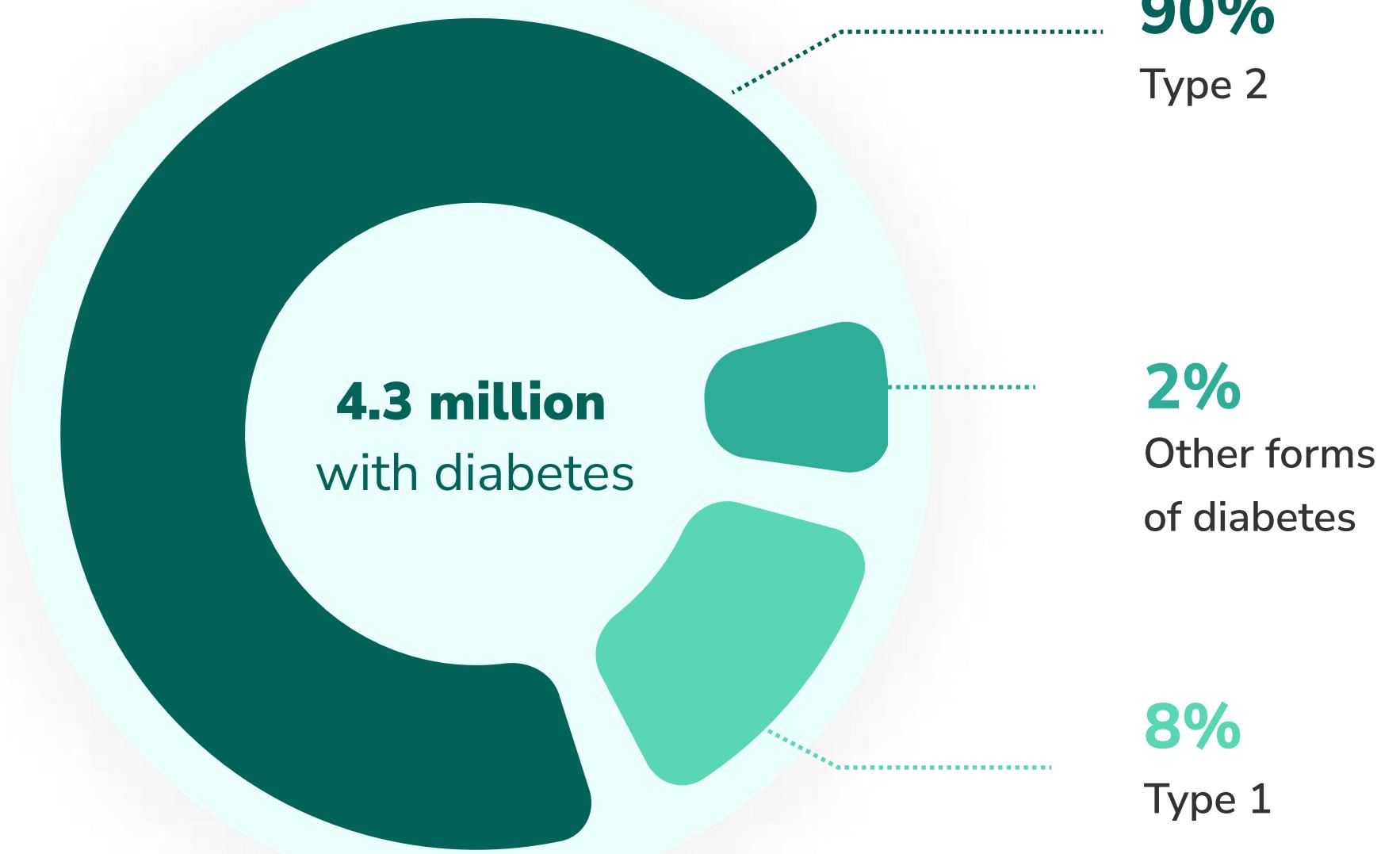


We decided to work on food and nutrition, especially Diabetes management because food has a wide appeal as everyone needs to eat and make decisions about their diet. Also, diabetics can take advantage more of food and nutrition applications like recipe recommendation and meal tracking, which encourage healthier eating habits.

The Problem

According to Diabetes UK, as of 2021, there are approximately **4.3 million people** diagnosed with diabetes in the UK. Of this population, about 8% have Type 1 diabetes, 90% have Type 2 and other forms of diabetes making up the remaining 2%.

Research has shown that **unhealthy eating habits** is a major contributor to the development of diabetes. Individuals with diabetes struggle to adopt **healthy eating habits** due to a lack of awareness, motivation, and support. This can lead to **complications** and **worsen health outcomes**. A solution is needed to help individuals with diabetes **adopt healthy eating habits**, improve their quality of life, and **reduce the burden of diabetes-related complications**.



[Article link](#) →

Why Nutrition For Diabetics?

Control BGL

Tracking your blood glucose levels regularly can help monitor how food affects your body and cause spikes in blood glucose levels.

Eating Habits

Creating personalised meal plans can be an effective way to help individuals improve their eating habits and meet their health goals.

Health Awareness

Having a nutrition app for diabetes will help users to be more self aware of their health current situation

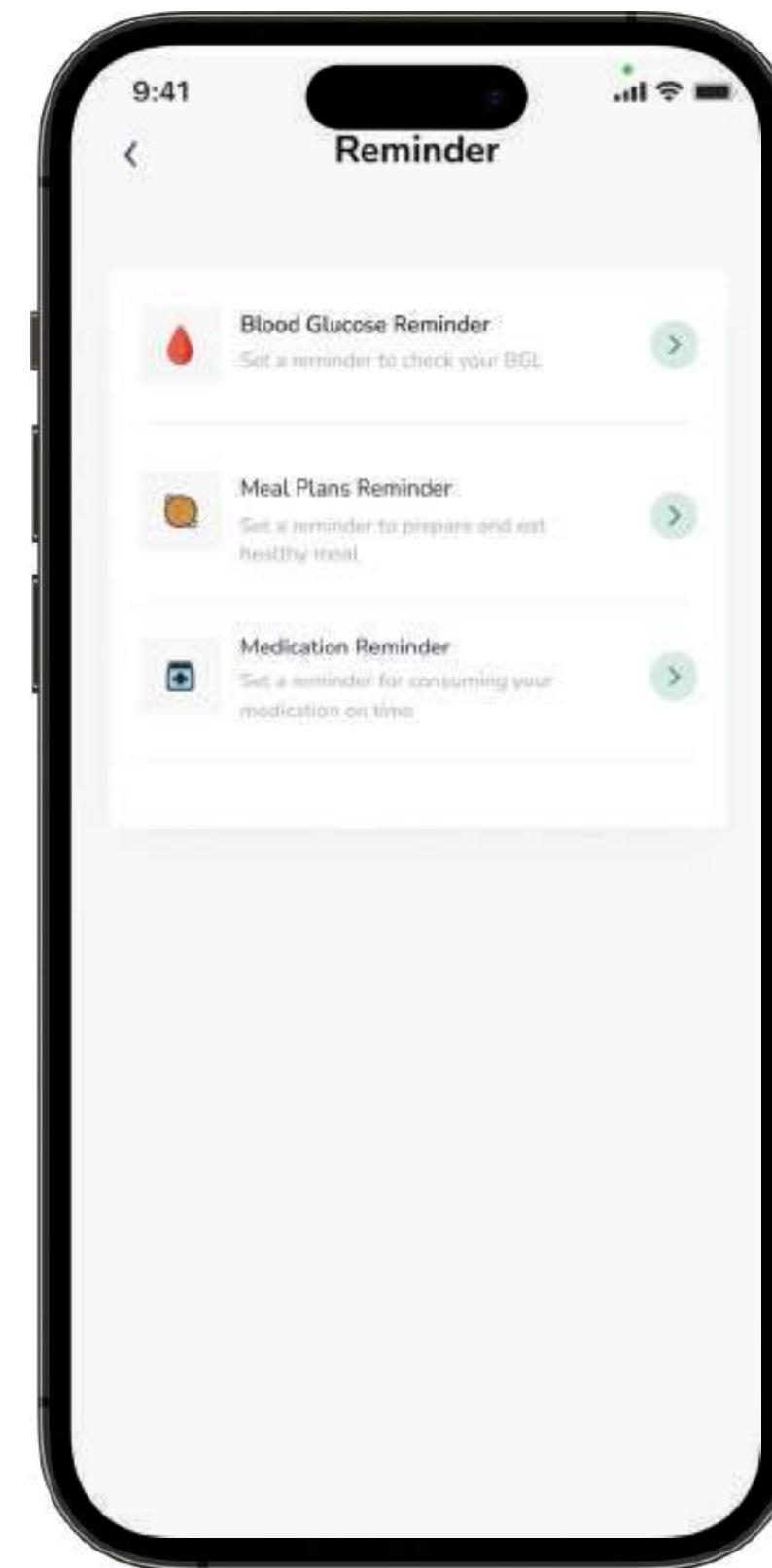
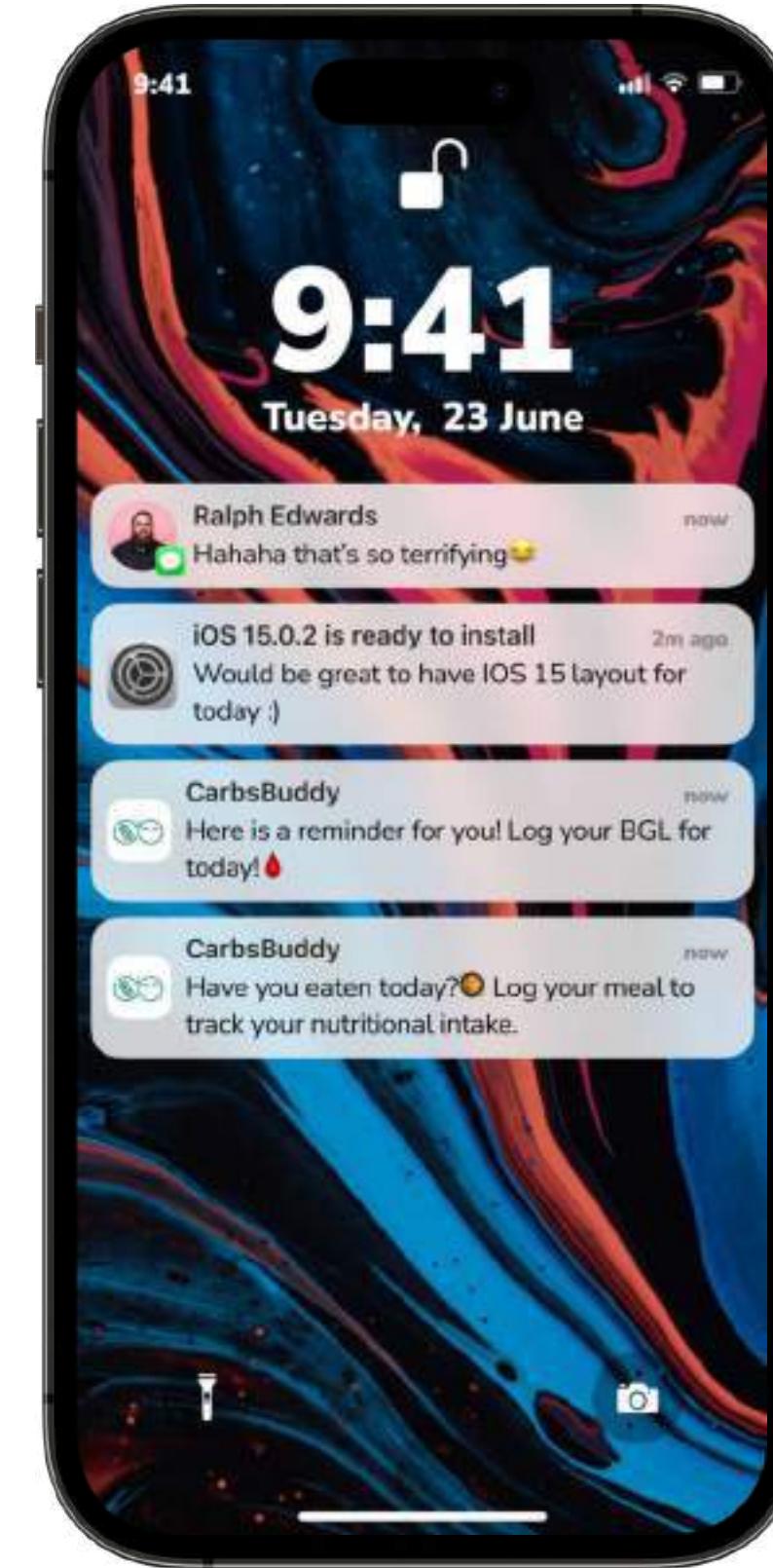


Proposed Solution

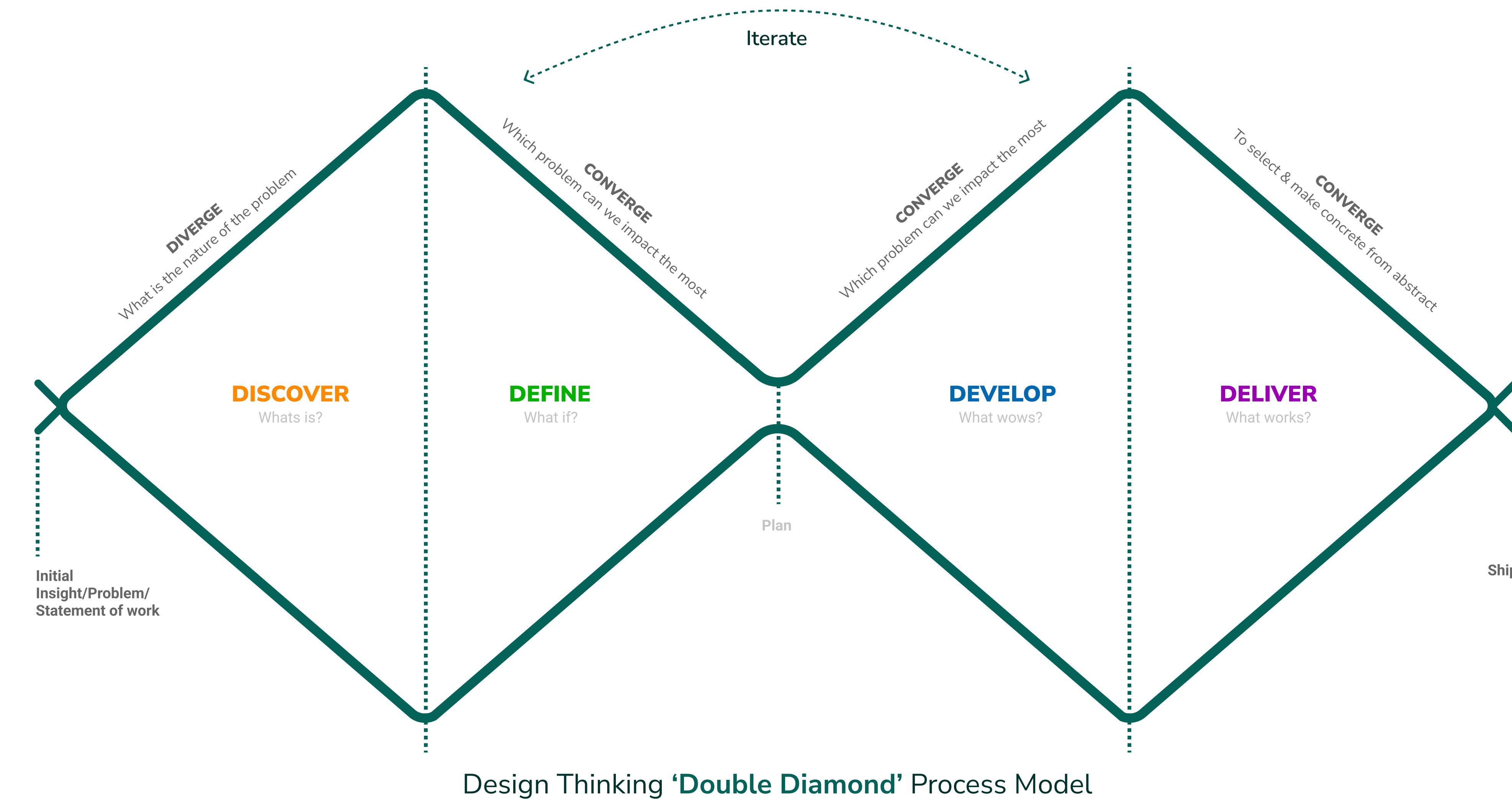
The primary objective of the project is to develop a comprehensive diabetes management solution that is specifically designed to address the needs of individuals with diabetes.

The solution will focus on providing support to diabetic individuals by helping them improve their eating habits and maintain a healthy lifestyle.

The ultimate goal of the project is to create a diabetes management solution that is easy to use, effective, and accessible to a wide range of individuals with diabetes.



Design Thinking Process



Analyzing Applications

We analyzed several applications during our design process, focusing on their visual design elements, consistency, and user experience. Our goal was to identify areas where we could improve upon and create a better user experience for our own application.

Carb Manager

1 To continue the process user have to insert his latest weight. good point here is that he can update it's weight any time.
1b/kg

2 what is your sex?

3 How tall are you? Ft/Cm

4 when is your birthday?
Birthday input just cover 2005 and before, for example a user who was born in 2006 could not insert his birthday

5 How Active are you?
It's grading

Feedback
A Fat Pear is playing with a txt at the bottom:
We are creating your Plan

At the first step I've chosen to lose weight and be healthier. But I could not see any plan to healthier

gain or lose?

what is this?

Custom Feature

Piechart

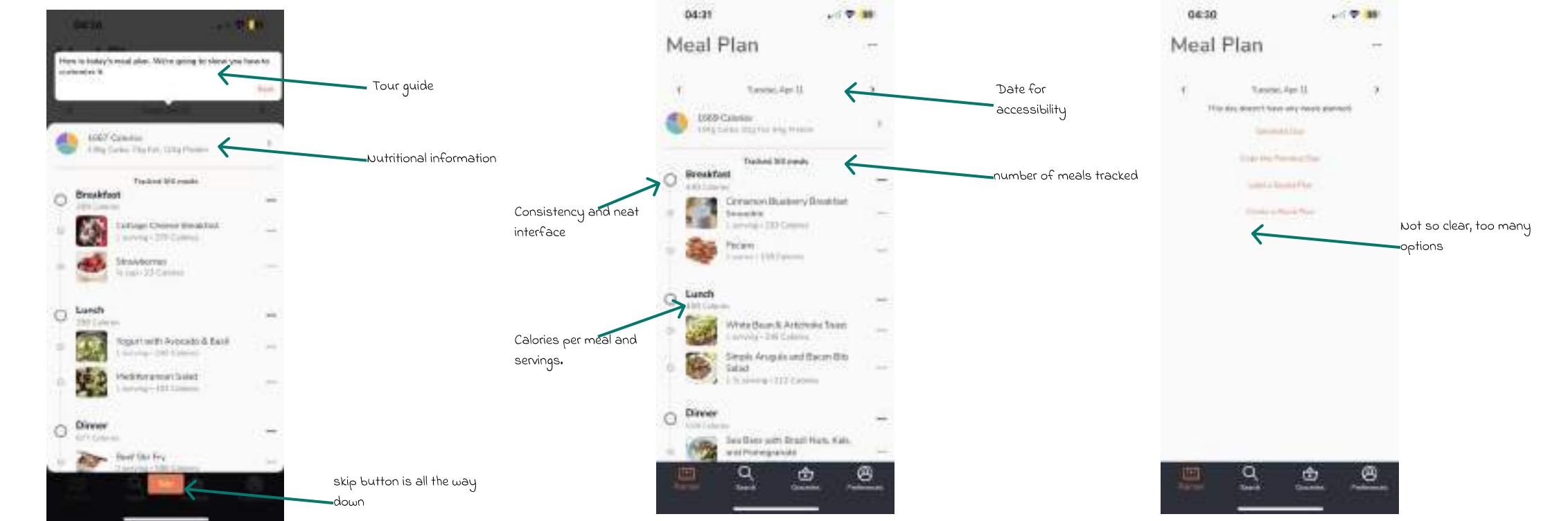
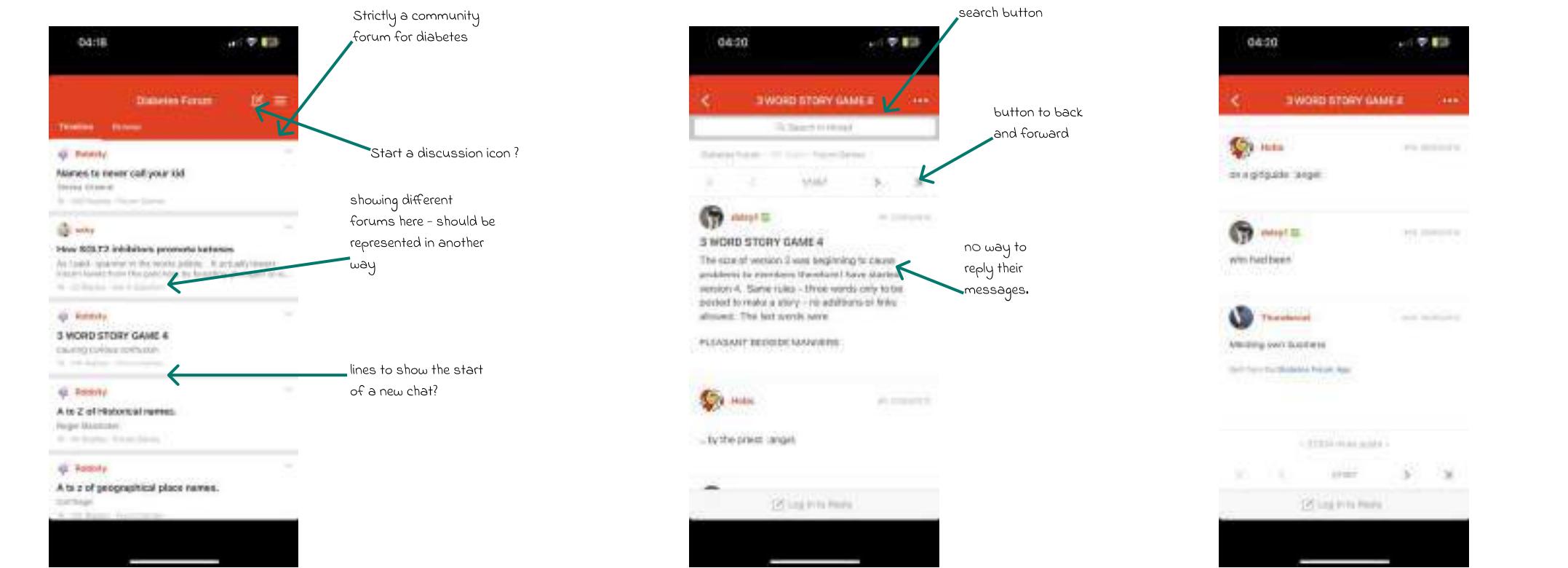
converted 201 to g for better understanding

For losing weight which macronutrient goal is suitable for me?

Analyzing Applications

Some other applications we checked out before starting our competitive research

Diabetes Forum



Competitive Analysis

Direct Competitors

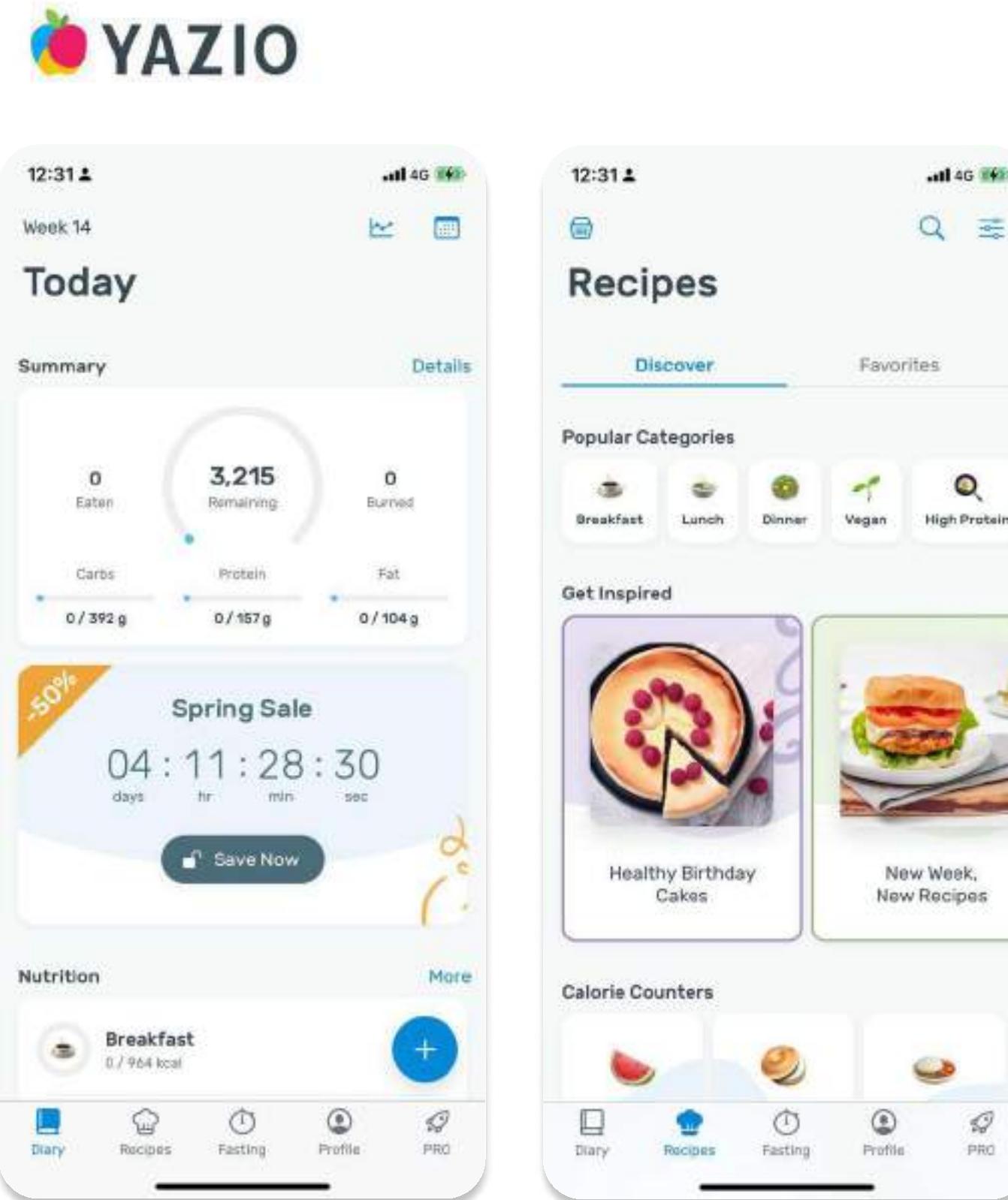
FEATURES	Carbs & Cals	mySugr
Community	✗	✗
Blood Glucose Tracking	✗	✓
Meal Plan	✓	✗
Medication tracking	✗	✗
Logging meals	✓	✓

Indirect Competitors

FEATURES	Lifesum	YAZIO
Community	✗	✗
Blood Glucose Tracking	✗	✗
Meal Plan	✓	✓
Medication tracking	✗	✗
Logging meals	✓	✓

Methods Used In Developing Concepts

Visual Competitive Analysis



Positives

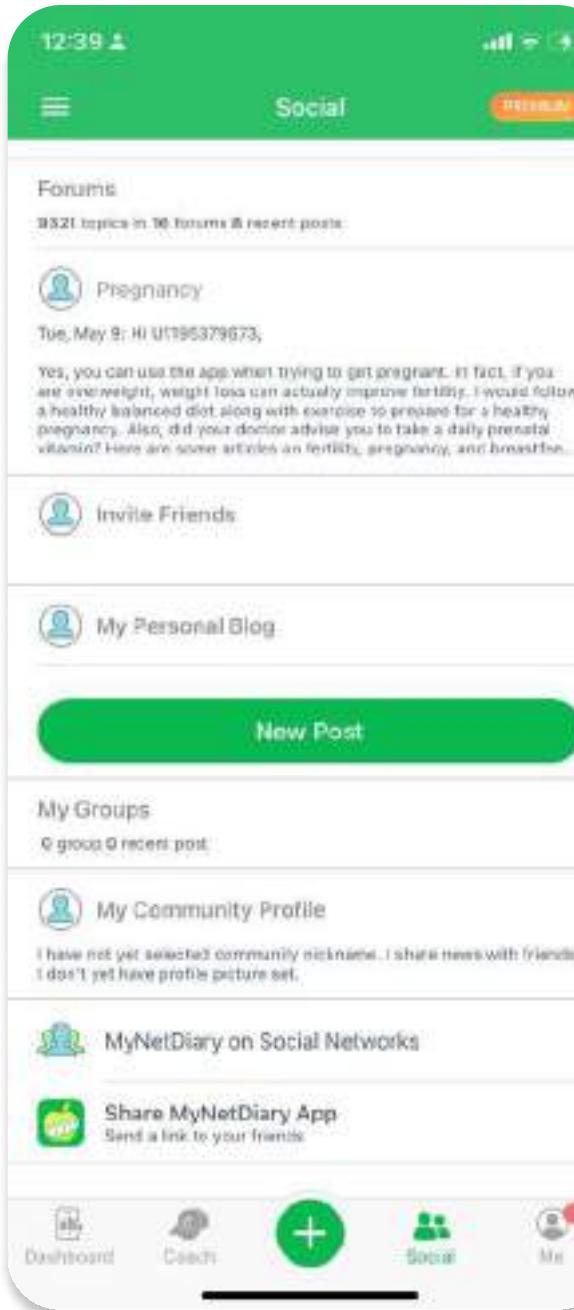
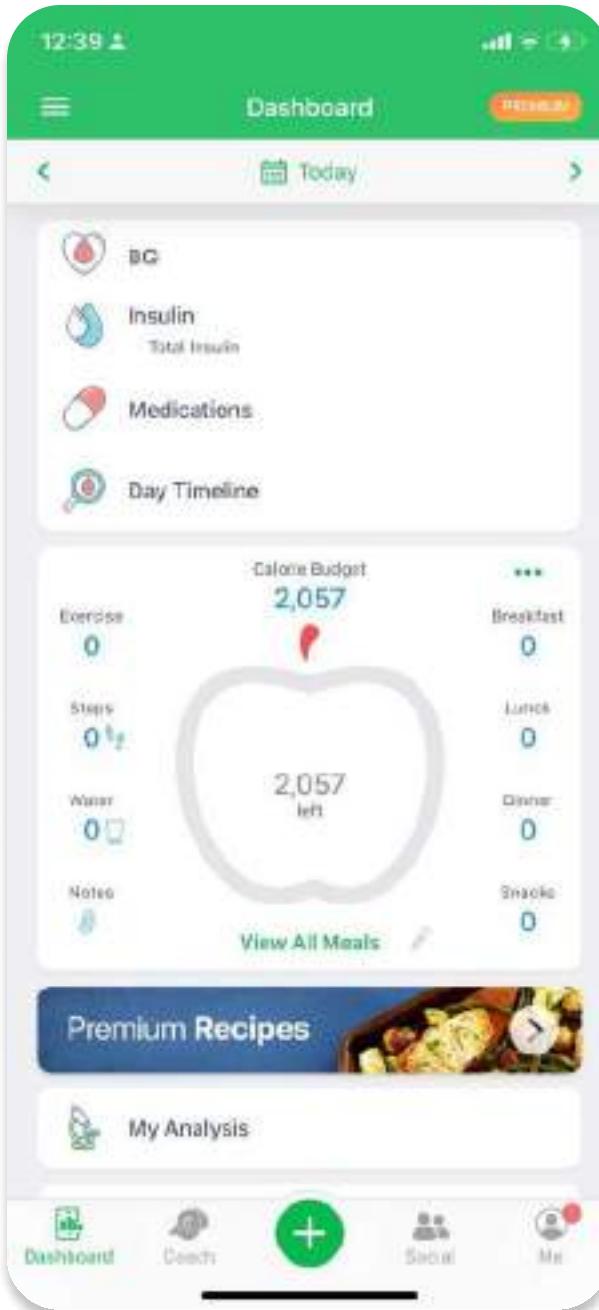
- The icons used throughout the app are consistent with their meaning and function, making it easy for users to understand and use them
- The app's interface is intuitive and easy to use, with clear labels and sections that help users navigate the app.

Negatives

- The app presents data mostly in text form, with limited graphical representation
- Users may find that they cannot fully personalize the interface to their preferences.

Methods Used In Developing Concepts

Visual Competitive Analysis



Positives

- The app presents data in a graphical representation, such as charts and graphs
- Offers customization options, such as the ability to change the theme and font size, which can help users to personalize their experience

Negatives

- It has a cluttered interface, with too many options and information displayed on the screen at once.
- The app's icons are not consistent with their meaning or function, which can confuse users
- Some sections of the app may have low contrast, making it difficult for users with visual impairments to use the app

Range Of Concepts Developed

A range of concepts were developed from our **card sorting and Competitive analysis** to come up with concepts and they were evaluated based on the following criteria



To keep track of nutrition intake



Structure the eating habits of diabetic individuals



Have a proper insight of their health condition

Monitoring Blood Sugar Levels

Communities for users to join

Medication tracking

Reminders for meals, nutrition and BGL

Tracking nutrition content in meals

Creating Meal Plans for structured eating habits

Design Concepts

—
Concept methods

—
Concept Variation

—
Suitability evaluation

—
Evaluation Criteria

How We Developed Concepts For Our App

Card Sorting:

We utilized this method to categorize our initial ideas on potential problems the application can solve and filtered them according to importance in order for us to have a focus on a particular problem to solve. Below are some key points we established with this method



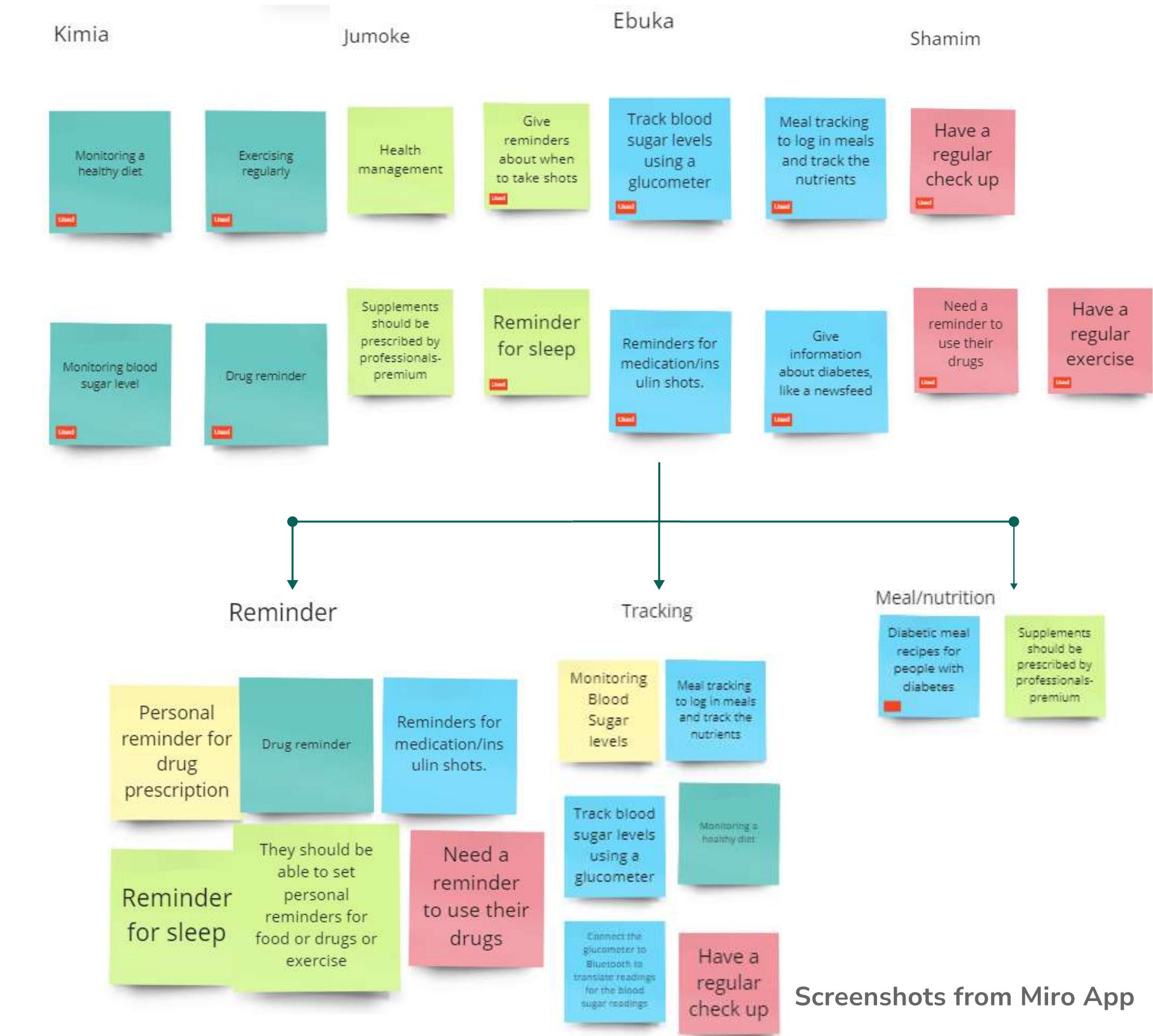
The core problems the application solves such as Meal tracking, Reminders and Communities



Established the hierarchy of features to be used by the app according to user needs



Determined the information architecture of the application



Screenshots from Miro App

Data Analysis

On the basis of the information that we have gathered, we have begun to analyse it, and we have discovered some of the prospective requirements and preferences of the target audience.

—
Meal Planning and Tracking

—
Data Analysis and Insights

—
Community and Support

—
Reminder Management

—
Blood Glucose Level Logging

Data Collection

In order to discover a solution to the problem that we were trying to solve, we first conducted some research and brainstormed some possible alternatives..We also engaged in card sorting and quantitative research.



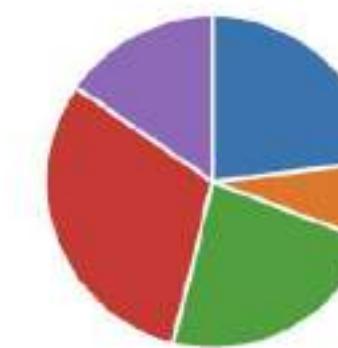
Data Collection

Empathise user surveys are a type of research tool that aims to understand the needs, wants, and expectations of users through their experiences and emotions.

1. What is your age group

[More Details](#)

18 - 25 years	3
26 - 35 years	1
36 - 45 years	3
46 - 60 years	4
60 years and above	2



8. How often do you monitor your blood sugar levels?

[More Details](#)

[Insights](#)

Multiple times a day	2
Once a day	4
A few times a week	5
Rarely	2

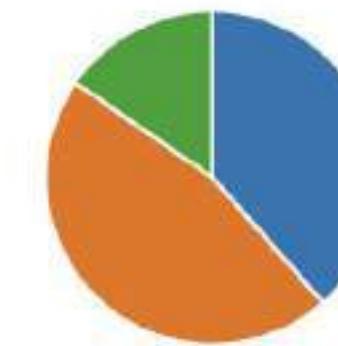


2. What type of diabetes do you have?

[More Details](#)

[Insights](#)

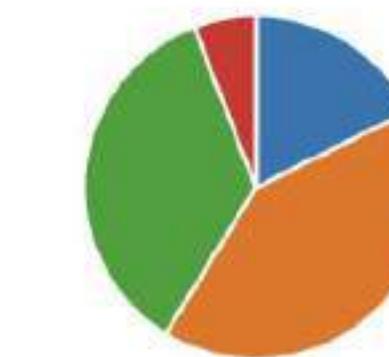
Type 1	5
Type 2	6
Gestational Diabetes	2



3. How do you currently manage your diabetes

[More Details](#)

Insulin Injection	3
Oral Medication	7
Diet	6
Exercise	1
Other	0

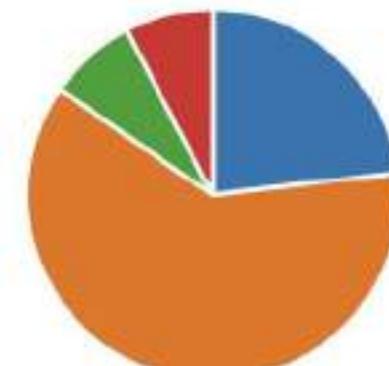


6. How do you currently plan your meals?

[More Details](#)

[Insights](#)

I follow a specific diet plan reco...	3
I don't follow a specific diet plan...	8
I don't plan my meals, I eat what...	1
Other	1



User Persona



Mary Grace

Age: 27 years old

Status: Married

Occupation: Banker

Diabetes Type: Type 2

Location: Birmingham, UK

Impairment:

Diabetic Retinopathy

Goals

- She wants to maintain healthy living through proper nutrition
- To manage her blood glucose level and overall health condition to avoid long term health complications.

Pain Points

- She works long hours, so she doesn't have enough time to keep track of her health.
- Uncertainty of what to eat to stabilize her blood glucose levels because her BGL usually drops at night.
- I struggle to read text in applications due to my condition of Diabetic retinopathy.usually drops at night.



Isabella Jones

Age: 35 years old

Status: Married

Occupation: HR

Diabetes Type: Type 2

Location: Birmingham, Uk.

Goals

- To develop an effective meal plan to control Carbohydrate and Protein Level.
- She wants to connect to other individuals living with diabetes to share experience.

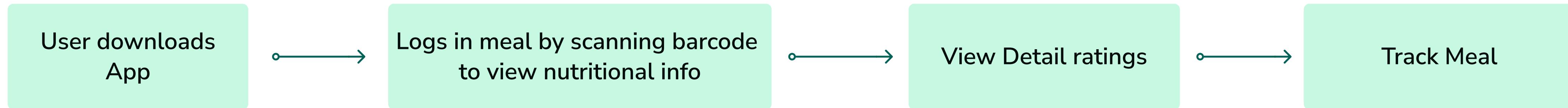
Pain Points

- Doesn't have a meal plan which can affect her healthy eating habits.
- She struggles to resist her cravings for sugary foods.

Scenario

Mary Grace is a 27 years old banker who has been struggling with type two diabetes. Since she is busy, she doesn't have time to **keep track of her nutritional intake** and her BGL usually drops when she does not eat correctly. In addition to having diabetes, she also has diabetic retinopathy, which has affected her vision because the back of her eyes (retina) has been damaged by high blood sugar.

Her circumstances have motivated Mary to seek an application that offers readable fonts and helps her keep track of her blood glucose level and eat healthy every day. Knowing more about nutrition facts and their impact on the body as well as keeping a regular log of her blood glucose levels could help her control her eating habits.



Design Approach

—
The Approach

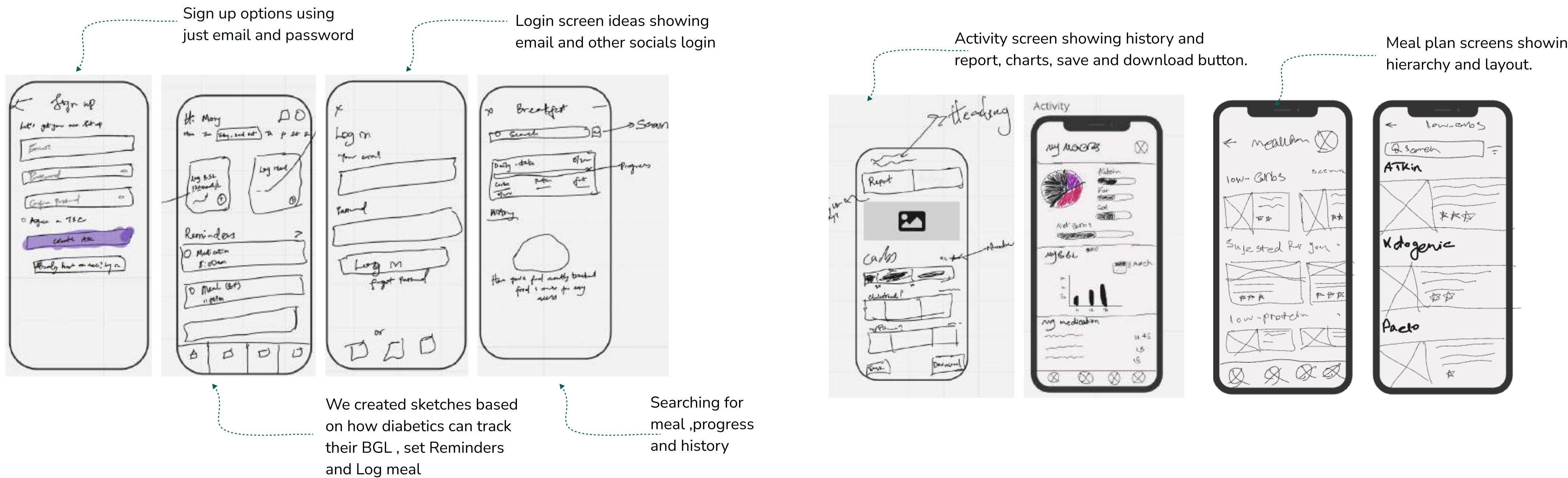
—
Approach analysis

—
Analysis conclusion

Visual Design Approach

Following our research, we analysed the information we gathered to develop a design solution that would meet the needs and expectations of our users.

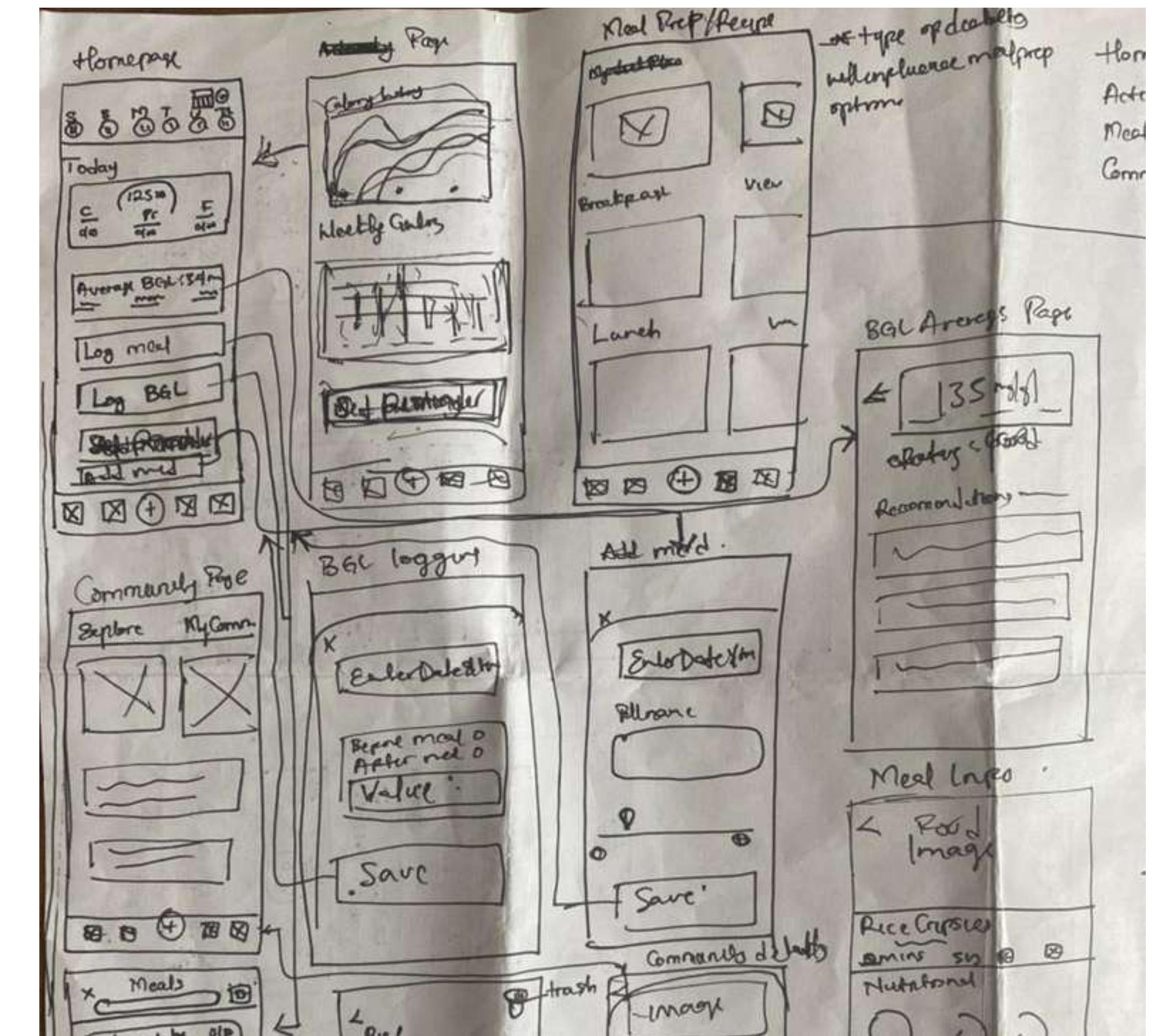
Our visual design approach involved incorporating various design principles and elements, such as balance, proportion, colour, typography, and visual hierarchy, to create an effective and visually appealing design. We also considered branding strategies to enhance the overall design solution.



Visual Design Approach

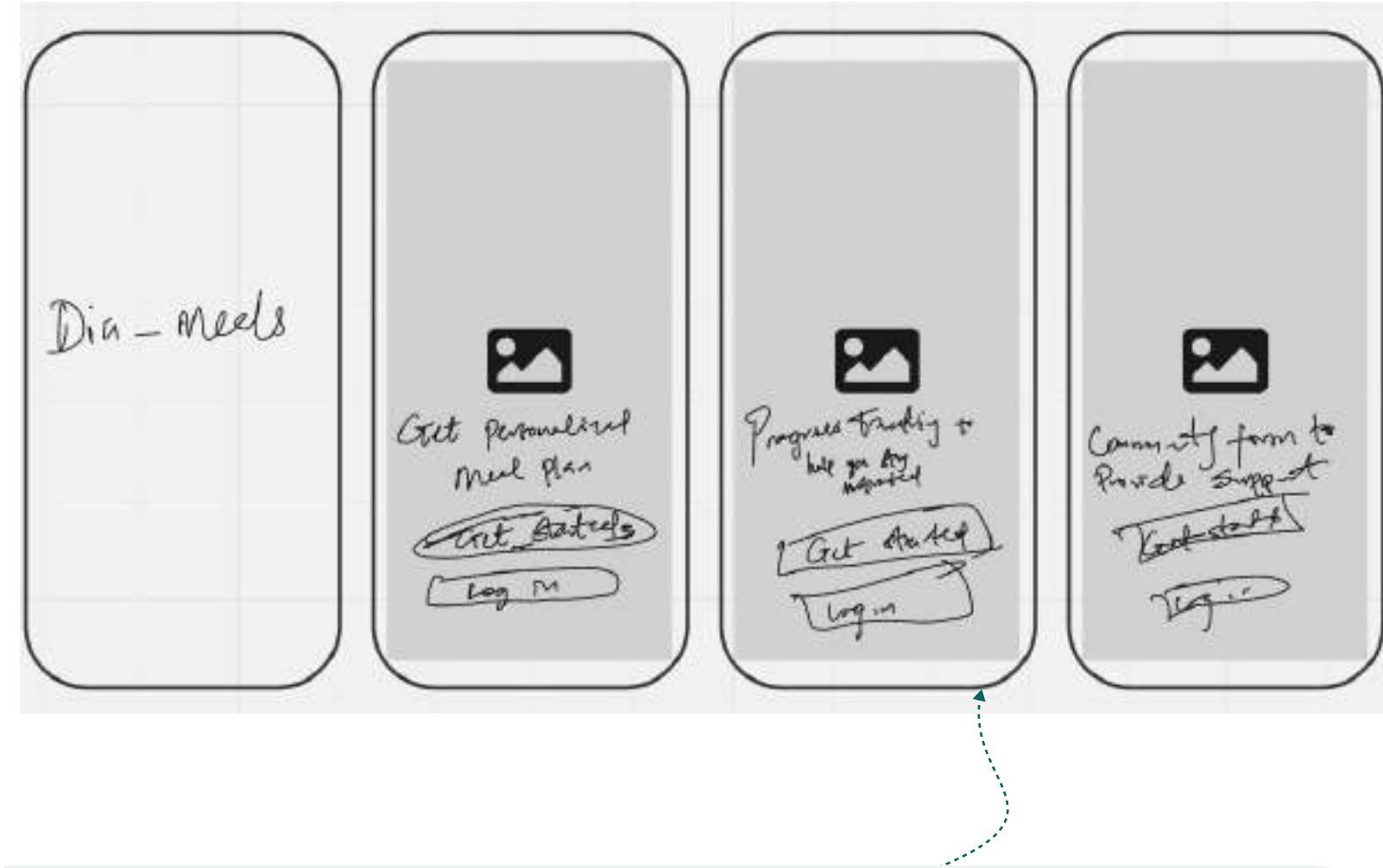
To ensure a structured process, we started by sketching out various sections of the application, after this we gathered all our sketches and did final sketches.

This final sketch served as a blueprint for the low-fidelity design then proceeded to do the low-fidelity design, we did a user-testing with the low-fidelity we have then we iterated and we started with a design system before moving to the High-fidelity design.



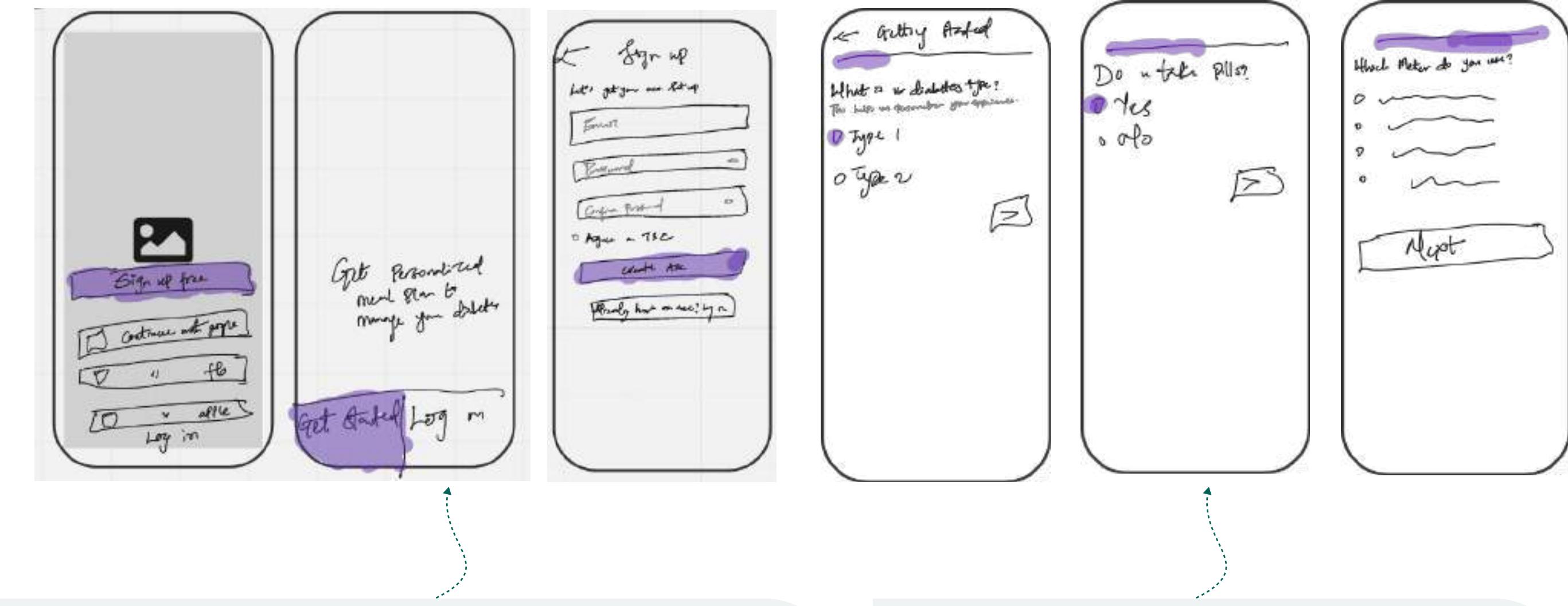
Sketches

Onboarding



The onboarding screens is part of our initial ideas showing the application feature which includes getting personalised meal plan, tracking and Community.

Sign Up/Sign In

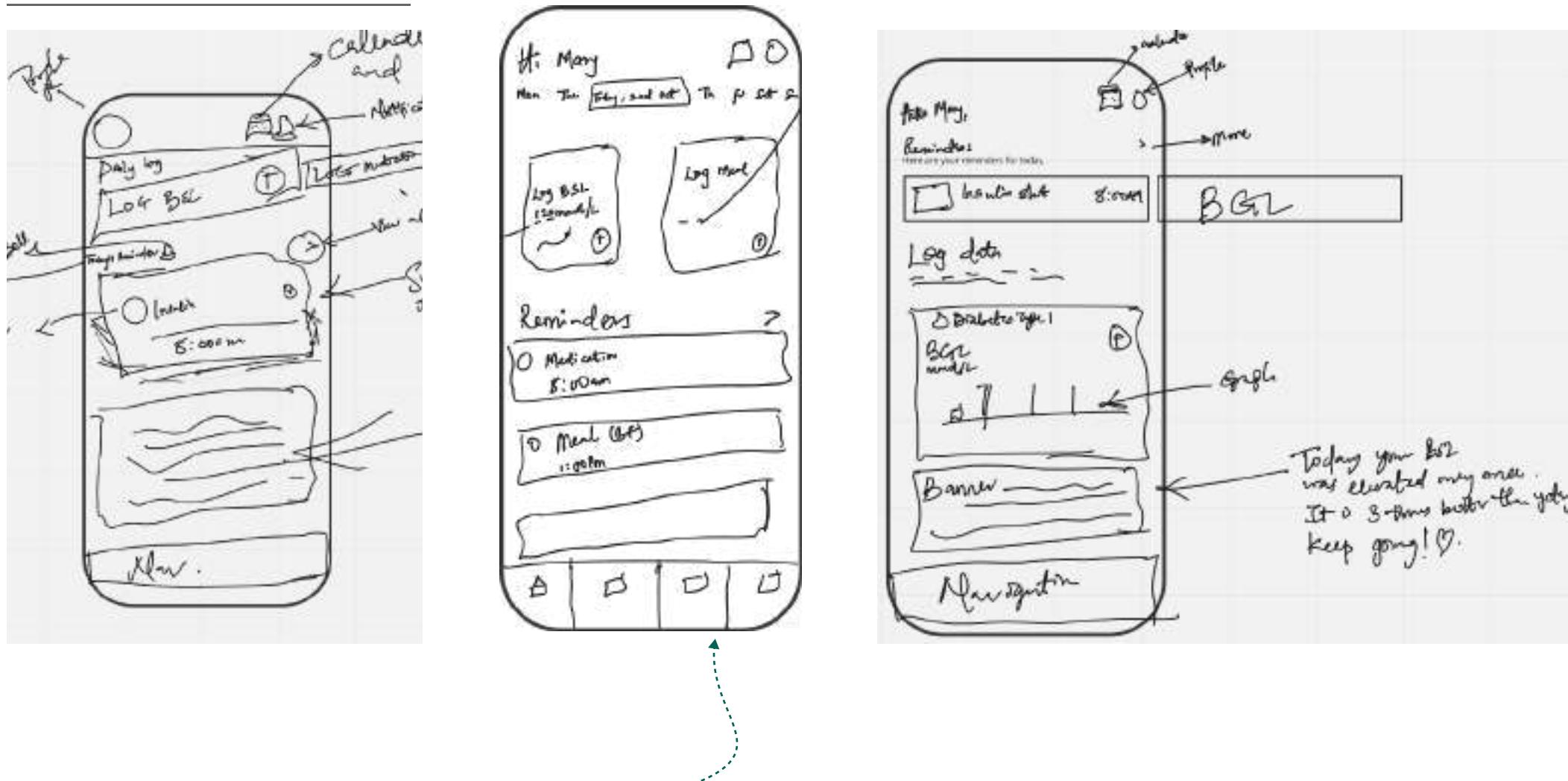


Sign up and sign in screens shows the various ways user can sign up and sign in to our application using socials or directly using email and password.

The sketch shows the intial questions we ask first time users to help tailor the experience to meet their needs.

Sketches

Home Page



Homepage is the main screen after the welcome screen, this sketches shows various home screen variations with main features such as logging BGL, reminders, Banners and charts.

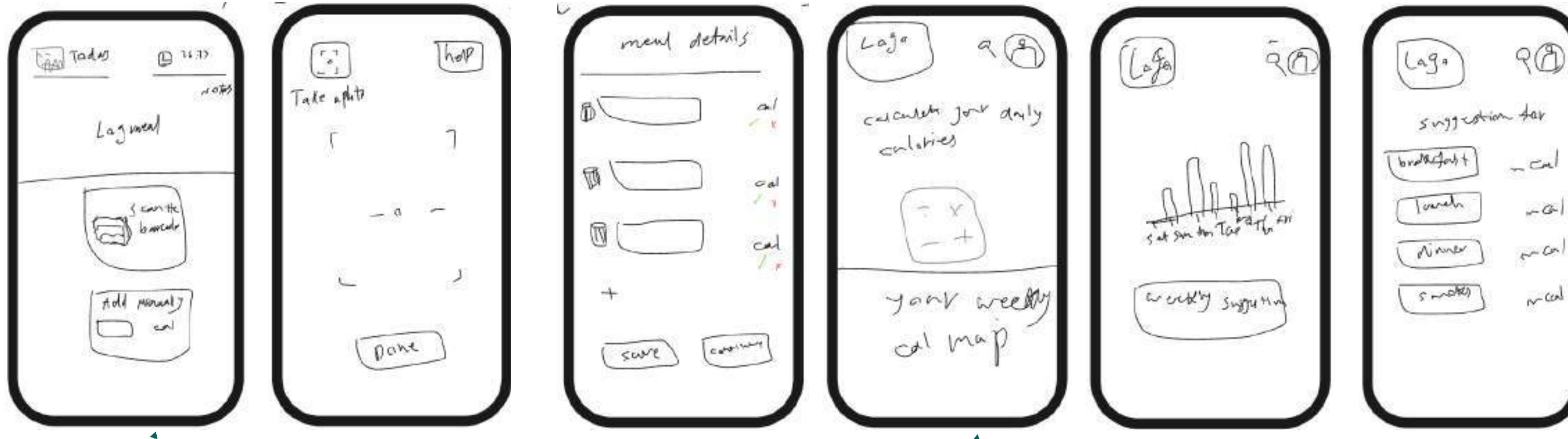
Meal Plan



The meal plan section displays categorized meal plans for users to choose from based on their preferences. On the third page, users can explore the Atkins meal plan and its contents. They can then begin the meal plan, access daily meals, and switch between different weeks.

Sketches

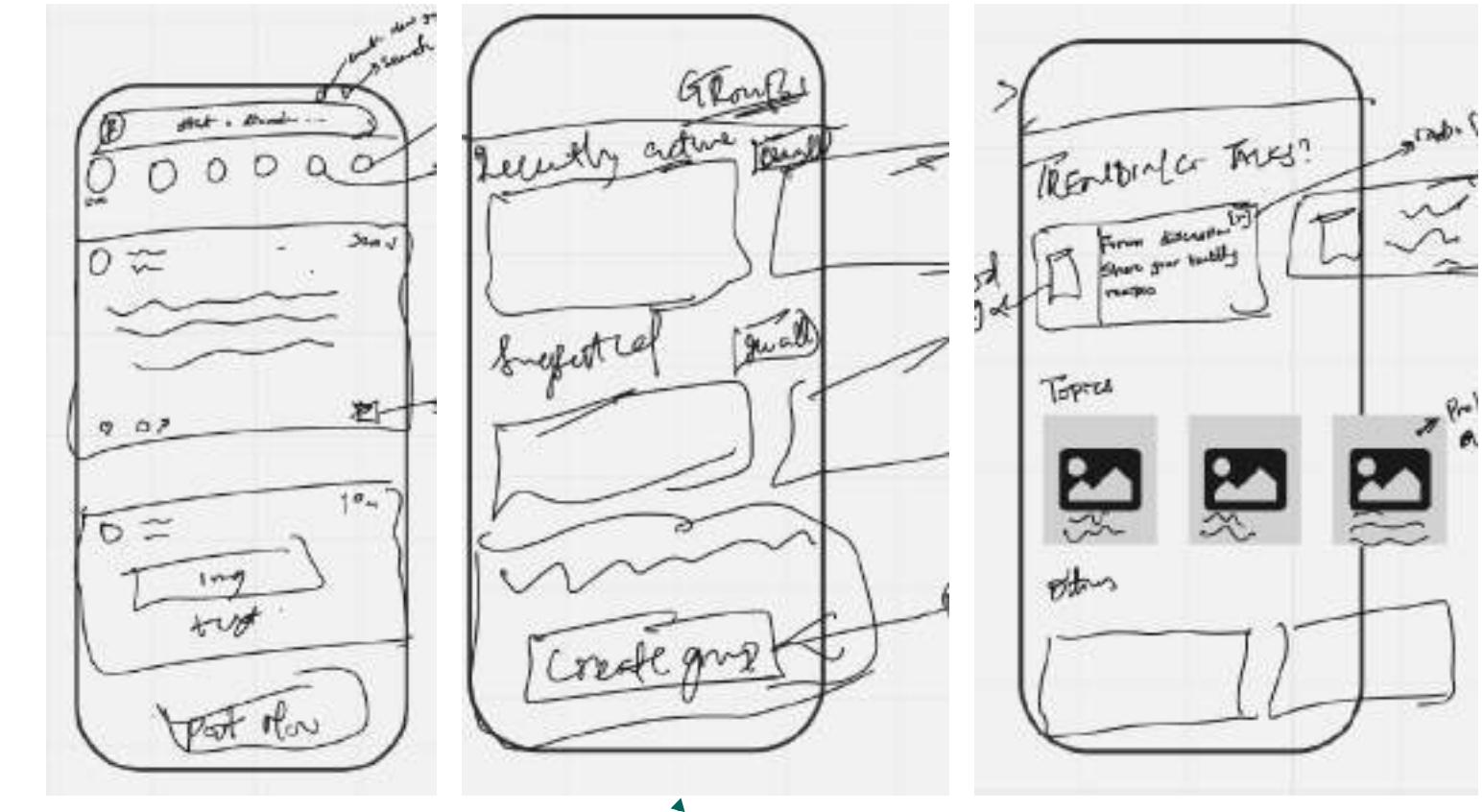
Log Meal



Users can add their meals in these sketches. They could log them by scanning a barcode or inputting them manually

Sketches shows meal details, the amount of calories they ate each day, and the weekly reports. Also sketch shows suggested meals.

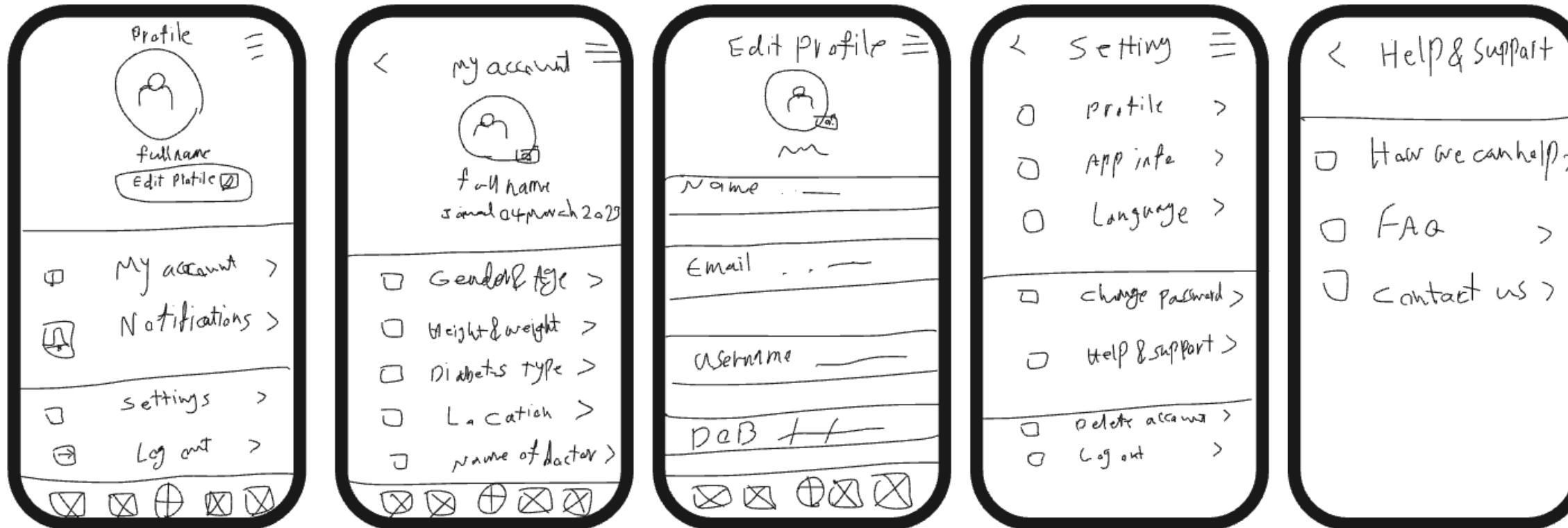
Community



The platform features discussion feeds with image and text, groups for joining or creating, and a section for trending talks where users can learn from diverse topics.

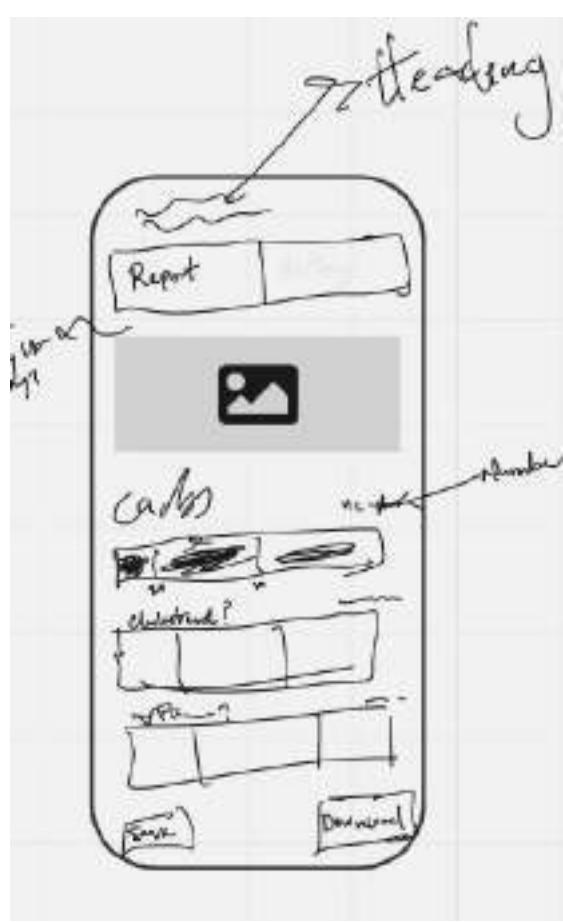
Sketches

Profile



The diabetes profile page offers a personalized view of health progress for individuals with diabetes. It includes medication and testing reminders, a customizable meal plan, medication tracking, and support access.

Analytics

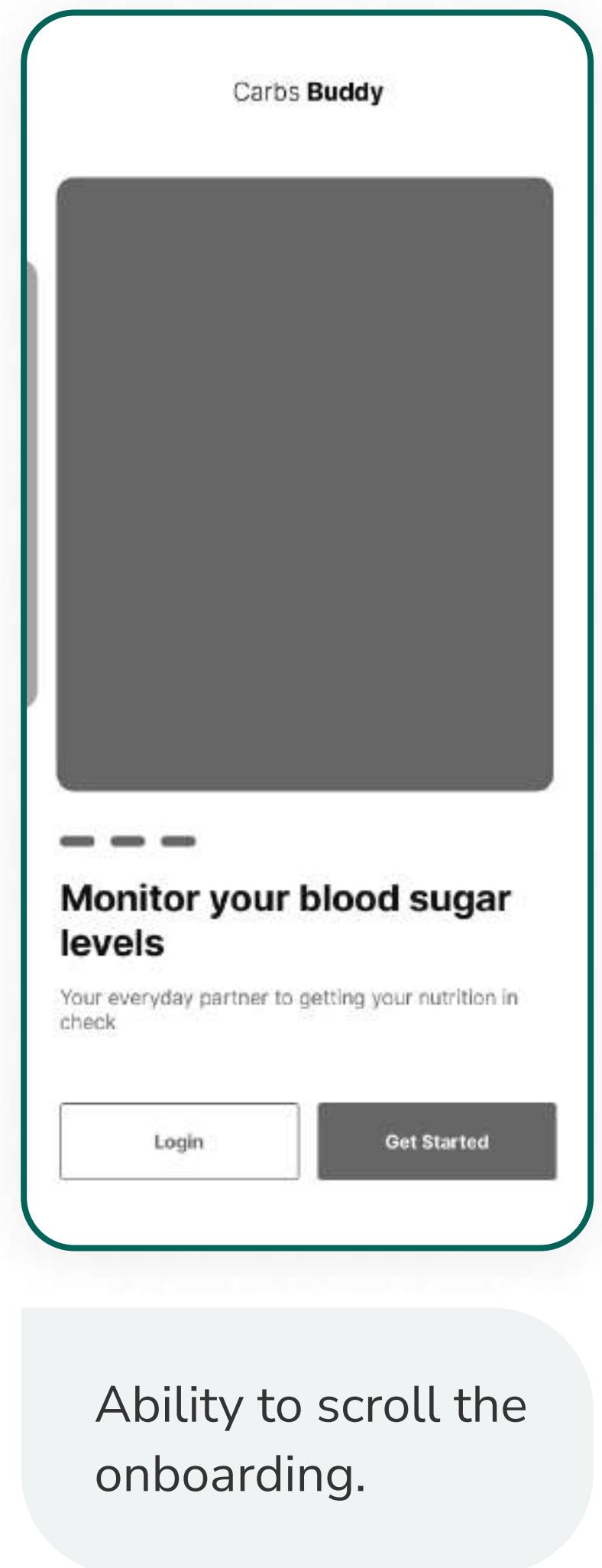
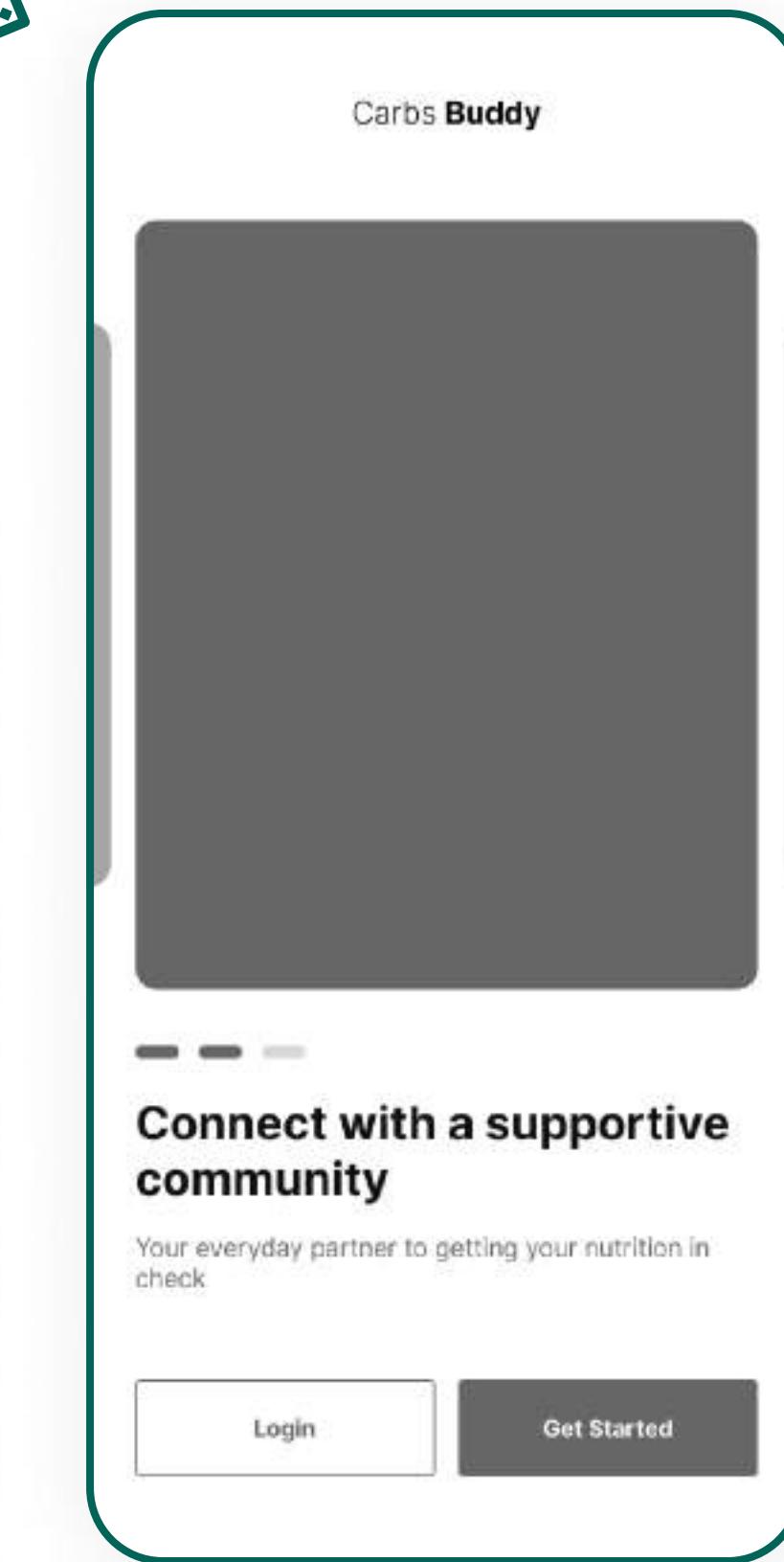
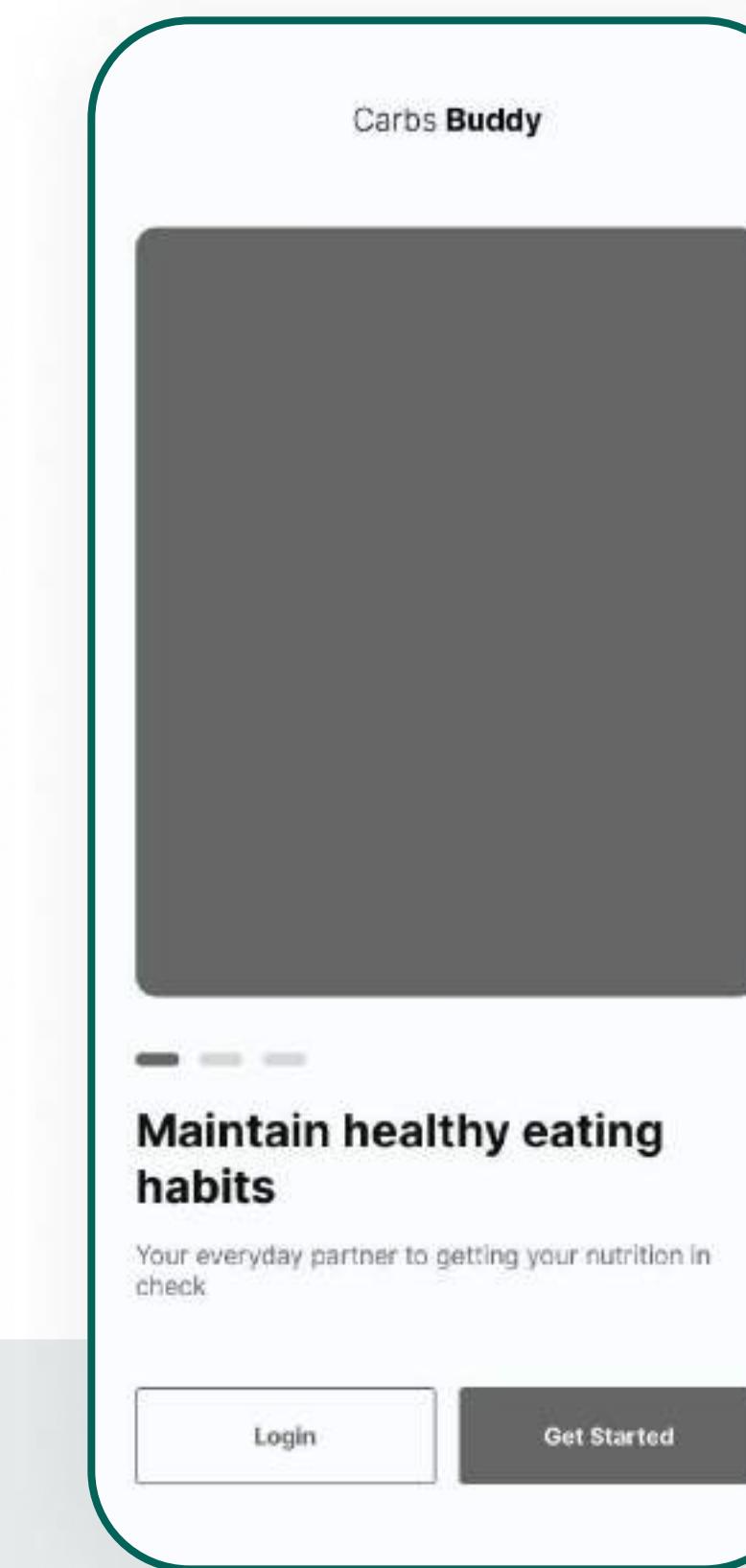


Users can generate reports for their healthcare provider to track their diabetes management and make necessary treatment adjustments.

Low-Fidelity: Onboarding

Onboarding

Onboarding Iterations

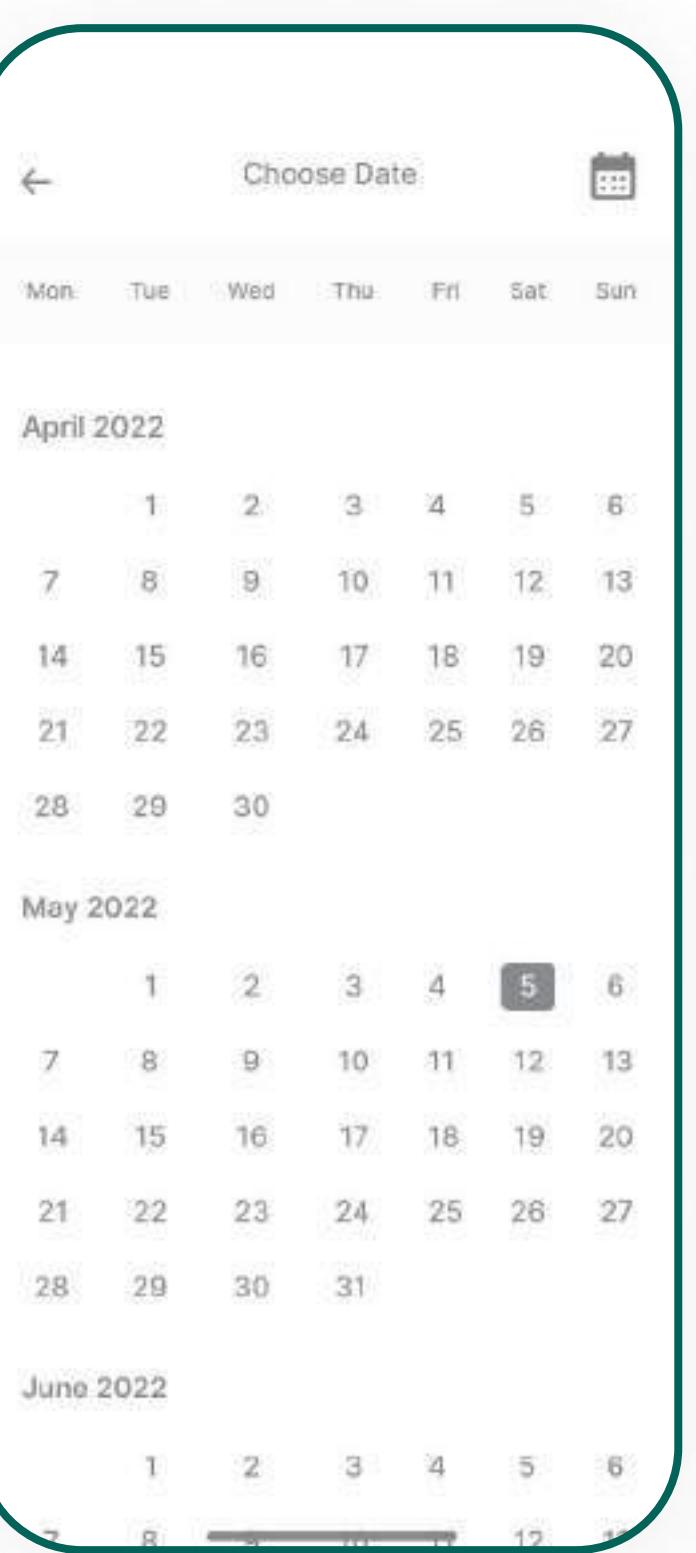
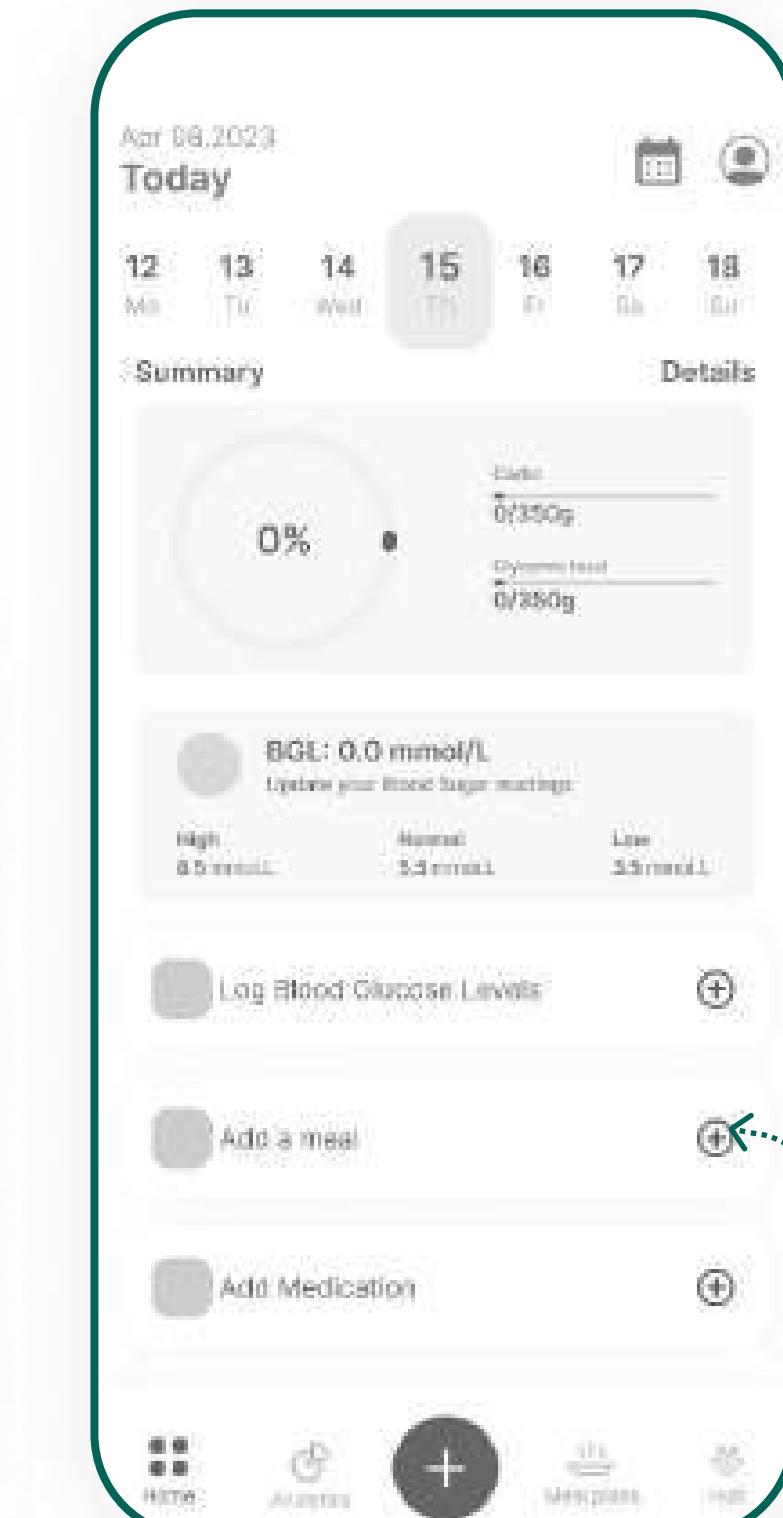
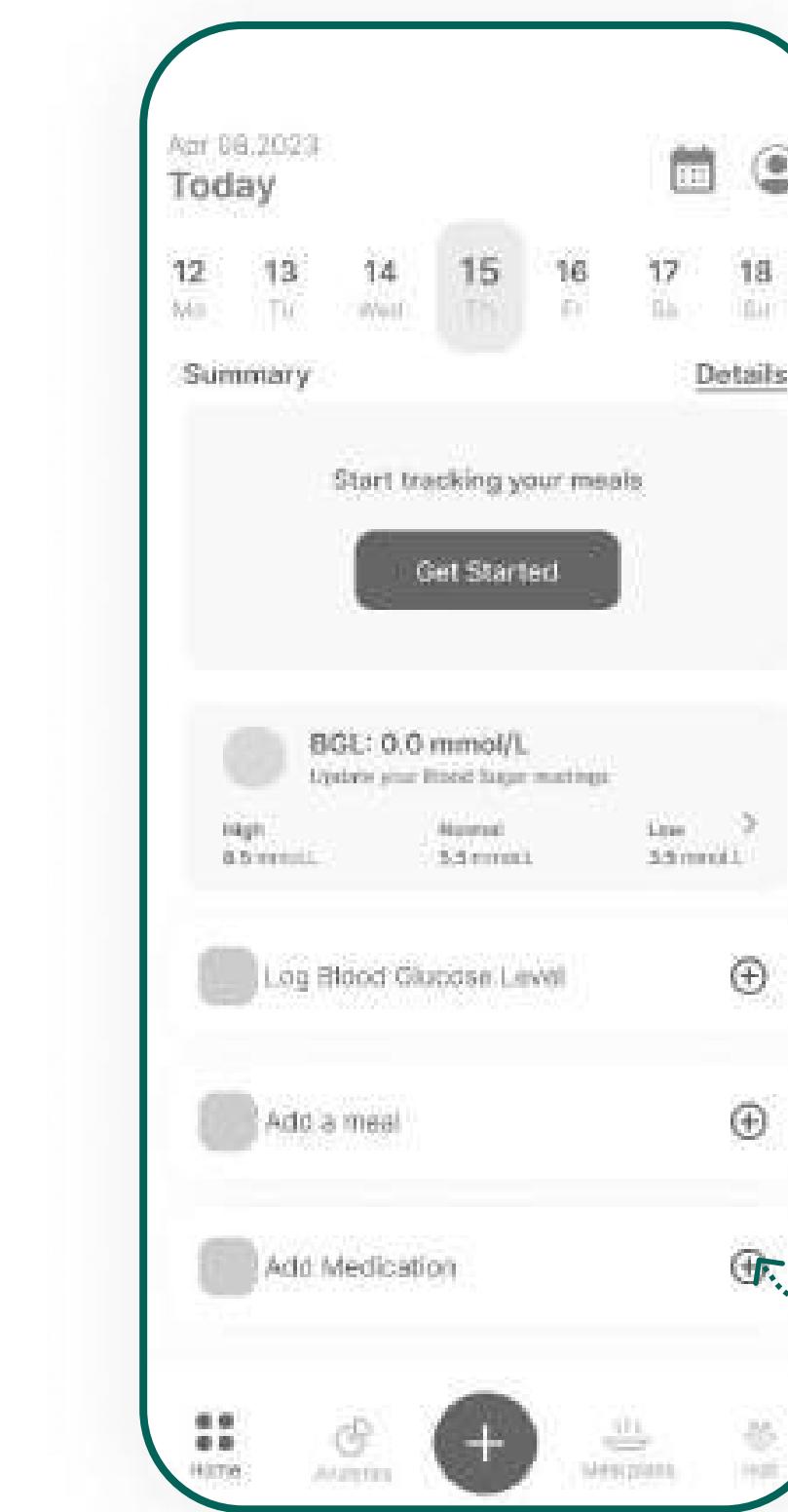
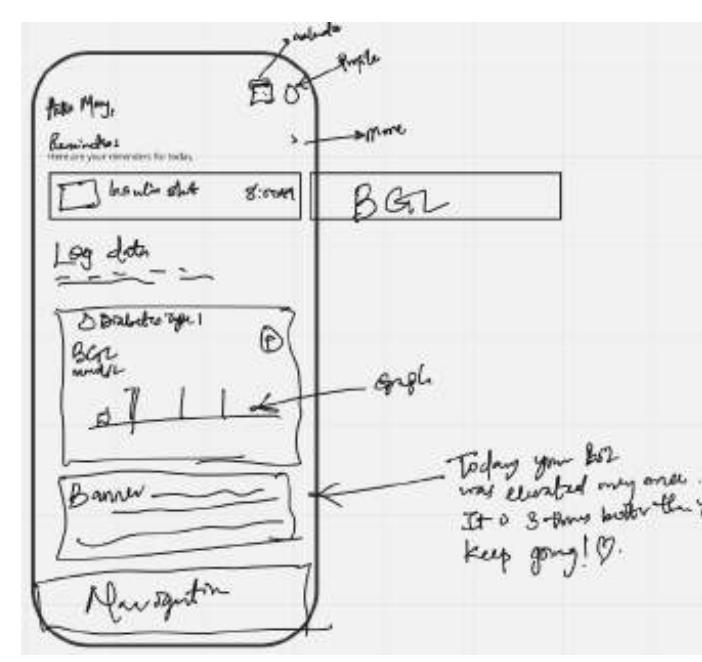
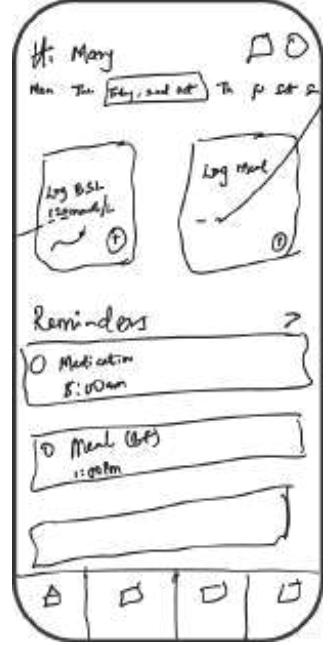
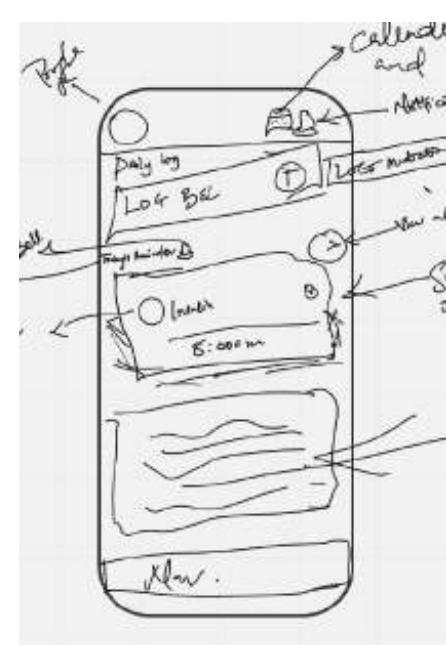


Ability to scroll the onboarding.

Low-Fidelity: Homepage

Home Page - No Data

Homepage Iterations

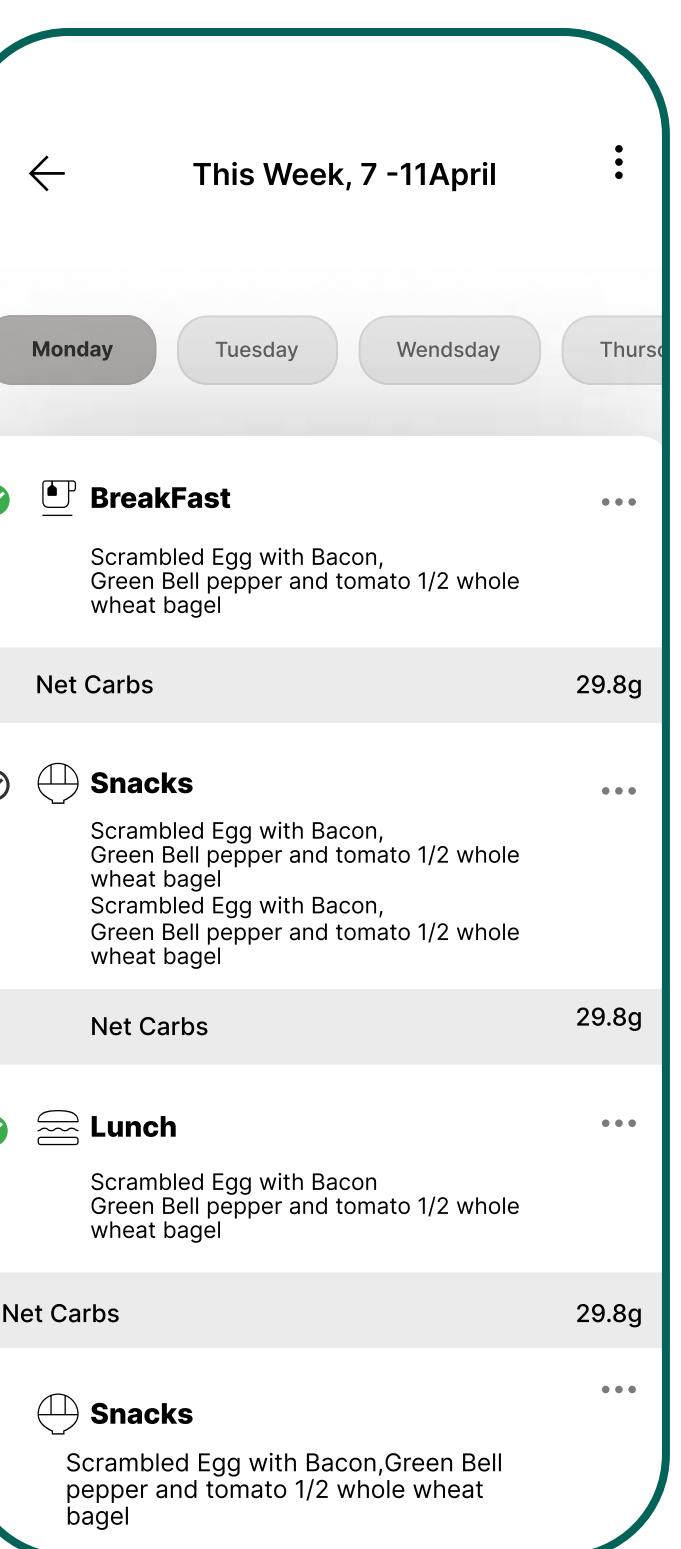
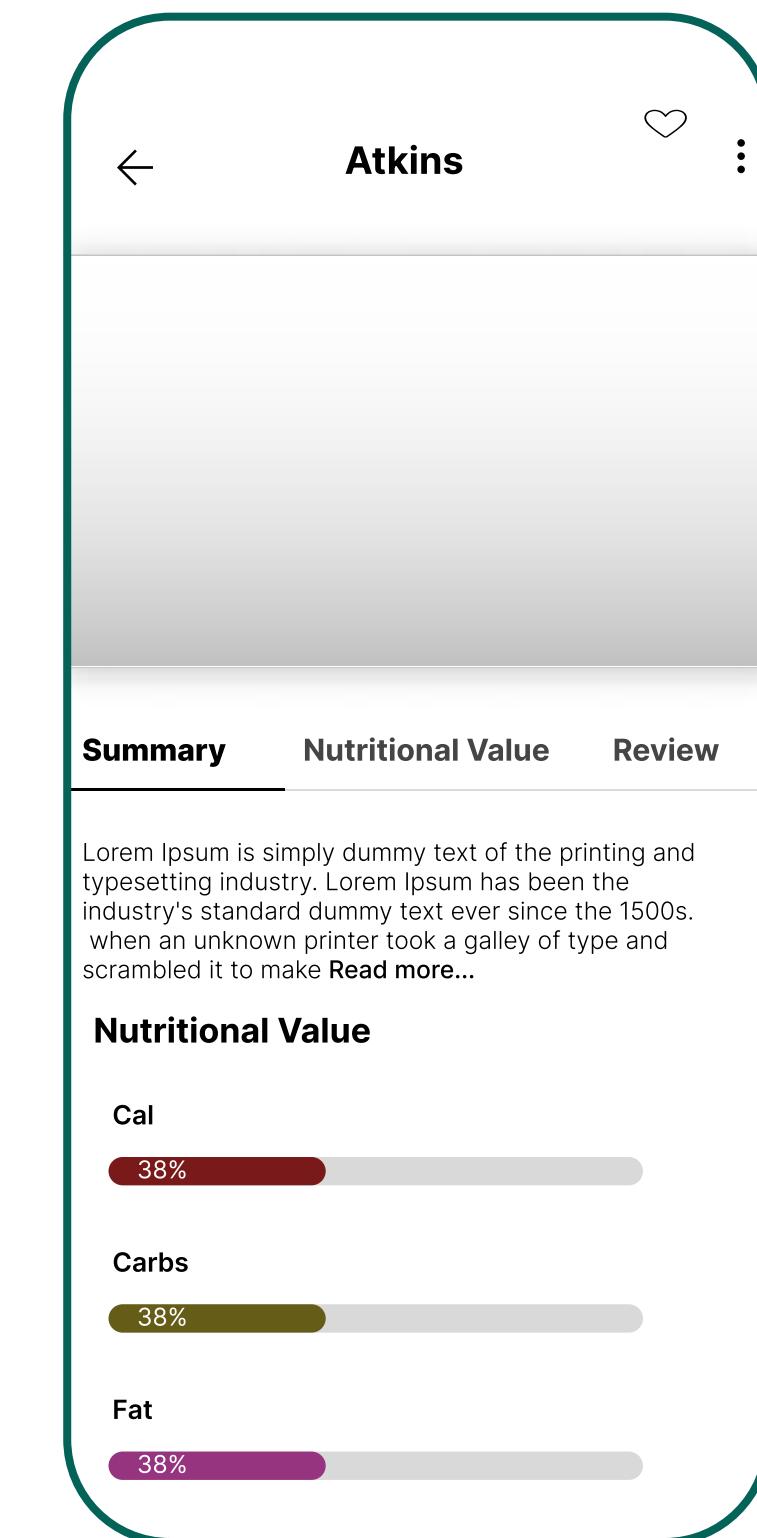
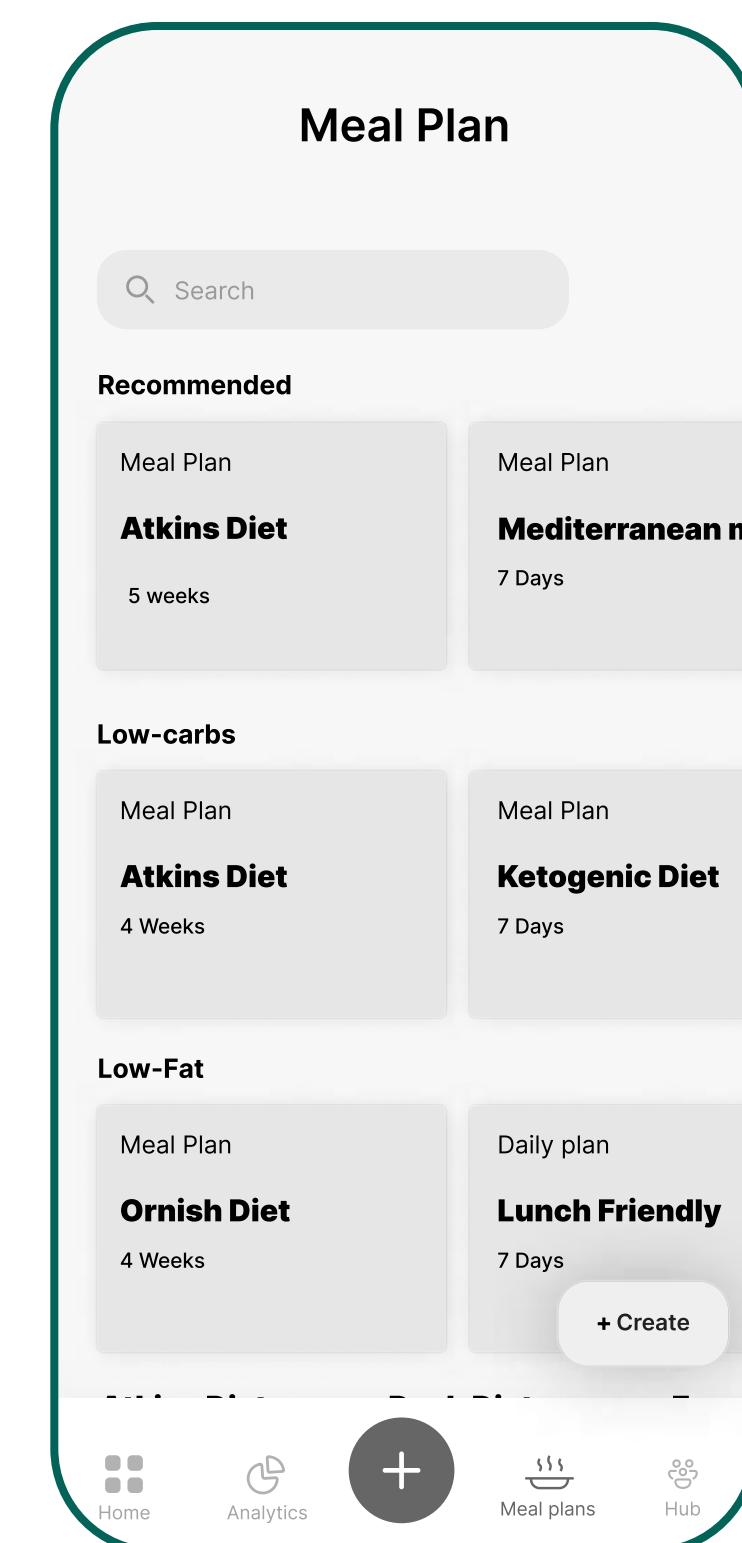
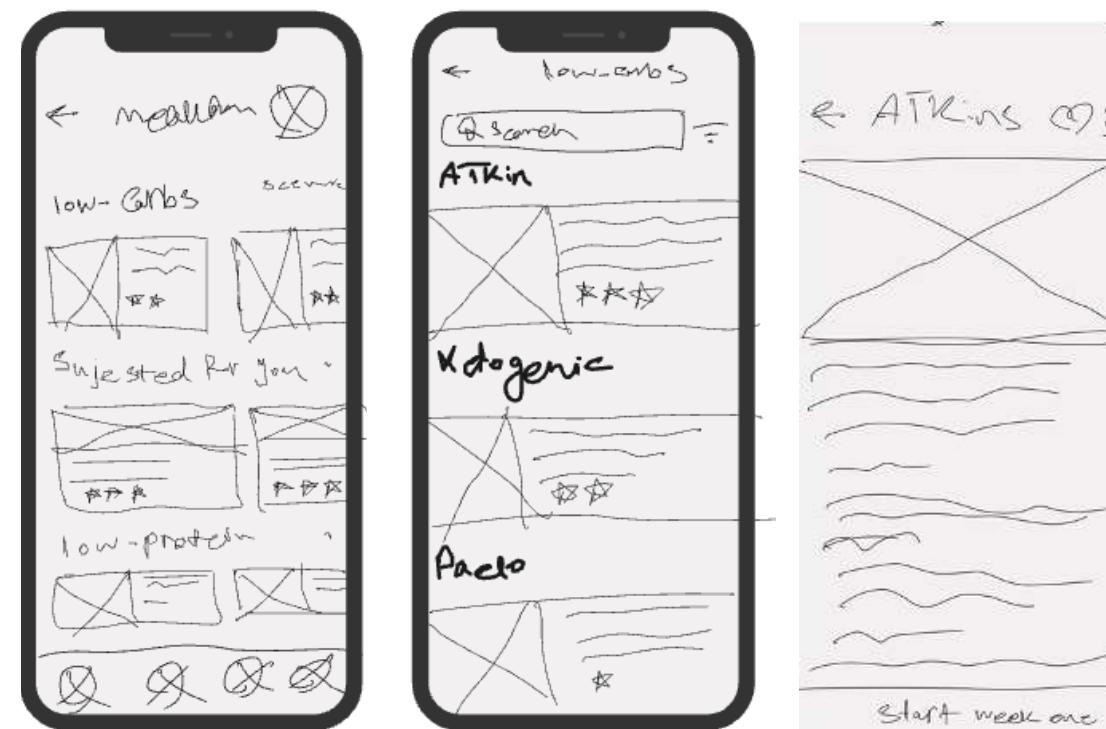


Ability to track
easily from
homepage

Low-Fidelity: Meal Plan

Mealplan - With Data

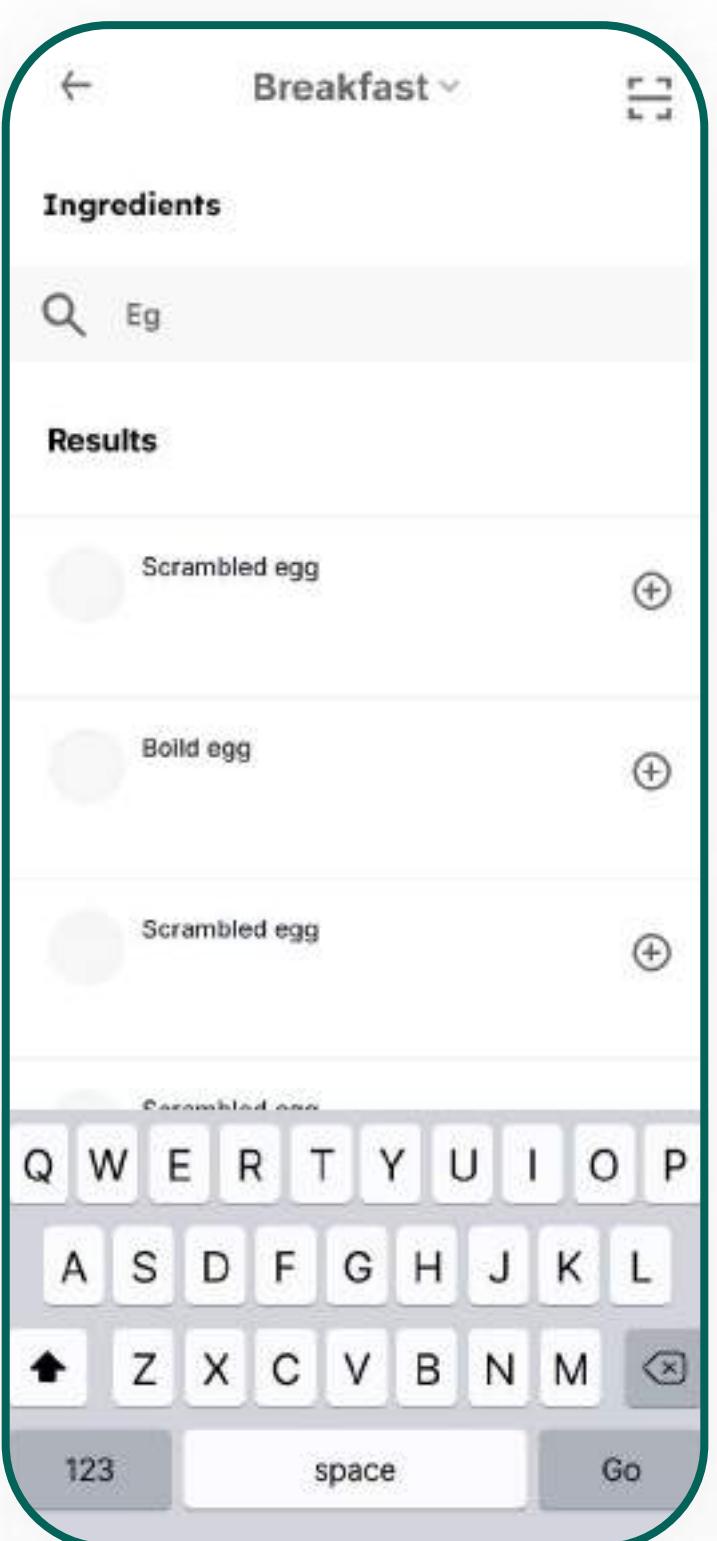
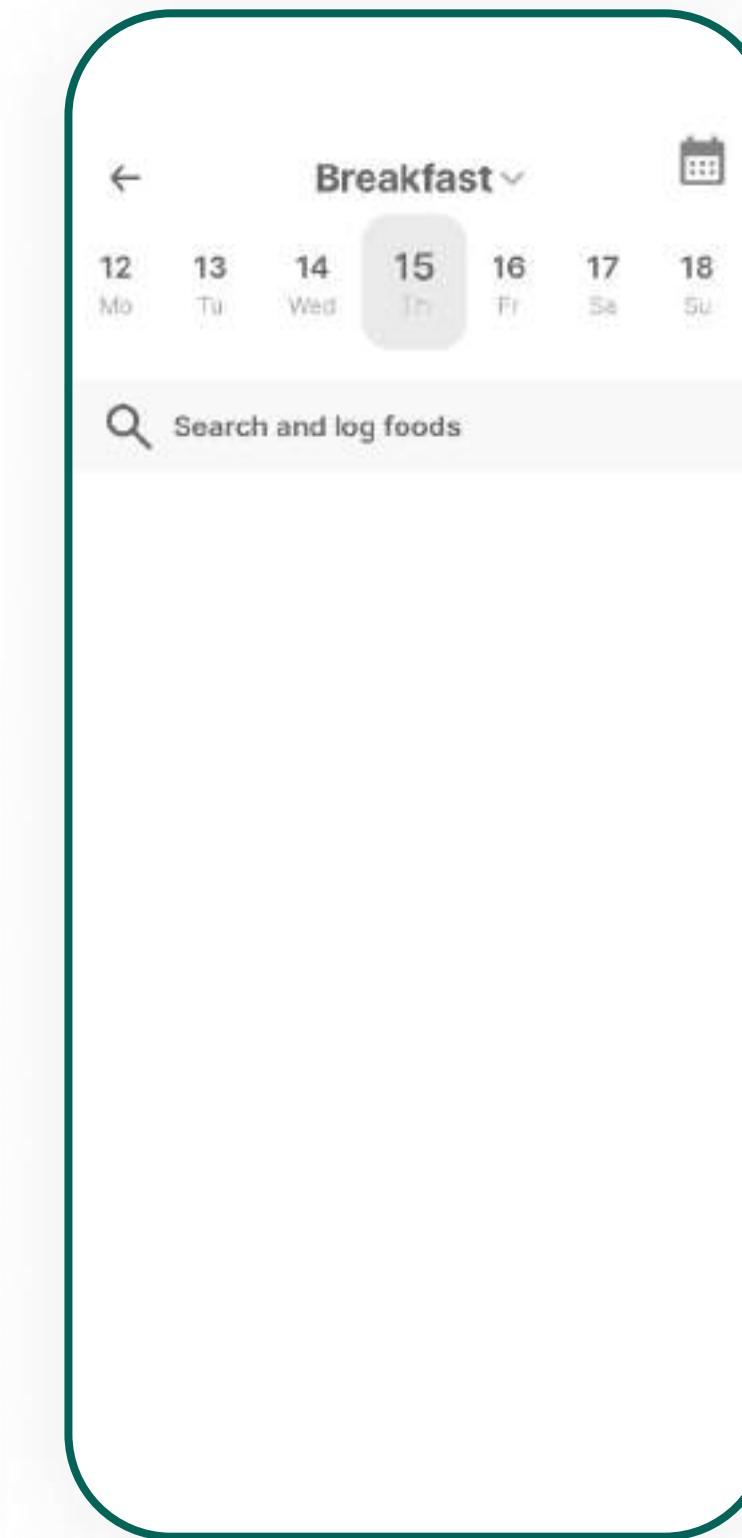
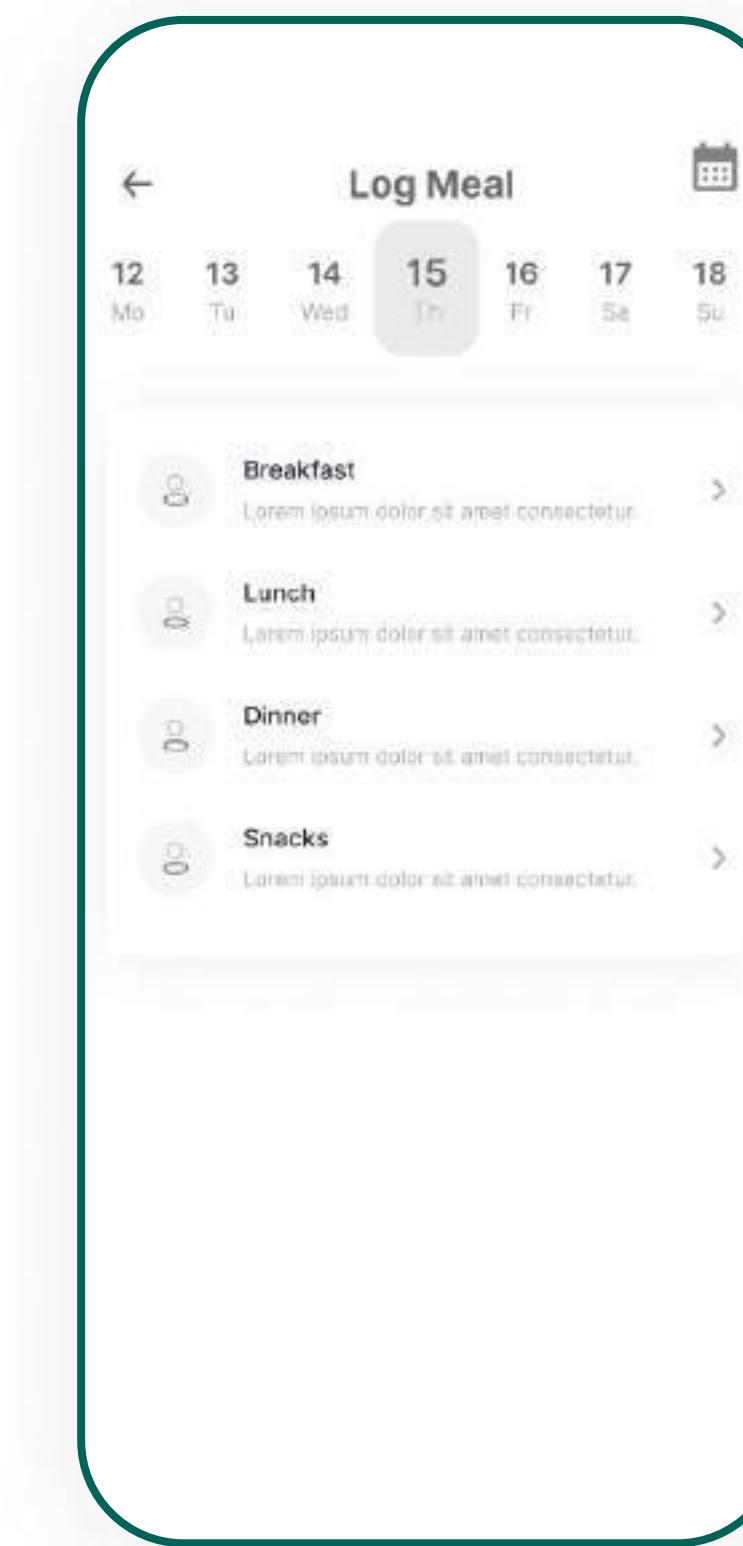
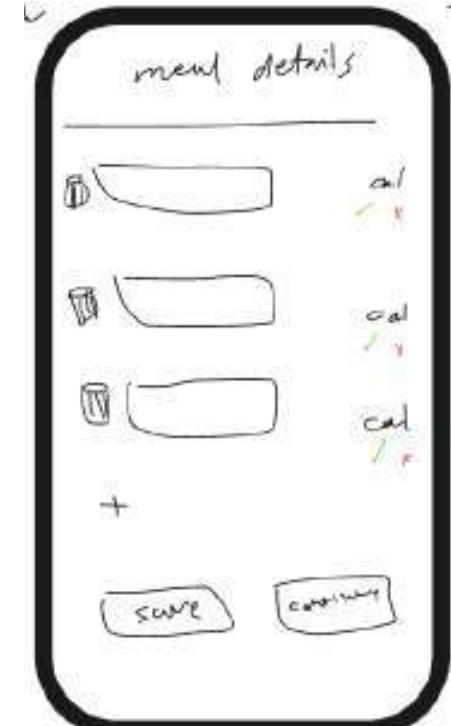
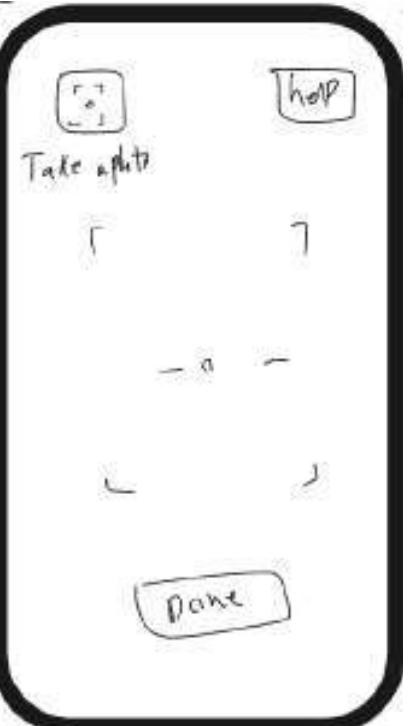
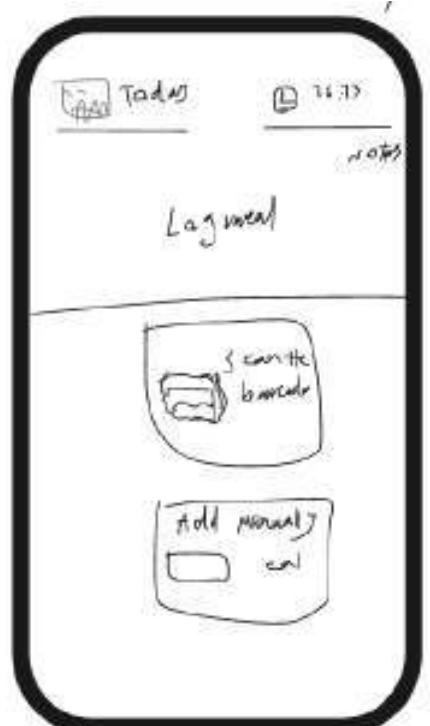
Meal plan Iterations



Low-Fidelity: Log Meal

Meal- No Data

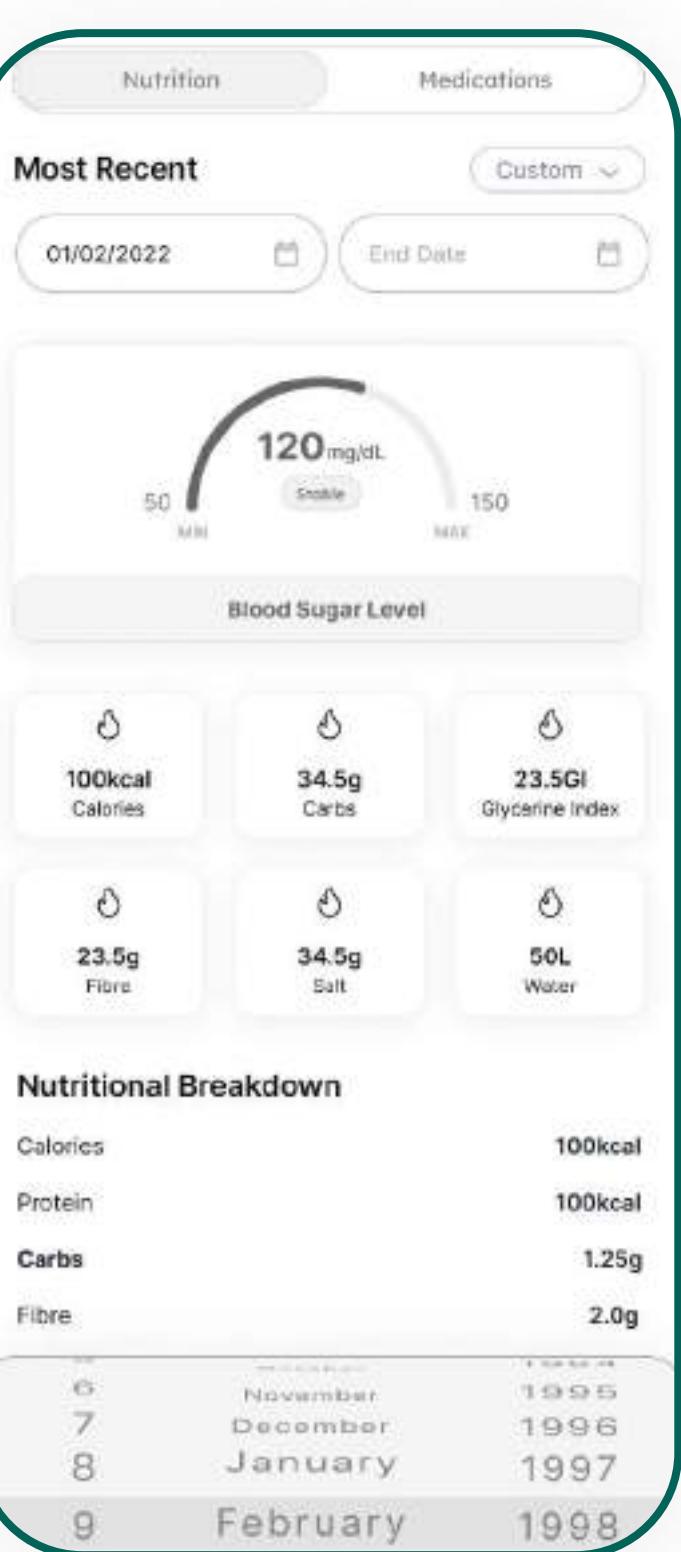
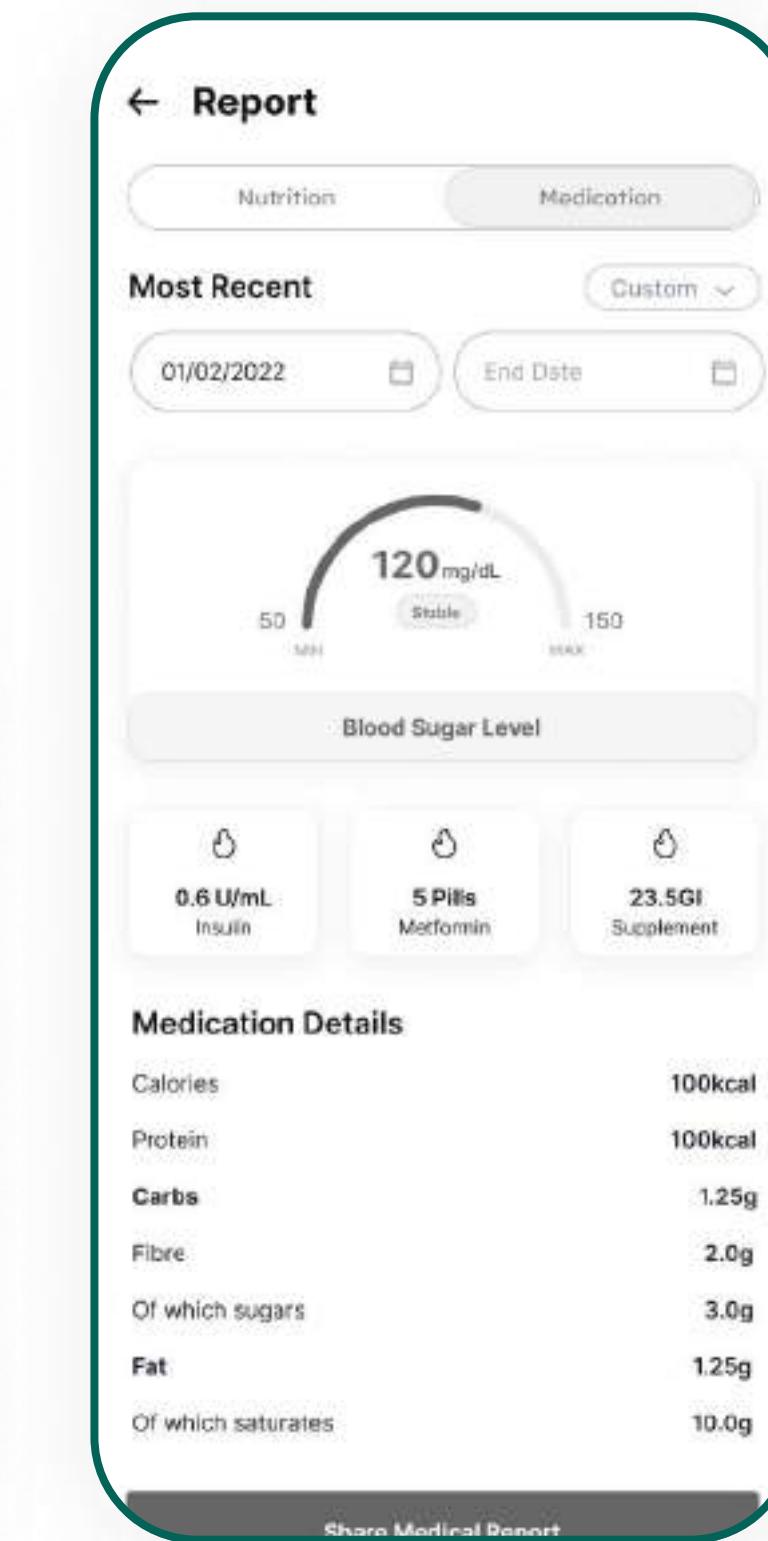
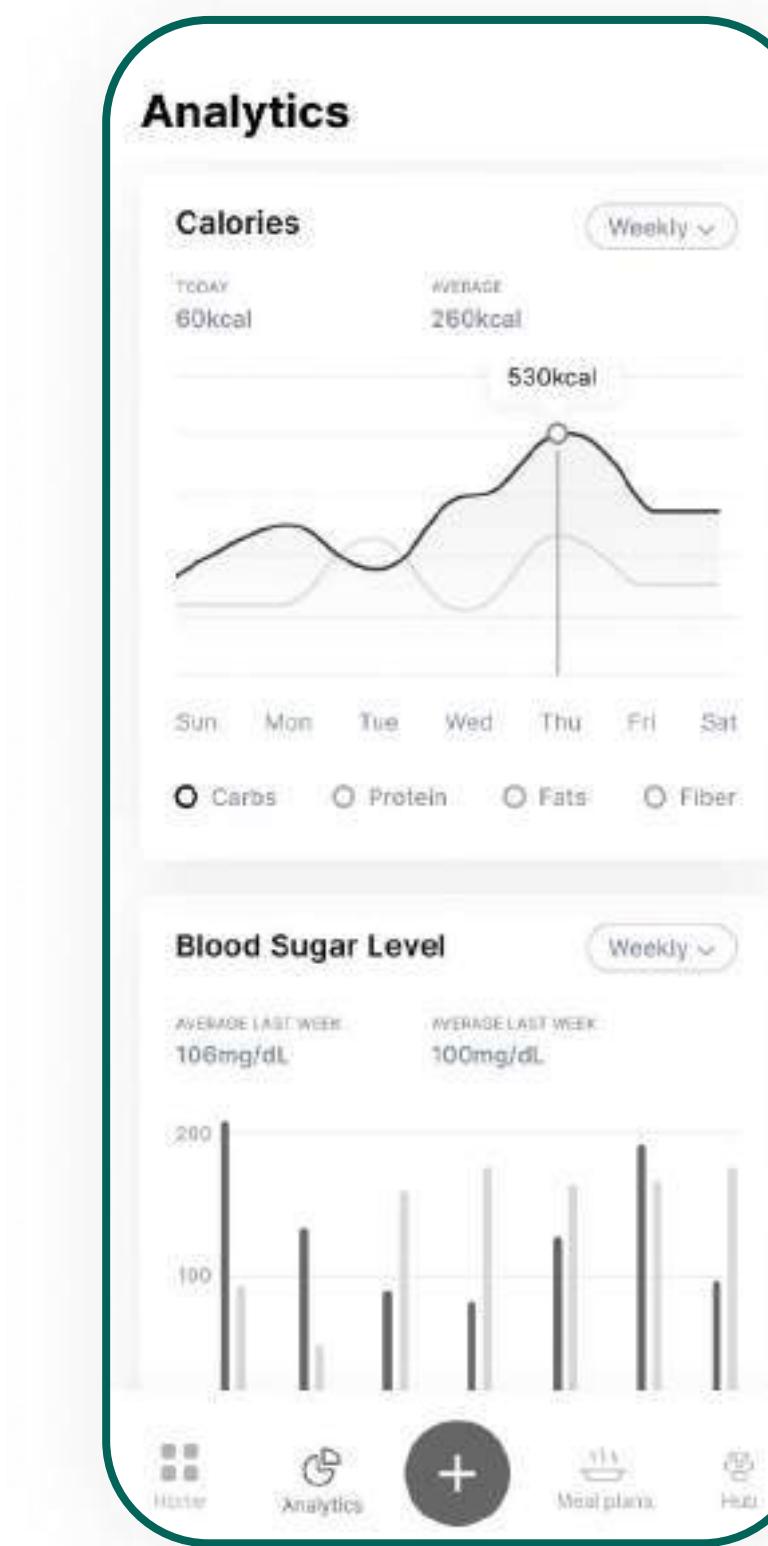
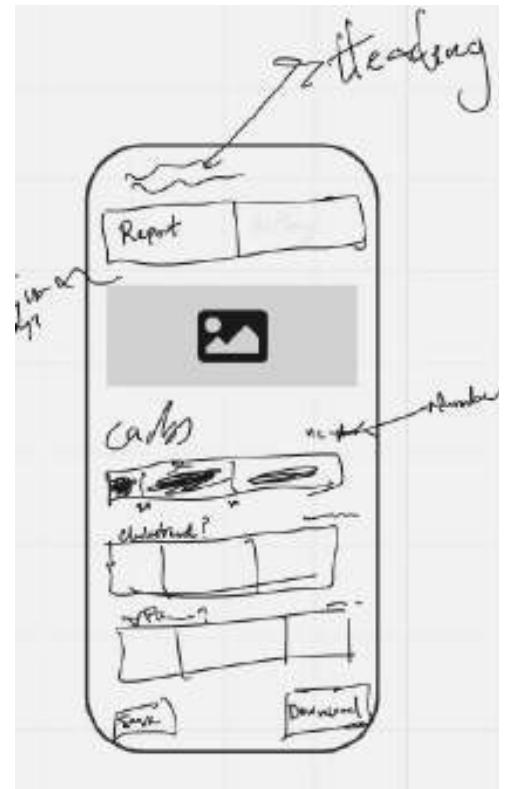
Meal Iteration



Low-Fidelity: Analytics

Analytics- No Data

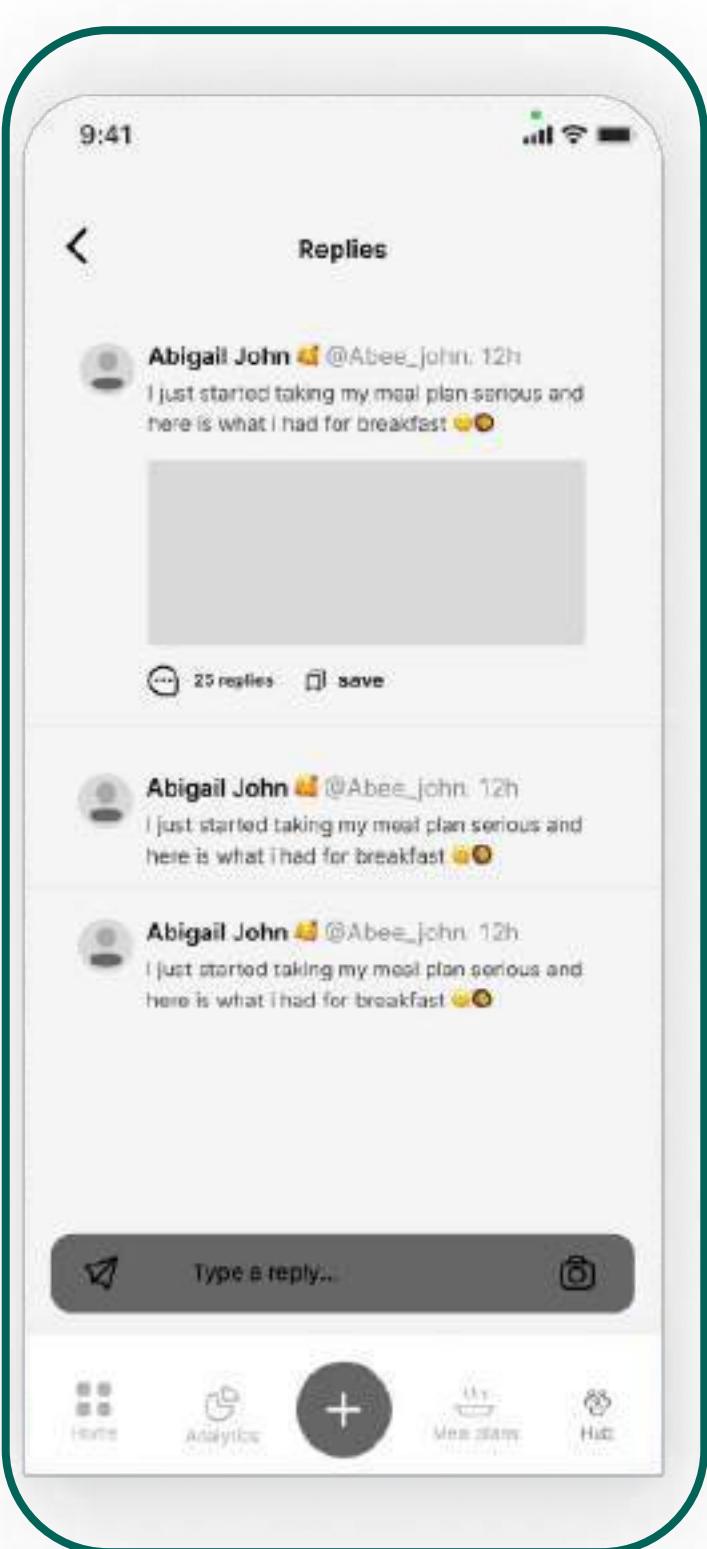
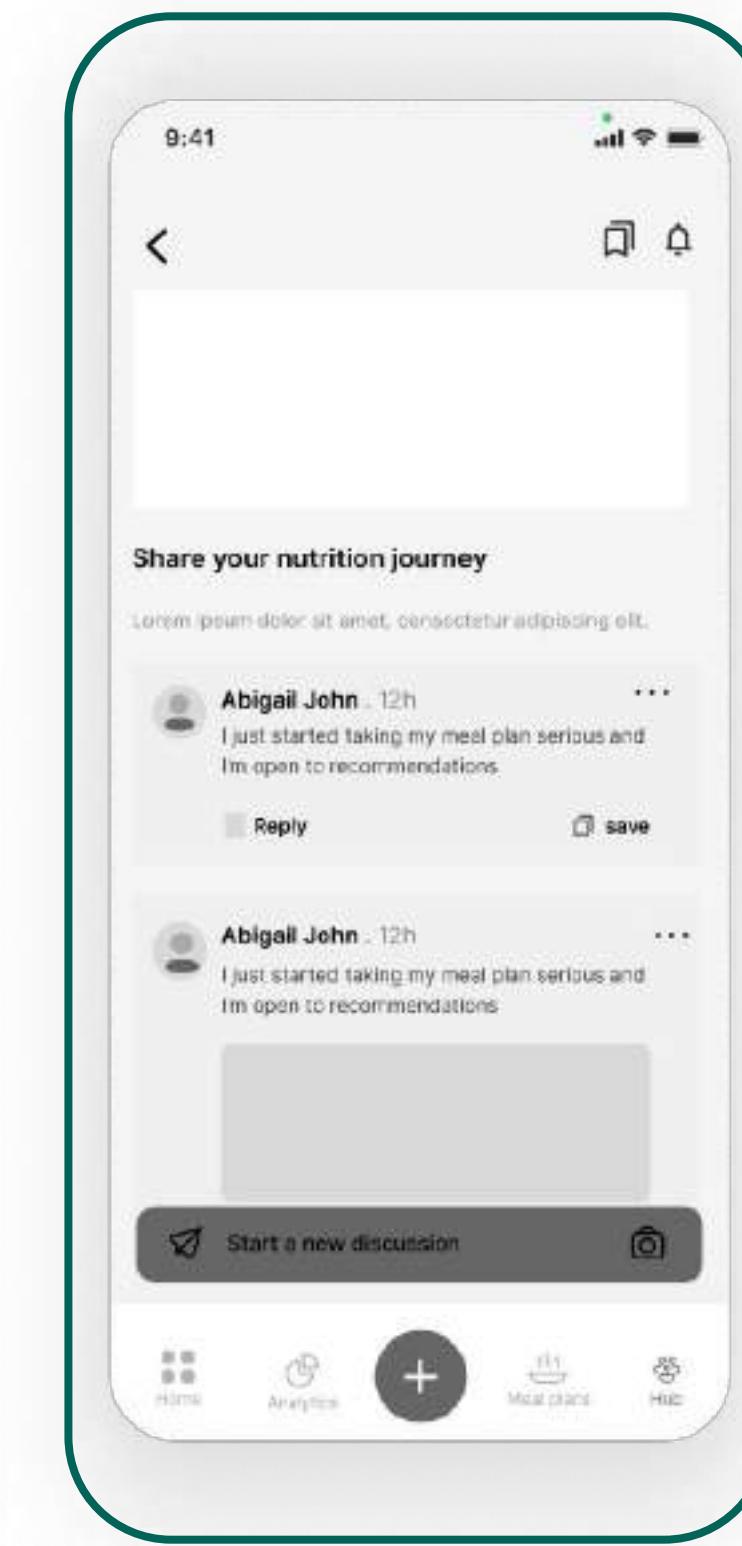
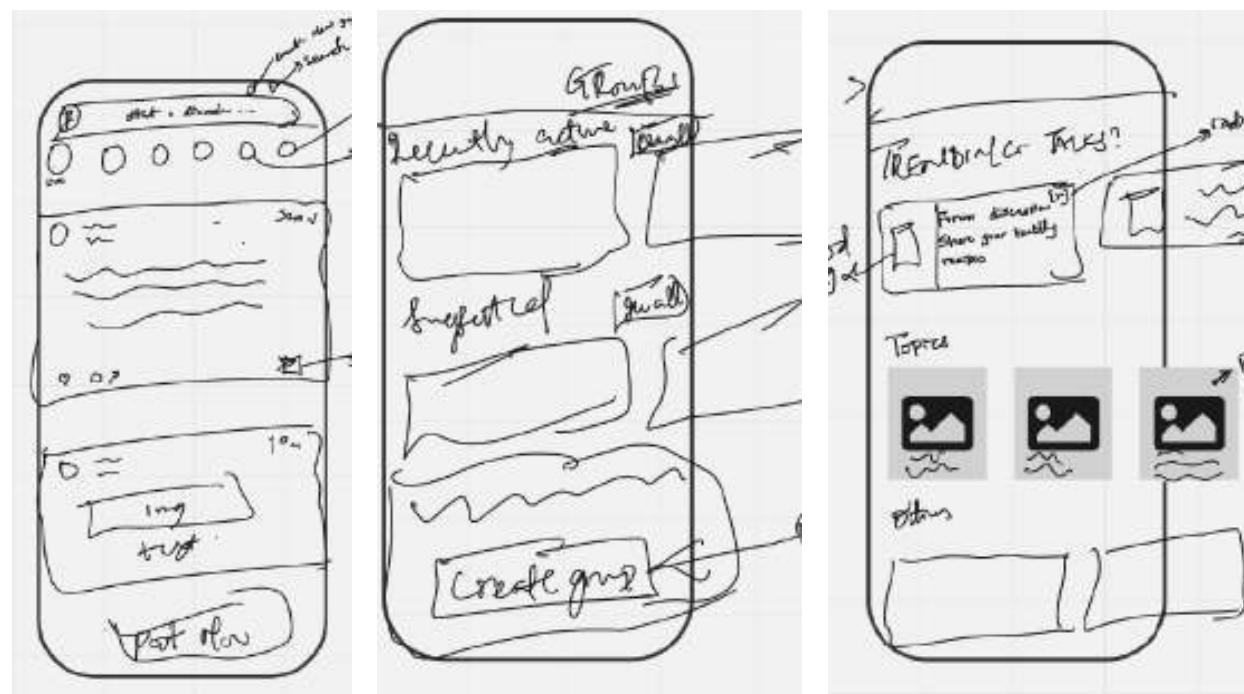
Analytics Iteration



Low-Fidelity: Community

Community- No Data

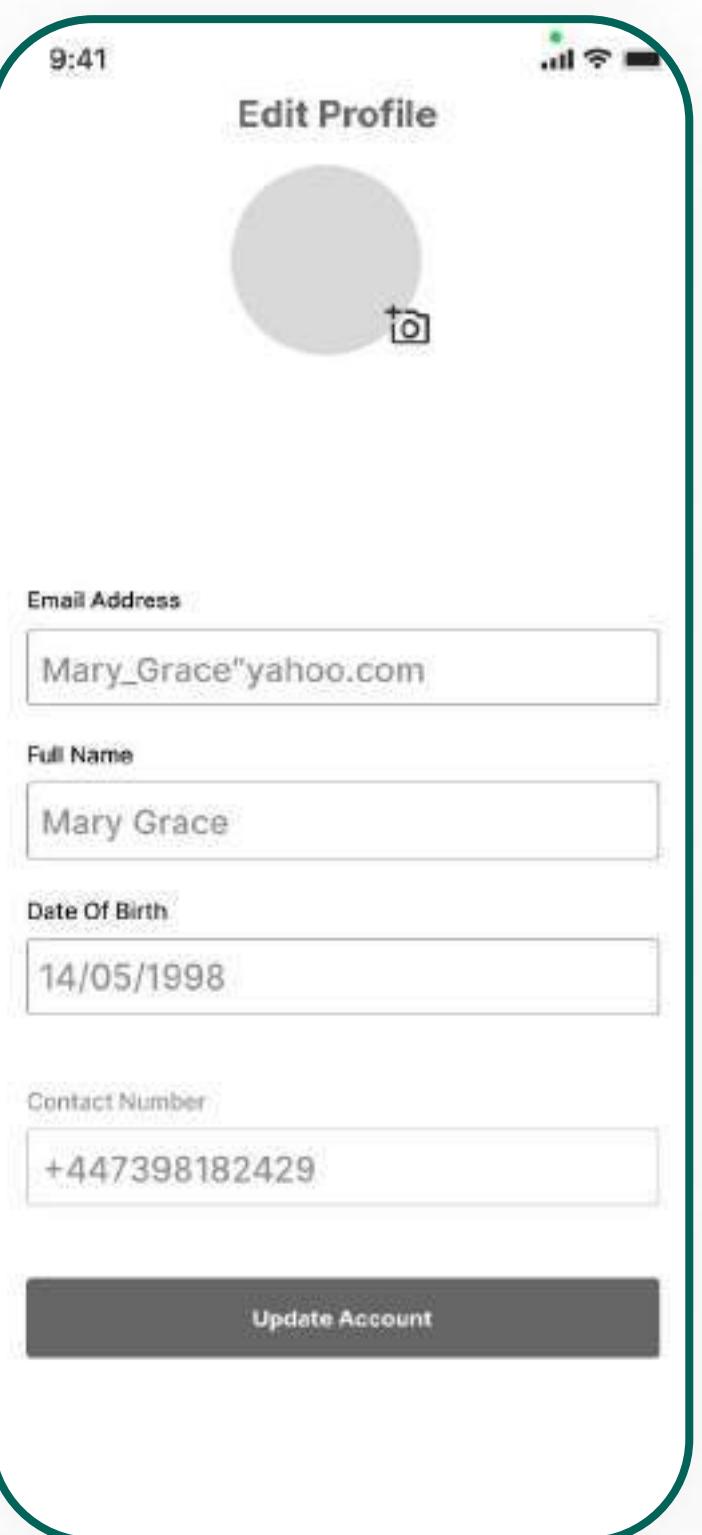
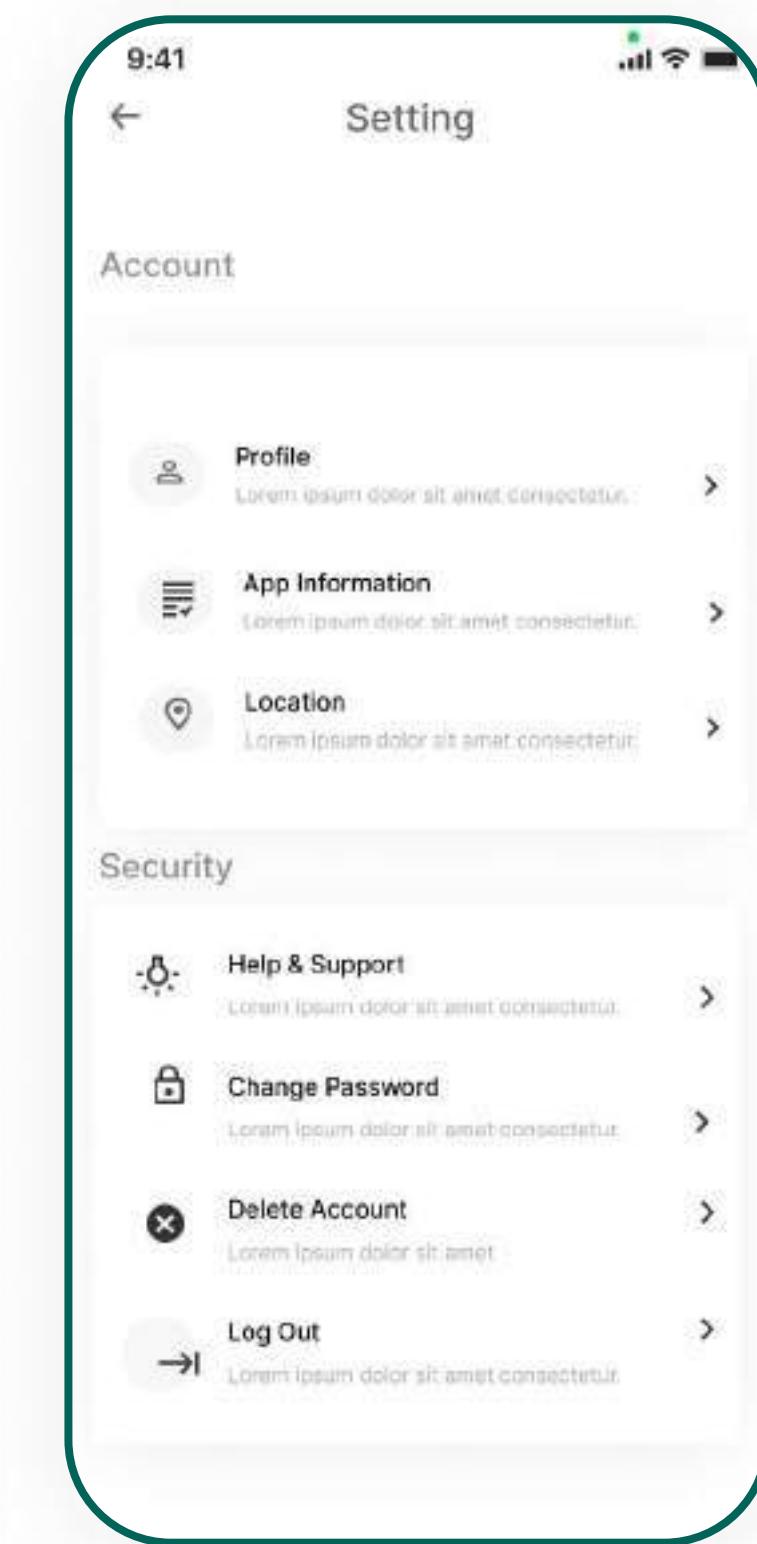
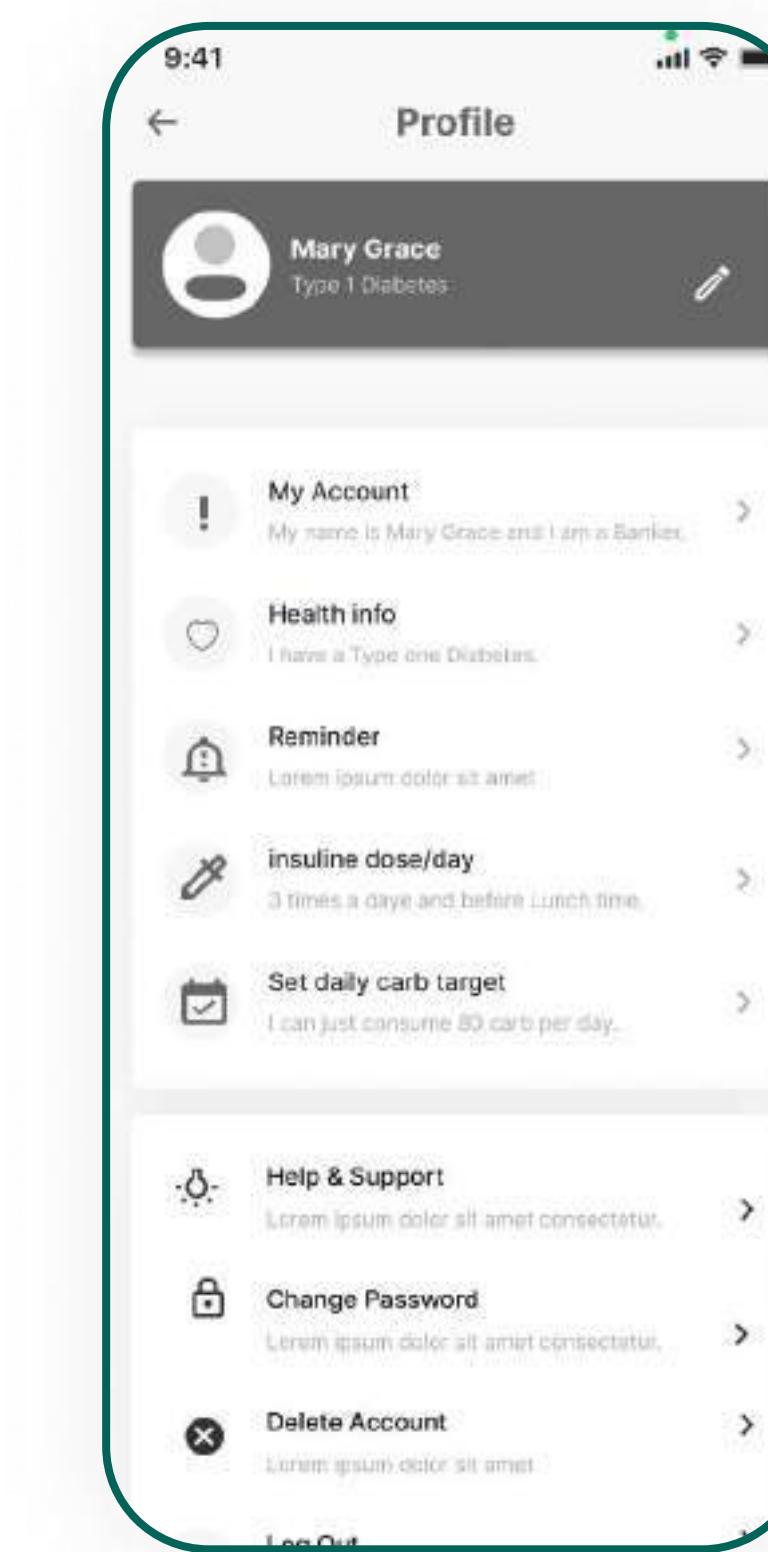
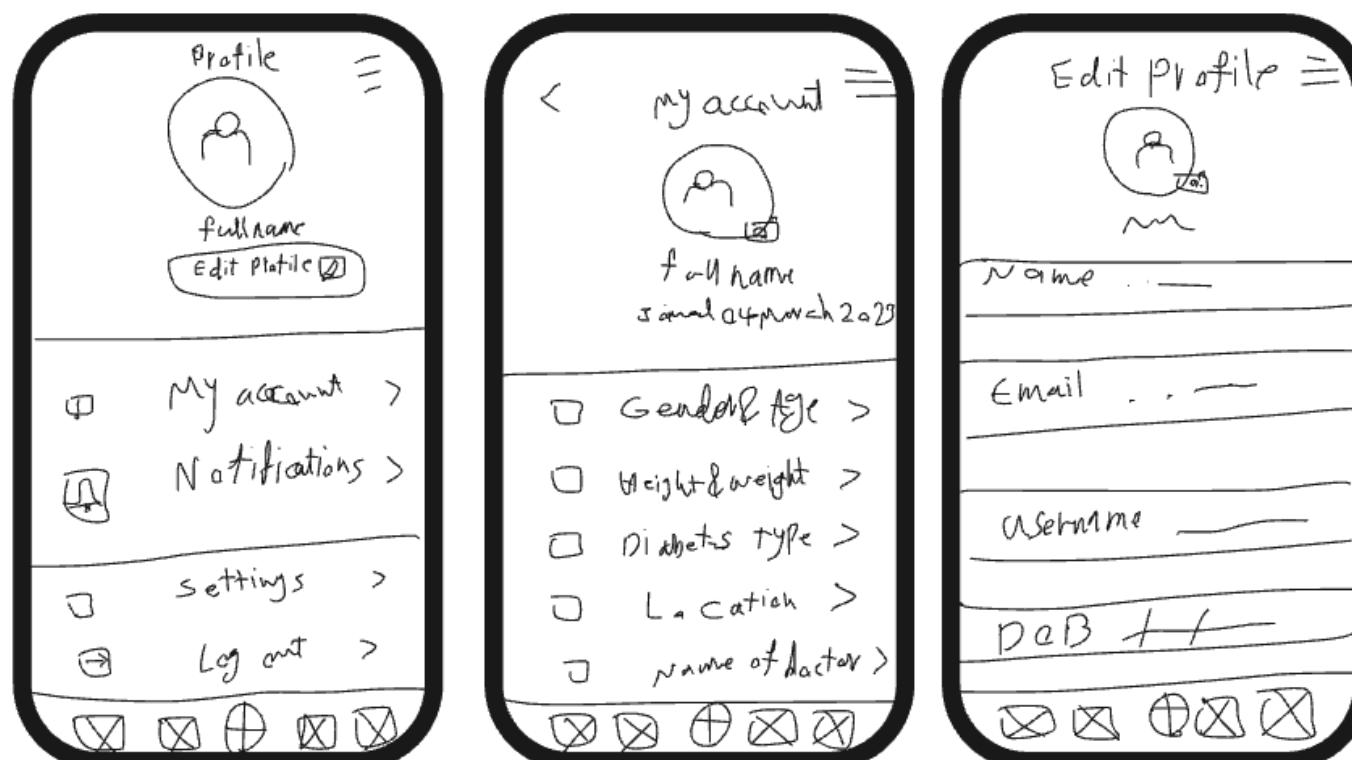
Community Iteration



Low-Fidelity: Profile

Profile- No Data

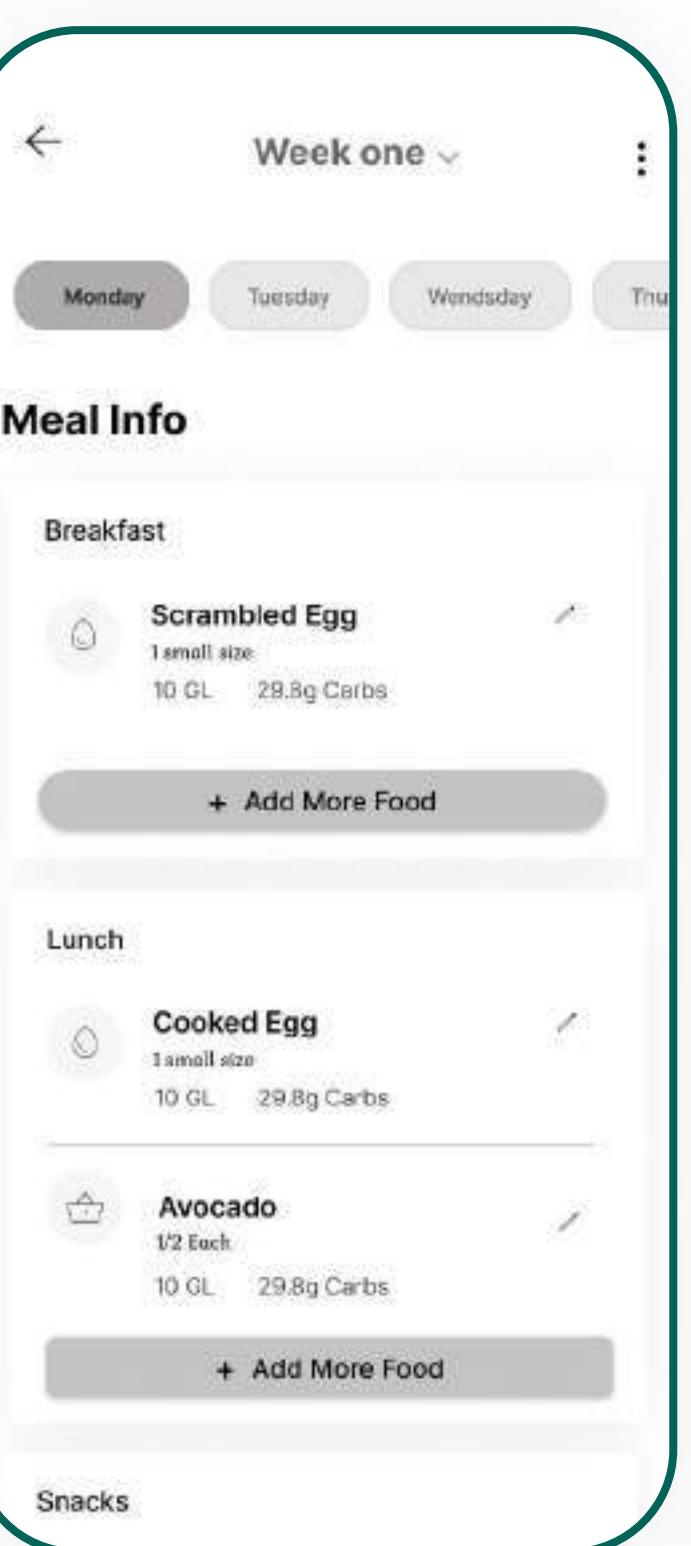
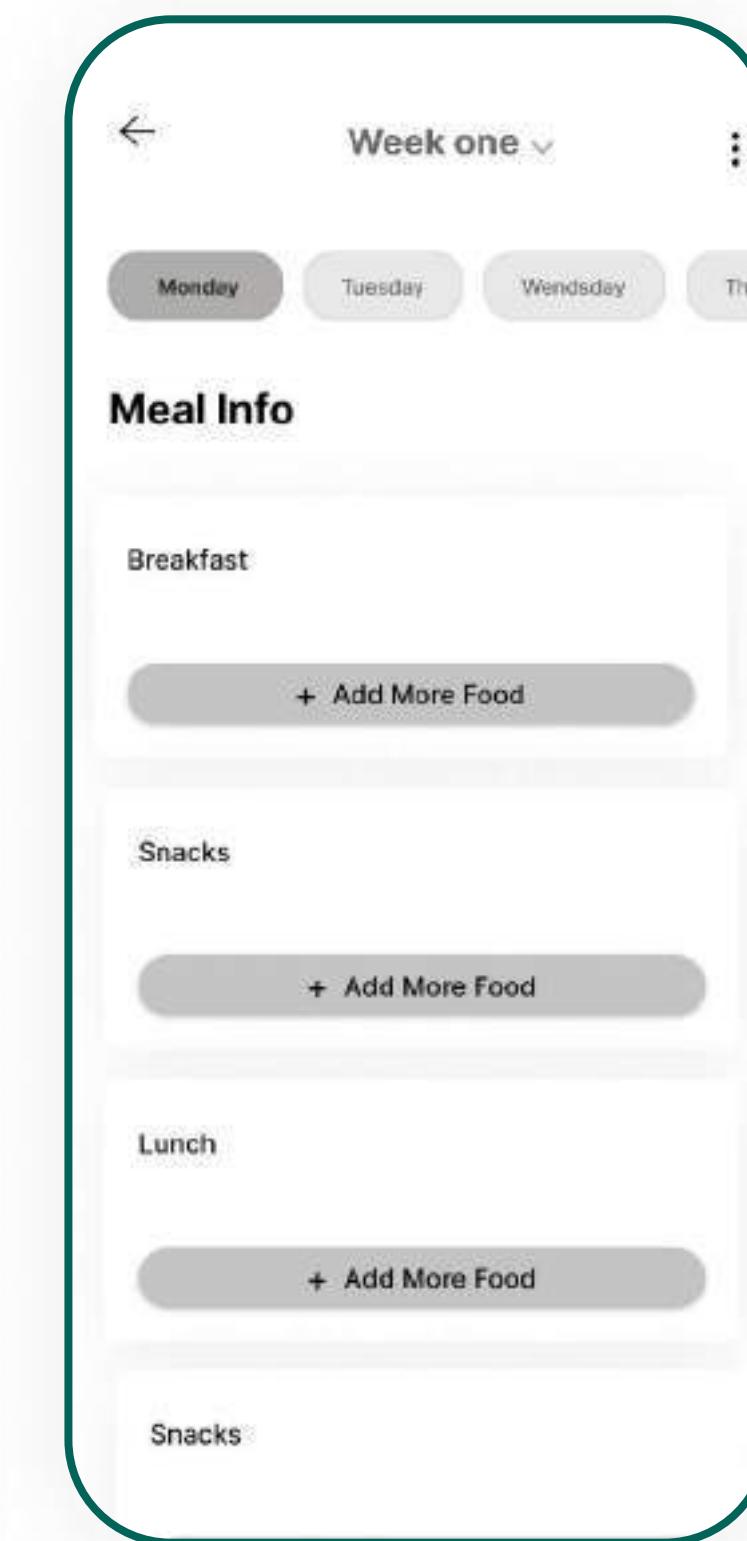
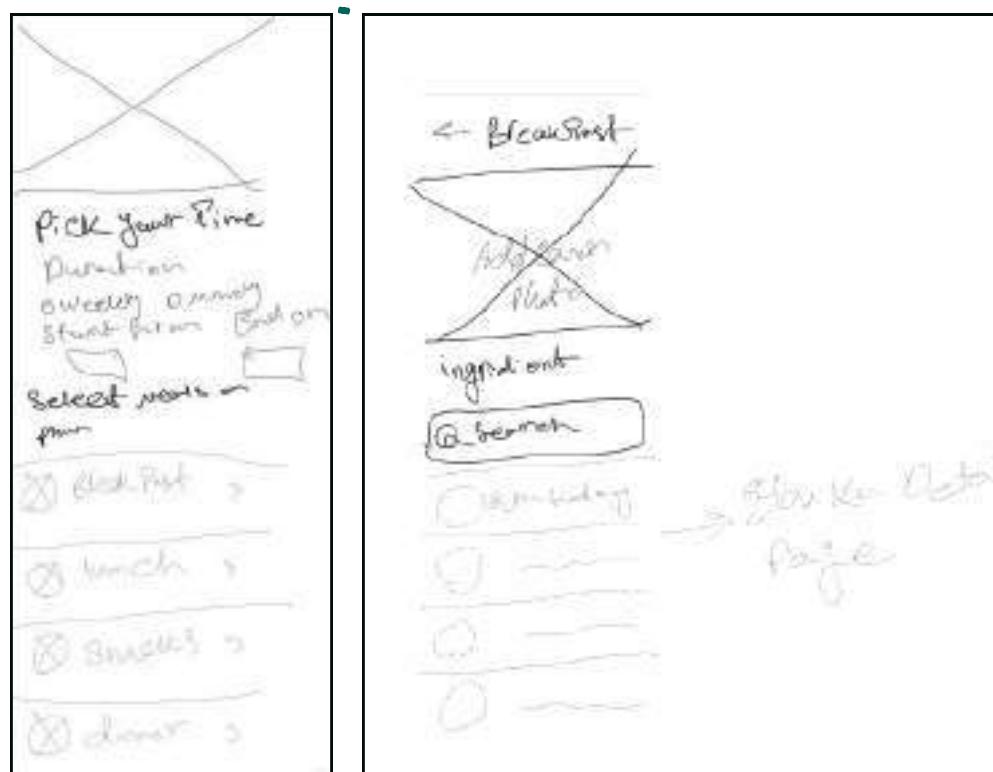
Profile Iteration



Low-Fidelity: Create Meal Plan

Create Meal plan No Data

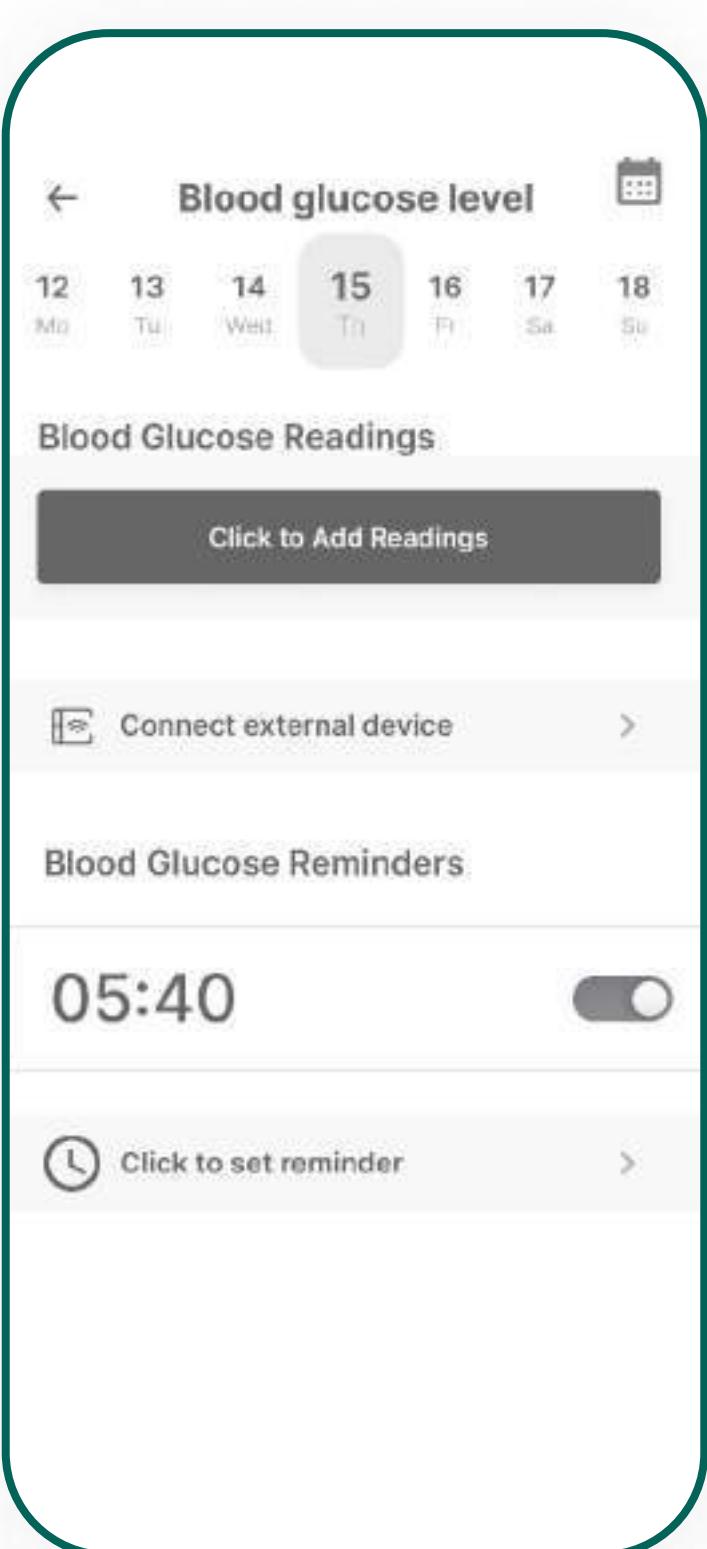
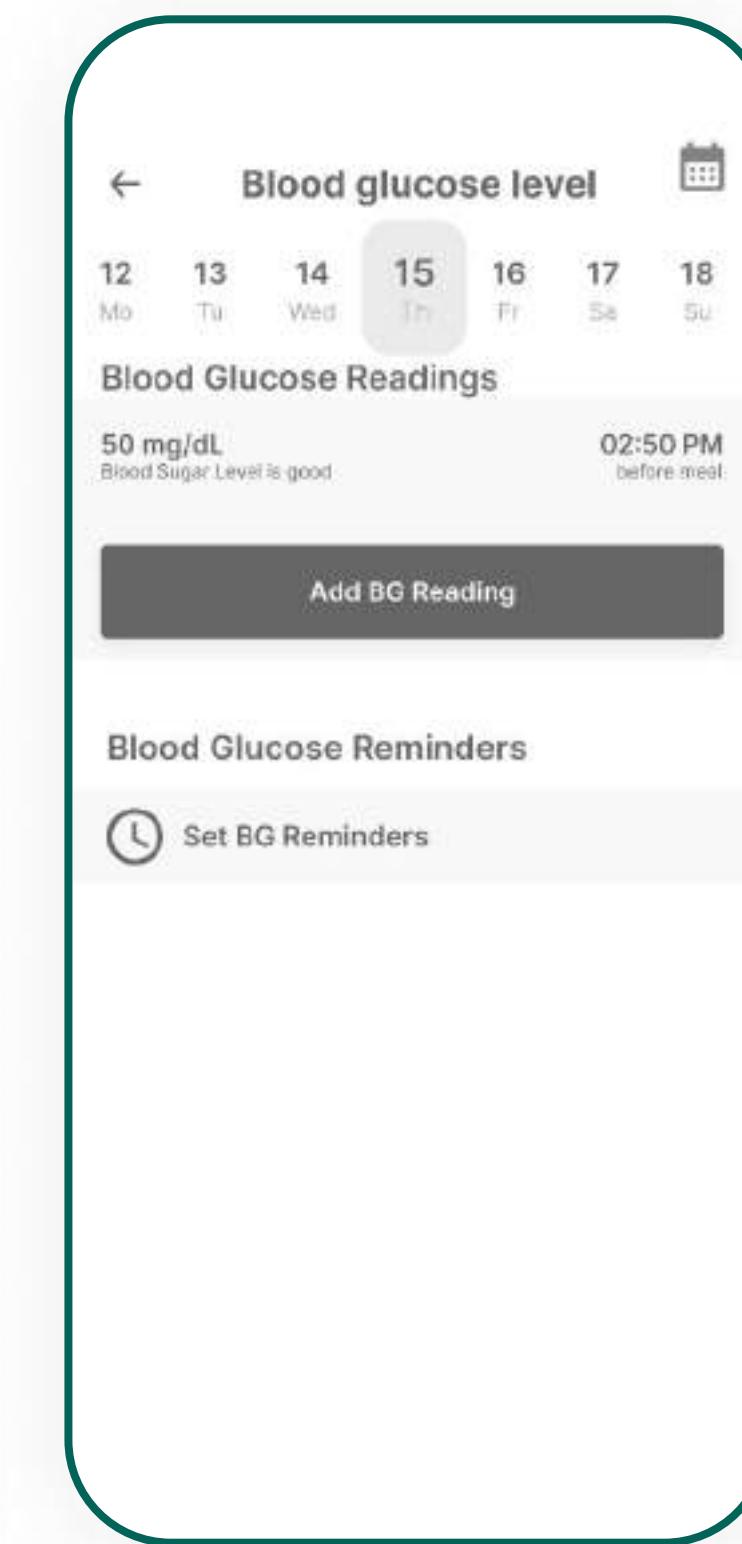
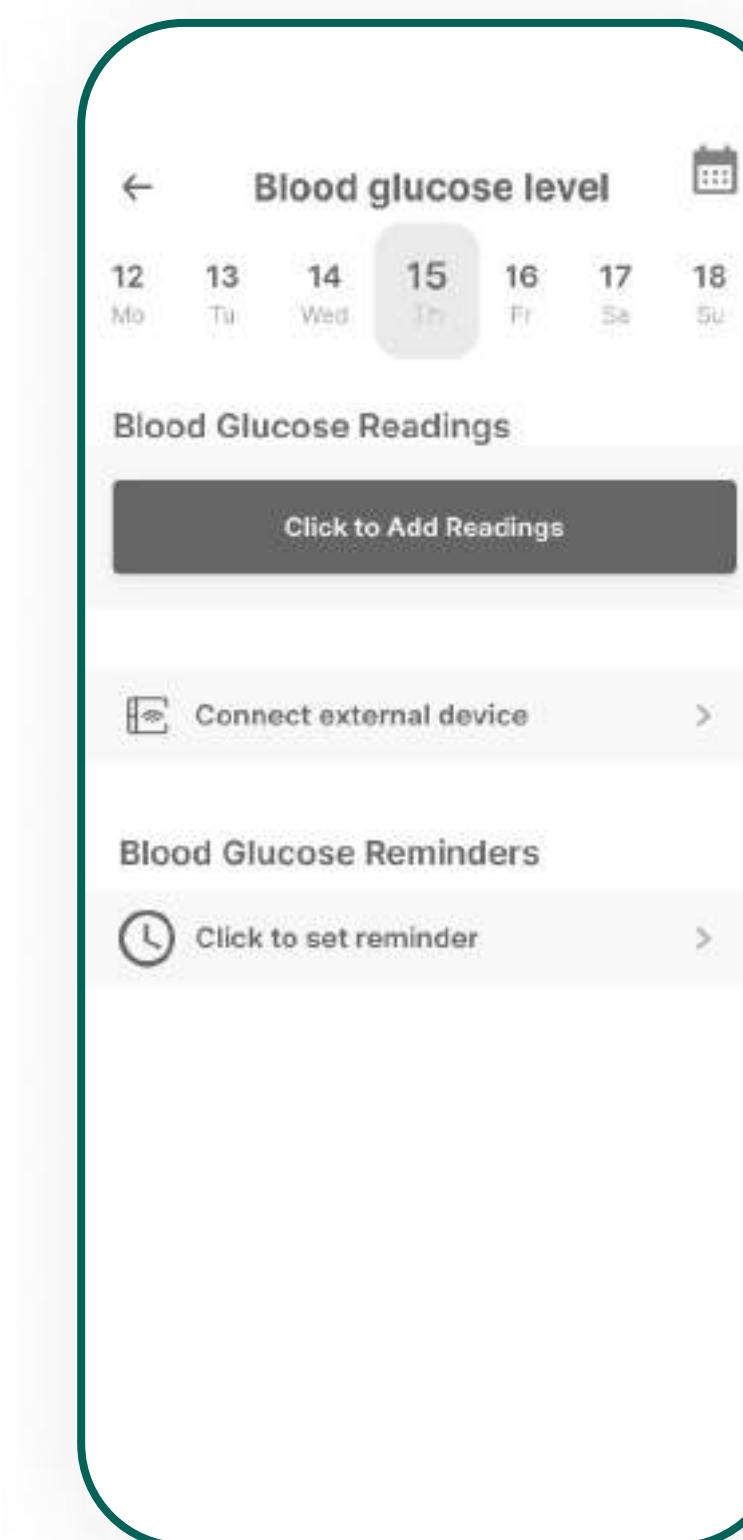
Create meal plan Iteration



Low-Fidelity: BGL

BGL No Data

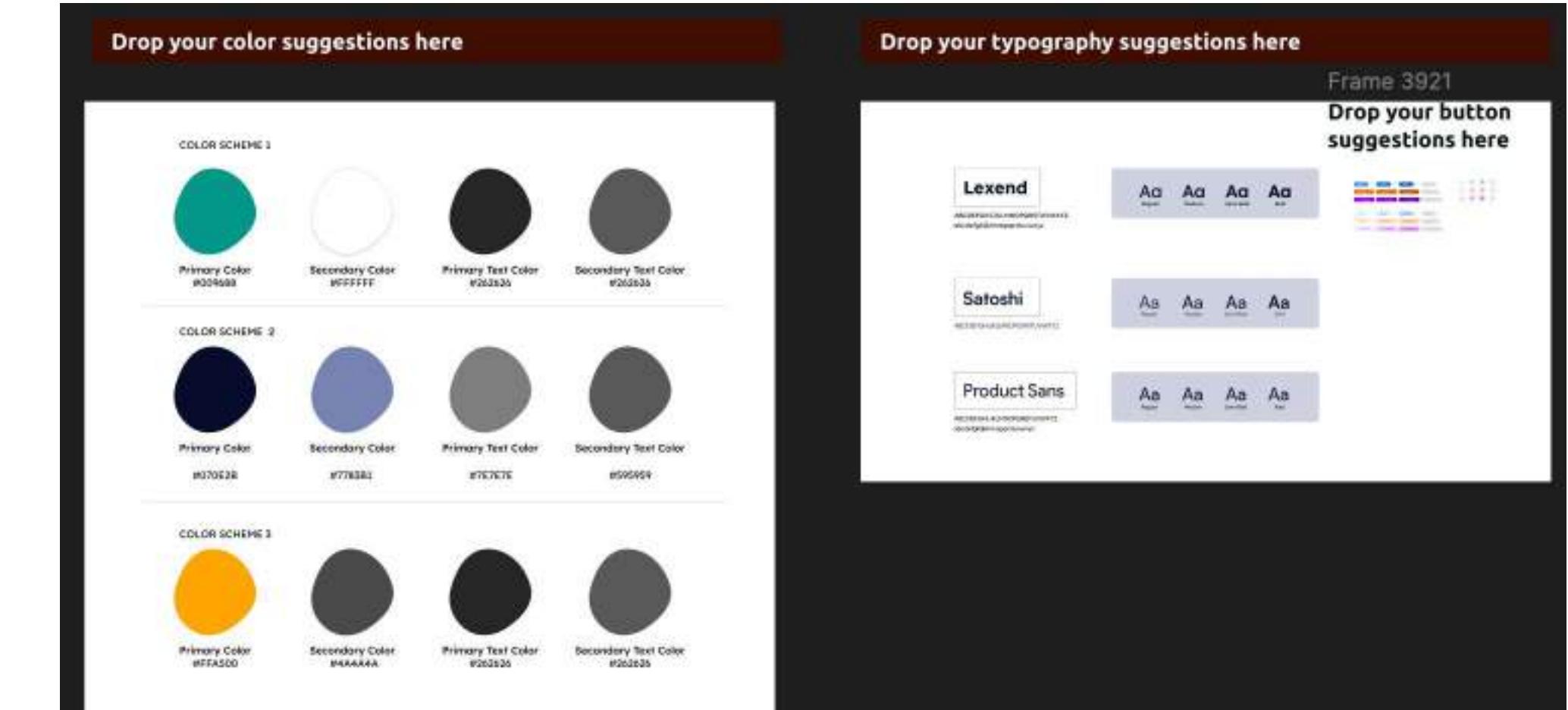
BGL Iteration



Design Approach Conclusion

During our design process, we evaluated various approaches such as typography, button shapes and color choices. For color, we researched different options including blue, green, and purple. After careful consideration, we collectively decided on the color green as it is commonly associated with health and wellness.

Similarly, we reviewed several typography options including sans-serif, Lexend, and Product Sans. We ultimately selected Nunito-sans after conducting accessibility research. After this we proceeded to do our design system and then the High-Fidelity design.



Collaborations

—
Team work

—
Methods used

—
Problem encountered

—
Data driven approach

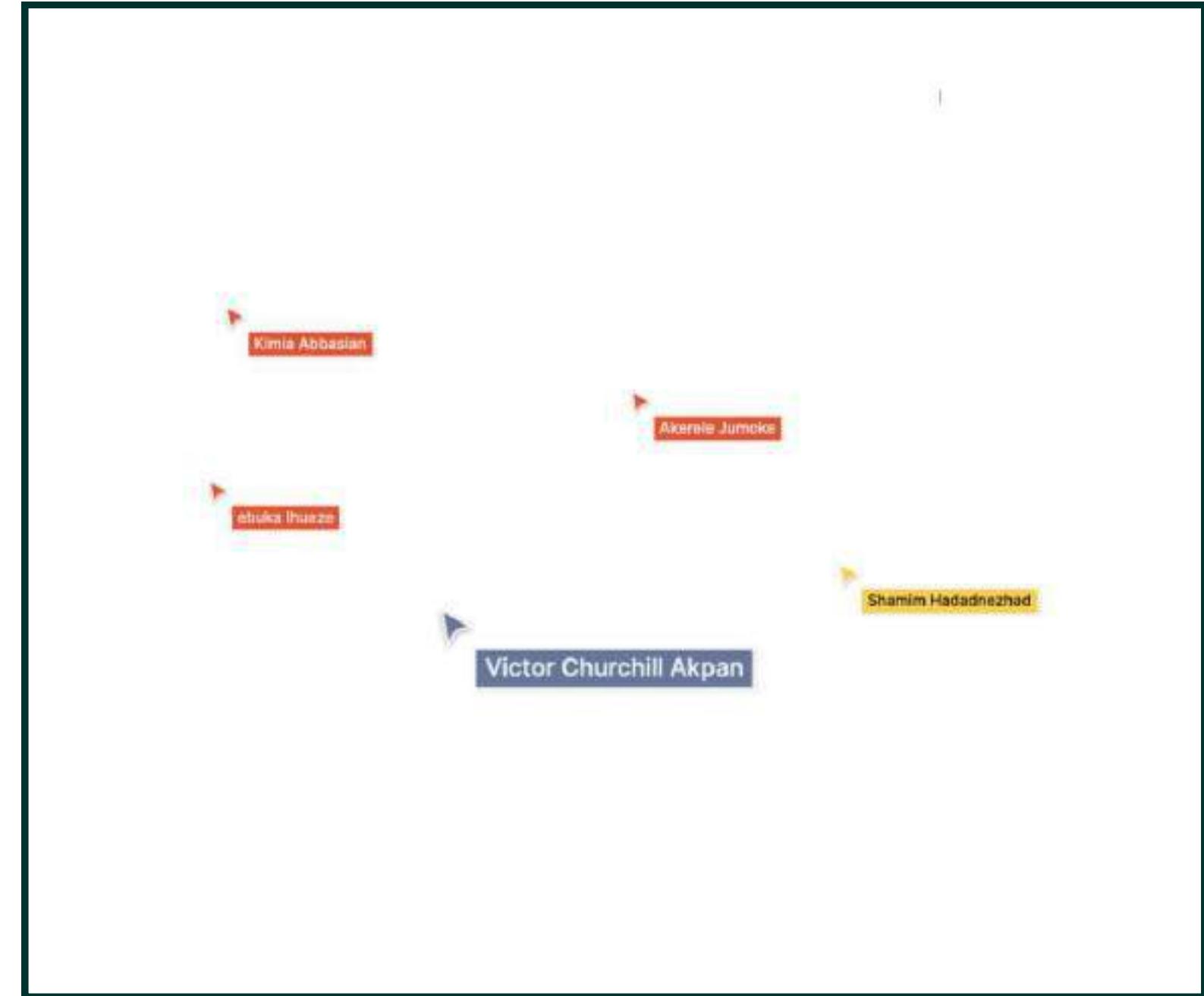
—
Solution approach

The Team

Physical Collaboration.



Collaboration on Figma



Design System

Colour Palette



Typography

MOBILE HEADINGS					
STYLE NAME	FONT SIZE	LINE HEIGHT	WEIGHT	SAMPLE	
H1	24px	1.2em	bold	Headline 1	
H2	18px	1.2em	bold	Headline 2	
H3	14px	1.2em	bold	Headline 3	
H4	12px	1.2em	bold	Headline 4	

BODY TEXT					
STYLE NAME	FONT SIZE	LINE HEIGHT	WEIGHT	SAMPLE	
Body 1	16px	1.2em	Font-normal	Font-medium	Font-semibold
Body 2	14px	1.2em	Font-normal	Font-medium	Font-extrabold
Body 3	12px	1.2em	Font-normal	Font-normal	
Text	14px	1.2em	Font-semibold	Font-bold	

Text field

Email Address: Enter your email

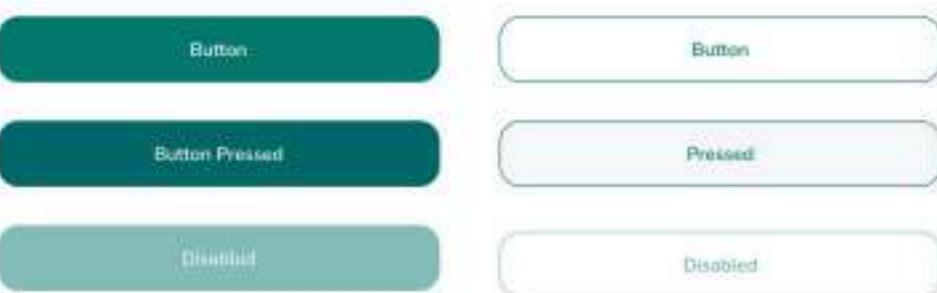
Email: Email

Password: Password

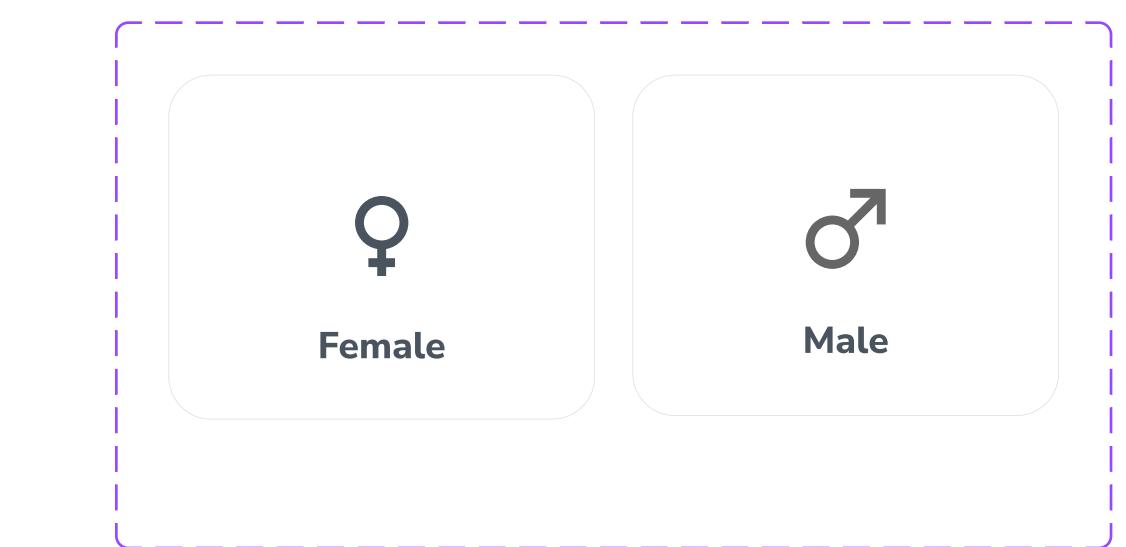
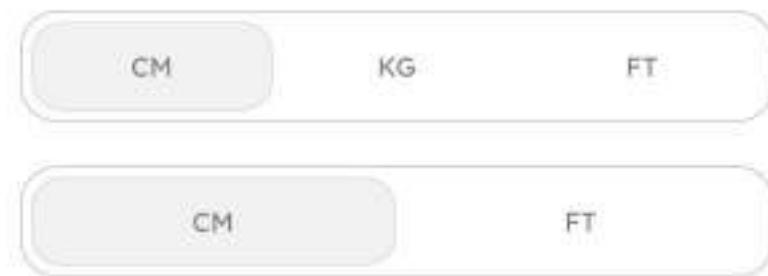
Password: Enter your password

Password: Enter your email

Buttons



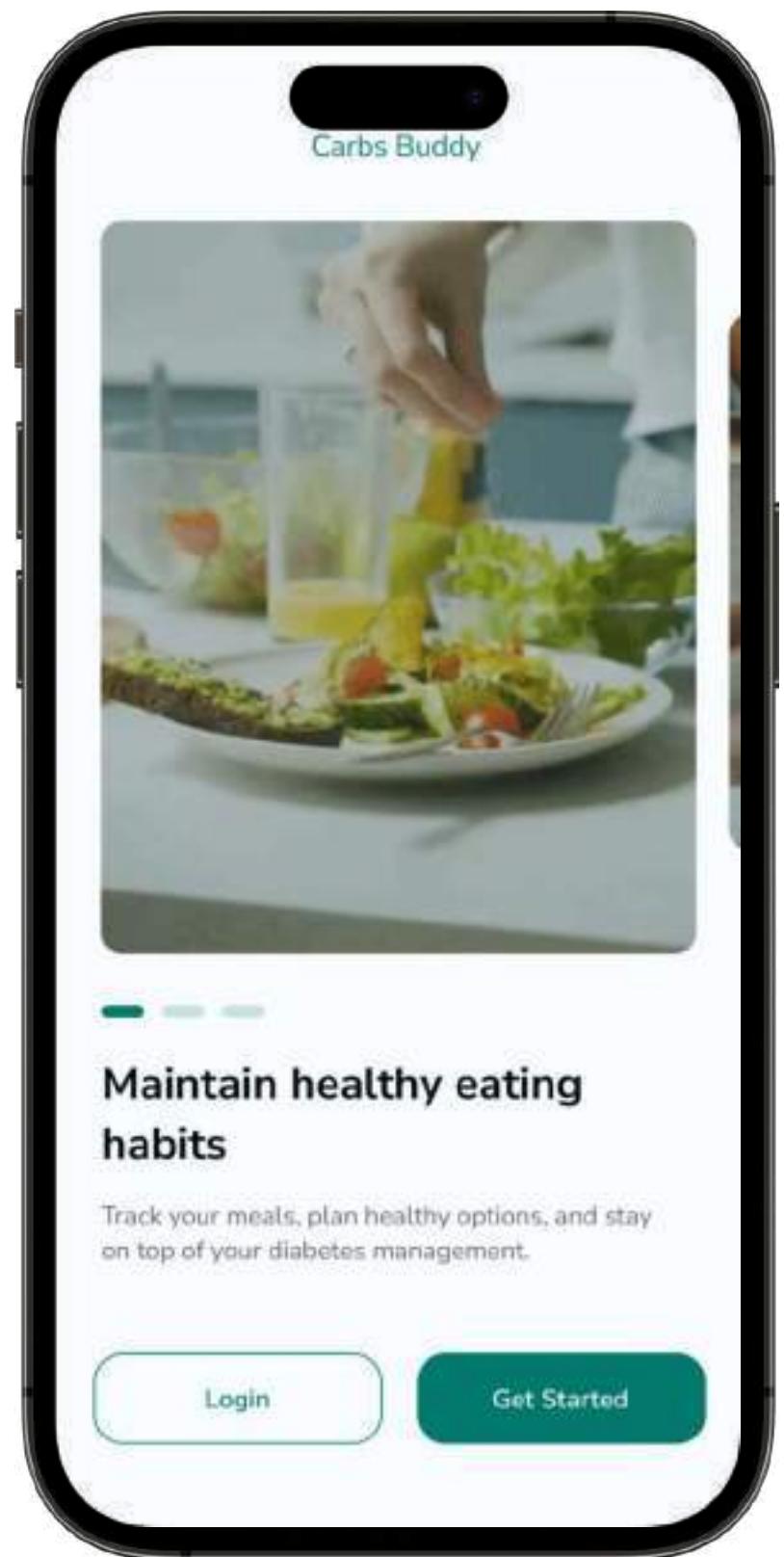
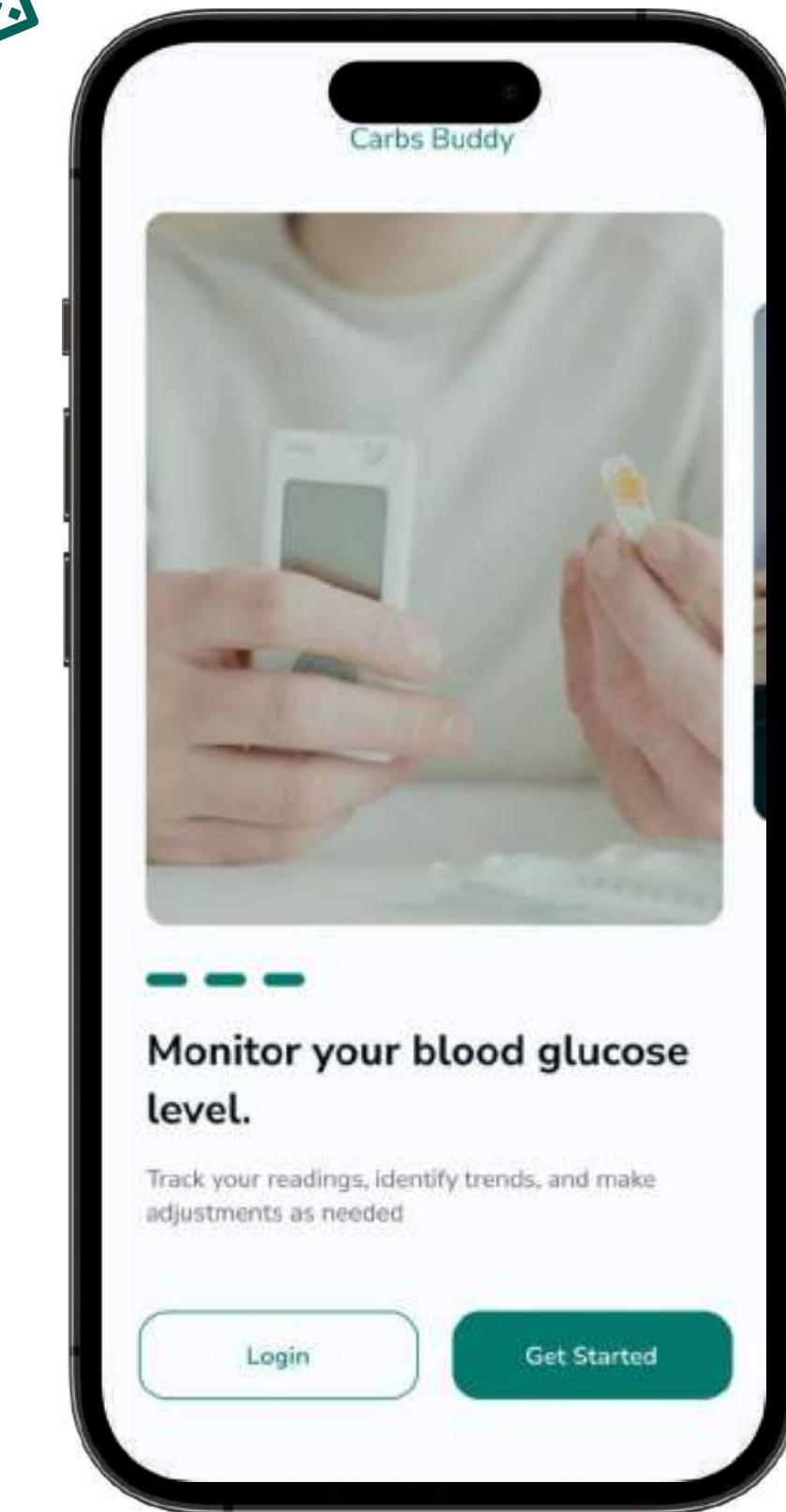
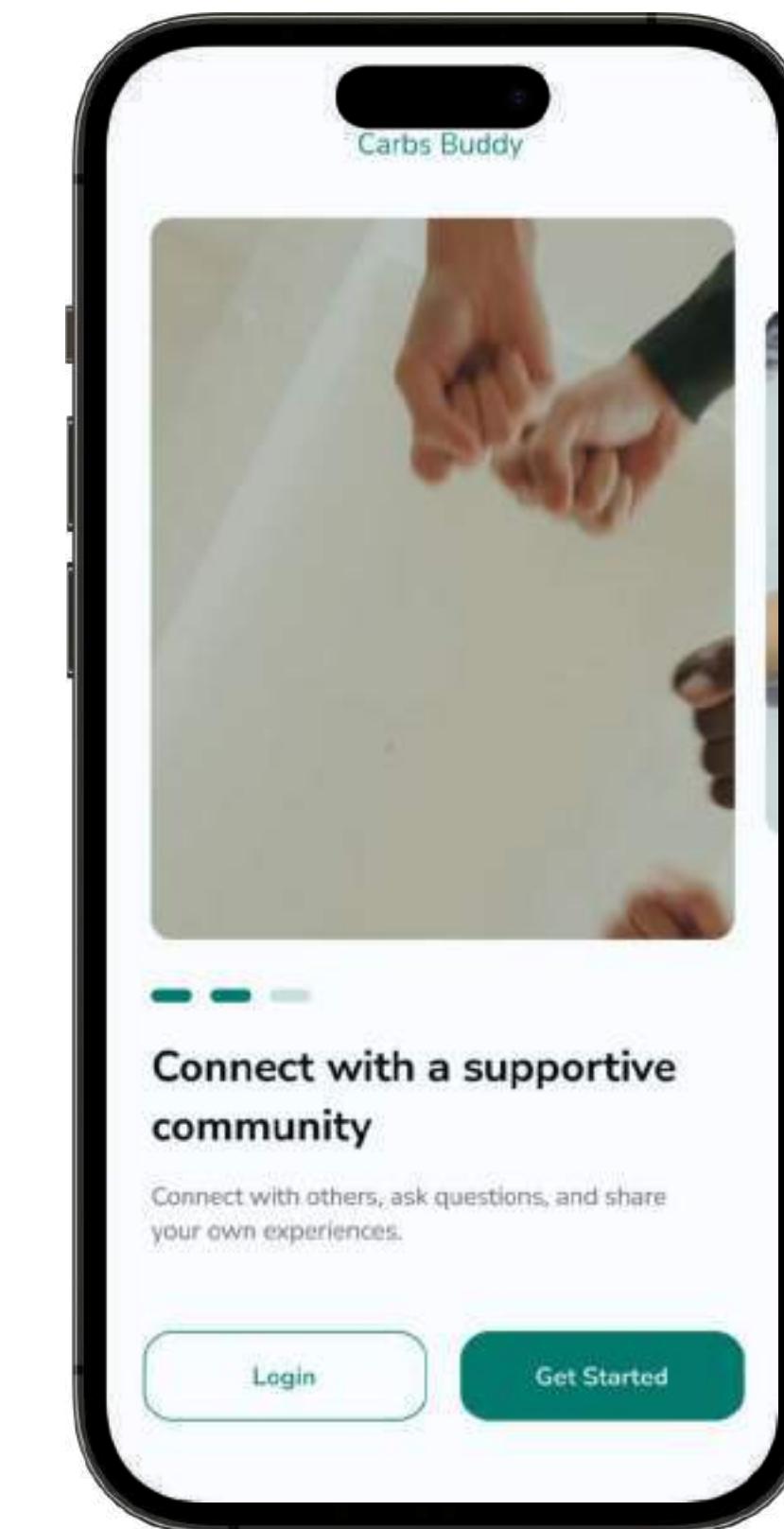
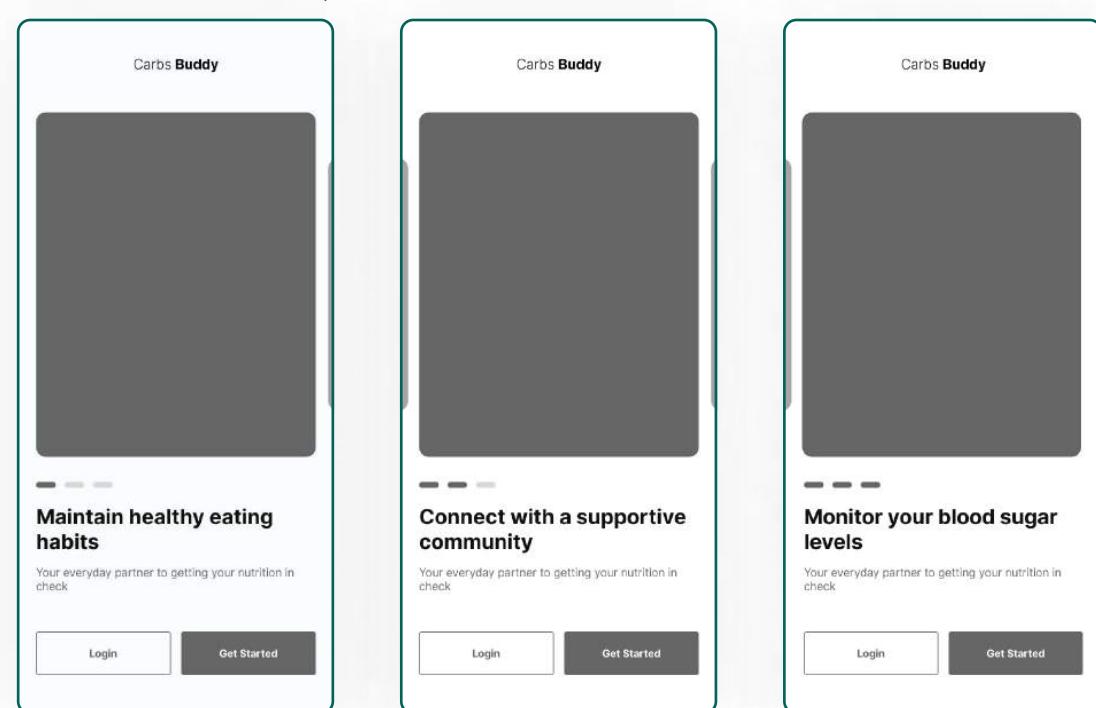
Segment Control



High Fidelity: Onboarding

Onboarding

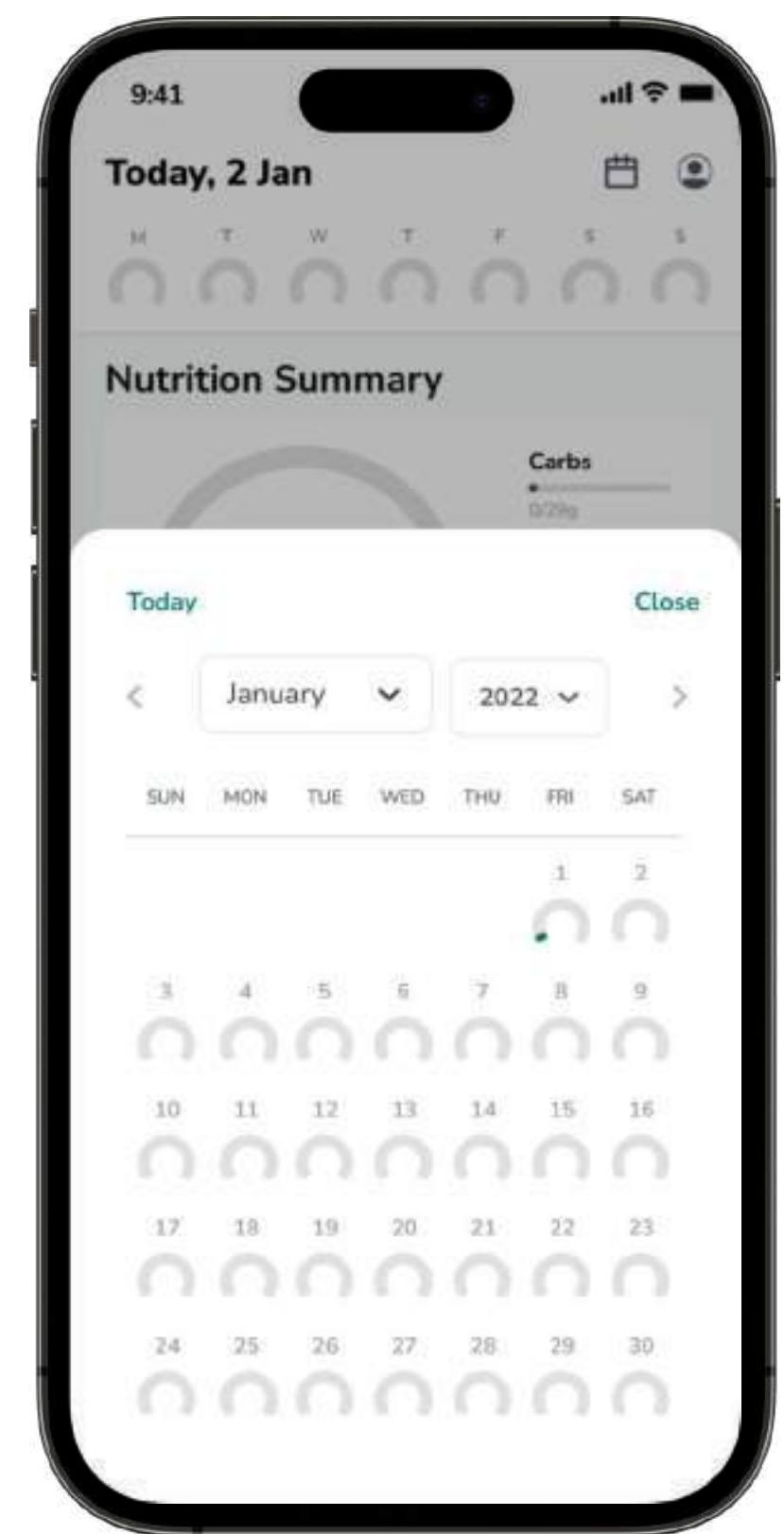
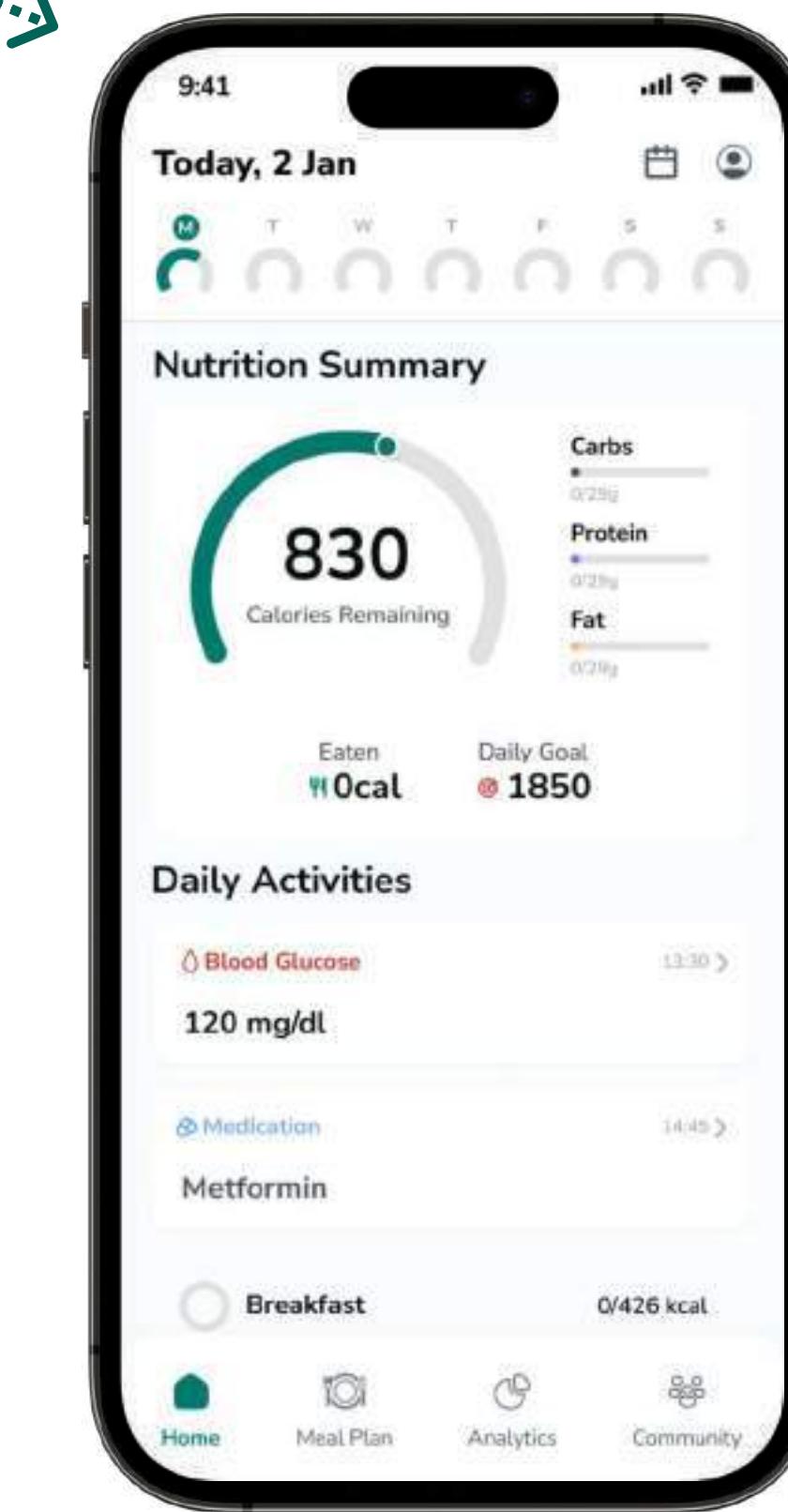
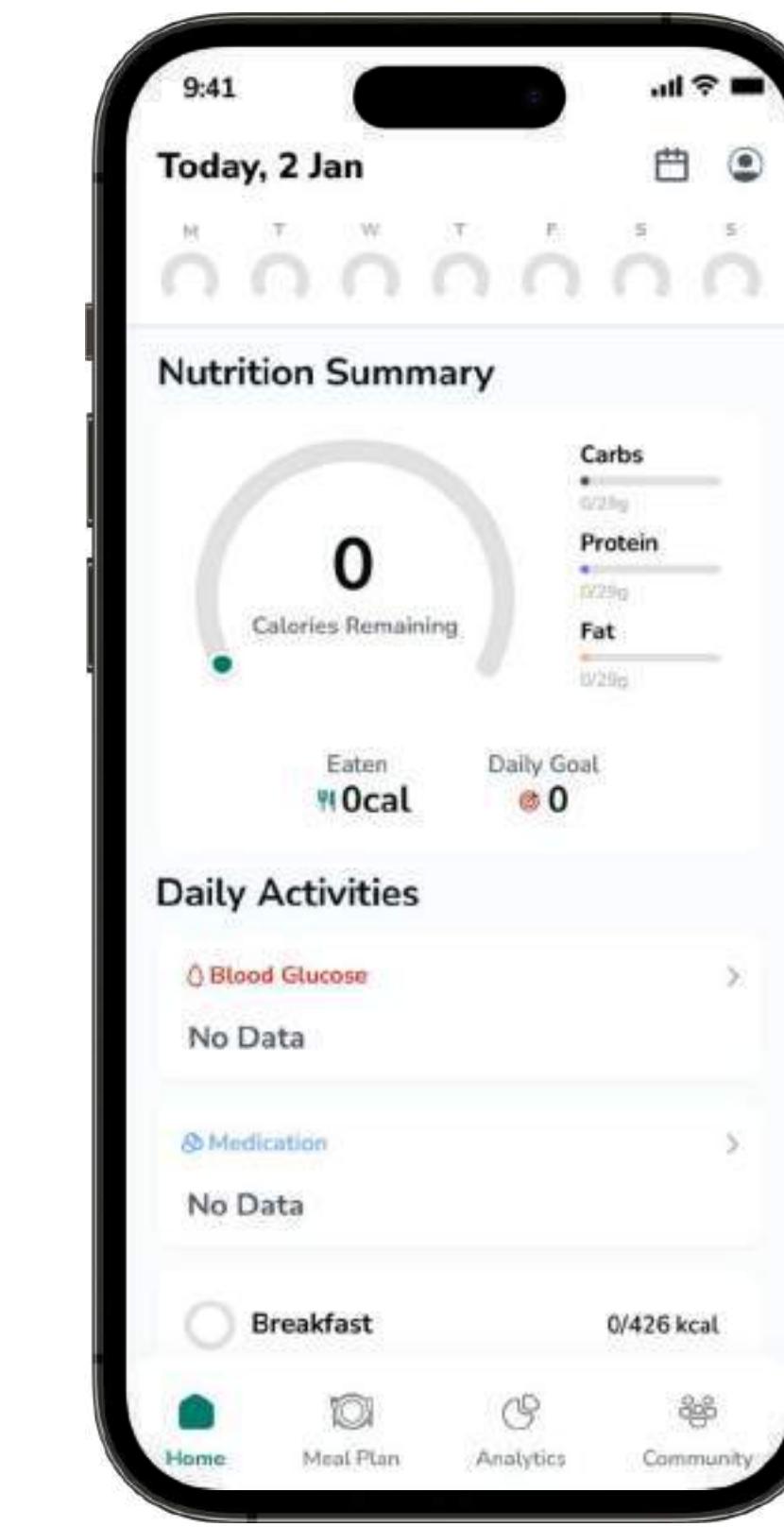
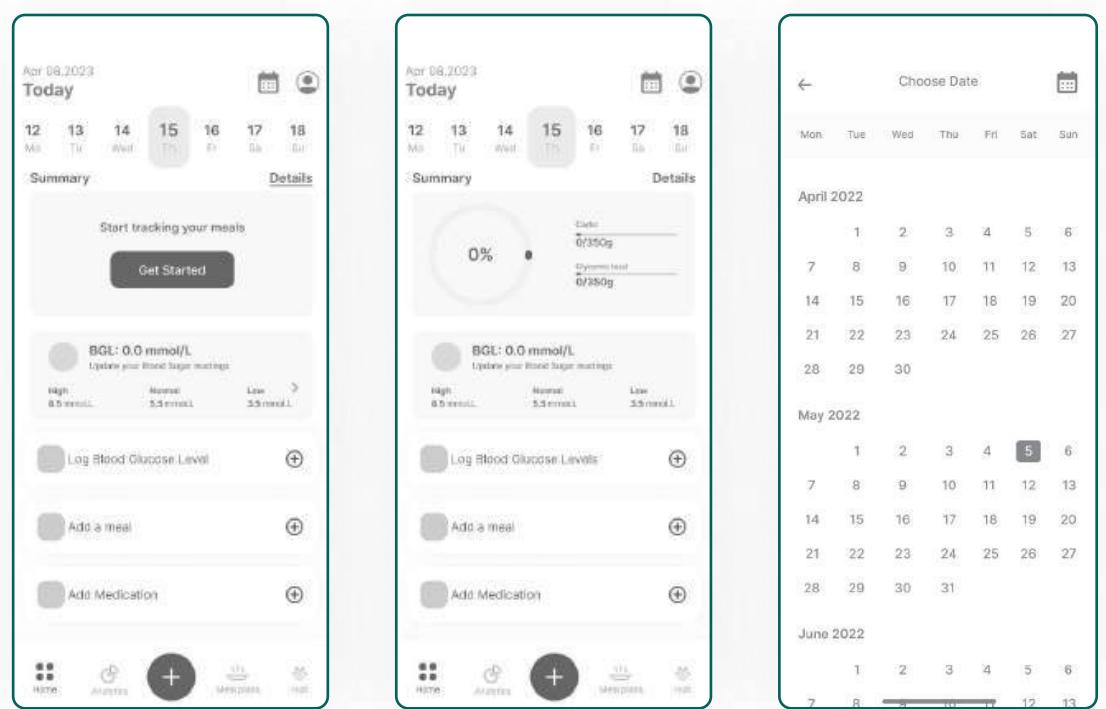
Onboarding Iterations



High Fidelity: Homepage

Homepage

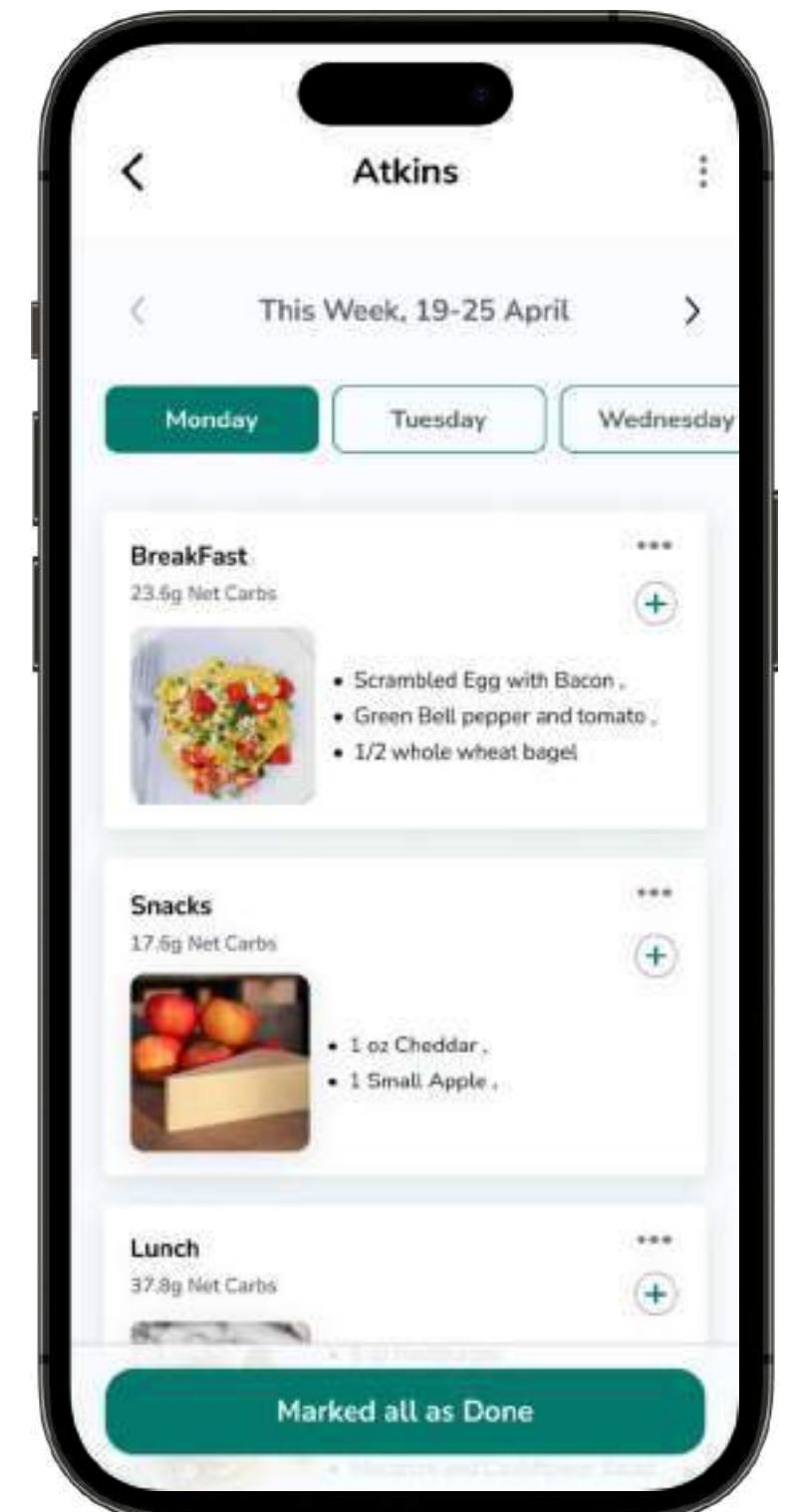
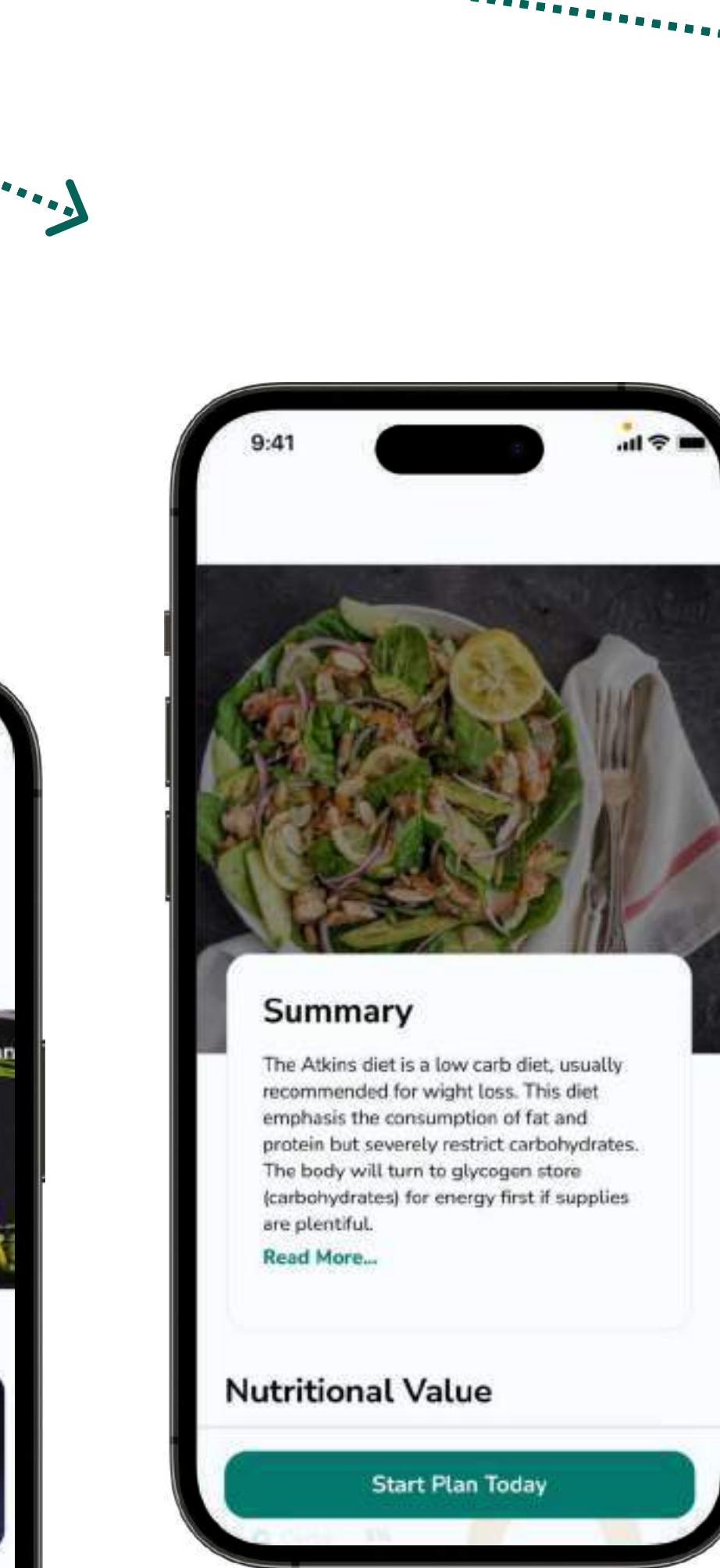
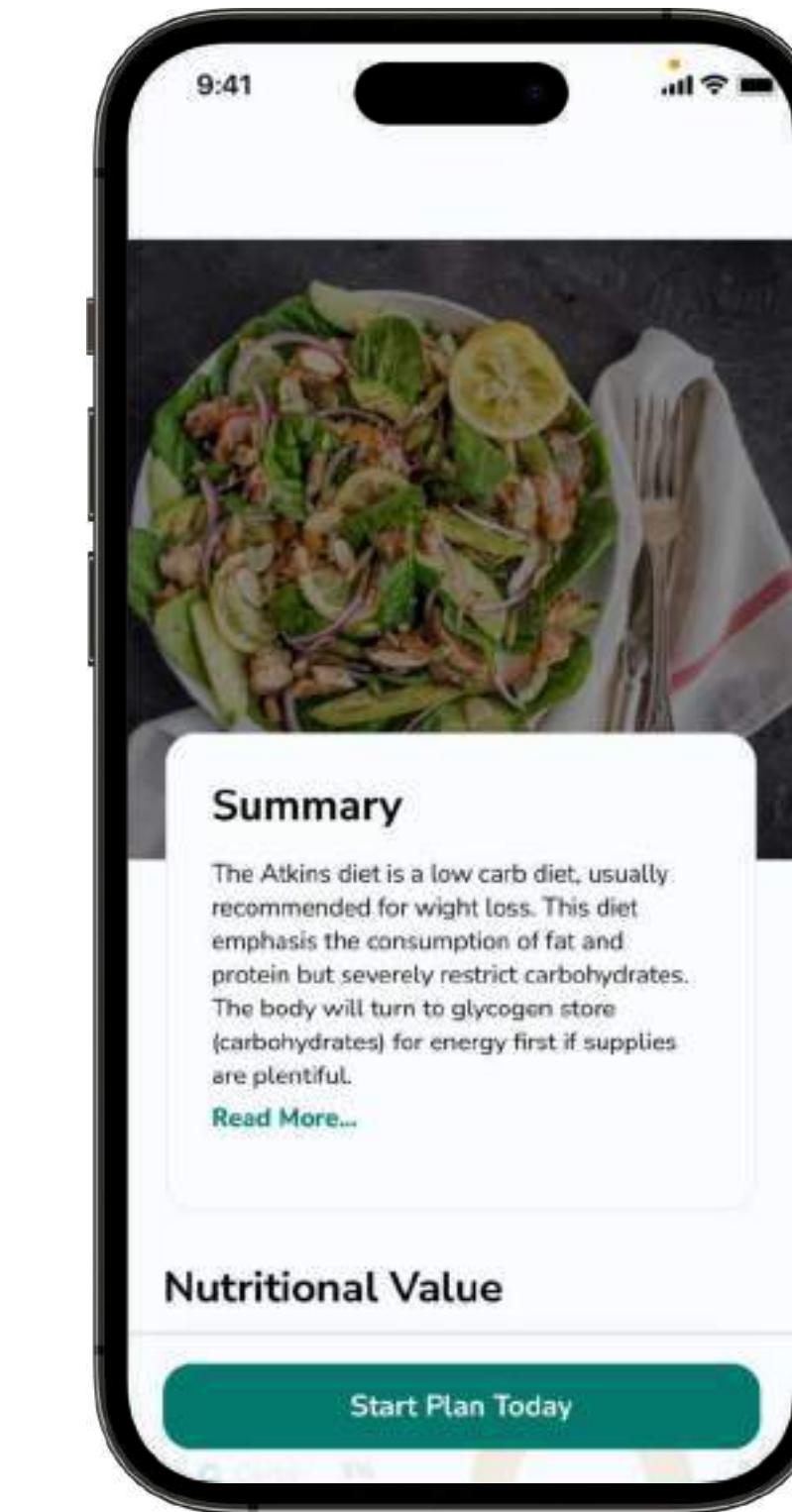
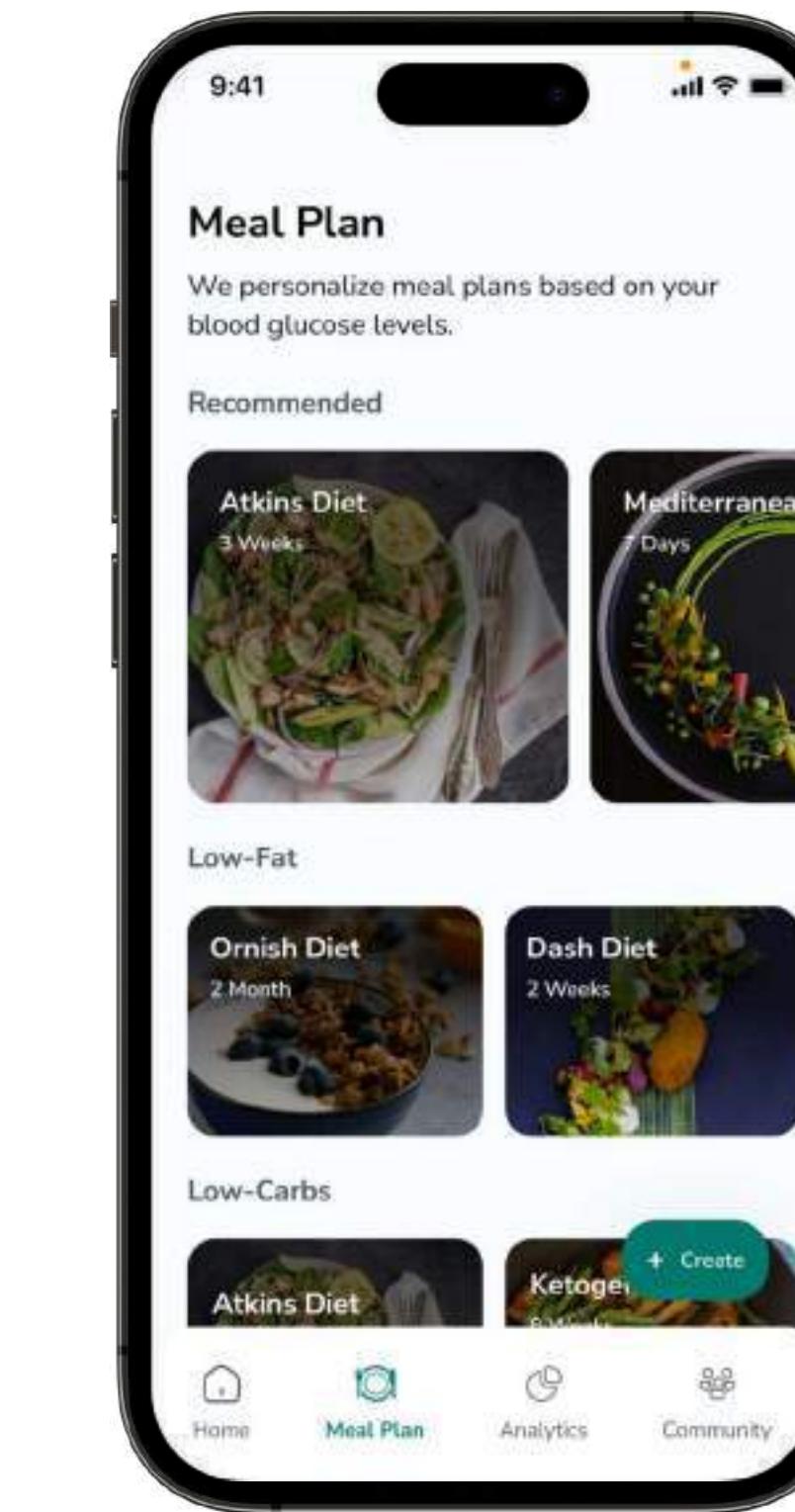
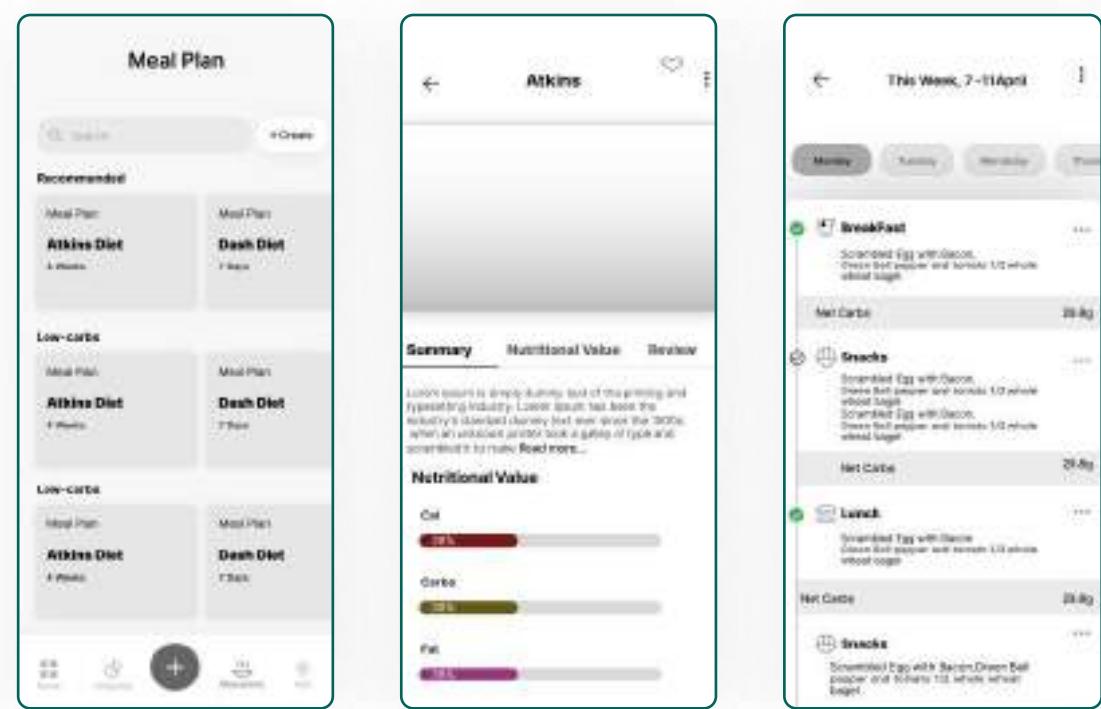
HomePage Iterations



High Fidelity: Meal Plan

Meal Plan

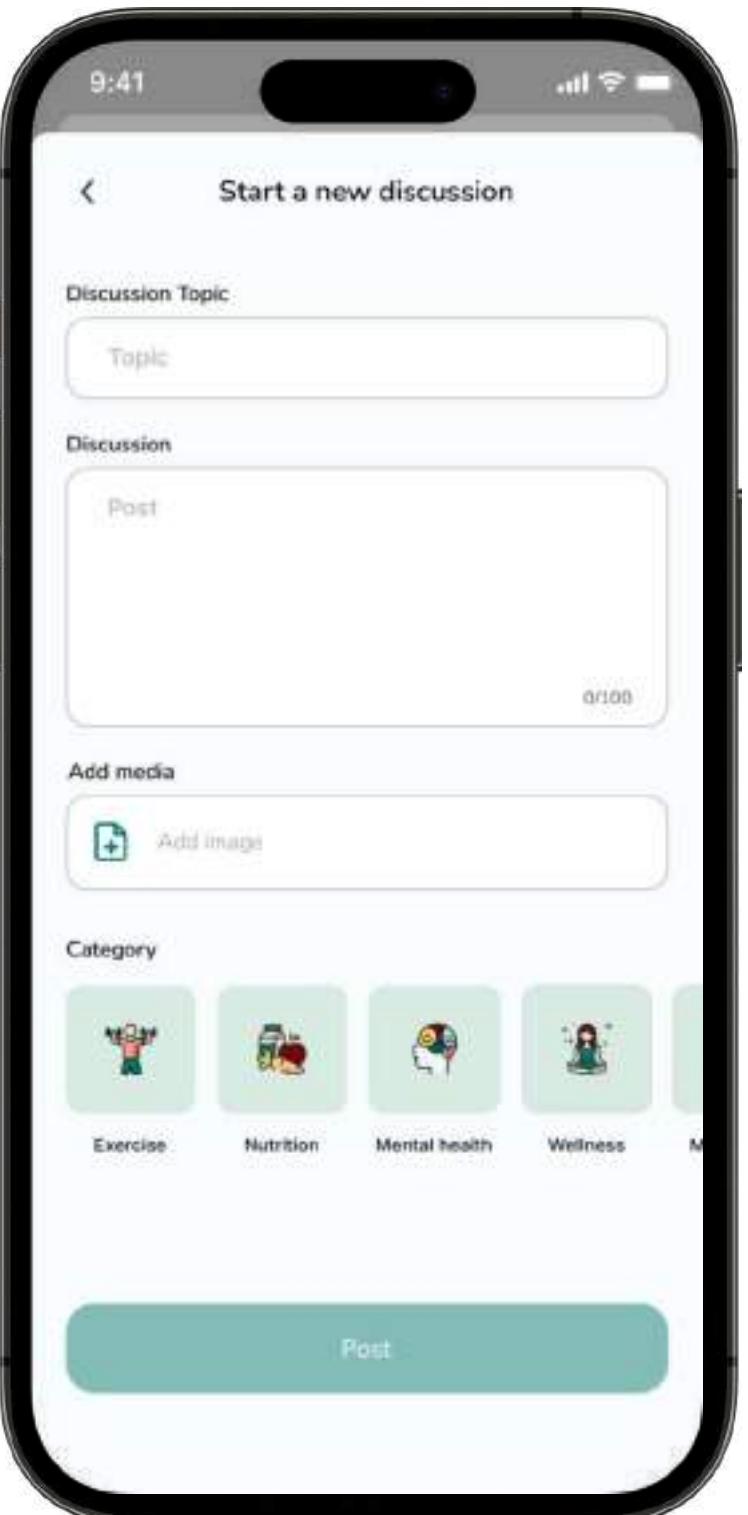
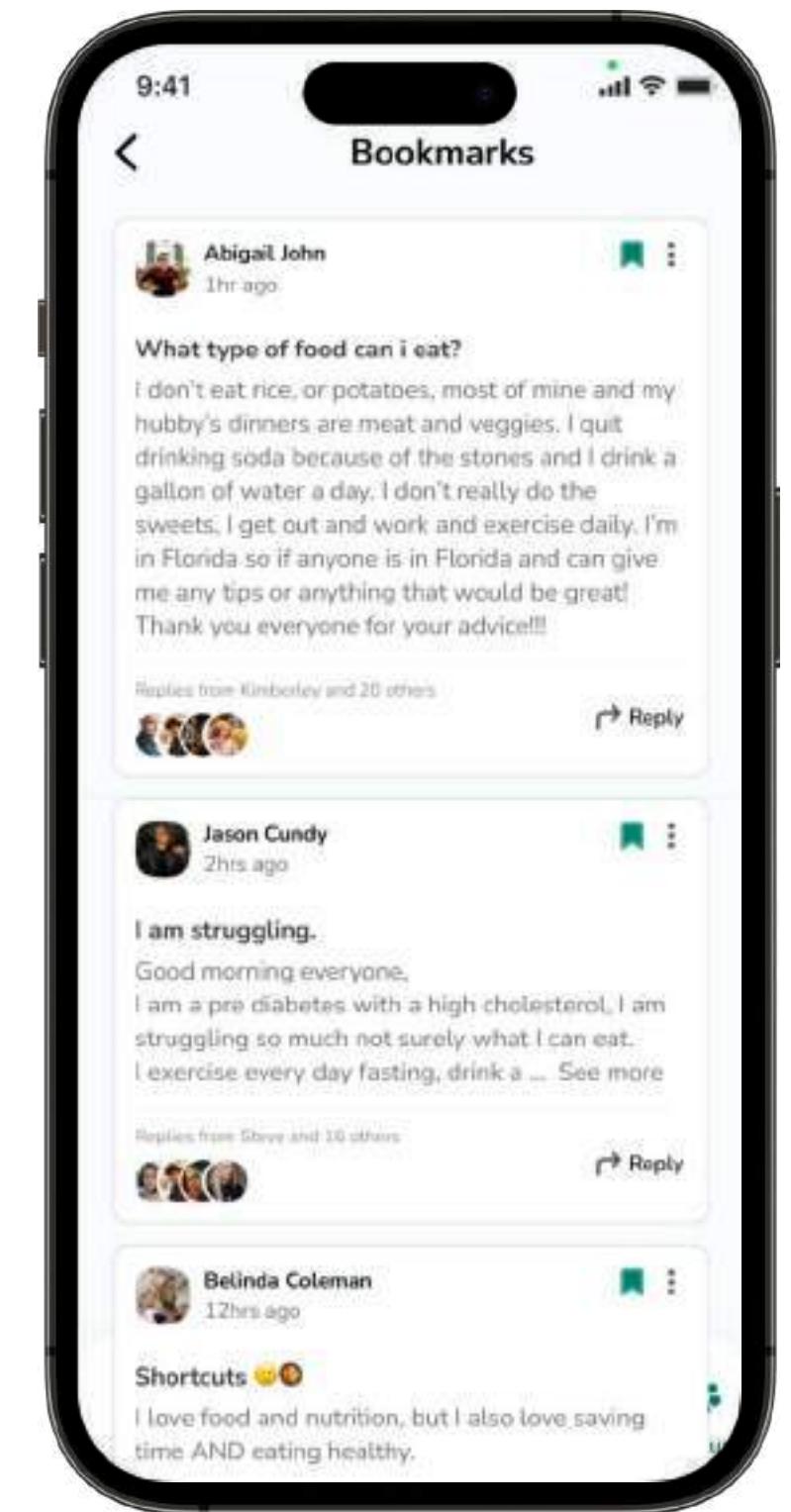
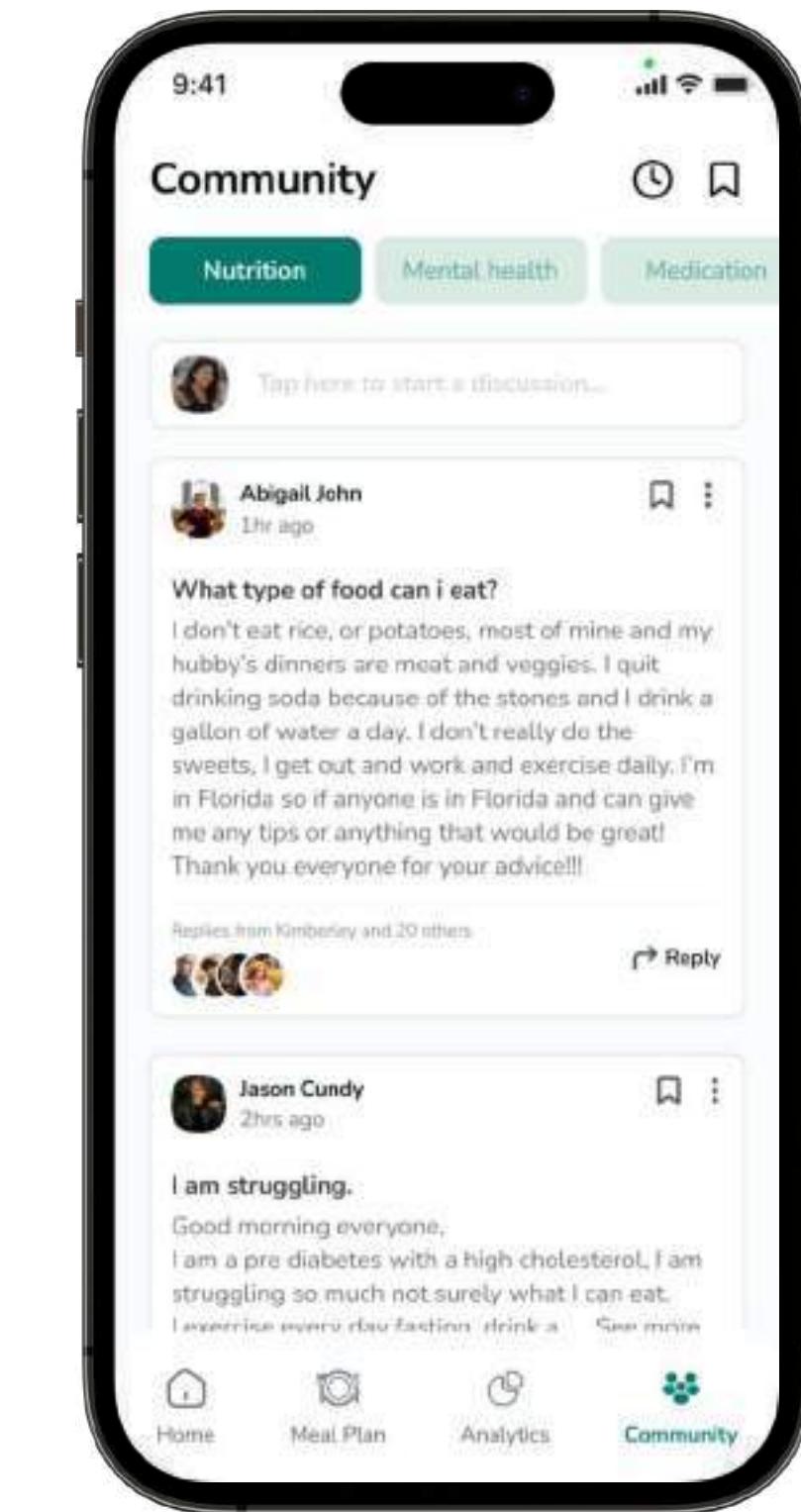
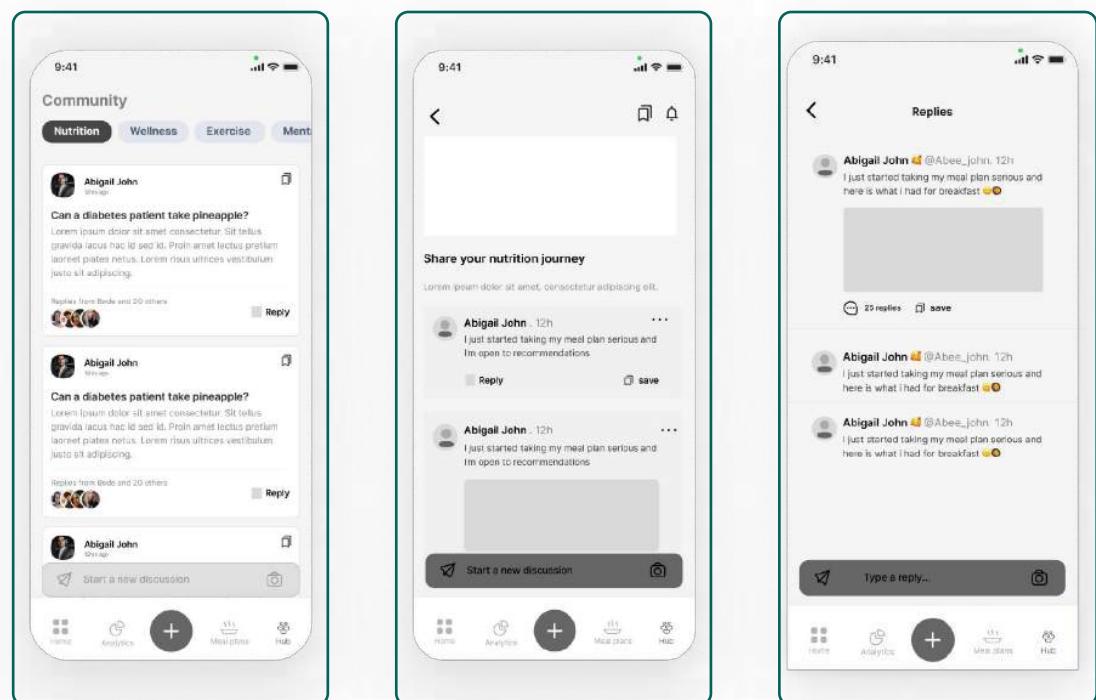
Meal Plan Iterations



High Fidelity: Community

Community

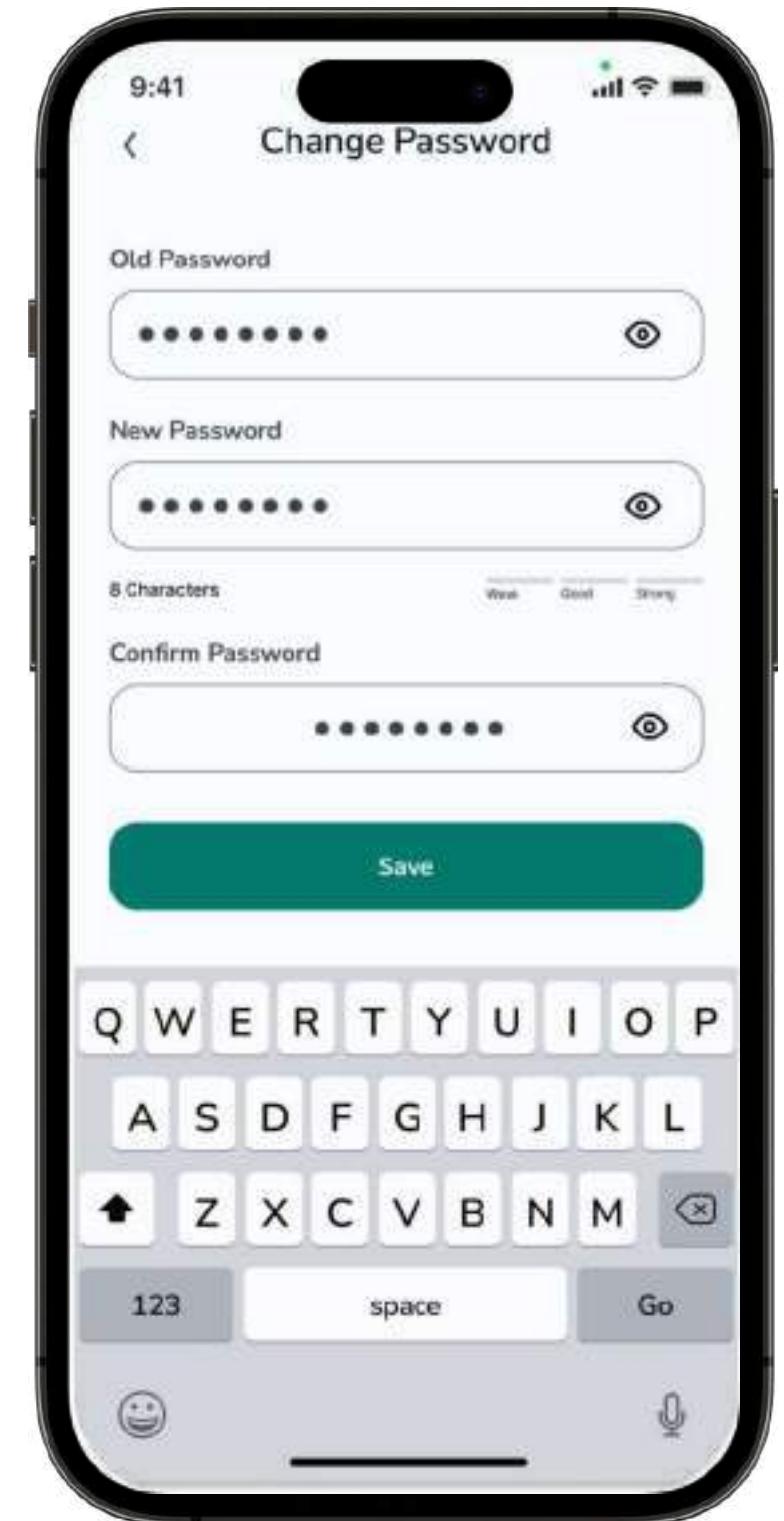
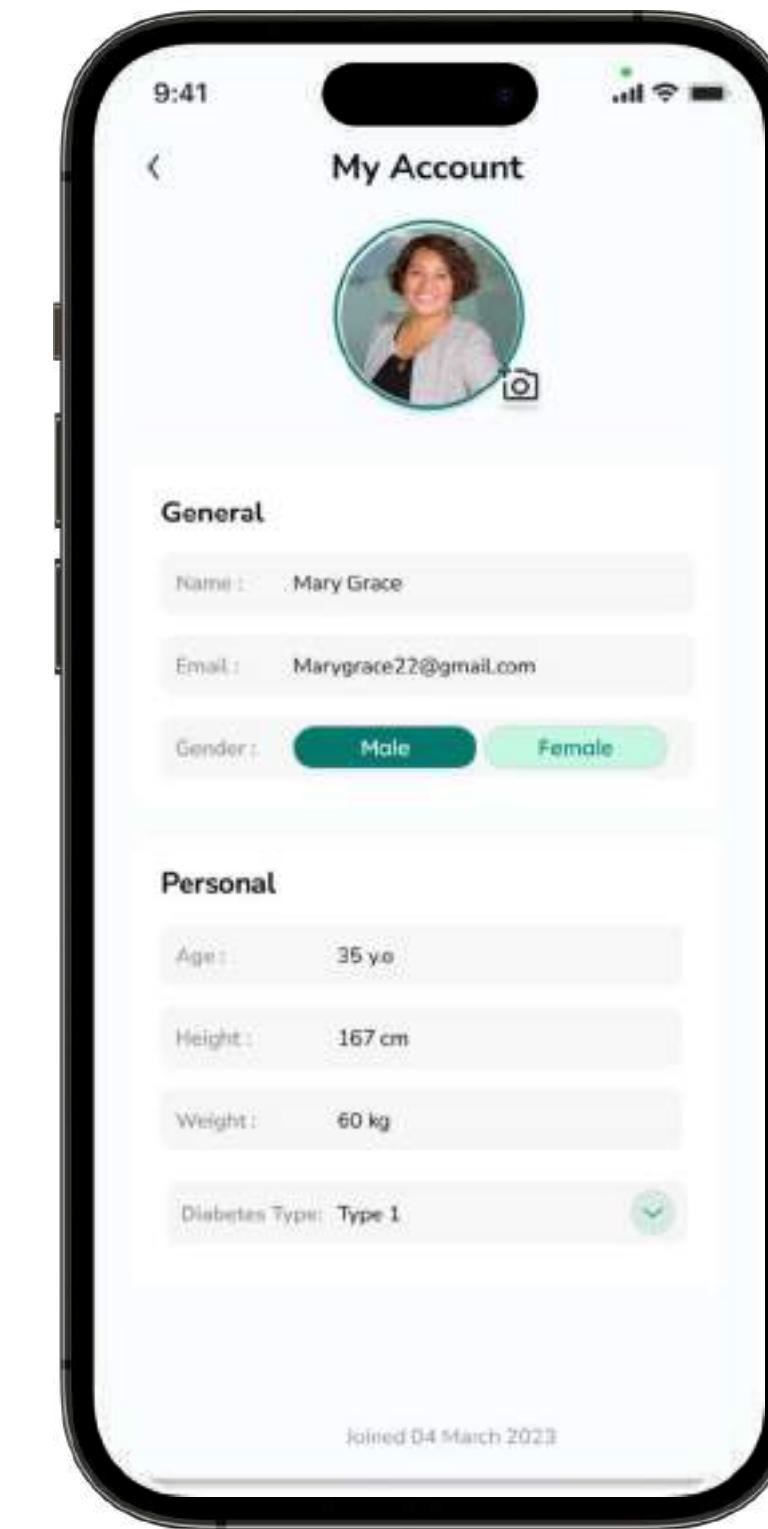
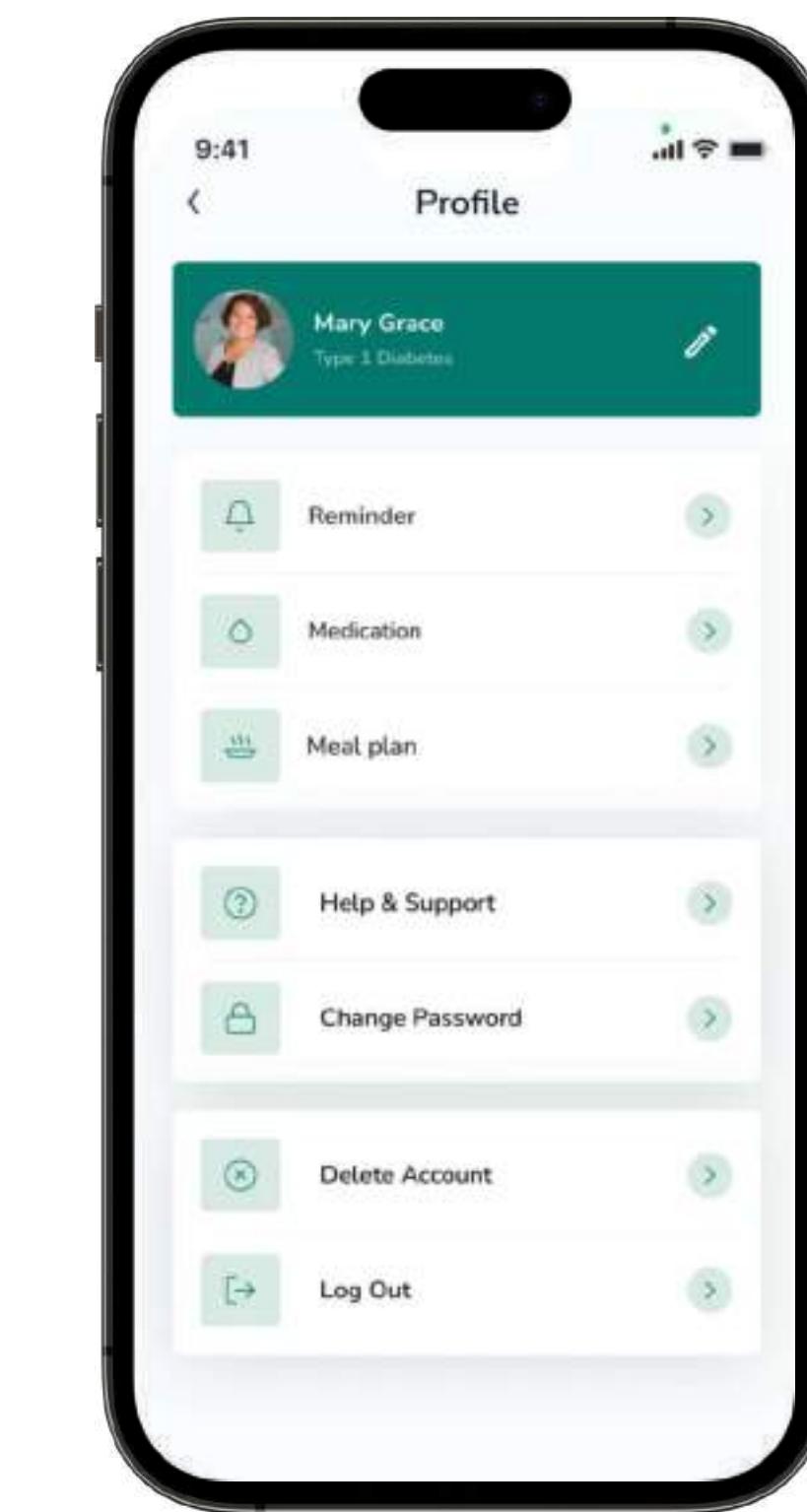
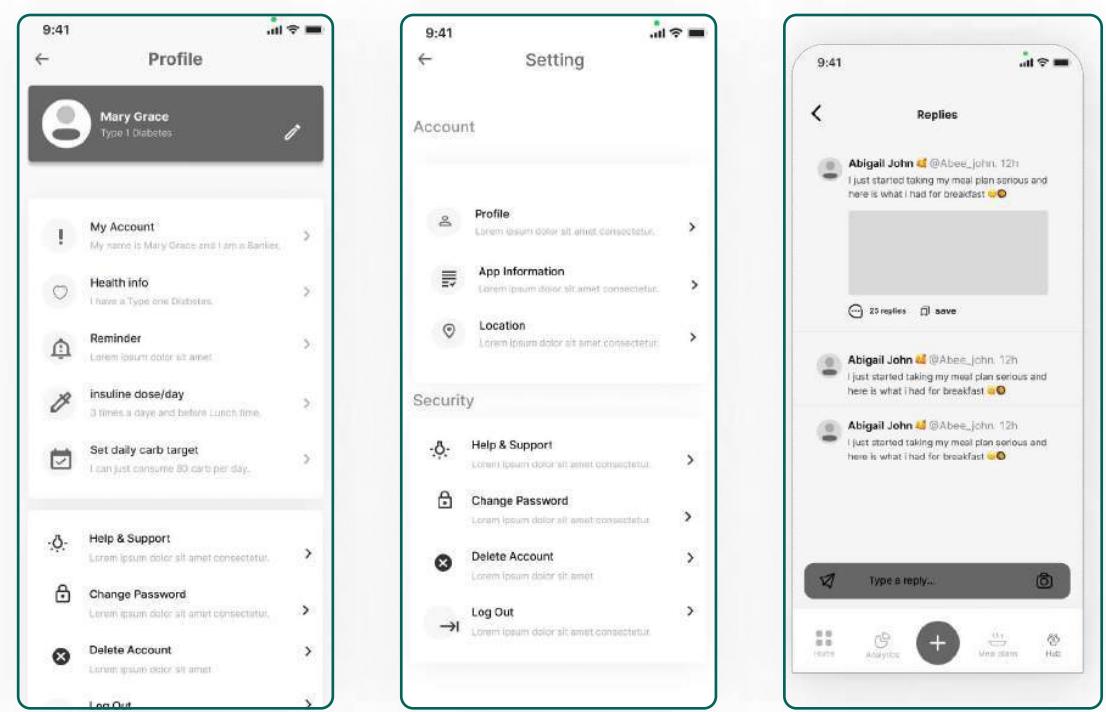
Community Iterations



High Fidelity: Community

Profile

Profile Iterations



User Testing

Quantitative / Questionnaire

Usability / Results

Testing Videos / Notes

Iterations

User Testing

Qualitative data: System Usability Questionnaire

We identified potential users and requested that they complete specific tasks using the High Fidelity prototype designs.

1. Create account on Carbs Buddy
2. Add your BGL and add a meal.
3. Select a meal plan and edit your breakfast on your meal plan.
4. Create a meal plan for 19 - 30th April
5. Start a new discussion and reply a post
6. Set a meal plan reminder on your profile.
7. Check analytics reports

At the end of the testing we asked the users to fill the SUS questionnaire

The screenshot shows a survey titled 'Carbs Buddy System Usability Scale (SUS)' for 'Round 2 Testing'. The survey consists of 11 questions, each with a required field indicator (*). Each question is followed by a 5-point Likert scale from 'Strongly disagree' to 'Strongly agree'. The survey ends with a 'Submit' button and a placeholder for 'Full name'.

1. I think that I would like to use this system frequently. *

2. I found the system unnecessarily complex. *

3. I thought the system was easy to use. *

4. I think that I would need the support of a technical person to be able to use this system. *

5. I found the various functions in this system were well integrated. *

6. I thought there was too much inconsistency in this system. *

7. I would imagine that most people would learn to use this system very quickly. *

8. I found the system very cumbersome to use. *

9. I felt very confident using the system. *

10. I needed to learn a lot of things before I could get going with this system. *

11. Full name *

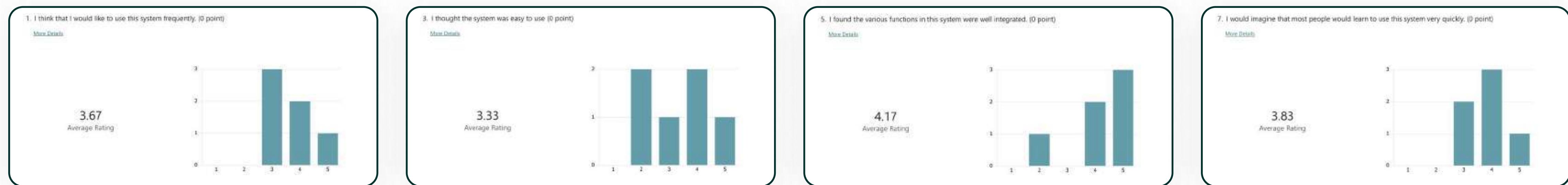
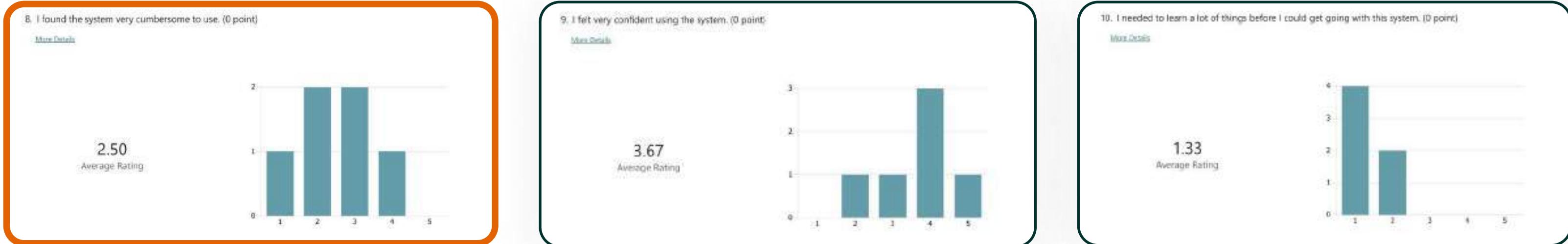
Submit

User Testing

First SUS Testing

Got a mixed review for the first round of Test

SUS SCORE = 67.9%



Testing Feedback Notes / Videos

Qualitative data

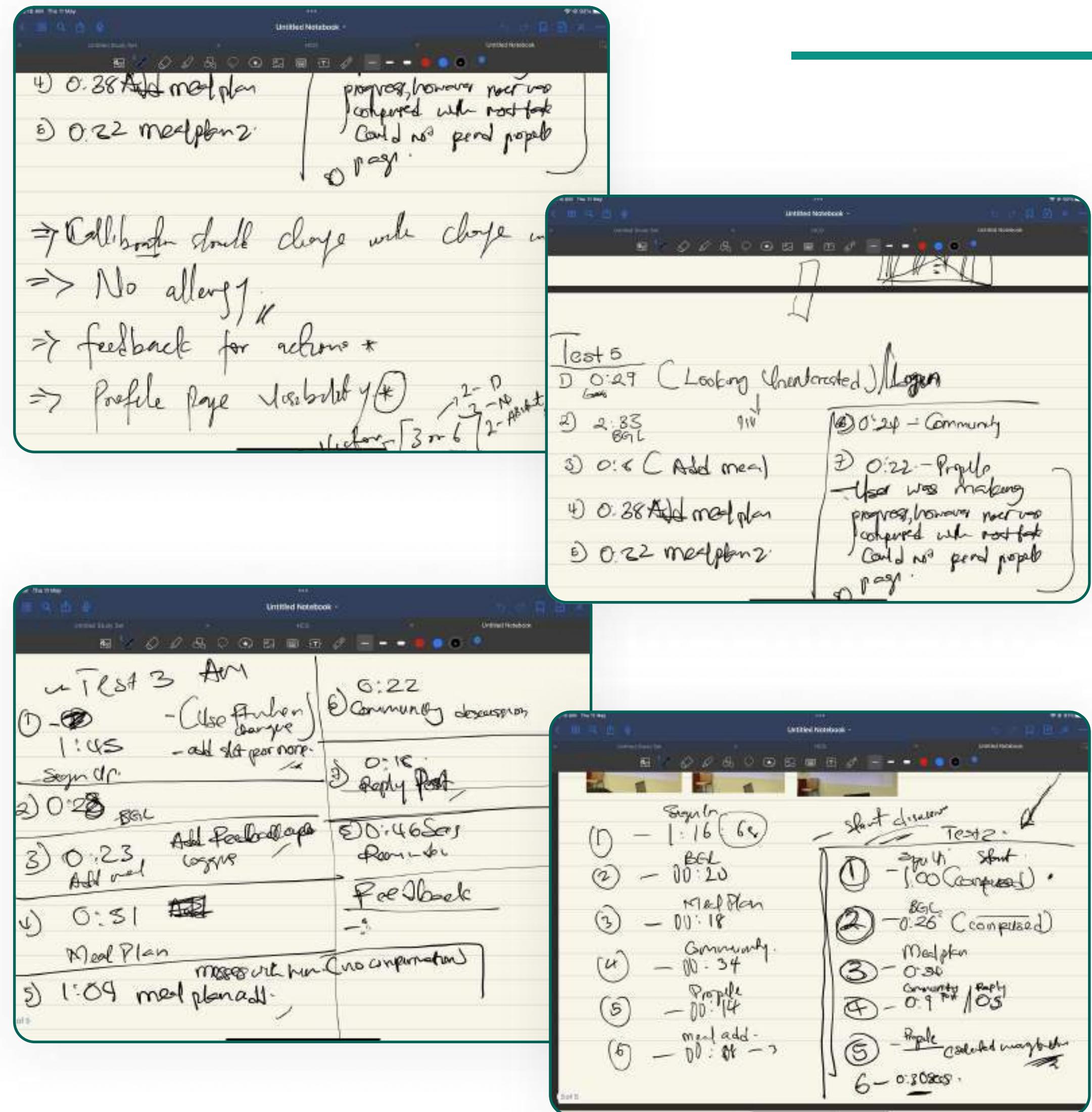
- **Think Aloud Protocol:** We encouraged them to talk through what they were doing verbalising their thoughts on actions.
- **Observation:** Observing the user behaviour and taking notes of them
- Requested their thoughts & feedback on the application usage and what they found complex..



My files > Carbs Buddy Repository

- 2 Round 1 - LoFi Testing 11 minutes ago
- 1 Round 2 - Hi-Fi Testing 11 minutes ago
- 9 Round 3 - Hi-Fi Testing 10 minutes ago

Research Artefacts



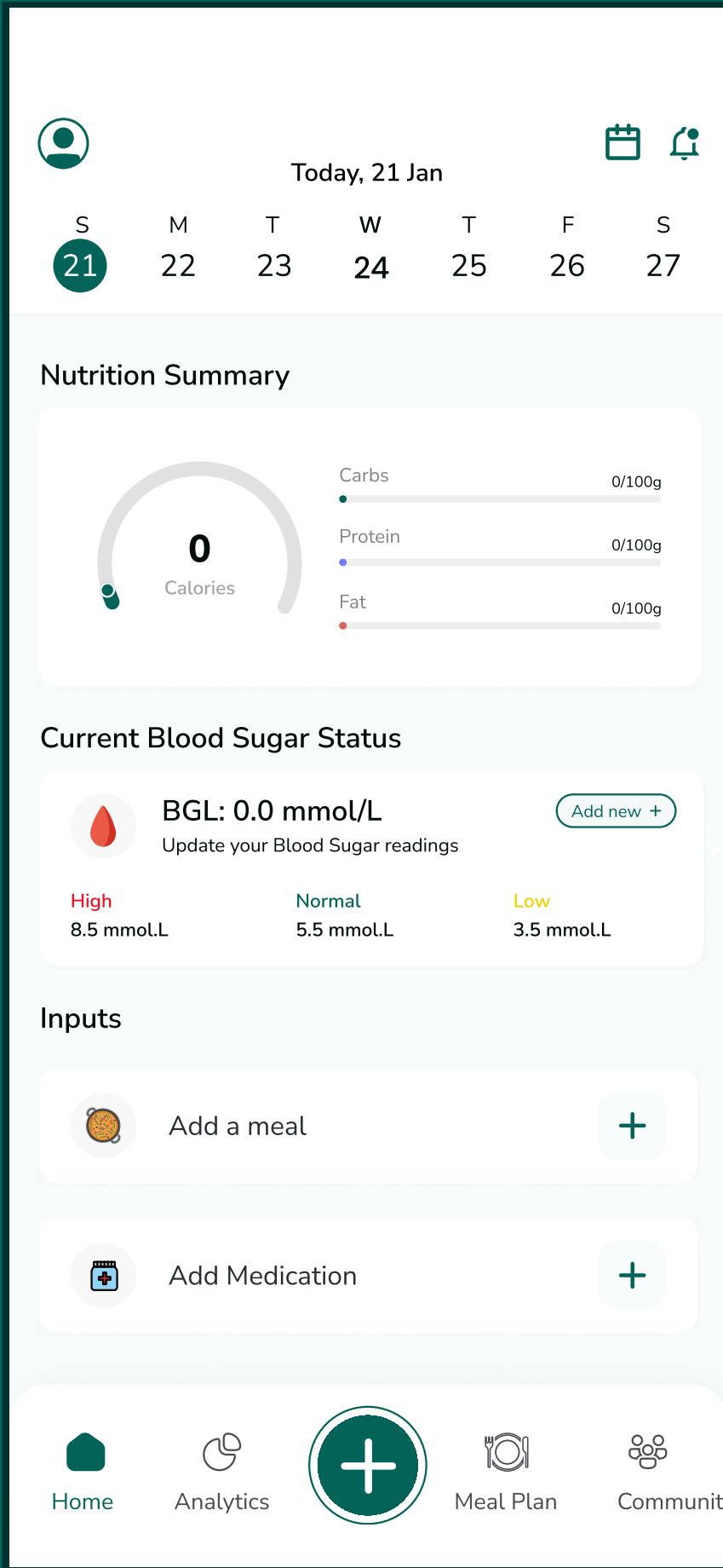
④ 0:38 Add meal plan
⑤ 0:22 mealplan2
→ progress, however user was confused with root task
→ Could not find people
→ Page

→ Calibration should change with change in
→ No allergies
→ feedback for actions *

→ Profile page visibility +
→ 2-0
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→ 621-1252
→ 622-1254
→ 623-1256
→ 624-1258
→ 625-1260
→ 626-1262
→ 627-1264
→ 628-1266
→ 629-1268
→ 630-1270
→ 631-1272
→ 632-1274
→ 633-1276
→ 634-1278
→ 635-1280
→ 636-1282
→ 637-1284
→ 638-1286
→ 639-1288
→ 640-1290
→ 641-1292
→ 642-1294
→ 643-1296
→ 644-1298
→ 645-1300
→ 646-1302
→ 647-1304
→ 648-1306
→ 649-1308
→ 650-1310
→ 651-1312
→ 652-1314
→ 653-1316<br

The Problems Encountered In Homepage

Before

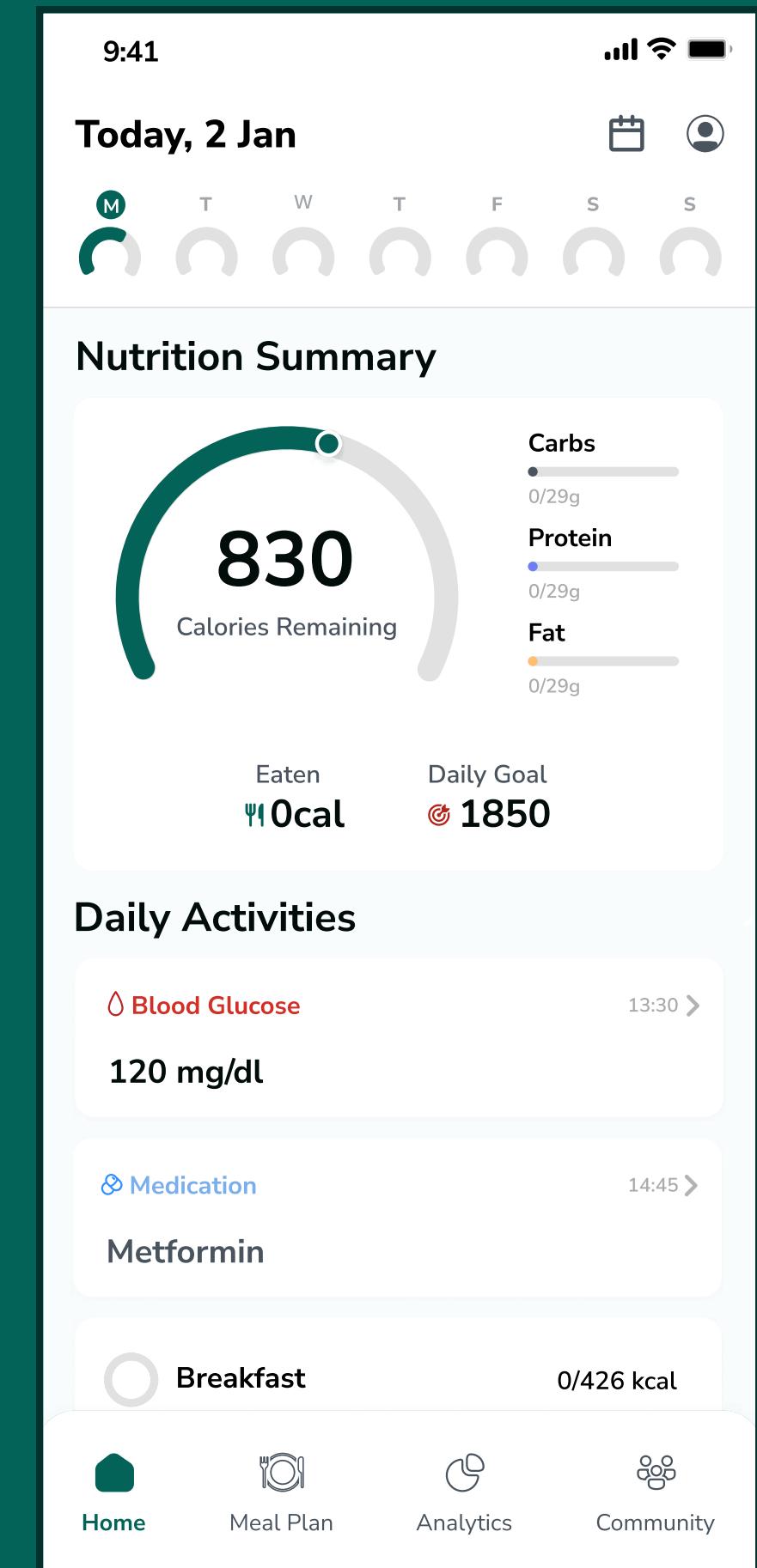


Challenge

- Font-sizes were too small and wasn't easy to read.
- Add new button isn't easy to see.
- Add meal process was too long.
- Fab button did not seem necessary after testing

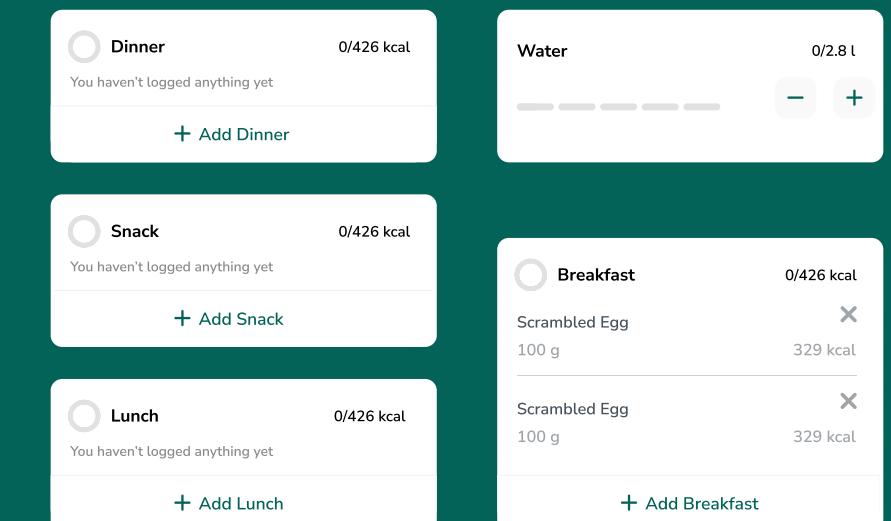
Solutions

After



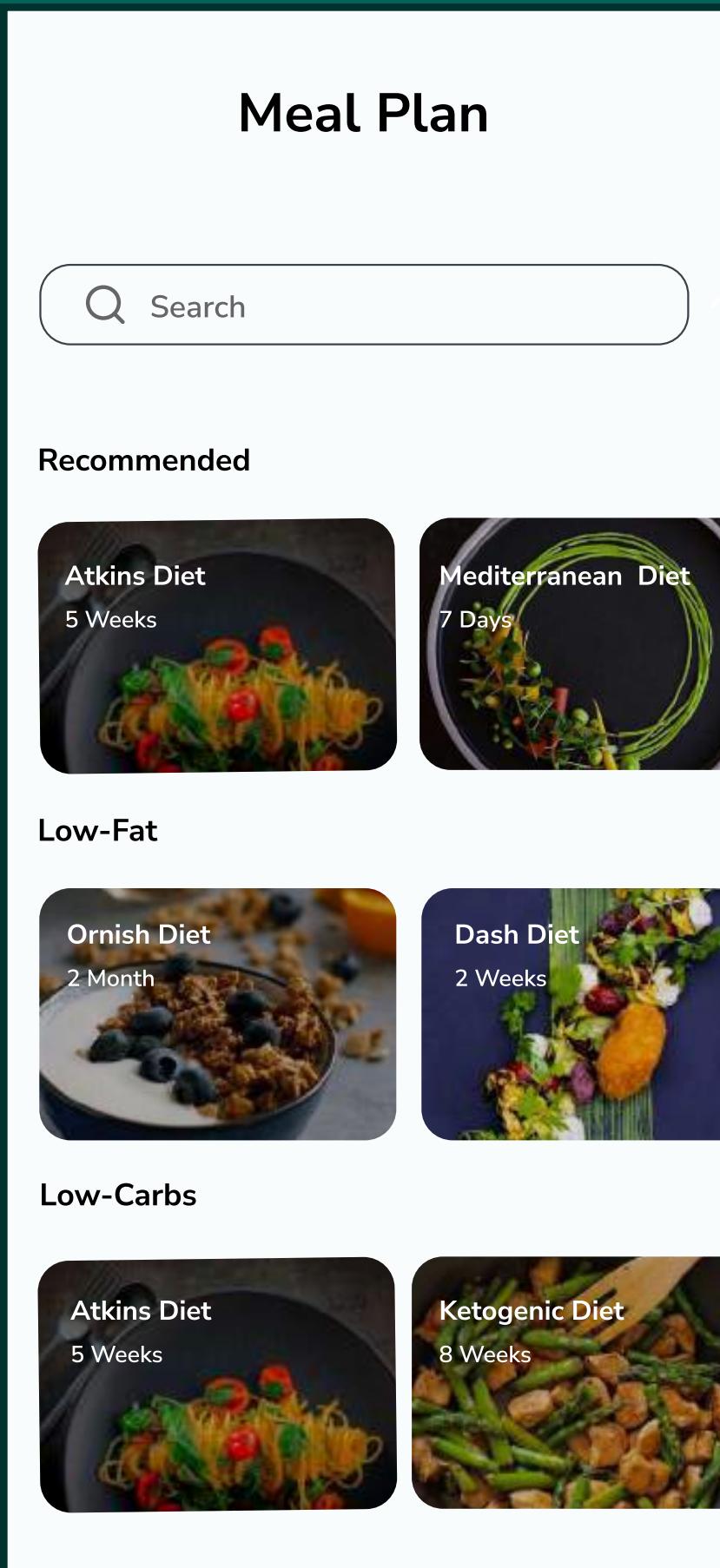
Approach

- Increase in fonts for readability.
- Users can easily track their meal by logging breakfast, lunch or dinner directly.
- Users can easily see a list of daily activities which includes add blood glucose level
- Simplified the process so the fab button wasn't necessary anymore.



The Problems Encountered In Meal Plan

Before

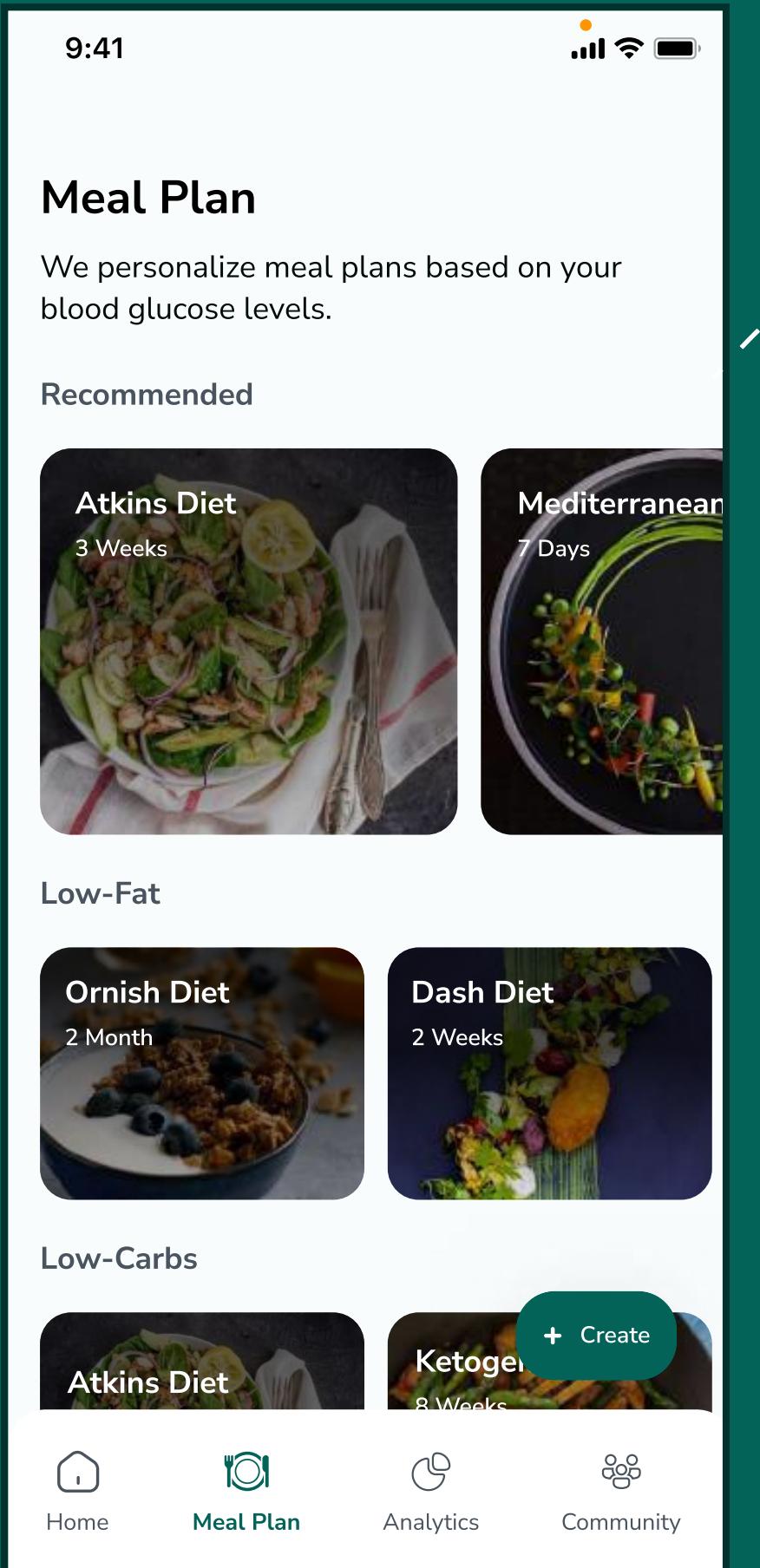


Challenge

- There was no direct text stating that the meal plan is customised based on their blood glucose.
- Multiple meal plans options which made it difficult to select from.

Solutions

After

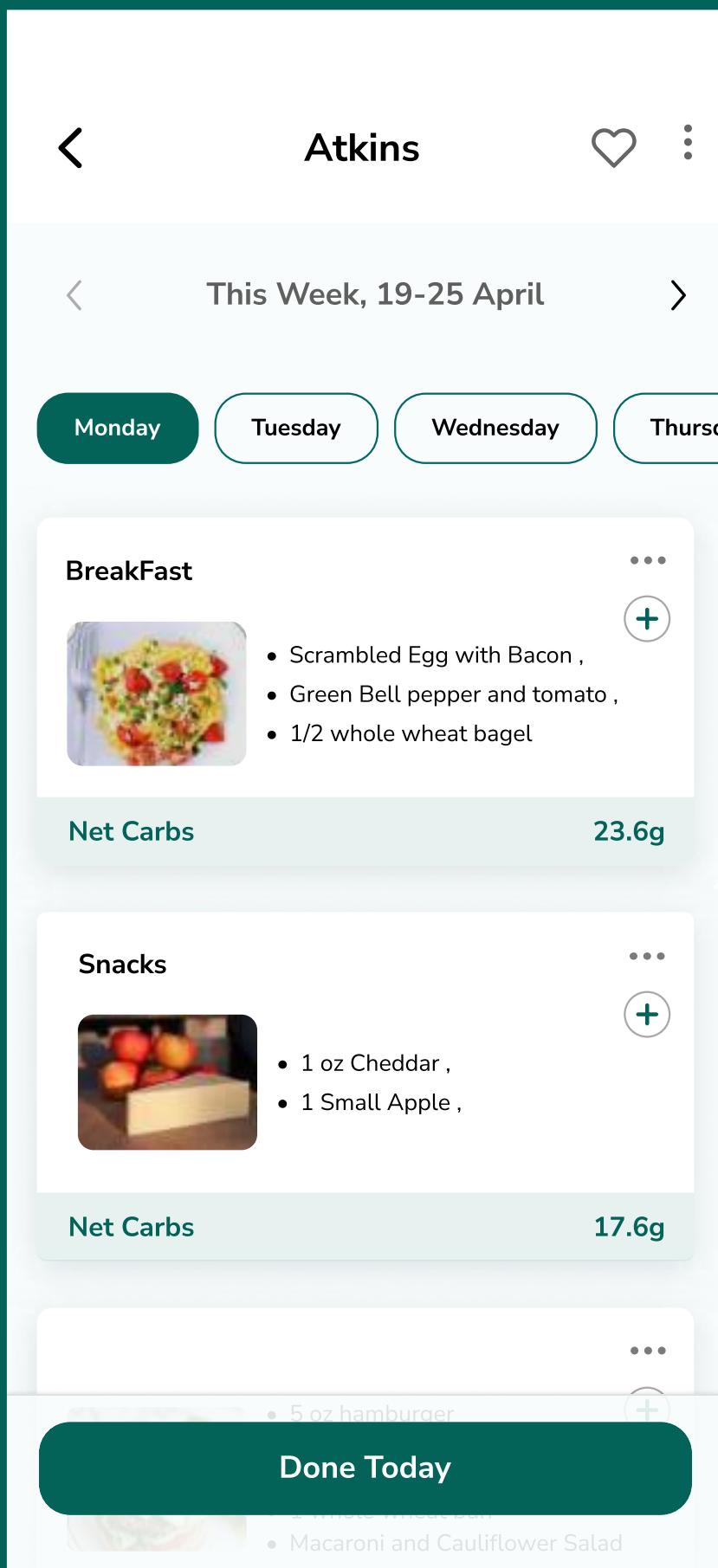


Approach

- Addition of a text showing the meal plan is tailored based on their information.
- We reduced the options for each categories and the search bar wasn't needed anymore.

The Problems Encountered In Meal Plan

Before

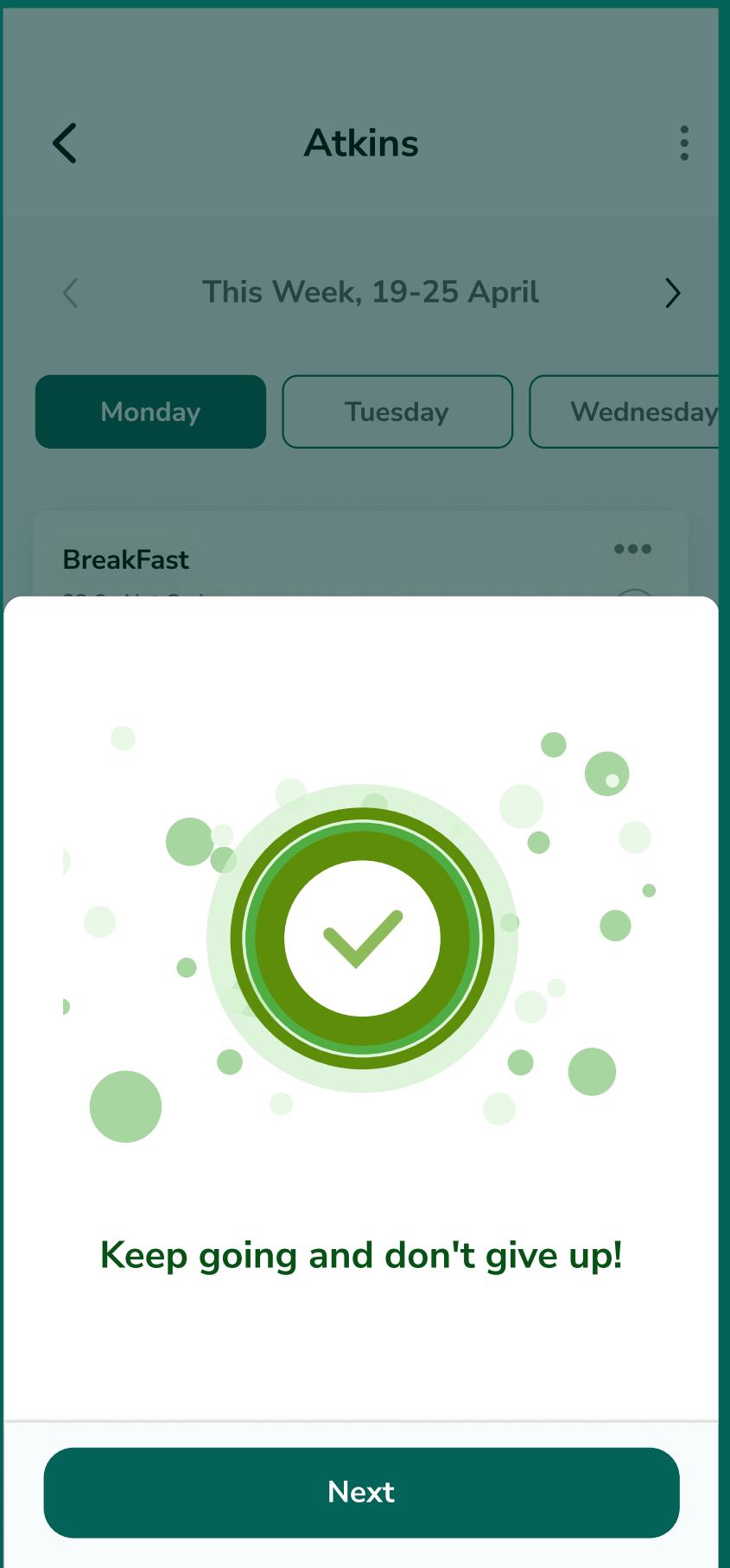


Challenge

- After adding a meal, completing a mealplan there was no feedback showing meal has been added

Solutions

After

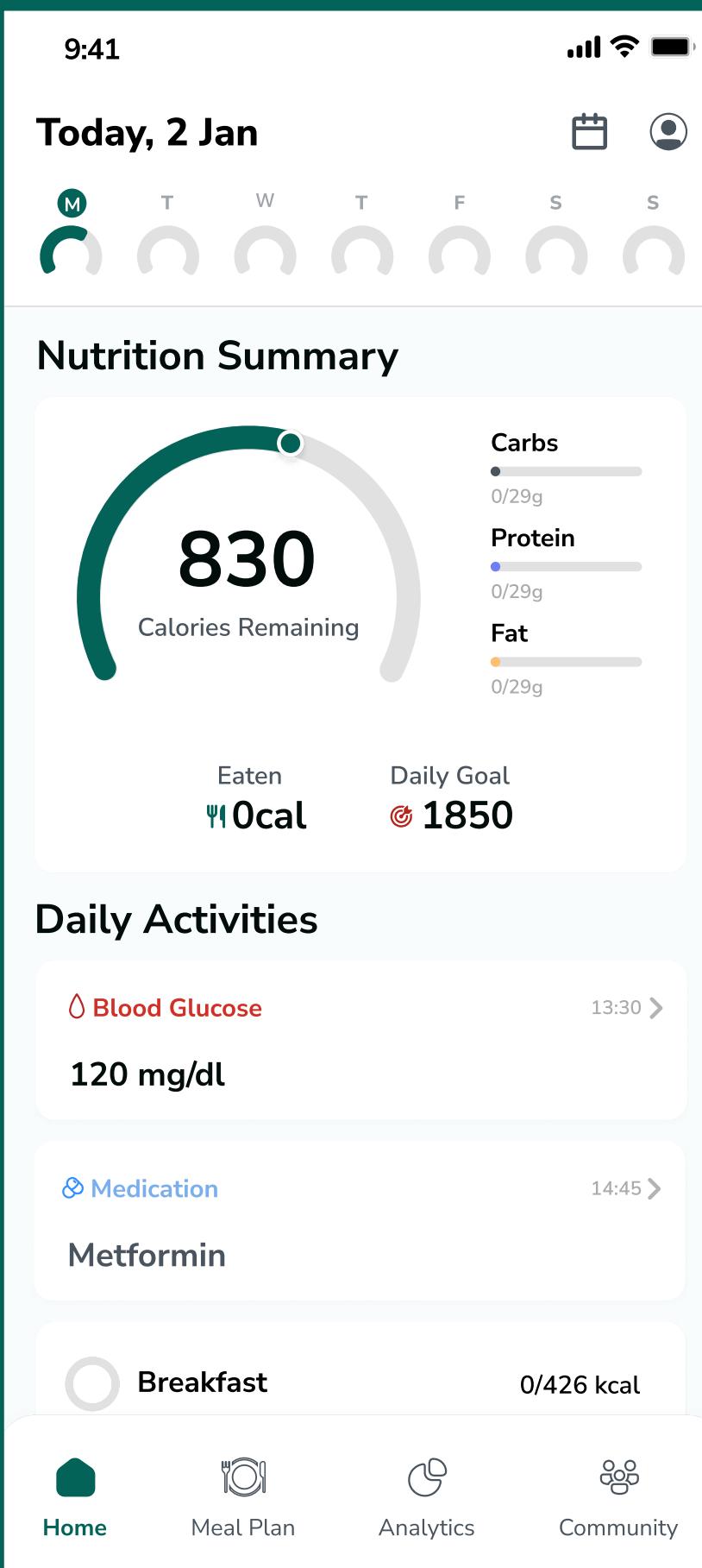


Approach

- Adds feedback and encouragements after each day.

The Problems Encountered In Guided Tour

Before

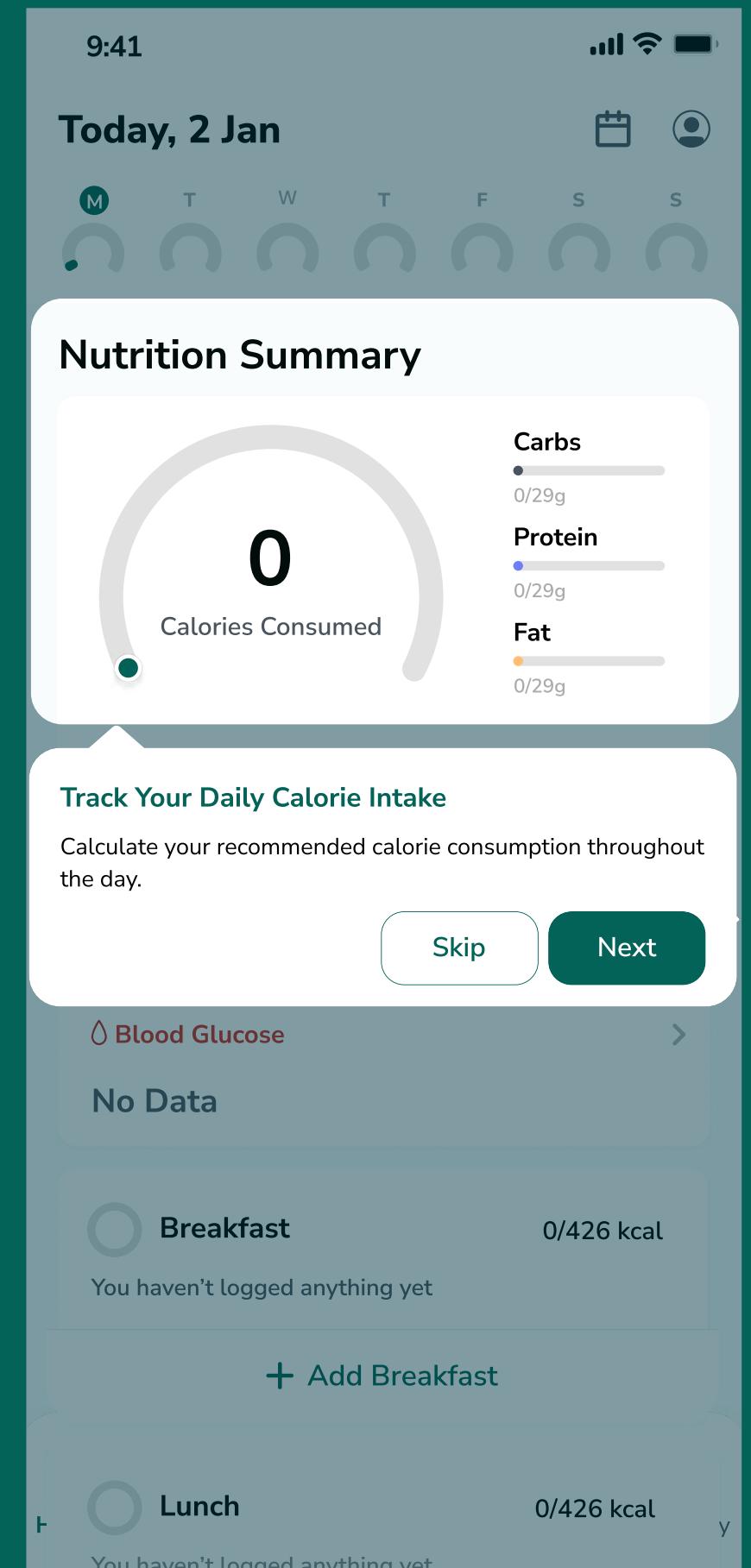


Challenge

- New user found the app overwhelming at first.

Solutions

After



Approach

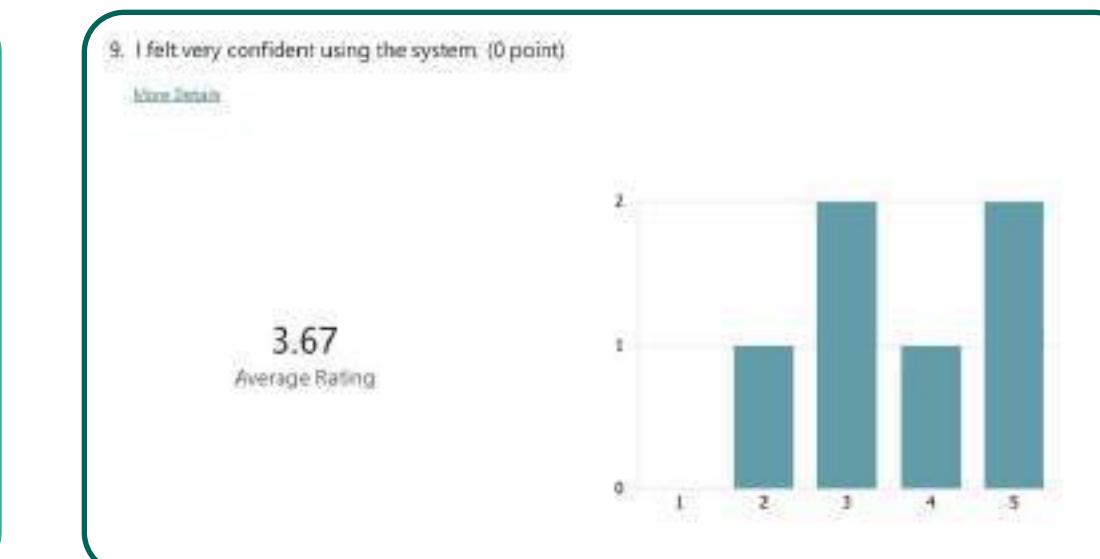
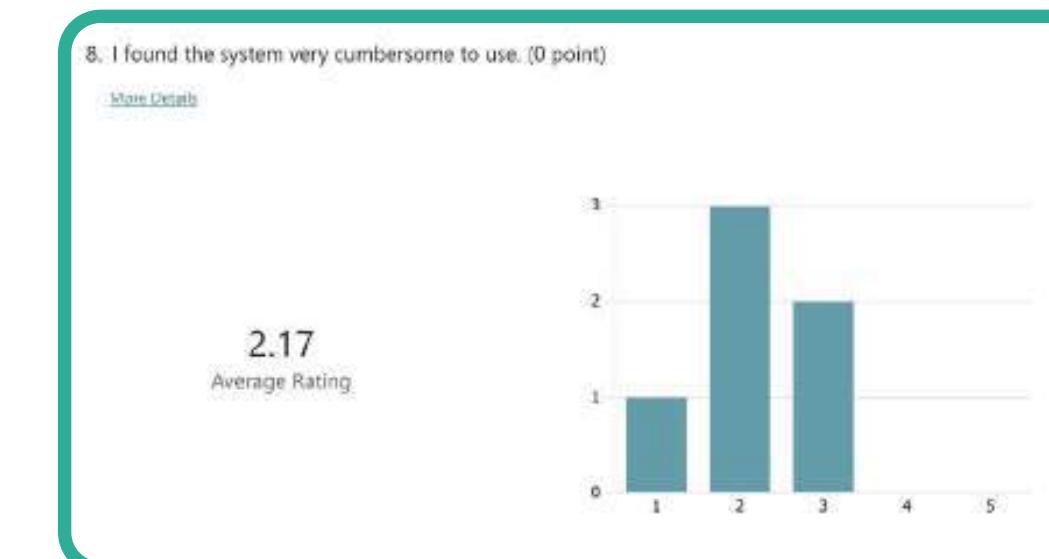
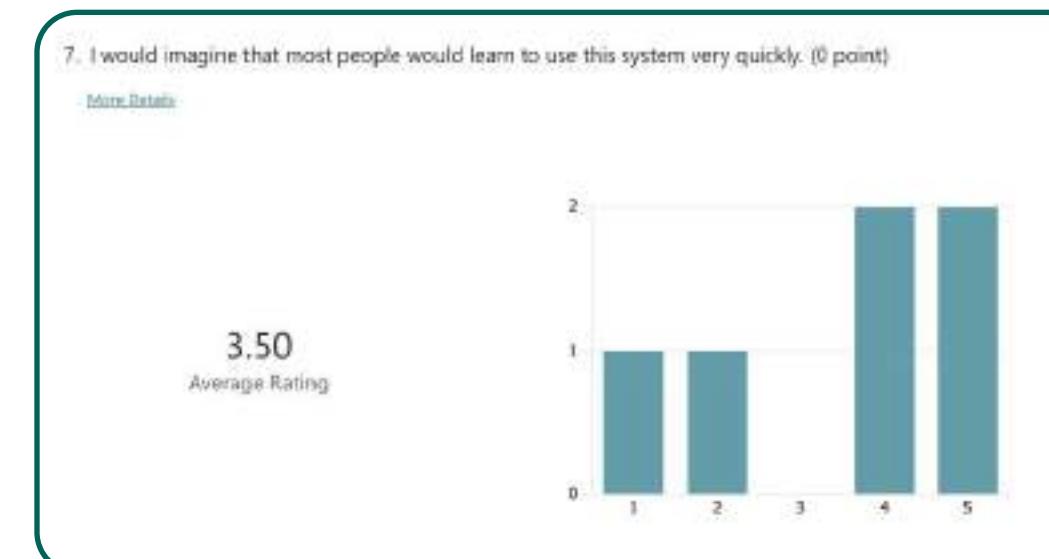
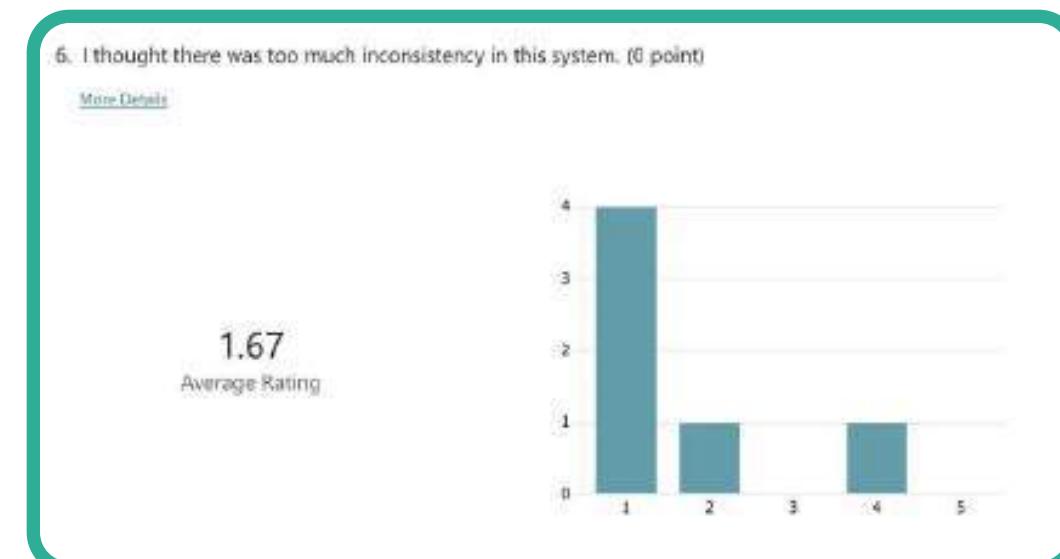
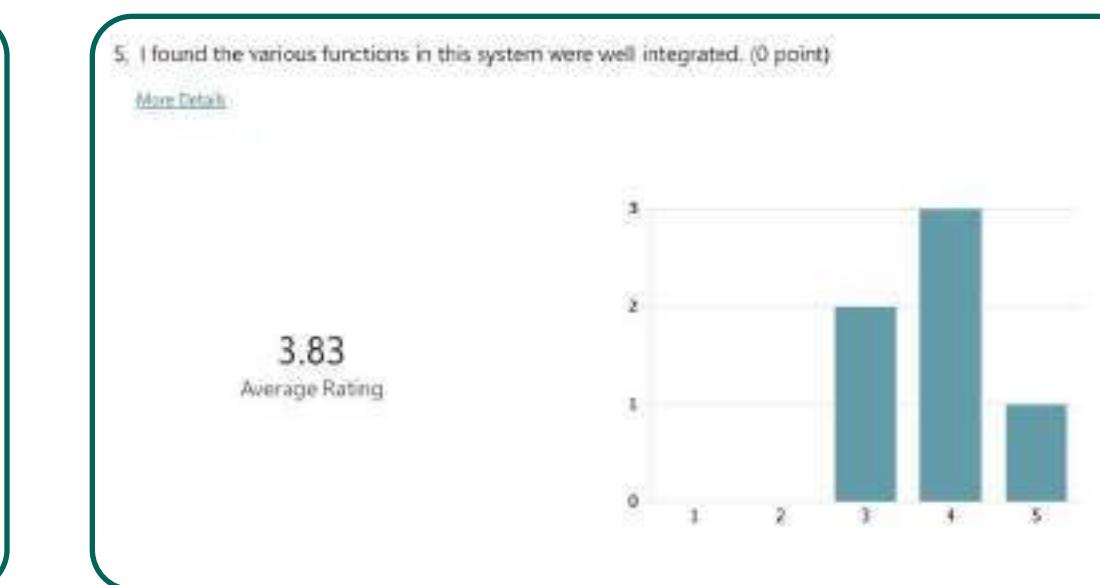
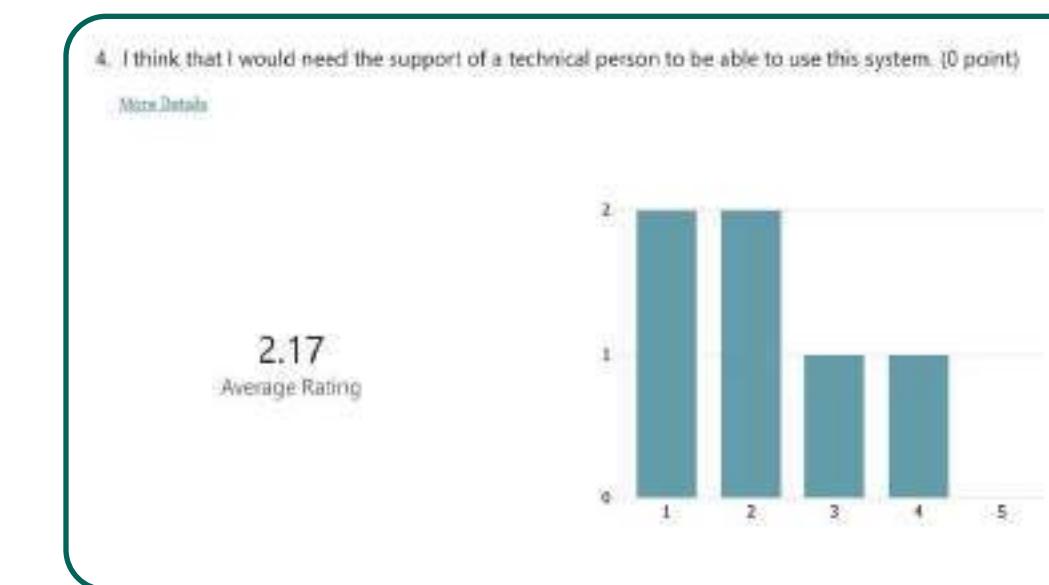
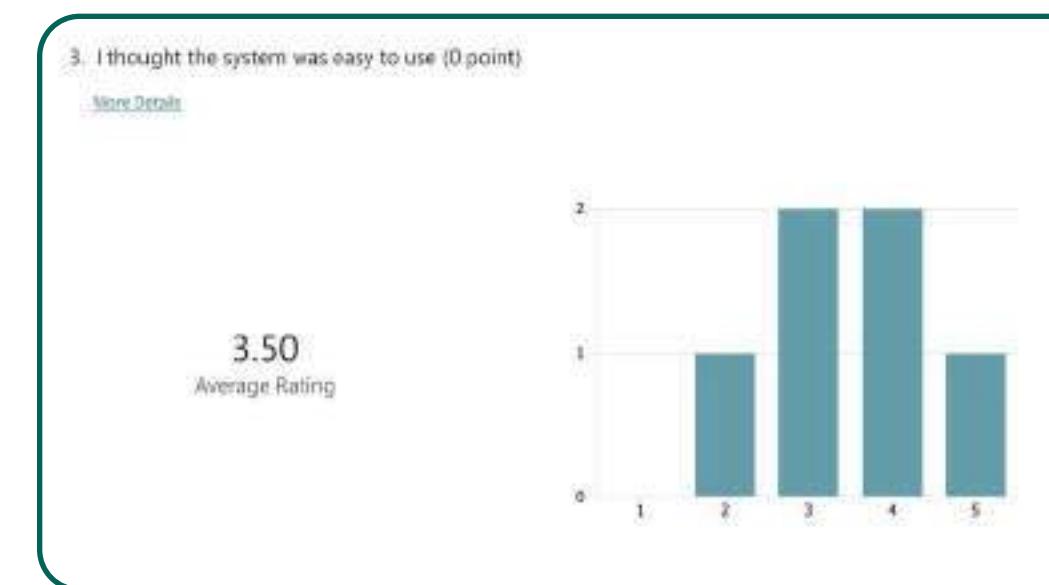
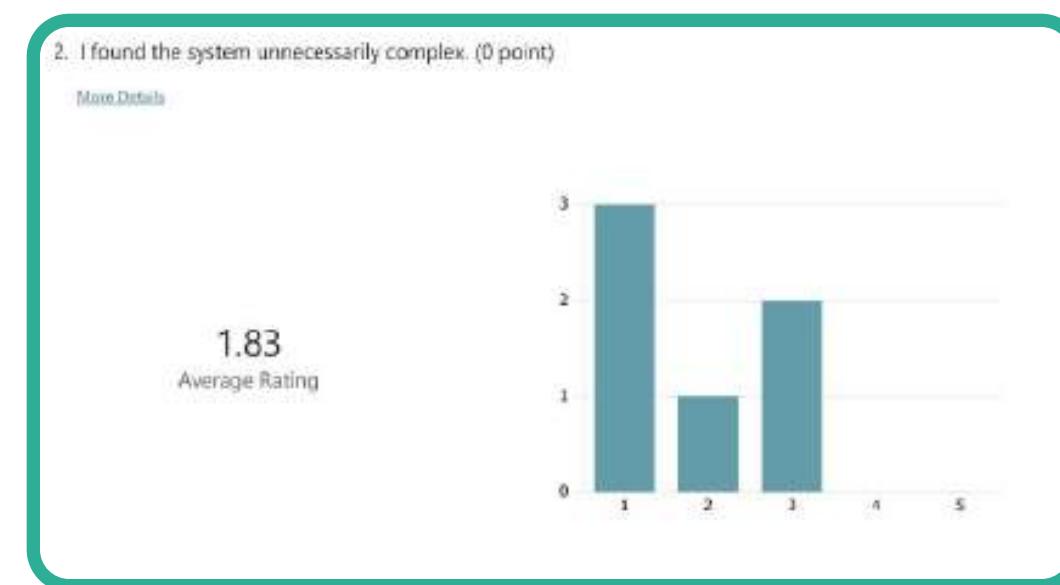
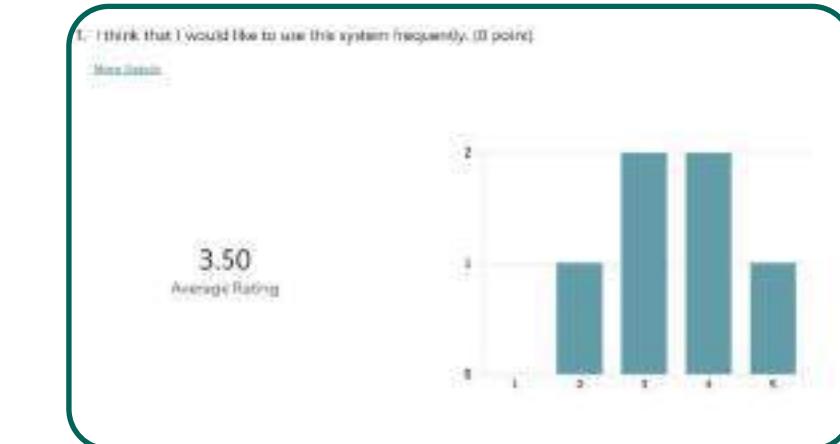
- Users can quickly understand and navigate the features and functionality of your application, reducing the learning curve.

User Testing Round 2

Second SUS Testing

Got feedback on second round of Testing

SUS SCORE = 70%



Feedback Analysis

Complexity

- First set of user found the system complex.
- On second testing user found the system to be **simpler**.

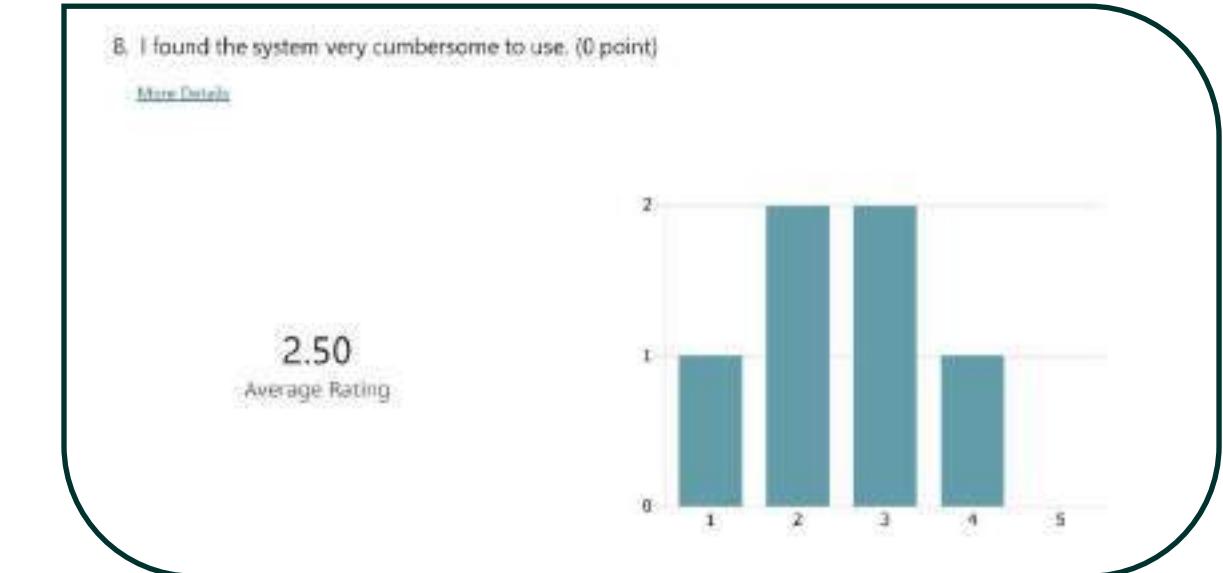
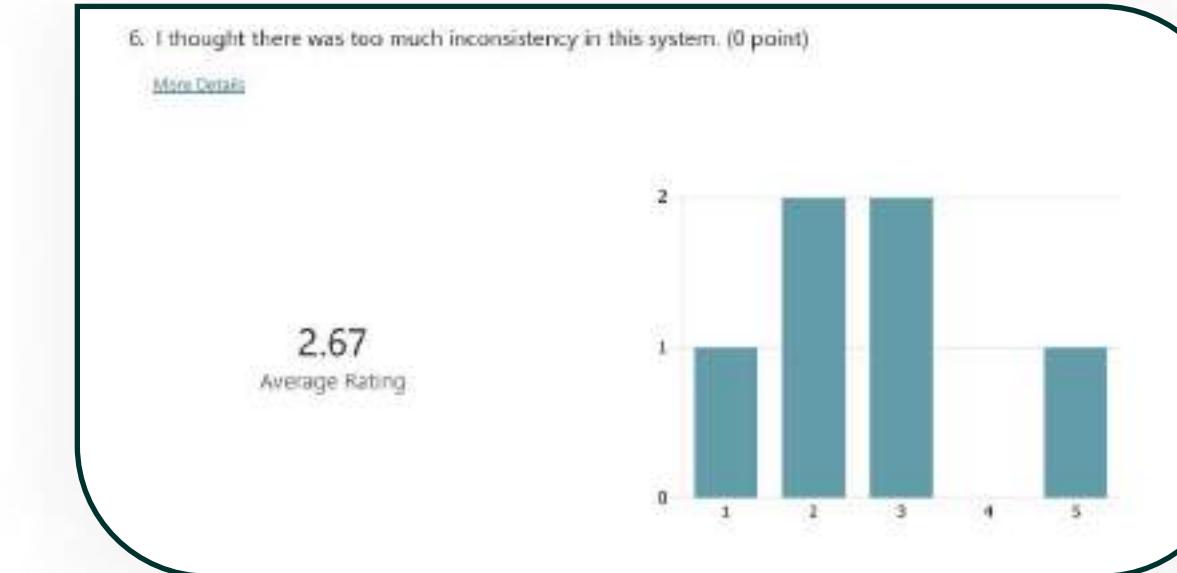
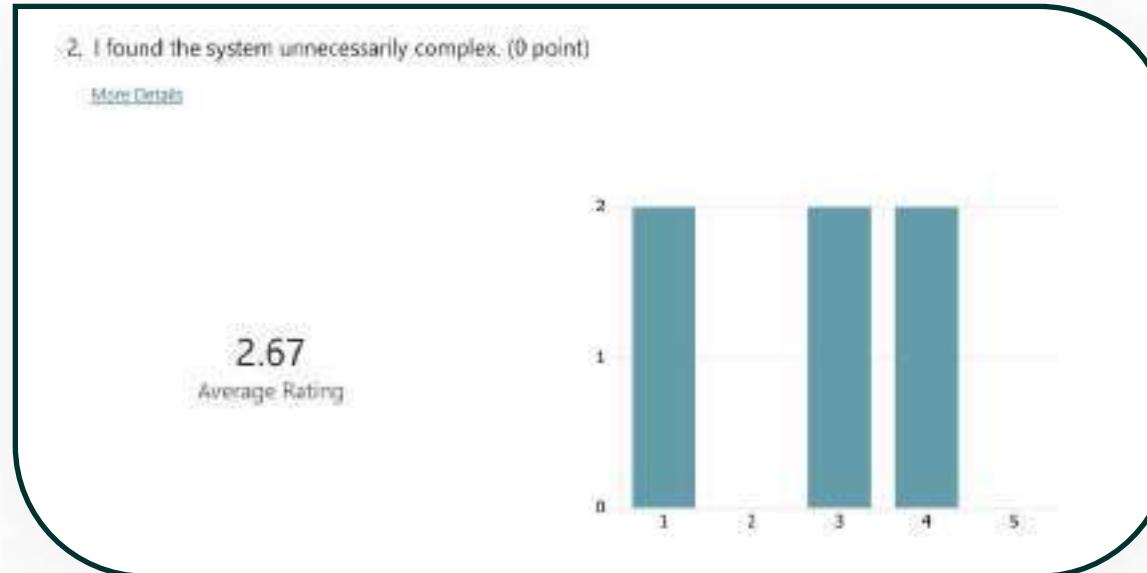
Consistency

- Round 1 was averagely inconsistent
- More users during round2 testing felt the system was **consistent with their expectations**.

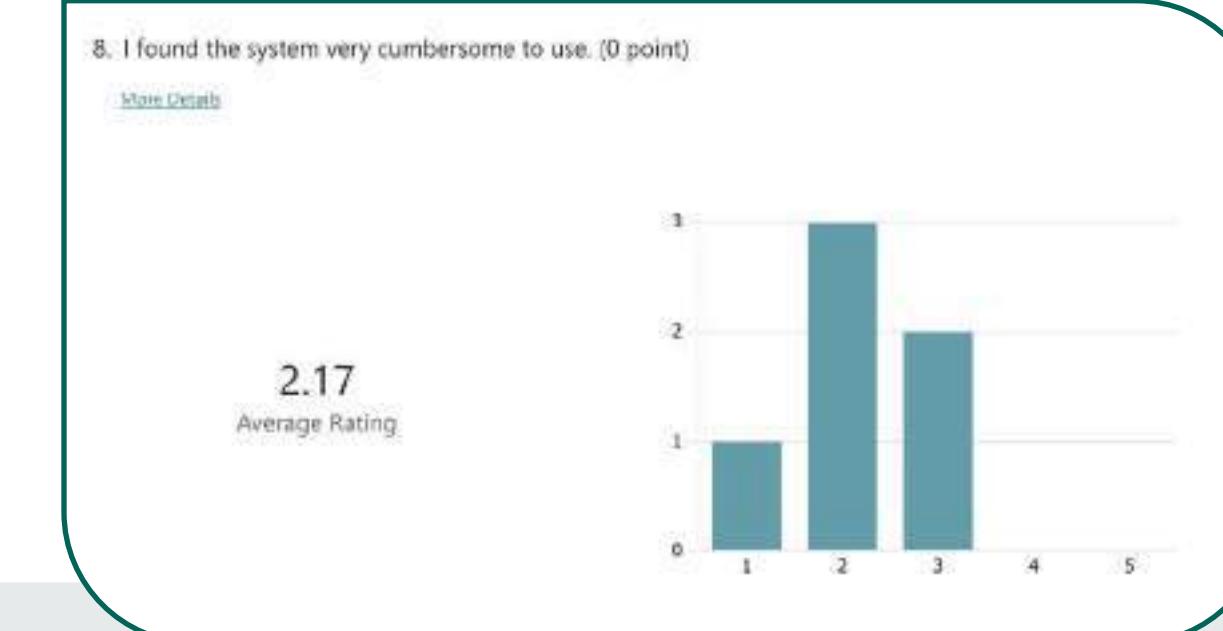
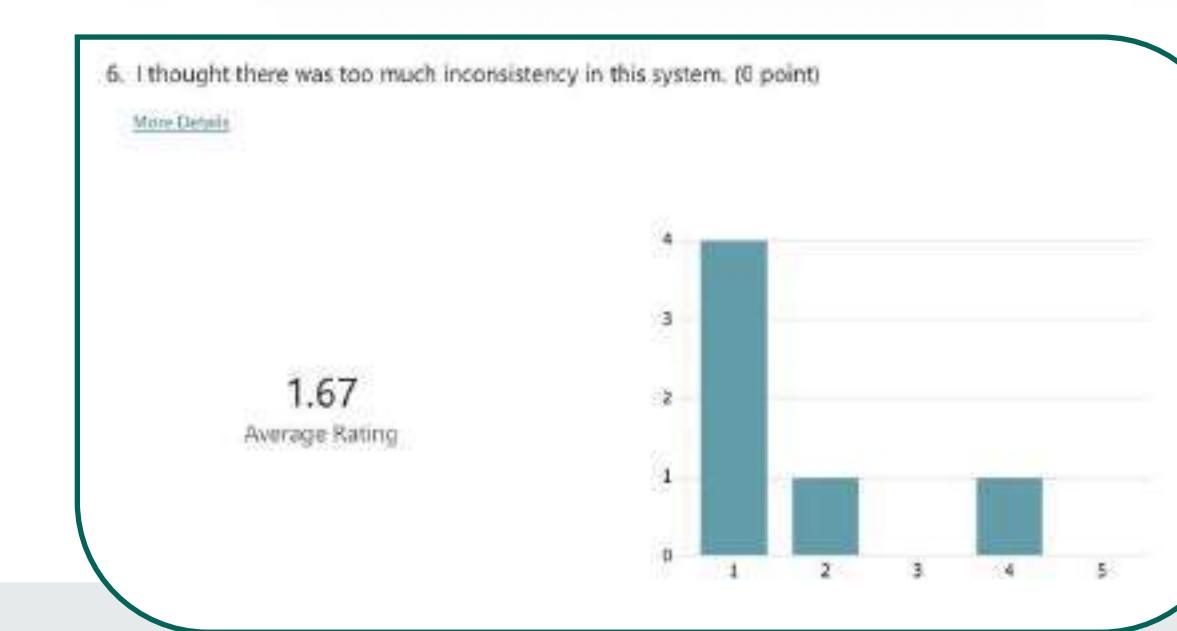
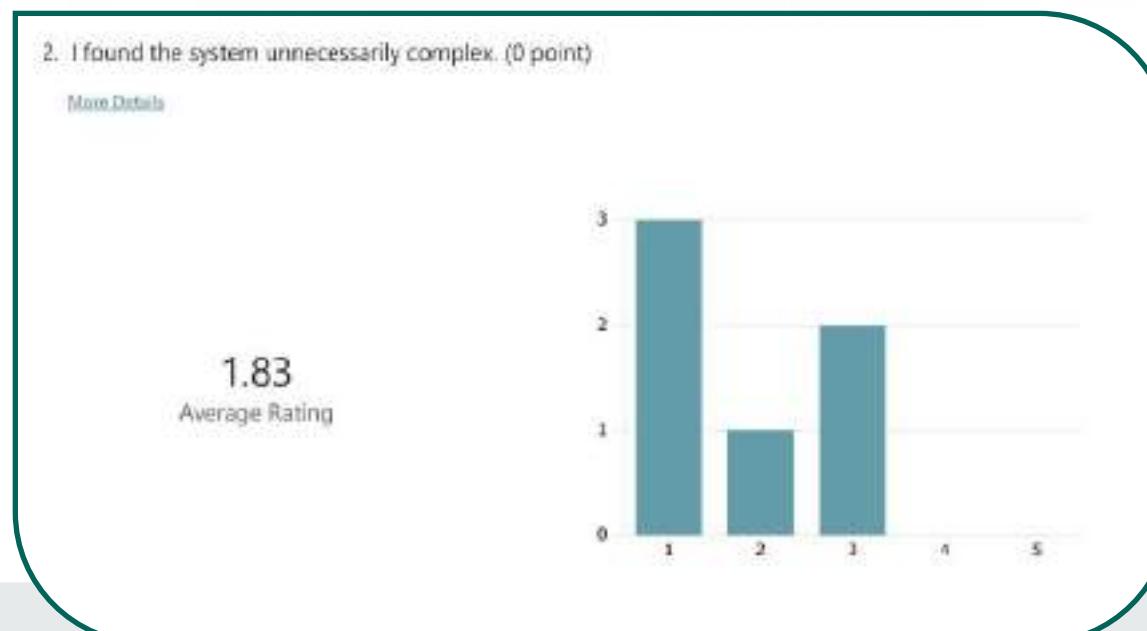
Difficulty

- At first test user found the system difficult.
- During the second round of testing users felt the experience **easy to navigate**.

ROUND 1

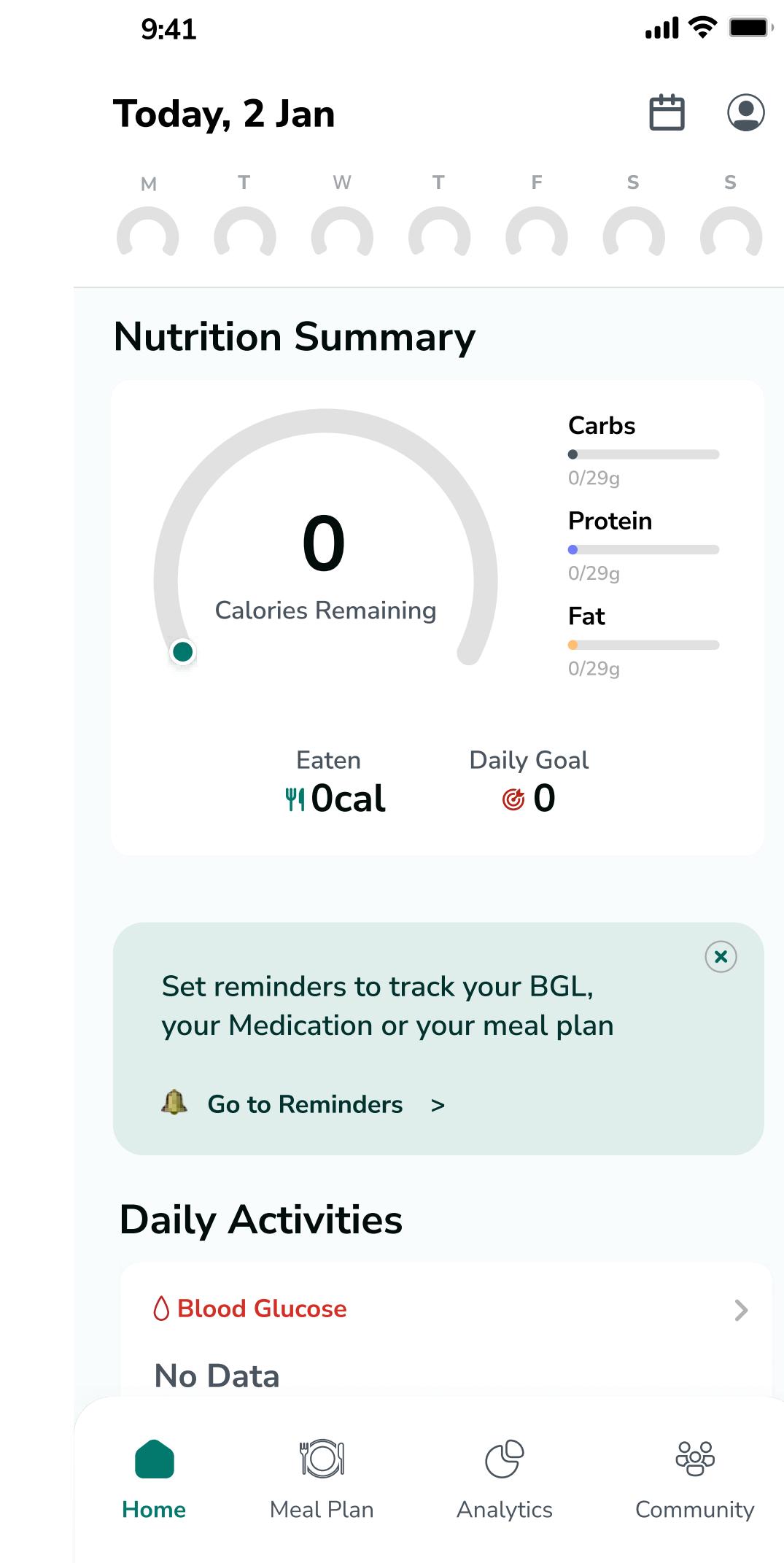


ROUND 2



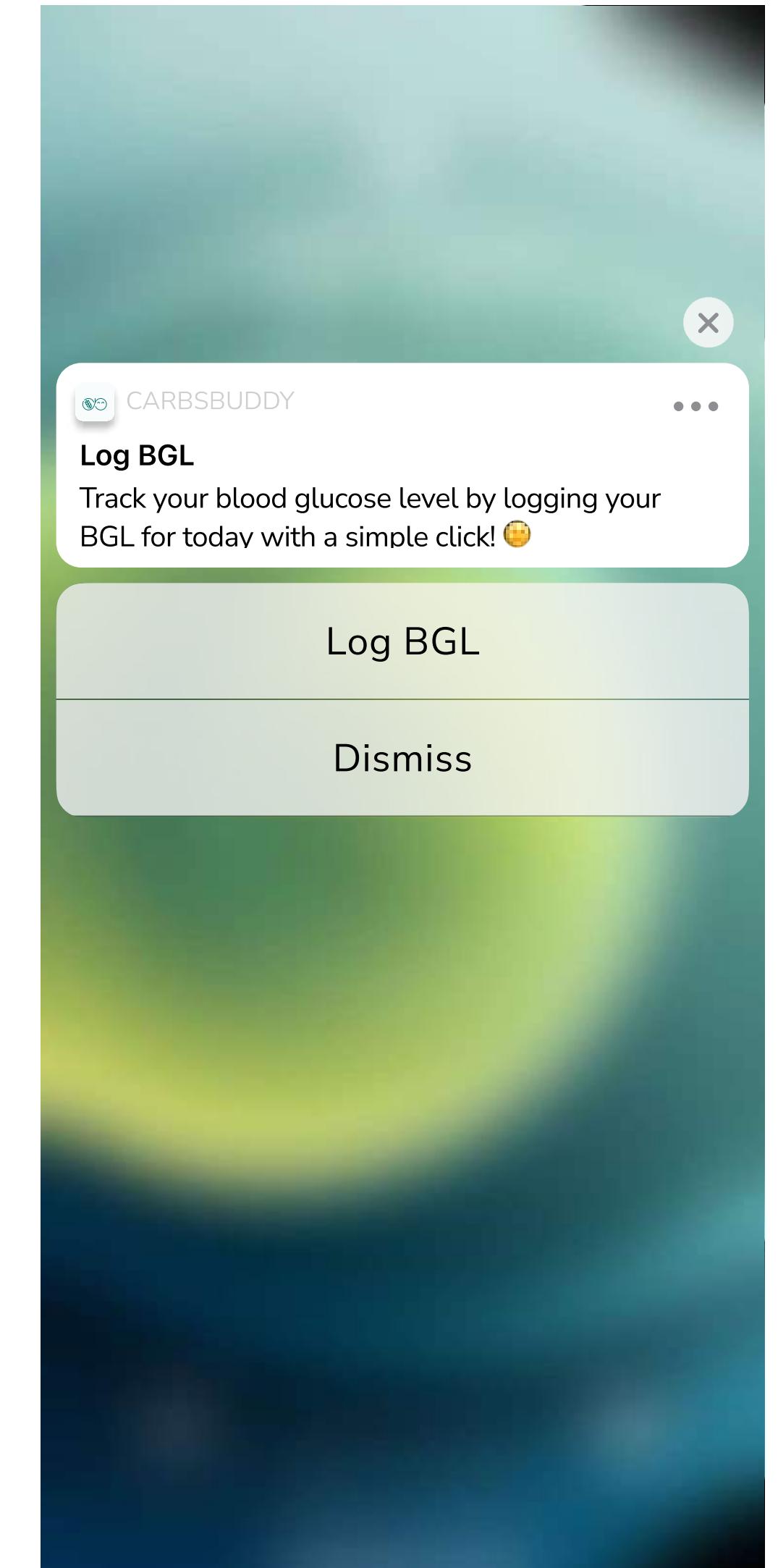
In-App Notification

We utilized in-app notifications features to encourage user engagement by prompting users to take specific actions or interact with the app and also can be used to provide helpful tips and guidance to users



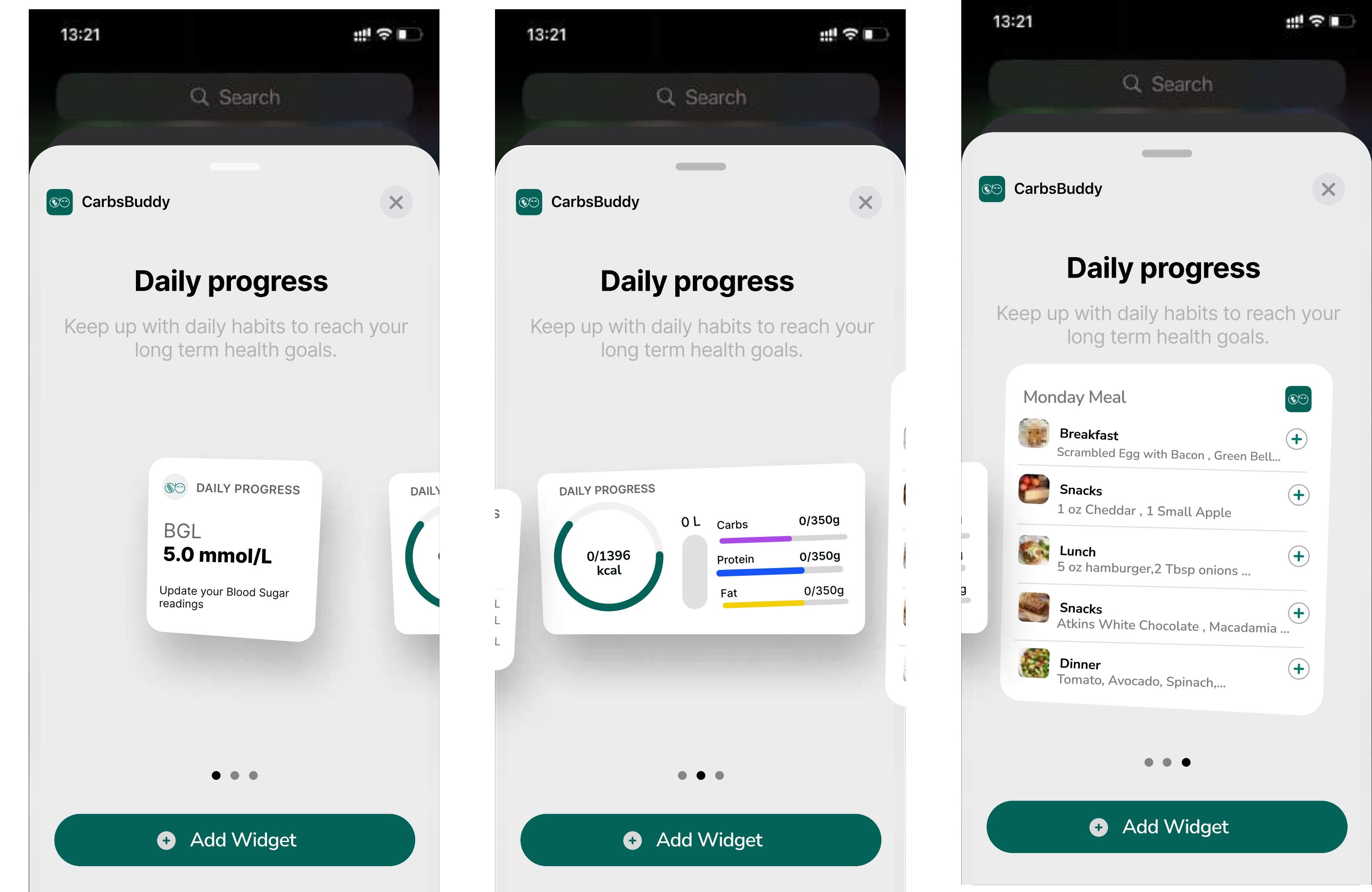
General Notifications

We created notifications to **keep users informed of important updates**, such as new messages, reminders, or alerts, ensuring that users stay up-to-date with the latest information on the app and also **to enable personalized communication** with users, delivering targeted messages based on their preferences, behavior, or specific actions within the app.



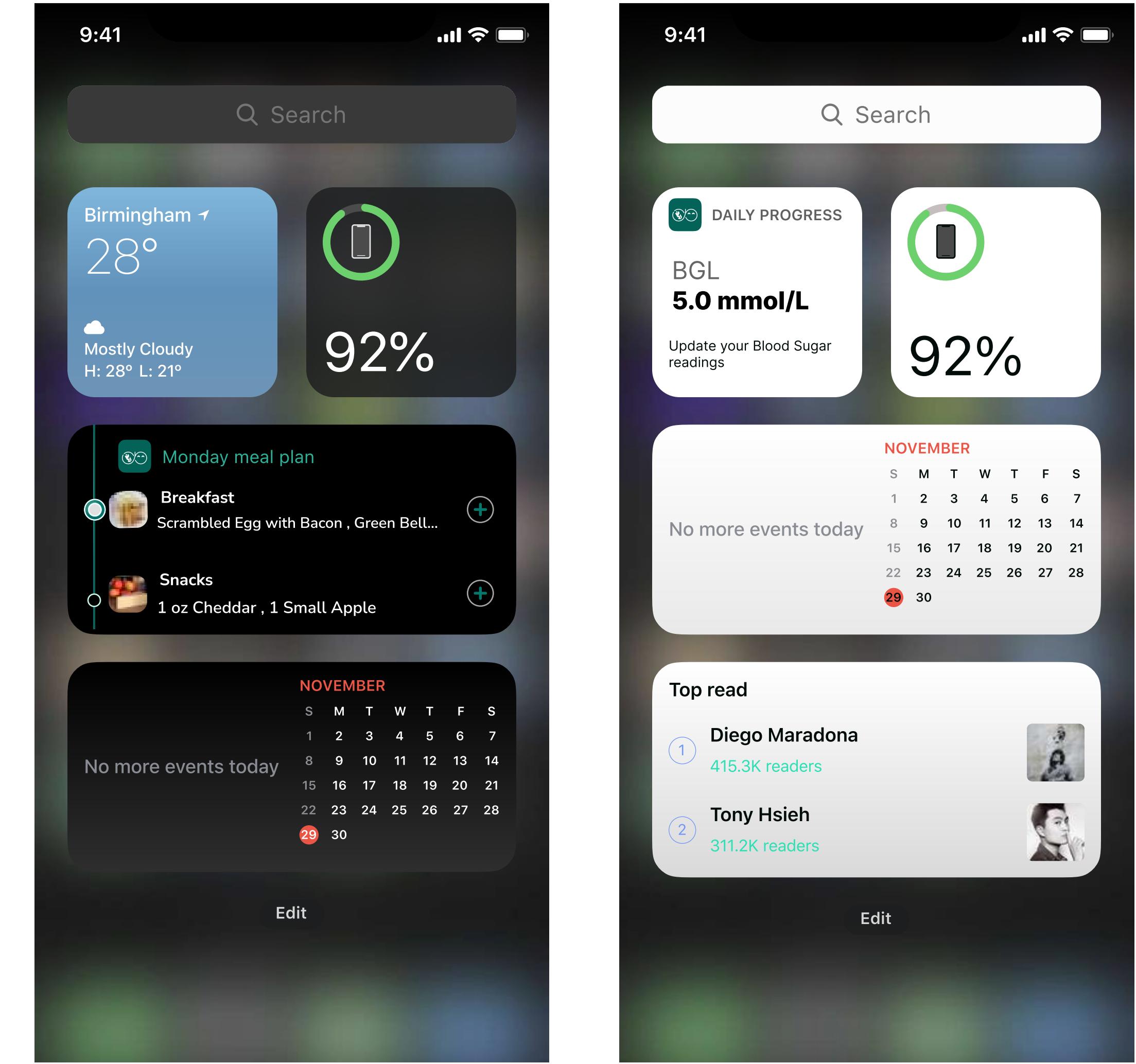
Widgets

Users no longer need to visit the app each time they require information because widgets allow them to access information quickly. Particularly for regularly used services like viewing meal plans and calories consumed, this saves time and effort.



Widgets

Widgets allow users to monitor their food intake, track their progress, or view their daily goals directly from their device's home screen



Apple Watch Variation

To create a more comfortable and integrated user experience, give consumers easy access to information, on-wrist interactions, specialised fitness and health tracking, better notifications, and make advantage of the unique characteristics of the Apple Watch.

Nutrition summary

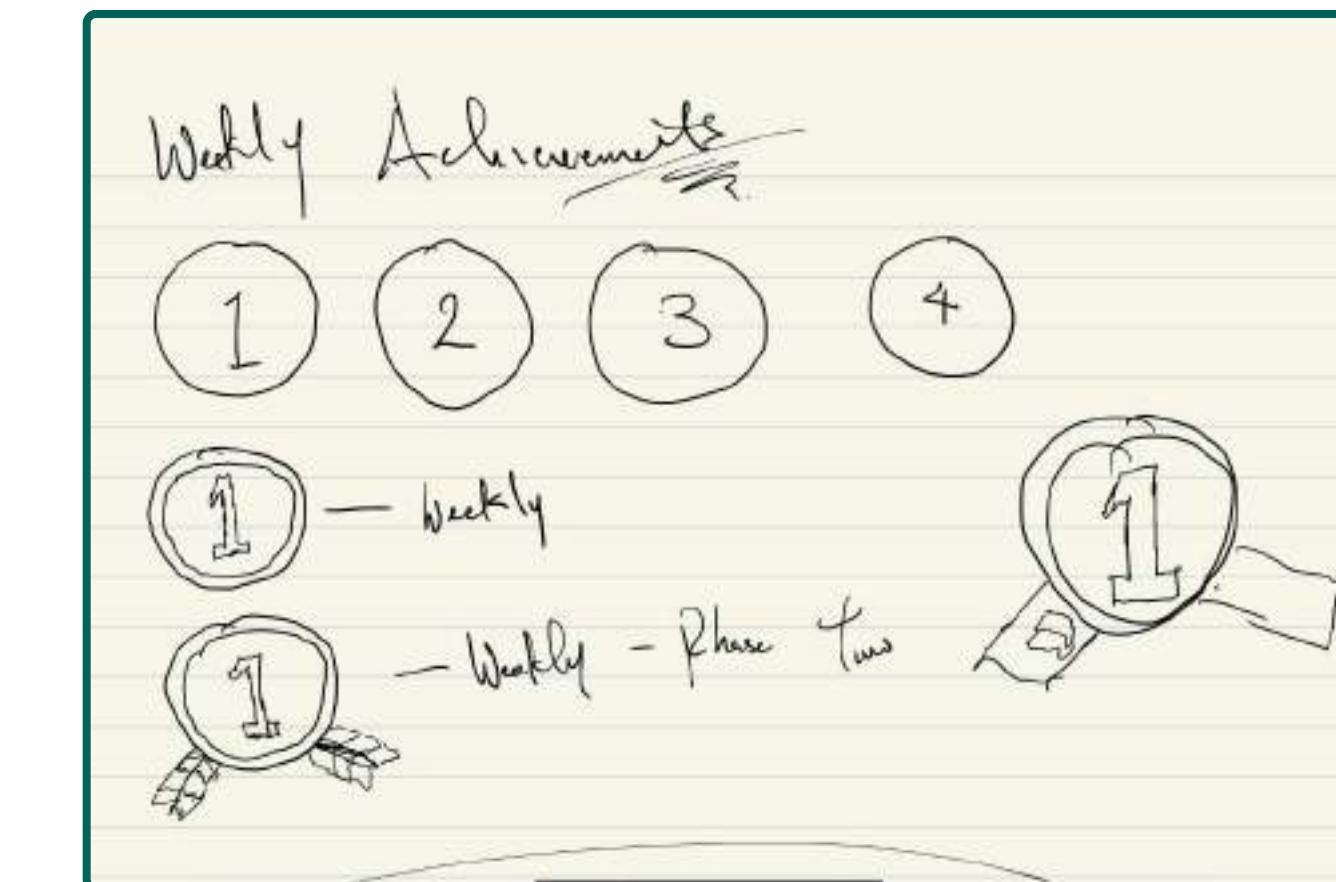
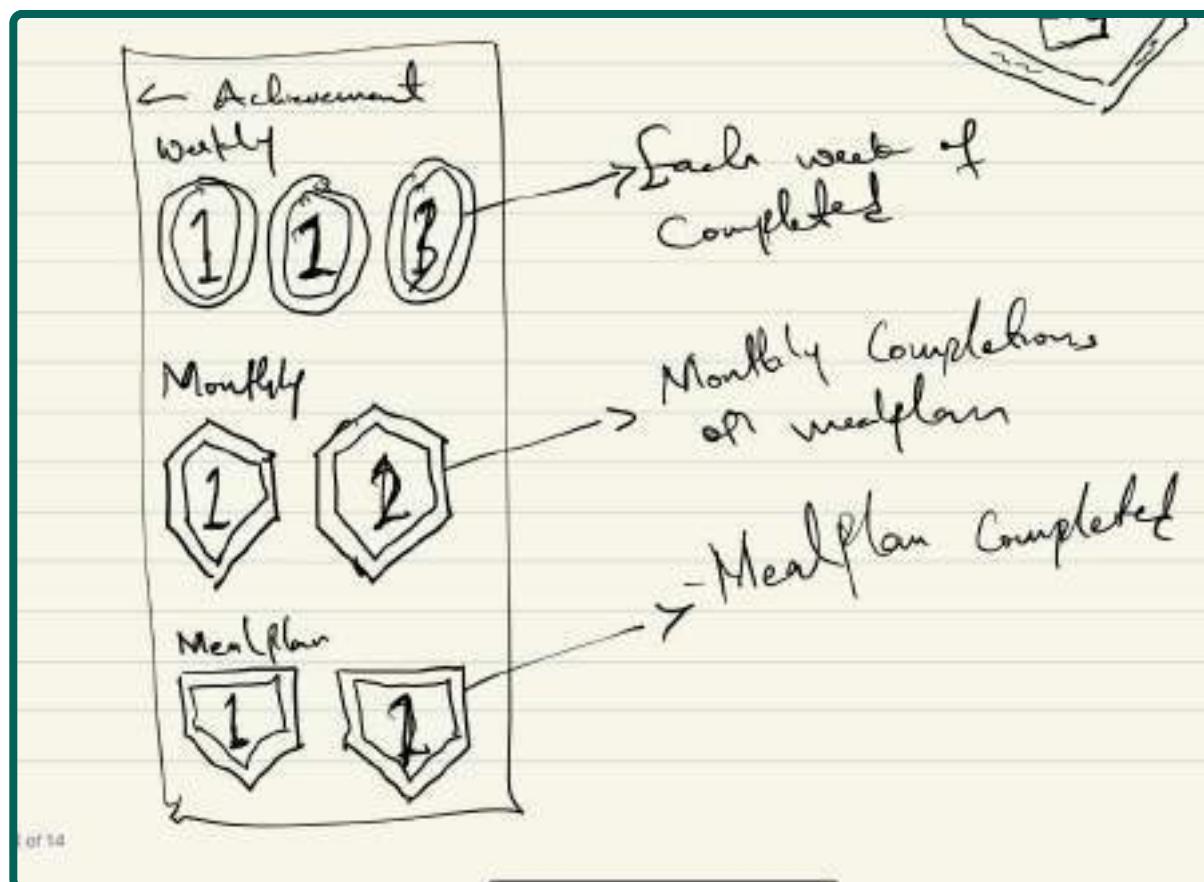
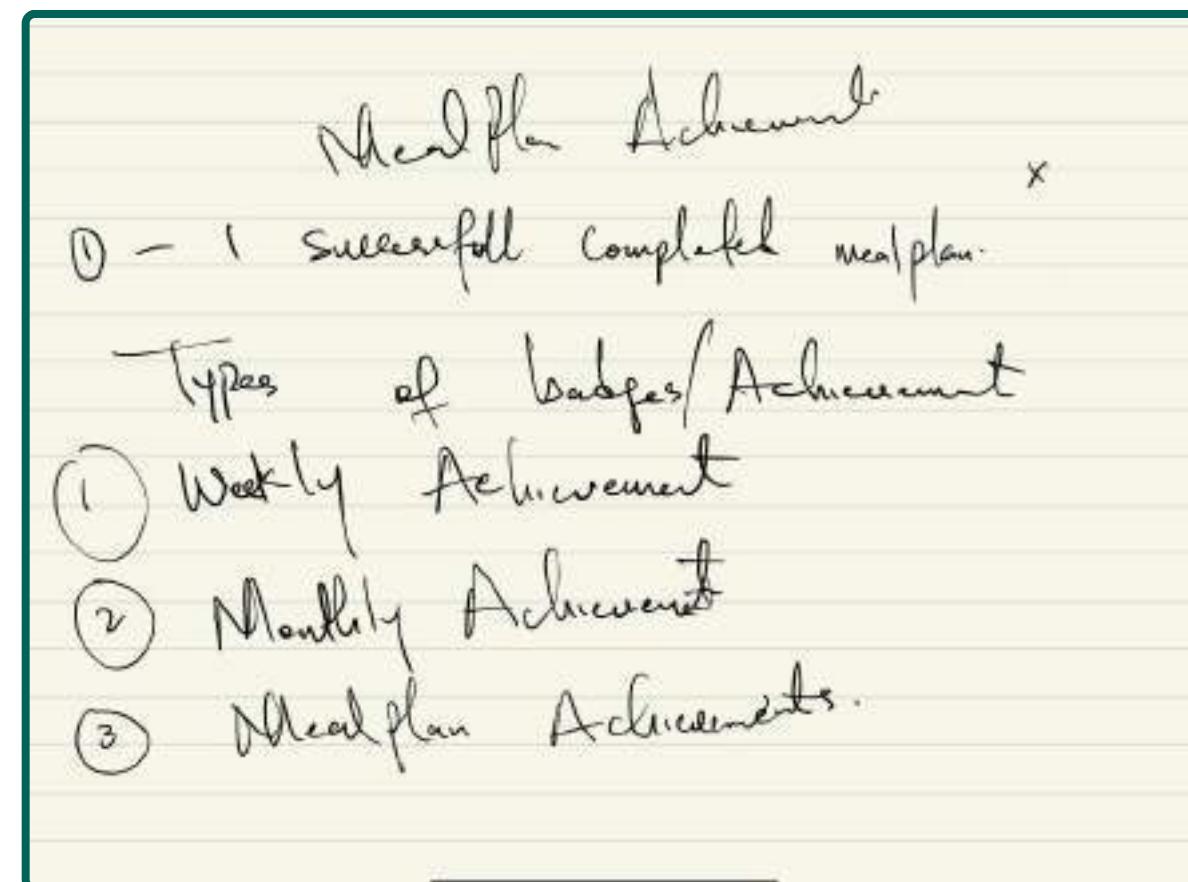
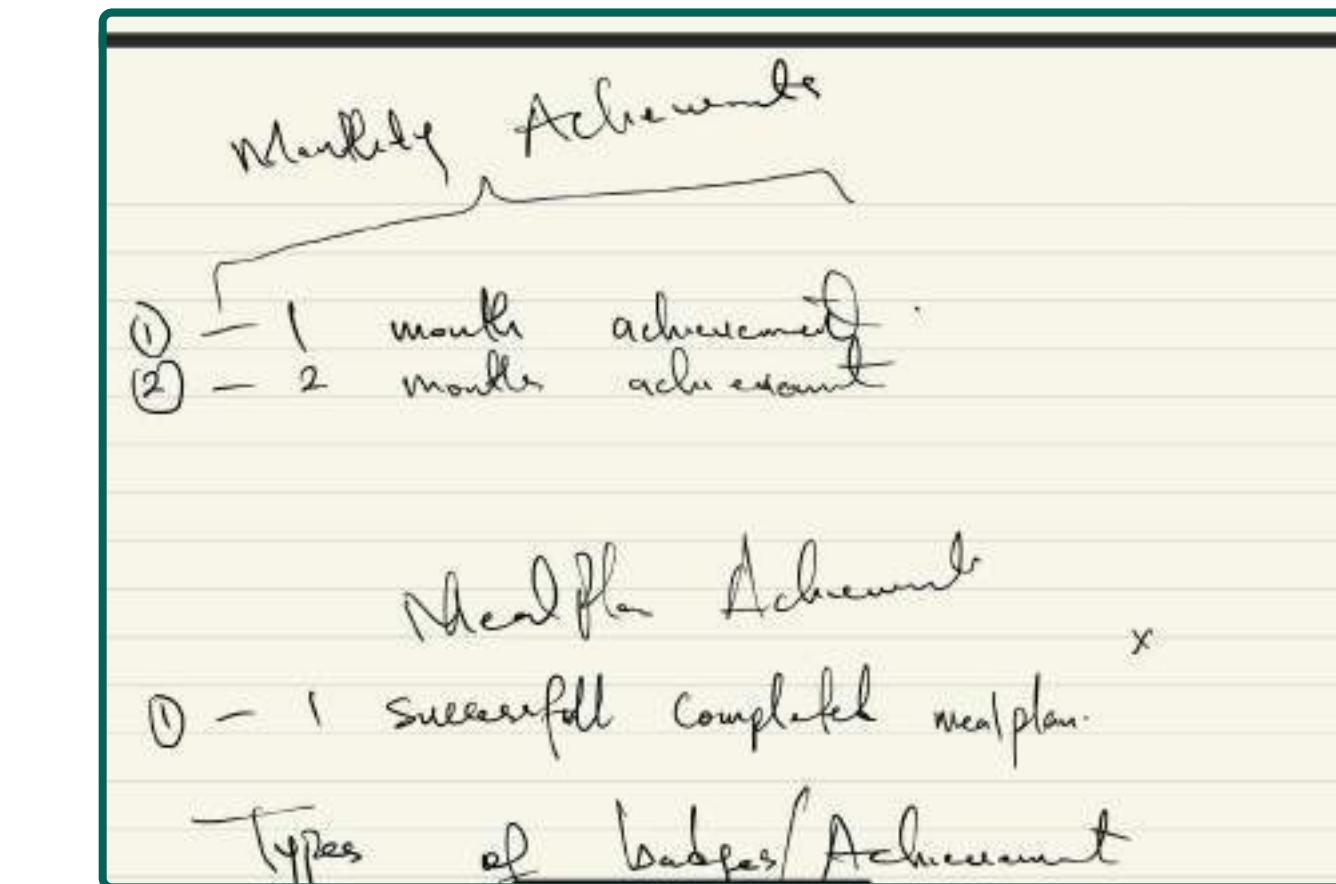
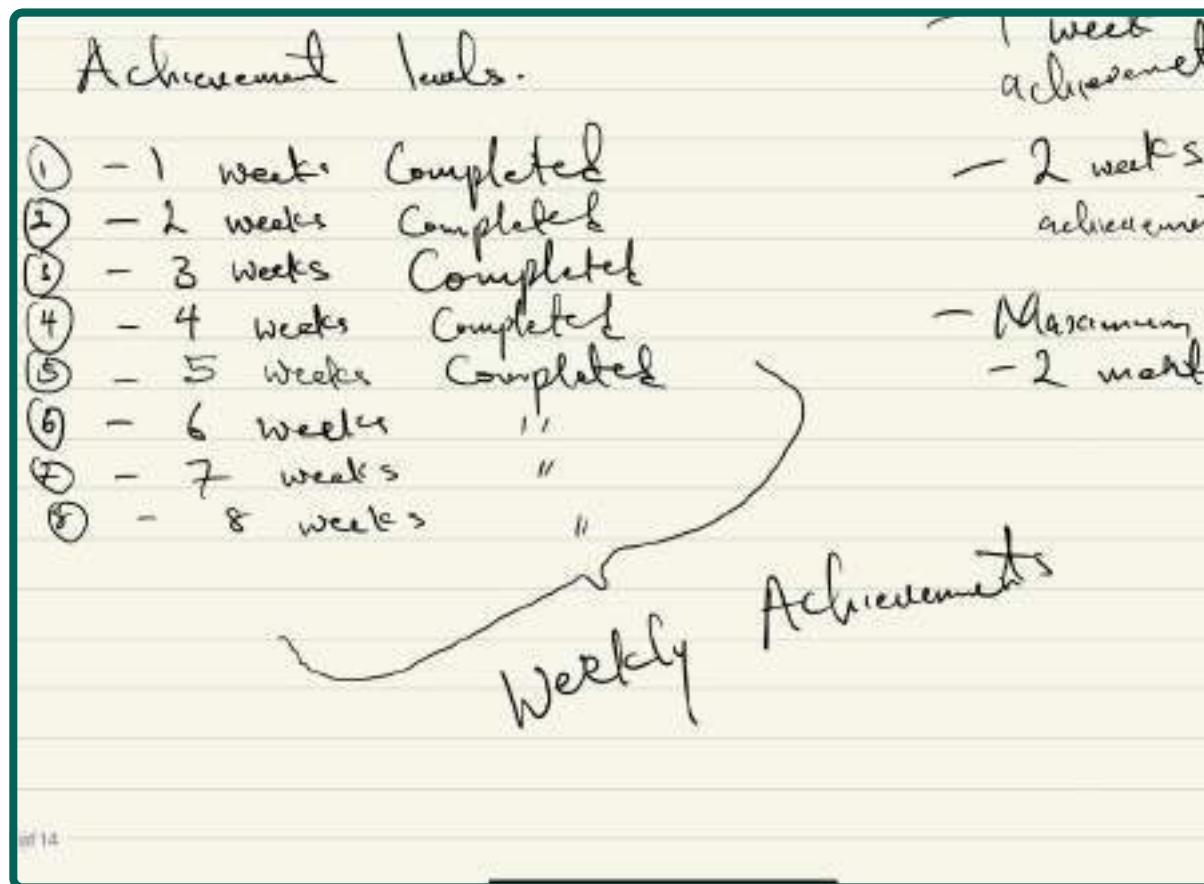
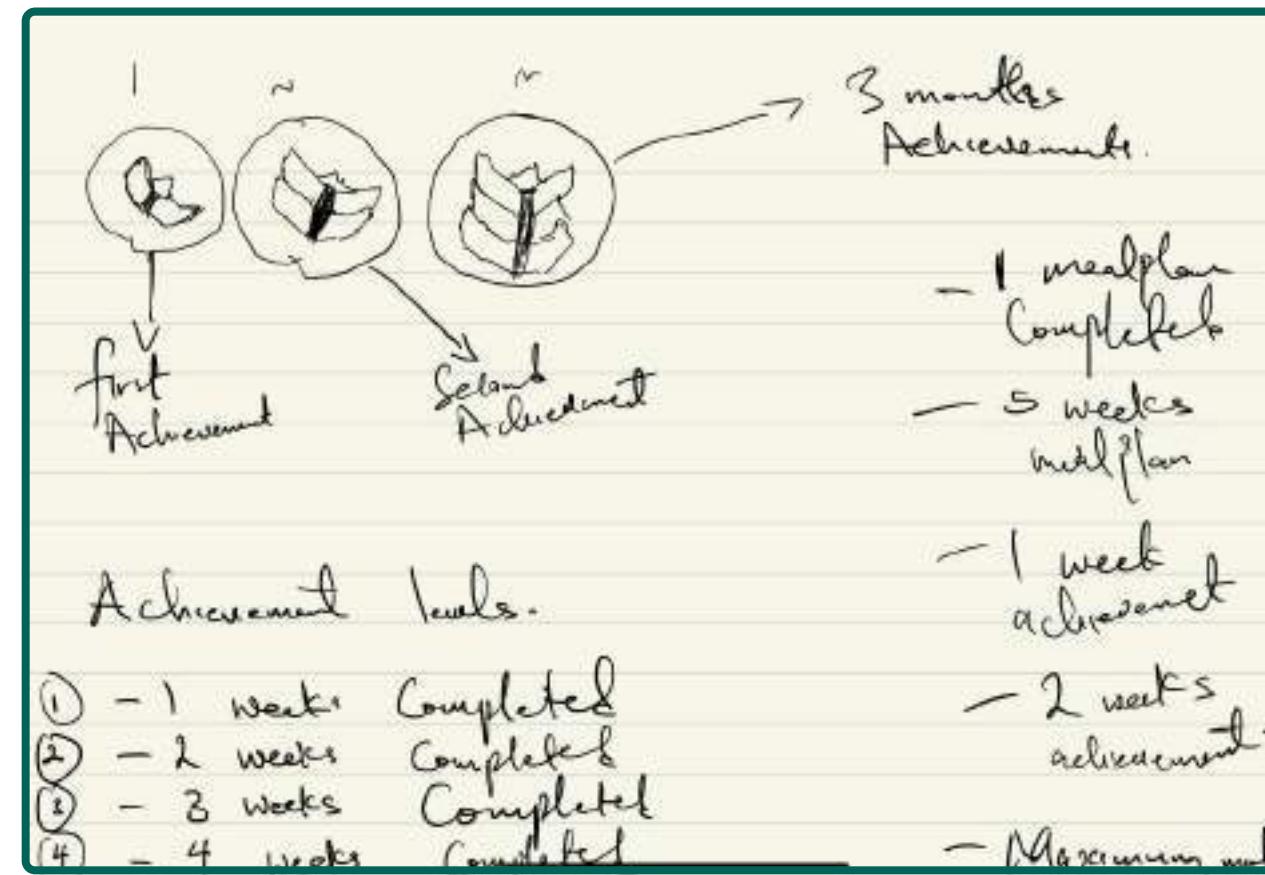


Make request (Siri)

More Apple Watch Variations



Badges Ideation



Badges Feature

Badges provide a sense of accomplishment and motivation, encouraging users to stay engaged with their food and nutrition goals. Achievements can create a positive feedback loop, where users are motivated to make healthier choices and track their progress regularly.

Weekly Completion



Monthly Completion



Mealplan Completion



First week is done!

1

We know starting can be the hardest, you're getting better! Enjoy your first badge. You've earned it!

Collect Badge

View all badges

First week is done!

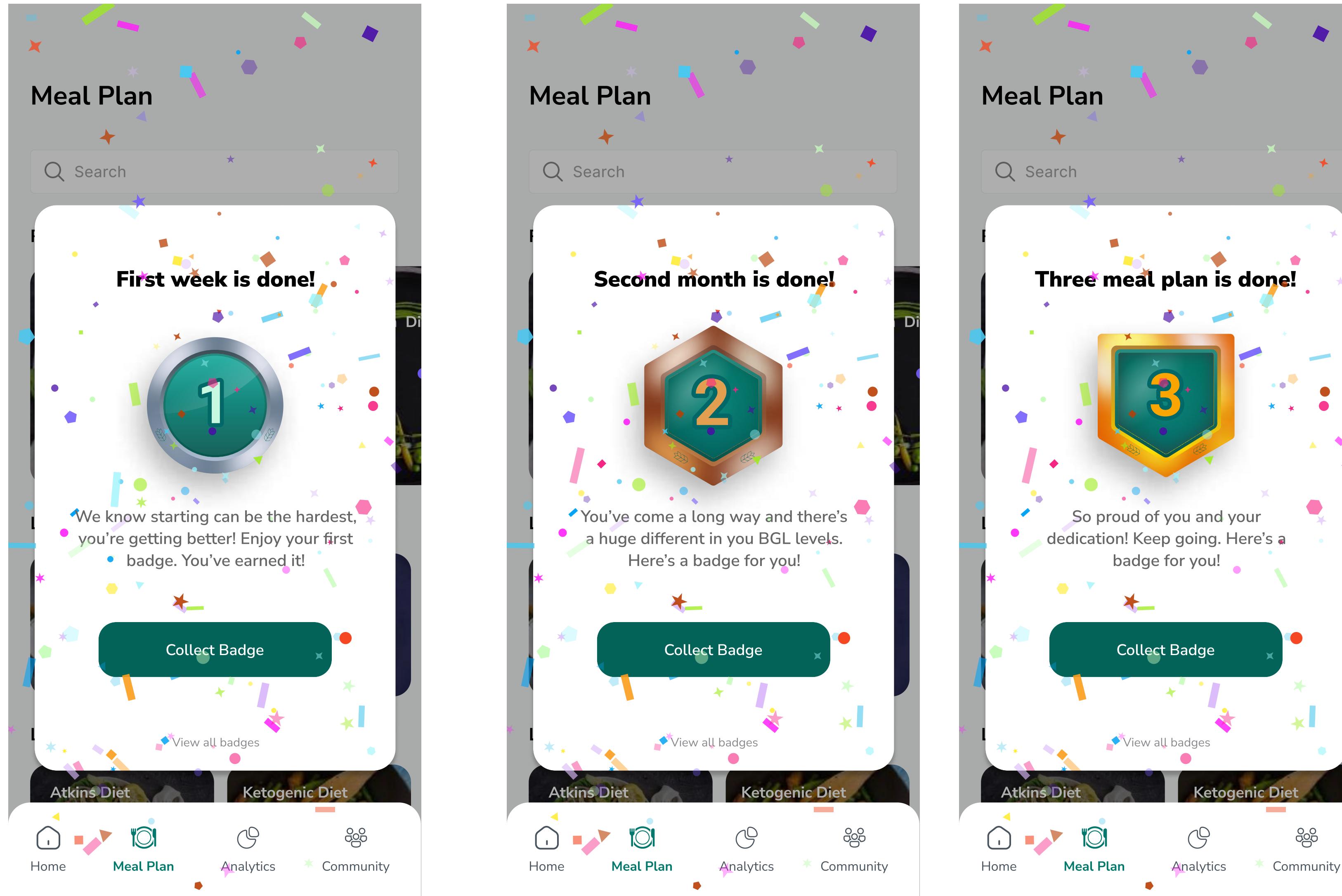
1

We know starting can be the hardest, you're getting better! Enjoy your first badge. You've earned it!

Collect Badge

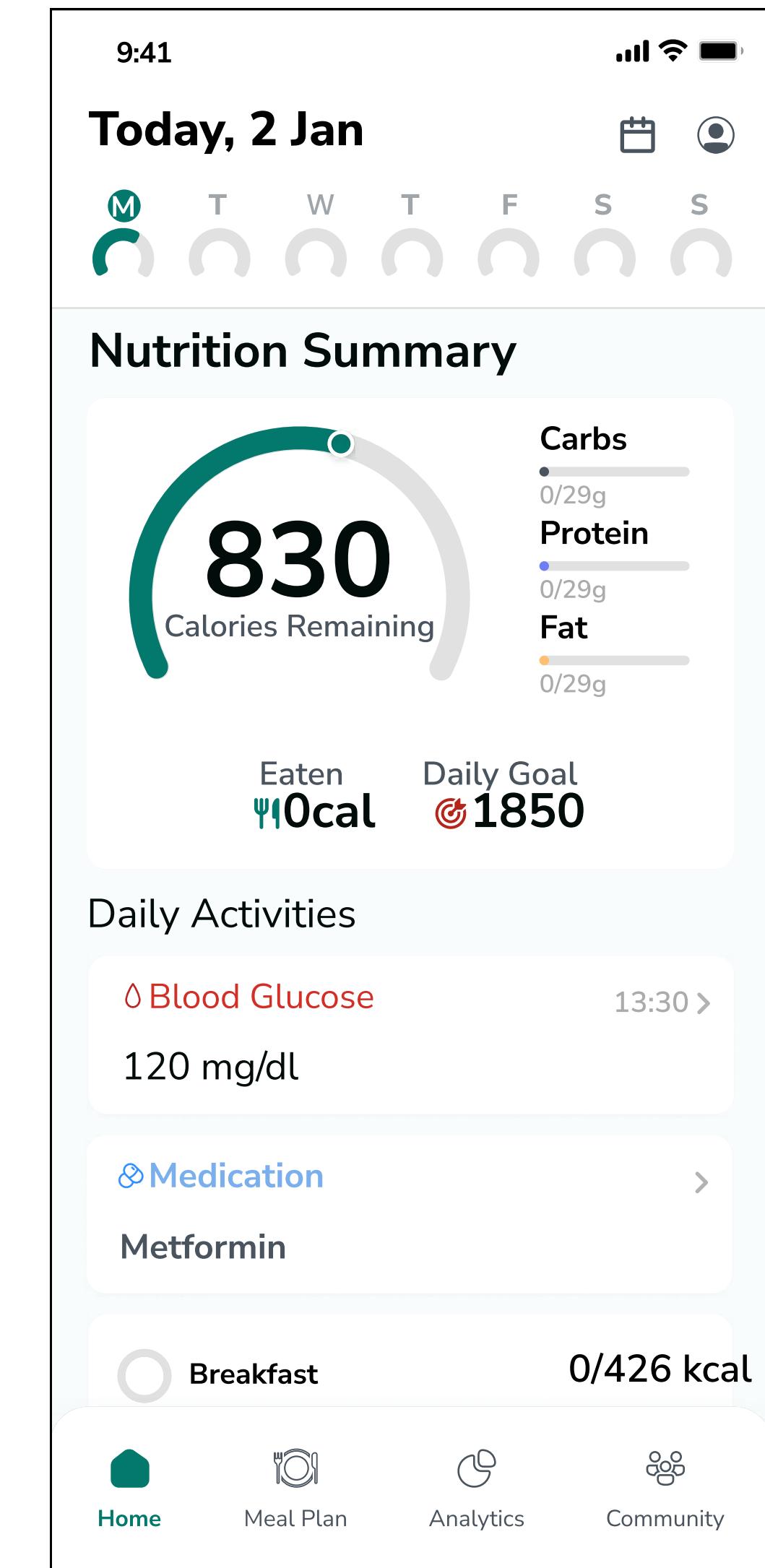
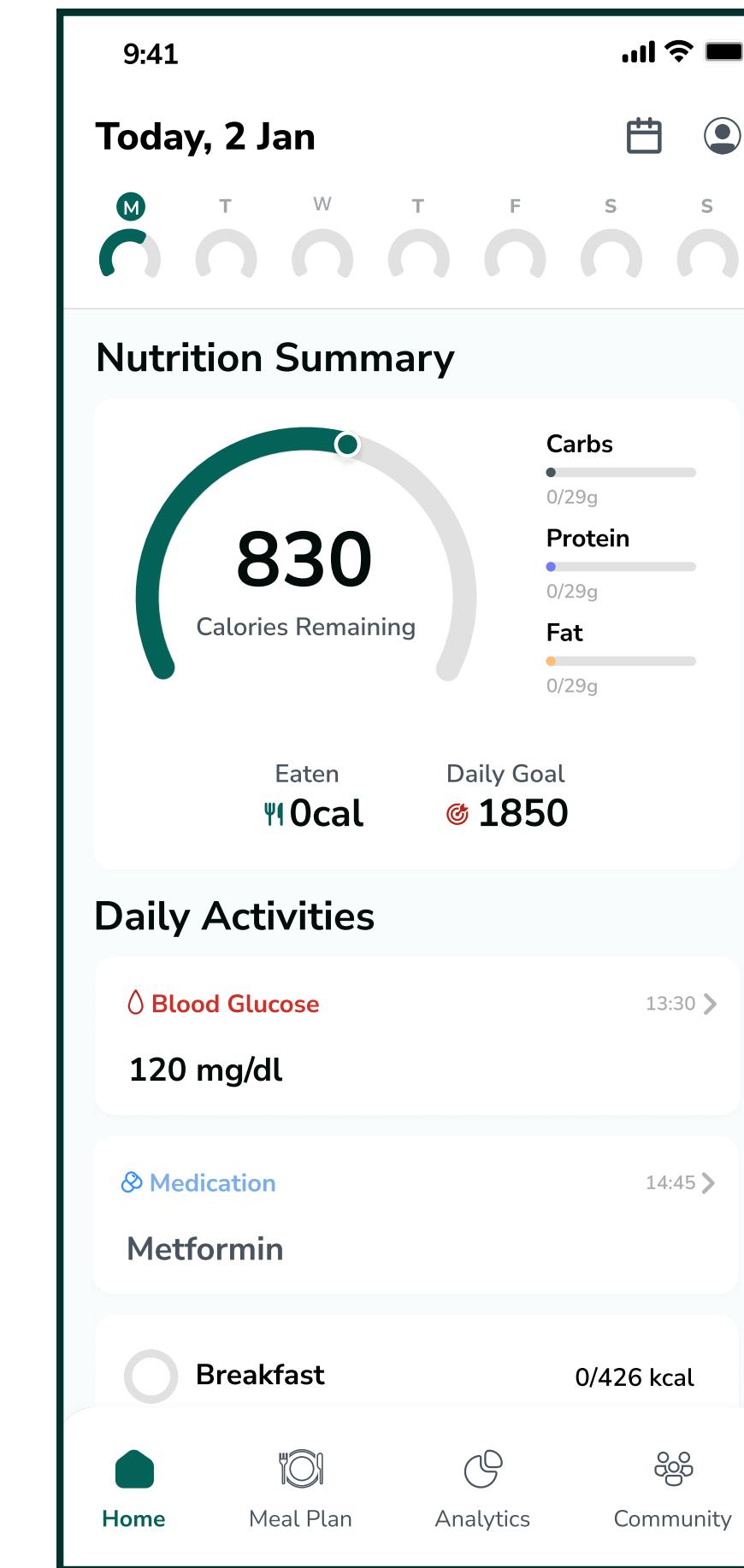
View all badges

Badges Feature



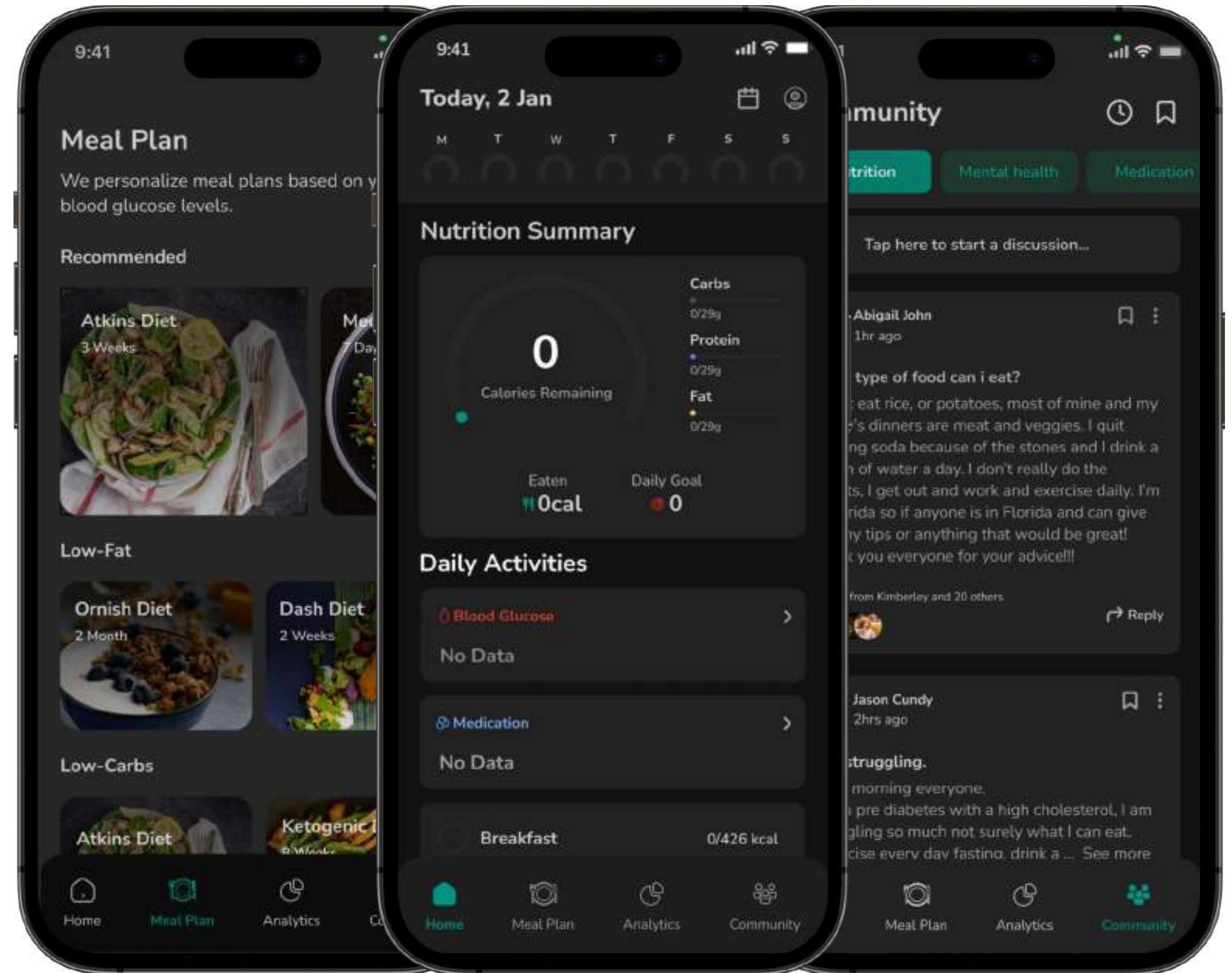
Accessibility Considerations

By using larger fonts, app developers ensure that text content is easily readable and legible, reducing the need for users to strain their eyes or zoom in to view the text.



Visual Considerations

Dark mode can be more visually comfortable for some users, especially those who are sensitive to bright light or have certain visual impairments. It can provide better readability and contrast, making it easier to read text and view content in various lighting conditions.



Design Assets

—
Visual Assets

—
UI Elements

—
Achieved Objectives

—
Future Enhancement

Accessibility

Because we are designing for diabetic people we took into consideration their problems:

Diabetic retinopathy is an eye condition that can cause vision loss and blindness in people who have diabetes, so we consider some principles to choose an appropriate font:

Avoid character ambiguity

When glyphs or characters within a typeface appear similar to another, this can introduce ambiguity which must be processed by the brain, thus impacting reading speed and understanding

Web Accessibility Recommendation

C vs O
C vs O
e vs O
e vs O

Carbs Buddy Nunito Sans



Numeral "1"

Lowercase l

1

l

I

Capital I

Accessibility

Avoid character complexity

Simpler shapes and patterns of typographical text are more quickly and accurately analyzed by the human mind.

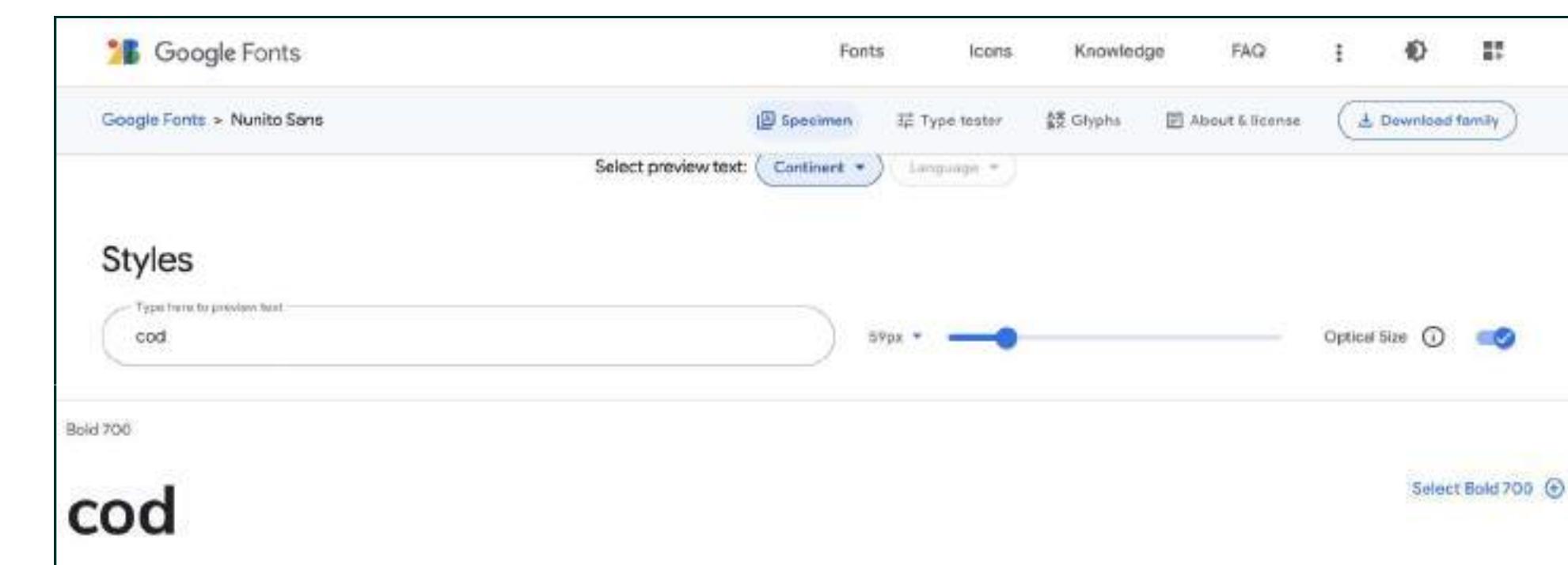
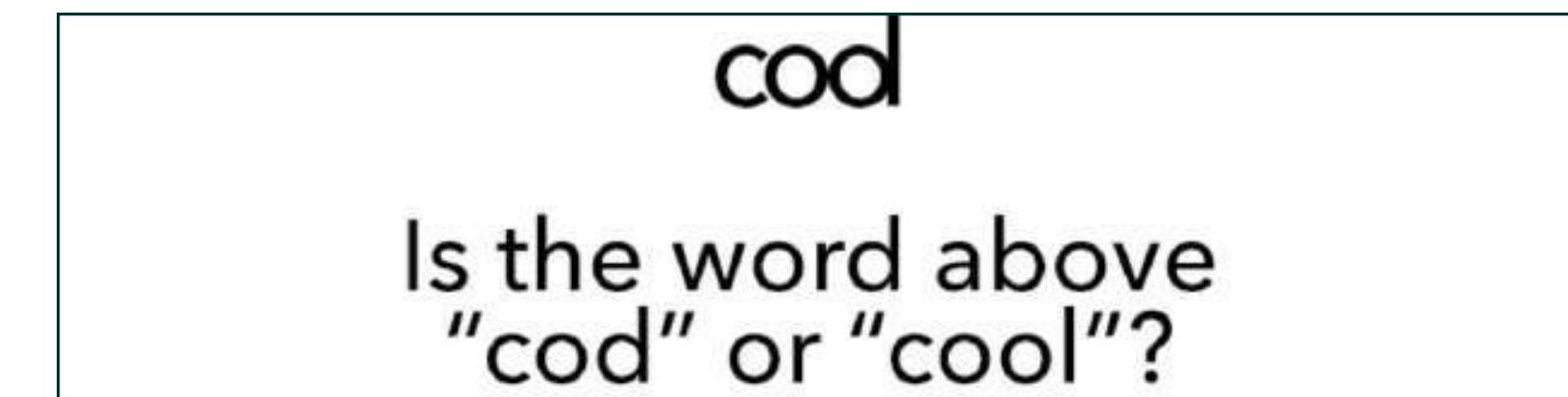
This typeface is complex and more difficult to read.

Nunito Sans is simpler and easier to read.

Carbs Buddy Nunito Sans

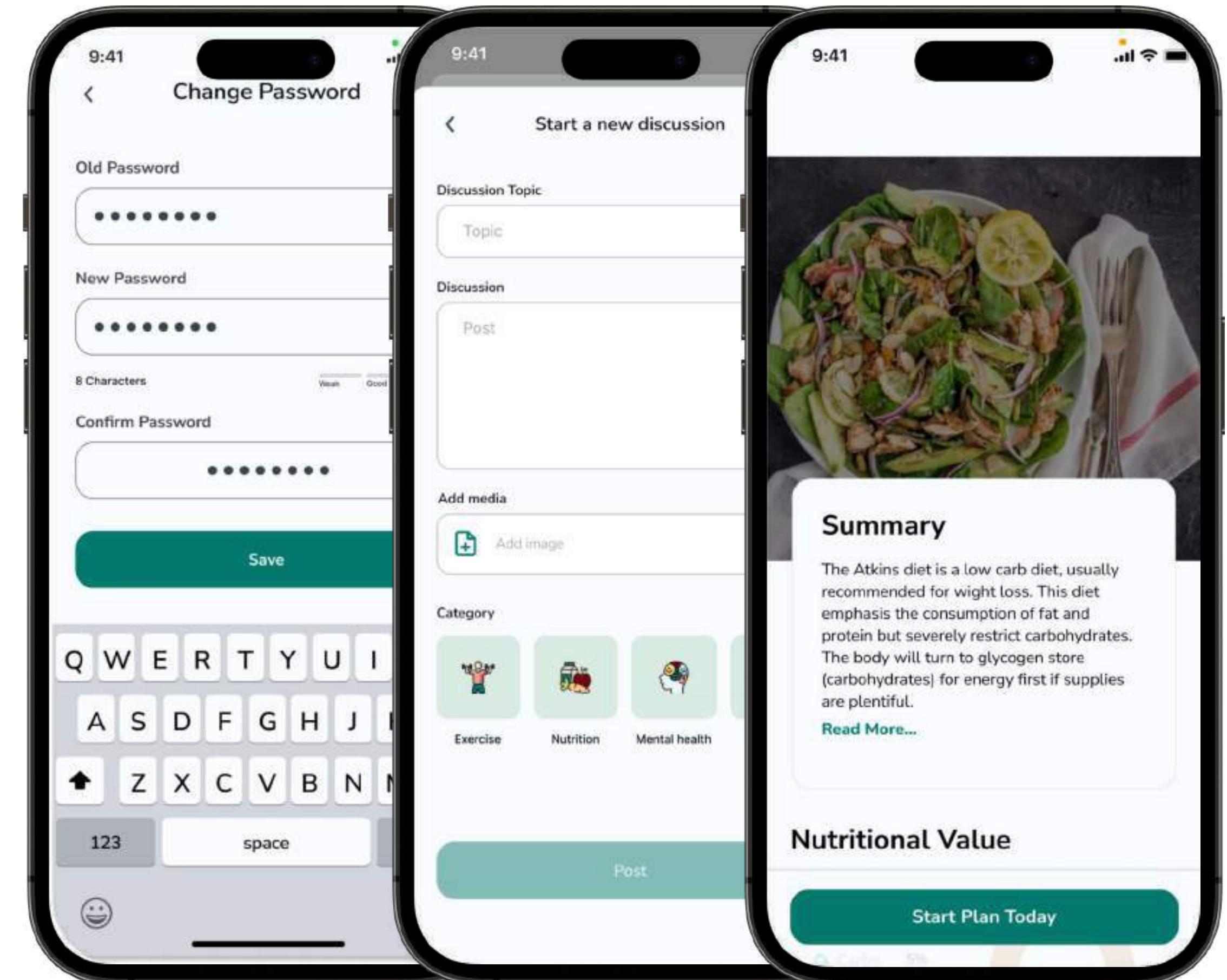
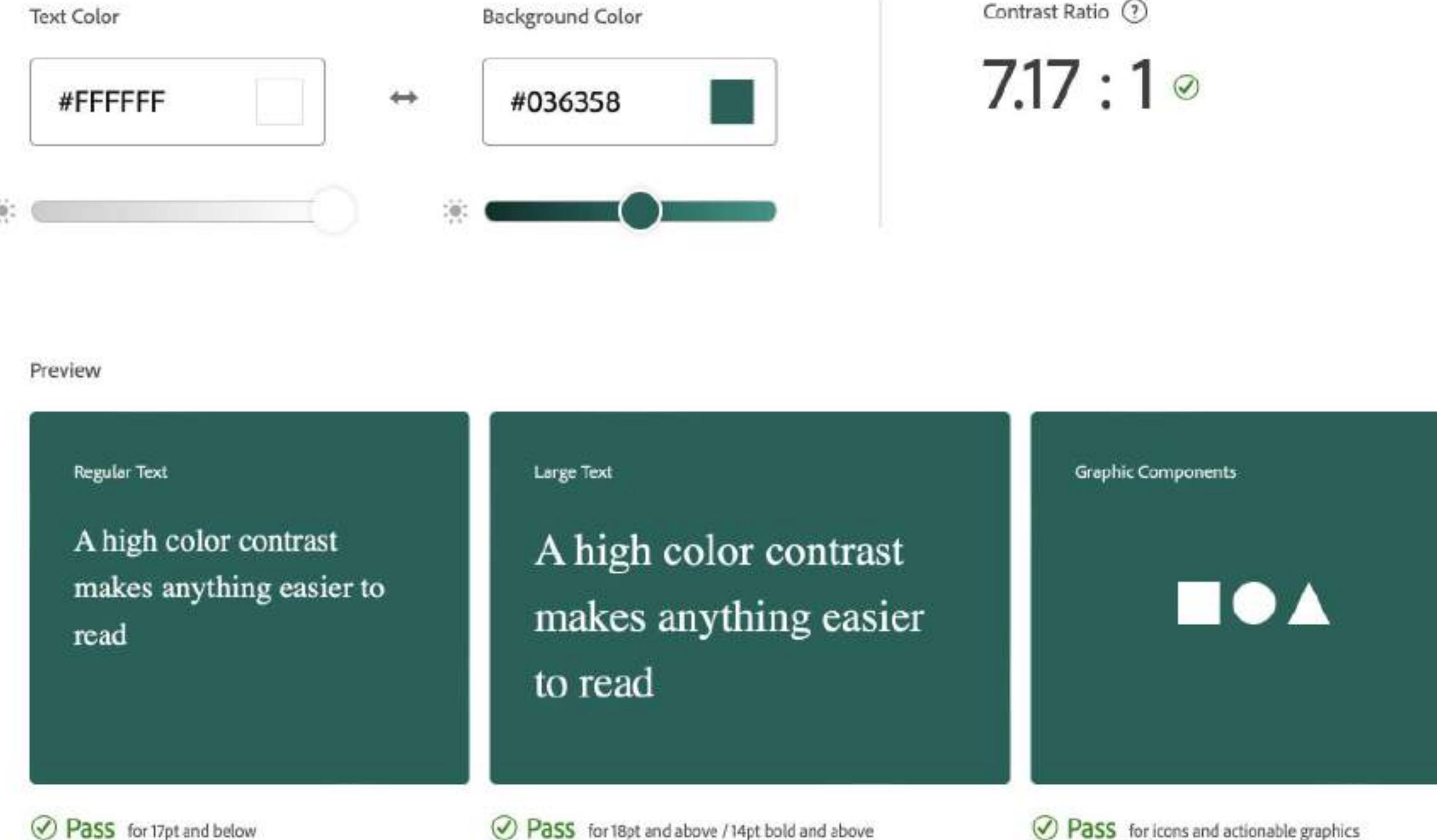
Consider spacing and weight

Adequate letter and word spacing can improve readability by providing greater separation and clarity between adjacent characters and words. When letters or words appear very close to each other, confusion can be introduced. Additionally, the weight (meaning the thickness of the glyphs) can also impact perceptibility and readability.



Accessibility

We consider our color choices :

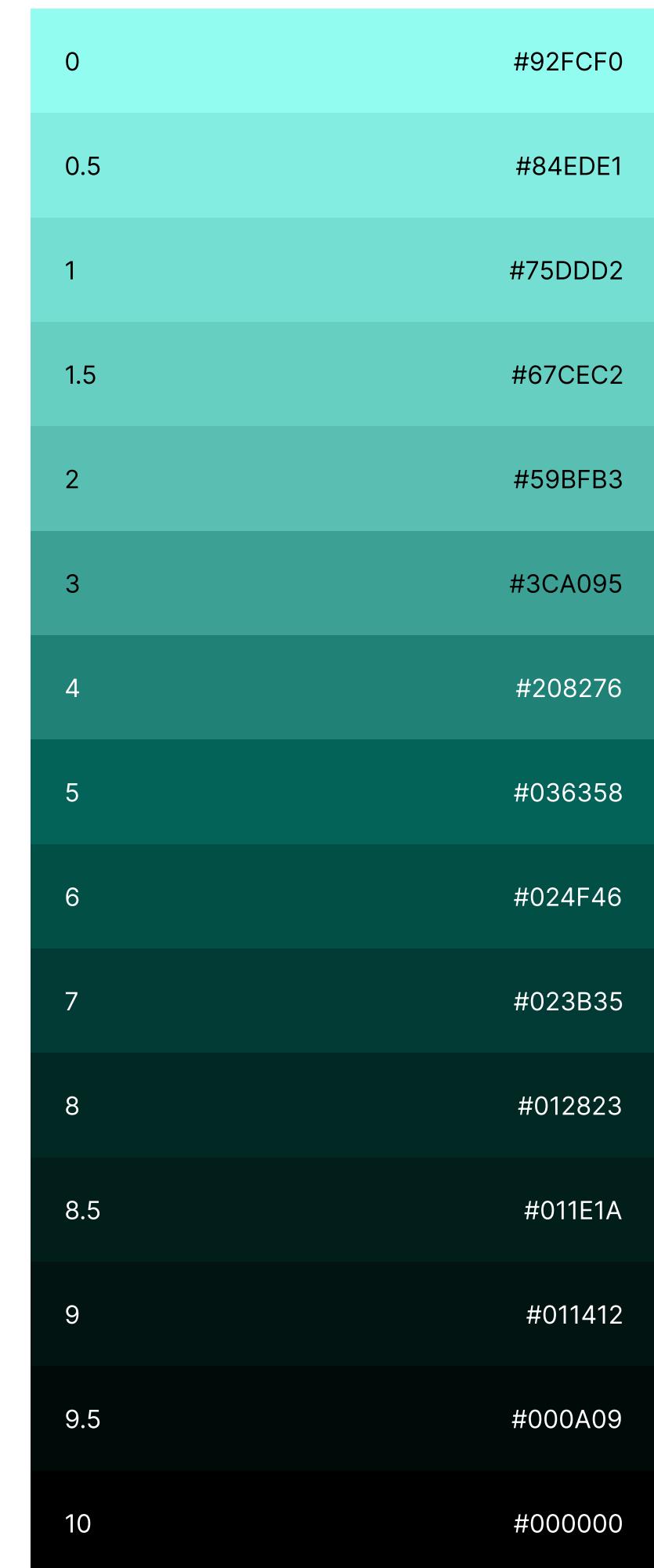


Color Psychology

Green Color Psychology

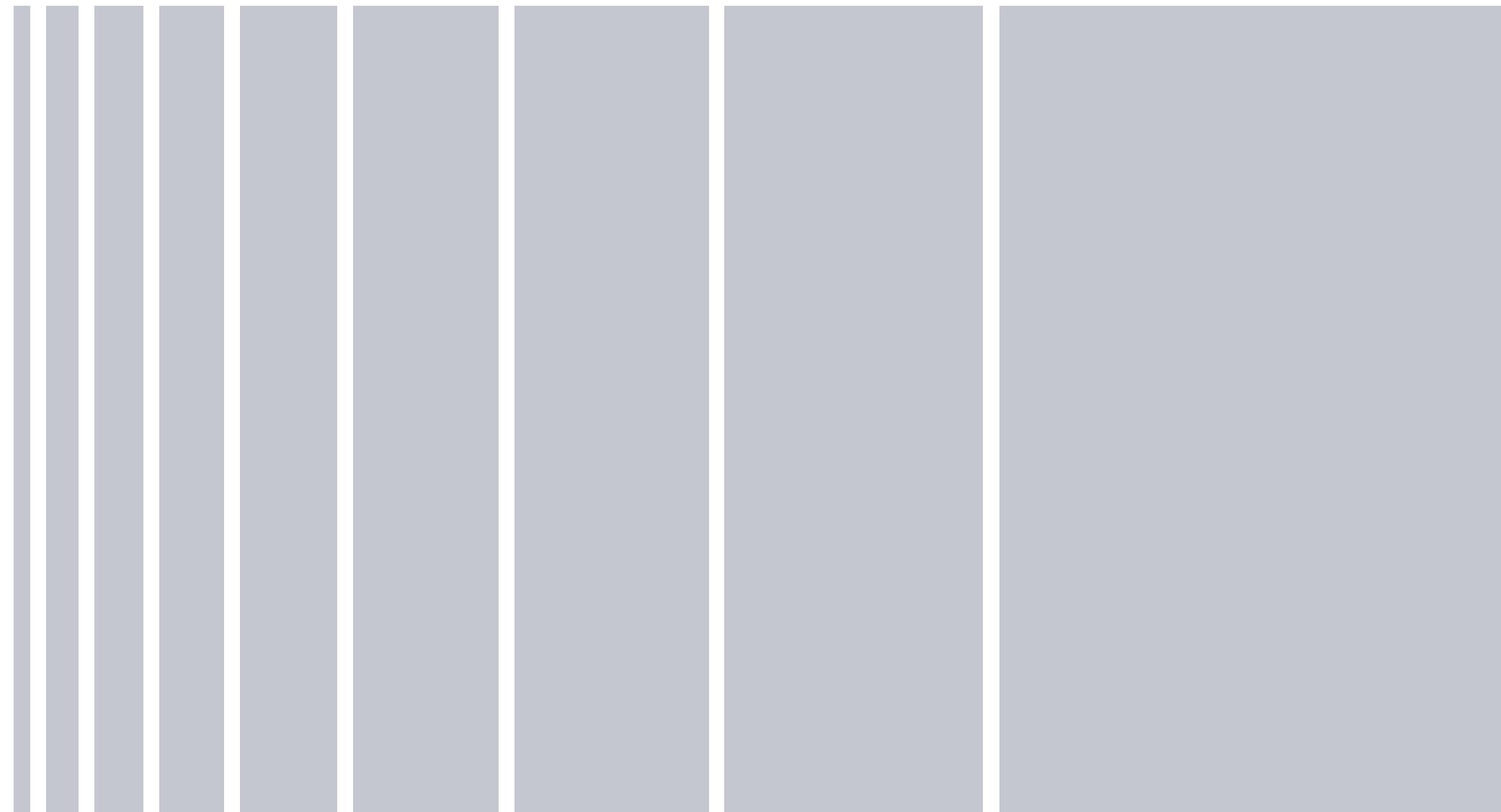
In Point Of Fact, Human Ocular Perception Is Most Attuned To The Colour Green, And As A Consequence, The Colour Green Has An Effect That Is Calming And Soothing On The Person Who Is Observing It. Since Of This, The Colour Green Is Often Used In Medical Settings Since It Has The Potential To Ease A Patient Into A More Relaxed Condition, Which Is Advantageous While Carrying Out A Medical Activity.

-  **Green Is Calming**
-  **Green Is Natural**
-  **Green Is Motivating**
-  **Green Is Optimistic**

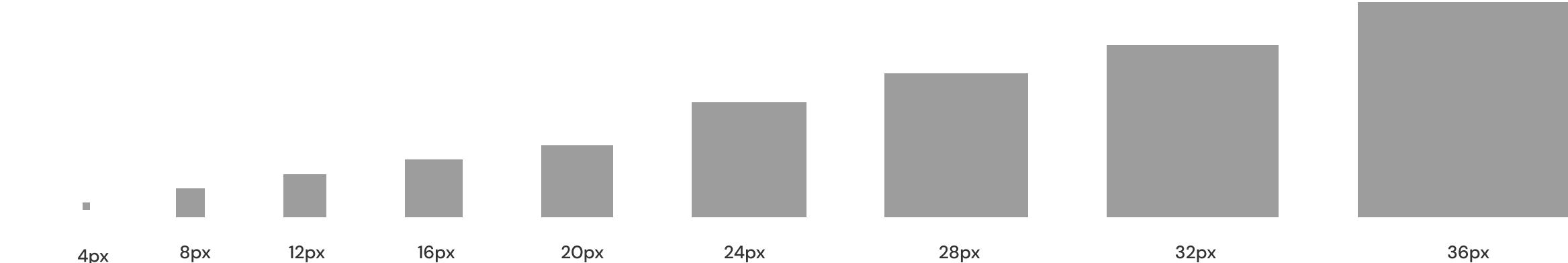


Spacing System

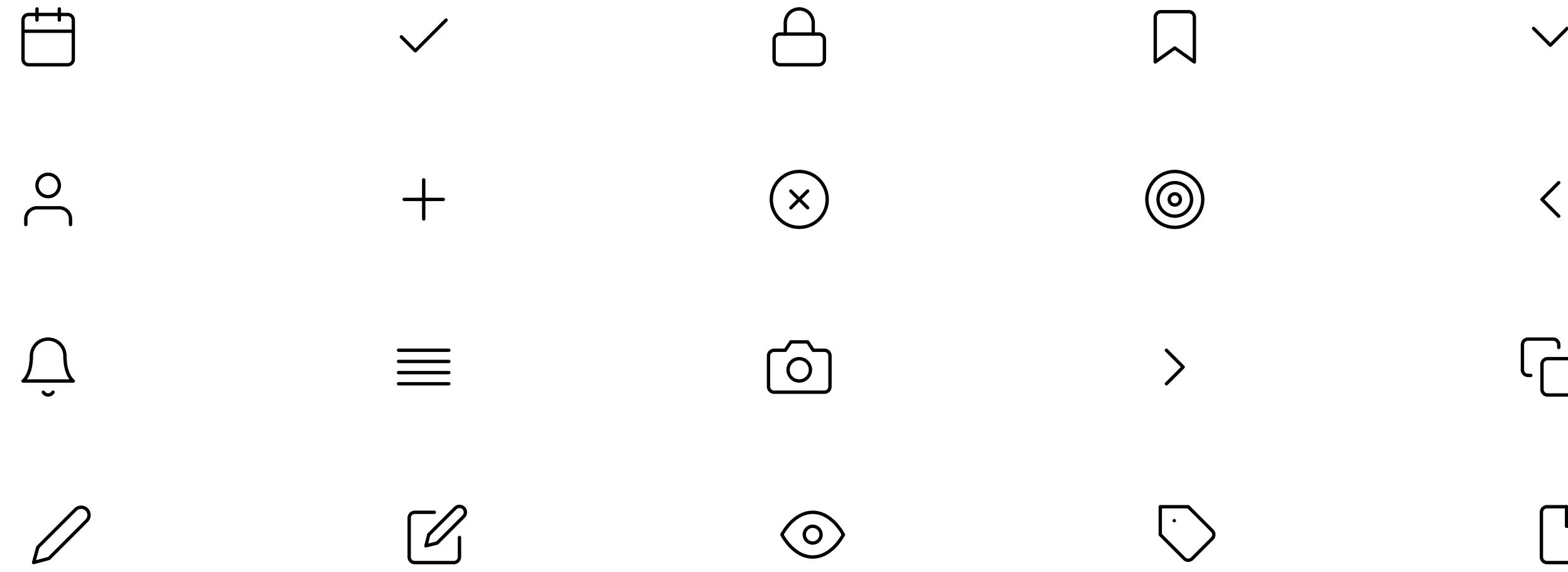
4 point Spacing



We used 4 point spacing system and the margin is 20px for our design system.



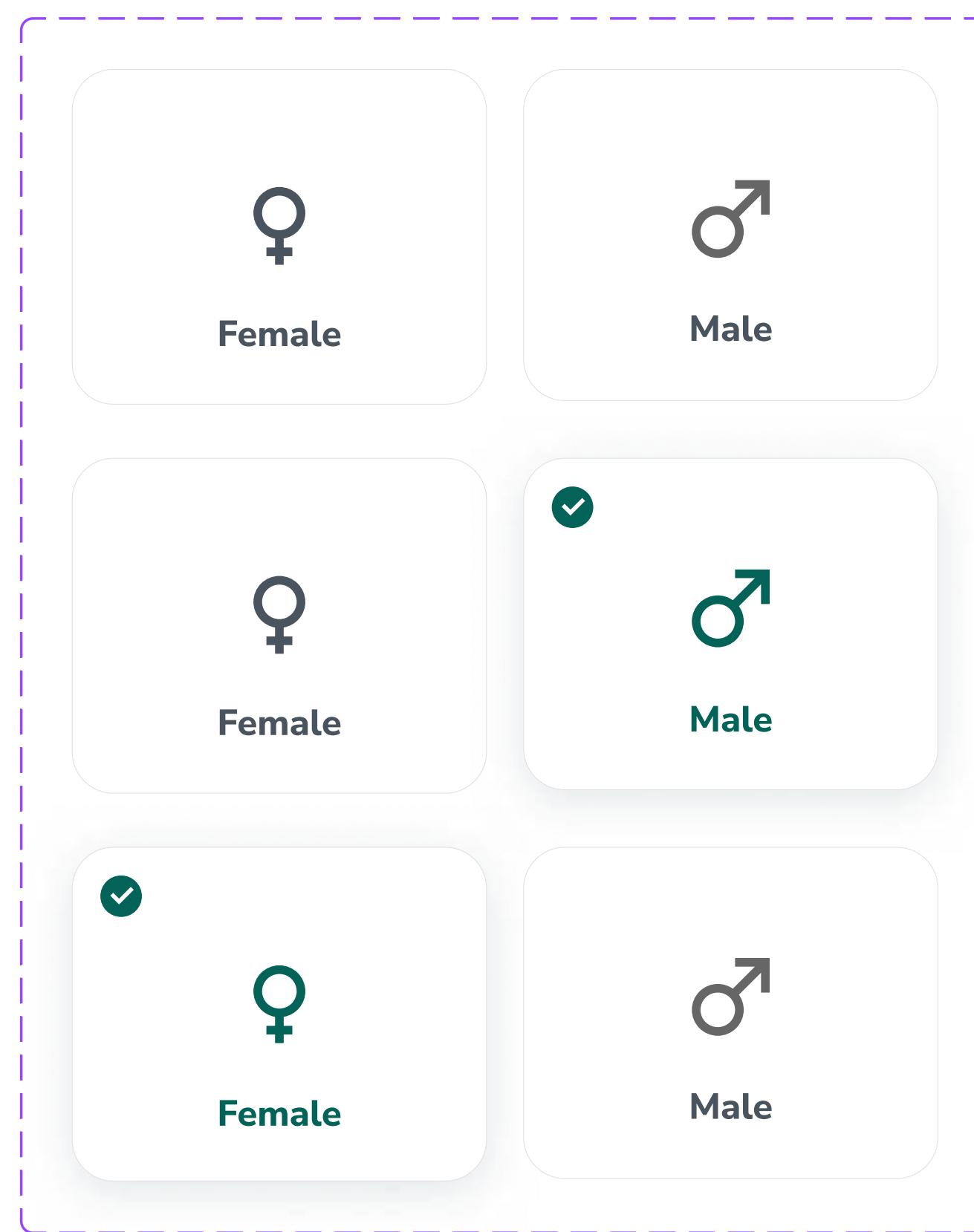
Iconography



We used an icon pack to personalize and enhance the visual appeal of user interfaces by providing a variety of consistent and attractive icon designs.

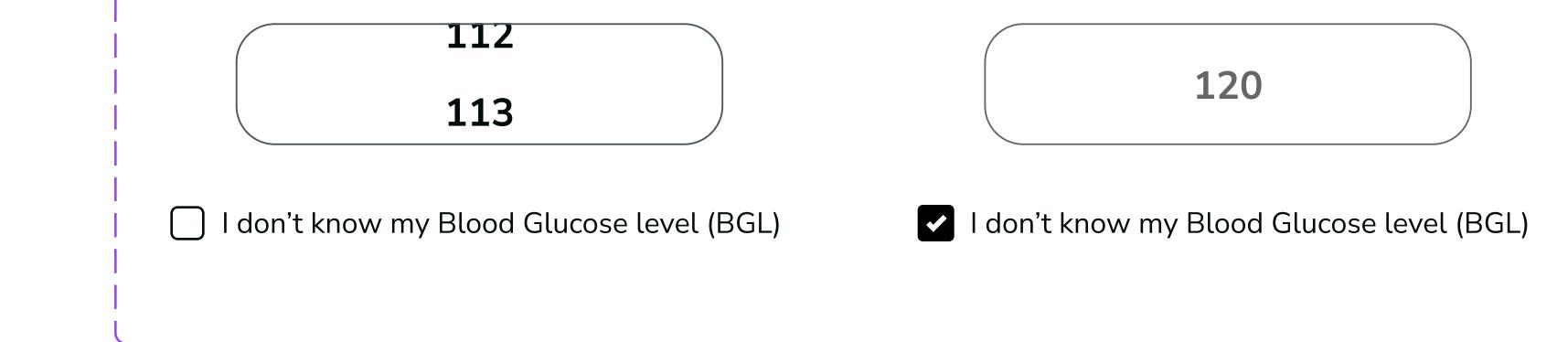
Visual Assets

Onboarding Components



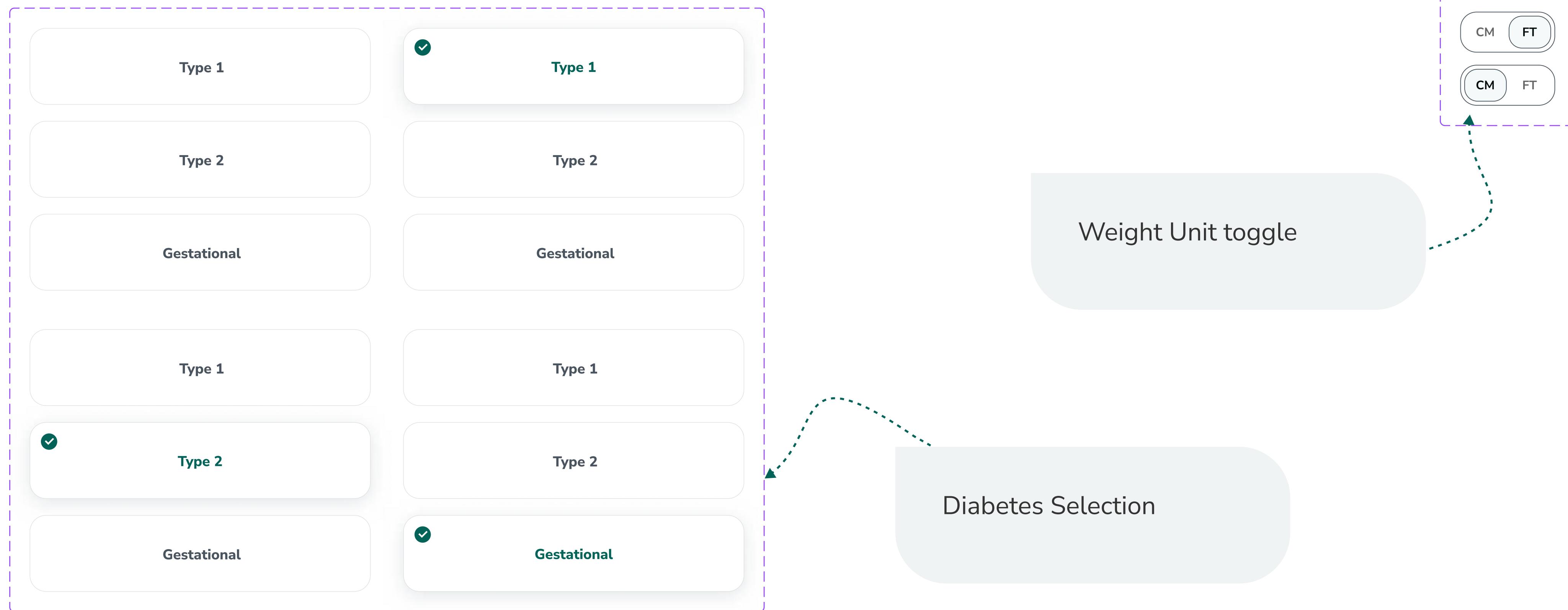
Gender selection
components

Blood glucose level
selections



Visual Assets

Onboarding Components



Visual Assets

Meal Plan Component

Meal selection list,
dynamically changes on
user selection

Allergy Selection Component

- Meal Clocking
 - Favourite meal
 - Calendar day selector

The diagram illustrates the meal clock interface. On the left, three meal selection cards are shown, each with a purple dashed border and a green arrow pointing to it. The first card contains a green circle with a white plus sign and a green checkmark. The second card contains a grey heart icon and a red heart icon. The third card contains the number '30' twice. On the right, a grey rounded rectangle contains a bulleted list: 'Meal Clocking', 'Favourite meal', and 'Calendar day selector'.

- Meal Clocking
- Favourite meal
- Calendar day selector

Allergy Selection Component

 Fish	 Egg	 Wheat
 Fish	 Egg	 Wheat
 Milk	 Alcohol	 Caffeine
 Milk	 Alcohol	 Caffeine

Visual Assets

Meal Plan Component

Meal selection list,
dynamically changes on
user selection

Allergy Selection Component

- Meal Clocking
 - Favourite meal
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The diagram illustrates the meal clock interface. On the left, three meal selection cards are shown, each with a purple dashed border and a green arrow pointing to it. The first card contains a green circle with a white plus sign and a green checkmark. The second card contains a grey heart icon and a red heart icon. The third card contains the number '30'. On the right, a grey rounded rectangle contains a bulleted list: 'Meal Clocking', 'Favourite meal', and 'Calendar day selector'.

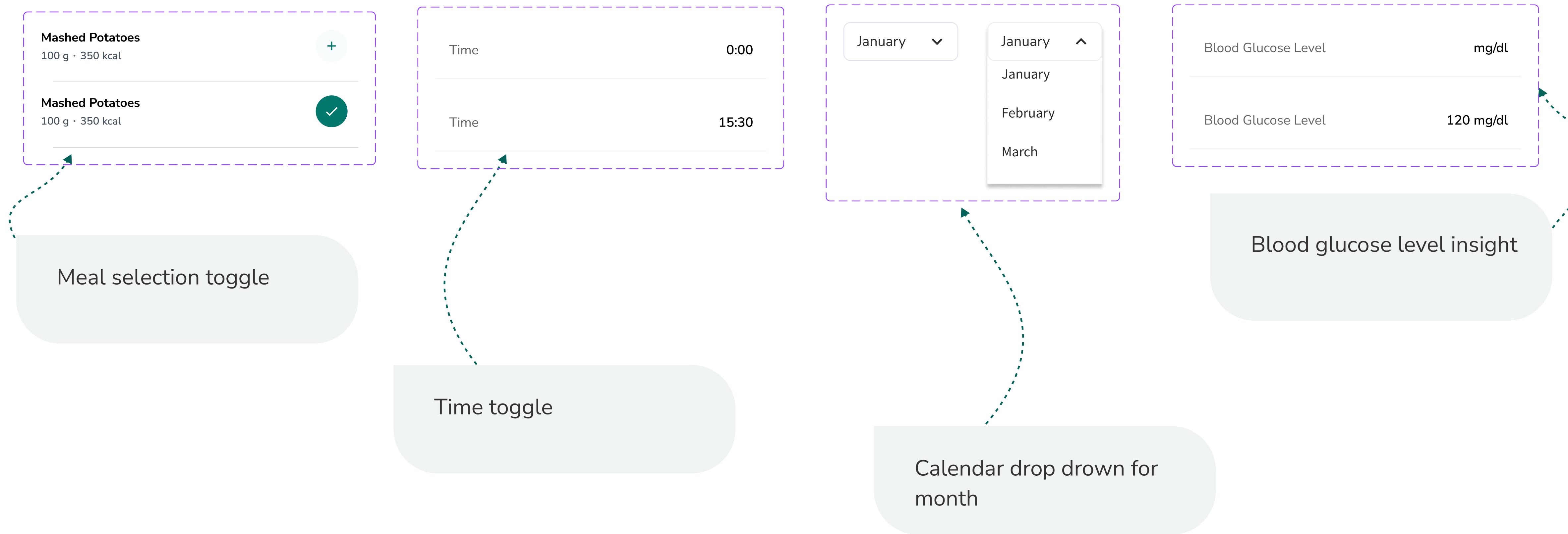
- Meal Clocking
- Favourite meal
- Calendar day selector

Allergy Selection Component

		
Fish	Egg	Wheat
		
Fish	Egg	Wheat
		
Milk	Alcohol	Caffeine
		
Milk	Alcohol	Caffeine

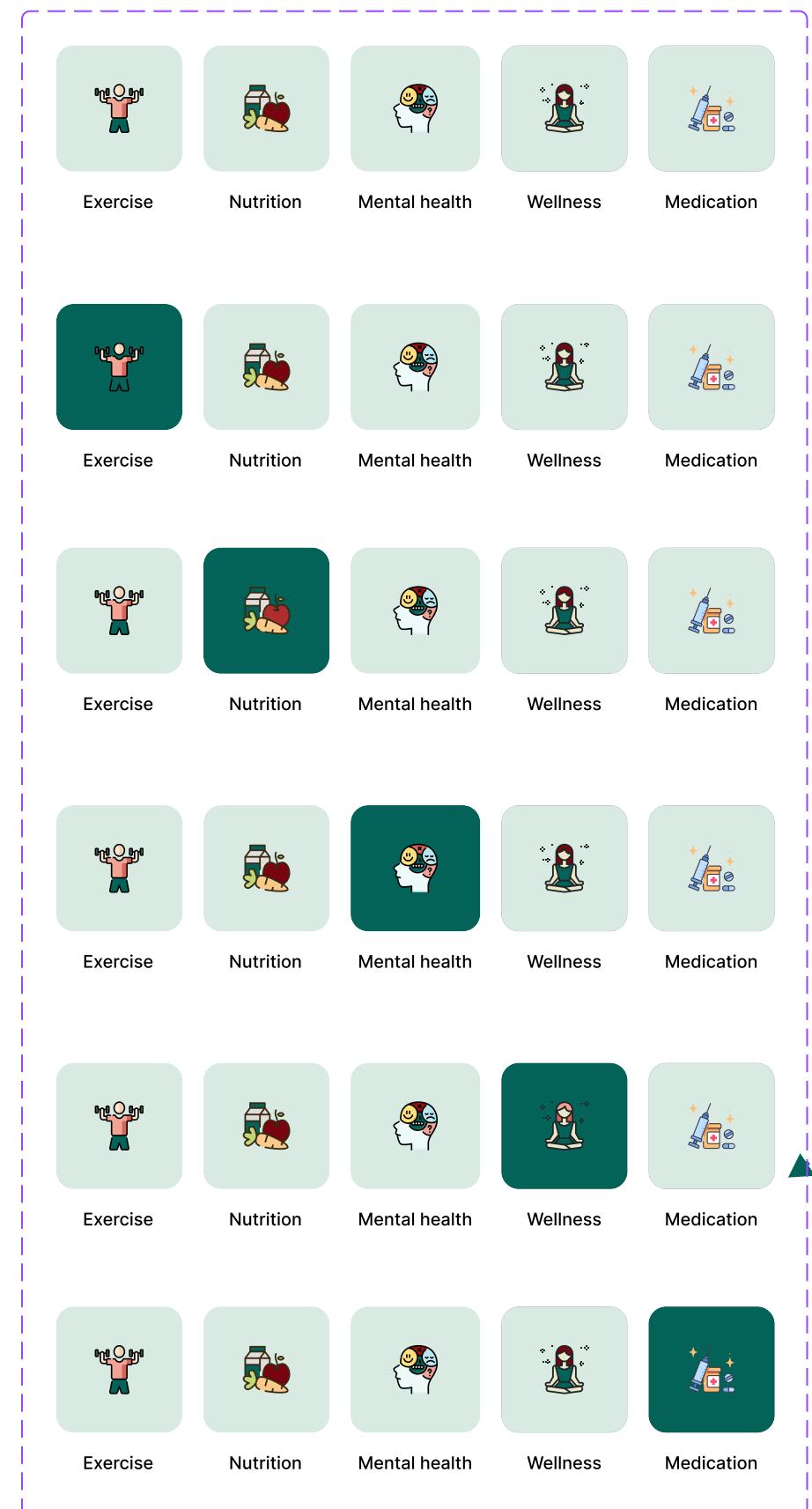
Visual Assets

Log Meal & Medication Component



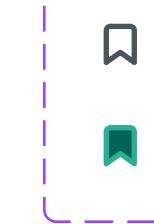
Visual Assets

Community



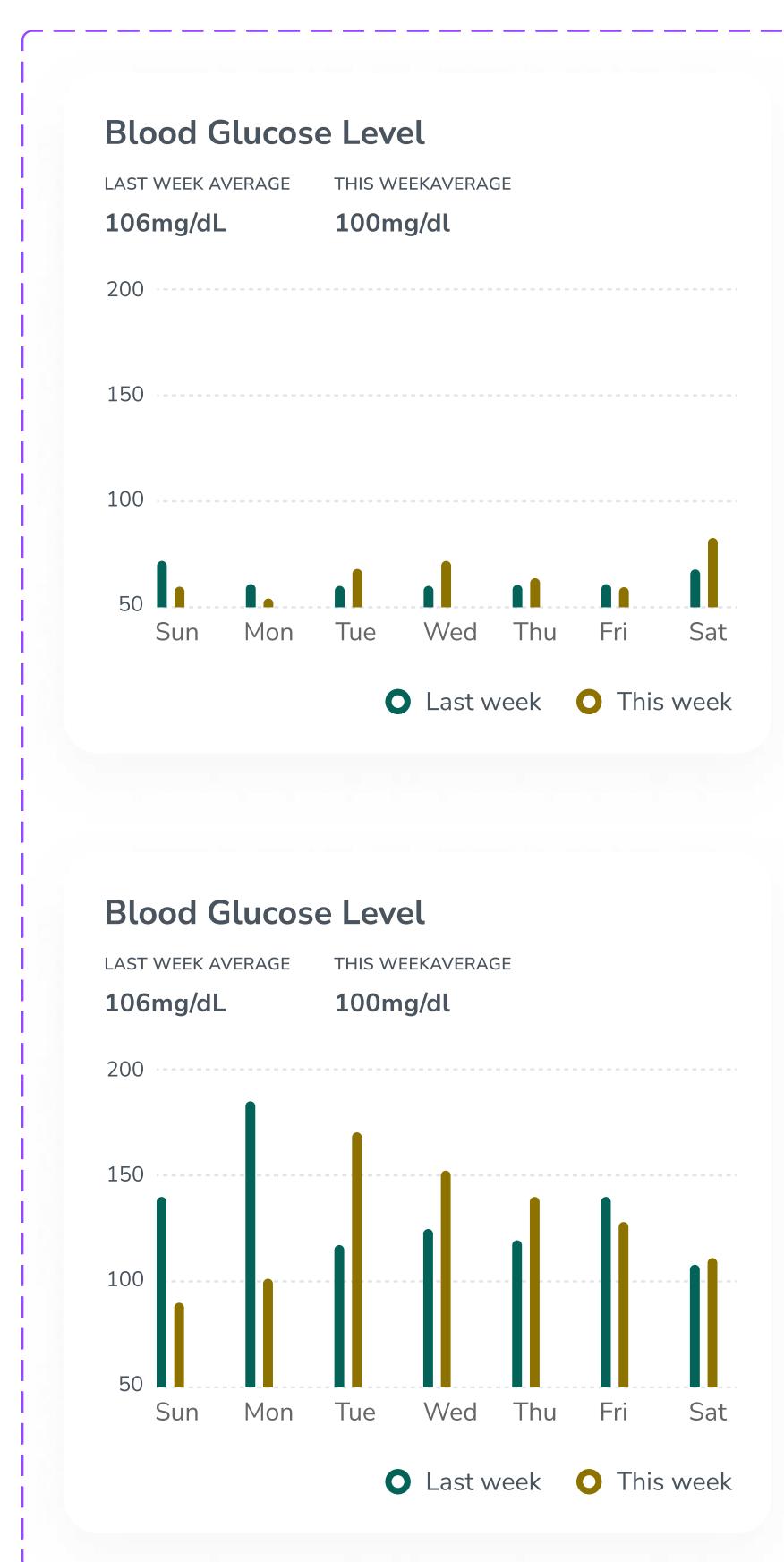
Community posting:
Category selection.

Bookmarking a post within
the community

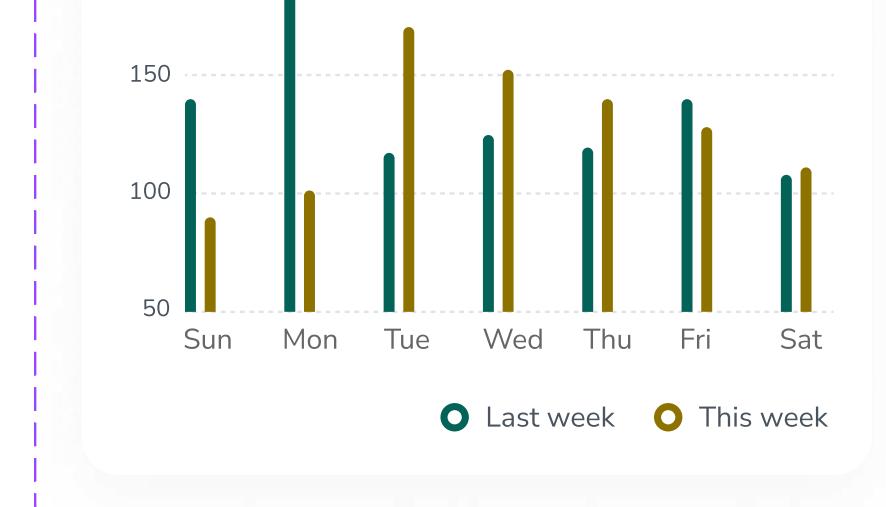
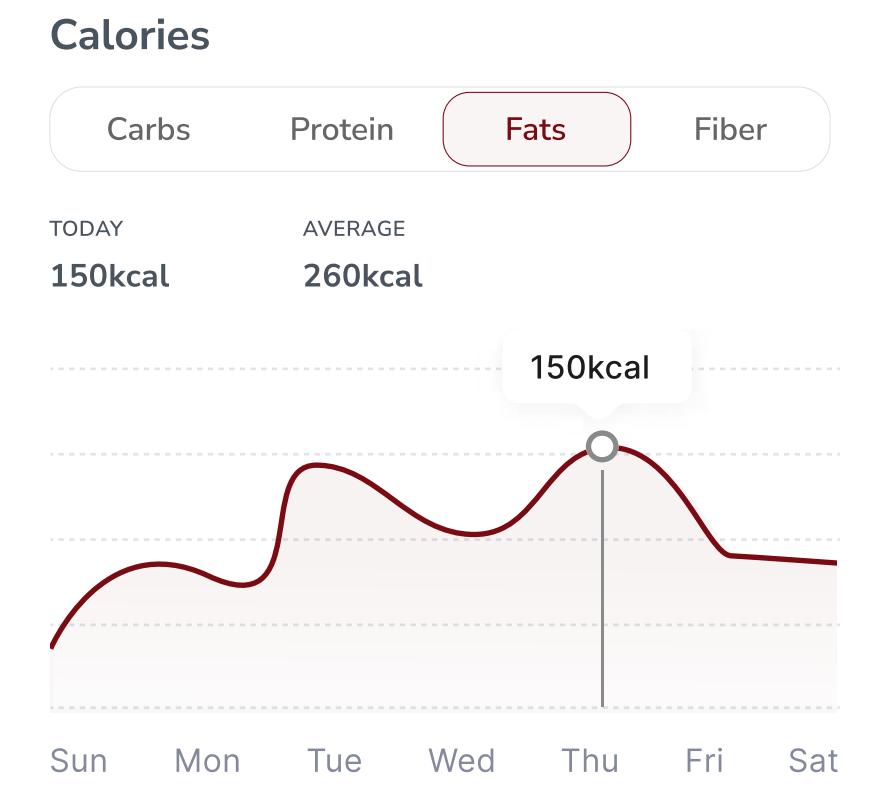
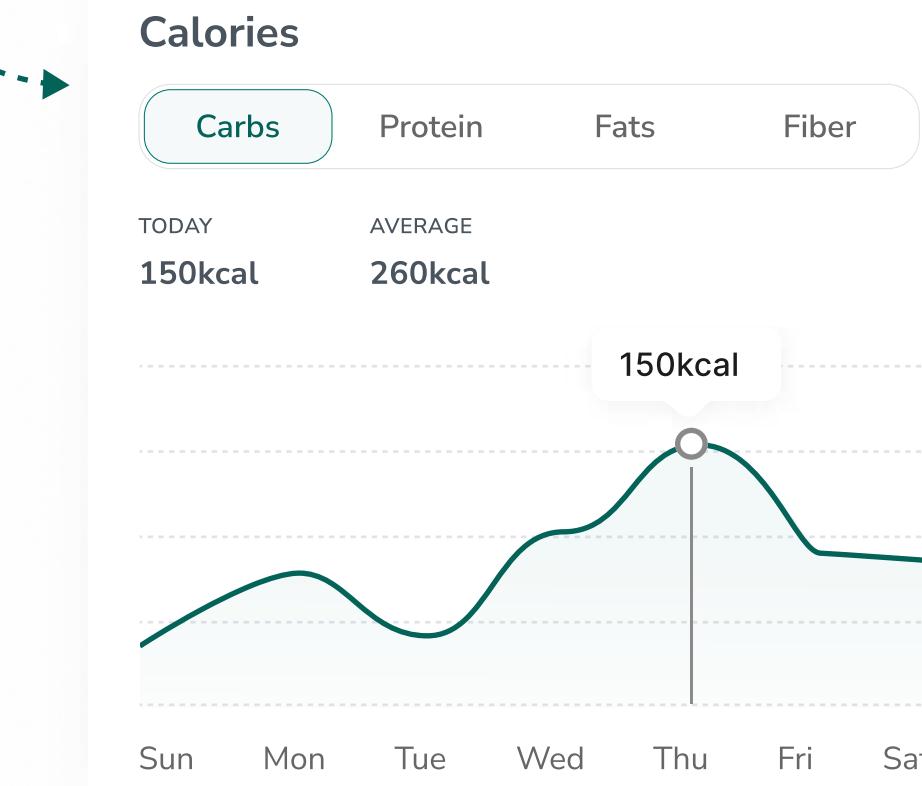


Visual Assets

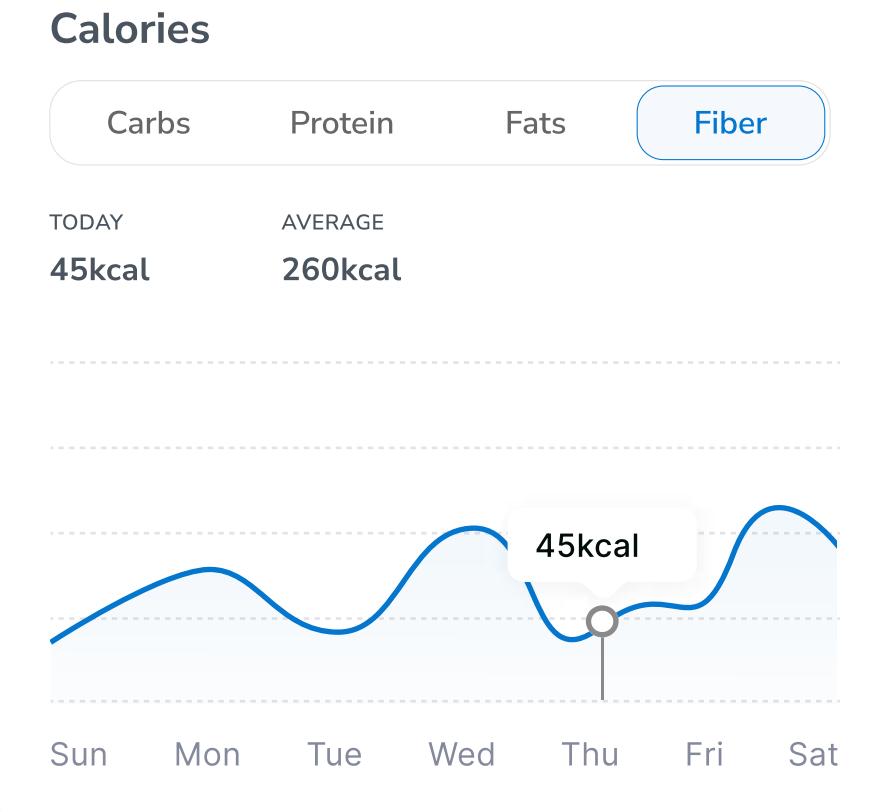
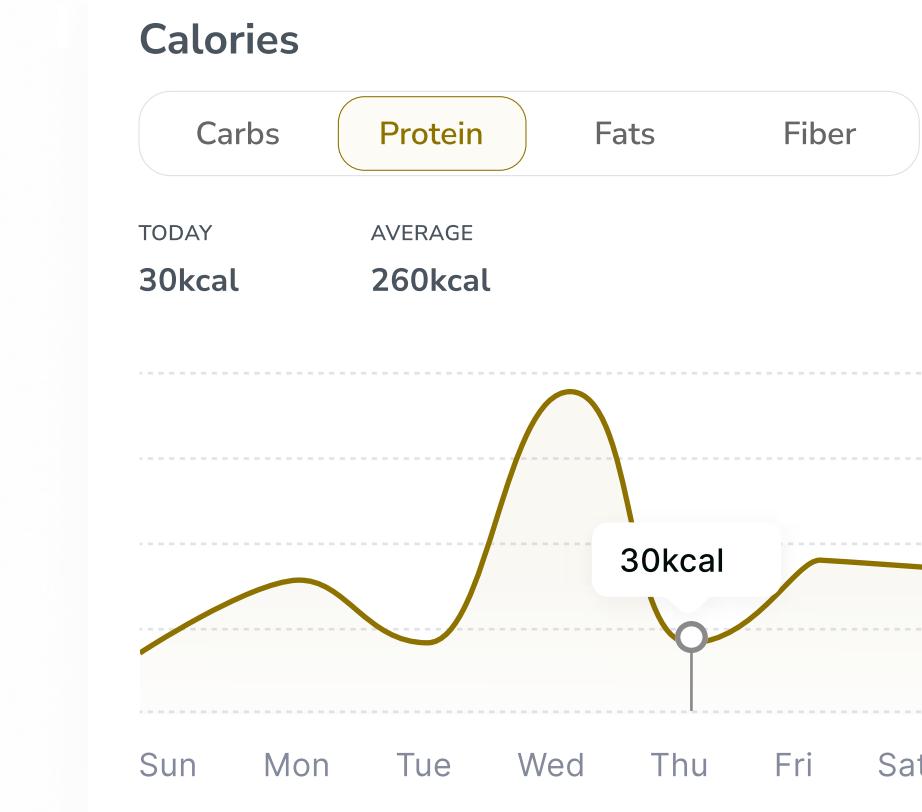
Activity Component



Component showing the present calorie and calories average

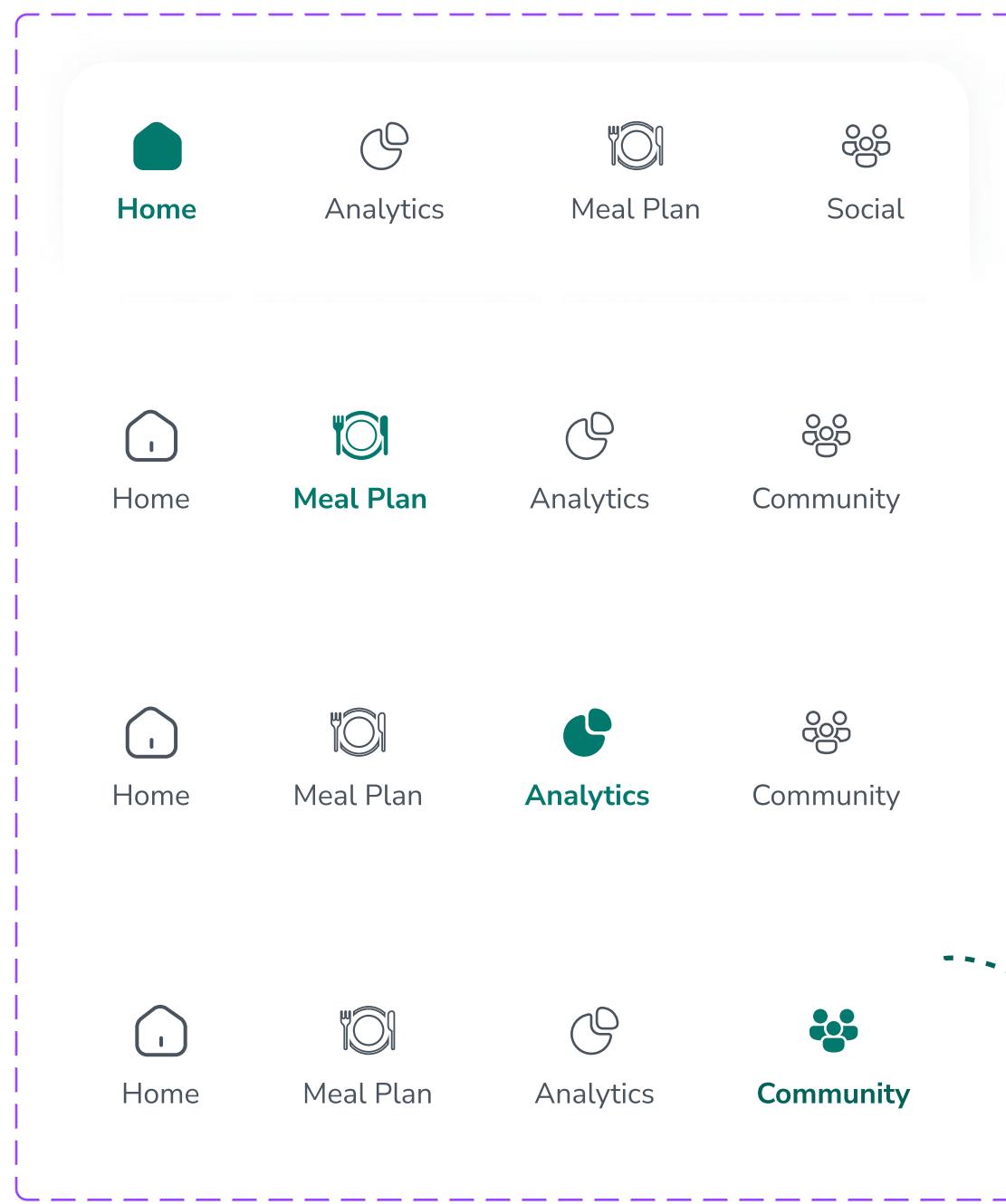


Charts showing Blood glucose level average for the last week and next week



Visual Assets

Primary Component



Buttons in different variations, outline and filled also showing disabled and active state



Navigation showing several sections such as Home, meal plan, analytics and community

Visual Assets

Primary Component

Email Address

Enter your email

Email

Password

••••••• Show

Password

Enter your password Hide

Password

***** ⓘ

Enter your email ⓘ

This input field shows the email and password in different state, empty , filled and disabled

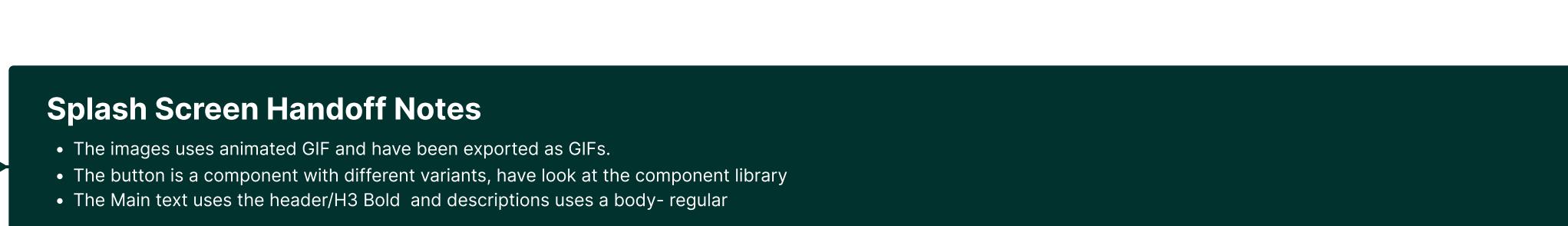
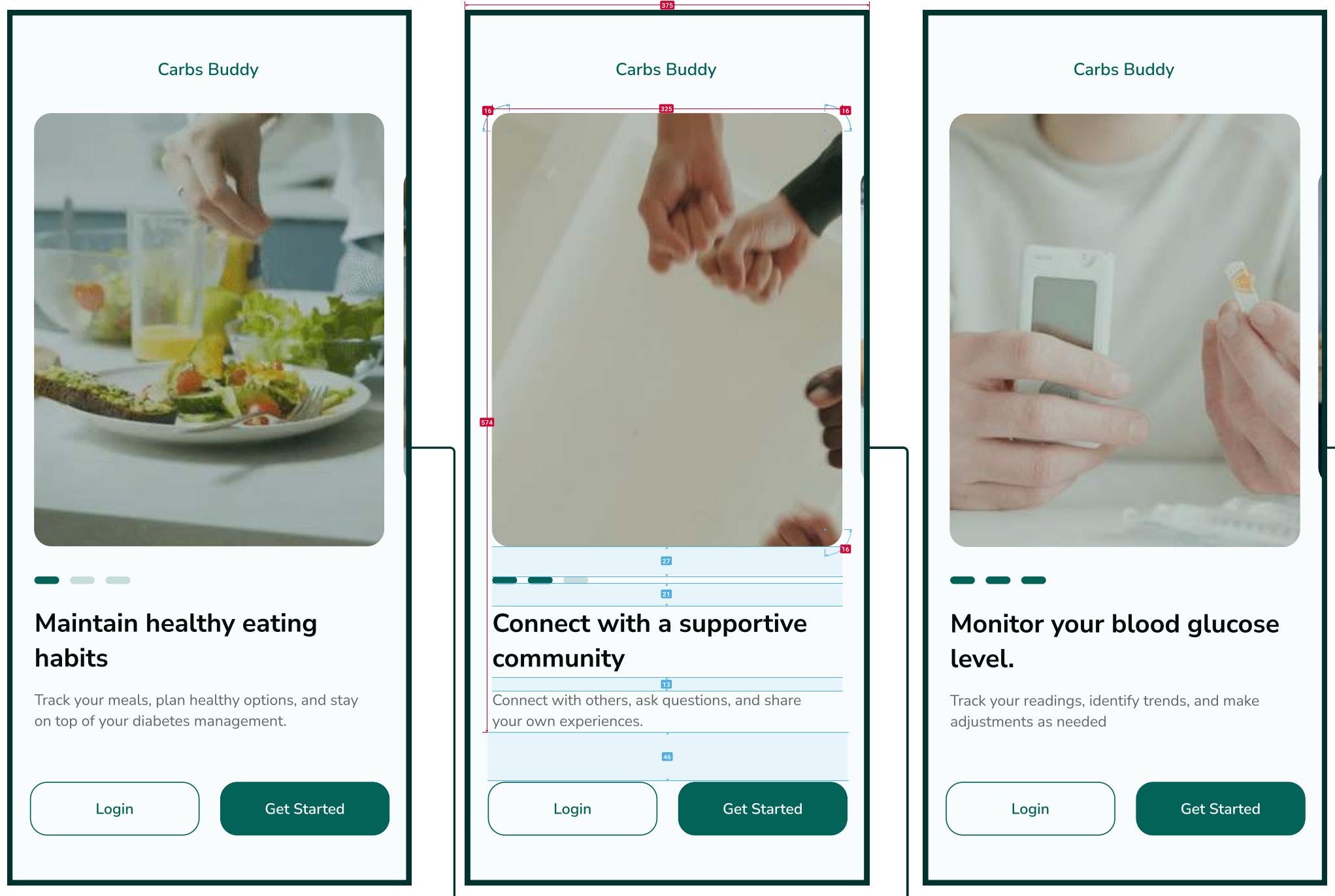
Test area for text inputs

Text area

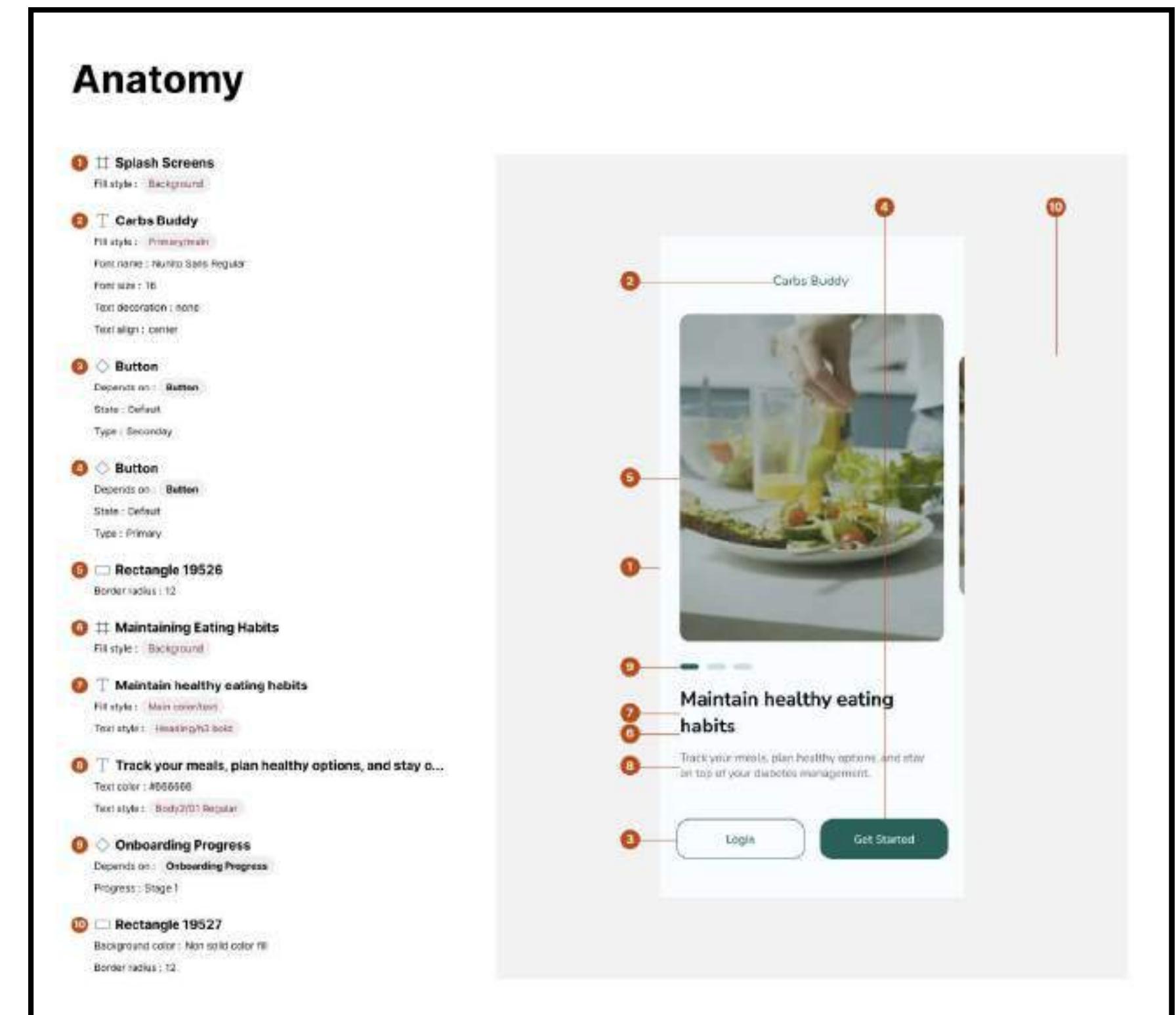
Enter your text

Handoff Documents

Onboarding Screen

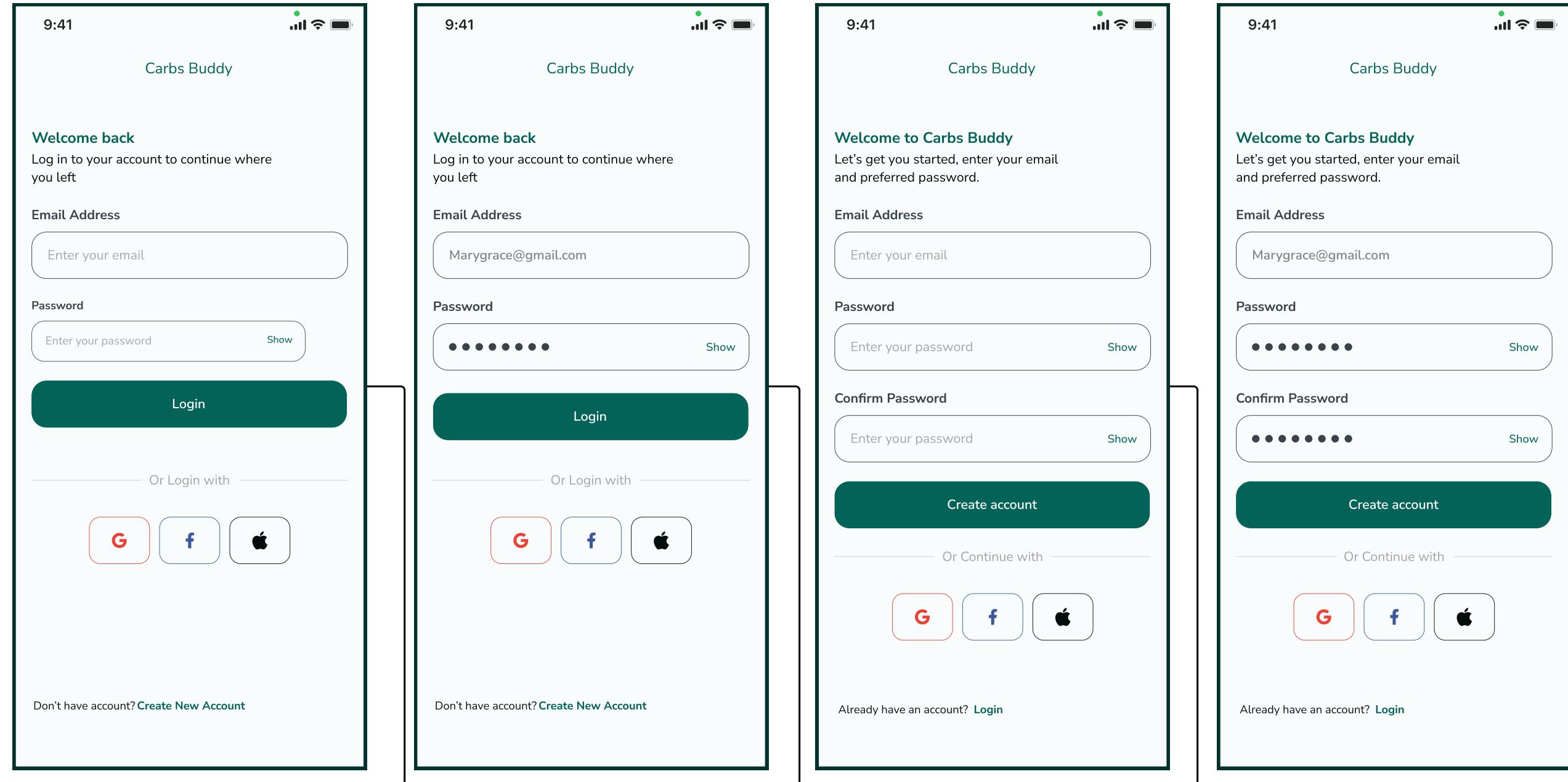


Showing screen dimensions for the splash screen, showing color, typography.



Handoff Documents

Sign up and Sign in screens



Login & Create account Screens

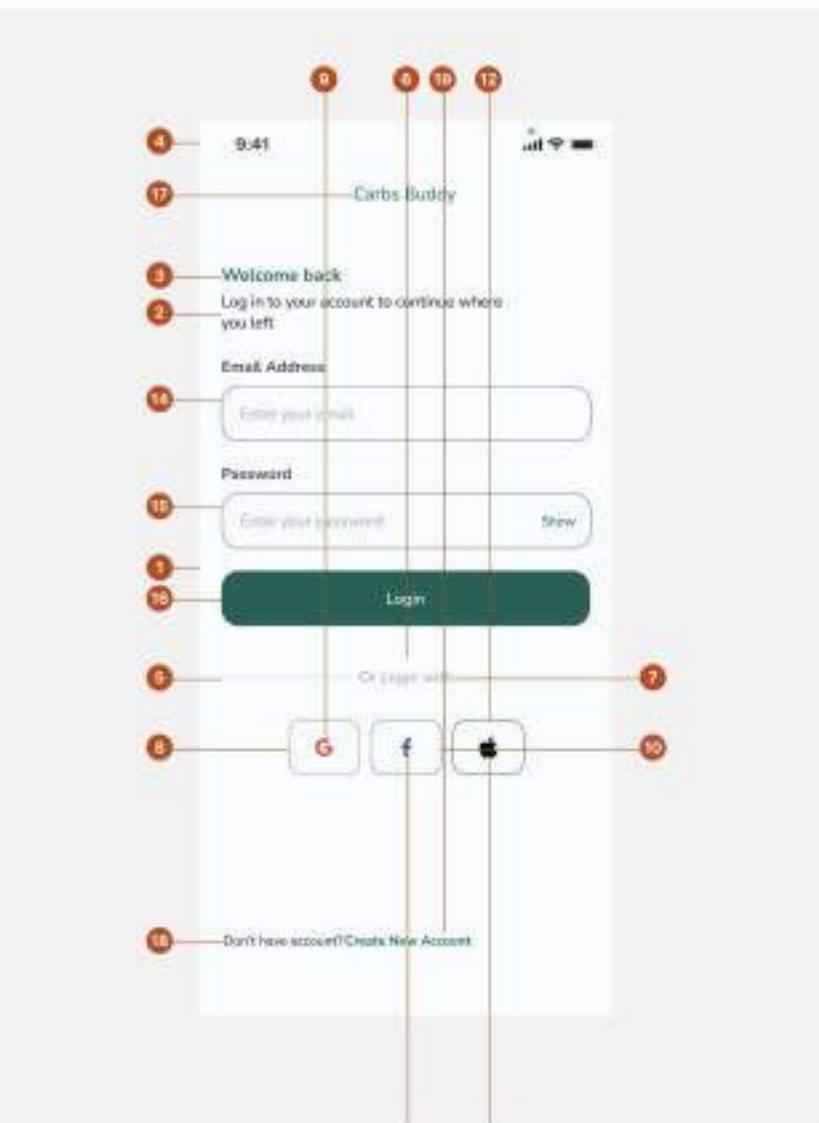
- The Login and create account screen uses the same layout with additional Input field (Confirm Password) on the create account page.
- Users can Login with social Accounts: Google, facebook, Apple
- All icons used can be found within the icon library.
- Use the HEX colours of respective brands

Create account screens showing different sign up methods, socials or email and password.

Handoff Documents

Onboarding

Anatomy

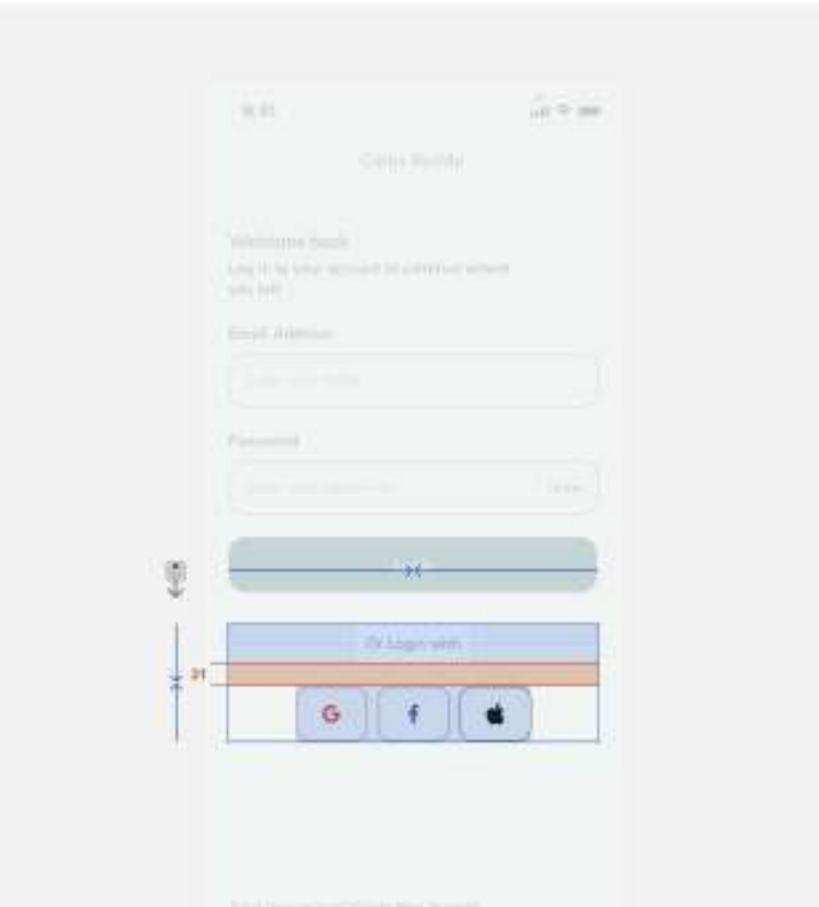


1	>Login
2	Log in to your account to continue where you left
3	Welcome back
4	iPhone X (or newer)
5	Line 72
6	Frame 758531000
7	Or Login with
8	Button
9	Vector
10	Button
11	Vector

Layout and spacing of the login screen

Layout and spacing

Spacing



Frame 1261151830	Direction: Vertical	Alignment: Top center	Vertical spacing: Hug	Horizontal spacing: Hug	Item scaling: 21
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Breakdown of the sign up pages showing several names of the sections.

Handoff Documents

Onboarding

Great, Almost done!

What is your Gender at birth?

Female

Male

Next

Now we'd like to know more about your diabetes.

What diabetes type have you been diagnosed with

Please select your diabetes type to continue

Type 1

Type 2

Gestational

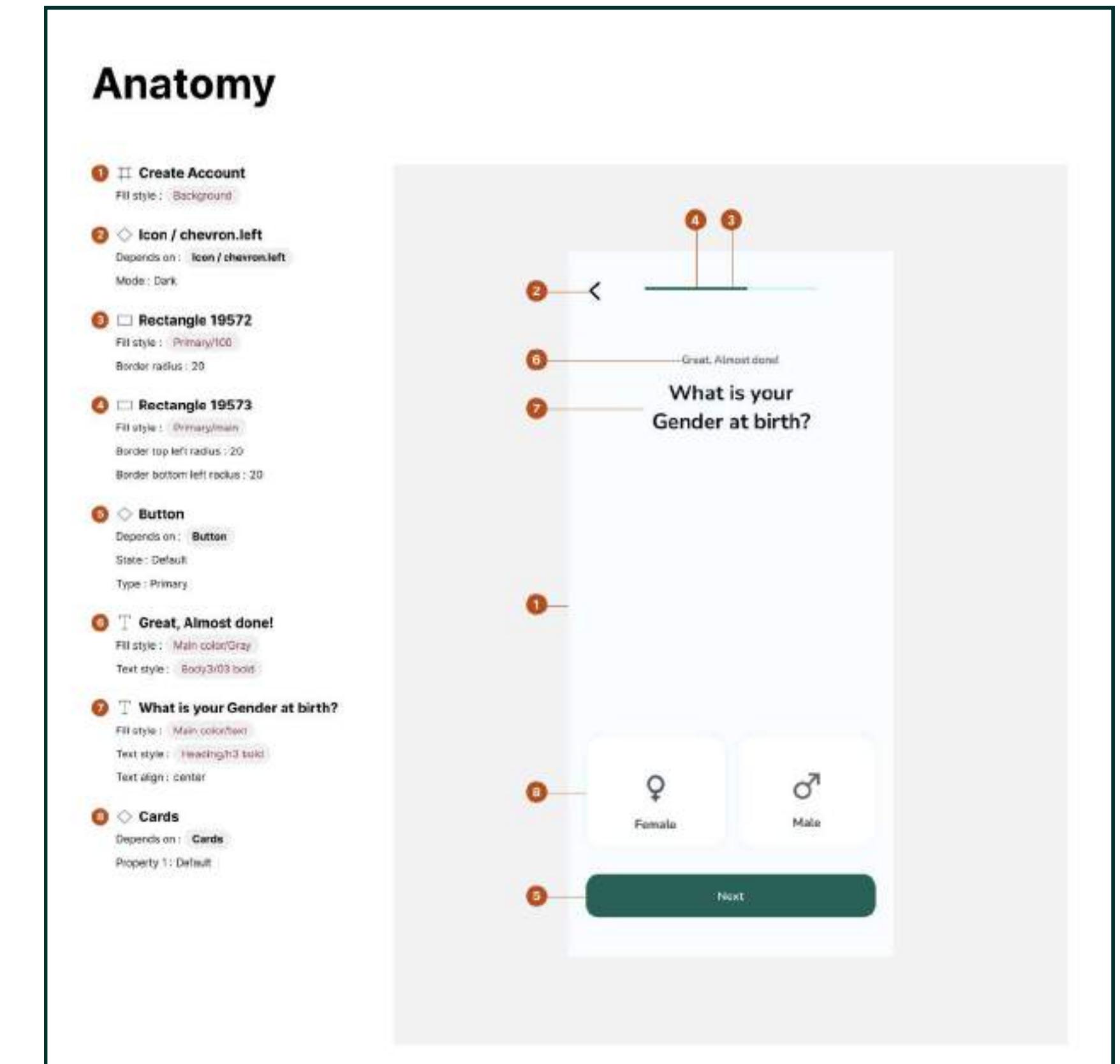
If you are not sure what type of diabetes you have, please consult with your doctor.

Next

Onboarding - Card Selection

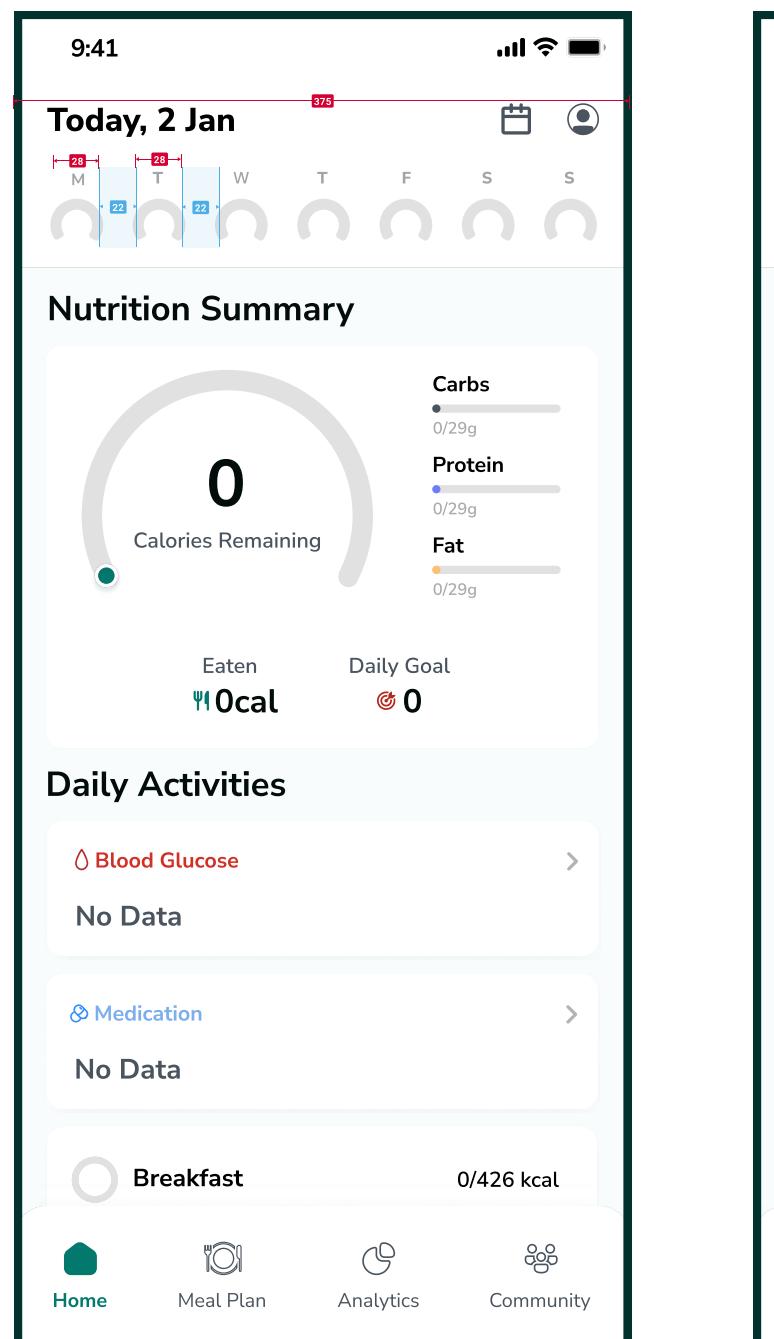
- User can only select a card at a time - radio selection logic
- User is required to select one card to move to next screen
- You also allow

Breakdown of the initial questions.(Gender)



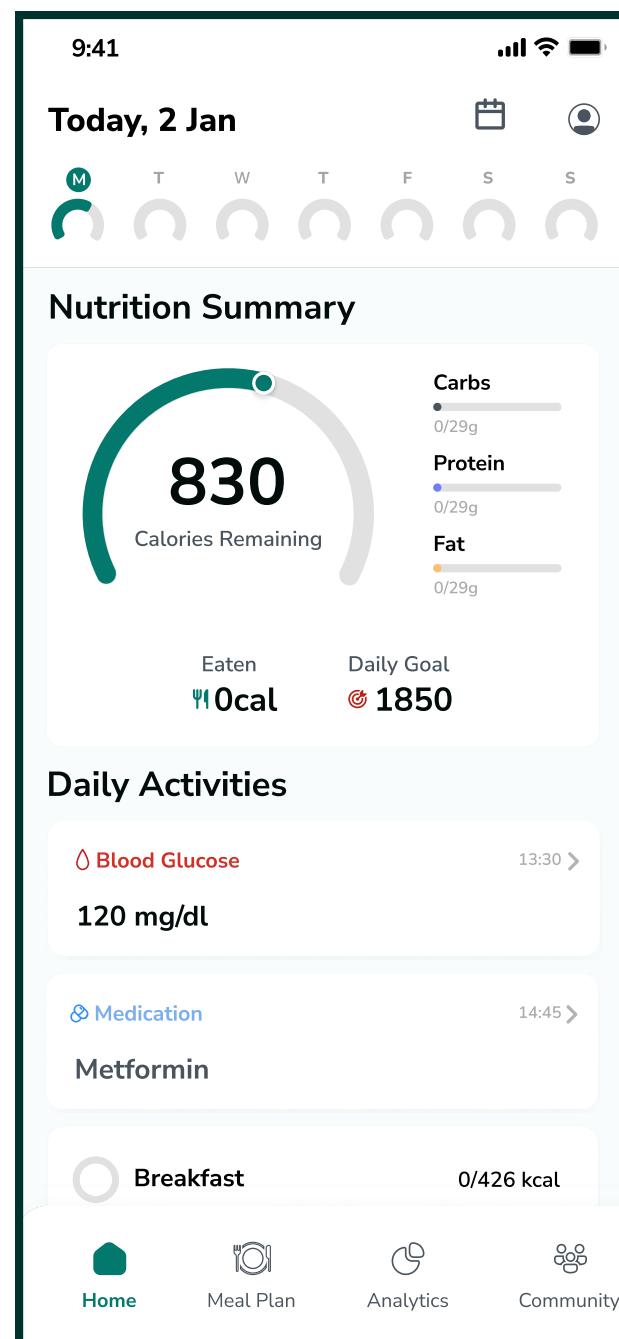
Handoff Documents

Homepage



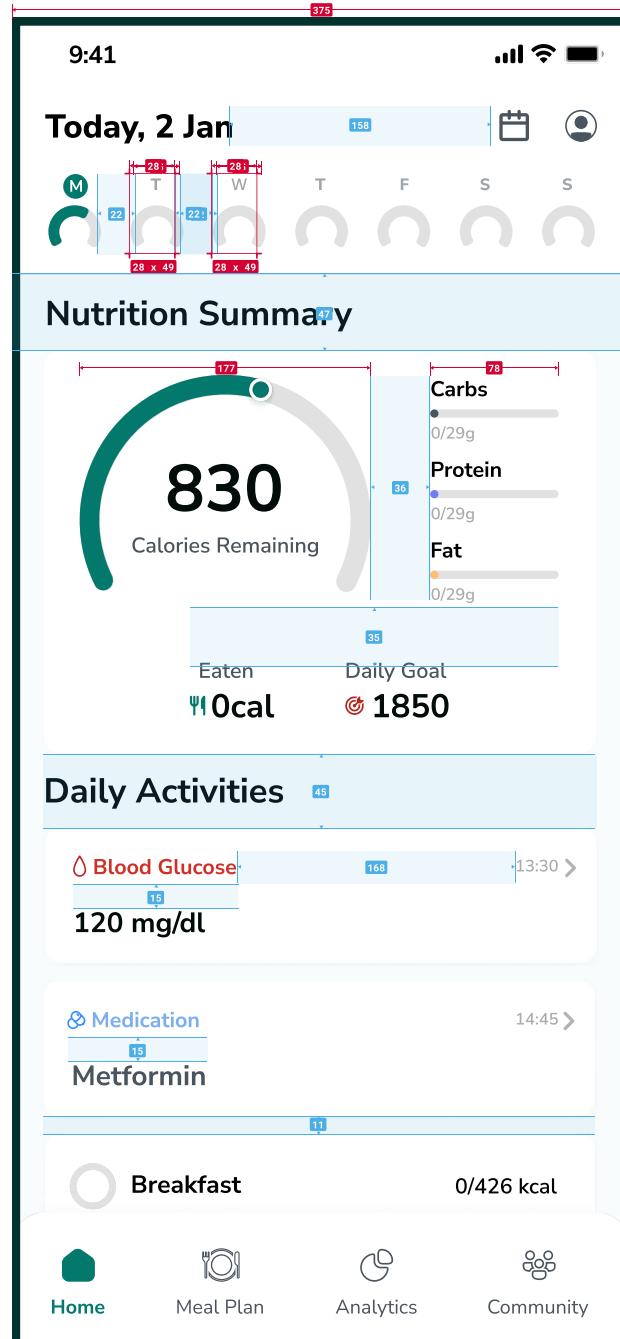
Home Screen - Empty

- This home checks when a user have not logged any data on for the day.
- There is no data available, check dimensions



Home Screen - Filled

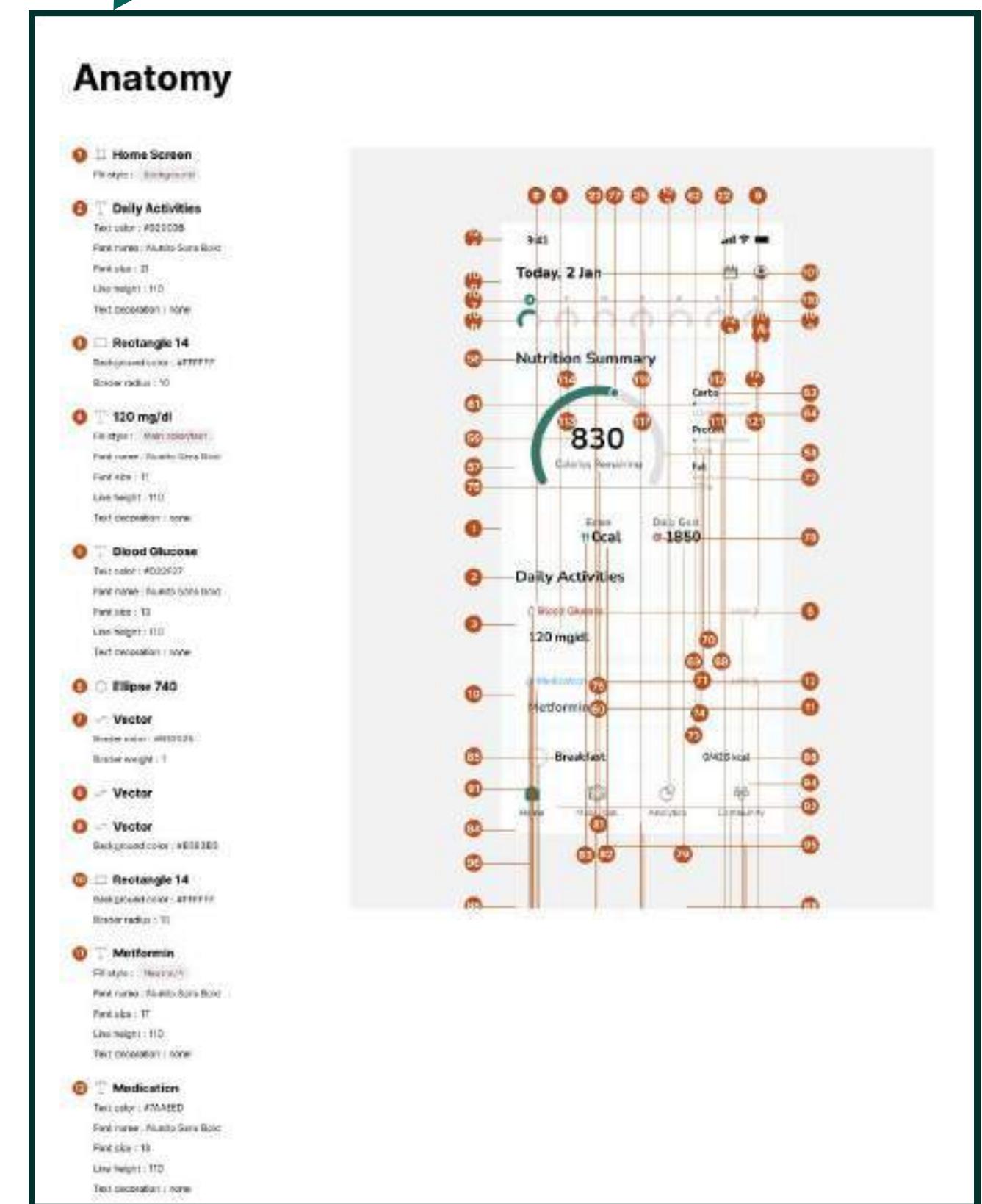
- Users can view their daily goals.
- Nutrients consumed for the day.
- They can as well log their medication and blood sugar readings



Home Screen - Dimension

- In addition to the home layout dimension, the dimension here will layout the specific space measurements for the home Screen

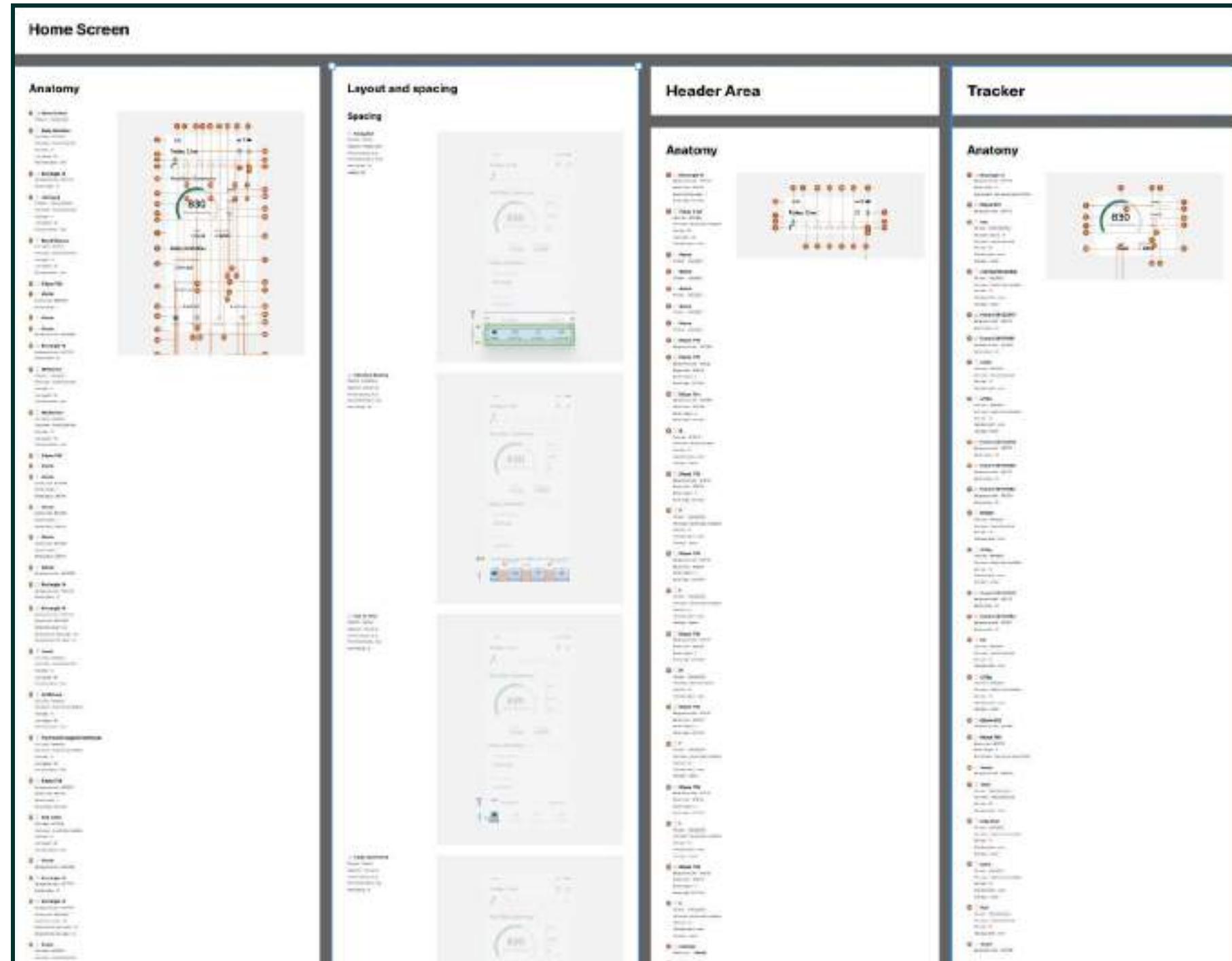
Home screen showing different aspects.



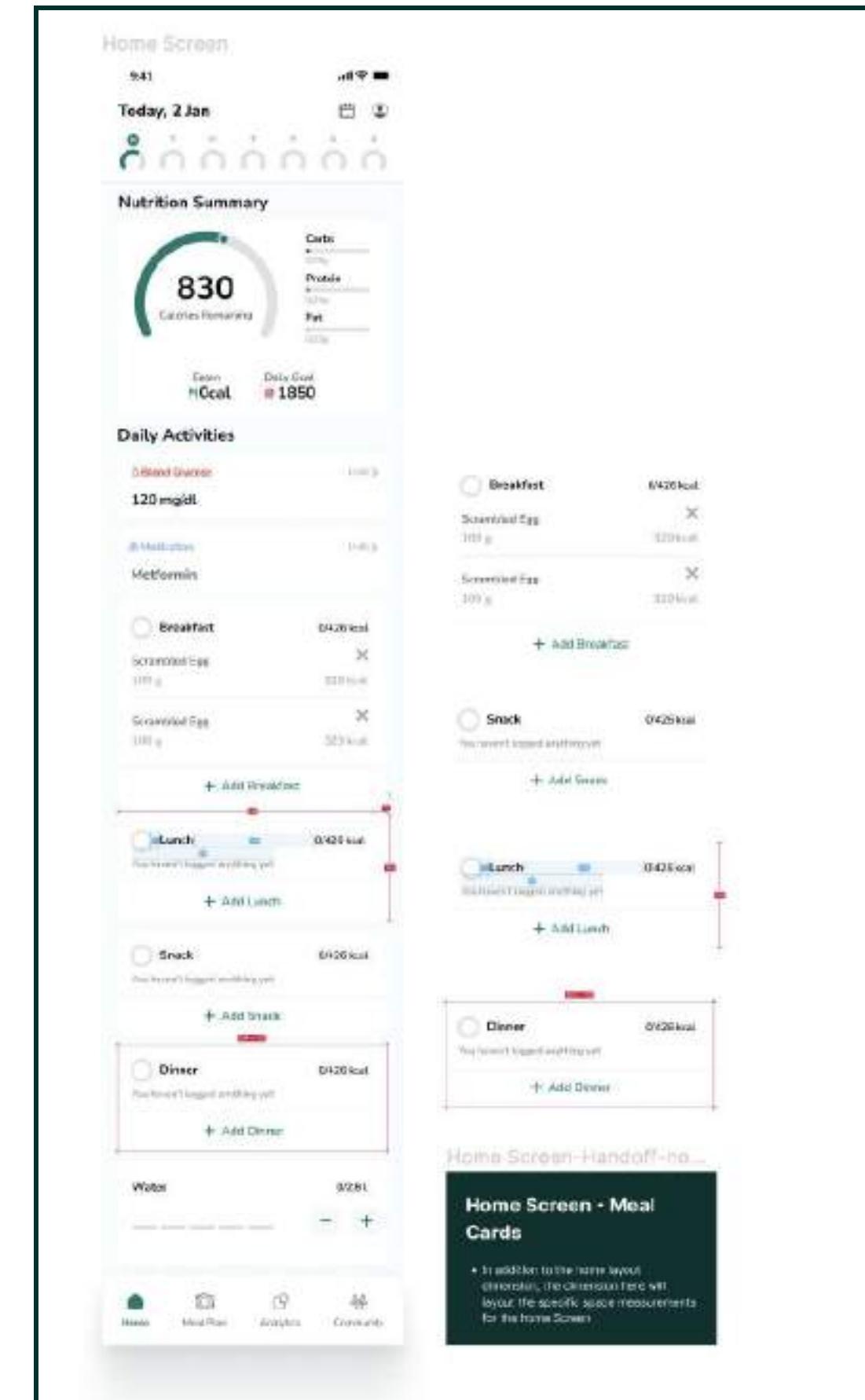
Home screen dimension showing different spacing

Handoff Documents

Homepage



Navigation showing several sections such as Home, meal plan, analytics and community.



Bookmarking a post within the community

Future Enhancements

Next Steps

- Connecting healthcare and nutritional professionals.
- Option to connect with a wireless bluetooth glucose meter for automatic readings.
- Create hangout sessions from community engagements
- Interaction with voice commands and receive hands-free assistance from Siri.



Carbs Buddy Prototype Presentation

[Prototype Link](#)

