

HUMAN - COMPUTER INTERACTION PROJECT

Guide : Dr Indrani De Parker

Duration : Jan,22 – Apr,22

App Logo



Goal

Our goal in this HCI project was to develop a prototype for an health application called "Shifa", which is the Urdu word for "health". Shifa is primarily designed to enhance people's lifestyles and provide Ayurvedic treatment options.

Problem Statement

These days, health apps are very commonly used by people. But some basic problems that the users face are:

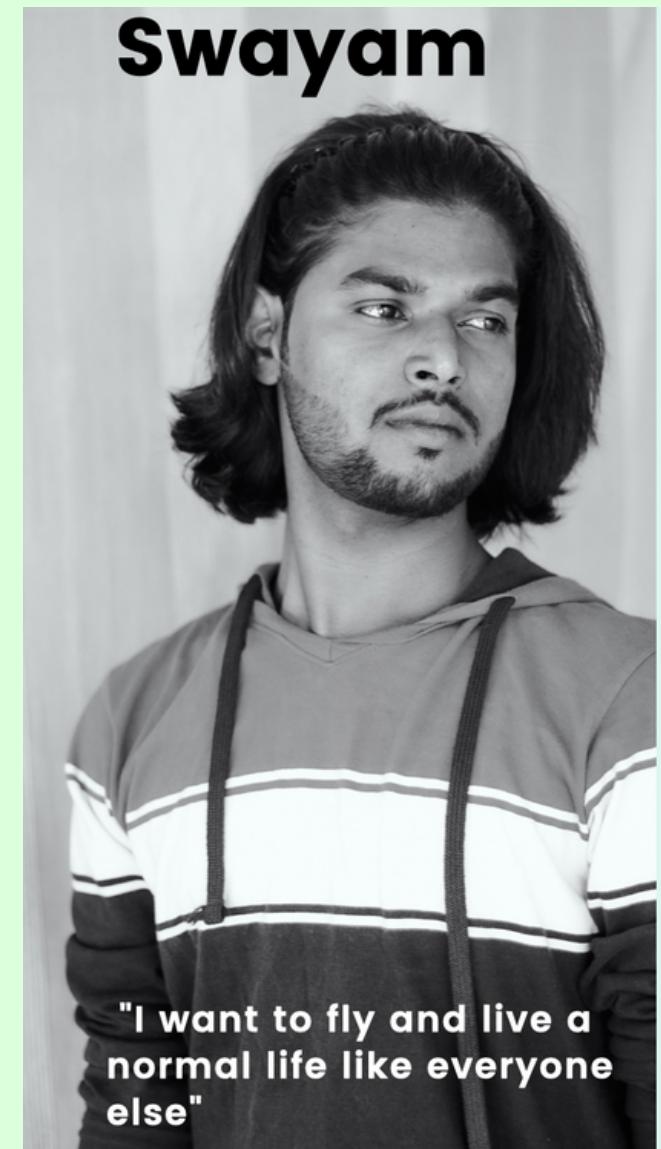
- Difficulty in finding reputed Ayurvedic doctors.
- No communities for relatable people to discuss their problems and potential solutions.
- People usually forget to take medicines on time, so they need a reminder/notification.
- People don't know much about Ayurveda and those who know do not completely trust it.
- Lack of awareness about Ayurveda, and in general about the disease from which they are suffering.
- Unavailability of Ayurvedic medicines.
- No motivation to improve lifestyle

How SHIFA solves these problems?

- **Finding Reputed Ayurvedic Doctors:** Our app includes a directory of verified and highly reputed Ayurvedic doctors. Users can easily search for doctors based on their specialization, location, and patient reviews, ensuring they find the right practitioner for their needs.
- **Community Platform for Discussions:** Our app features a vibrant community where users can connect with like-minded individuals facing similar health issues. They can discuss their problems, share experiences, and explore potential solutions, fostering a supportive environment.
- **Medication Reminders and Notifications:** Our app incorporates a user-friendly medication management system, sending timely reminders and notifications for taking medicines. This ensures users adhere to their prescribed treatment plans and never miss a dose.
- **Ayurvedic Education and Trust-building:** Shifa offers educational resources to improve users' understanding of Ayurveda. It provides detailed information about Ayurvedic principles, practices, and benefits.

How SHIFA solves these problems?

- **Disease Awareness:** Shifa provides a wealth of information about various diseases and health conditions, helping users gain awareness and knowledge. It offers insights into the causes, symptoms, and Ayurvedic approaches for managing specific ailments.
- **Access to Ayurvedic Medicines:** The app collaborates with reputable Ayurvedic pharmacies and ensures the availability of genuine Ayurvedic medicines. Users can conveniently order prescribed medications through the app and have them delivered to their doorstep.
- **Lifestyle Improvement Support:** Shifa offers personalized recommendations and guidance to motivate users to improve their lifestyle. It provides tips on diet, exercise, stress management, and overall well-being, empowering individuals to make positive changes.



AGE 20
STATUS Single
OCCUPATION Student
LOCATION New Delhi, India



MOTIVATIONS

- Fear of life
- Family

FRUSTRATIONS

- Expensive insulin shots
- Restrictions while eating
- Pain in taking insulin shots

NEEDS/EXPECTATIONS

- To keep a record of his sugar levels
- To remind him about insulin shots
- He needs positive reinforcement

PERSONALITY/BEHAVIOUR



BIO

Diagnosed with type 1 diabetes when he was in the 7th standard. Loves to dance and play Football

GOALS

- Eat healthily
- To maintain Low AIC Levels
- To manage health on his own

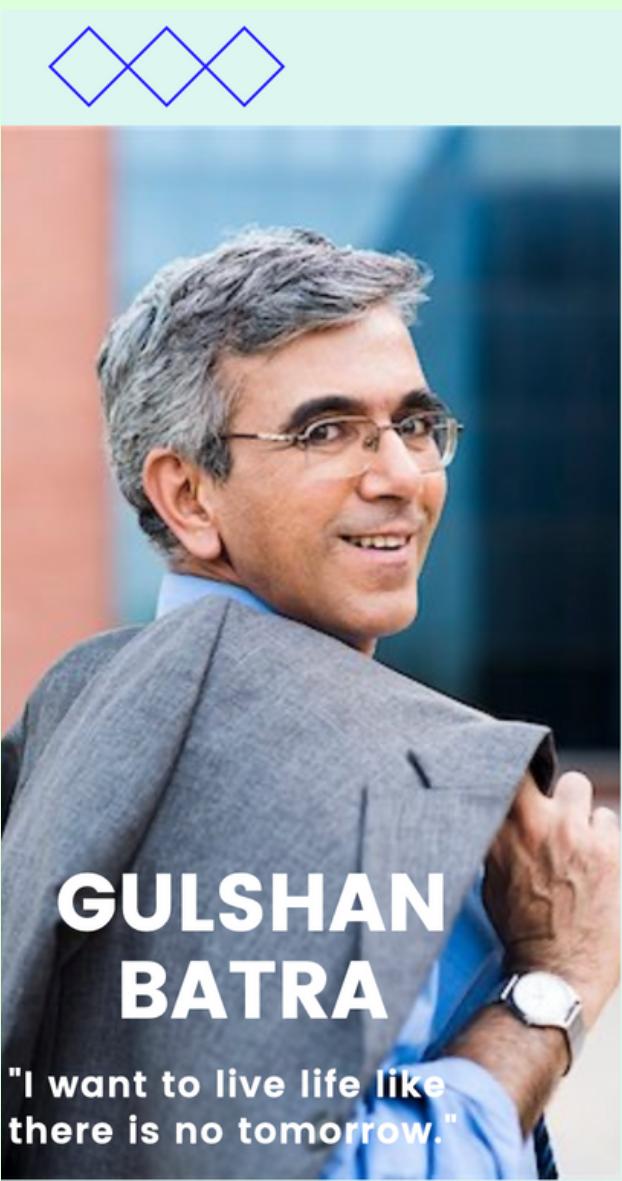
RECENTLY USED APPS/SITES



PERSONAS

The character of Swayam captures the persona of all people in their childhood or teenage who become target of dangerous ailments and have to live on their life with it, due to possible non-availability of treatment in modern science to cure it.

He suffers from diabetes since childhood, and has to suffer from the pain of pricking his fingers and dietary restrictions, with no better alternative known.



GULSHAN BATRA

"I want to live life like there is no tomorrow."

BIO

Leads a stressful life resulting in high blood pressure. Recently survived a stroke.

GOALS

- Eat healthy
- Exercise regularly
- Manage stress
- Avoid smoking and drinking
- Keep a positive attitude

AGE 46

STATUS Married

OCCUPATION IT Manager

LOCATION Bangalore, India

MOTIVATIONS

- Loved ones
- New phase of life ahead

FRUSTRATIONS

- Work pressure
- No time for family and friends
- Ignored Health problems

NEEDS/EXPECTATIONS

- Ayurvedic treatment
- Guidance to improve Lifestyle
- Community of people suffering from same health problems

PERSONALITY/BEHAVIOUR



RECENTLY USED APPS/SITES



PERSONAS

Gulshan is an adequate character for persona which captures the lifestyle of all people busy in their profession, stressed out with work and following a unhealthy lifestyle.

He suffers from disease, but neither has the time nor the information to find solution to his problems and has to rely on Allopathy

SCENARIO

Gulshan is a Software Developer at IBM. He lives with his wife and kids in Bangalore. He has been working in the corporate sector for the last 20 years. Gulshan has a monotonous life with high levels of stress. He not only works as a software engineer but also invests in the stock market actively. Recently, he took a considerable risk in the stock market and incurred heavy losses. His busy schedule and loss in the market have taken a toll on his mental health. He cannot spend time with his friends and family, and it is difficult for him to maintain a work-life balance. To relieve **stress**, he eats a lot of junk food and drinks alcohol. Due to such an unhealthy lifestyle, he has **high blood pressure**. But he ignored this issue, due to which he **suffered from a stroke** recently. He was fortunate enough to survive. After this incident, he realised that he was not living a good life, and he needed to start his life in a new phase.

While he was still recovering from a stroke, his wife searched the web for solutions to his problems, and she came across an app named SHIFA. After Gulshan got discharged from the hospital, he had to take care of his health to prevent a stroke. So his wife suggested he uses SHIFA.

Gulshan opened the app and entered some personal details to create an account. Then he was asked about his underlying problem. As he was not interested in taking Allopathic medicines, he looked up Ayurvedic doctors and medication in the app.

Gulshan had the motivation to change his life, but he needed some guidance on proceeding. He was introduced to a community of people suffering from the same problem, who can relate to him, understand him and guide him to live a peaceful life. He looked at various articles in our app about living a healthy life. Gulshan will hopefully recover from his disease and live a healthy life with regular guidance from the doctor and a supportive community online.

USER FLOW

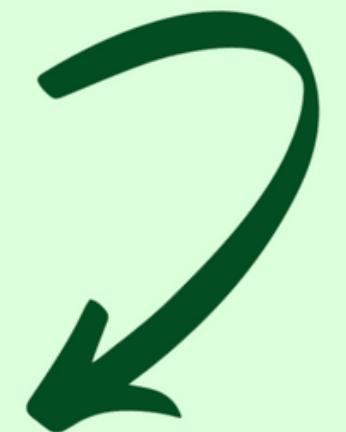
Gulshan's wife suggested that he use Shifa app and feels that it might help him change his habits.



He creates an account on the app and enters his health problems. Then the app helps him contact doctors from different fields across India.



He can book online appointments with doctors and also book appointment for hospital.



He is finally improving his lifestyle with the help of this app; he eats healthy, spends time with family, and left his stressful job.



After using the app for some time and interacting with people online, Gulshan develops a positive attitude towards life.



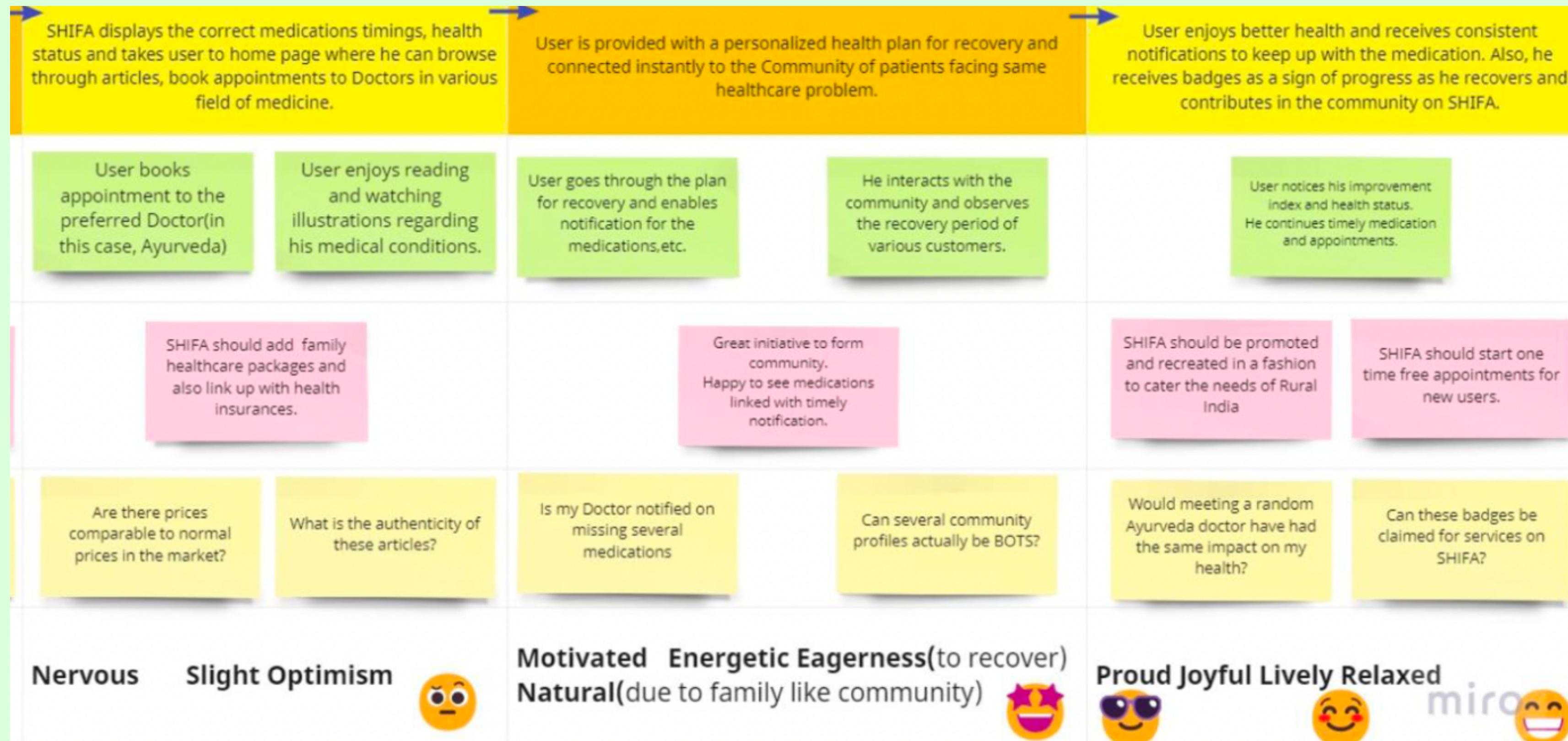
He gets connected to a community of like-minded people who motivate him to lead a healthy life. The app provides informative articles and motivational stories related to his problem.

SCENARIO MAPPING

Steps	User discovers SHIFA via a friend after struggling with allopathy and not receiving much relief.	User decides to sign up on SHIFA app	User enters his current medical details and problems he is facing.	SHIFA displays the correct medications timings, health status and takes user to home page where he can browse through articles, book appointments to Doctors in various field of medicine.	
ACTIONS What actions is the user taking?		Logs into SHIFA using Google/Facebook/Phone no.	Enters his medical condition, past medications, diet and physical routine.	User books appointment to the preferred Doctor(in this case, Ayurveda)	User enjoys reading and watching illustrations regarding his medical conditions.
Comments What's going on in the mind of the user?	I like the simplistic yet efficient and neat interface. Well thought-of name, it means health in Urdu	Very insightful of SHIFA to note down even the diet and physical routine.	Nice option to update medical profile in case of any changes.	SHIFA should add family healthcare packages and also link up with health insurances.	
QUESTIONS What questions are arising for the user while doing the process?	Will I get better using SHIFA? How long would it take for my recovery?	Are they going to give orthodox medicines according to medical protocol?	Will I be referred to random doctors or will I have a choice in appointing them?	Are there prices comparable to normal prices in the market?	What is the authenticity of these articles?
Customer Feeling What is the customer feeling?	Hopeful	Excited 	Curious Anxious 	Nervous	Slight Optimism 

The mapping describes the cocktail of emotions, thoughts, questions that a novel user goes through while performing a sequence of tasks.

SCENARIO MAPPING



The map provides insights into users interact with technology and how can this interaction be improved

AFFINITY DIAGRAMS

Clustering data into appropriate groups based upon themes-our app, interview data and user insights, and further grouping gave rise to sub-themes

This helped identify patterns and similarities in data and devise appropriate action towards each pattern set.

AFFINITY DIAGRAMS

SHIFA APP

Features provided by our app

Customized healthy diet charts and recommended exercises

24/7 Customer service using Chatbot/call

Professional Yoga instructors

Guide to set-up the app so that it can cater to a larger audience

Insights from people suffering from the same problem

App provides legitimate information regarding the disease

App reviewed by contacts - develops trust with app as reviews are likely honest

Calorie and meal tracker

What exactly does the app do?

This app promotes Indian medicinal art

Meditation as a mode of healing the mind and soul.

Shifa focuses on improving user health

Active user participation in updates

Common disease solutions according to user details

Personalised solutions to user's health problems

Mode of appointment with the doctor depends on illness

No paid partnerships with Doctors

Direct Insights given by our potential users

"I like its personalised experience"

Organize my medicine reminders with app

Online consultation with doctors is difficult

"My goal is to remember insulin and medicines"

"I prefer to receive cheer ups, notifications & reminders"

People prefer to interact with relatable group of people

Users think that communities are not able to find proper solutions

Allopathic medicines seldom provide easy solutions to problems.

INTERVIEWS

What the user actually wants

Users want to remain anonymous in the community

Track my progress with Shifa app

People having visible side effects due to Allopathy prefer Ayurveda

User wants affordable services and cheap medicines

Friends and family can monitor my progress

App provides honest feedback and insights

Usually long term chronic illness require Ayurveda

Authentic Ayurvedic medicines free from adulteration

USERS

Problems faced by the users

Lack of Ayurvedic facilities

Difficulty in aligning diet schedule with Ayurveda

Searching health symptoms on Google is misleading

Users leave out on yoga/exercise sessions after few weeks

Non availability of Ayurvedic medicines

Lack of awareness about reputed Ayurvedic doctors

Allopathic medicines seldom provide easy solutions to problems.

User Interface/ User Experience

Reminders, notifications or alerts for medicines

Multi-lingual interface

Showing nearby ayurvedic pharmacy

Self Explanatory search filters

Engaging interface

Rewards keep the user motivated

Minimilistic UI Easy to use app

Reliable, user friendly interface boosts confidence

STORYBOARD

Storyboarding helped us visualize why, when and how technology comes into action, for a user, allowing us to understand their problems, their motivations and expectations with respect to the app and most importantly realize their journey from problem to solution, *empathizing with the user in real sense.*

STORYBOARD



Swayam, a high school football player, misses a penalty during a football match and gets disheartened. He had been feeling tired all day and wonders why this has happened

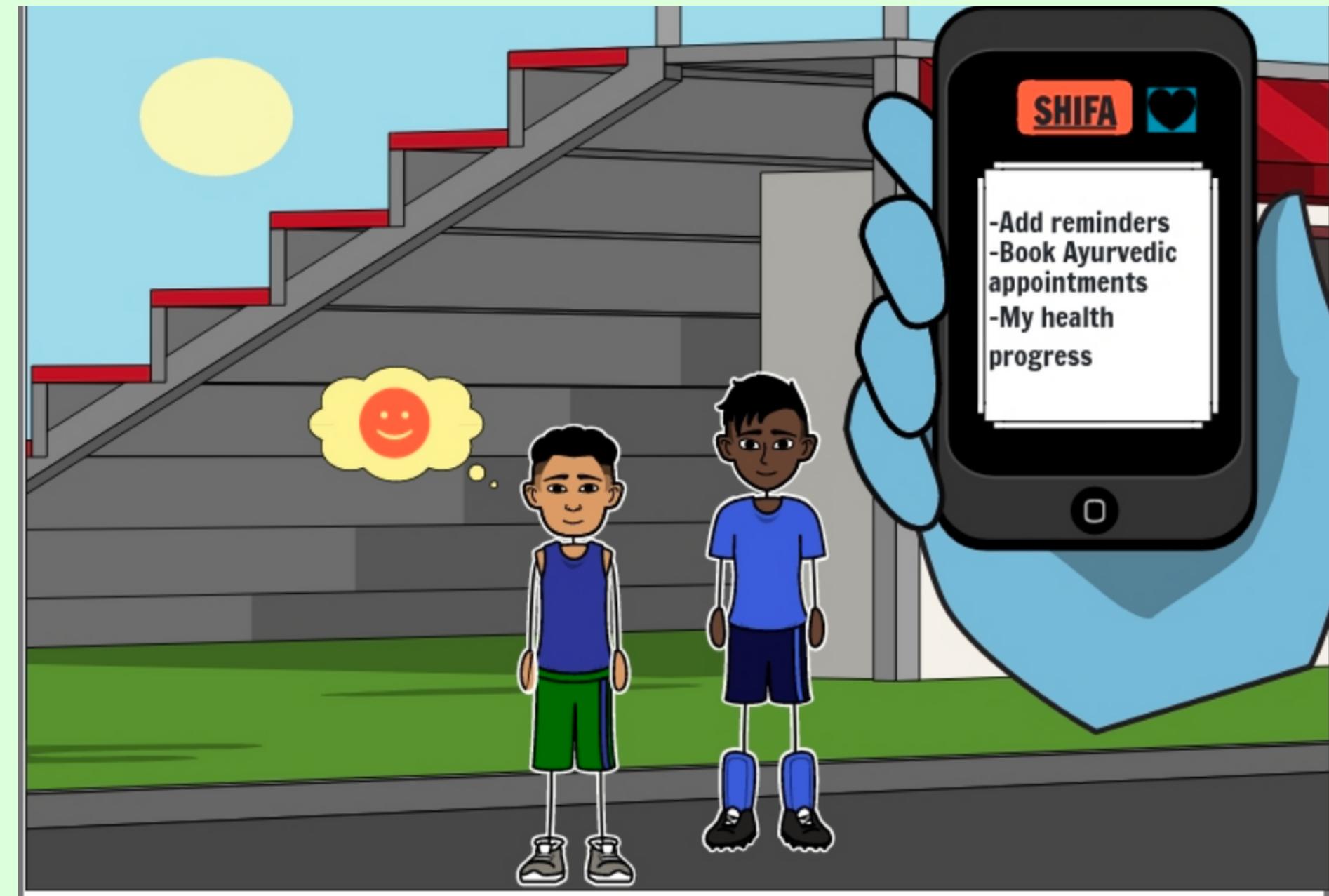


Knowing how good a player Swayam is, Kireet, one of the members of the rival team wonders why Swayam missed the shot. He walks up to Swayam and asks him if he's been keeping well lately. Swayam presents his concern accordingly

STORYBOARD



Kireet asks whether Swayam knows about the SHIFA app. Swayam wonders how is it any different and better than other health apps.



Kireet explains how he came across SHIFA. His dad, a 50yr old corporate employee used to lead a sedentary lifestyle, forgot taking medicines, and once suffered a stroke. After which he searched and found his cure in the SHIFA app which helped him organise his medicines and find ayurvedic treatment. Kireet then introduces Swayam to the basics of SHIFA.

STORYBOARD



Swayam enters his health problems in the app. Then Shifa app helps him book appointments with doctors. The app gives points to Swayam for actively improving his health through Shifa. He feels optimistic about his recovery.

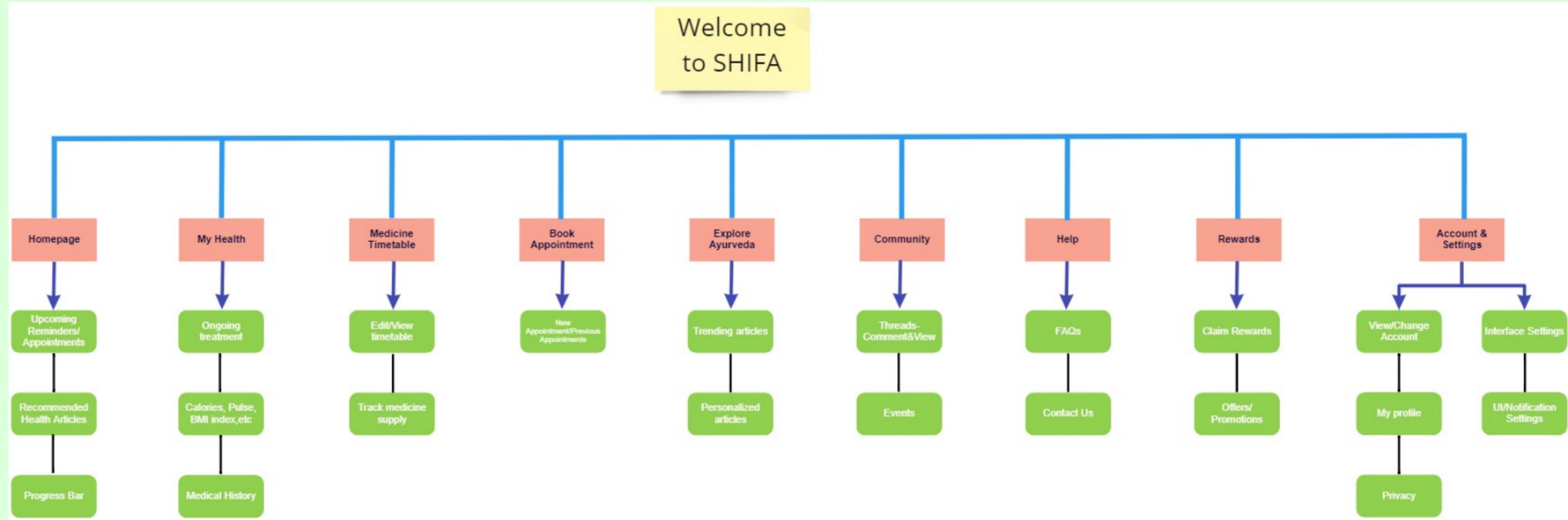


Swayam has now started using the SHIFA app and aligned his reminders for medicines with his timetable. He was about to miss one of his medicines but thanks to SHIFA, he didn't.

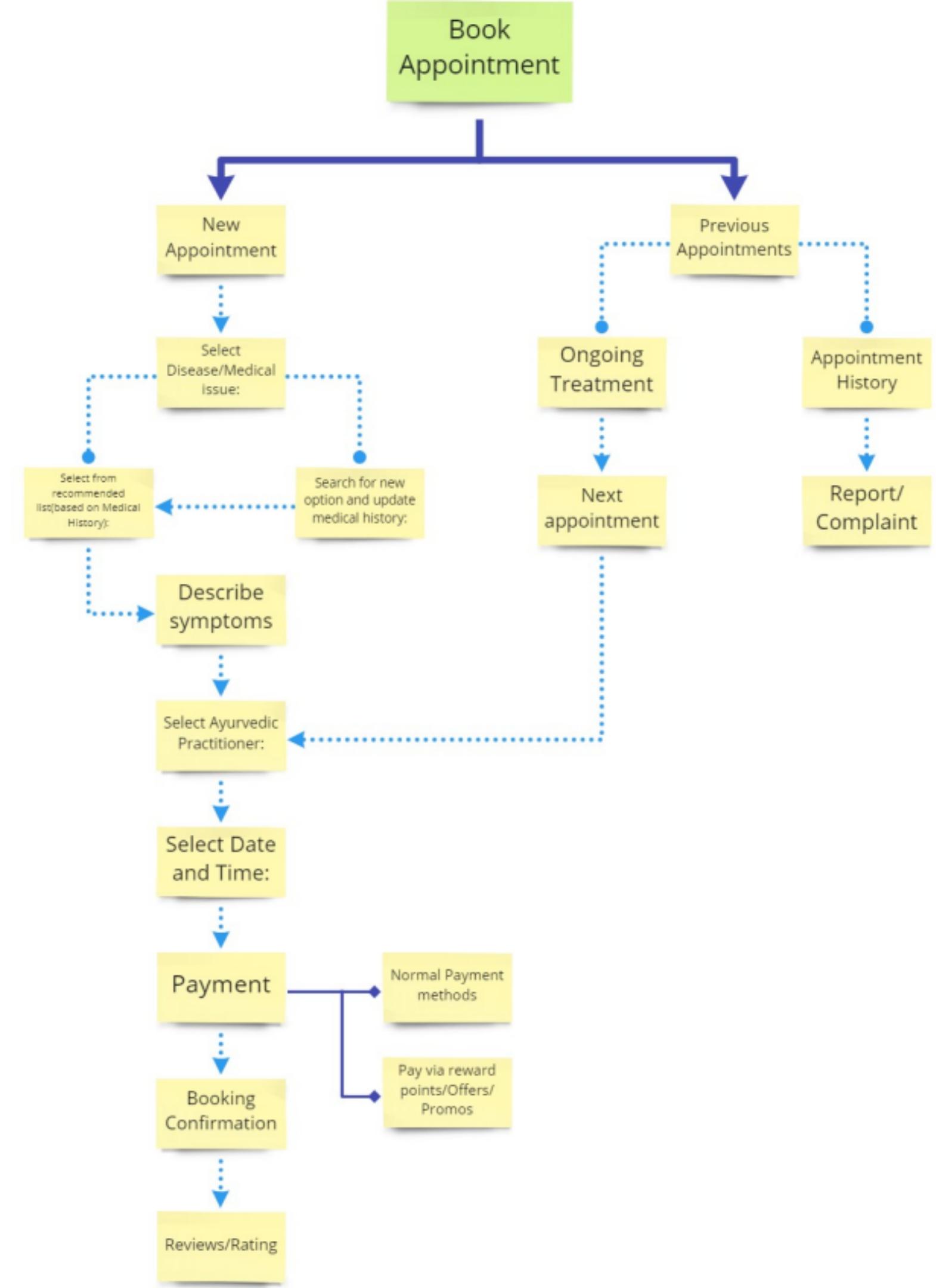
STORYBOARD



INFORMATION ARCHITECTURE



Broad and shallow workflow describing what functions the app will support



Narrow and deep workflow,
displaying how user accomplishes
the basic task of booking an
appointment

The journey from Low-Fi Prototype to High-Fi Prototype was a rollercoaster journey , from paper prototypes to clickable wireframe model with interactivity.

But the approach was always directed towards the goal of making human-computer interaction better and better....

LOW FIDELITY PROTOTYPE

<p>SHIFA</p> <p>Sign in with Email</p> <p>Log In</p>	<p>Enter your name:</p> <p>Enter your age:</p> <p>Enter your Gender:</p> <p>Enter your address:</p> <p>Enter your Health Prob:</p>
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Hi Sanmay! =

What would you like
to do?

Search Here

Health Status

Nutrition

- Meal tracker
- Drink water

Workout

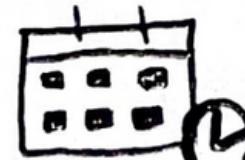
Burn 353 cal

Reminders

- Take pills
before lunch

→ Yoga

- Meditation
- Sleep tracker



Book Appointments

Health

Notifications

EXPLORE

Search Articles



Trending Articles



Bookmarks



Ayurvedic Medicines

Medicines to be taken

Time of Medicines.

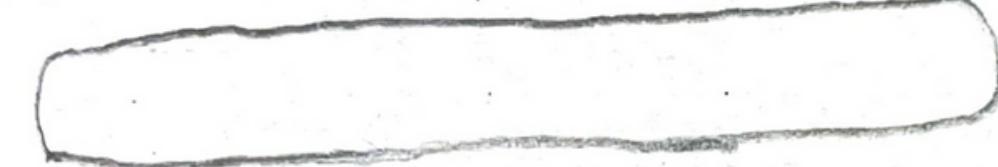
• _____ 22:30

• _____ 20:00

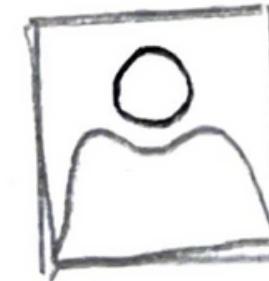
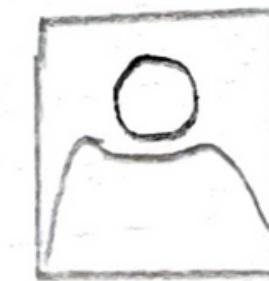
• _____ 15:30

COMMUNITY

Your Health Problem



Meet People with
same age.



PAYMENTS

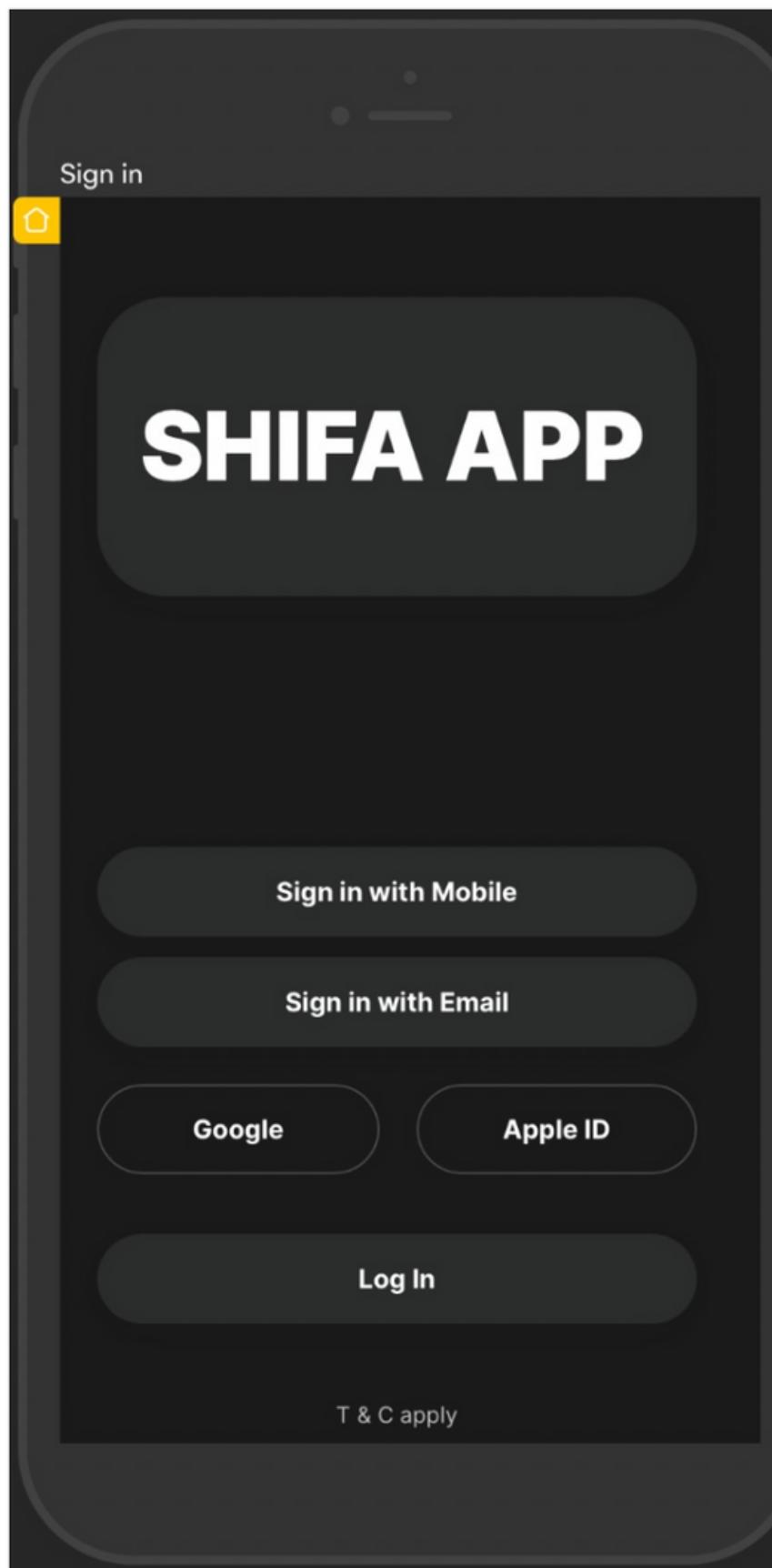
Mode of Payment:

- Net Banking
- Demand draft
- Debit card.

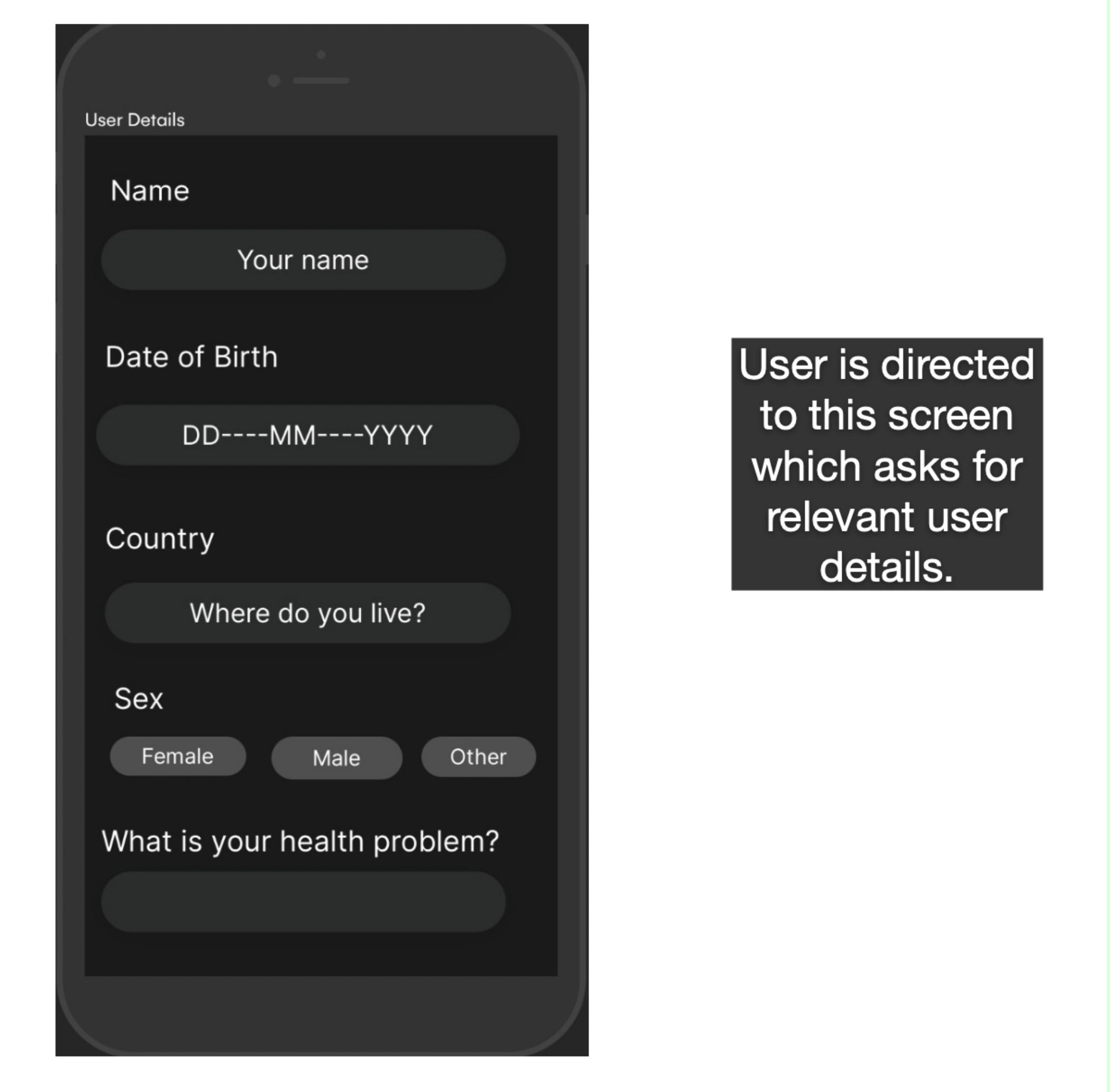
Rewards & Cashback

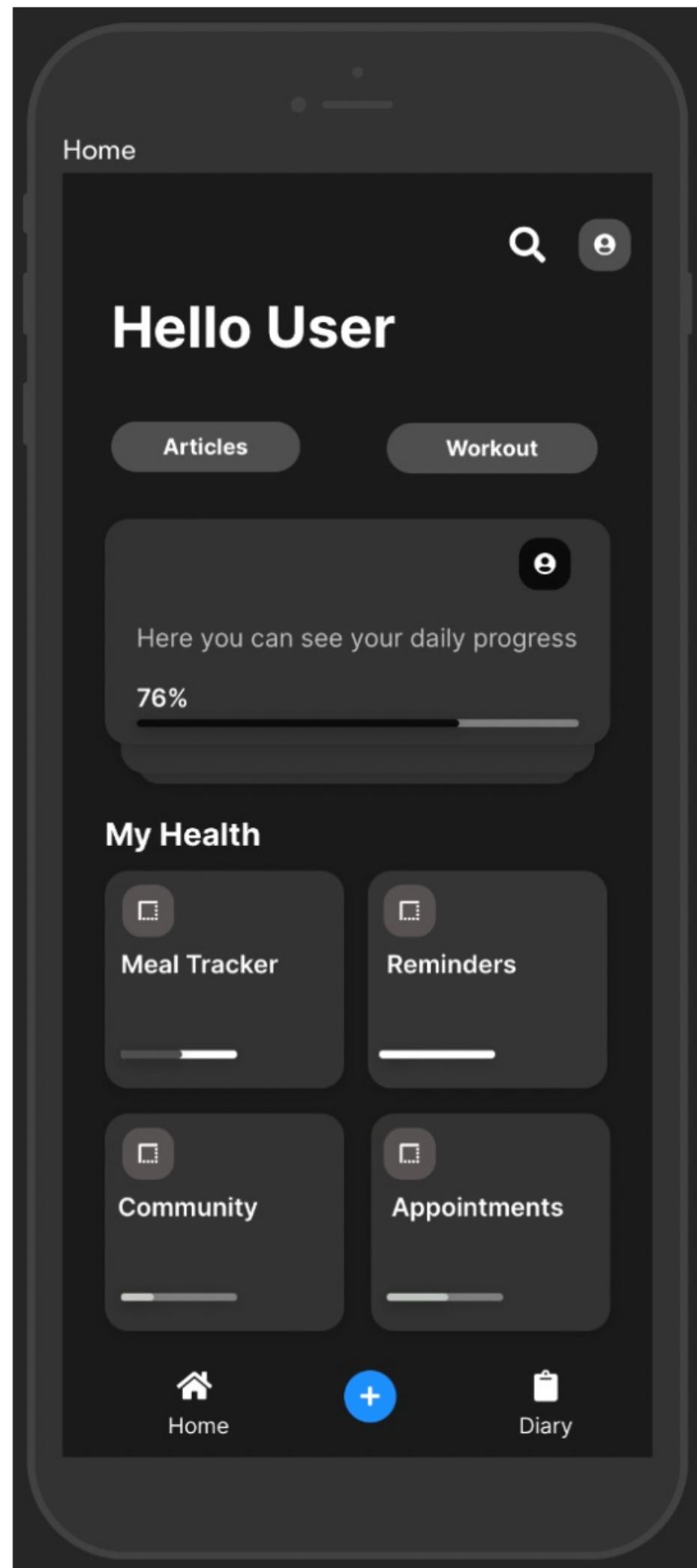
- _____
- _____
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MEDIUM FIDELITY PROTOTYPE



This is the initial setup screen which appears when the user opens the app for the first time.



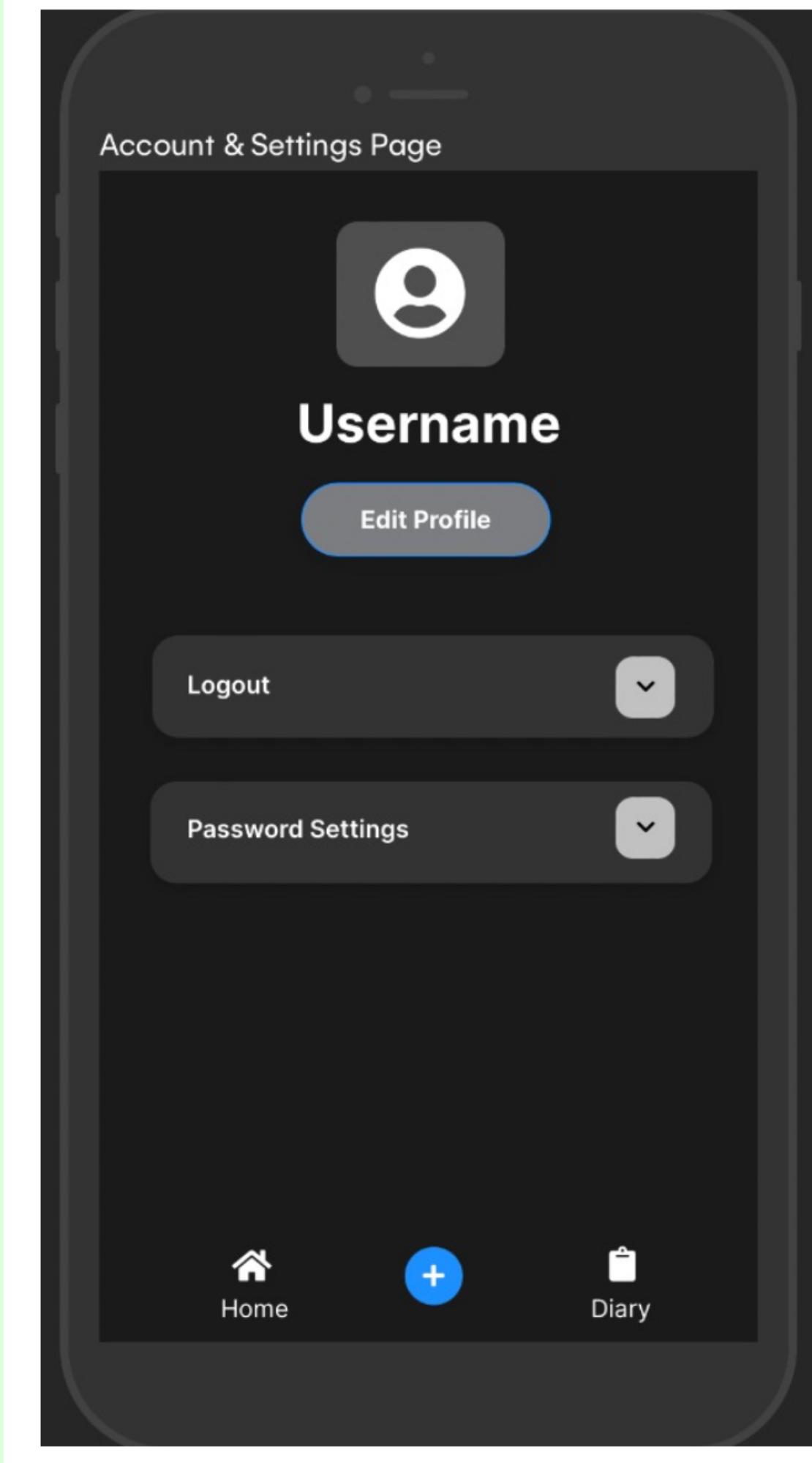


This is the Home Screen

Search option and user Profile can be directly accessed from here.

This is the progress bar which represents overall health of the user and his/her daily progress.

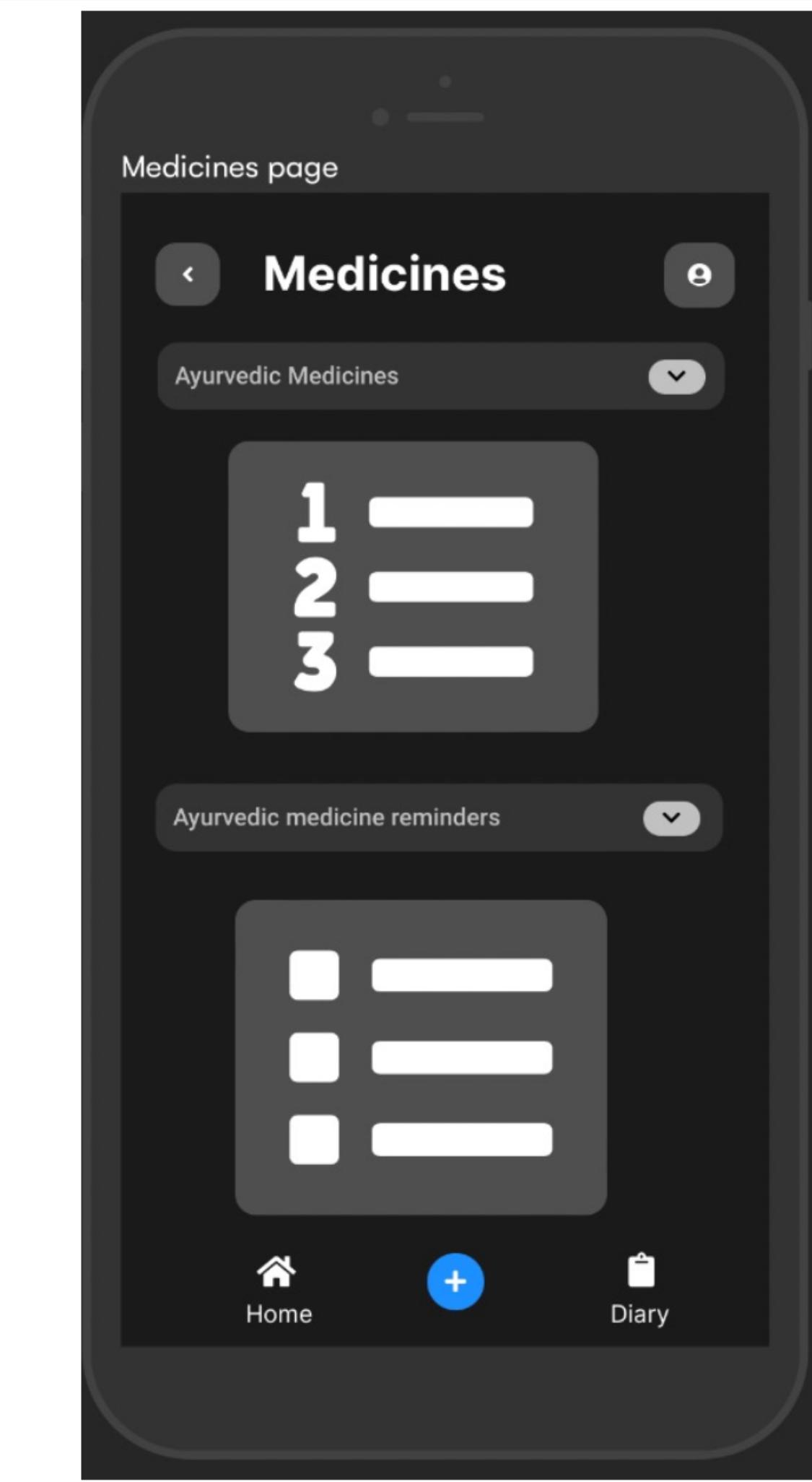
This section can be customised by the user and it covers frequently used features.



This is the Settings and Account page.

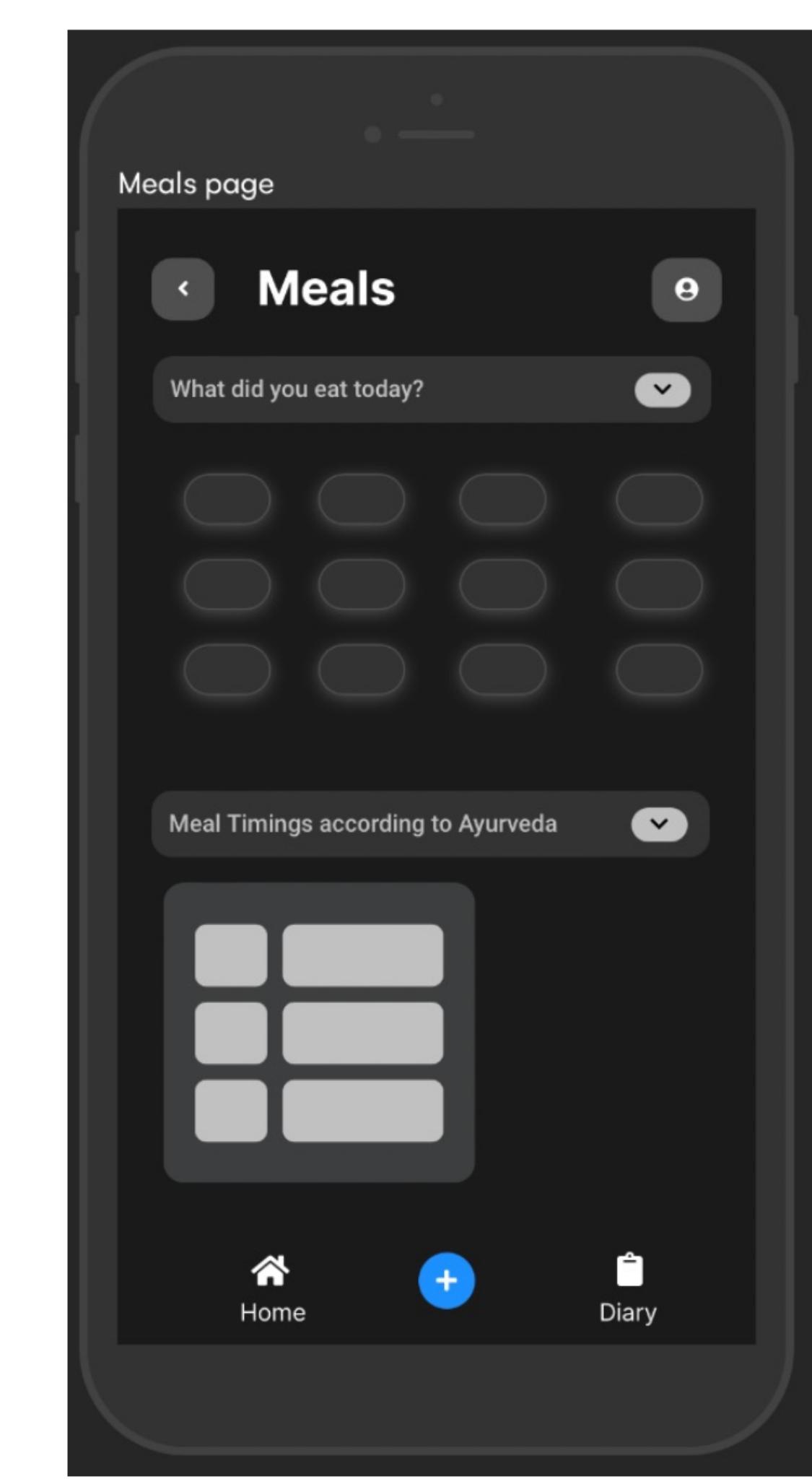
User can manage account details here and also can change the app related settings like password, notifications, etc.

By clicking on Plus (+) icon, user can select book appointment, add meal or reminder, or can also surf health articles.



This screen provides details related to the medicines of the user.

Also medicine reminders can be managed from here.



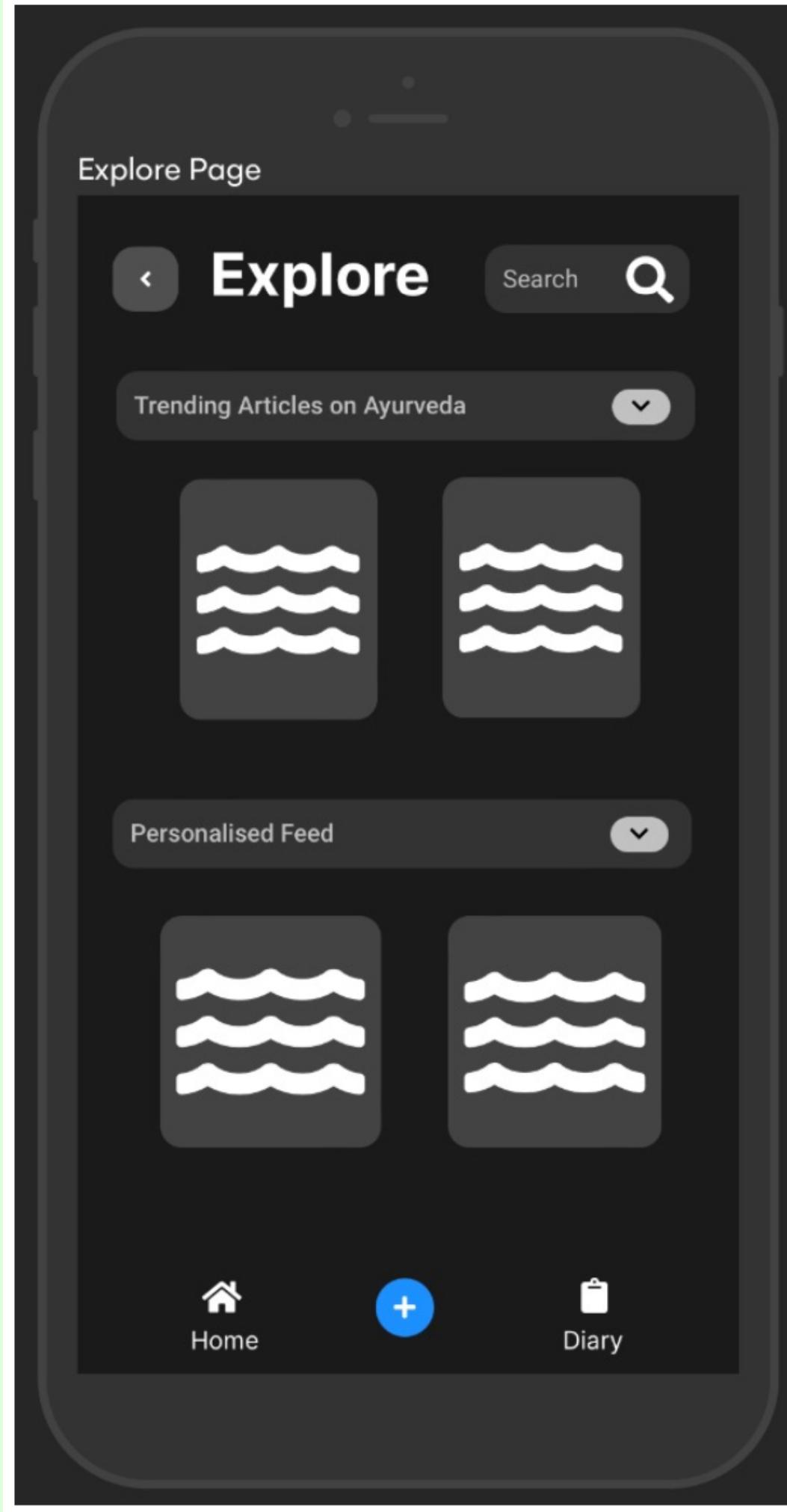
This screen provides meal details of user like what food to eat and at what time.

Also meal reminder and timings can also be managed from here.



This is the community page.

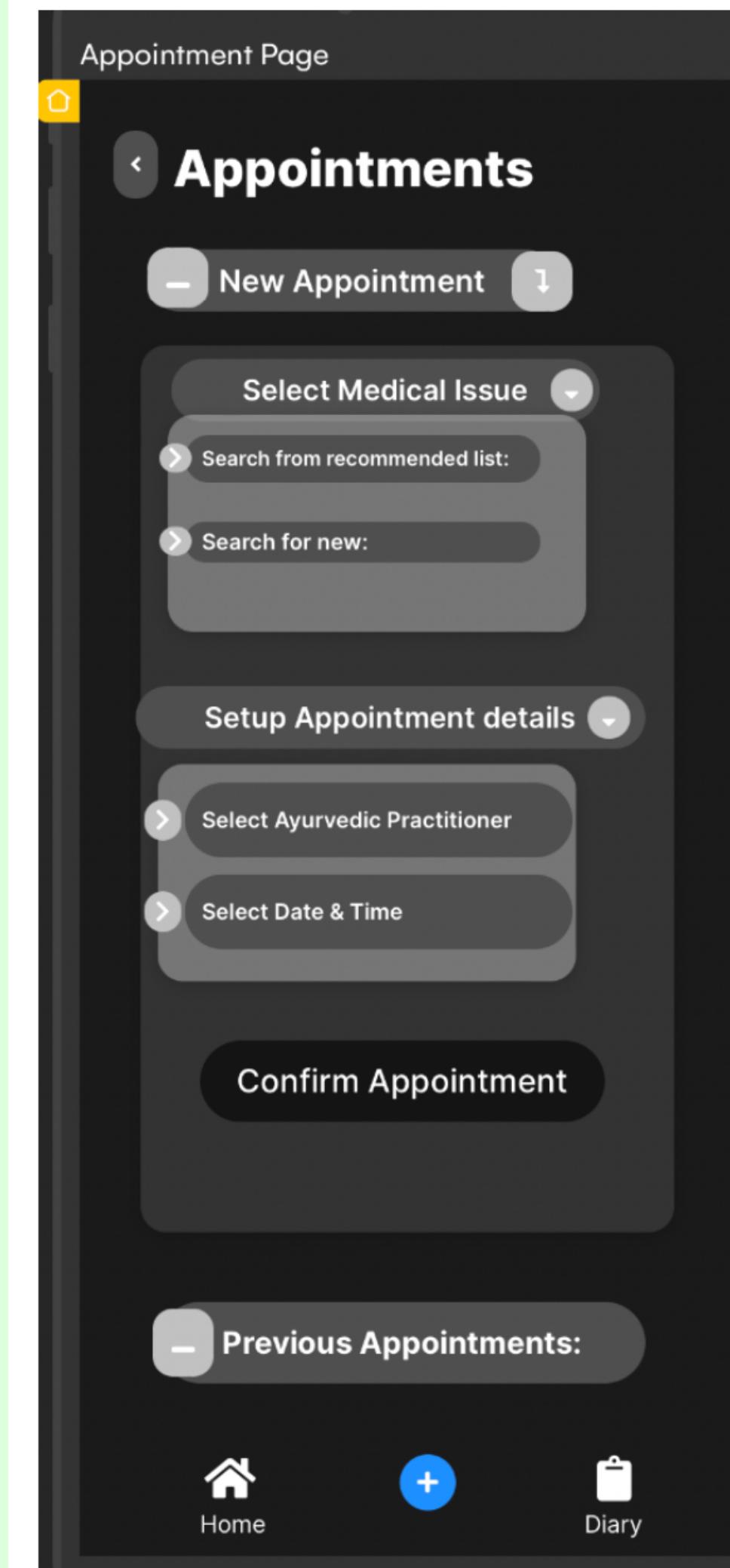
Here, user can talk with other users of Shifa App suffering from same health problem and can discuss potential solutions.



This screen provides option to the user to find relevant health articles.

User can know more about Ayurvedic practices.

Information provided here will be strictly relevant and not any false claim. Here we are trying to spread awareness about Ayurveda.



This is the task flow of user while booking an appointment on Shifa App.

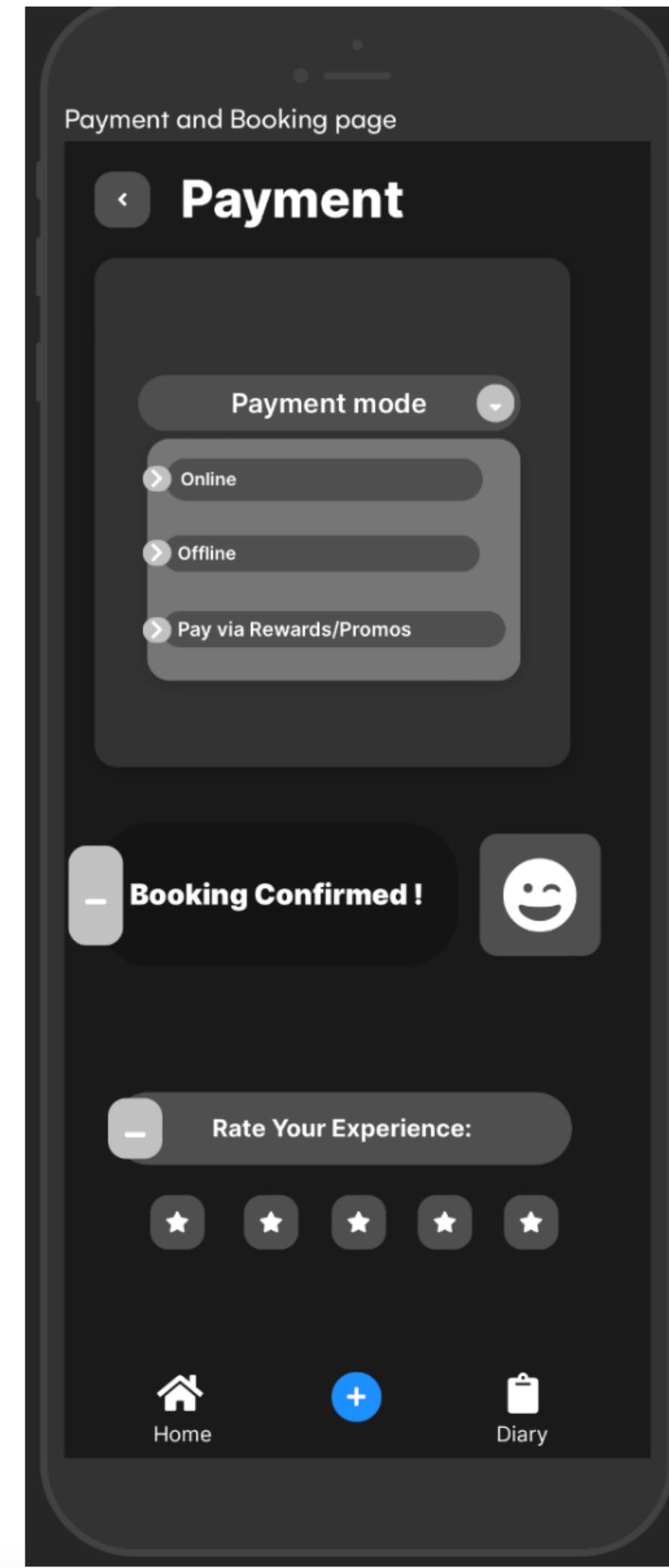
User can search about their medical issues.

Then moving on to Appointment details

It has two purposes:

1. To provide appointment history
2. To book new appointments

Clicking on this option will open a new small box in which user Details are required.



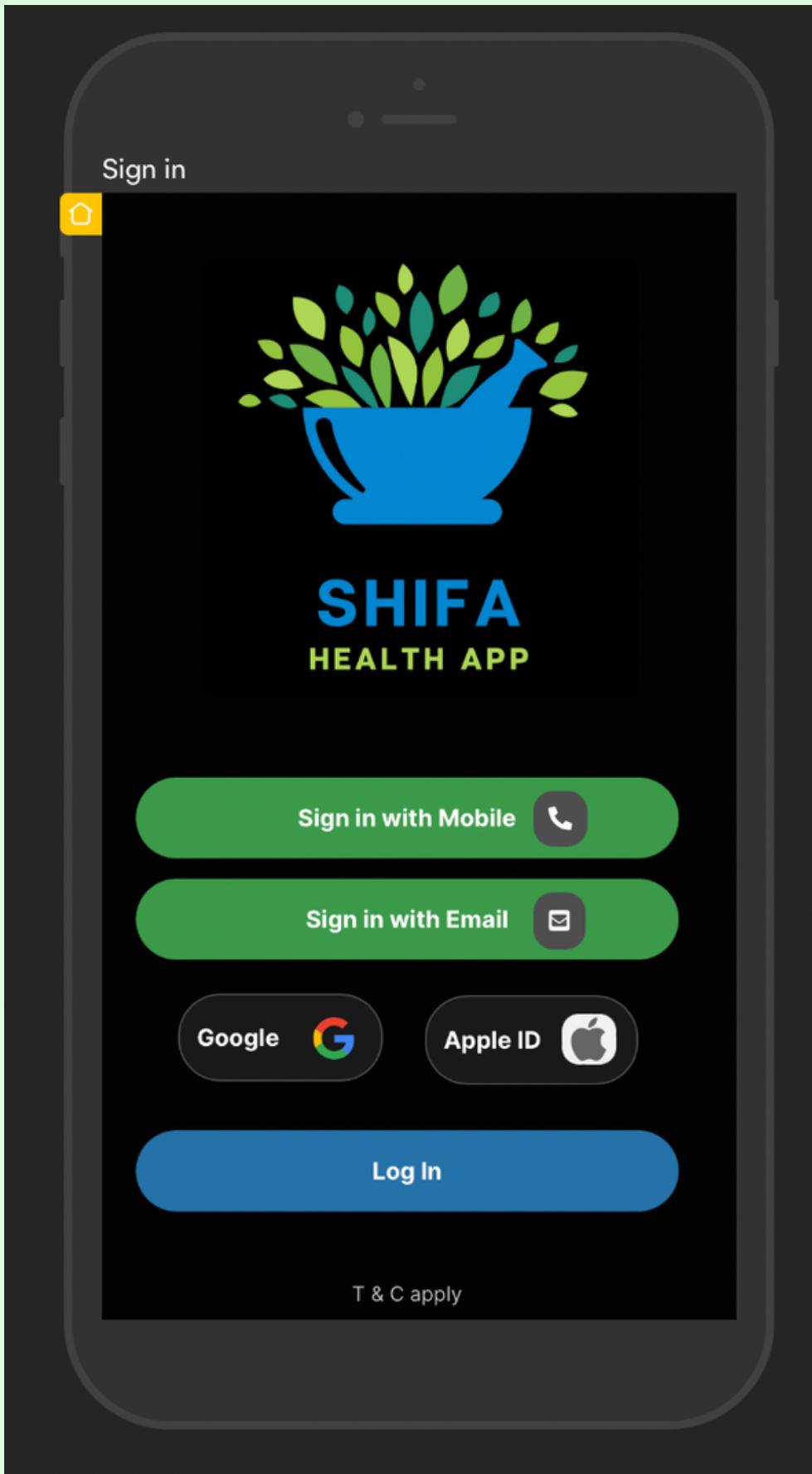
Clicking on these buttons will open new payment screen.

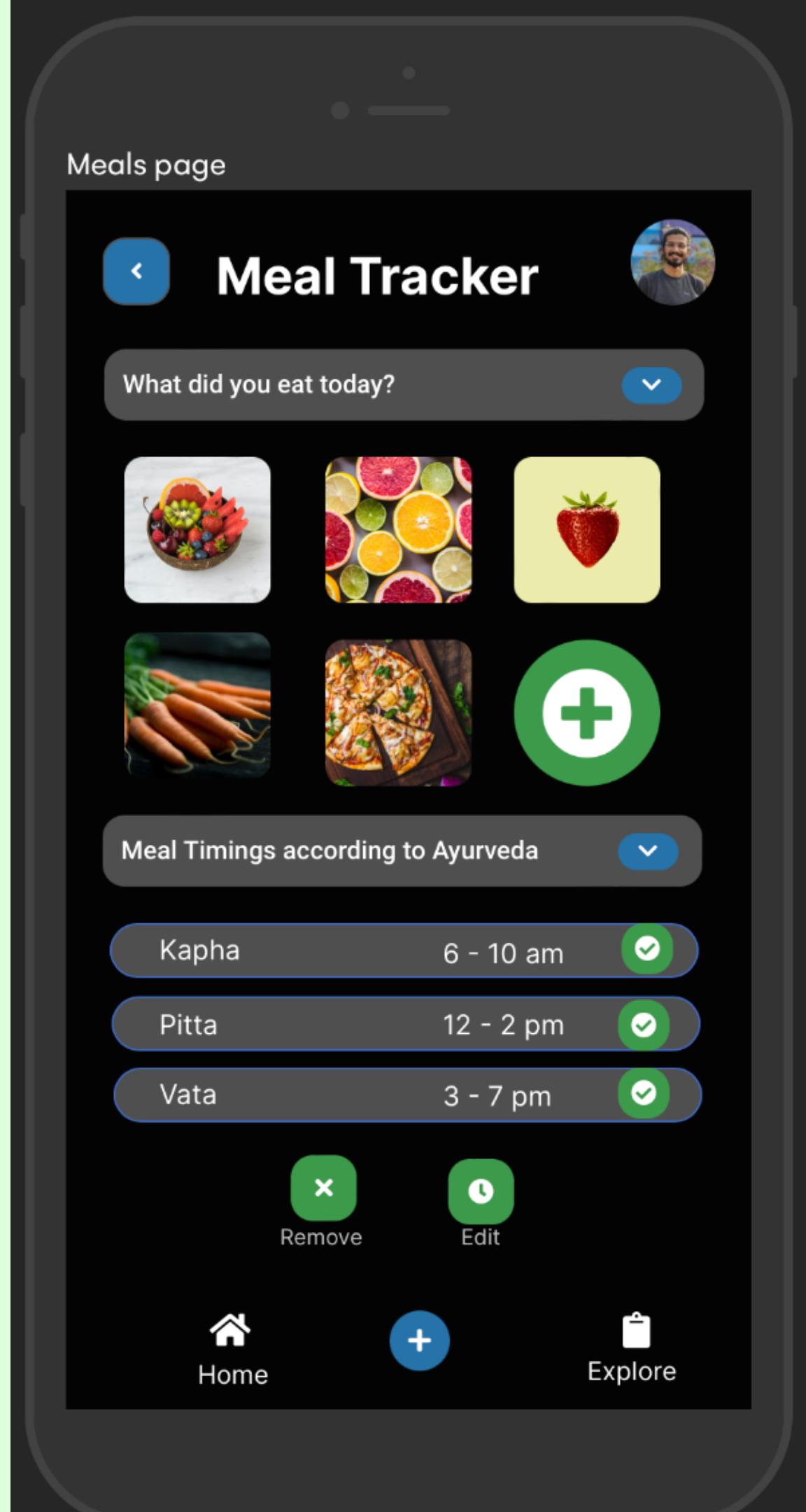
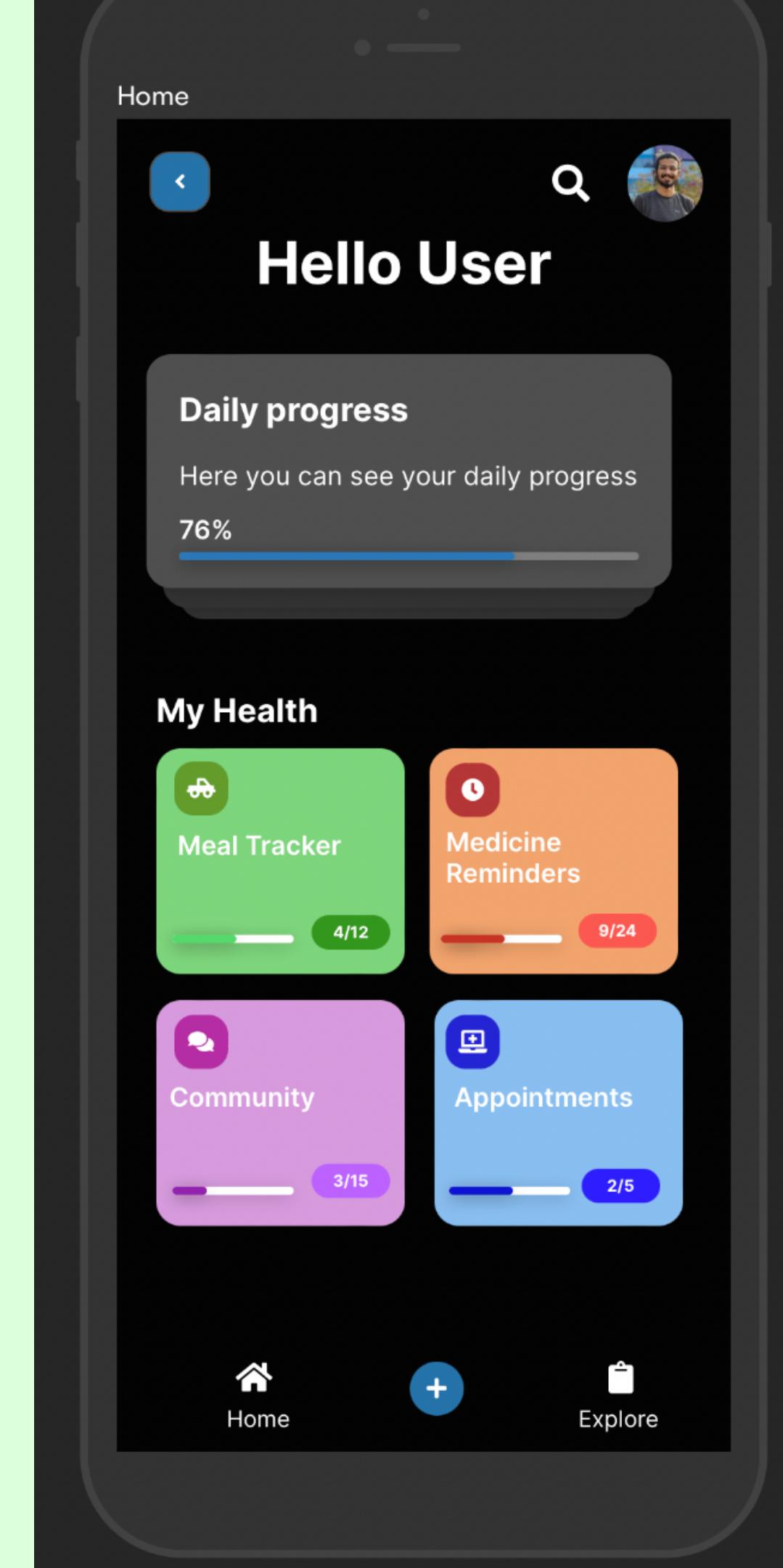
User may open 3rd party apps for payment from here.

Finally, getting user feedback on overall process.

Clicking on stars will then open a small box where user can also write some feedback text.

HIGH FIDELITY PROTOTYPE

The image shows the "User Details" screen. It starts with a "Name" field containing "Your name". Below it is a date input field labeled "Date of Birth" with the placeholder "DD----MM----YYYY" and a calendar icon. Next is a "Country" dropdown menu with the placeholder "Where do you live?". Underneath is a "Sex" section with three buttons: "Female", "Male", and "Other". Finally, there is a large, empty text input field for "What is your health problem?".



Medicines page

Medicines



Ayurvedic Medicines 

1. Abhayarishta
2. Chandanasava
3. Takrarishtha
4. Bilvadi Leha

Ayurvedic medicine reminders 

-  Abhayarishta At 7:00AM
-  Chandanasava At 10:00AM
-  Takrarishtha At 8:00PM
-  Bilvadi Leha At 9:00PM

 Home   Explore

Explore Page

Explore



Trending Articles on Ayurveda 

 India Today
Ayurveda student gets selected to Oxford University to study MSc in evidence-based medicine in a first
Dr. Arshath Jyothi, an alumnus and current research fellow at the All India Institute of Ayurveda (AIIA), an autonomous institute under the...

2 days ago 

 Hindustan Times
Wonderful benefits of betel leaf as per Ayurveda; how to eat paan in summer
Ayurveda has mentioned many curative and healing health benefits of betel leaves. Here's how you can consume paan in summers. | Health.

6 hours ago 

Personalised Feed 

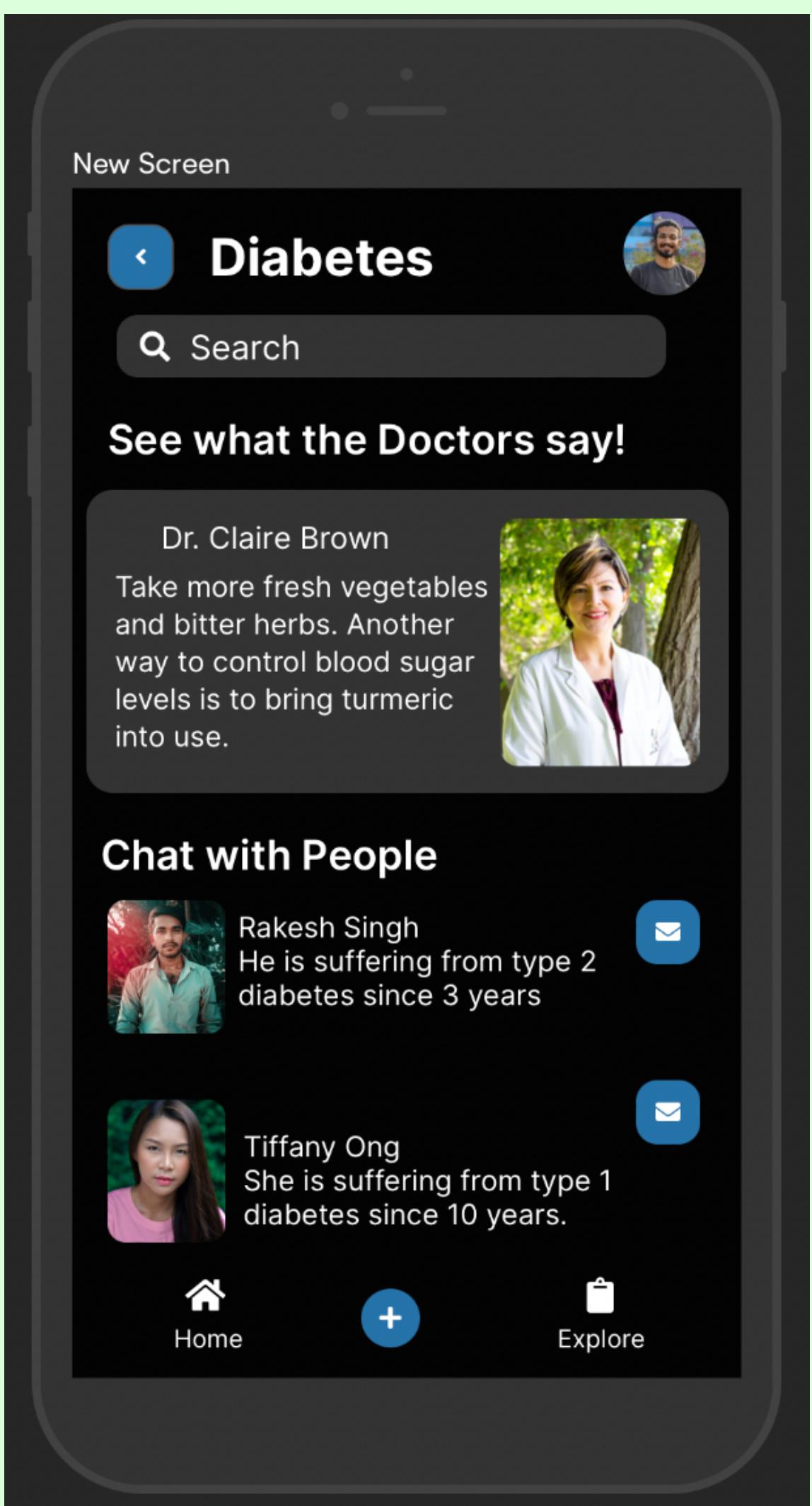
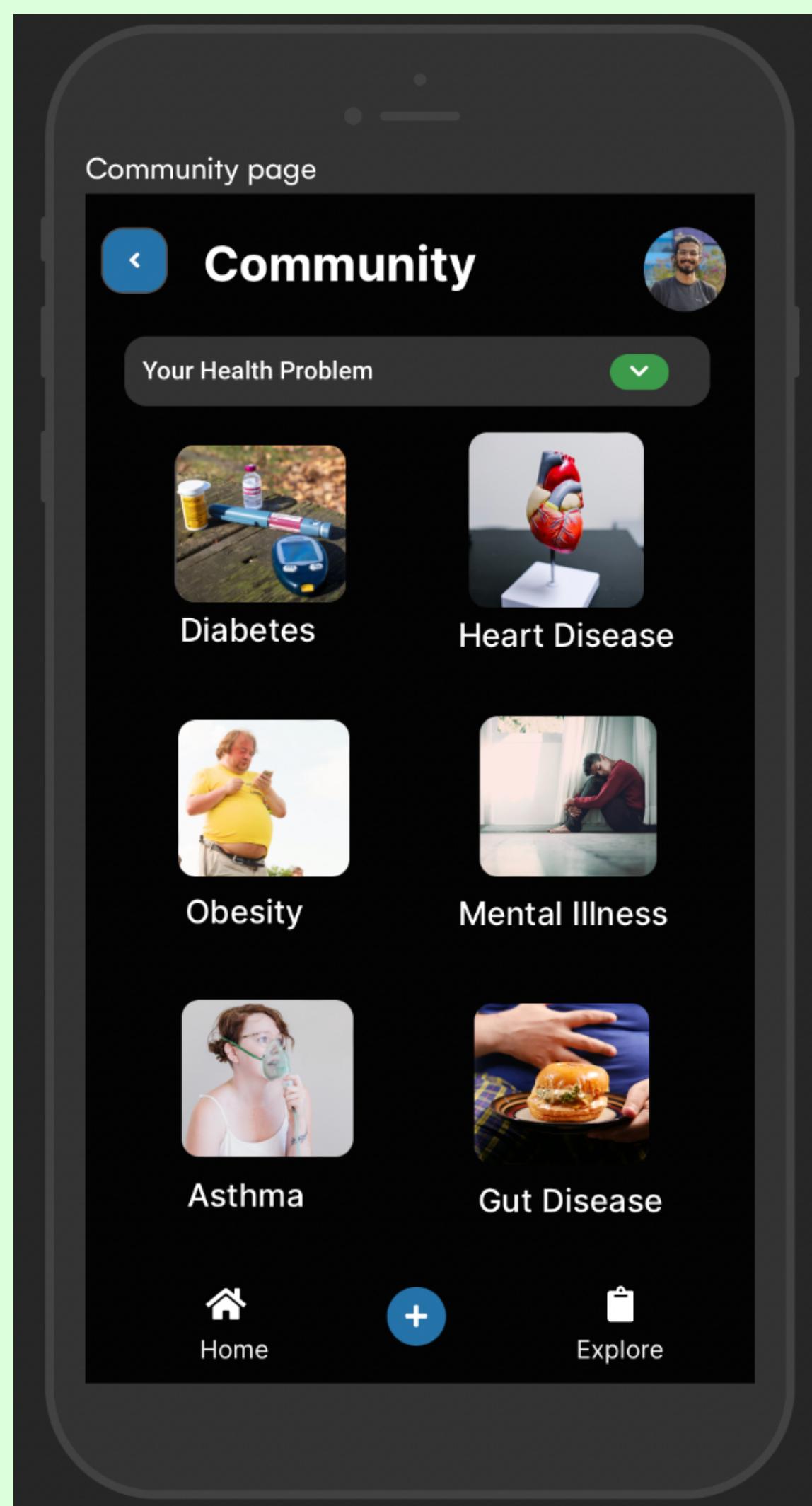
 The Quint
Try These Antioxidant-Rich Ayurvedic Summer Drinks To Keep You Hydrated In 2022
Healthy Summer Drinks: These recipes come from India and each offers a different benefit. Try some of these for your family today.

4 hours ago 

 Times of India
Origin and benefits of Ayurvedic oils
Ayurveda heals us with one principle in mind: as above, so below, as without, so within. The Ayurvedic sciences draw parallels between...

1 day ago 

 Home   Explore



Account & Settings Page



Username

[Edit Profile](#)[Account Settings](#)[Interface Settings](#)[Home](#)[Explore](#)

New Screen

Settings

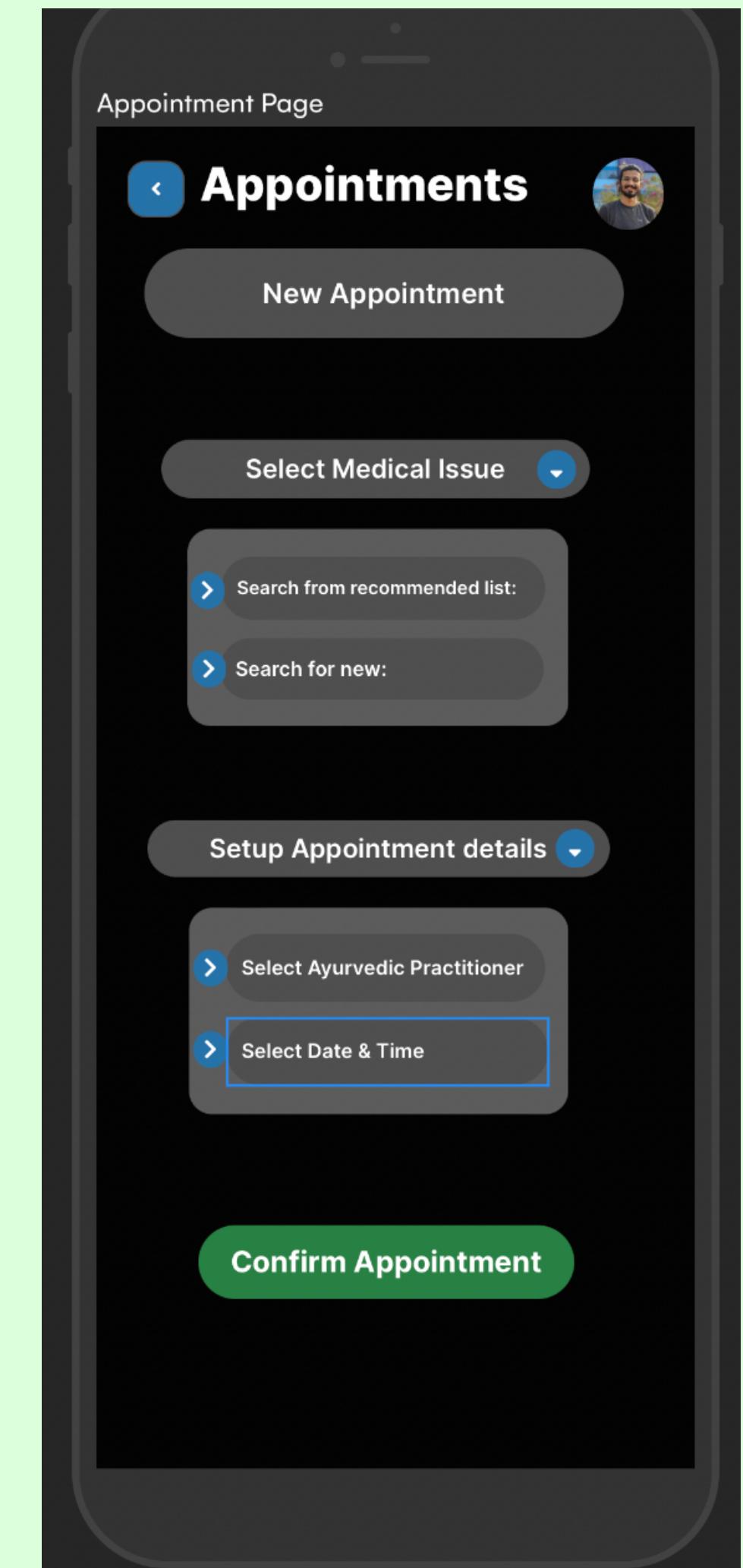
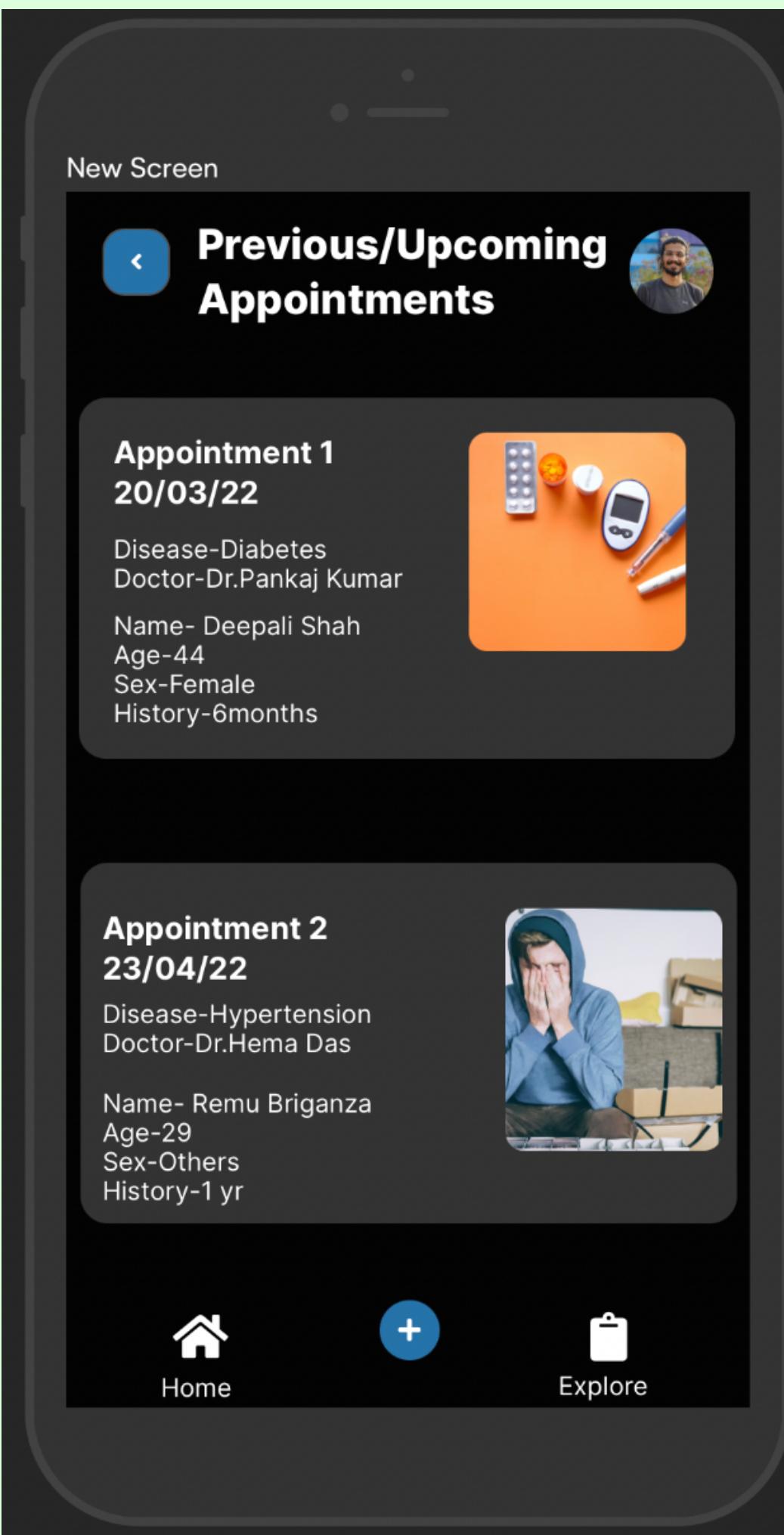
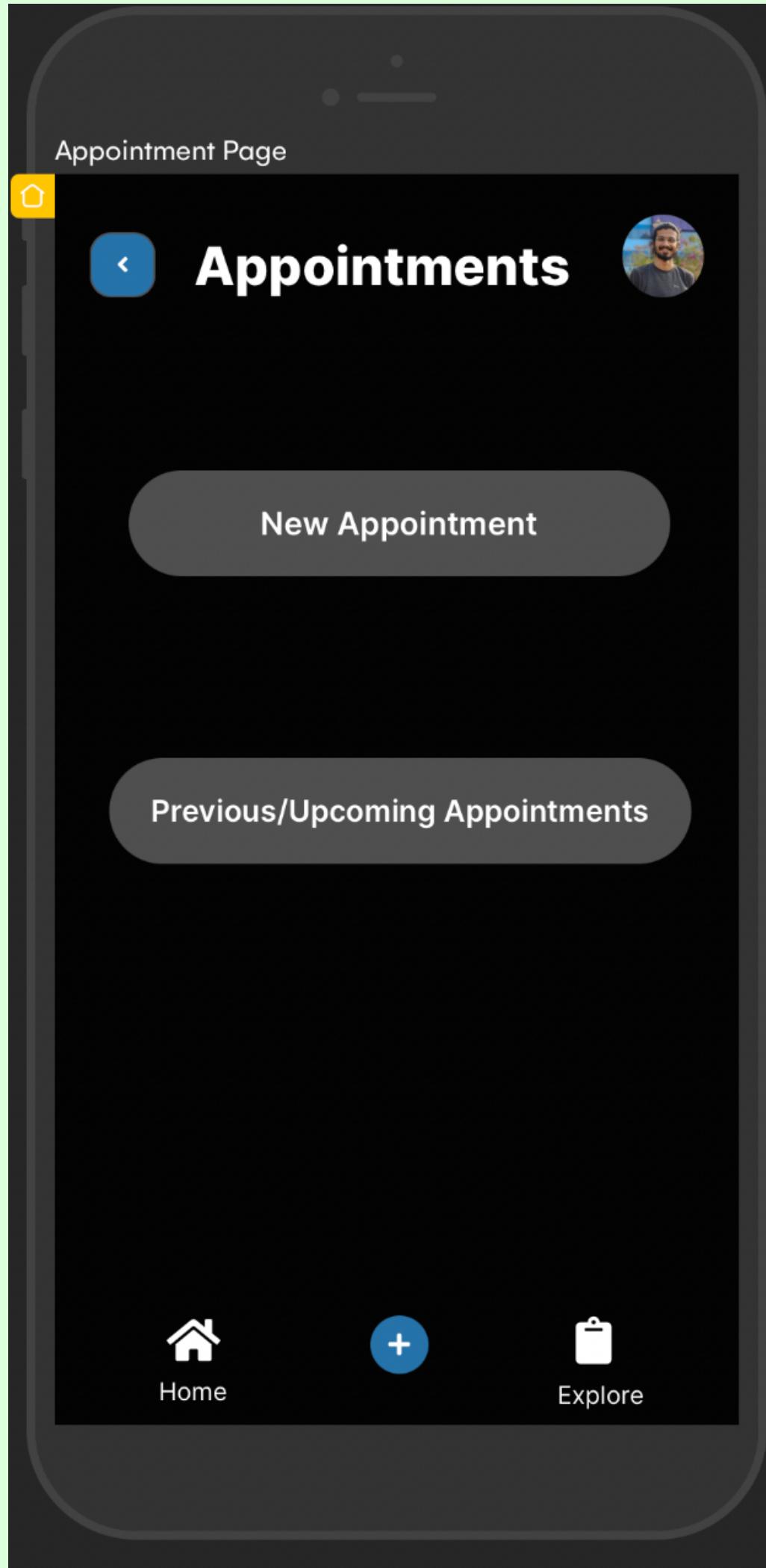


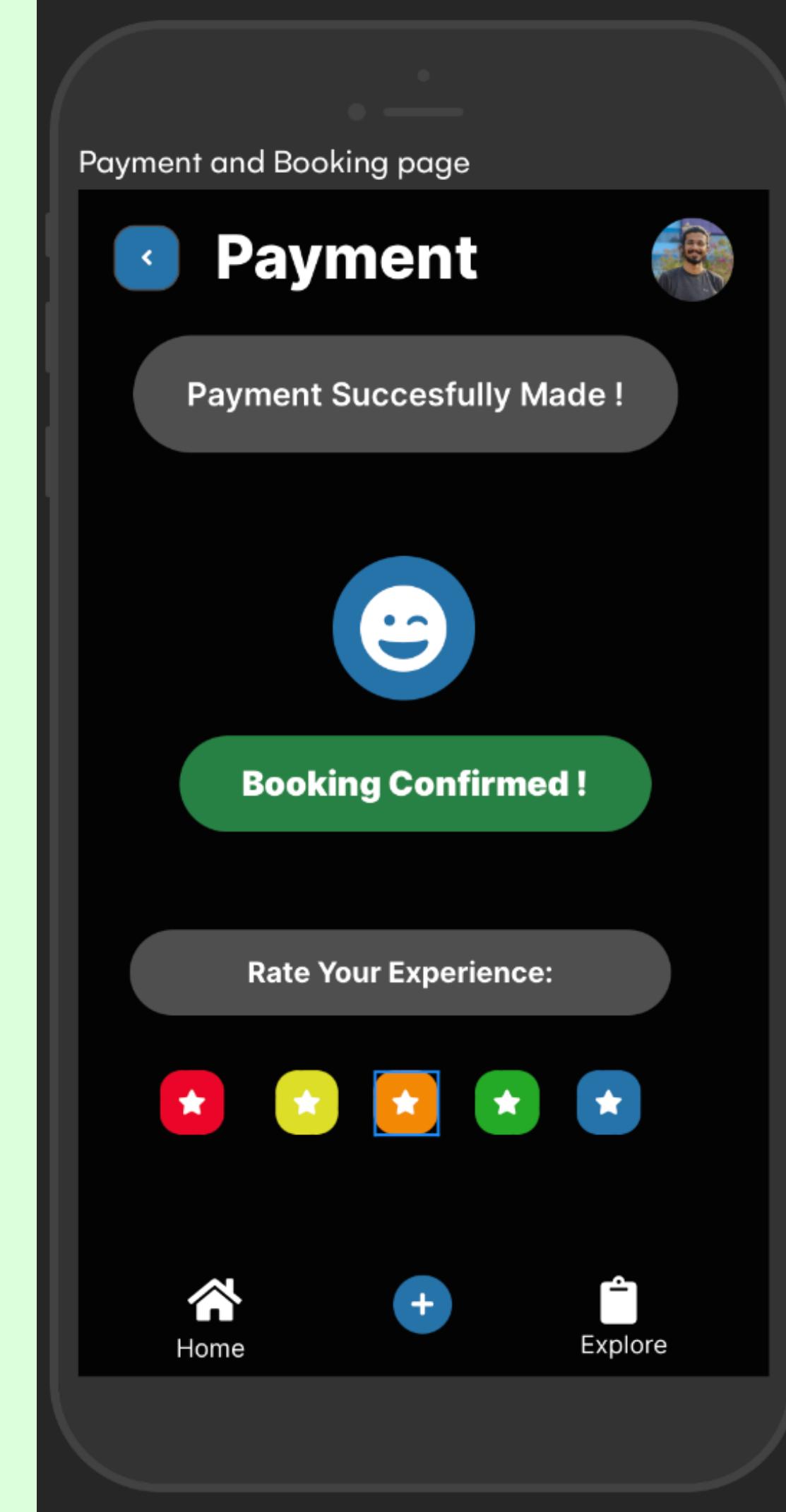
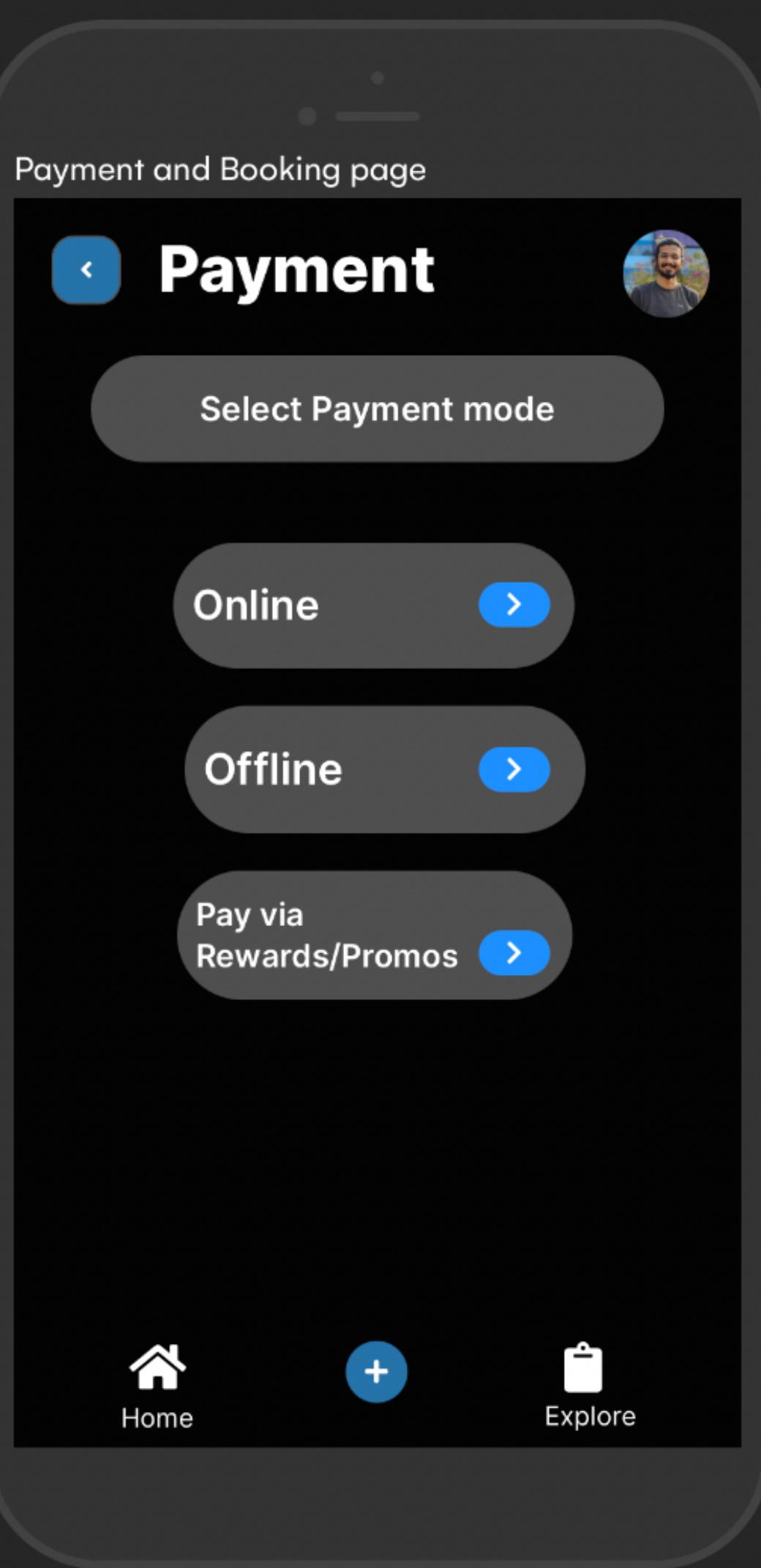
Interface Settings

[Turn Dark Mode OFF](#)[Edit Notification Priority](#)[Edit + icon Functionality](#)[Keep screen on](#)[Change Font Size](#)

Pick Your Accent Color:

[Home](#)[Explore](#)





PROTOTYPE EVALUATION

Evaluation helped us find flaws in the High-fi prototype and understand what problems user faces and how can it be solved. After all human-centric approach in design is important since technologies are designed for users and not vice-versa.

GUERILLA TESTING EVALUATION

What actions do you think can be performed on the homepage? *

1. You can login using different means - Mobile, Email, Google or Apple Id
2. Once you login, then it has different elements to track health -
 - (i) "meals tracker" with recommendation on what to eat when,
 - (ii) "medicine reminder" so that we don't miss any dose,
 - (iii) explore and chat with other people having similar health problem under "community" section, and
 - (iv) finally raise "appointment" to consult doctor for your current health problem or review previous "appointment"

Are you able to navigate through the app easily? *

The icons and labels are clear enough to guide what they mean, you can easily navigate through the app for your specific need.

Please provide suggestions for improvement of the task flow.

Just 2 minor observations,

1. On the "Meal Tracker" page when you click on the User icon, it takes you to "Medicines" section instead of taking to "User Profile"
2. On the "Medicines" section, the Home icon takes you to "Explore" section

These are just cosmetic button action flaws but otherwise the overall app is well designed and easy to follow and derive the needed benefit.

Further comments

Overall app is well designed, easy to follow and achieves its purpose.

Are the tasks that can be performed in each section, obvious by the labels or not? Please be as specific as possible.

Yes, the icons and labels are intuitive to indicate what they mean, the interface is simple and easy enough to follow. Once you login, the top-level page shows what all you can do, once you dive deeper into any section, it has info relevant for that section, for e.g. under "community" section, you have subsection specific to each health problem, and you can connect/chat by selecting your health problem

The partitioning under various subsections avoids clutter and you get what you are looking for in that section. Had all these things been provided on the top-level page, it would have been a bad design with users spending lot of time figuring out what they need.

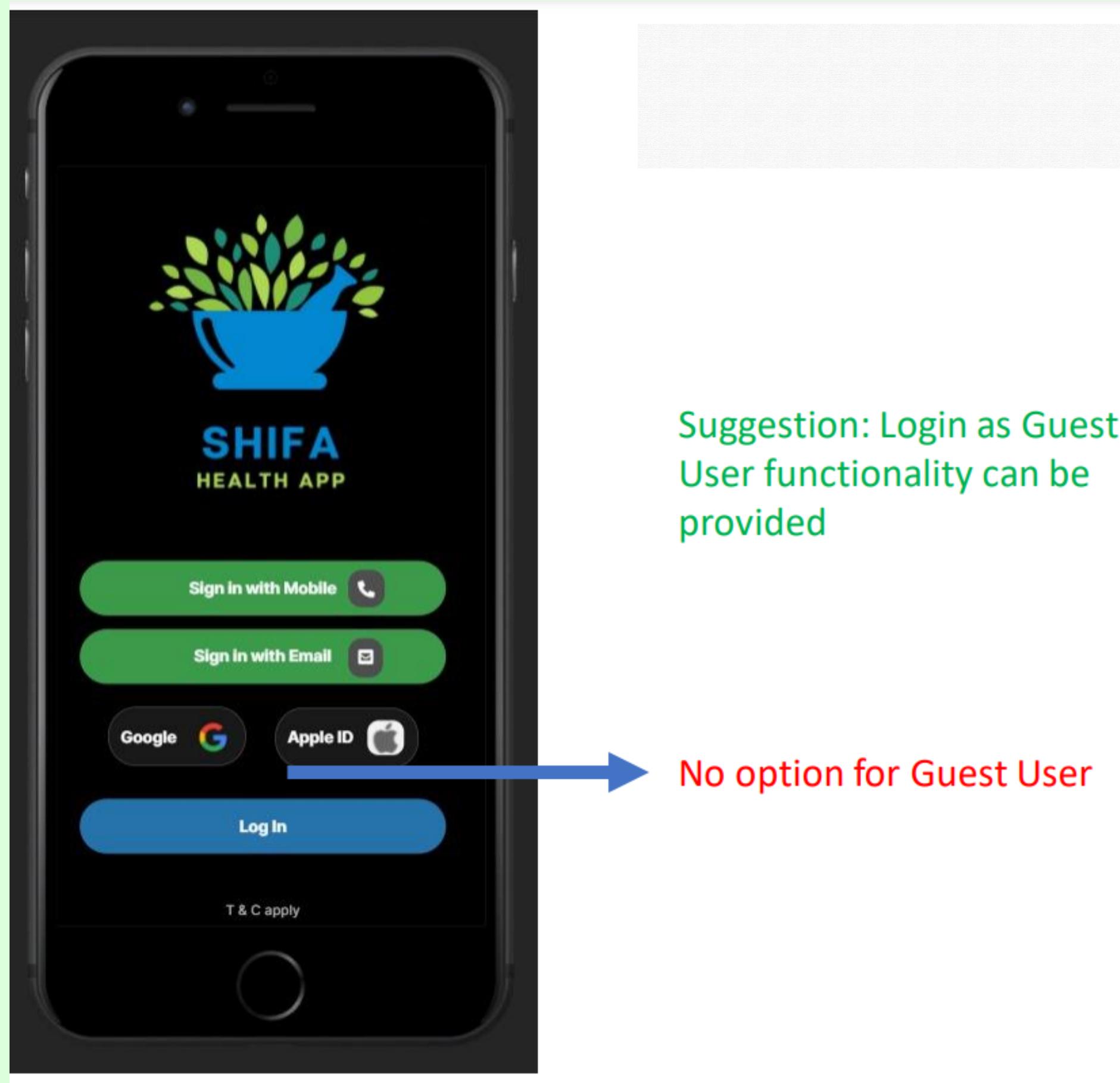
Does the visual design support brand's motive intended through the application?

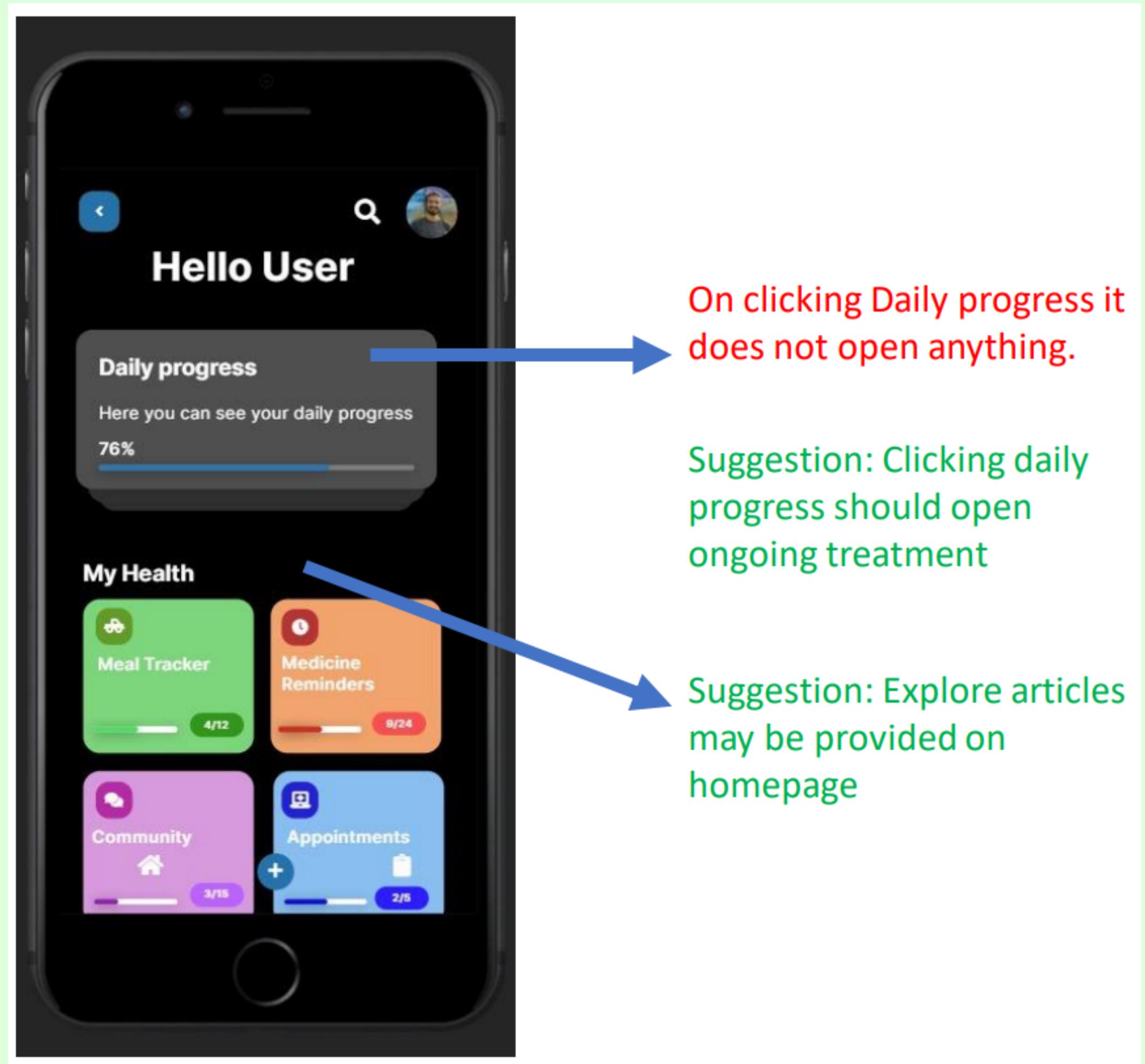
Yes, the app brings out the intent conveyed by the brand

How does the visual design focus your attention to the elements on the page or support performing a task?

The main functionality of each page is clearly highlighted and brought to focus once you land on that page, and you needn't have to spend any time figure out the purpose of each page. There are clear icons of appropriate size with equally visible labels on them on each page and you can't miss the purpose for which these have been designed.

COMMON PROBLEMS AND SUGGESTIONS





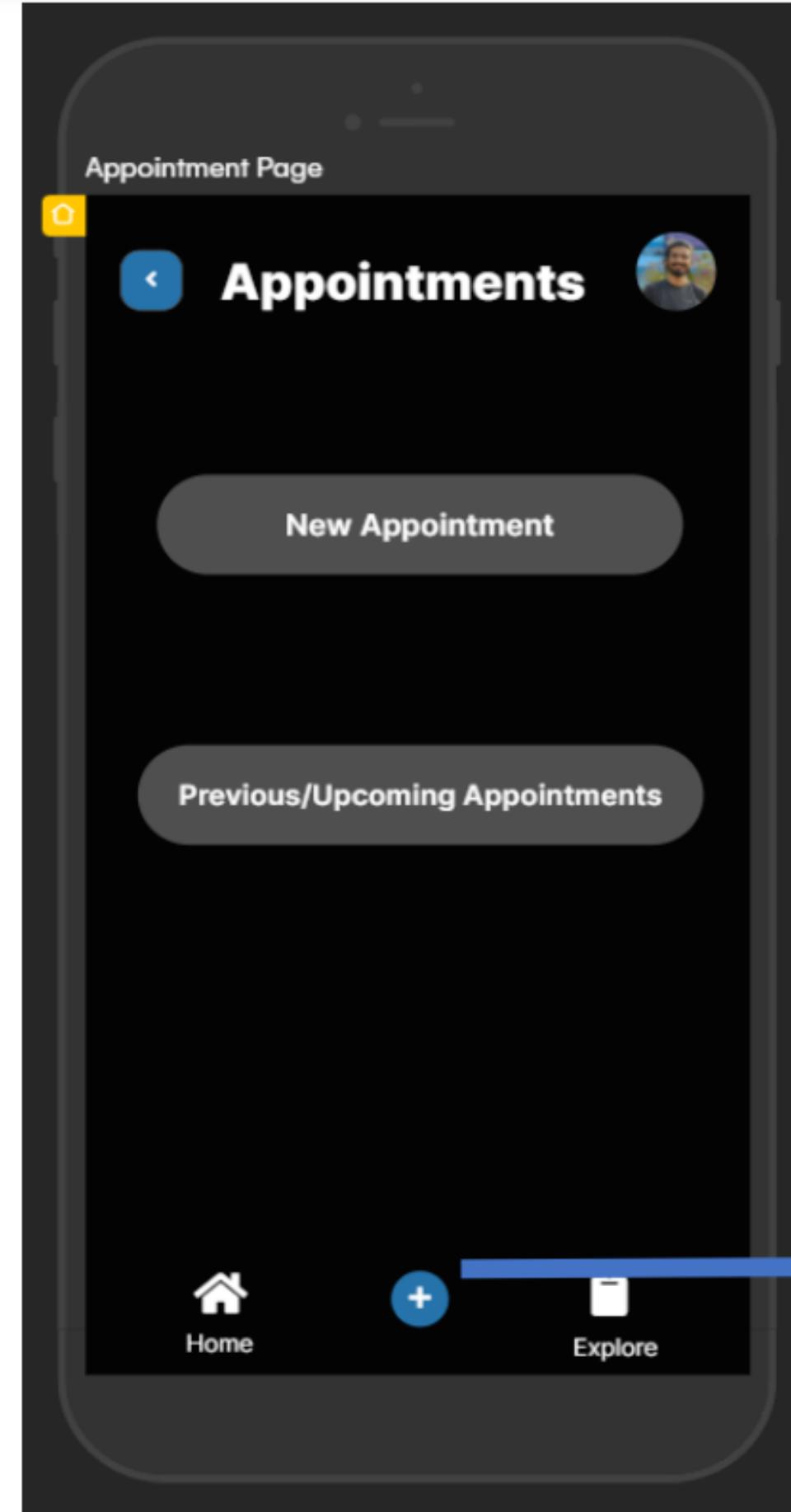
Goes to Appointments Page



New Appointment



Previous/Upcoming
Appointment



Suggestion: Guide/Tutorial
may help initially (Onscreen)

Functionality of plus icon is
confusing/not clear

