



# OneCare

**UXG2570 — User Research  
Assignment 2**

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**In Singapore, every 1 in 10 person above 60 years old has Dementia.**

Homeage SG

This statistic above proves there is a huge opportunity for app developers and companies to create solutions for those suffering from Dementia or those related to one who suffers from Dementia. But first, what is Dementia?

## 1 What is Dementia?

Dementia is an umbrella term for the loss of memory and other thinking abilities which are **severe enough to interfere with a person's day-to-day activities**. The most common type of Dementia is Alzheimer's disease.

## 2 How does Dementia affect a person?

Dementia may severely affect a person's memory, perception, thinking, reasoning, judgement, attention, concentration, and language. **In summary, it basically makes living a painful experience for the person.**

## 3 Is there a cure for Dementia?

There is no "cure" for Dementia as it likely is caused by different diseases that target the brain. However, there are proven ways to **help slow down the effects of Dementia worsening, such as habit-forming, being engaged, and staying socially & physically active.**

## 4 How can one help a person with Dementia?

According to Healthhub SG, most mild-stage Dementia victims **require companionship with patience and understanding**. Moderate and advanced stages may require even more extensive caregiving and nursing procedures, such as day-to-day living assistance.

With that being said, here is the Problem Statement and the goal of this assignment's user research and app design:

Problem Statement

**How can we engage mild-stage Dementia patients in order to reduce the risks of worsening their symptoms while encouraging them to live a socially & physically healthy lifestyle?**

Following the Problem Statement, below are the 2 main user groups.

1

## Primary Target Audience

- People living with Dementia

2

## Secondary Target Audience

- Caregivers of people living with Dementia
- Family Members of people living with Dementia
- Close Friends of people living with Dementia

Note: A caregiver can also be a family member or a close friend, and vice-versa.

# User Stories and Requirement List: For Primary Target Audience

Below are the user requirement list for the main target audience, as well as their user stories.  
Note that this is not an exhaustive list of user requirement, only the more important ones.

1

## Journalling

Being able to do daily logging, even multiple times a day, is imperative to guide Dementia patients form healthy habits as well as have a place to view their milestones and events in life.

As a **person living with Dementia...**

I want to be able to **Log my daily activities and feelings**, such as having a happy time with my family, so that I can refer to the memories in the app if I forget them or simply want to recall.

2

## Rewards

A reward system that is engaging and interactive is important so users are motivated to do use the app for their own good. Incentives are known to encourage users to use the app more.

As a **person living with Dementia...**

I want to **receive some perks and rewards for using an app that helps build good habits for me** so that I can reduce the risks of my disease worsening.

3

## Membership

A membership exclusive for Dementia patients or Dementia caregivers can help them earn exclusive perks and rewards to help with their day-to-day life.

As a **person living with Dementia...**

I want to **let people identify me easily through a Digital Identification Card if I ever get lost in public** so that the public can guide me back to my housem, my family, or my caregiver.

4

## Activity Feed

A closed and private activity feed allows Dementia patients to share their daily Logs with their family.

As a **person living with Dementia...**

I want to be able to **share my important events, milestones, and how I feel with my family, friends, or caregiver** so they can check on me, even remotely.

# User Stories and Requirement List: For Secondary Target Audience

Below are the user requirement list for the main target audience, as well as their user stories.  
Note that this is not an exhaustive list of user requirement, only the more important ones.

1

## Journalling

Being able to do daily logging, even multiple times a day, is imperative to guide Dementia patients form healthy habits as well as have a place to view their milestones and events in life.

As a **caregiver of a Dementia patient...**

I want to be able to create daily, weekly, or monthly tasks/activities for my patient so that he/she can Log them and keep it in memory. This will also help them form a positive habit.

2

## Gamified Rewards

A reward system that is engaging and interactive is important so users are motivated to do use the app for their own good. Incentives are known to encourage users to use the app more.

As a **caregiver of a Dementia patient...**

I want to receive rewards for being proactive and initiative with my patient. This way, I am more incentivised to making my patient's life better and guide him/her to a healthy life.

3

## Membership

A membership exclusive for Dementia patients or Dementia caregivers can help them earn exclusive perks and rewards to help with their day-to-day life.

As a **caregiver of a Dementia patient...**

I want to have a Digital Identificard Card so that I can be a certified caregiver of a Dementia patient so I can be connected to my patient easily if they ever need help in public.

4

## Activity Feed

A closed and private activity feed allows Dementia patients to share their daily Logs with their family.

As a **caregiver of a Dementia patient...**

I want to be able see how my patients are doing so that even when I'm away, I'm able to see their progress and ensure they're doing well.

**Note: The User Stories for Secondary Target Audience apply for families/close friends too, but I placed caregiver here as a direct example. Additionally, only the main target audience (Dementia patients) wireframe and high-fidelity will be created for this assignment, this is just for research in the scenario I want to expand the app design further.**

Following the Problem Statement, below are the user goals and potential challenges they may face:

1

## User Goals

- To live a normal and healthy life
- To be able to socialise with family and friends without worrying about forgetting about it later
- To remain positive about life
- To use their hobbies as their motivation in life
- To use their family (especially children and grandchildren) as their motivation in life
- To form healthy habits that encourage healthy living

2

## User Pain Points

- Hard to recognise or remember people's faces or their names
- Not able to keep track of important milestone events in life
- Not motivated to log their important moments, both on paper or digitally on the phone/laptop
- May forget where they are when they are in public
- No motivation to engage in their hobbies
- Not able to remember some things they did a few days or even hours ago
- Feel frustrated not being able to recall things



Based on the User Goals and Pain Points, below is a surface level proposed solution. A detailed version will be provided at the App Concept and Idea section.

3

## Proposed Solutions

- A reward-based system for daily journaling
- Connect family and caregivers to Dementia patients so they can guide and see how the patient is doing day-to-day
- Encourage forming healthy habits that are suggested by professionals or directly from family/caregiver
- A private activity feed that encourage the Dementia patient to look back on the memory he/she made.
- This feed is also accessible by caregivers/family/close friends so they can check up on them, even remotely

Following my proposed solution based on the user goals and pain points, below are the 3 apps I believe have features that can be used on the final app idea. The ultimate goal is to ensure that Dementia patients are able to reduce the risks of their Dementia worsening, and hence help them recall and remember better, and I believe combining the best of each app below can help achieve that goal. On the next section, I'll do a more thorough Pros and Cons of the User Experience of each app.

1



## CARA

MEMBERSHIP

SUPPORT

CARA is a membership platform that provides Community, Assurance, Rewards, and Acceptance for persons living with Dementia or caregivers giving care to Dementia patients.

2



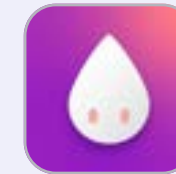
## Daily Bean

HABIT-FORMING

JOURNALLING

Daily Bean is an app that encourages users to log in daily their emotions and feelings. It is an interesting take on journalling that allows the user to be as expressive or as quick as possible with their daily logging.

3



## LumiHealth

HABIT-FORMING

REWARDS

LumiHealth is a habit-forming app that encourages users to live a healthy lifestyle, and the app rewards them for doing so. It encourages healthy habits such as going for regular walks, exercising and even taking care of sleep schedule and diet.

# Heuristics Evaluation: CARA

For the Heuristics Evaluation of the 3 apps, I will be using surface-level Pros and Cons to determine the the good and bad parts of the app, and support it occasionally with Jakob Nielsen's 10 Usability Heuristics.



MEMBERSHIP

SUPPORT

CARA is an app that is useful for both Dementia patients and their caregivers as it rewards them for using the app as well as provide useful features that improves their quality of life.

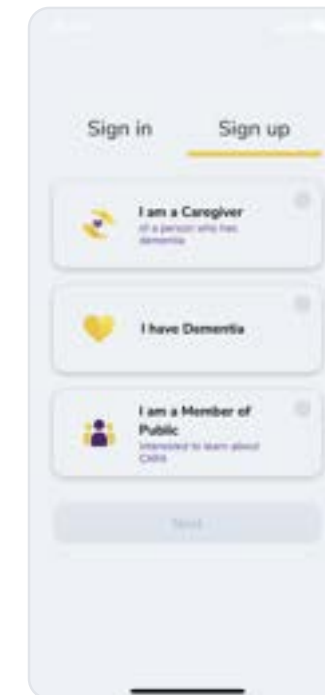
## A. Pros

1. Connects Dementia patients with their caregivers through the membership
2. Safe Return function that connects Dementia patients with their caregiver if they lost contact.
3. Exclusive community benefits like priority access or preferential rates to products and/or services.

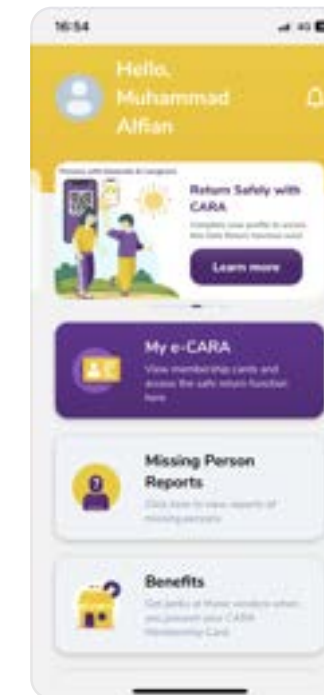
## B. Cons

1. FAILED: User Control & Freedom: Membership features only available to official Dementia patients or caregivers.
2. Members of public who are interested can only view limited app features.
3. Membership approval process takes up to 7 business days – a person with Dementia is not able to use or test the app features immediately.

Due to limited access, only the sign page and home page can be shown.



Sign up as Caregiver or as a person with Dementia. Sign up as member of public is a 3rd option which limits the app.



Home page, safe return function at the top.

# Heuristics Evaluation: Daily Bean

For the Heuristics Evaluation of the 3 apps, I will be using surface-level Pros and Cons to determine the the good and bad parts of the app, and support it occasionally with Jakob Nielsen's 10 Usability Heuristics.



HABIT-FORMING

JOURNALLING

Daily Bean is an app that encourages users to log in daily their emotions, feelings, and more. It is an interesting take on journalling that allows the user to be as expressive or as quick as possible with their daily logging.

## A. Pros

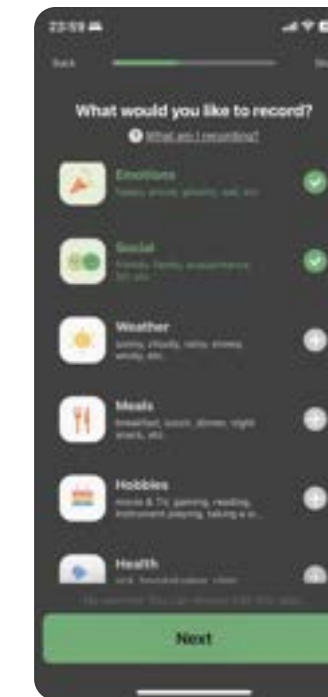
1. Helps form a journalling habit by logging in daily
2. PASSED: Flexibility & Efficiency of Use: Helps the user see what activities or emotions contribute to a “good” or “bad” day through a monthly/annual report
3. PASSED: Aesthetic & Minimalistic Design: Consistent user interface and warm illustration style

## B. Cons

1. No reward for daily logging as opposed to the name. I assumed that as you log Daily, your Bean will go on to grow and become a Tree, but unfortunately not.
2. FAILED: User Control & Freedom: Limited to 3 pictures per day (need to subscribe to upload more)
3. FAILED: User Control & Freedom: Cannot share your daily journal to others



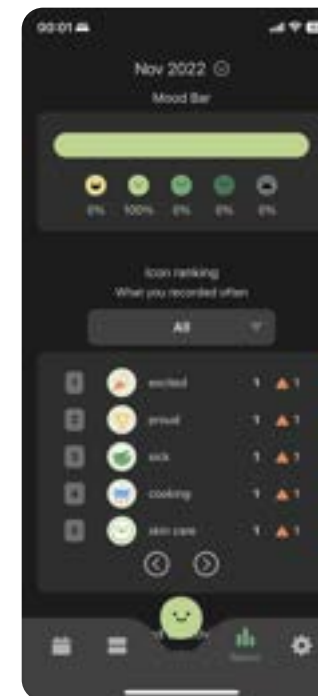
Onboarding



Choose what to record daily



Calendar overview of your logs



Overview of mood bar per month/year



Daily Logging  
PASSED: Flexibility & Efficiency of Use

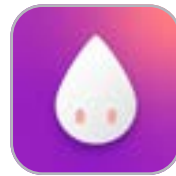


Daily Logging  
PASSED: Flexibility & Efficiency of Use



# Heuristics Evaluation: LumiHealth

For the Heuristics Evaluation of the 3 apps, I will be using surface-level Pros and Cons to determine the the good and bad parts of the app, and support it occasionally with **Jakob Nielsen's 10 Usability Heuristics**.



HABIT-FORMING

REWARDS

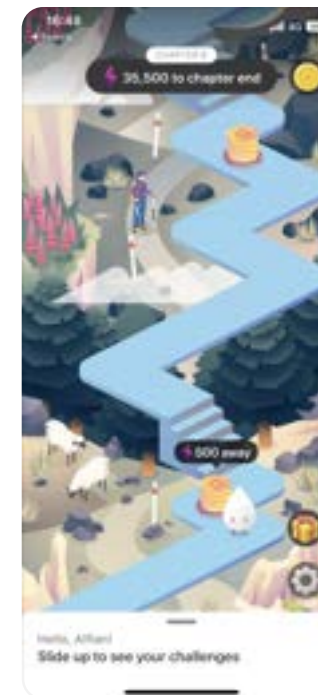
LumiHealth is a habit-forming app that encourages users to live a healthy lifestyle, and the app rewards them for doing so. It encourages healthy habits such as going for regular walks, exercising and even taking care of sleep schedule and diet.

## A. Pros

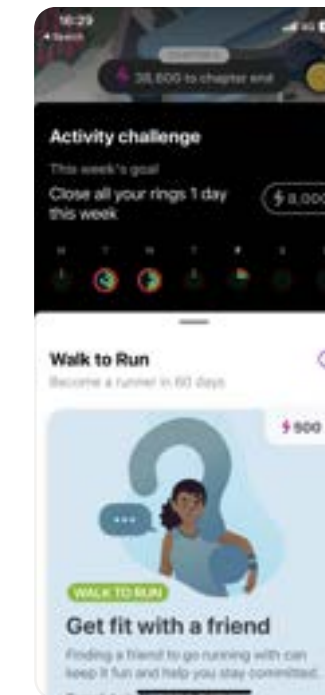
1. Gamified system rewards users for using the app
2. Automatic tracking via Apple Watch or manual tracking via Apple Fitness app
3. Get “LumiPoints” by completing tasks. The more LumiPoints you have, the more Coins you can collect
4. Coins you collect can be exchanged for multi-purpose vouchers
5. Aesthetic & Minimalistic Design: Clean and minimal interface

## B. Cons

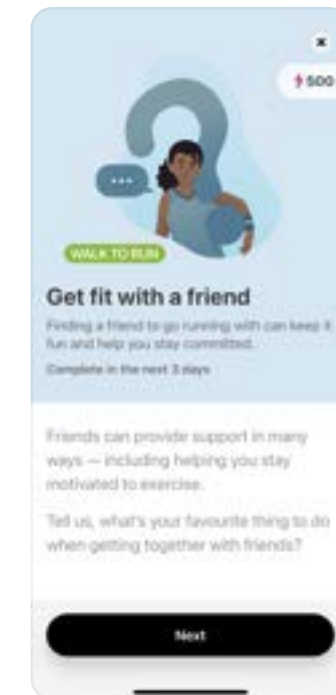
1. App may take up a lot of performance and render the phone laggy
2. FAILED: User Control & Freedom: May not be the most accessible app as user cannot cancel a task, they can only wait for it to expire.
3. FAILED: User Control & Freedom: Cannot share your tasks and activities to others



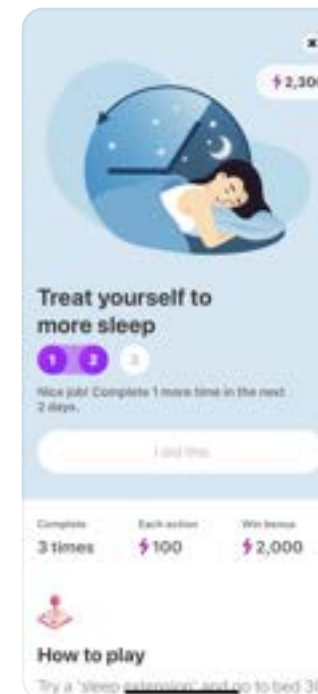
Shows LumiPoints and character progress



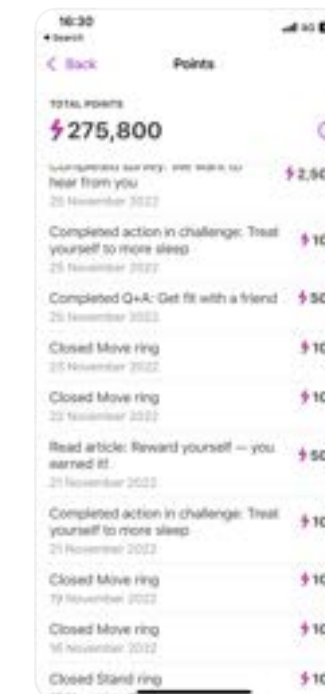
Challenges and activities to receive more LumiPoints



Specific Activity



Specific Challenge



LumiPoints history



Redeeming coins for real life vouchers

After looking through the features of the 3 apps, it is important to link them back to the user goals and their pain points. Individually of course the app don't fix them, but combined, they offer a solution for the potential Dementia patients and their caregivers/family/close friends. The final app concept and idea will be shown in the Final App Idea and Concept page (next page).

1

## How features of competitor apps link back to the User Goals and Pain Points

- CARA allows Dementia patients and caregivers of Dementia patients to be interconnected through a membership, which gives access to useful features such as the Safe Return function.
- DailyBean's daily journaling feature help users incorporate good habit of sharing emotions and their feelings.
- LumiHealth's gamified reward system encourages users to keep on using the app by exercising more. Such a feature can be directly copied on a new app idea.

The following 3 are the core features of the app, based on extensive research based on the problem statement, user requirement list, user goals and pain points, and competitor analysis along with their basic heuristics evaluation.

**All 3 features hope to form a powerful dynamic in helping with the ultimate goal: engaging Dementia patients so that they can reduce the risks of their disease worsening.**

Following that, the proposed app idea is named OneCare (more details on the naming and logo will be placed under the Style Guide section).

1

## Journalling

HABIT-FORMING

Dementia patients will log every day, and log up to 3x a day for Morning, Afternoon, and Evening. Additionally, caregivers/ family/close-friends can create “tasks” or activities for the Dementia patients to do everyday to form good habits and engage the patients.

Such tasks or activities can encourage Dementia patients to be more proactive in their life rather than staying in bed.

2

## Gamification

REWARDS

Gamifying journalling is an interesting take that can prove to be useful in forming a tight relationship between the patient and the caregivers. The caregiver’s tasks can involve activities like going for a walk, which can reward both parties with coins that they can use to redeem for vouchers from participating members. Ultimately, the gamification aspect acts as a “supportive” role to the journalling, and incentivize logging daily.

3

## Membership

ASSURANCE

Similar to CARA’s membership system, OneCare’s membership helps ensure the app has sufficient authority in making sure the patients and their caregivers are legitimate by giving them a Digital Identification Card.

It helps the users be connected through the app in case of any emergencies. More details will be shown in the High-Fidelity.



## Terence Wong

68, Male, Married

MOTIVATED

DRIVEN

FAMILY-ORIENTED

### BIOGRAPHY

Terence Wong is a retired businessman. Back in the days, he spent a lot of time in the office. He has 2 children and 4 grandkids which he love to spend time with whenever they're free.

**“Even though I’m old, I want to live the rest of my life positively despite my mild-Dementia. I may forget sometimes, but I won’t give up in life!”**

### Behaviours

- Prefers to exercise or go for a walk alone
- Like to spend time with his grandkids
- Sometimes forget his grandkids name
- May forget where he lives and how to get home

### Frustrations / Challenges Faced

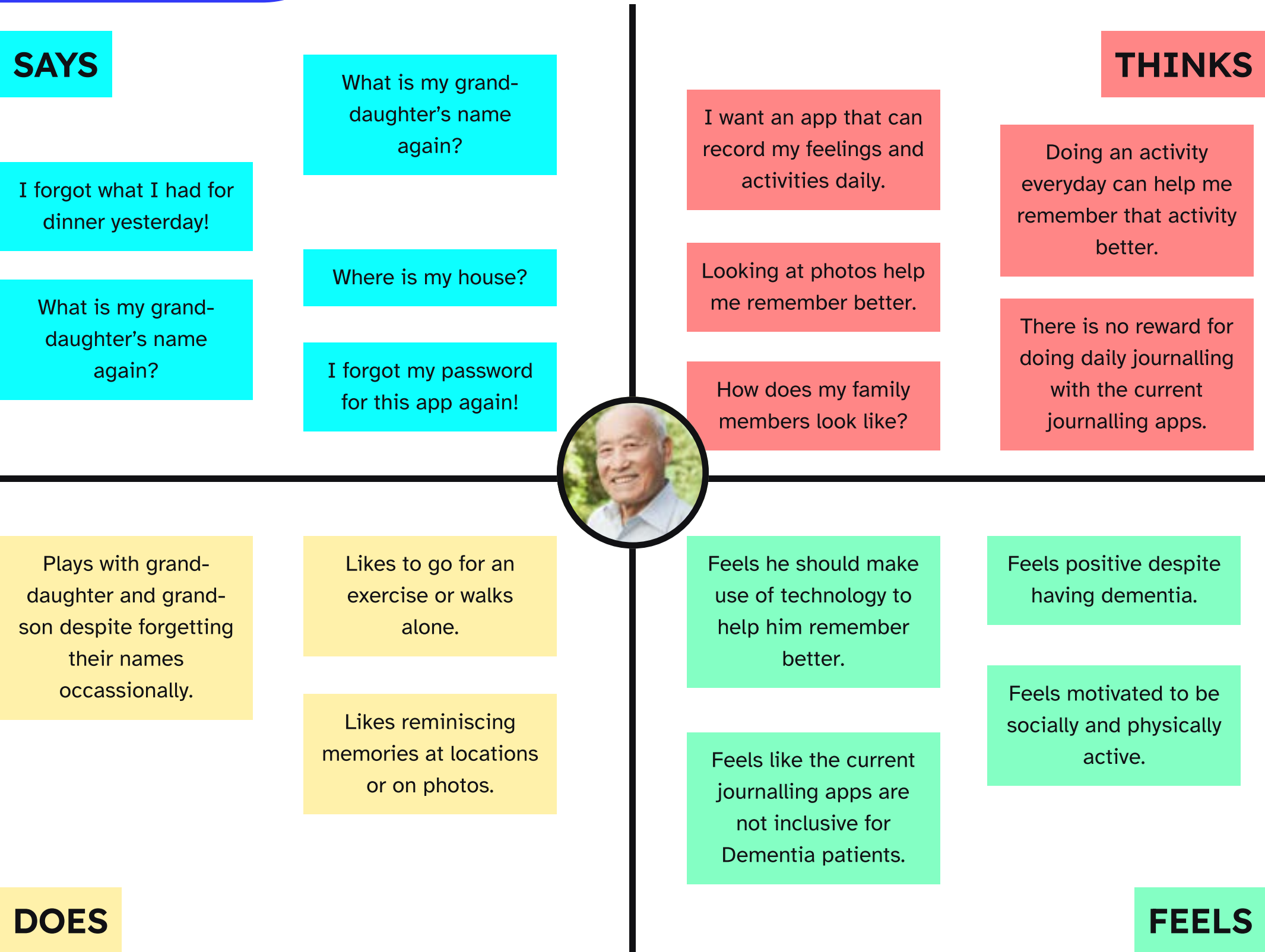
- Does not know how to get home after his walk
- Have to keep asking his children about his grand-children’s name
- Feels scared and pressured when he is lost and forgets how to get home

### Motivations and Goals

- To spend time with his grandkids as it makes him happy and satisfied
- To be physically healthy by being active now that he has more time to exercise
- To remain positive despite being in mild-stage Dementia



# User Empathy Map A: Terence

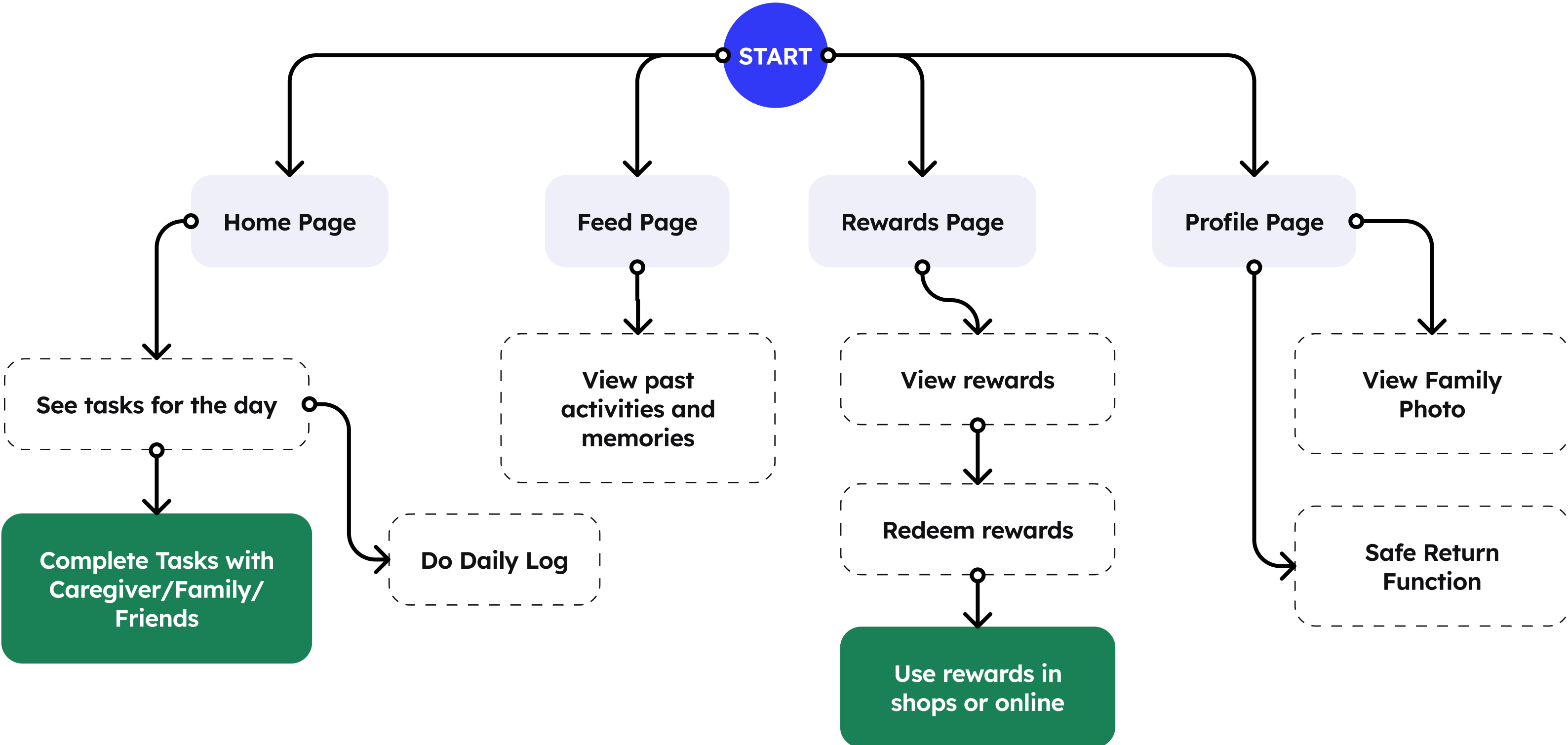


# User Journey A: Terence

App Page

In-App Actions

External Actions





## Patricia Lee

38, Female, Married

PROACTIVE

DRIVEN

ENTHUSIASTIC

### BIOGRAPHY

Patricia is a qualified nurse and caregiver for over 15 years. Mother of 2, she is very passionate and driven in giving her best to her children and patients. She has been Mr. Terence's caregiver for almost 3 years.

**I love to see my patients growing out of their comfort zone and live life on their own terms. It satisfies me to see that I have made a positive impact.**

### Behaviours

- Likes to chit-chat with her patients about their day
- Sometimes invite her patients to her house for special occasions like her children's birthday

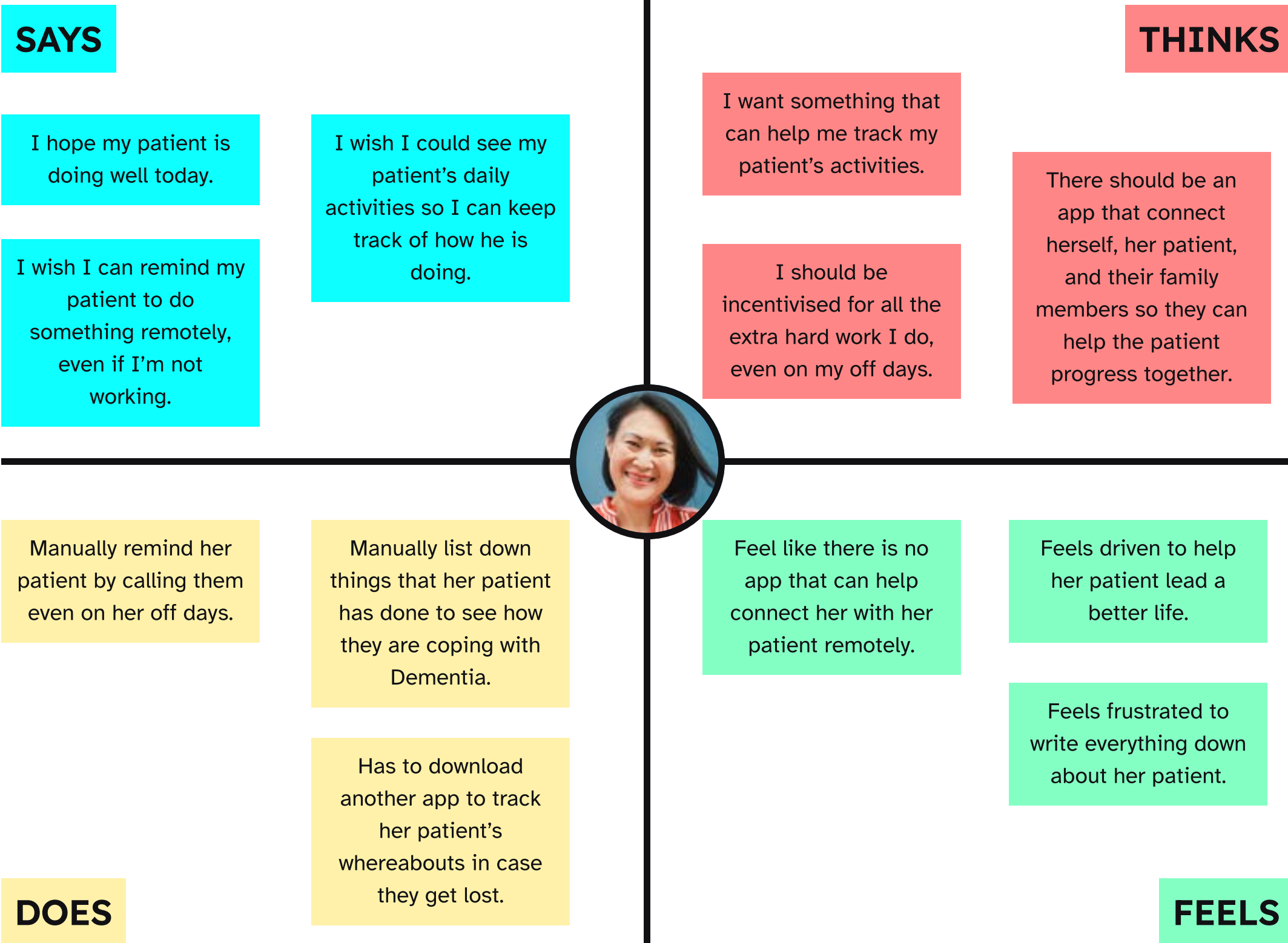
### Frustrations / Challenges Faced

- Having to manually check where her patients are whenever they are by themselves and how they are doing
- Not updated to her patient's latest milestones or special occasions
- Receives calls about her patients during her off days

### Motivations and Goals

- To ensure patients with Dementia can receive proper companionship and support
- To make use of technology to support her day-to-day work
- To live a fruitful and satisfactory life helping others in need

# User Empathy Map B: Patricia

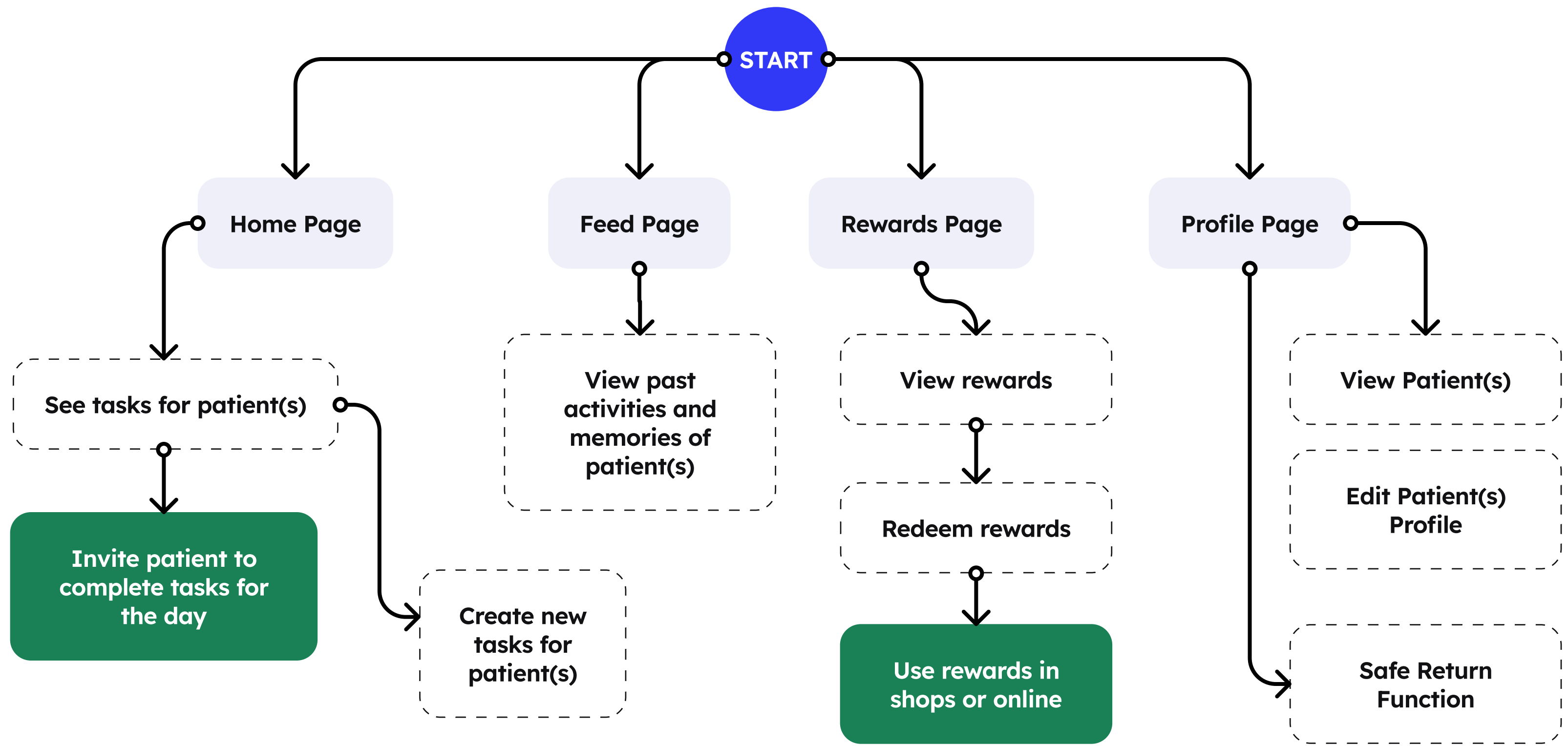


# User Journey B: Patricia

App Page

In-App Actions

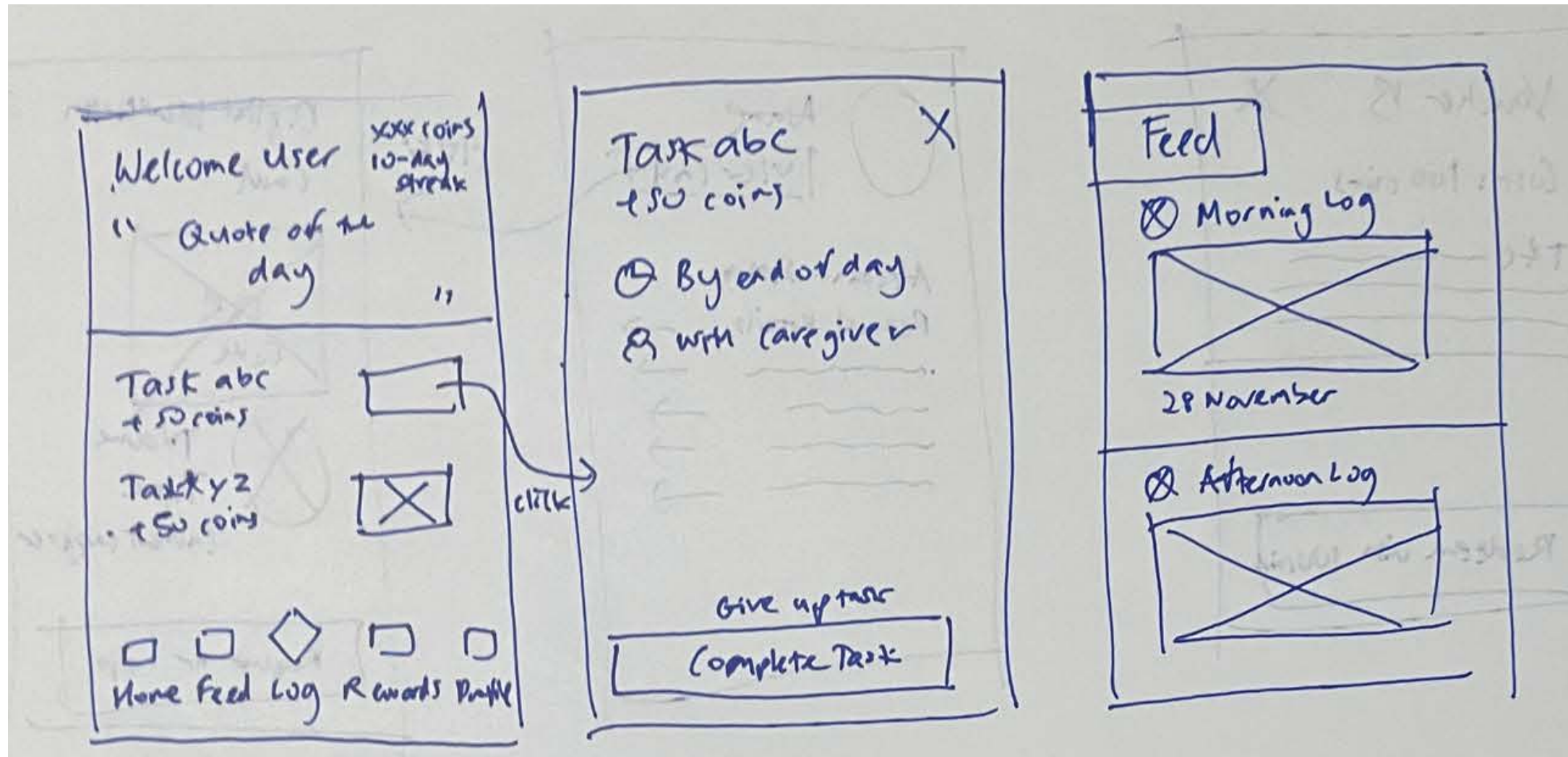
External Actions



## Home Page

## Task Page

## Feed Page



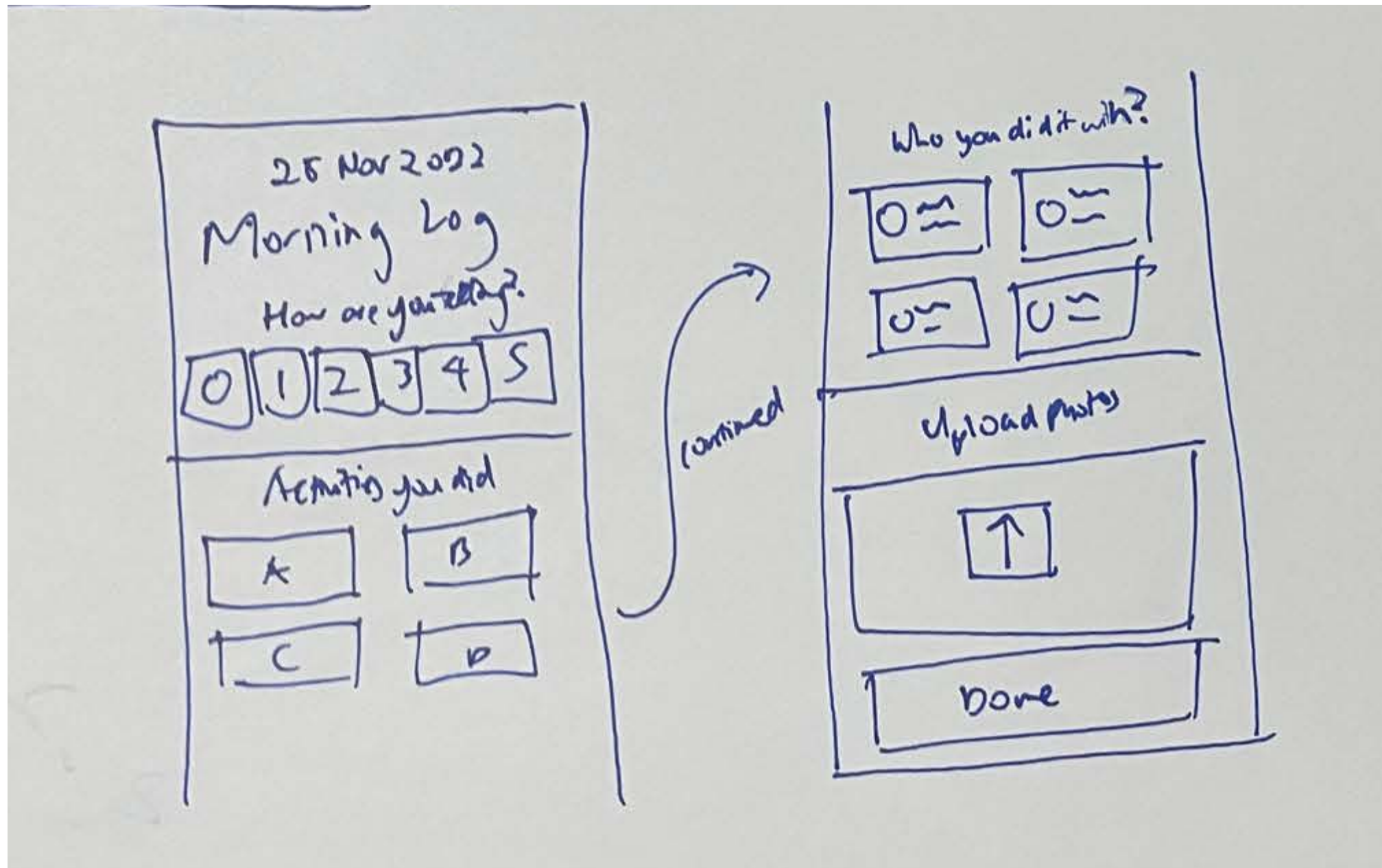
Home page features a simple Welcome User and Quote of the Day. The main feature at the home page is the tasks for the patient along with the coins they can receive. Clicking on the coins leads them to the Task page with additional information such as who they can do the activity with, and the deadline to complete it in order to receive the coins.

The activity Feed page shows the past logs of the user along with the image they uploaded.



## Log Page (first half)

## Log Page (second half)

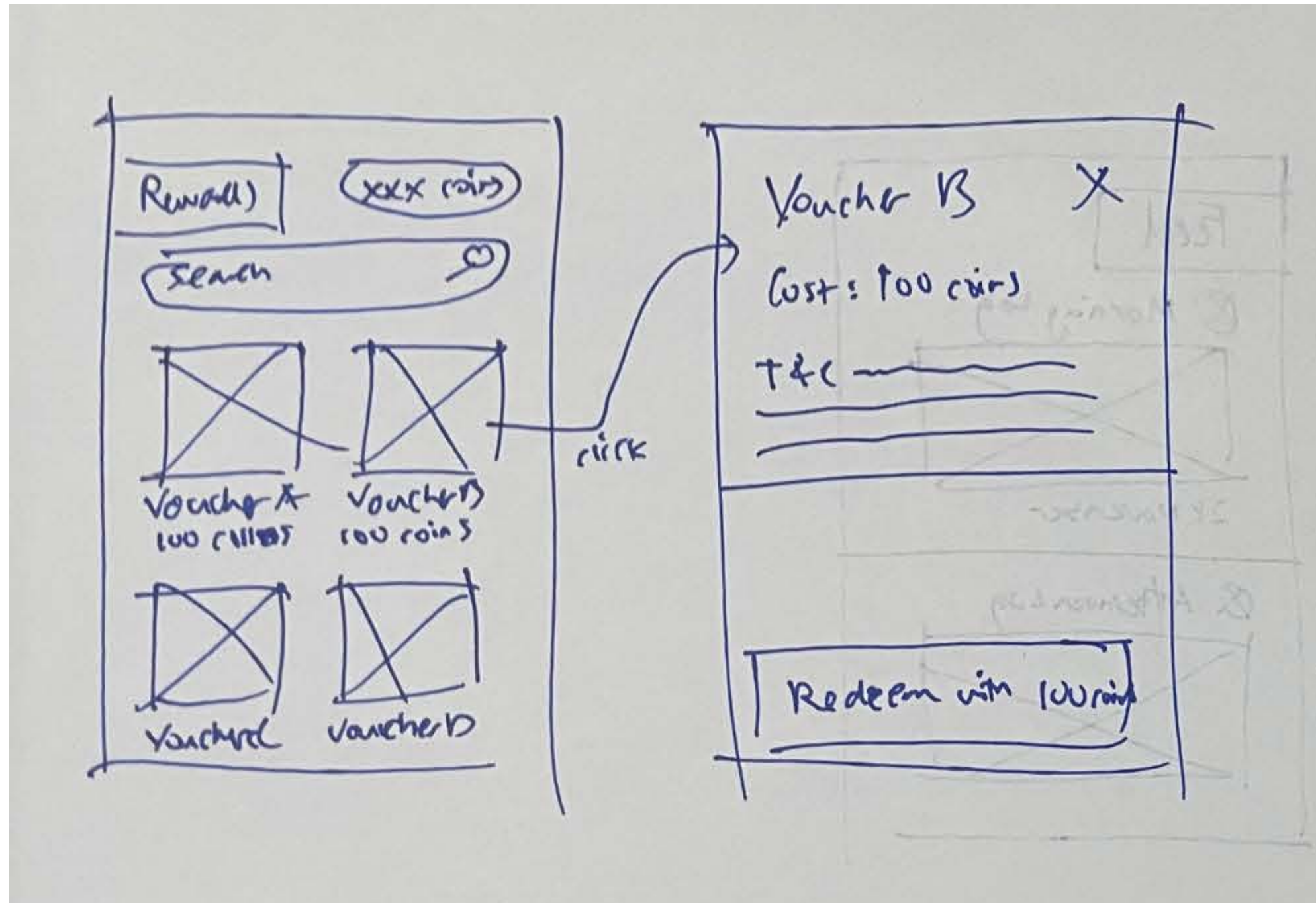


The Log page shows the different inputs required for the user to complete the journal entry. Use of scale number to show how happy/sad they are about their morning/afternoon/evening.

The second half of the Log page features who they did activities with with their name and image of their face to enforce memory. They can also upload photos of their session.

## Rewards Page

## Specific reward redemption page



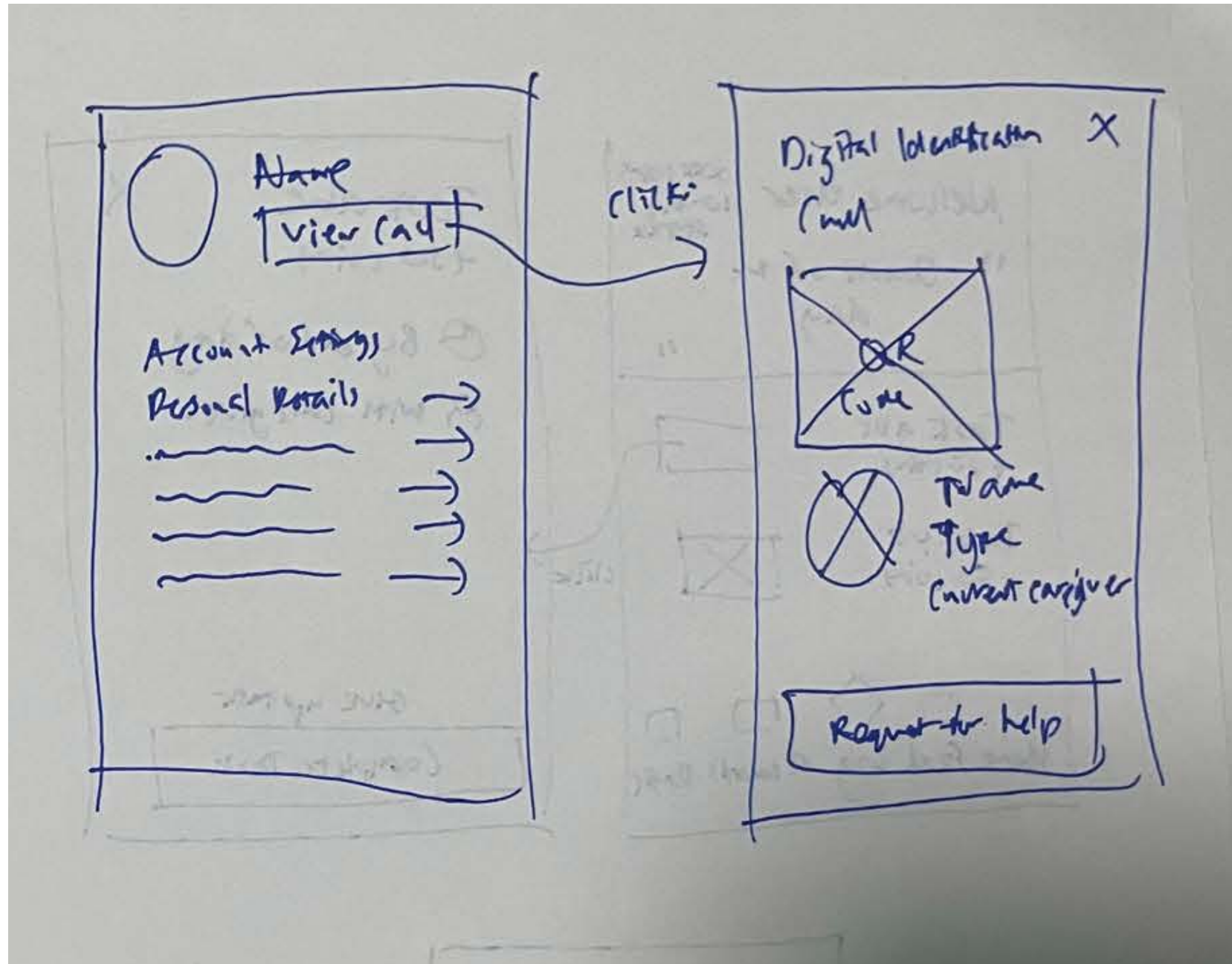
The rewards page show the possible vouchers or products/services the user can redeem with their coins.

Clicking on one of the cards will open up a page with more details of the item, such as the terms and conditions, when to use it by, etc. as well as the call to action button to redeem the voucher. The copy of the button is important - "Redeem with XXX coins" so the user can get reminded how much of their coins they will be using.



## Profile Page

## Membership Digital Card page



The profile page shows an overview of the details regarding the user

Clicking on the View Card button shows the Digital Identification Card (DIC) membership card. This way, the public can scan the QR code to see the relevant information to the user so they can help bring the user back to their house.

As we want our app to be a one-in-all app for people affected by Dementia, we decided to use a House with a “1” as our logo emblem as we believe it represents having everything under “1” roof. Home also directly correlates to comfort, and that’s what we are aiming for OneCare — comfort for people affected by Dementia. We used our Display typeface, Lexend (shown in the Typography section) as it is clean and easy to read.

## LOGO EMBLEM



## LOGO TYPE

**OneCare**

## HORIZONTAL LOGO



**Primary**

#3139F6

**Secondary**

#198055

**Tertiary**

#EFEFFA

**Gradient**

Primary /  
Secondary

**Black**

#111114

**Grey Dark**

#505058

**Grey Mid**

#B4B4BC

**Grey Light**

#E6E6EA

# Lexend

AaBbCcDdEeFfGgHhIiJjKkLlMm  
nNnOoPpQqRrSsTtUuVvWwXx  
YyZz

0123456789

A clean and geometric sans-serif that is easy to read even on small sizes, it is suitable for headers or short texts as it captures the user's attention easily with its bold and sharp forms.

H1 — Lexend SemiBold / 32px / 120% Line Height / -2% Letter Spacing

**OneCare is a habit-forming membership platform that helps people affected by Dementia lead a better life.**

H2 — Lexend SemiBold / 26px / 120% Line Height / -2% Letter Spacing

**OneCare is a habit-forming membership platform that helps people affected by Dementia lead a better life.**

H3 — Lexend SemiBold / 22px / 120% Line Height / -2% Letter Spacing

**OneCare is a habit-forming membership platform that helps people affected by Dementia lead a better life.**

H4 — Lexend SemiBold / 18px / 120% Line Height / -2% Letter Spacing

**OneCare is a habit-forming membership platform that helps people affected by Dementia lead a better life.**

# Atkinson Hyperlegible

AaBbCcDdEeFfGgHhIiJjKkLlMm  
NnOoPpQqRrSsTtUuVvWwXxYyZz  
0123456789

A typeface specifically created for legibility, Atkinson Hyperlegible is perfect for an app with the main target audience of Dementia patients, which are likely much older and may have visual impairments as well. Its shape and form is easy to read even at small sizes and can be used for long amount of texts.

Body Extra Large — Atkinson Hyperlegible Regular / 22px / 140% Line Height

Founded in 2022, OneCare aims to help people affected by Dementia lead a better life. Its app provides a gamified membership functionality that rewards people living with Dementia for using features in the app that helps reduce their Dementia.

Body Large — Atkinson Hyperlegible Regular / 18px / 140% Line Height

Founded in 2022, OneCare aims to help people affected by Dementia lead a better life. Its app provides a gamified membership functionality that rewards people living with Dementia for using features in the app that helps reduce their Dementia.

Body Medium (Default) — Atkinson Hyperlegible Regular / 16px / 140% Line Height

Founded in 2022, OneCare aims to help people affected by Dementia lead a better life. Its app provides a gamified membership functionality that rewards people living with Dementia for using features in the app that helps reduce their Dementia.

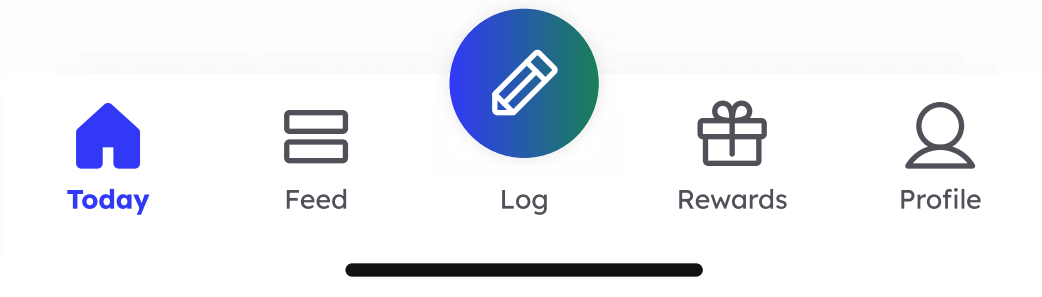
Body Small — Atkinson Hyperlegible Regular / 14px / 140% Line Height

Founded in 2022, OneCare aims to help people affected by Dementia lead a better life. Its app provides a gamified membership functionality that rewards people living with Dementia for using features in the app that helps reduce their Dementia.

Body Extra Small — Atkinson Hyperlegible Regular / 12px / 140% Line Height

Founded in 2022, OneCare aims to help people affected by Dementia lead a better life. Its app provides a gamified membership functionality that rewards people living with Dementia for using features in the app that helps reduce their Dementia.

# Style Guide: Components



Global Navigation Tab Bar

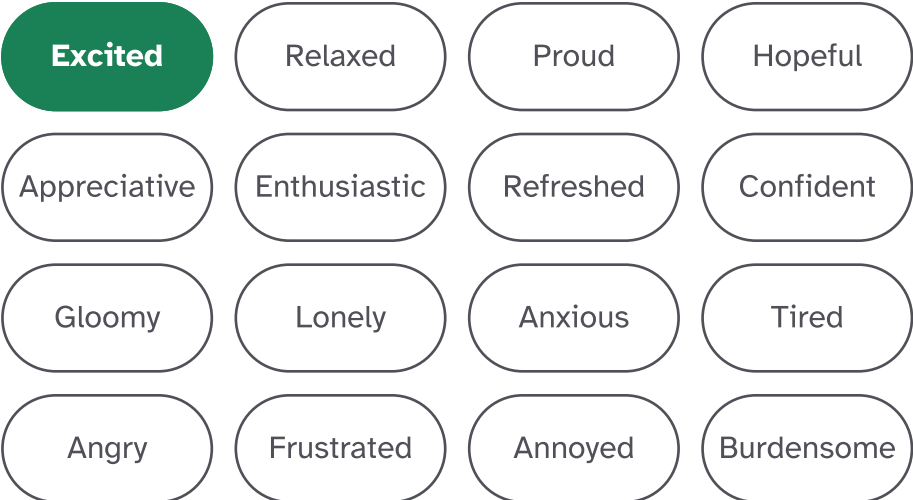
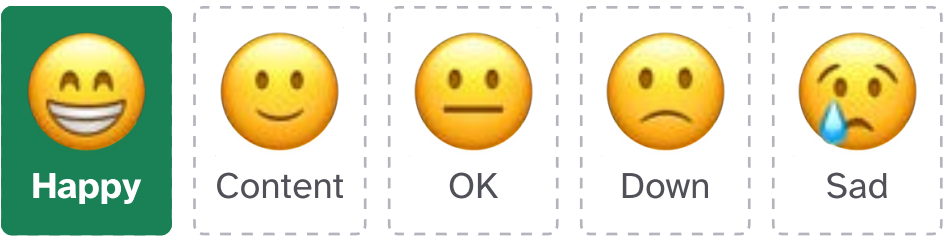


Call to action Buttons

Call to action Buttons, clicked



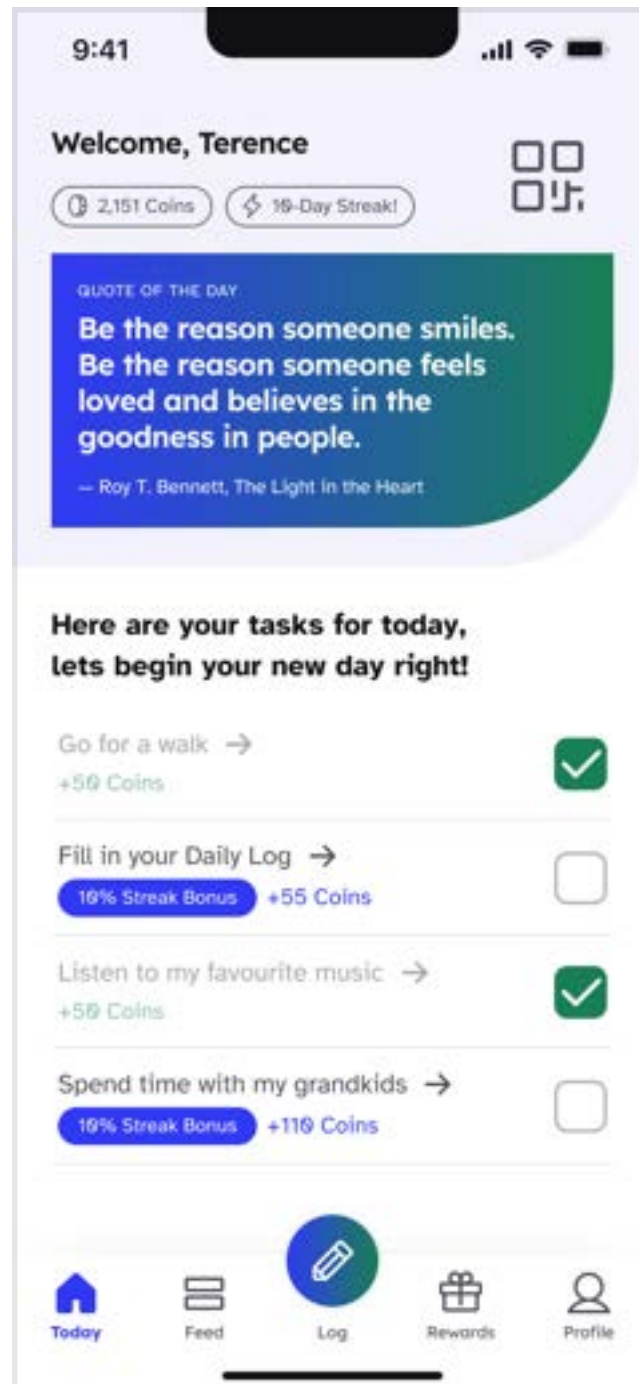
Slide-up Drawer for additional information



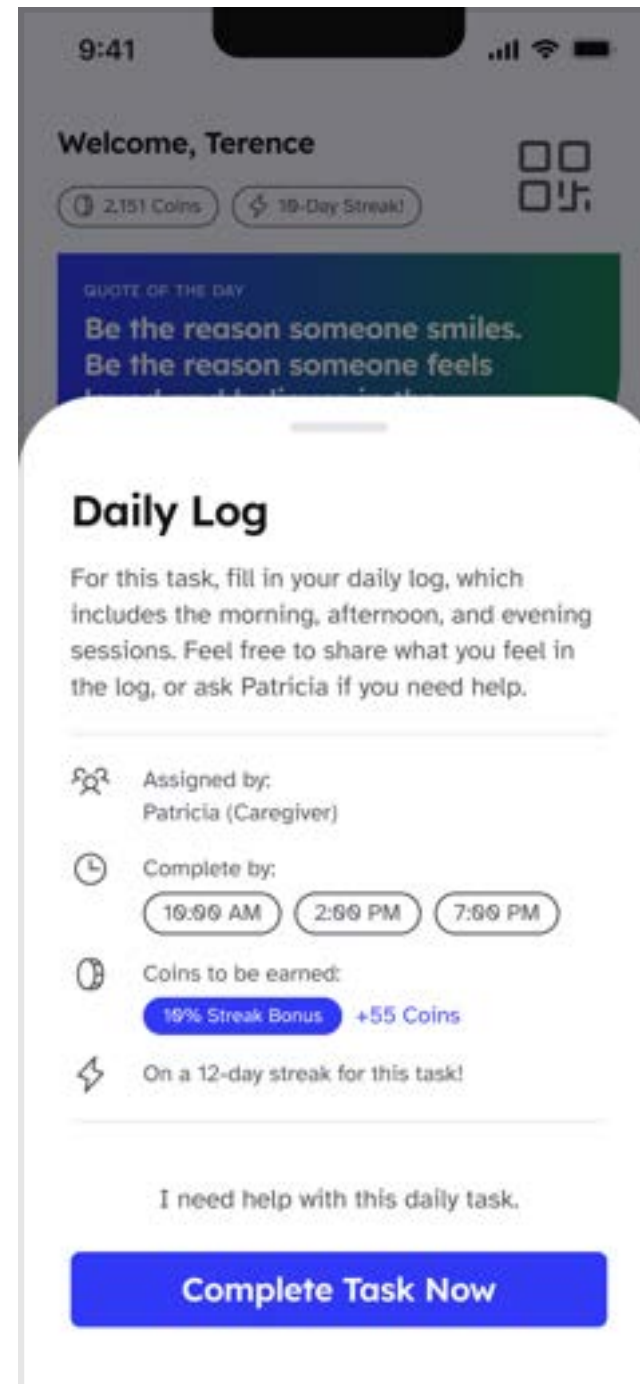
Form selection and inputs



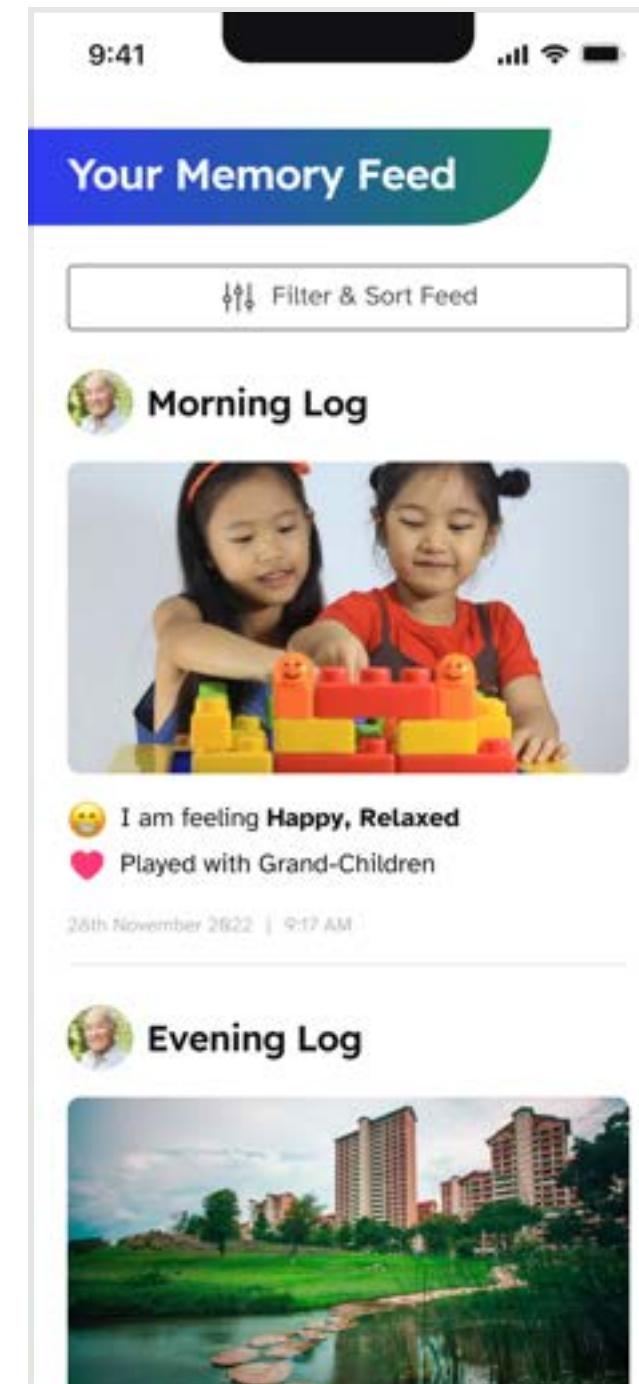
# High-Fidelity: Home and Feed



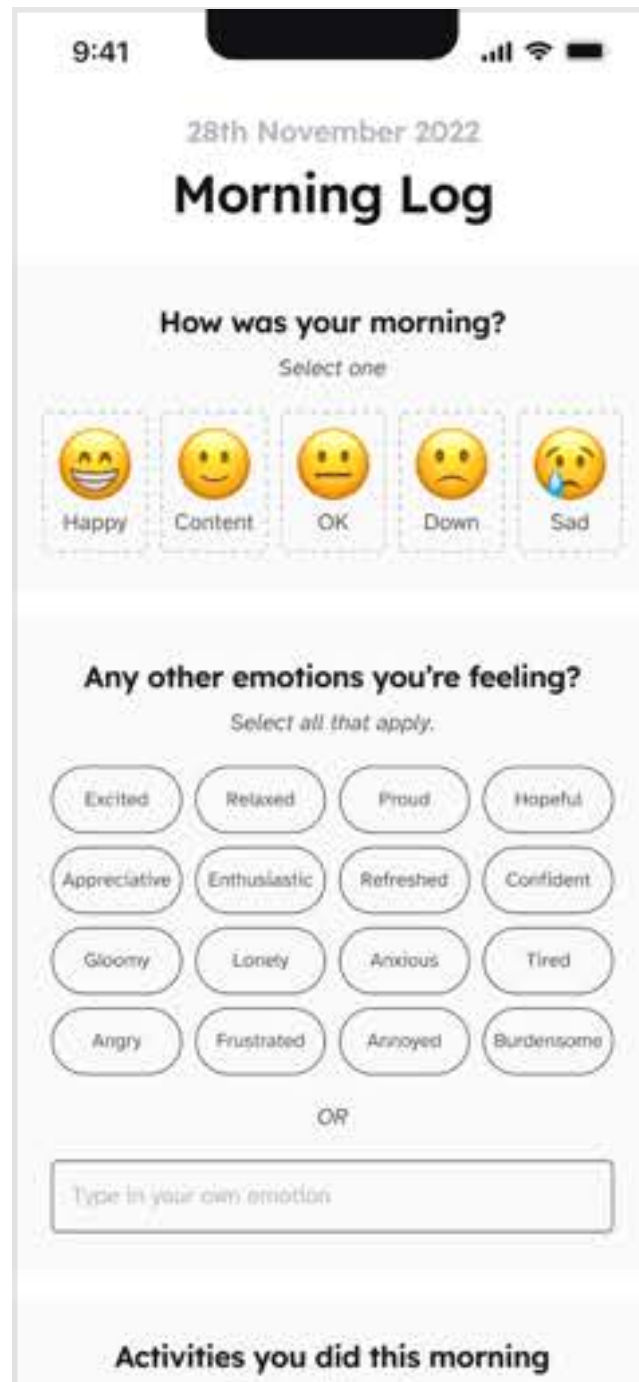
Changes made from Wireframe: Changed from an X to Tick in HiFi as a Tick is more positive. Also added the Digital Identification Card QR code button shortcut at the top right.



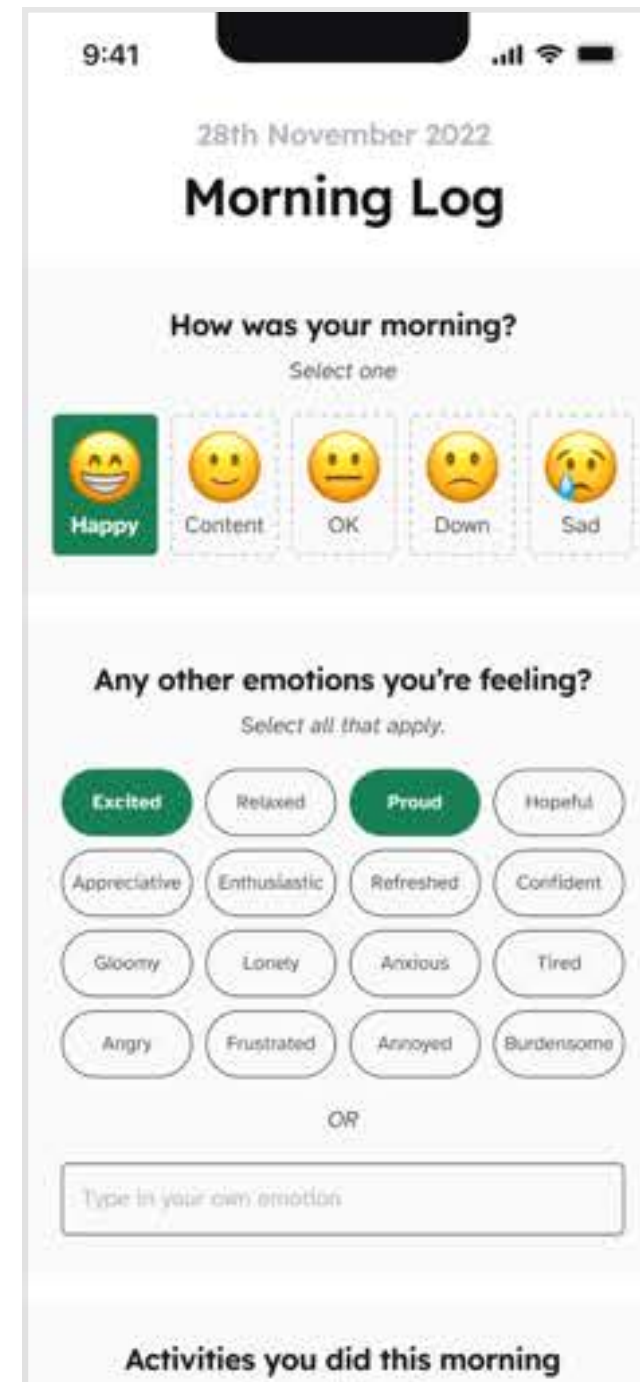
Changes made from Wireframe: Use of slide-up drawers instead of a new page, so user does not have to keep pressing Back button, rather they can just slide down the Drawer to close it.



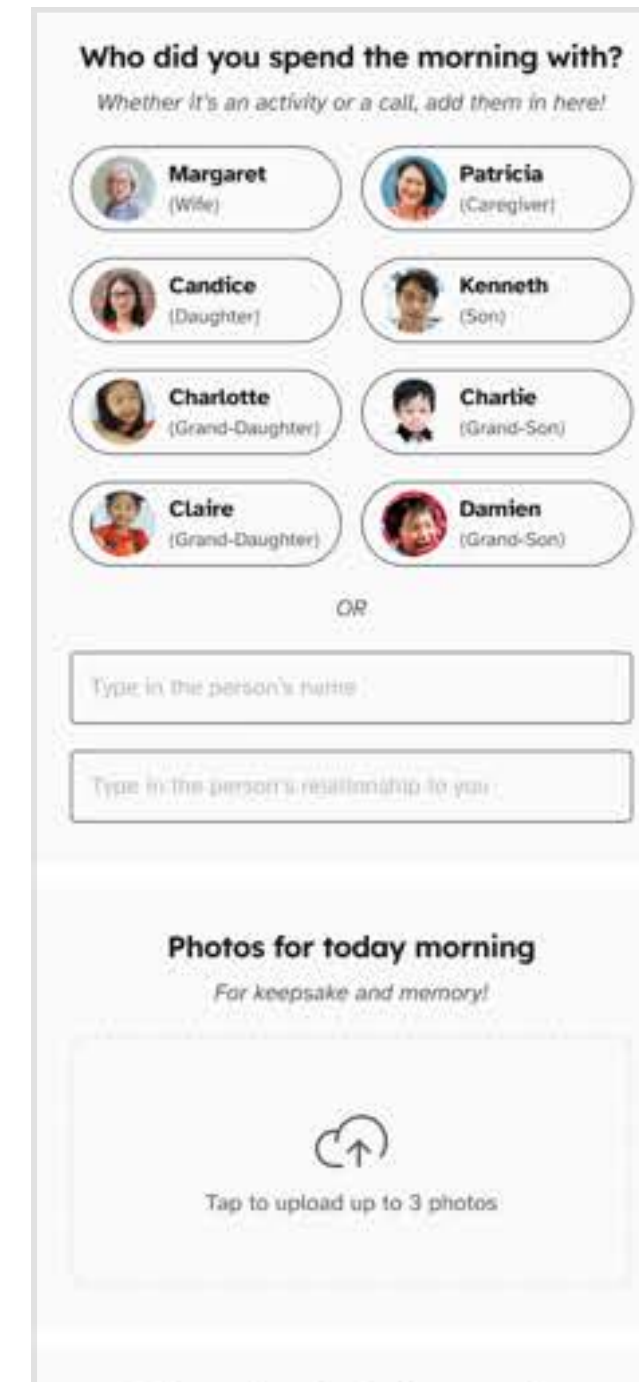
The Memory Feed shows the past Daily Logs that the patient has submitted. This way, they can refer to it to see what they done on that day. Caregivers also see the same feed.



Changes made from Wireframe: Use of emojis instead of number as number isn't an accurate representation of a person's feelings.



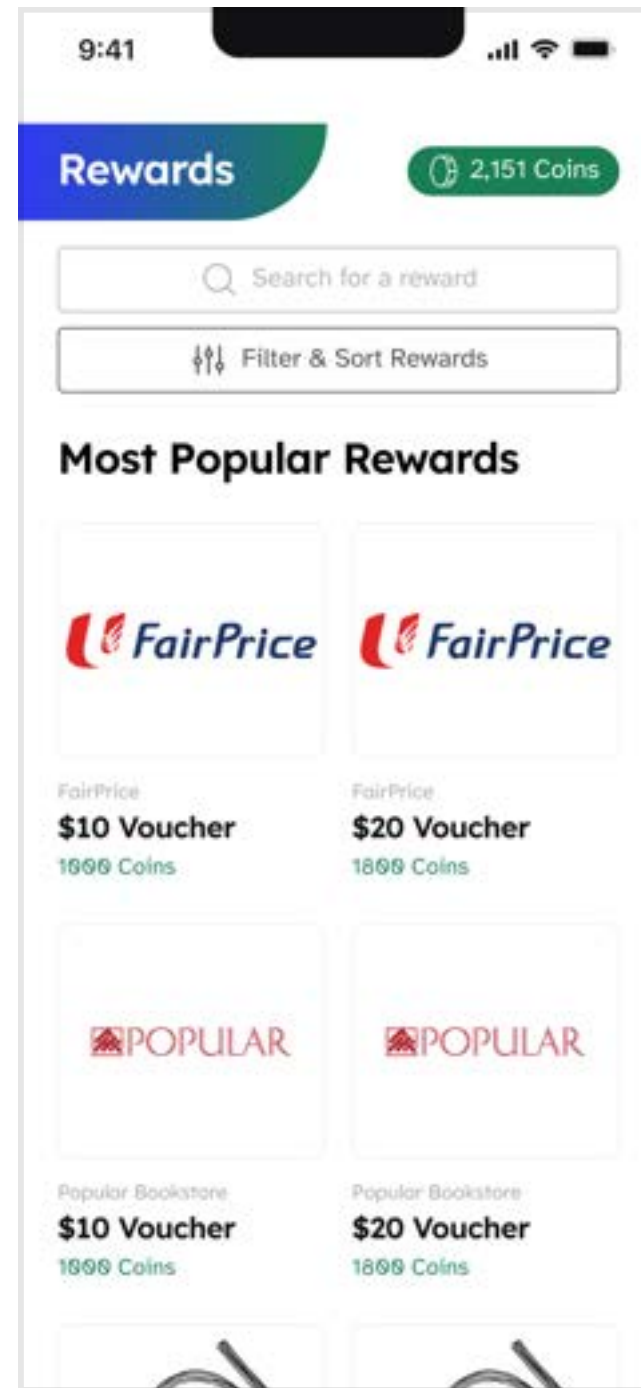
Each input is accompanied with instructions so the user won't get confused. Selection is obvious in the Green highlighted colour..



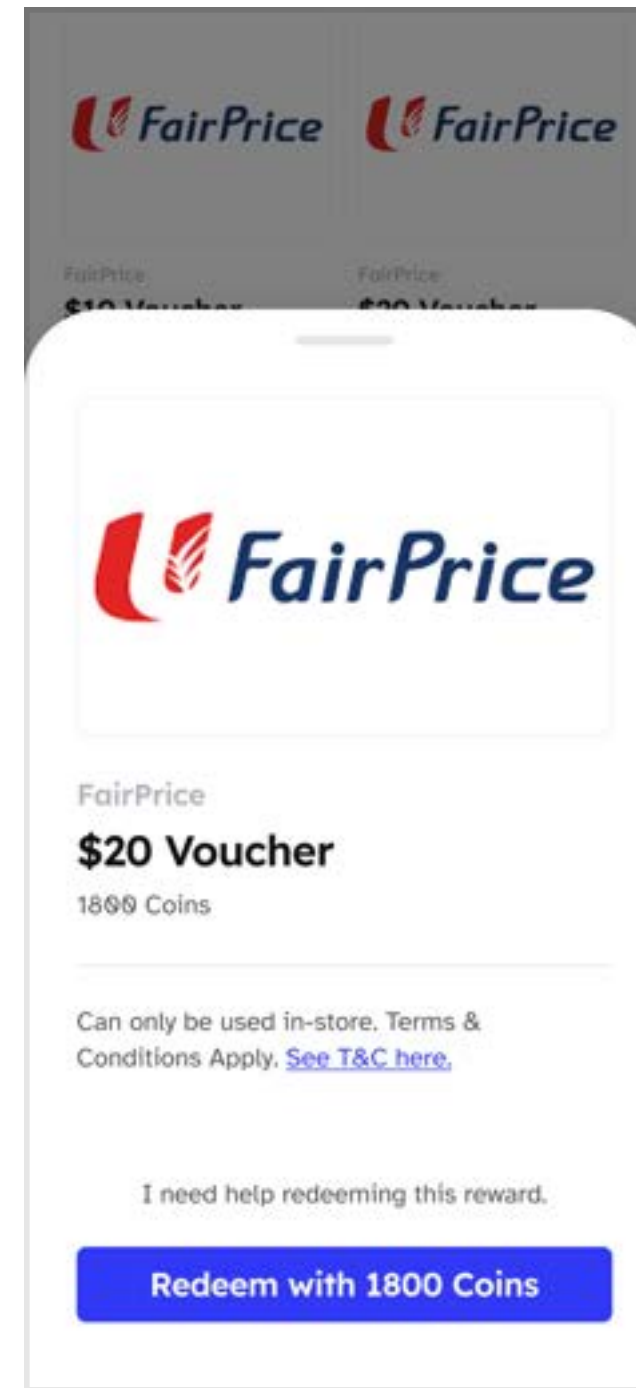
User can choose who they spend the session with for that particular Log. This enforces the Dementia patient to recognise and recall who the important people in their lives are. They can also upload photos as photos are much easier to remember a particular moment or memory.



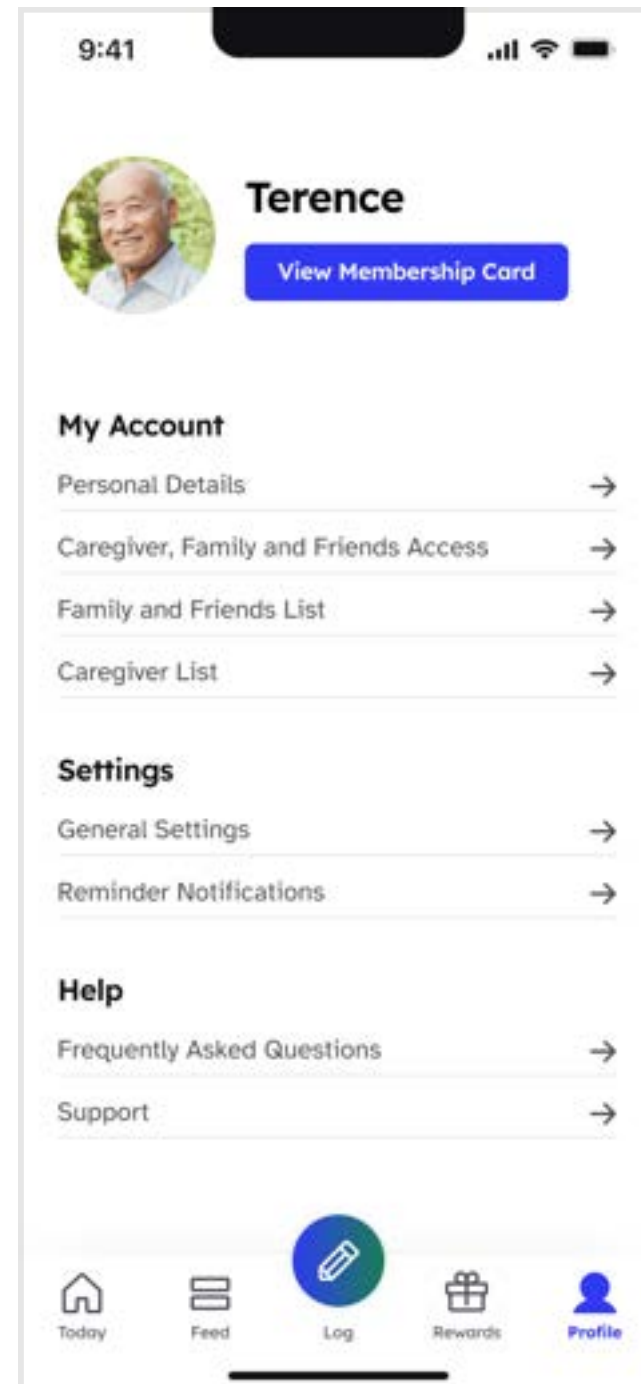
# High-Fidelity: Rewards



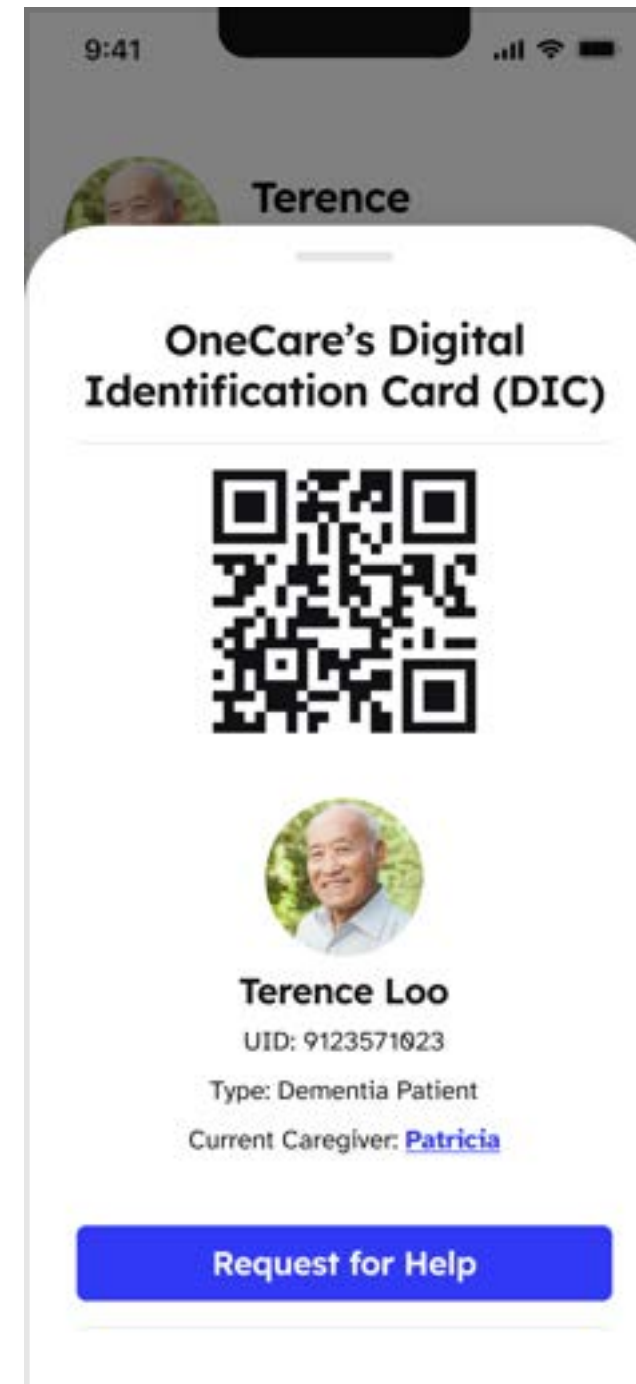
Rewards page is a simple page where users can see a number of rewards that is claimable with their Coins collected through completing tasks.



Changes made from Wireframe: Change from an individual page to a slide-up Drawer



Profile page is a simple overview that houses all the information of the user. The most important button is the View Membership Card button.



Changes made from Wireframe: Change from an individual page to a slide-up Drawer

## Prototype Link:

<https://www.figma.com/proto/ezPX2KukXNCHlrWpurVqDO/UXG2200-%E2%80%93-Dementia-App?page-id=1%3A4&node-id=52%3A7911&viewport=271%2C535%2C1.03&scaling=scale-down&starting-point-node-id=52%3A7911&show-proto-sidebar=1>

1

## Designing an app for the less privileged is not an easy task

I have to keep in mind all the user requirements and of course their ultimate goal of using the app. In this case, people with Dementia, who are likely elderly people, don't really know how to use smart phone alot. I have to make the app as simple and easy to use as possible, while at the same time ensuring they app's features have value and positive impact in their life.

2

## It is important to keep accessibility in mind for all the designs

Things like font legibility, colour contrast, is all very important especially for an app that aims to improve a less privileged person's life. Ignoring them can cause the user to be more confused rather than benefit from using the app.

3

## User Research would help further in making an app idea validated

Since I have very limited time in this project along with other school projects, the app idea and concept was not fully validated. With more user research done via surveys or one-to-one or one-to-many interviews, I can know if this idea can work. However, from my extensive competitor analysis and heuristics evaluation, I believe if the features that I take work on the other 3 apps, it can work too if I combine them together and simplify them.

<https://memory.ucsf.edu/caregiving-support/behavior-personality-changes>

<https://www.homage.sg/services/dementia-care/>

<https://www.defeatboco.com/>

<https://afscenter.org/dementia-phone-apps/>

<https://www.anthemmemorycare.com/blog/colors-and-dementia-yes-they-can-have-an-impact>

<https://www.enablingenvironments.com.au/colour-perception-and-contrast.html>

<https://accessible-colors.com/>

<https://www.nia.nih.gov/health/what-is-dementia>

[https://www.healthhub.sg/live-healthy/498/warningsignsof\\_dementia](https://www.healthhub.sg/live-healthy/498/warningsignsof_dementia)

<https://www.healthhub.sg/live-healthy/946/caring-for-dementia-patients-handle-feelings-with-care>

<https://www.healthhub.sg/programmes/160/AAP/dementia>

<https://www.holidify.com/pages/gardens-in-singapore-569.html>

<https://unsplash.com>