

SAGE

Designing for an Active Transition into a Retirement Lifestyle

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CS 147 • F23 • Stanford University

Team



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Year: Junior
Major: Computer Science (HCI)



Name: Amy Chang
Year: Junior
Major: Computer Science (HCI)



Name: Ethan Hellman
Year: Senior
Major: Computer Science (AI)



Name: Brendan McLoughlin
Year: Senior
Major: Computer Science (HCI)

Sage

Outline

- 1. Problem & Solution**
- 2. Sketching Explorations**
- 3. Selected Interface & Rationale**
- 4. Low-fi Prototype Construction**
- 5. Task Flows**
- 6. Testing Methodology**
- 7. Testing Results**
- 8. Discussion**

Problem & Solution

Back to our POV

WE MET

Mary-Lue Timpson (MLT), an 80-year-old who volunteers at Senior center

WE WONDER IF THIS MEANS

Feels different from other seniors due to role in the community which gives her a greater sense of purpose.

WE WERE SURPRISED TO LEARN:

MLT considers herself separate from the other seniors.

IT WOULD BE GAME-CHANGING TO

Deliver a similar sense of purpose through responsibility to more people.

Problem & Solution

Back to our POV

WE MET

Mary-Ede Thompson (MEL), an 80-year-old who volunteers at Senior center

THE GREATER PROBLEM

Elderly people who lack community and contribution to something bigger than themselves often feel lonely and purposeless

WE WERE SURPRISED TO LEARN:

MLT considers herself separate from the other seniors.

IT WOULD BE GAME-CHANGING TO

Deliver a similar sense of purpose through responsibility to more people.

Problem & Solution

Needs & solution

NEEDS

✓ Create sense of purpose

✓ Prevent loneliness

SOLUTION

Facilitate creation of shared gardens that donate their harvest.

VALUE PROP

**Creating newfound purpose and
friendships through gardening**

Problem & Solution

Solution

1.

Select a physical
community
garden

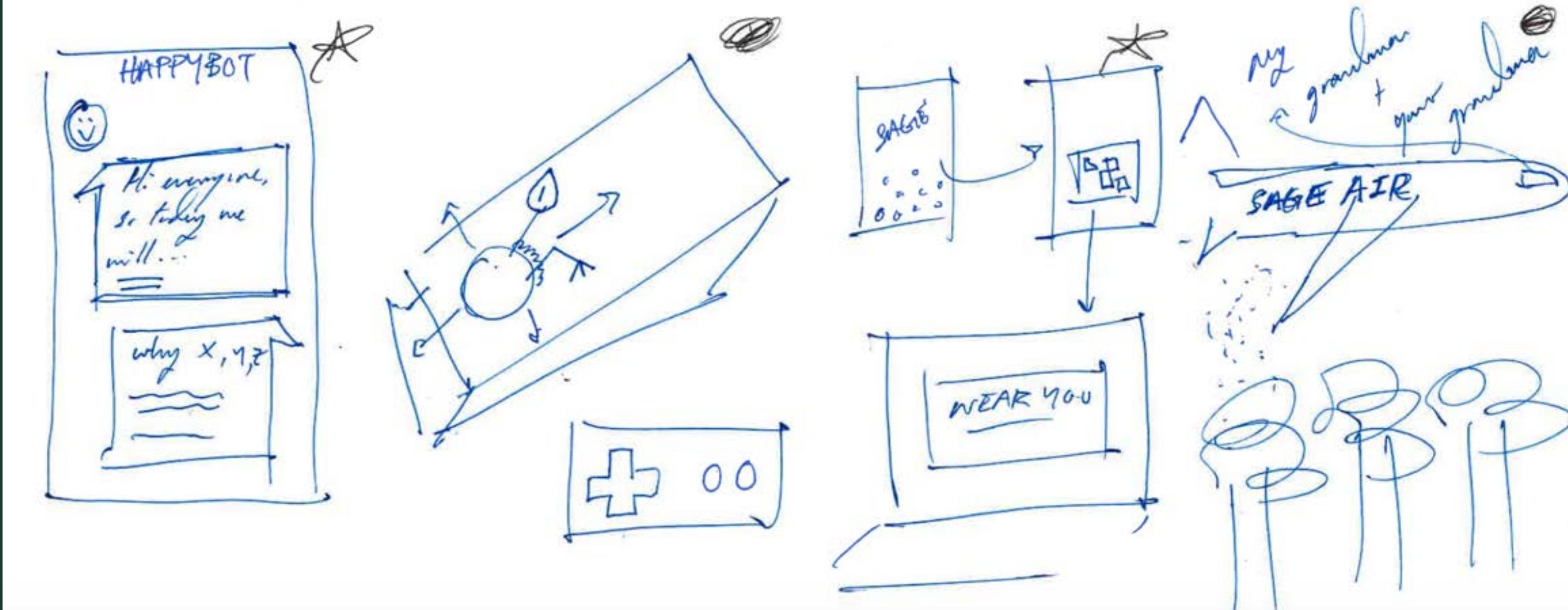
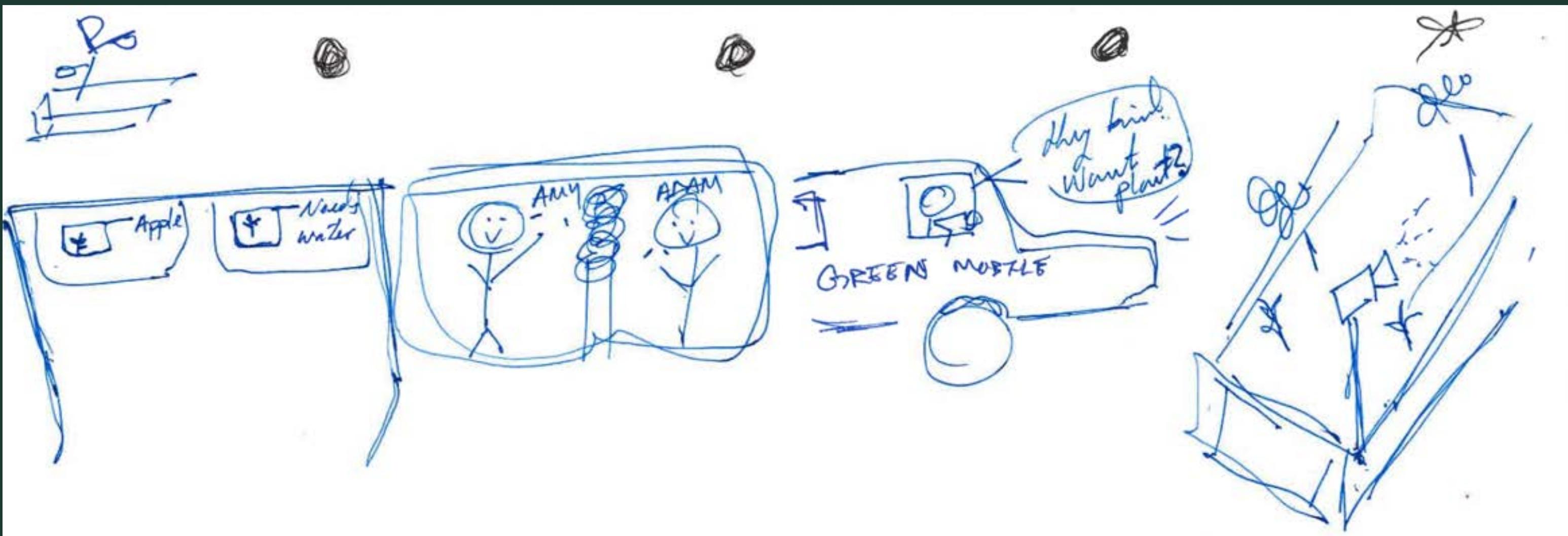
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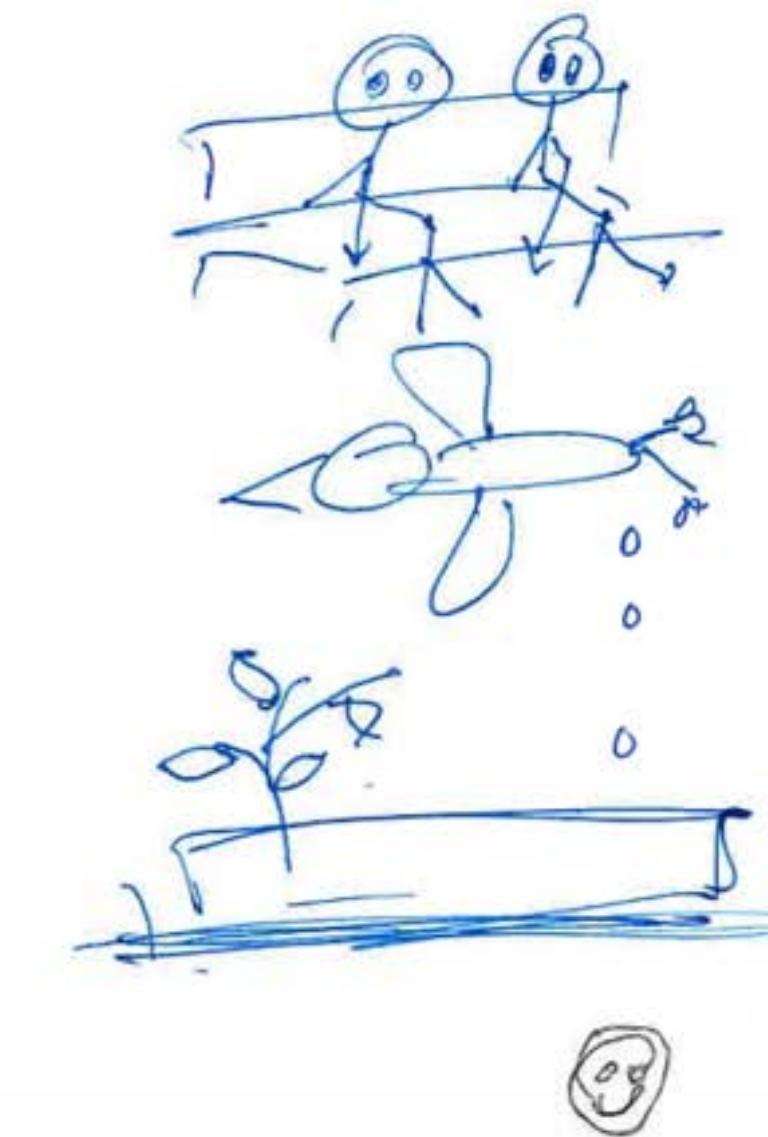
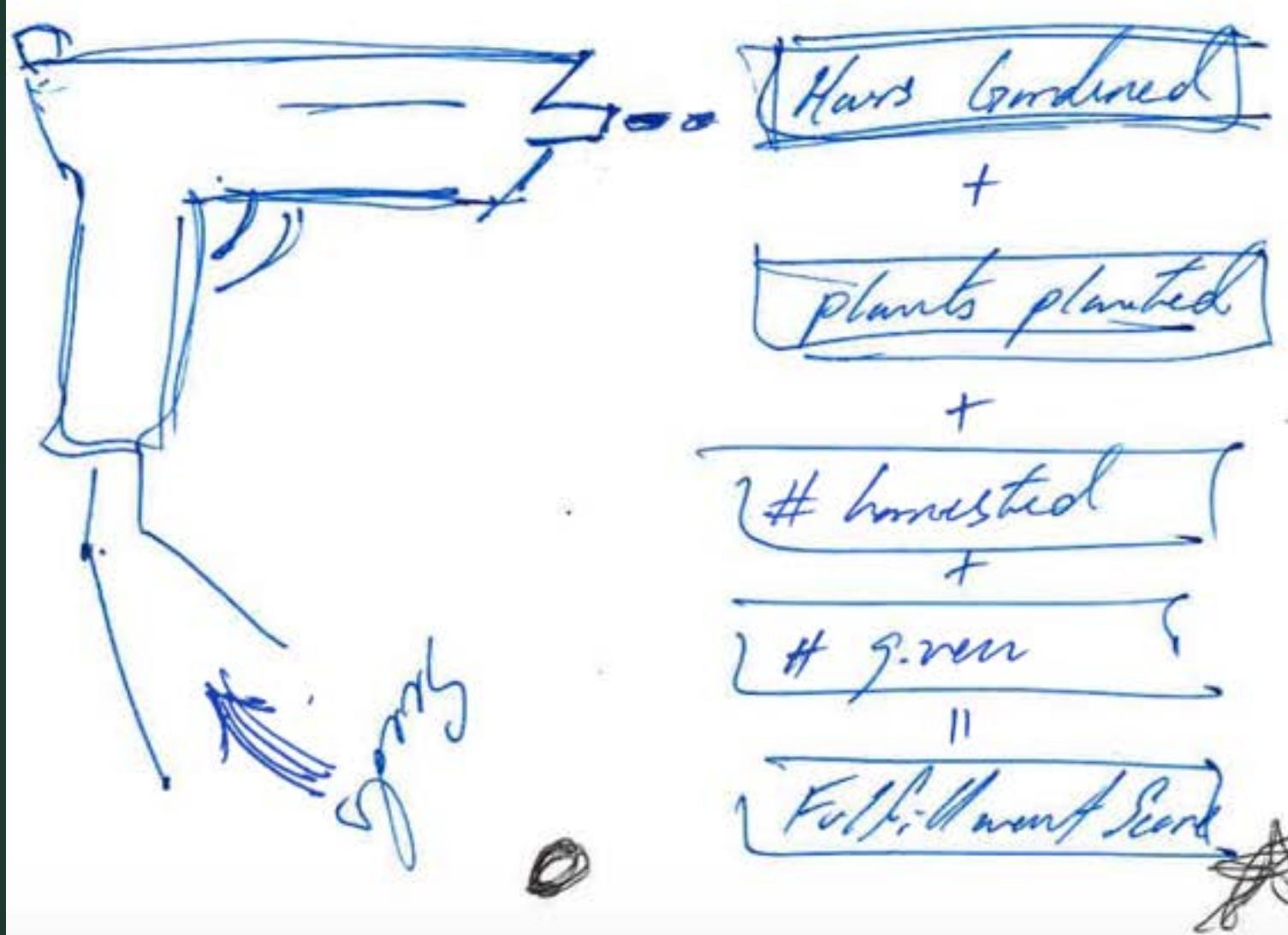
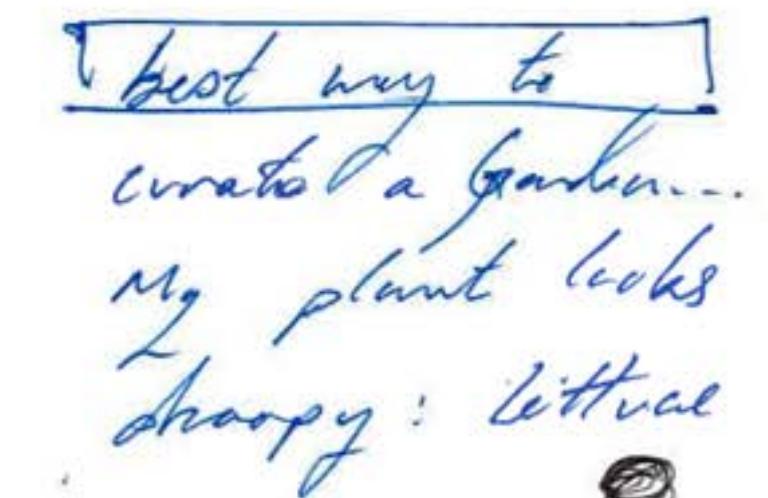
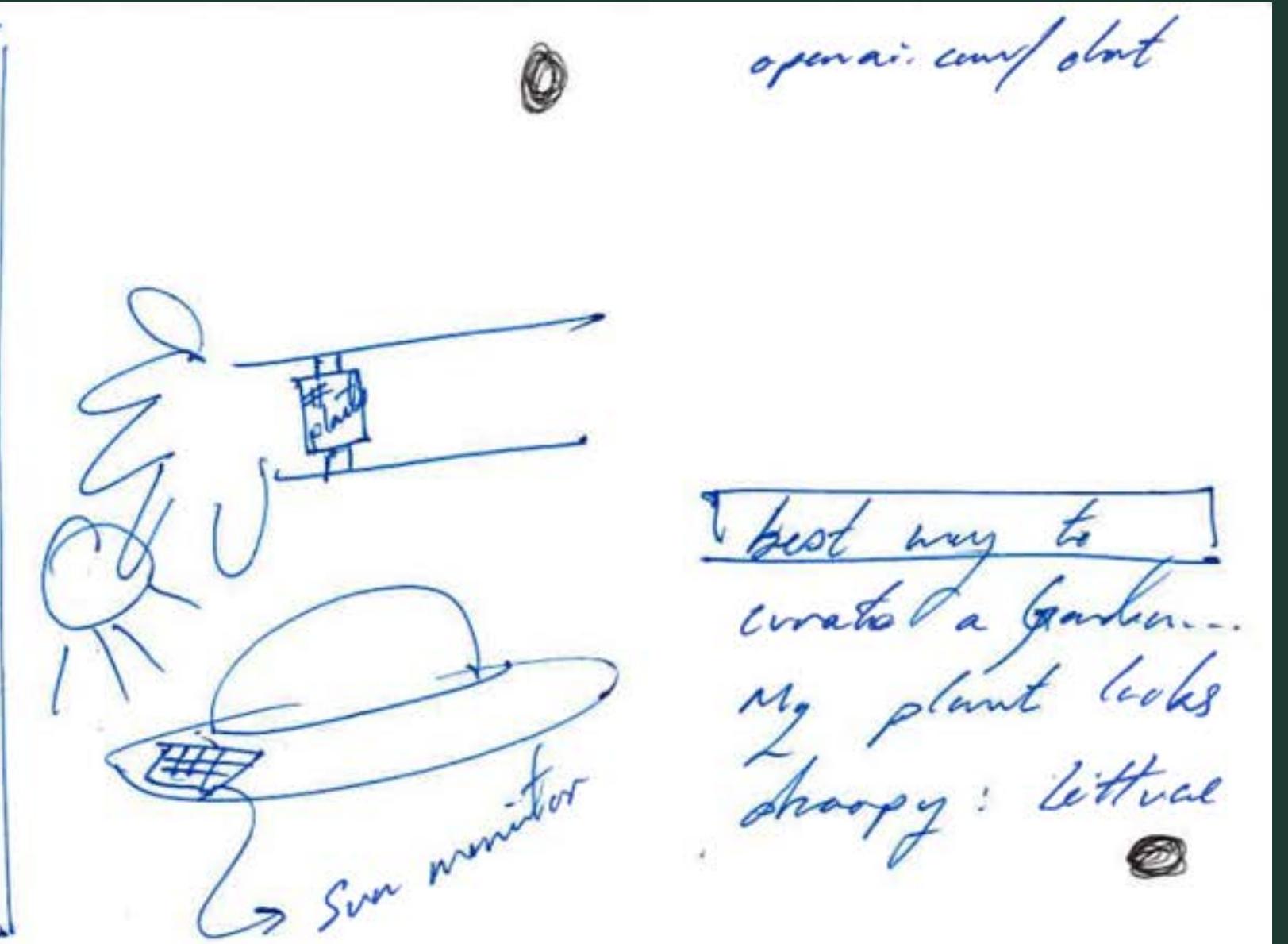
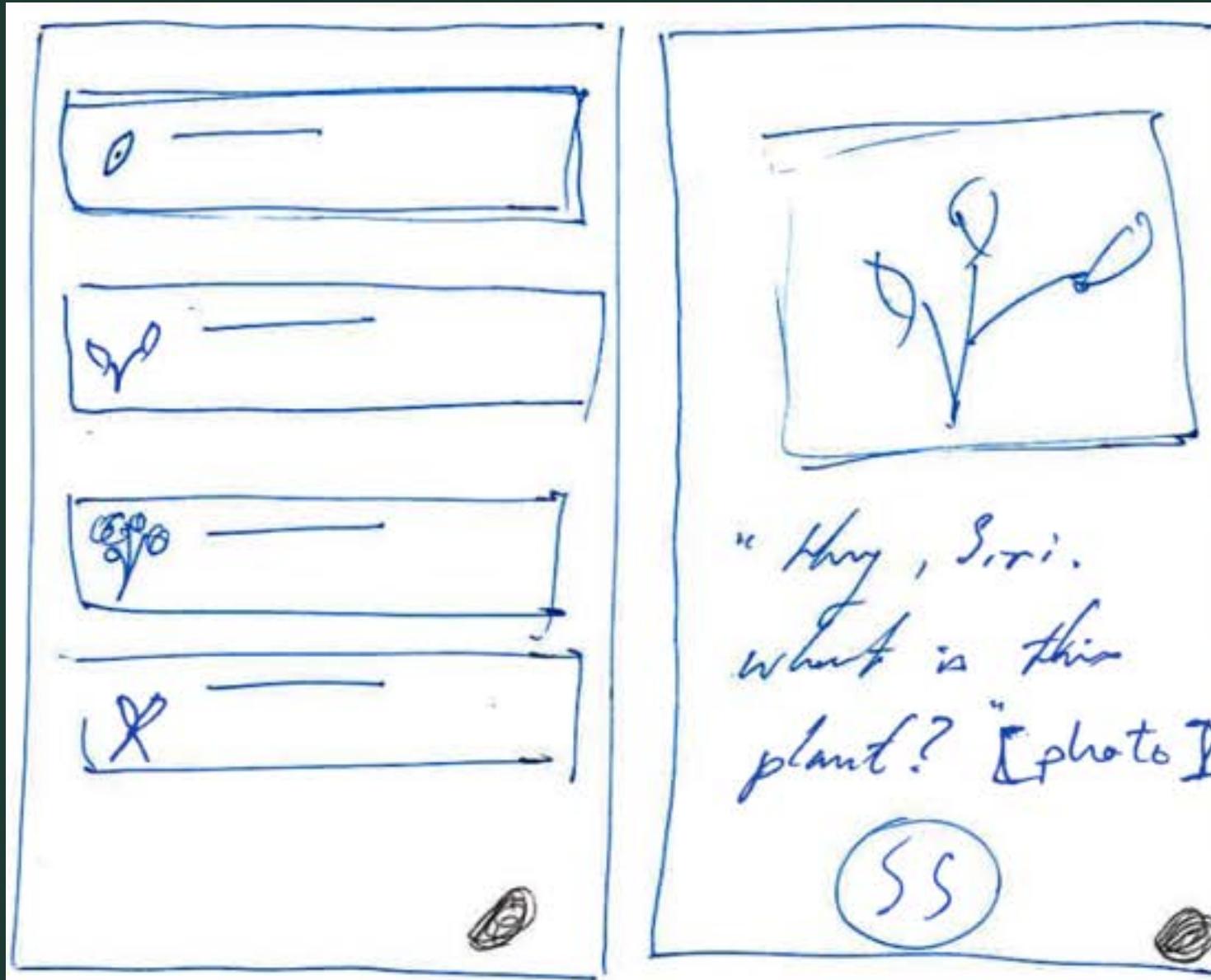
Attend gardening sessions
with friends working
towards harvest goals

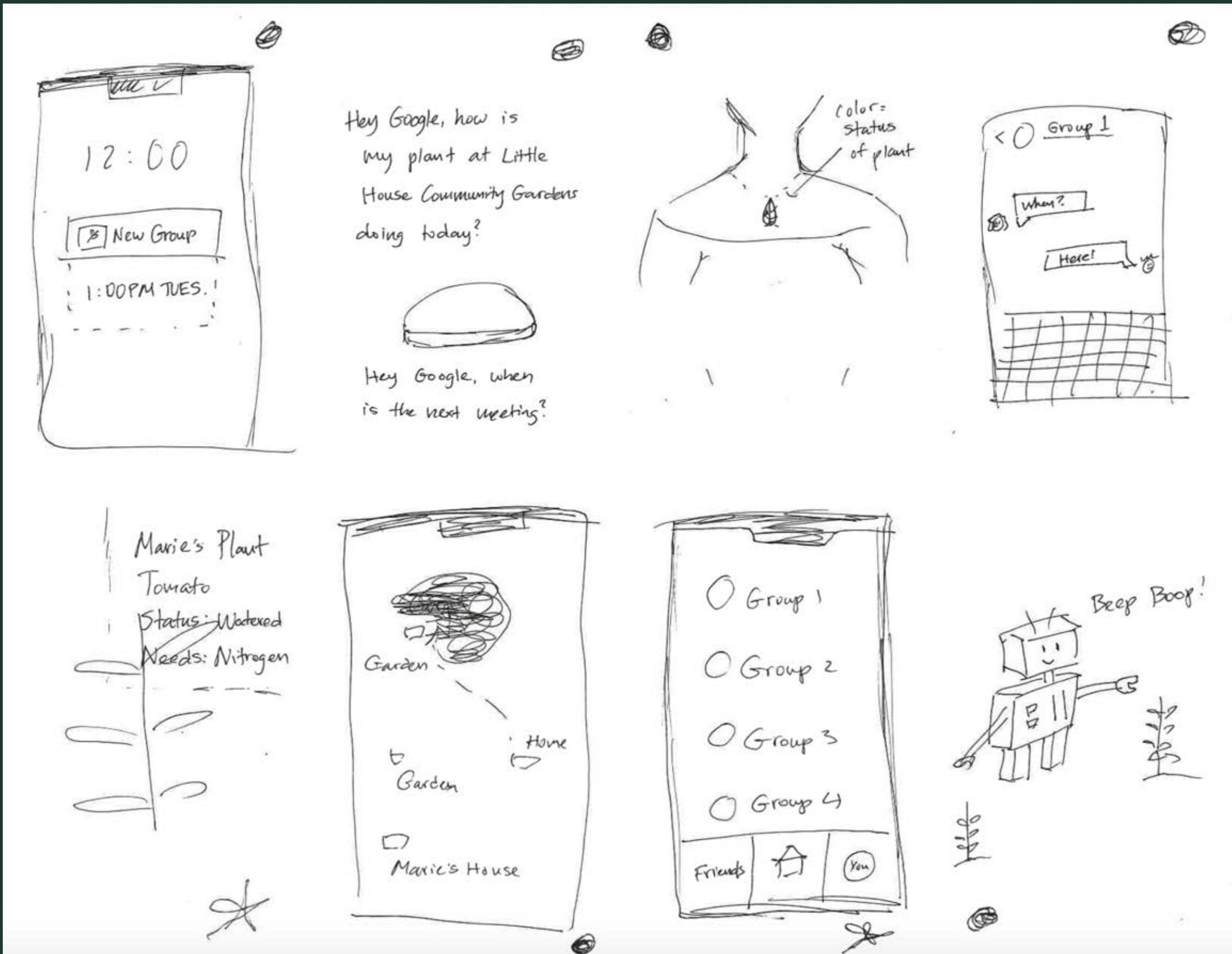
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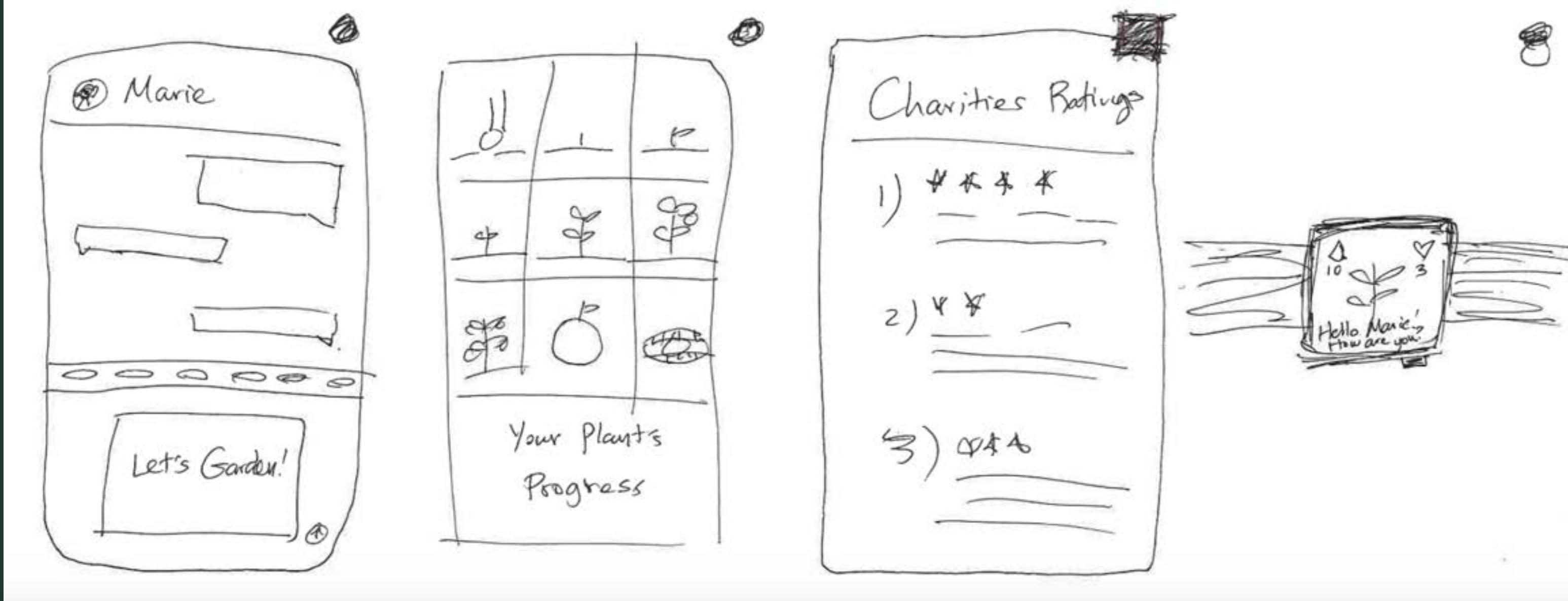
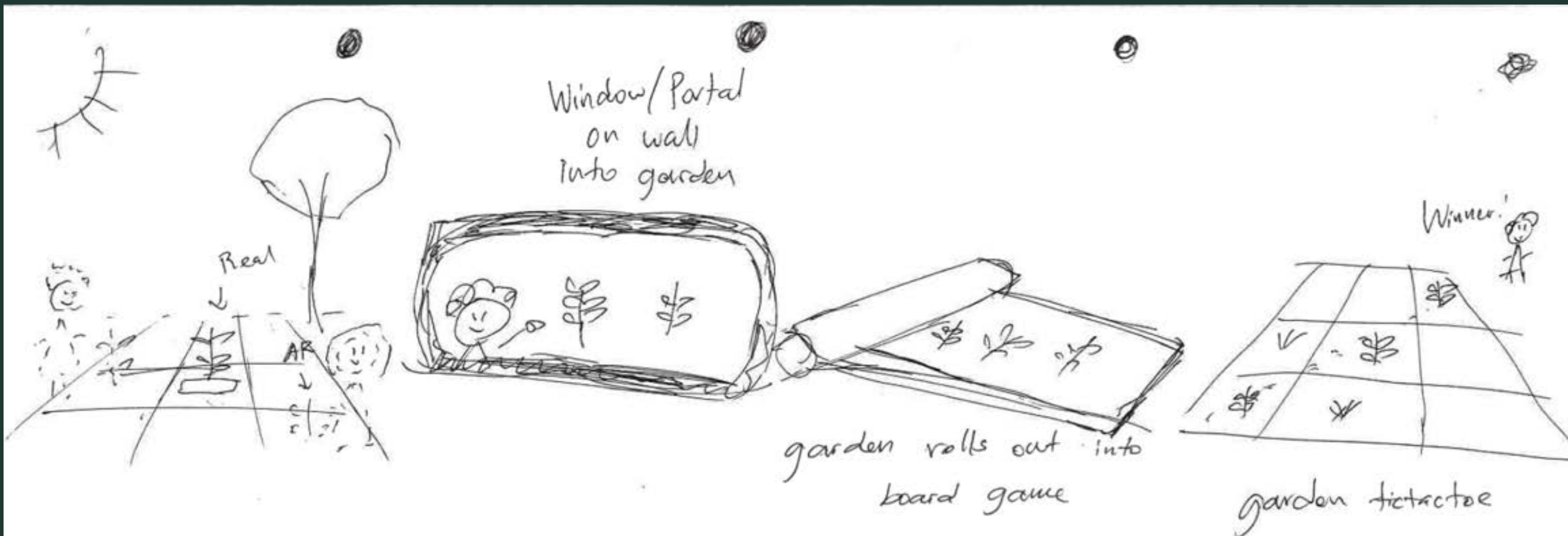
Donate fruits of
labor to community
causes

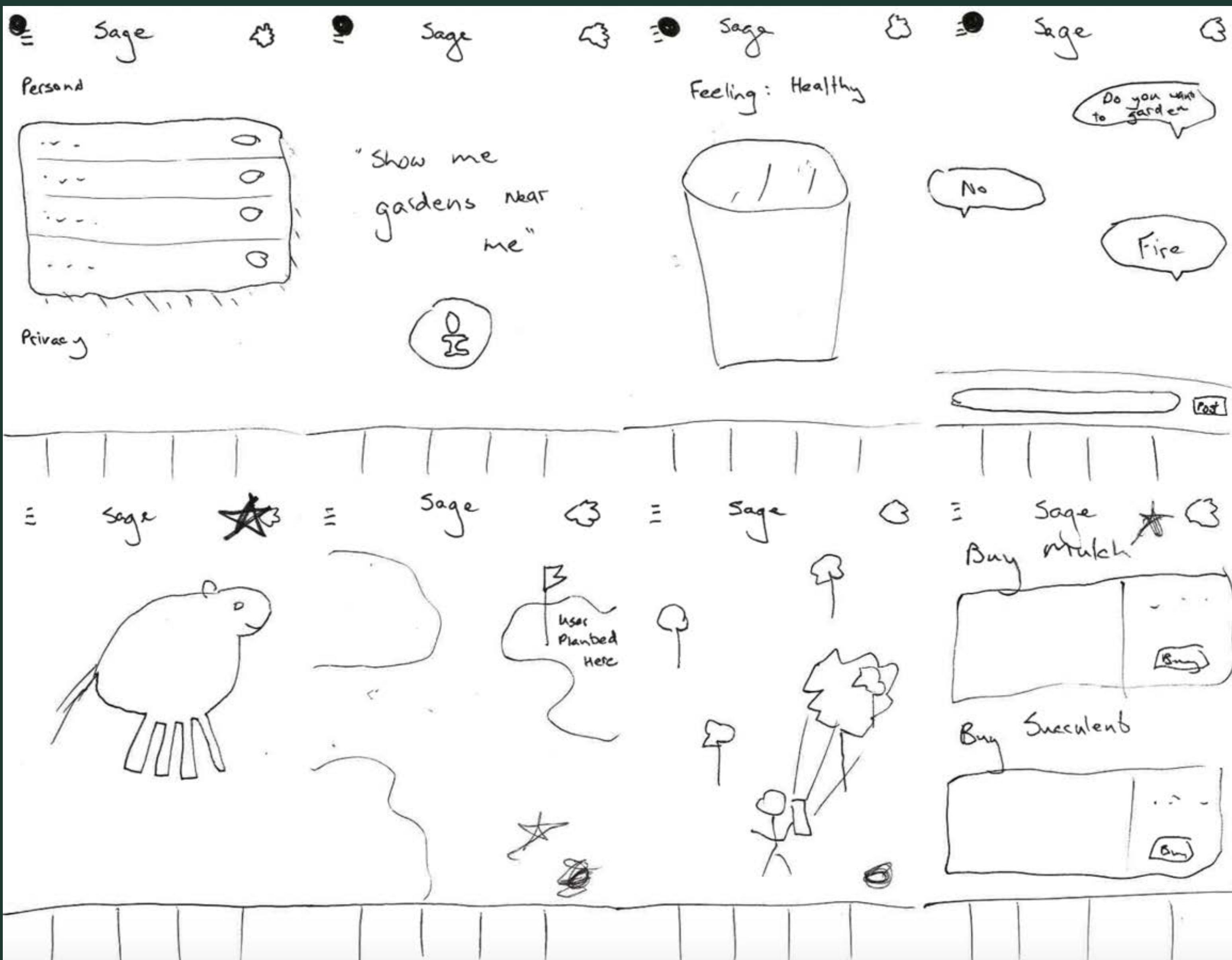
Sketching Explorations

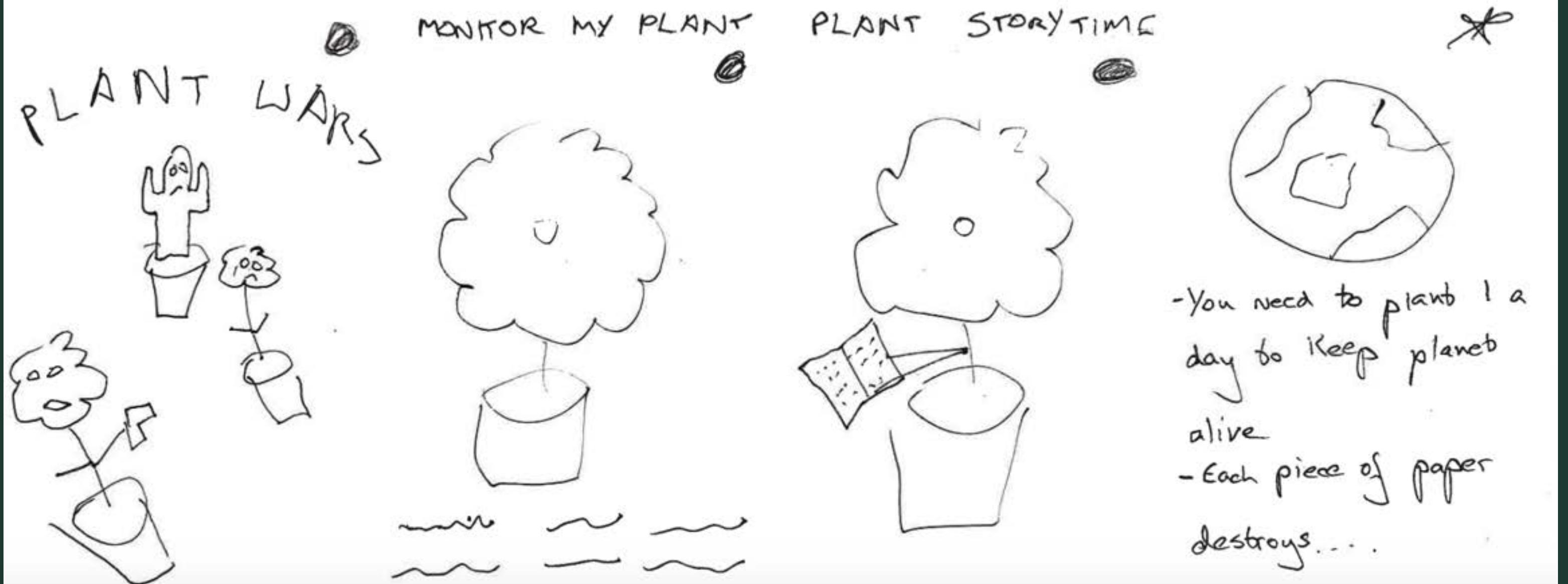
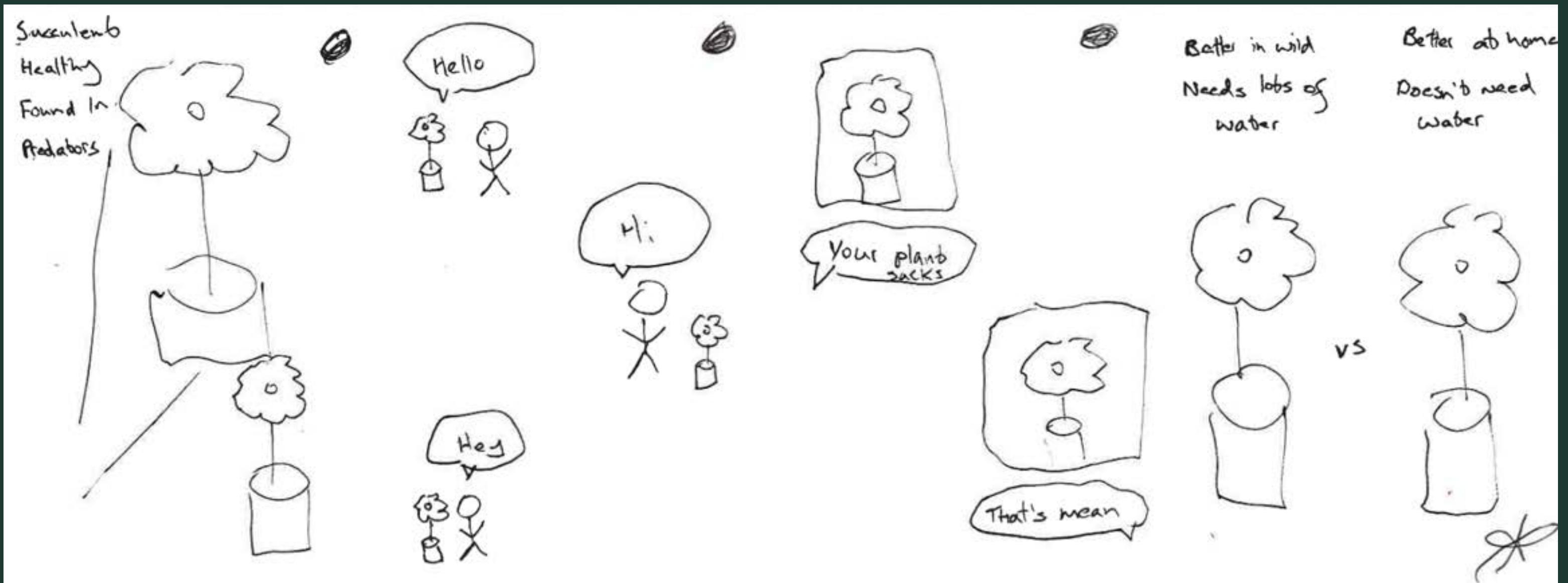




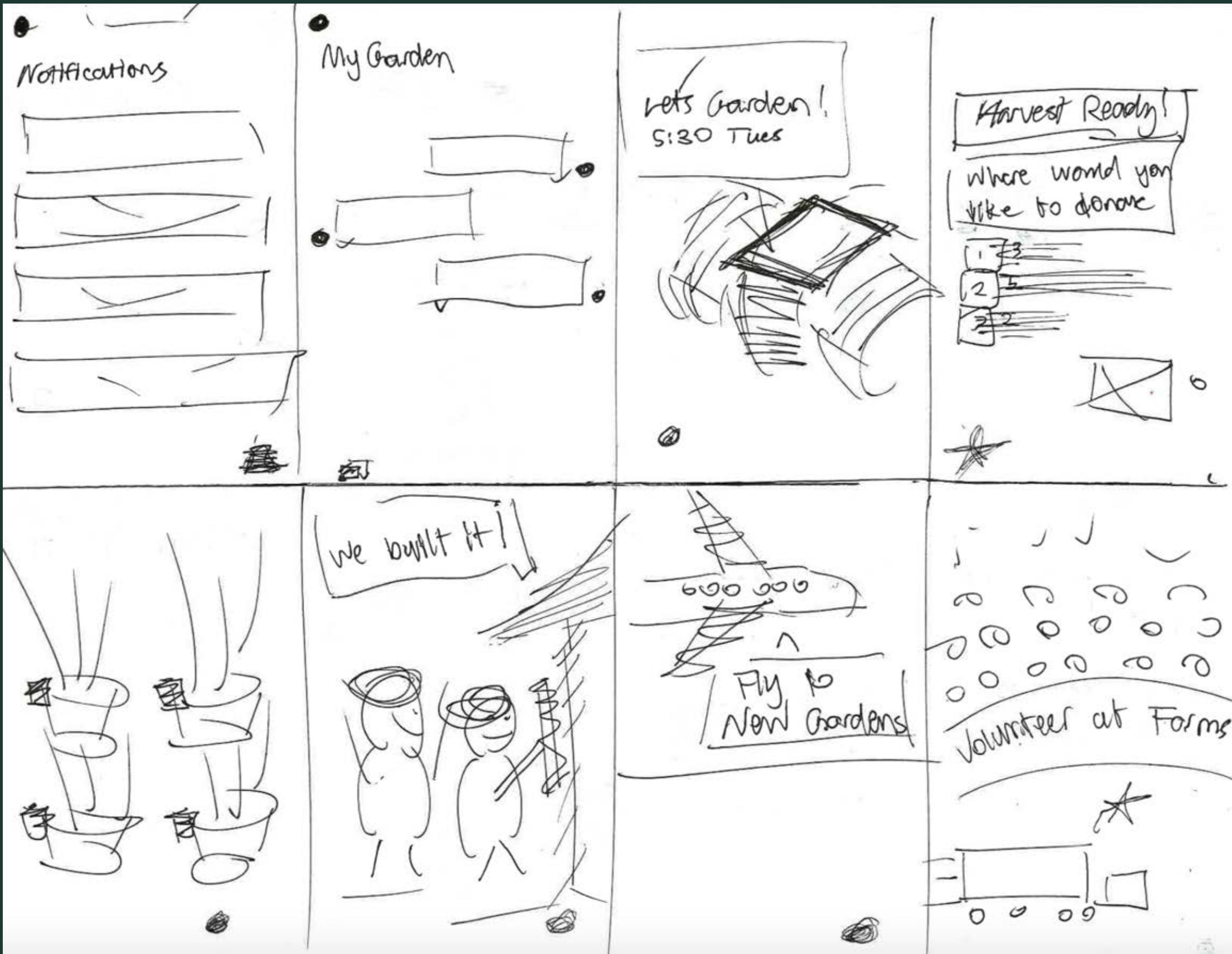












Solution Realizations

Solution Realizations

- mobile-based plant information interface
- AR phone app
- take picture of plant
- displays interface with key information about the plant
- for gardens, can help you keep track of status of the plants (ie. watered, pruned, etc.)

Ethan Hellman

- gift-based platform
- app where users can easily buy and gift plants with personalities
- receiver gets send a physical plant that's connected to a unique digital entity on app

Ethan Hellman

- platform that facilitates the organisation of gardening groups
- help motivate and keep everyone on track
- set goals for garden

Ethan Hellman



A

- list of charities / causes to donate to
- work towards specific goals for food charities
- sign up with friends, track progress, and reach goals that help the community

Ethan Hellman



B

E

- digital forest of sorts, incorporating a map
- allows you to see who is planting what and where they are planting it
- can converse with other gardeners digitally and learn from them

Adam Barry

- group-based application
- keep track of which gardens you are a part of
- means of organizing people to get together
- group chat capability

Ethan Hellman

- QR code on seed packets unique to garden
- scan code to learn more about the specific garden
- can serve as a physical invitation to the garden that members distribute

Ethan Hellman

- website / app that lists nearby farmers markets and their dates
- make it super easy to get connected markets to donate garden harvest

Ethan Hellman

- input data about your gardening
- generate reports using this data to highlight impact on environment
- inform users on how they can offset this impact
- "this week you planted X plants, which corresponds to saving Y trees"

Ethan Hellman

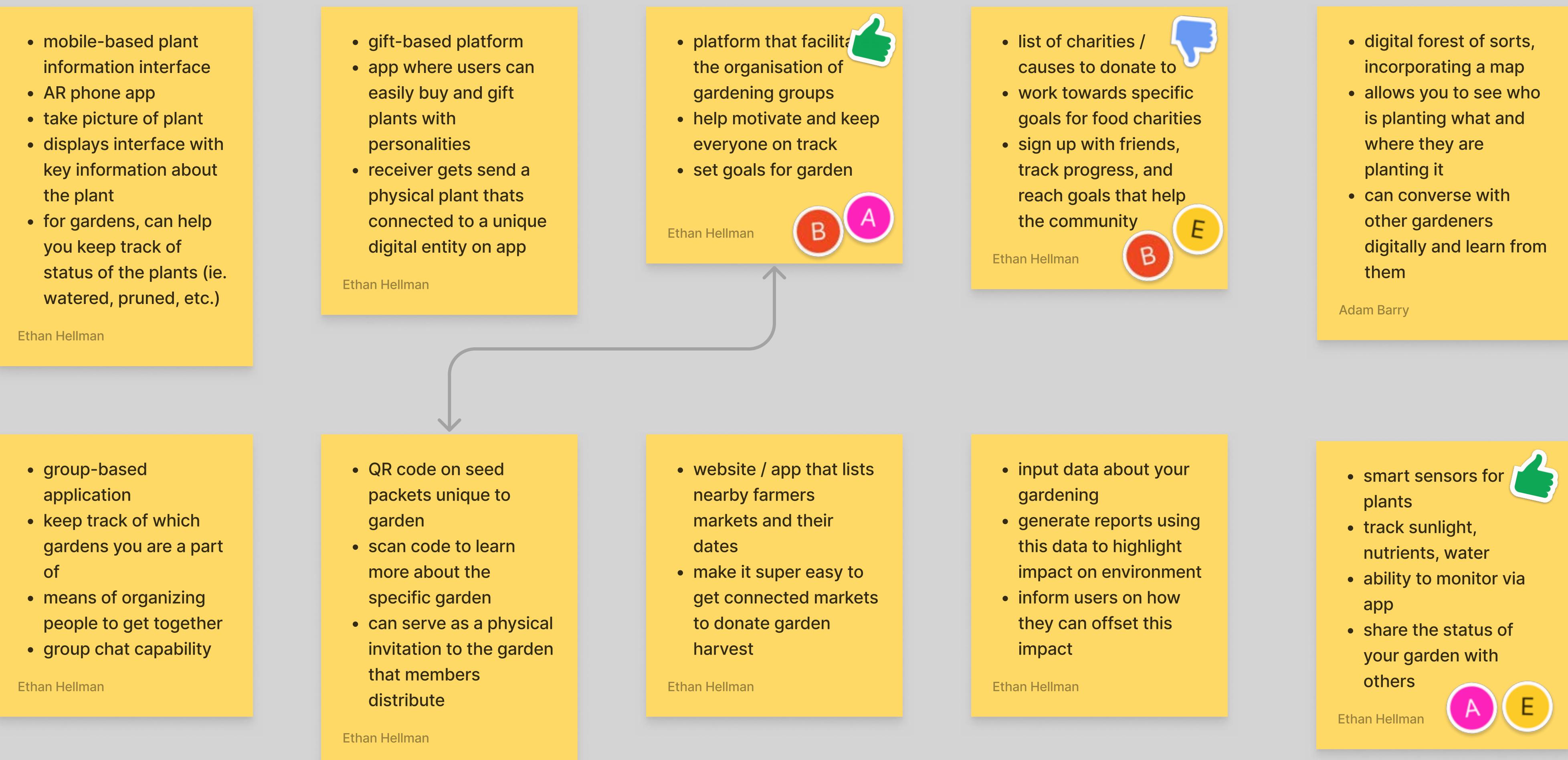


A

E

Solution Realizations

Distilled Realizations



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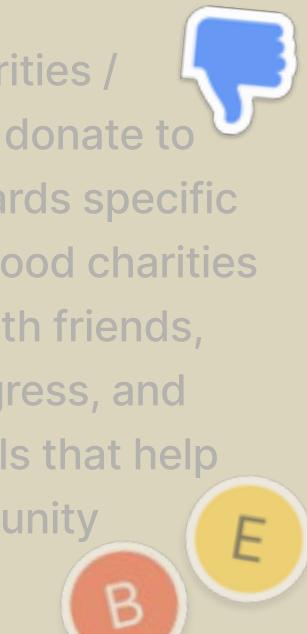
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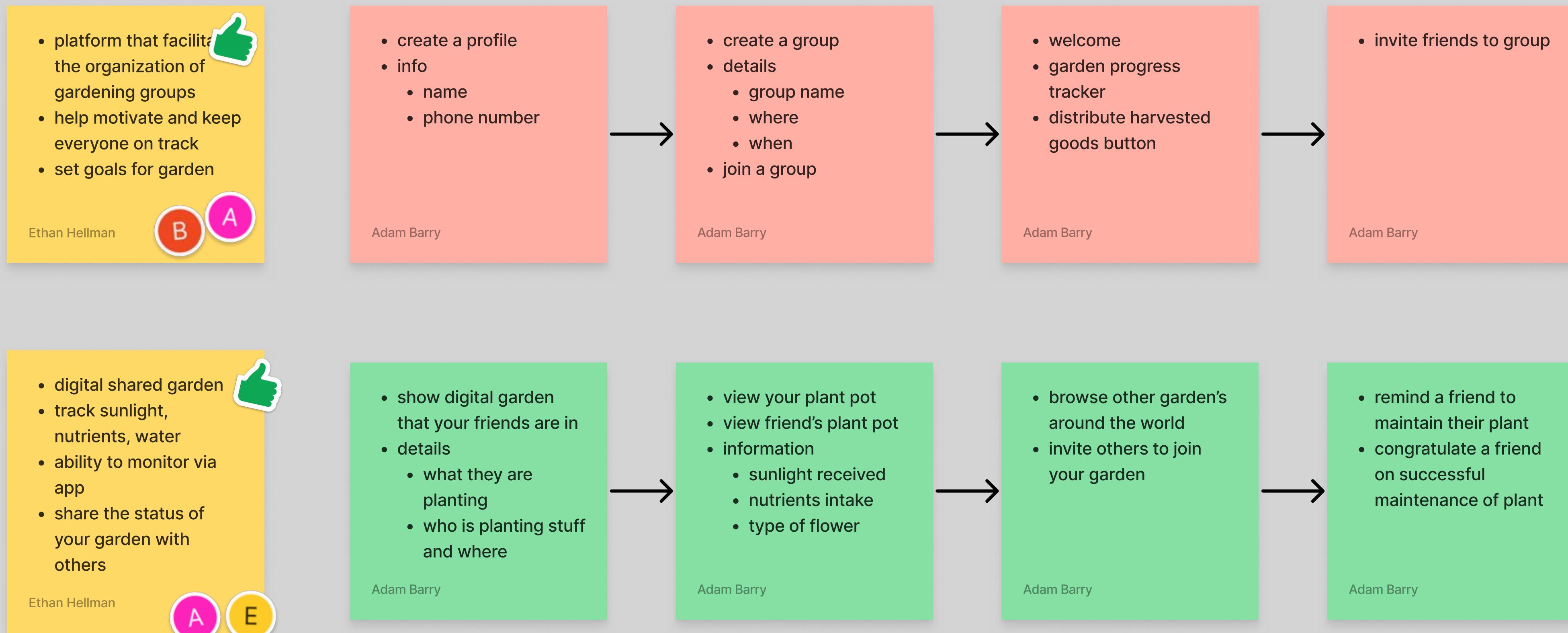
- digital shared garden
- track sunlight, nutrients, water
- ability to monitor via app
- share the status of your garden with others

Ethan Hellman



Solution Realizations

2 Realizations

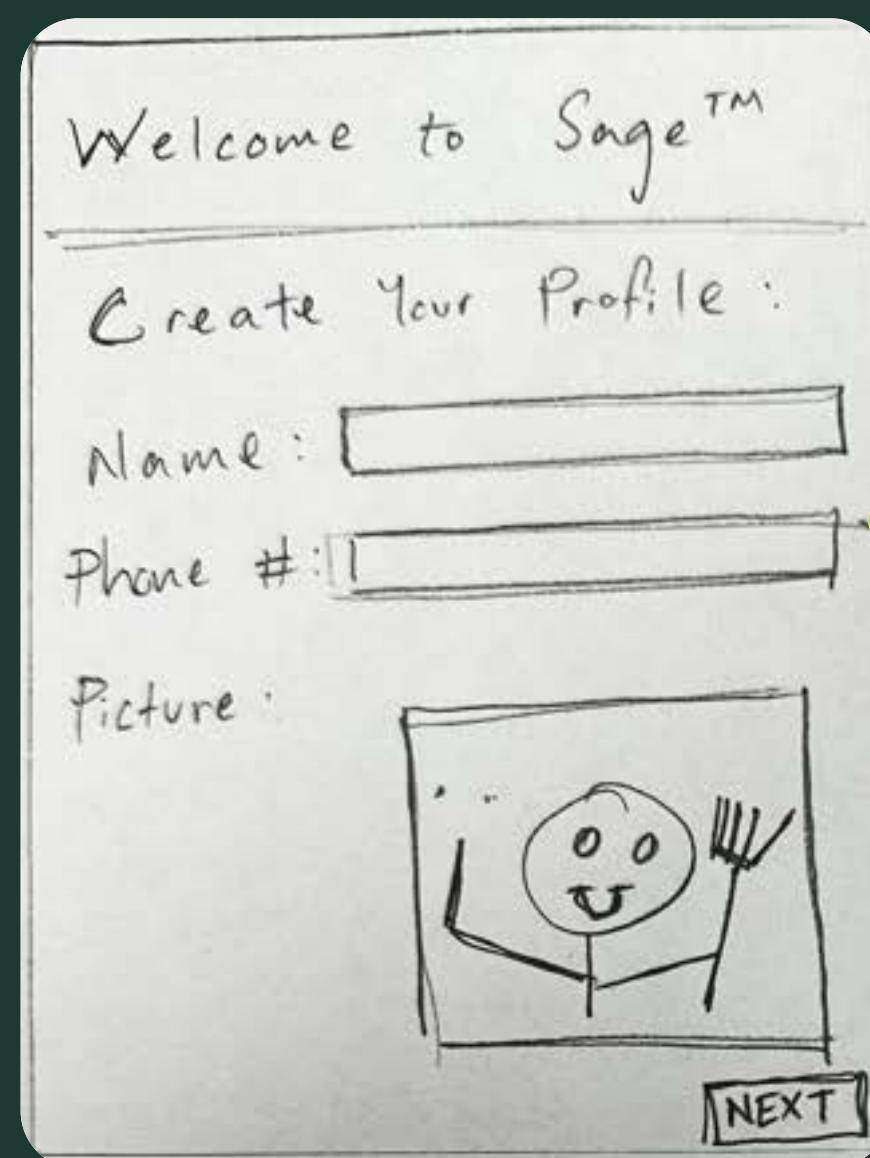


Solution Realizations

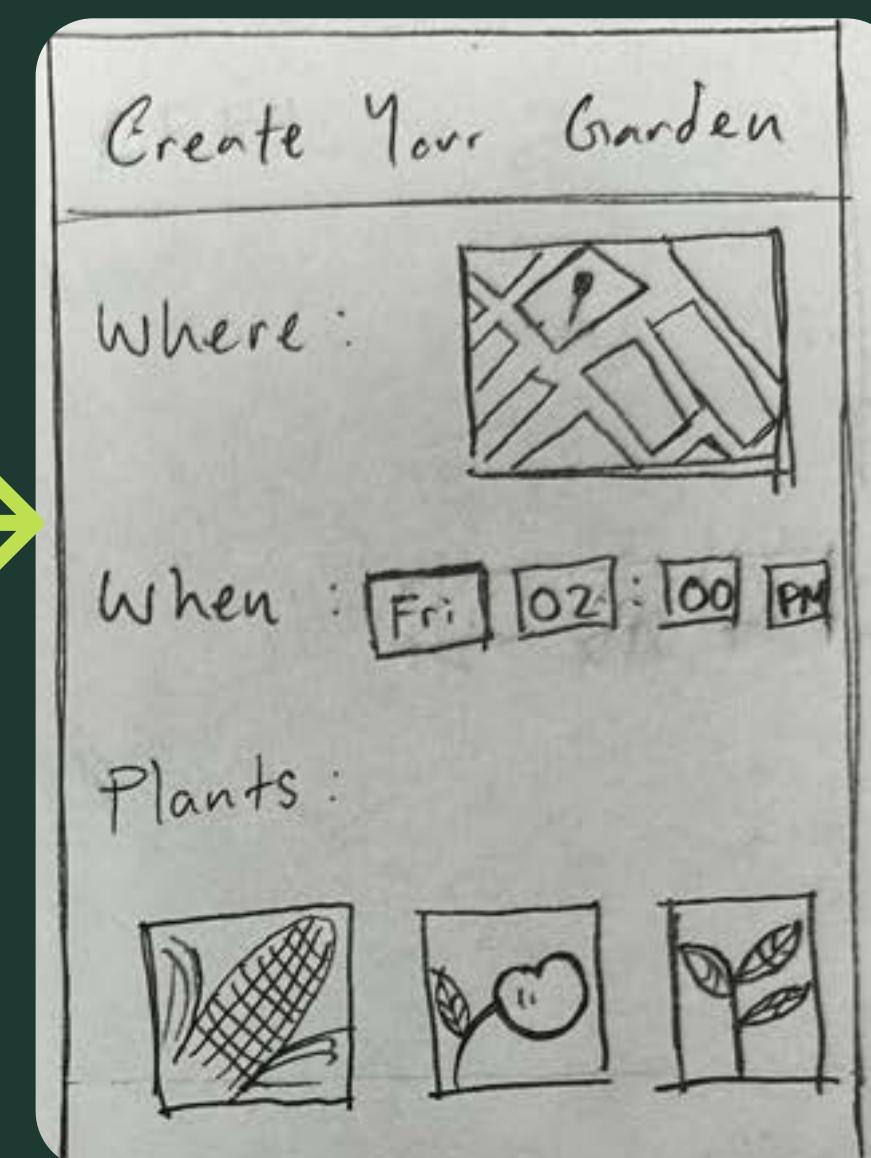
SOLUTION 1:

App that facilitates formation of gardening groups

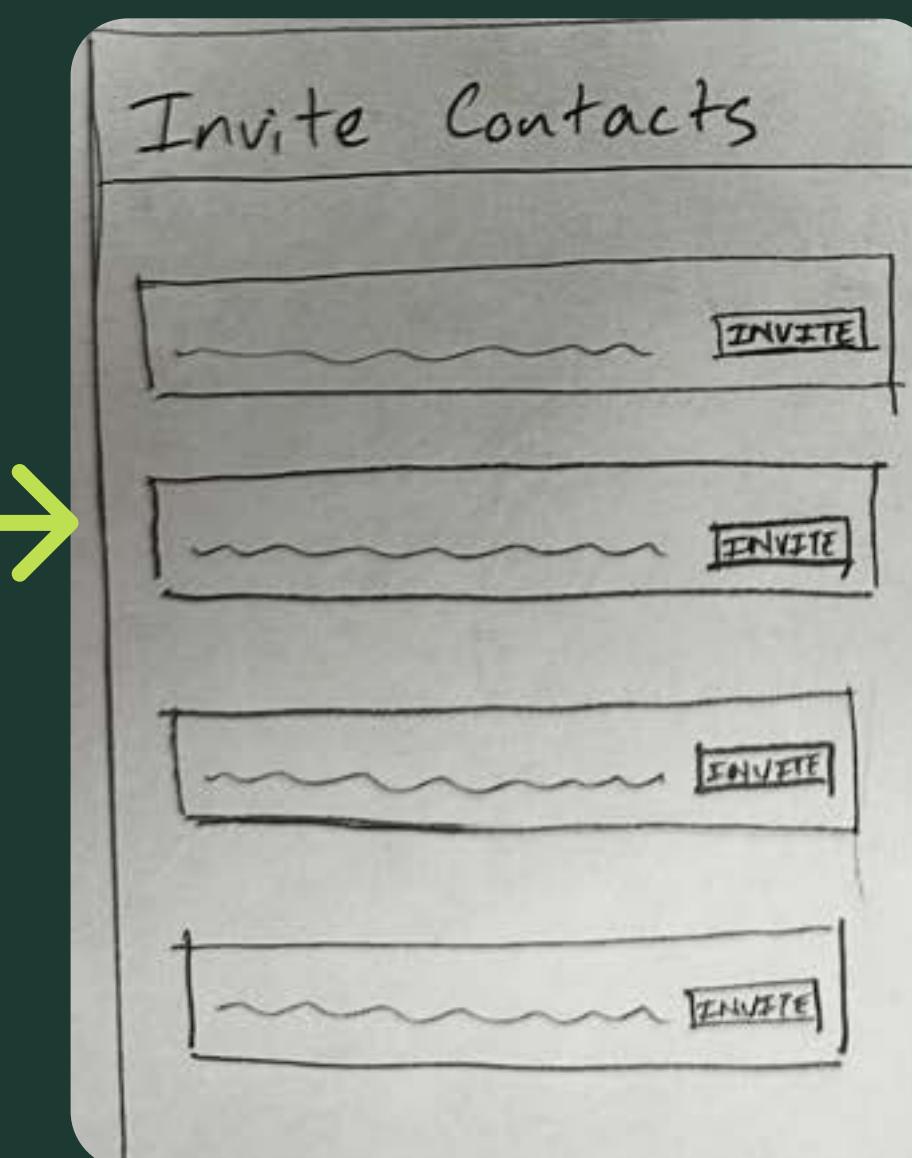
Welcome



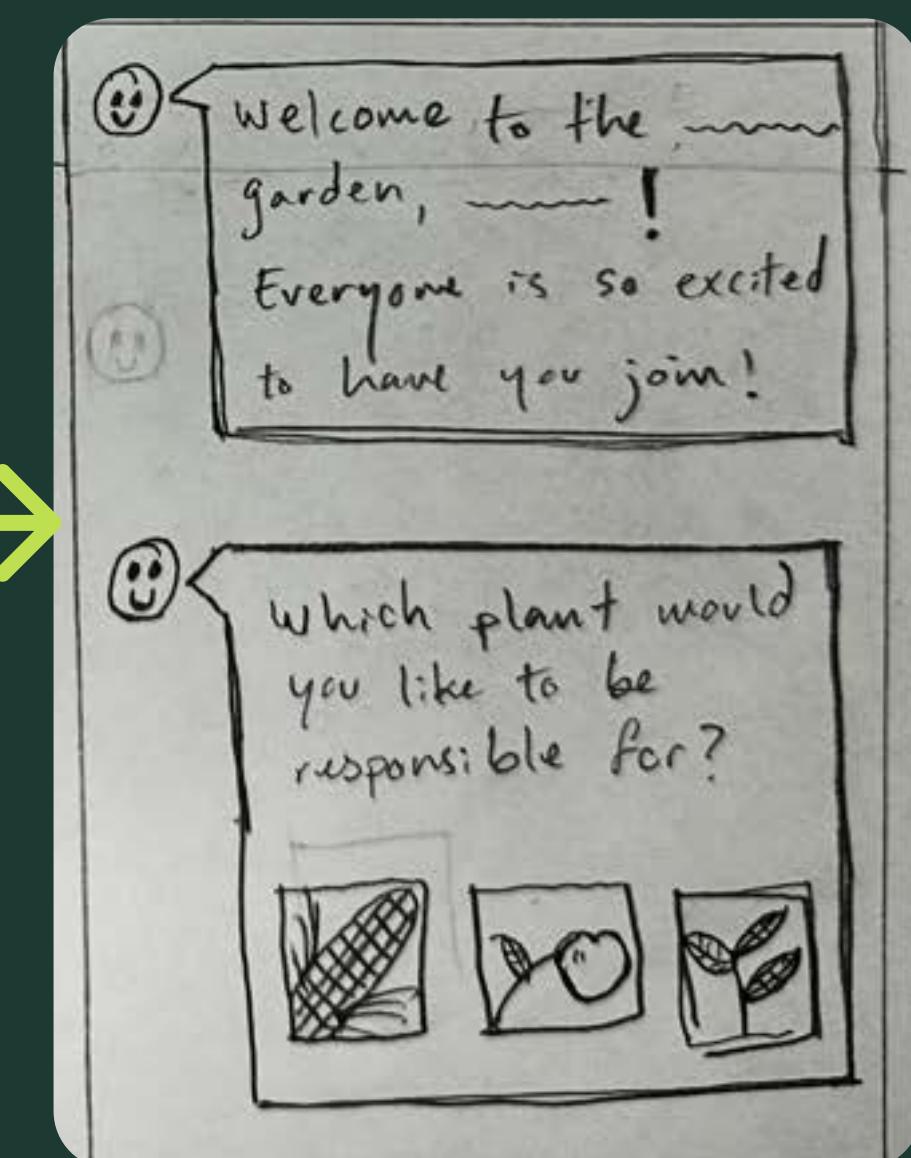
Create Garden



Invite Friends



Choose supplies



Solution Realizations

SOLUTION 2:

Digital Shared Gardens

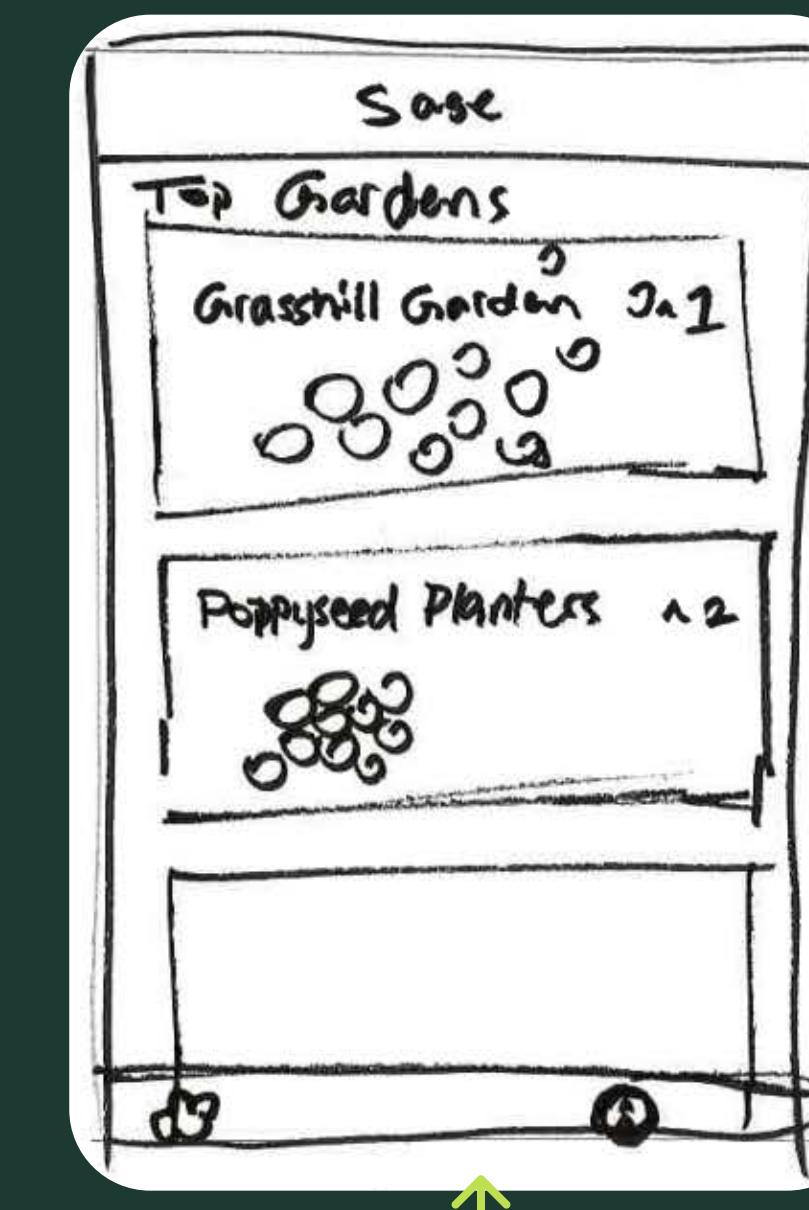
Your Garden



View Plant



Browse Gardens



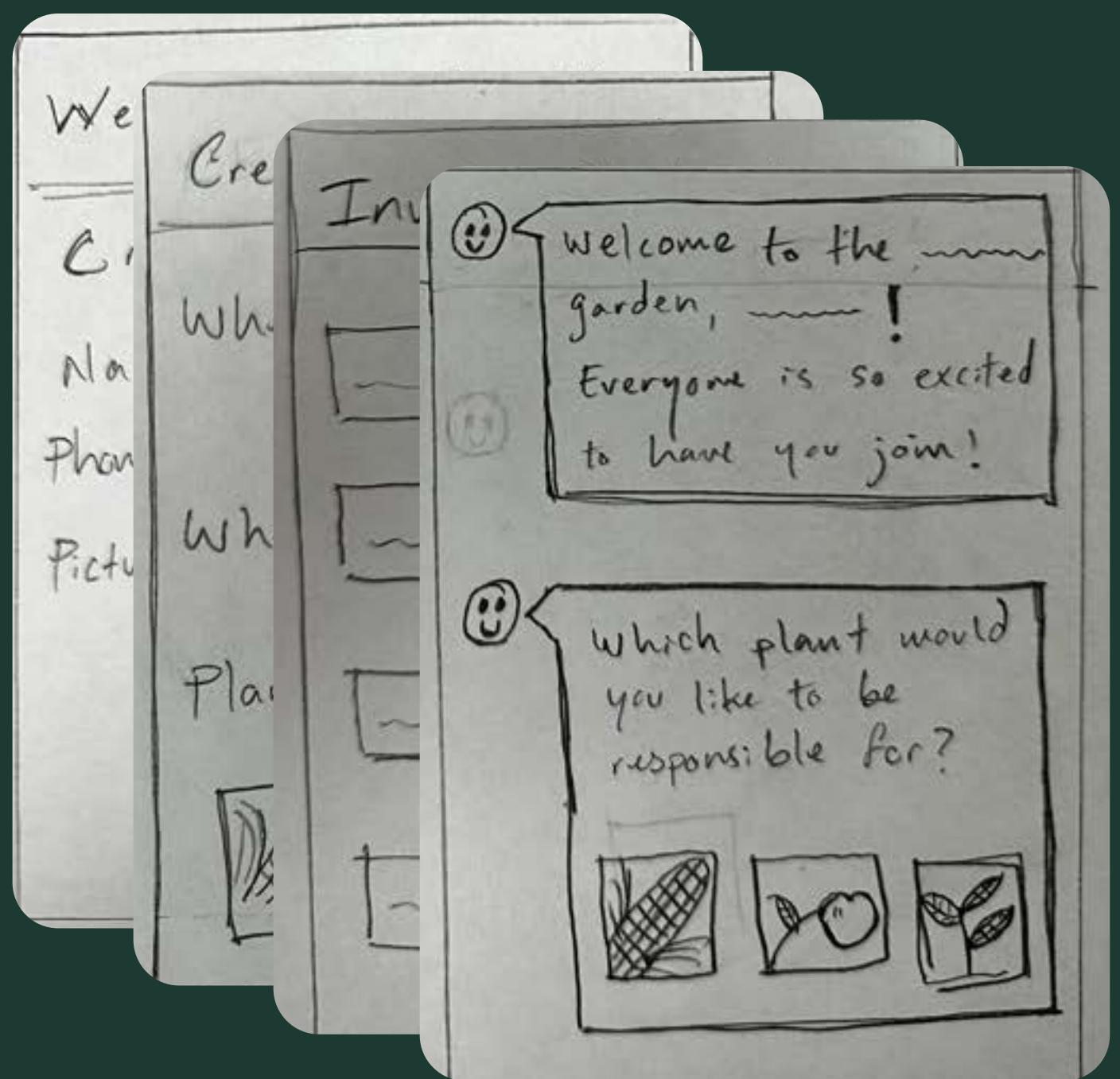
Interact with Plants



Selection Rationale

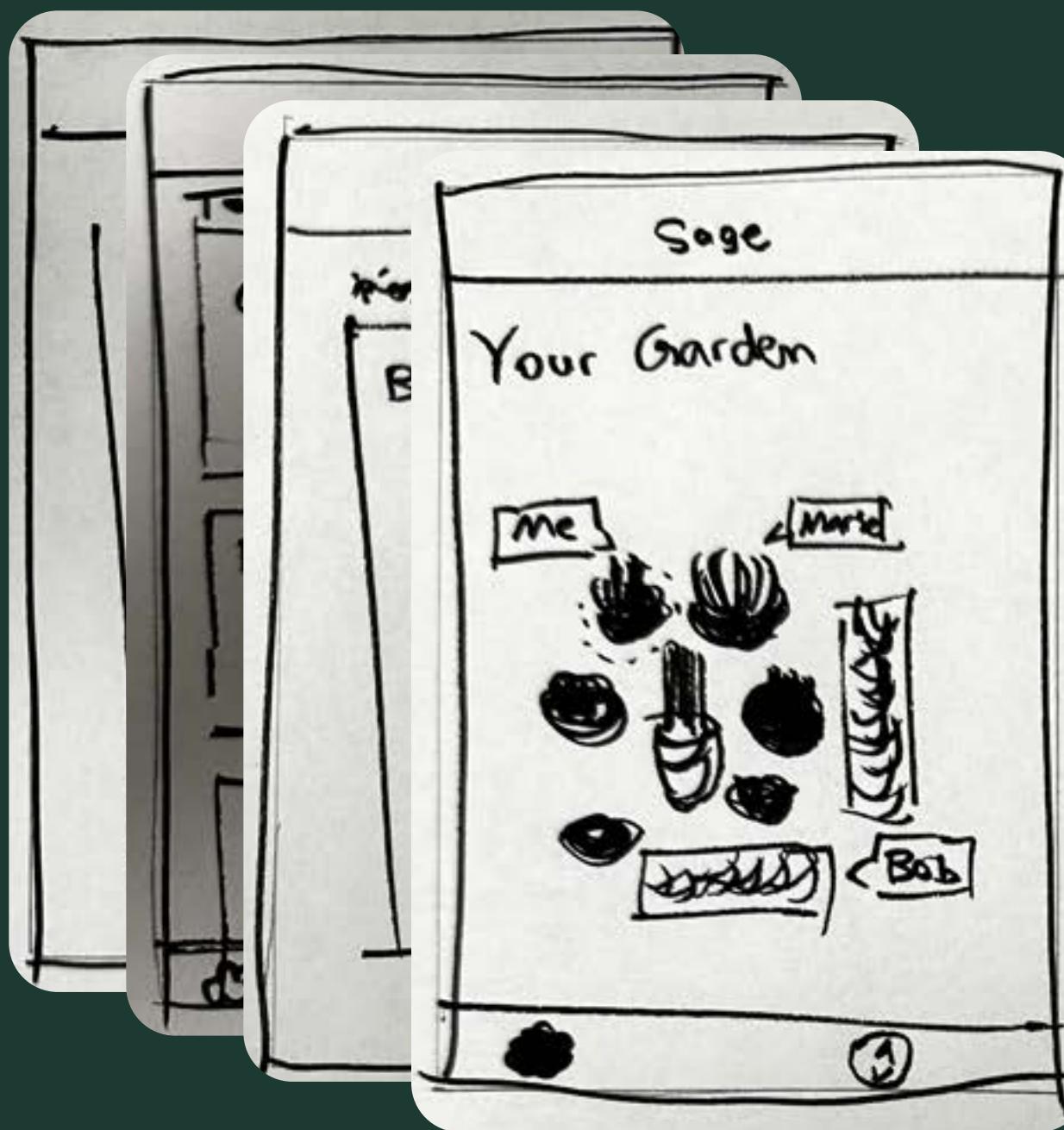
SOLUTION 1:

App for garden group formation



SOLUTION 2:

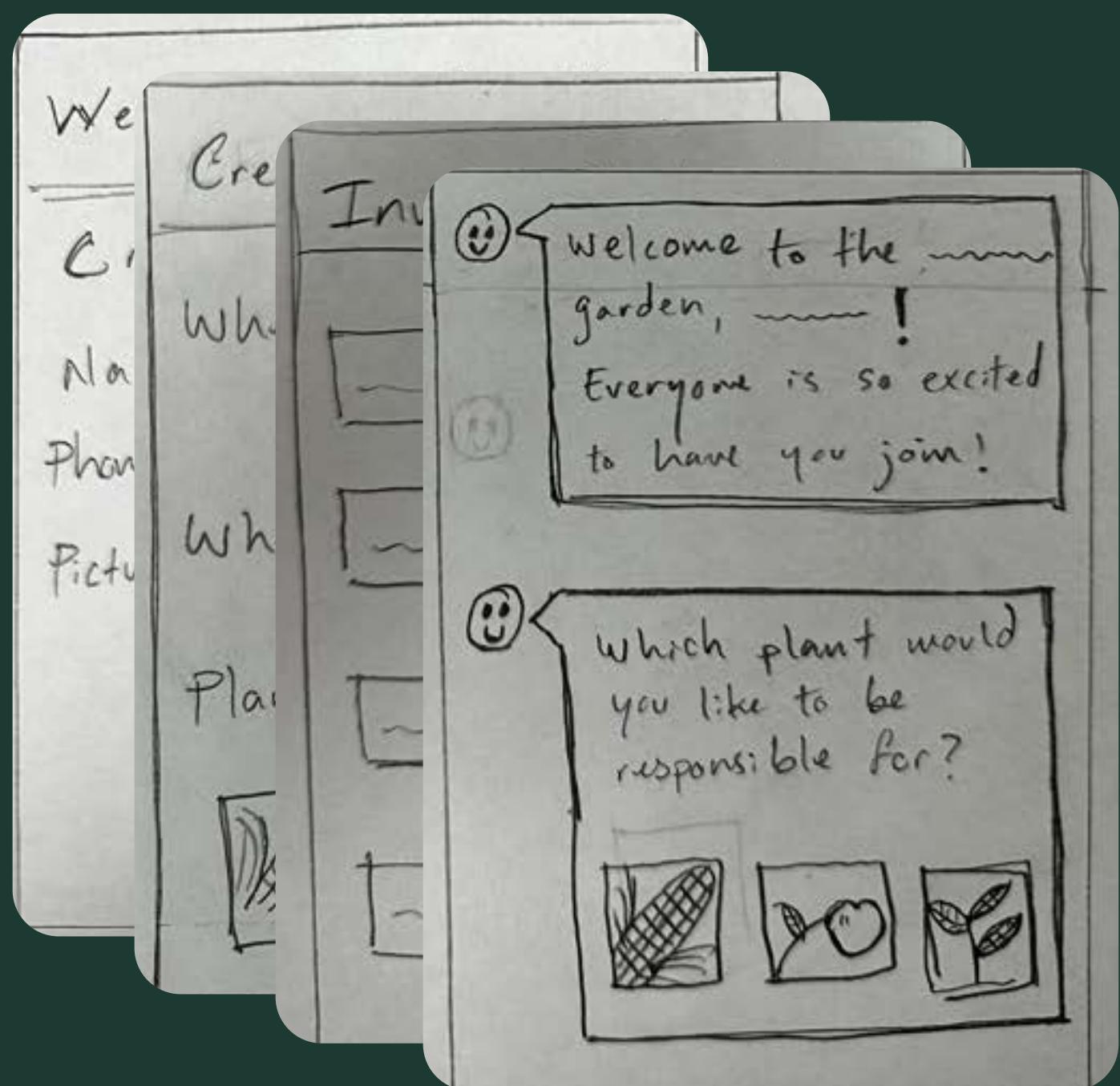
Digital Shared Gardens



Selection Rationale

SOLUTION 1:

App for garden group formation



PROS

- ✓ Lowers activation energy for in-person activity
- ✓ Incentivizes donation to charity
- ✓ Focuses on journey of forming a group and meeting up

CONS

- ✗ Requires more overhead: supplies, travel, new people
- ✗ The value prop of planning thru app could be obscure

Selection Rationale

PROS

- ✓ Adds feeling of community without overhead
- ✓ Enables connection from a distance

CONS

- ✗ This solution might appeal more to a younger user group
- ✗ Focuses on the actual plants more than spending quality time
- ✗ No physical activity or in-person interaction

SOLUTION 2:

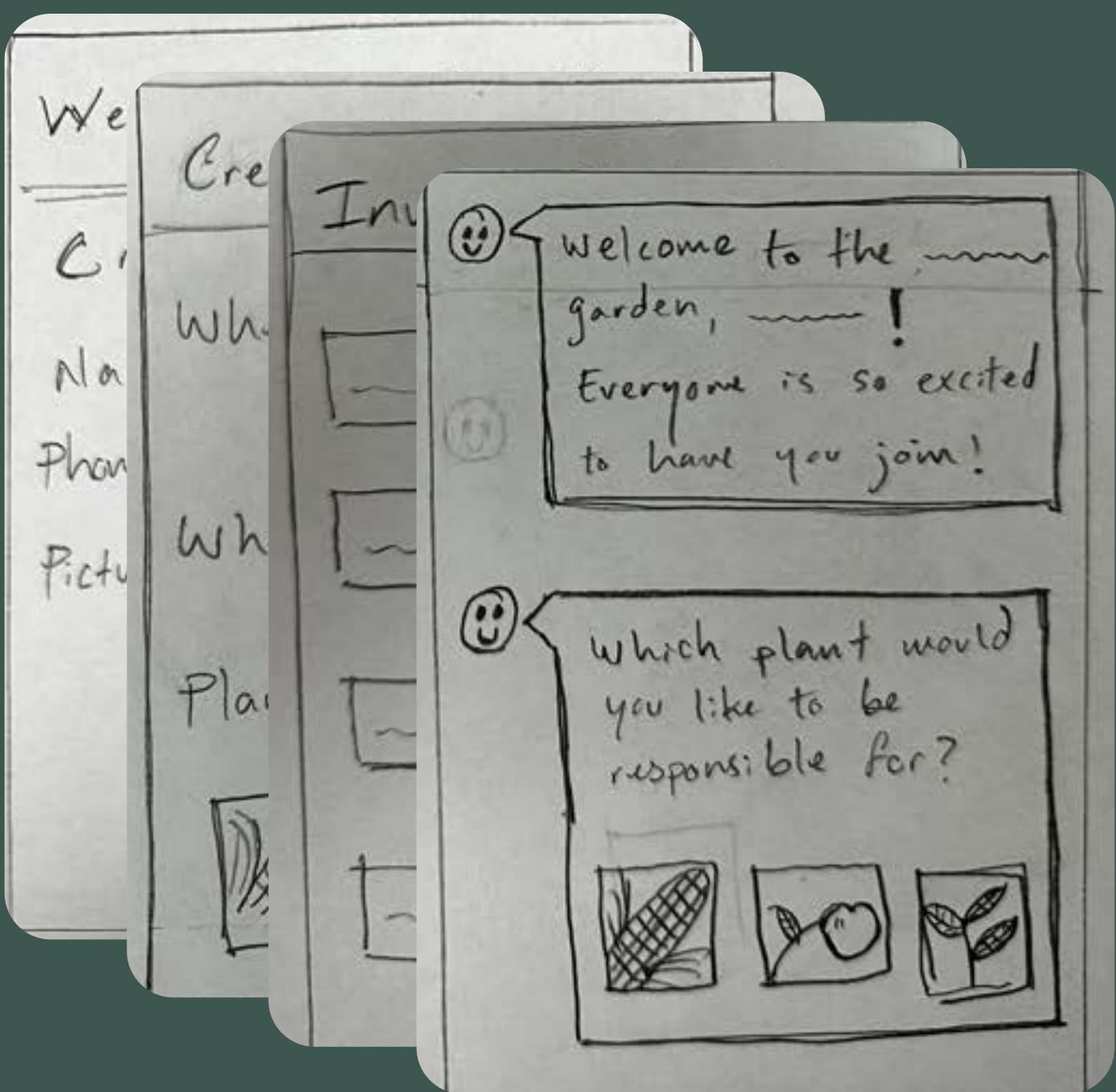
Digital Shared Gardens



Selection Rationale

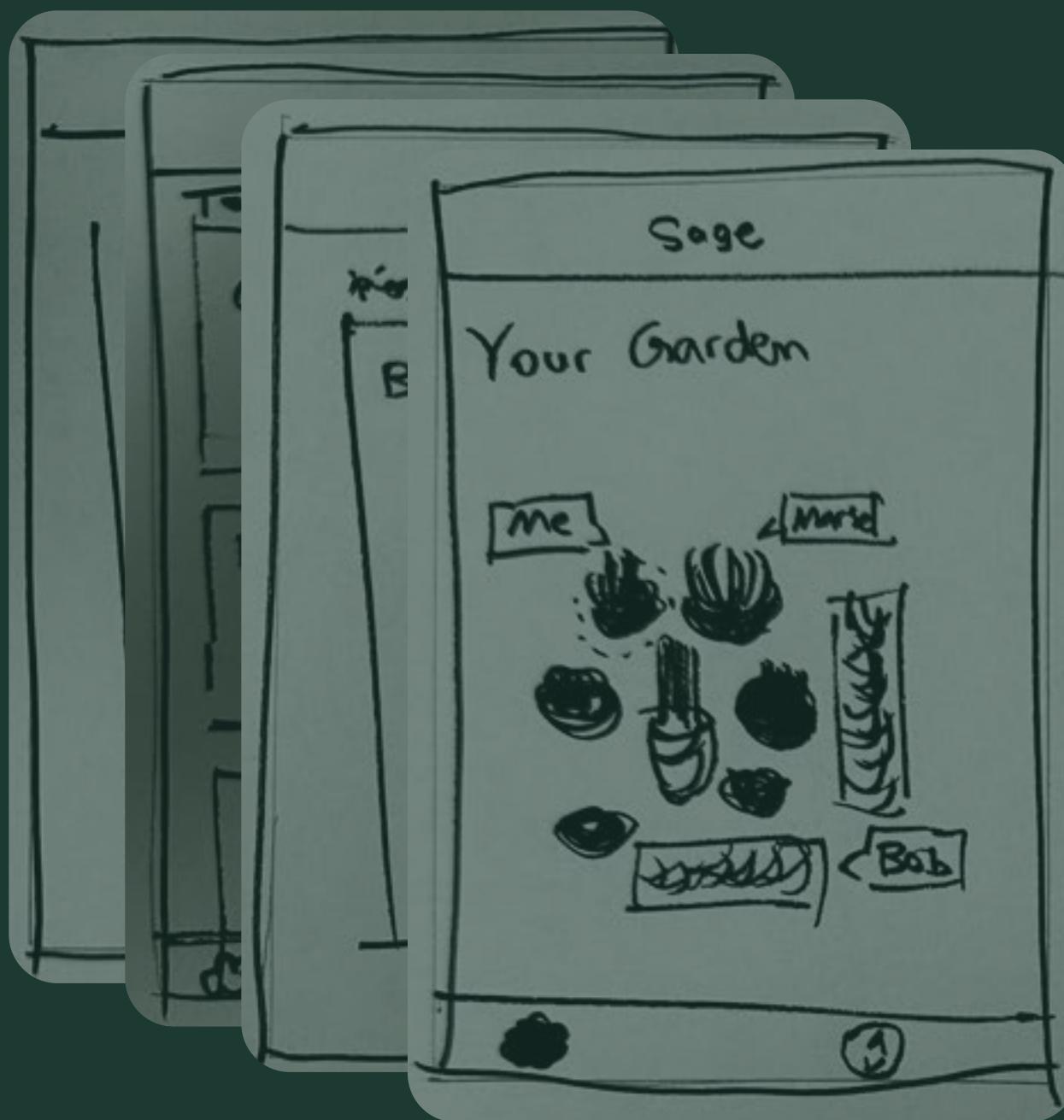
SOLUTION 1:

App for garden group formation



SOLUTION 2:

Digital Shared Gardens



Selection Rationale

1. It's about people, not plants
 2. The hard part is the organizational overhead
 3. For our users, the less UI the better

Task Flows

Task Flows

SIMPLE

Invite new group members

Welcome Screen

- Login
- Register

Ethan Hellman

Login Option

- Name
- Name Of Your Garden
(Can Have Multiple)

Ethan Hellman

Register Option

- Create a profile

Adam Barry

Two Options

- Join Garden
 - Garden name
- Create Garden
 - Details about garden

Adam Barry

MODERATE

Join Sage and find when and where to garden.

Welcome Screen

- Login
- Register

Ethan Hellman

Login Option

- Name
- Name Of Your Garden
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Register Option

- Create a profile

Adam Barry

Two Options

- Join Garden
 - Garden name
- Create Garden
 - Details about garden

Adam Barry

COMPLEX

Distribute harvested food to the community

Home Page

- Information about where and when garden meets
- Progress bar with option to log progress

Adam Barry

Log your progress

- log your garden's progress within the app
- when 100% of progress is hit have option to distribute harvested foods

Adam Barry

Distribute Harvested Foods Page

- displays list of food banks or charities
- can select charity to donate harvest to

Adam Barry

Collection Page

- map with option to set collection point for produce
- element that displays on what date the food bank or charity will come

Adam Barry

Congratulations Page

- congratulate user on their donation
- have option to share on social media

Adam Barry

Invite new group members

SIMPLE TASK

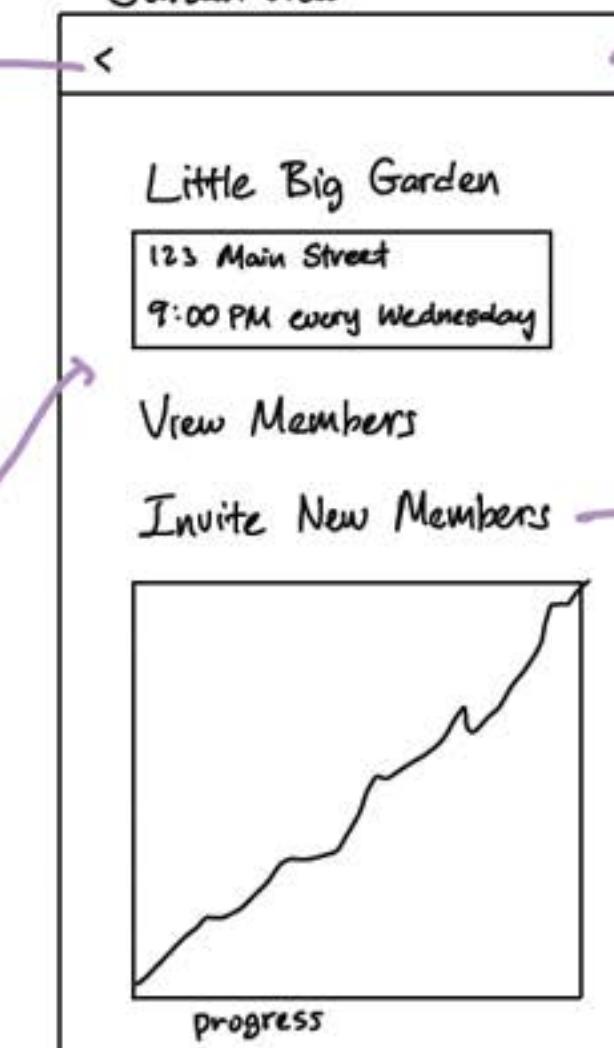
Simple Task: Invite new friends to garden with

Landing Page



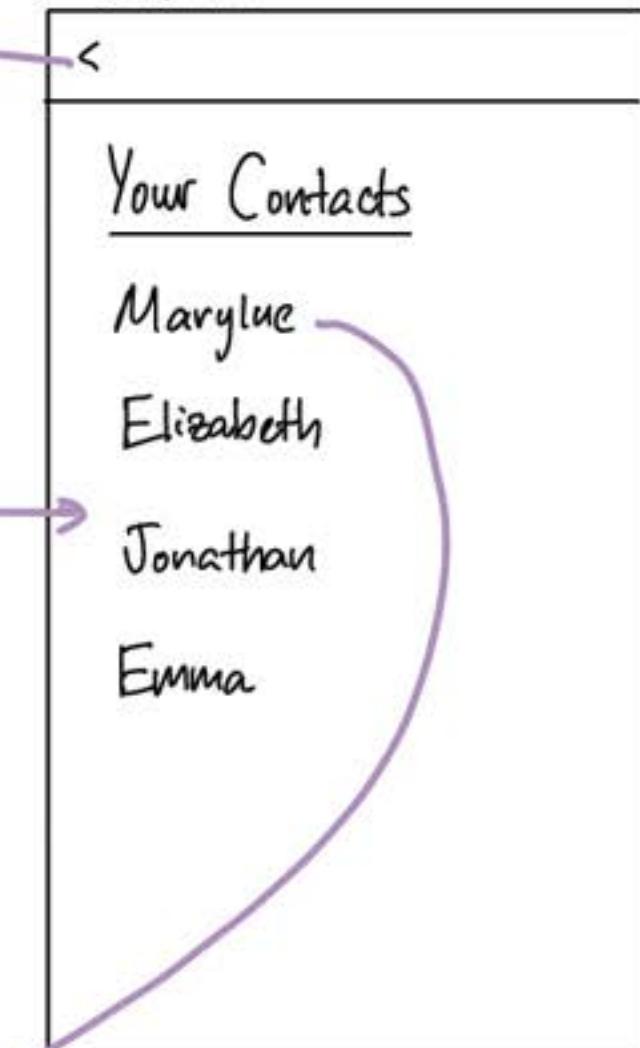
Existing users see this page on launch

Garden View



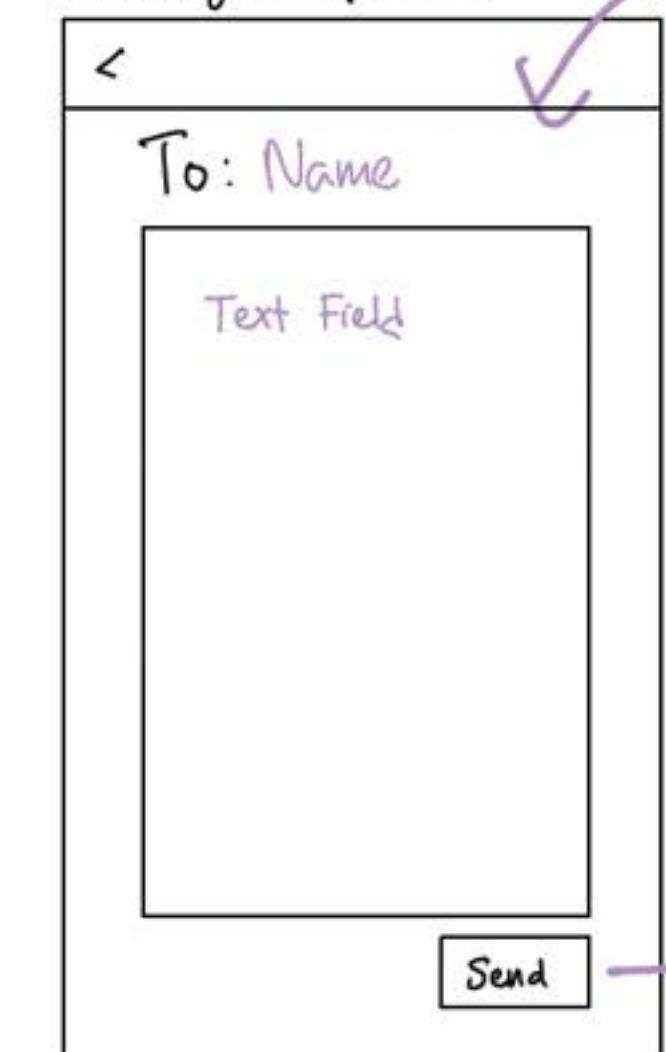
View of garden user is already in

Contacts



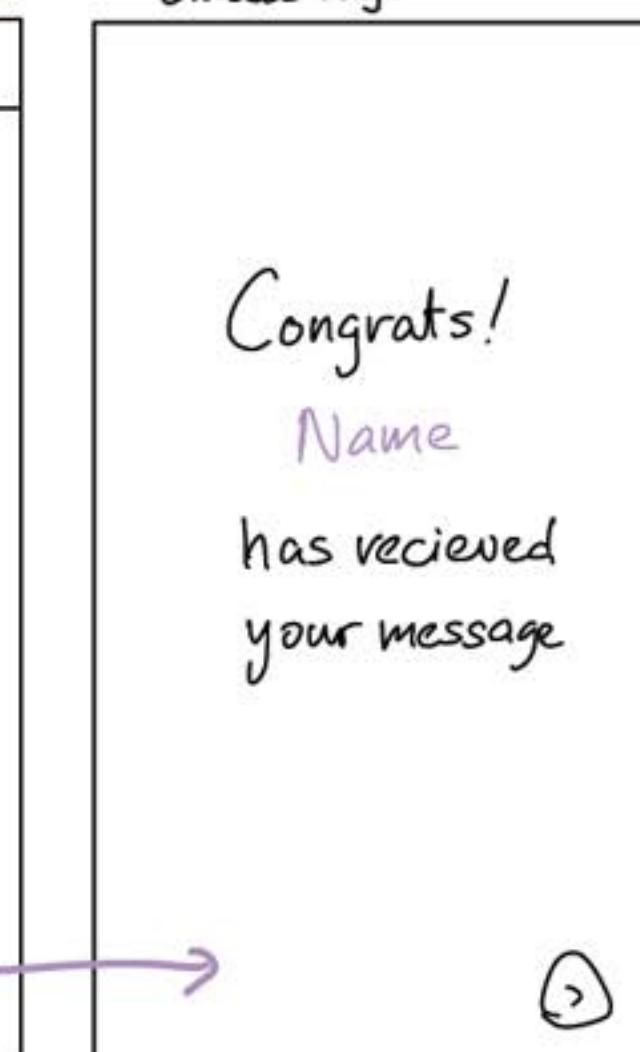
Contacts are imported from phone contacts

Message Composition



Users can compose a custom invitation message.

Success Page



Users receive feedback that message has been sent

Join Sage and find when and where to garden

Moderate Task

Moderate Task: Join Sage and find where and when to garden

Welcome Screen

SAGE*

Return

Join

Users are asked to log in or create an account

User Creation

NAME

PHONE NUMBER

EMAIL

PASSWORD

Next

Users provide information to Create account

Landing Page

SAGE*

Join

Create

New users are prompted to join an existing garden or create their own.

Login Screen

SAGE*

Username

Password

Next

Existing users can log back in

Nearby Gardens

<

Nearby

Little House

Big House

Medium House

Users can see nearby public gardens

<

Name

Address State

time date

Public Private

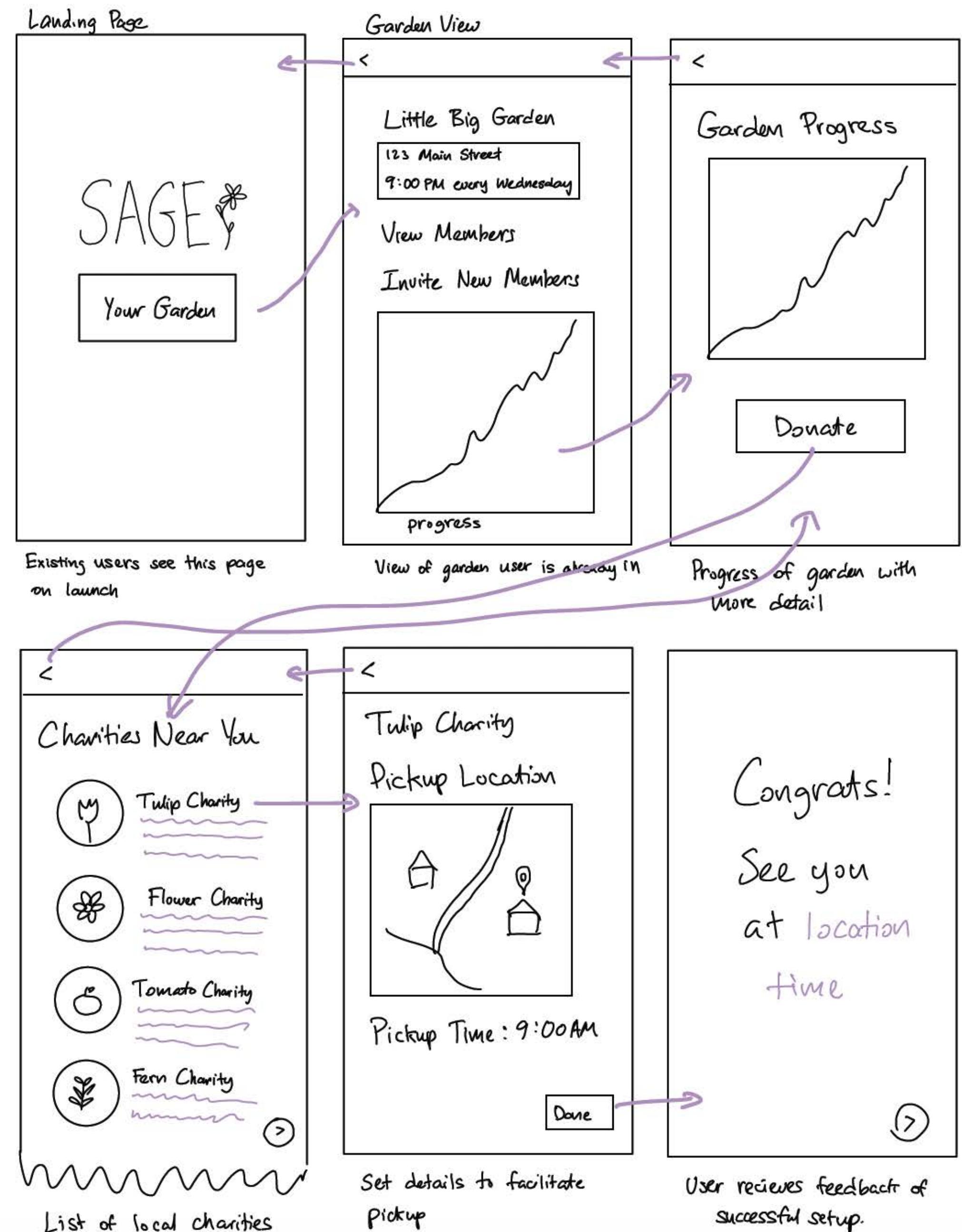
Create

Users can enter details about their new gardens

COMPLEX TASK

Distribute harvested food to the community

Complex Task: Distribute harvested food to the community



Lofi Prototype



WELCOME
TO
Sage

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

HR

MIN

AM | PM



HARVEST

CONGRATULATIONS!

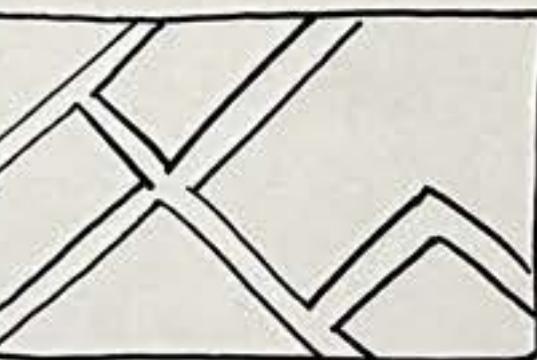
Sage will notify your selected charity of your ~HARVEST~

SHARE ON SOCIAL MEDIA

BACK TO GARDEN PAGE

HARVEST

SET PICK-UP LOCATION:



WHEN:

NEXT

INVITE FRIENDS TO LITTLE HOUSE GARDEN

MESSAGE:

NEXT

WELCOME TO Sage

LOGIN

REGISTER

CREATE GARDEN

GARDEN NAME

WHERE

WHEN

CREATE

HARVEST

CHARITIES NEARBY:

CHOOSE

CHOOSE

CHOOSE

NEXT

LITTLE HOUSE GARDEN PAGE

GARDEN MEETS AT:
800 Middle Ave
Menlo Park, CA
99025

DIRECTIONS



ON:
WEDNESDAYS, 3:00PM
NEXT ON 10/25/23

PROGRESS:

LOG

INVITE FRIENDS TO JOIN GARDEN:

INVITE

INVITE FRIENDS TO LITTLE HOUSE GARDEN

CONTACTS:

INVITE

INVITE

INVITE

NEXT

CREATE PROFILE

 UPLOAD PHOTO

NAME

PHONE NUMBER

CREATE

JOIN GARDEN

GARDEN NAME

JOIN

LITTLE HOUSE GARDEN PAGE

GARDEN MEETS AT:
800 Middle Ave
Menlo Park, CA
99025



INVITE FRIENDS TO LITTLE HOUSE GARDEN

PEOPLE:

EDIT

LOG GARDENING PROGRESS

NUMBER PLANTS PLANTED

EDIT

SAGE

JOIN GARDEN

LOGIN

NAME

GARDEN NAME

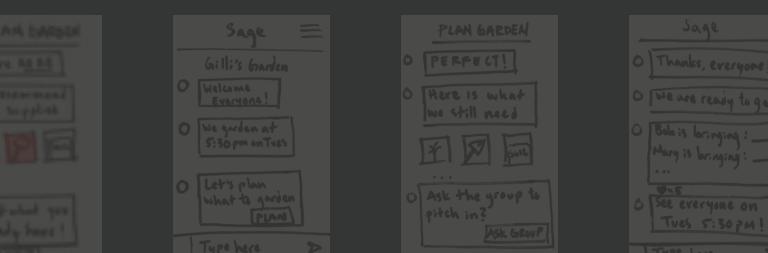
LoFi Prototype

Old Prototype



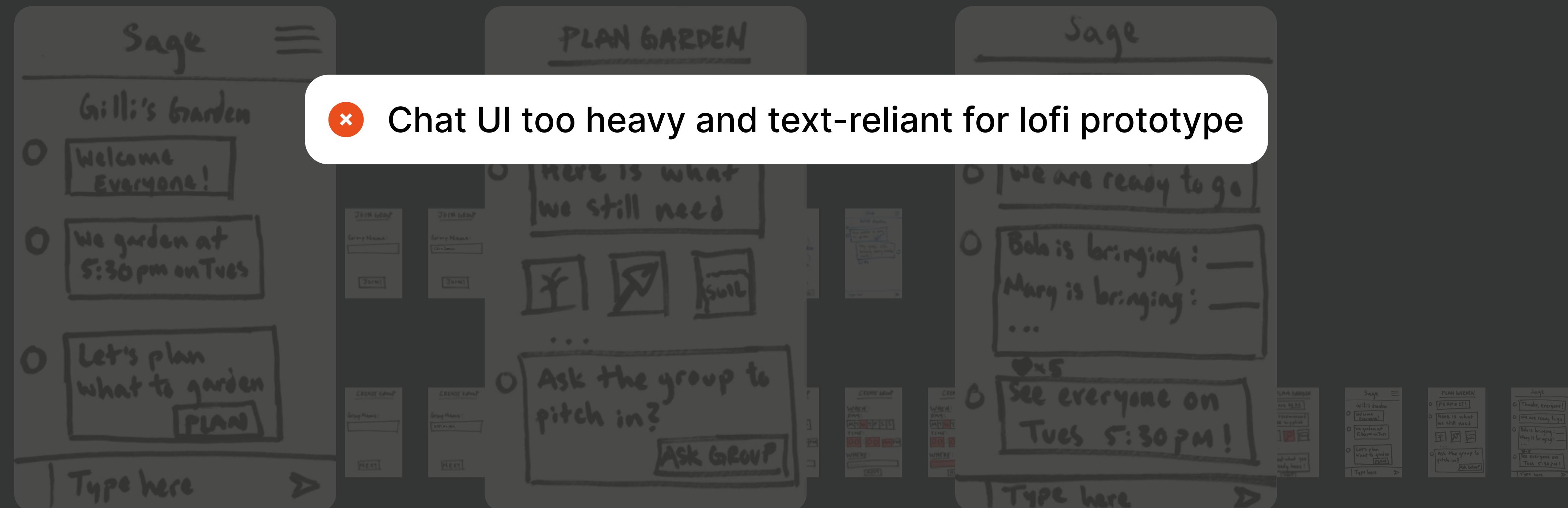
LoFi Prototype

Old Prototype



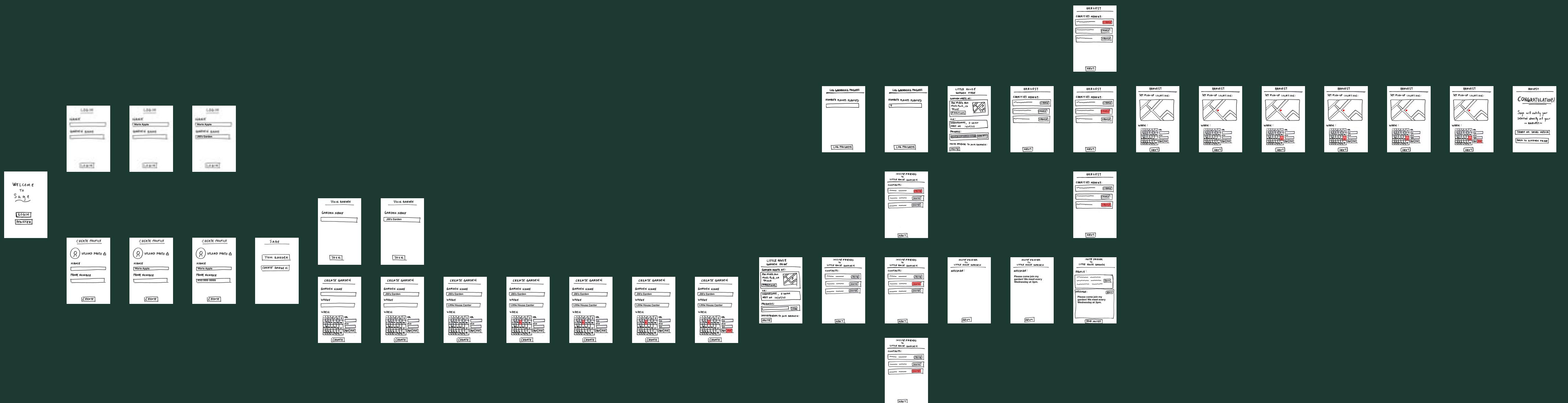
LoFi Prototype

Old Prototype



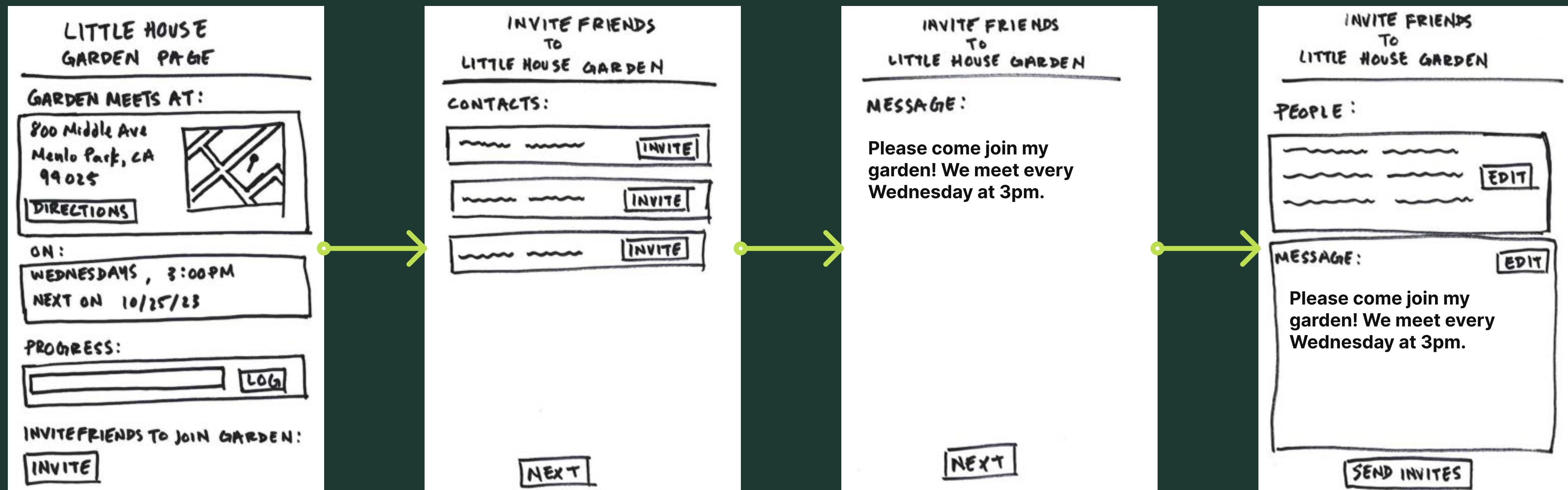
LoFi Prototype

New Prototype



LoFi Prototype

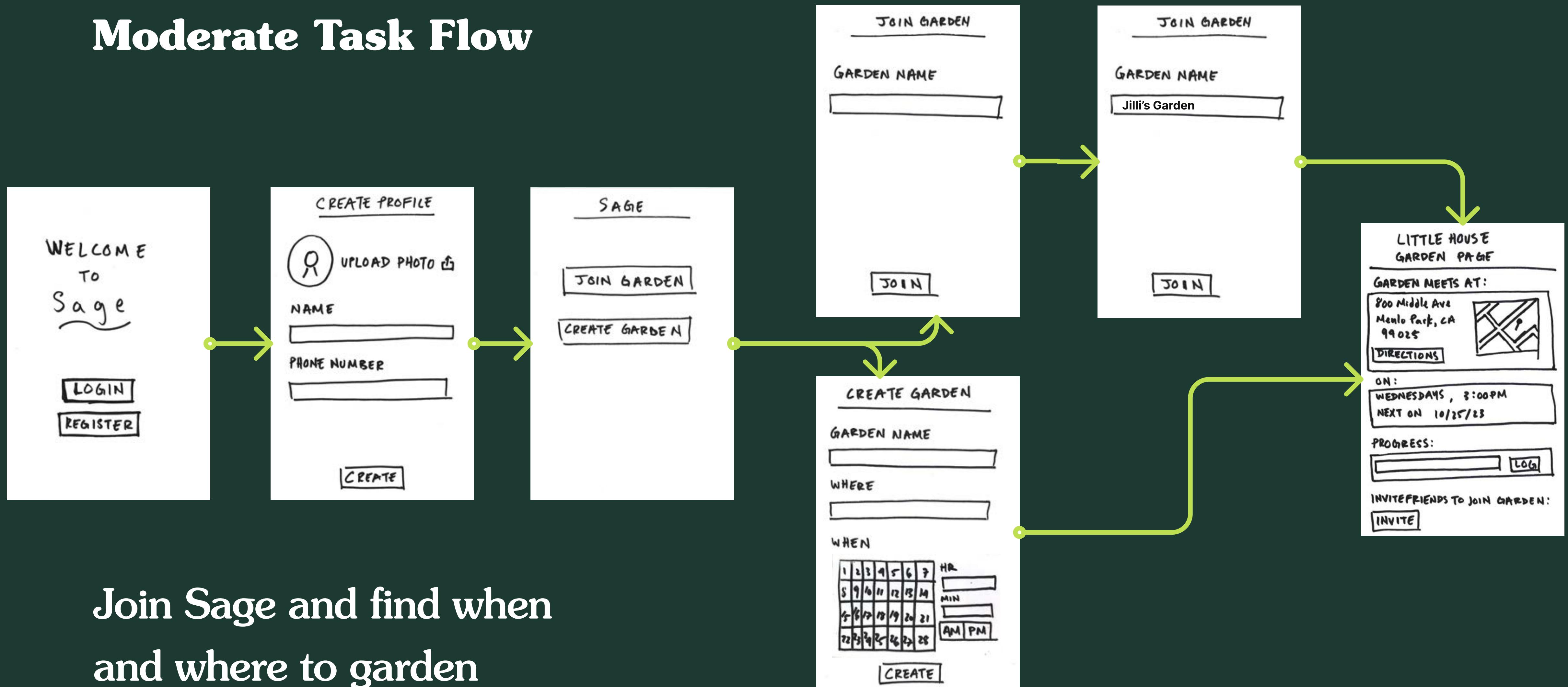
Simple Task Flow



Invite new group members

LoFi Prototype

Moderate Task Flow



LoFi Prototype

Complex Task Flow



Distribute harvested food to the community

Testing Methodology

Testing Methodology

Configuration

DEMOGRAPHIC



Elderly



Elderly



Middle Aged



Young Adult

ENVIRONMENT

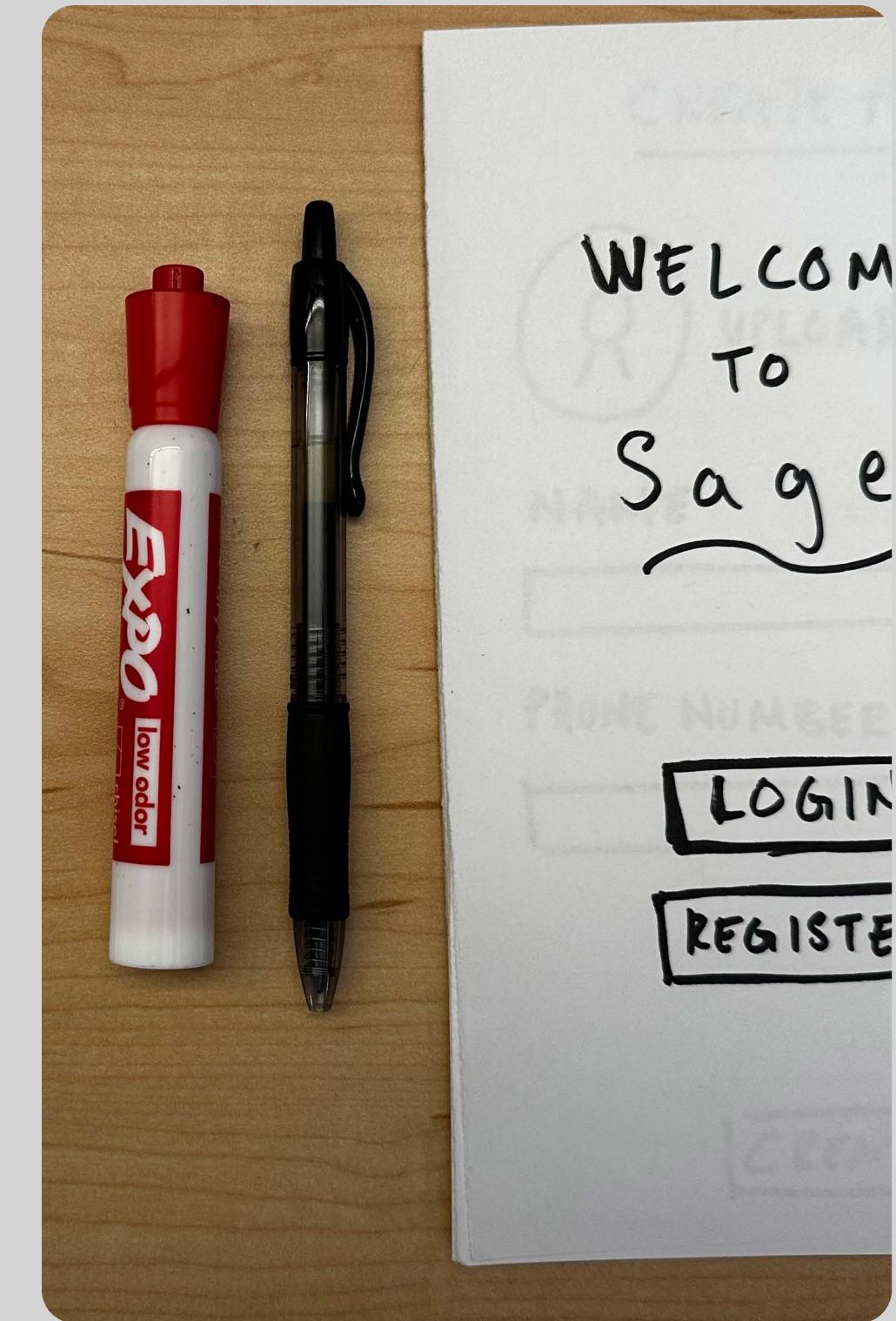
Tables inside
and outside

OUR TEAM

Ethan: Computer/App

Adam: Notetaker

MATERIALS



Testing Methodology

Goals

USABILITY

1. **Intuitive** → important for a non-technical user demographic
2. **Obvious** → application needs to clearly provide value to the user
3. **Useful** → application should provide value on a long term basis
4. **Fun** → interface should be appealing for users

METRICS

1. Intuitive Navigation
2. Apparent Utility
3. Repeat Usage
4. Likeability

Testing Methodology

Procedure

1. Approach participant and sit down at table
2. Instructions, consent, and context
3. Participant walk through prototype and think out loud

Testing Results

Testing Results



Mollie

- Tried login and join without registering or having group
- Confusion with the idea of being a first time user
- Some general UI component confusion
- “Harvest or invite first?”
- “Why is there an option to edit message?”
- Next buttons rarely used to advance screen
- Thought the flow of the app was intuitive

Testing Results



Caitlin

- “What name should I put for ‘join garden’?”
- “How is progress was measured?”
- Wanted list of people already in garden
- Couldn’t distinguish what the options were on the home page
- Wanted the option to assign different tasks to different gardeners
- Login page confusion
- Harvest page confusion

Testing Results



Corliss

- Wants a summary of what happened in previous event
- Loved the congratulations page
- Confusion on logging page
- Wants to assign jobs / responsibilities
- Harvest must be a celebration - animation, congratulations, etc
- Include pictures of those who helped commit to the garden's harvest

Testing Results



Christo

- Navigation confusion
- Liked the layout of the app
- Found interactive components intuitive to use
- Enjoyed being able to invite lots of his contacts
- Wants the option to invite people over Snapchat / Instagram

Testing Results

Big Picture Takeaways

- ✓ Flow of app is intuitive
- ✓ Enables connection from a distance
- ✗ Need to make utility of app more apparent
- ✗ Need to think about repeat usage. Users did not seem inclined to come back
- ✗ More colors and animation
- ✗ Keeping track of our garden needs to be more apparent
- ✗ Social / community aspect needs to be more apparent

INTUITIVE NAVIGATION



APPARENT UTILITY



LIKEABILITY



REPEAT USAGE



Discussion

Discussion

Implications:

- Does not communicate value clearly enough (repeat usage?)
- Increased emphasis on community makes app more appealing
- Difficulty in understanding how to track garden progress
- Consult a broader audience

Changes to be made:

- “Higher-energy” design
- Calendar & Time
- Login process
- Create / Join process

Testing could not reveal:

- Usage over time (how does app help garden over course of harvest)
- Ease in communicating with third parties (ie. charities for donation)
- Difficulty in measuring “fun”

Appendix

Interview Segment 1

Interview Segment 2

Pro's & Con's Full List

Storyboards

FigJam Board

Sketching Report

Lo-fi Prototype

Script

Critical Log