



BROCCOLI FOR ALL

BRINGING FRESH PRODUCE TO EVERYONE

Kelsie Haakenson | main writer

Will Huang | jack of all trades

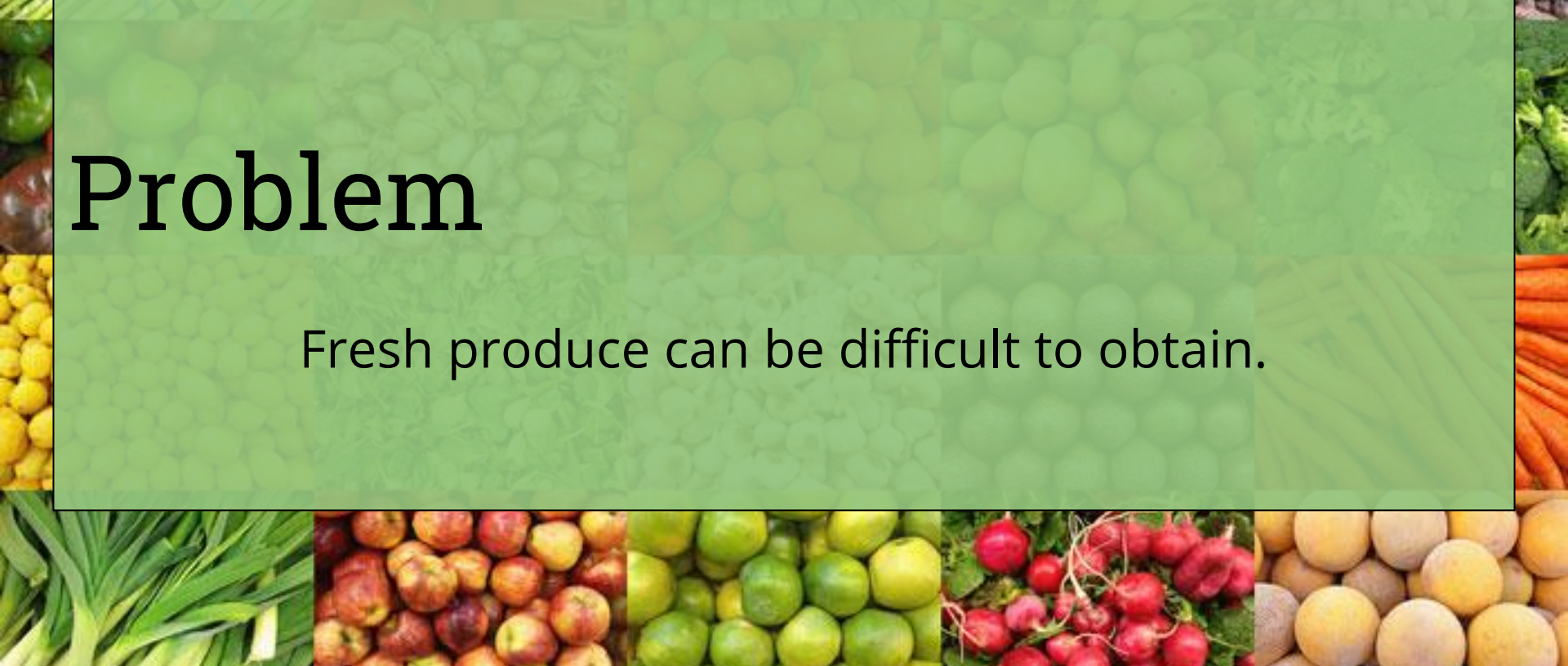
Yilin Jin | design lead

Aishwarya Nirmal | communications/outreach

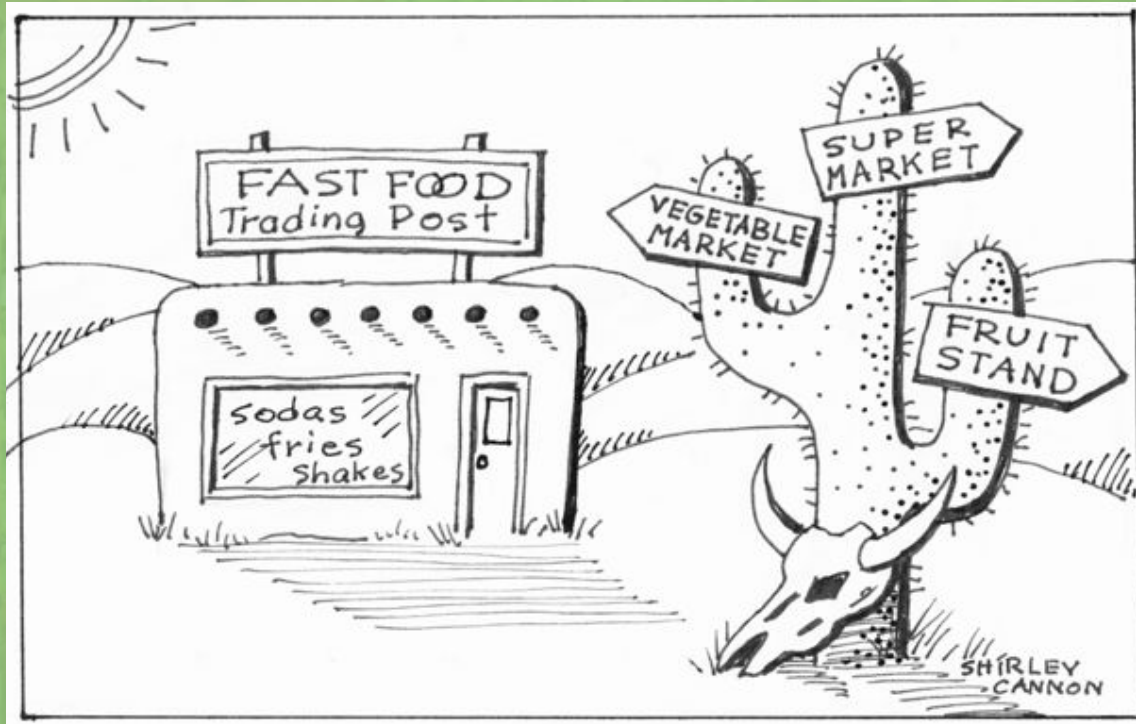


Problem

Fresh produce can be difficult to obtain.



Problem



Initial Paper Prototype

Two Tasks



Garden Health

Determine what needs to be improved in the garden.



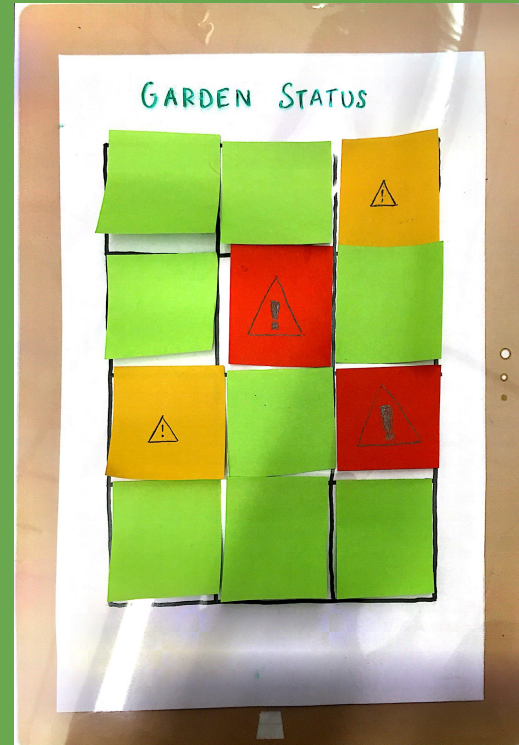
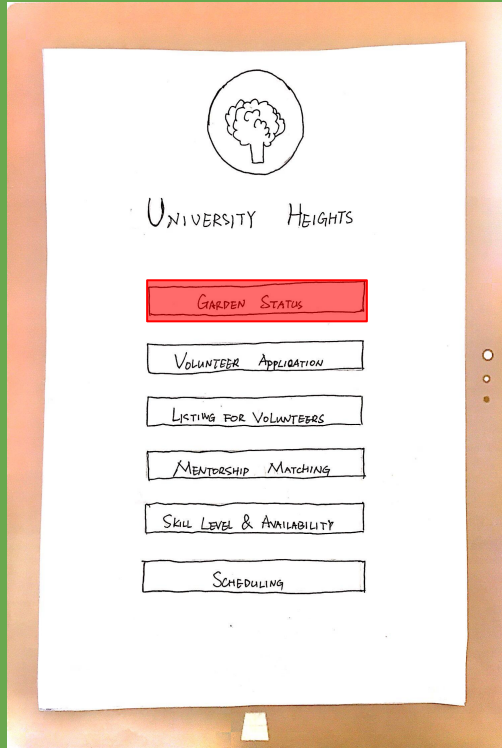
Volunteer Application

You walk by the garden, are intrigued, and would like to get involved.
How do you proceed?

Initial Paper Prototype Overview



Task 1: Garden Health



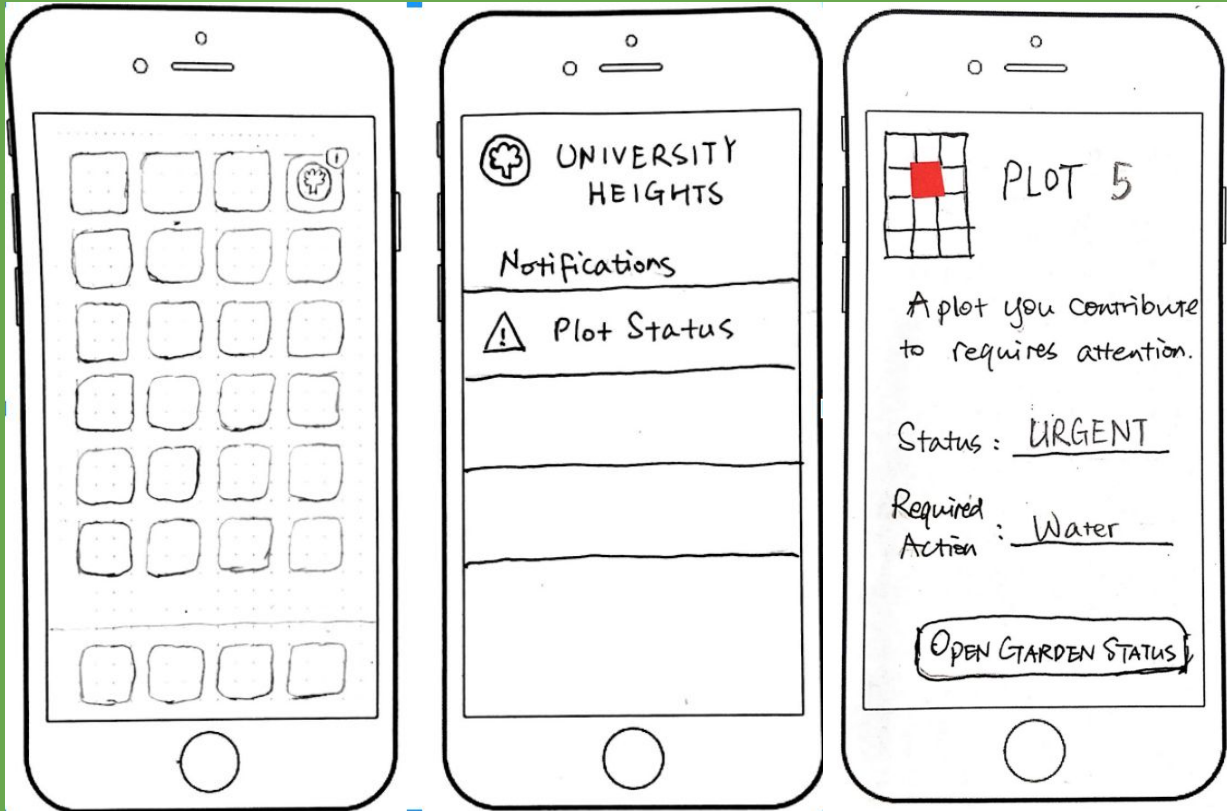
Task 1: Garden Health

A hand-drawn form on a white sheet of paper with a green border. At the top left is a 3x3 grid with the top-left cell shaded green. To its right is a teal sticky note with the text "DOING WELL". Below the grid is the word "STATUS" in bold. Underneath are three labels: "Moisture level:", "Weed population:", and "Harvest time:", each followed by a wavy line. A horizontal line separates the status section from a "LOG" section. To the right of "LOG" is a green button labeled "+ Add Update". Below the line are four wavy lines representing log entries. At the bottom left is a red sticky note labeled "Back".

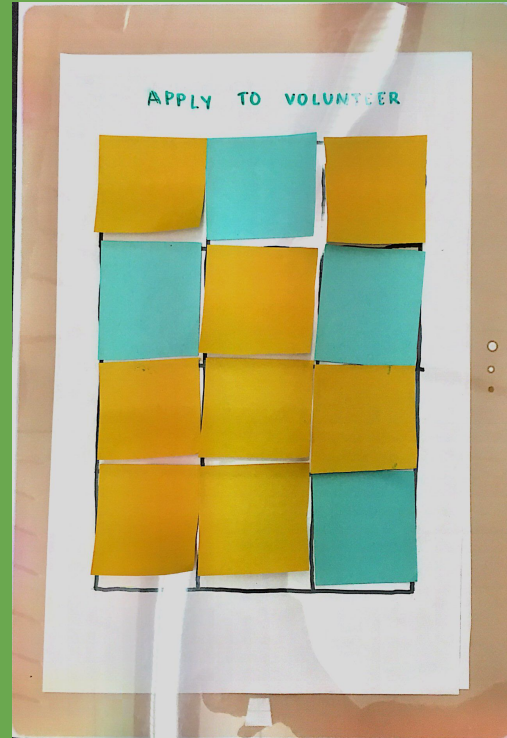
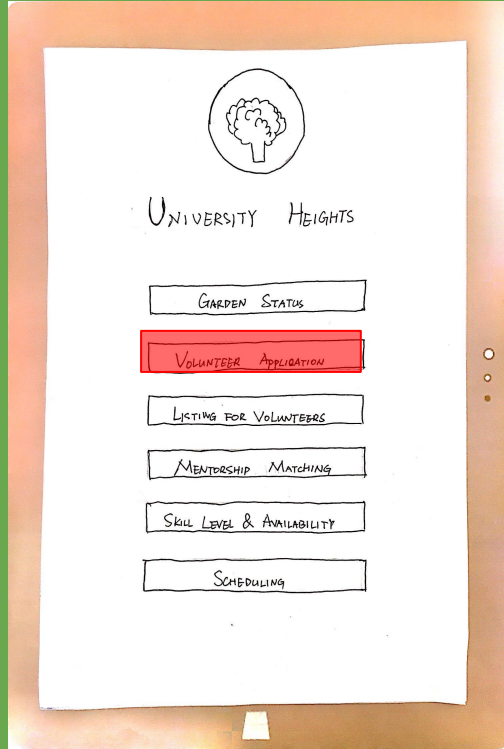
A hand-drawn form on a white sheet of paper with a green border. At the top left is a 3x3 grid with the top-middle cell shaded yellow. To its right is a yellow sticky note with the text "NEEDS WORK". Below the grid is the word "STATUS" in bold. Underneath are three labels: "Moisture level:", "Weed population:", and "Harvest time:", each followed by a wavy line. A horizontal line separates the status section from a "LOG" section. To the right of "LOG" is a green button labeled "+ Add Update". Below the line are four wavy lines representing log entries. At the bottom left is a red sticky note labeled "Back".

A hand-drawn form on a white sheet of paper with a green border. At the top left is a 3x3 grid with the center cell shaded red. To its right is a red sticky note with the text "URGENT". Below the grid is the word "STATUS" in bold. Underneath are three labels: "Moisture level:", "Weed population:", and "Harvest time:", each followed by a wavy line. A horizontal line separates the status section from a "LOG" section. To the right of "LOG" is a green button labeled "+ Add Update". Below the line are four wavy lines representing log entries. At the bottom left is a red sticky note labeled "Back".

Task 1: Garden Health



Task 2: Volunteer Application



Task 2: Volunteer Application

A hand-drawn application form on a white sheet of paper with deckled edges, mounted on a brown corkboard. At the top left is a 4x4 grid icon with the bottom-right cell shaded green. To its right is a green rectangular button labeled "APPLY". Below the grid is the text "PLANTS" followed by three wavy lines. Underneath is the text "OWNER / CONTACT INFO" followed by three wavy lines. At the bottom left is a red rectangular button labeled "Back".

A hand-drawn application form on a white sheet of paper with deckled edges, mounted on a brown corkboard. At the top left is a 4x4 grid icon with the top-left cell shaded yellow. To its right is a yellow rectangular button labeled "NOT AVAILABLE". Below the grid is the text "PLANTS" followed by three wavy lines. Underneath is the text "OWNER / CONTACT INFO" followed by three wavy lines. At the bottom left is a red rectangular button labeled "Back".

Task 2: Volunteer Application

VOLUNTEERING Application

To: (OWNER)

* NAME:

* PHONE NUMBER:

EMAIL:

* SKILL LEVEL: NOVICE INTERMEDIATE SKILLED

AVAILABILITY: M T W TH F SAT SUN

* MAX COMMITMENT: hr / WEEK

MESSAGE:

* REQUIRED FIELDS

VOLUNTEERING Application

To: (OWNER)

Please fill in the required fields

MESSAGE:

* REQUIRED FIELDS

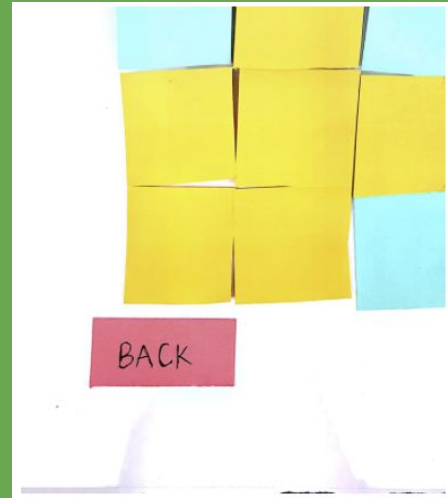
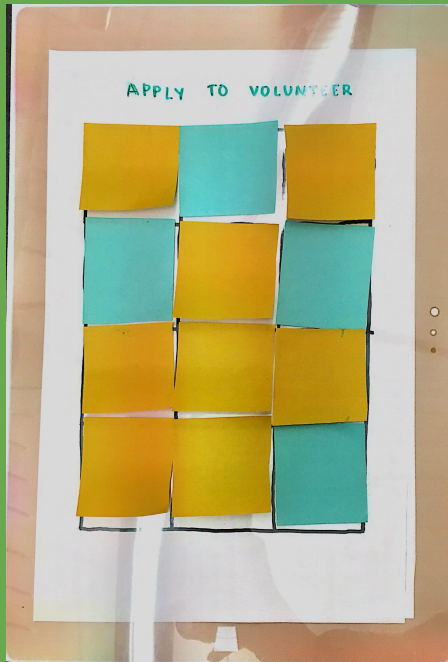
PLANTS

Application sent

OWN

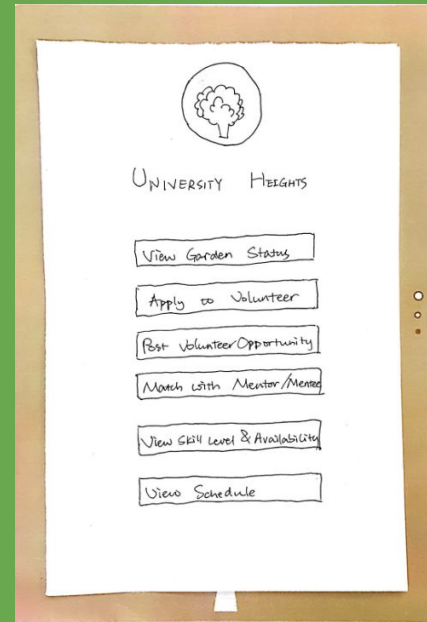
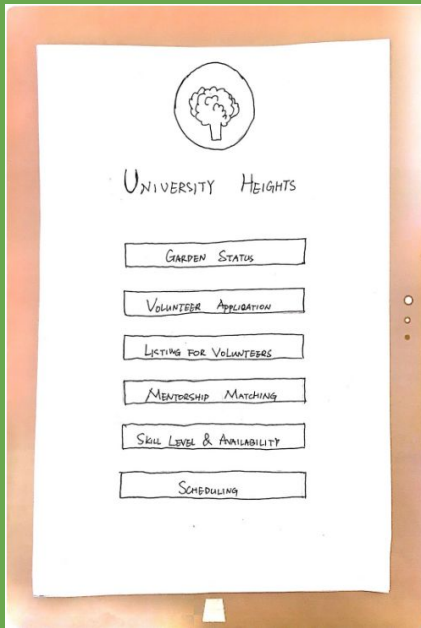
Heuristic Evaluation

1. Missing "Back" buttons



Heuristic Evaluation

2. Menu wording is not clear



Heuristic Evaluation

3. Potential for illegal input



A photograph of a 'VOLUNTEERING APPLICATION' form. The form is titled 'VOLUNTEERING APPLICATION' and has a 'To: (OWNER)' field. Below this, there are numbered fields 1 through 10. Fields 1, 2, 3, 4, 6, 7, 8, 9, and 10 are empty. Field 5 is labeled 'MAX COMMITMENT' and contains the number '5'. Field 10 is labeled 'MESSAGE'. A green sticky note with the word 'SUBMIT' is attached to the bottom left of the form. A red sticky note is attached to the right side of the form, near field 9. The form is placed on a brown surface.

Field Number	Field Label	Content
1	Name	
2	Phone Number	
3	Email	
4	Skill Level	
5	Max Commitment	5
6	Availability	
7		
8		
9		
10	Message	

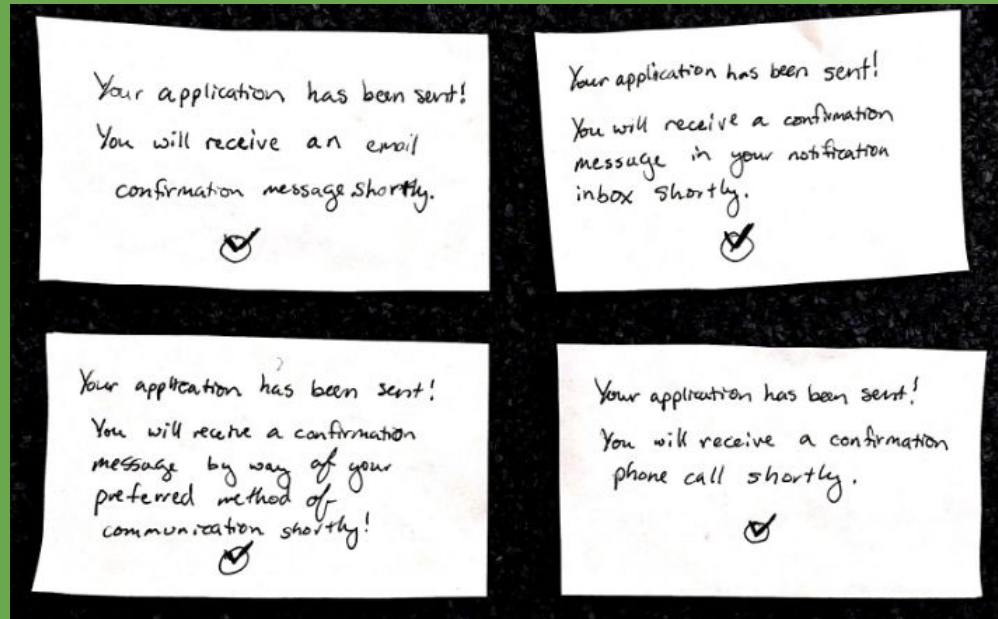
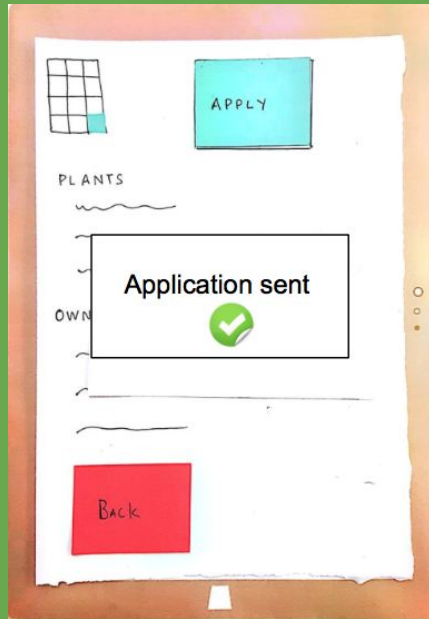
Heuristic Evaluation

4. Poorly worded button



Heuristic Evaluation

5. Feedback for volunteer applications missing



Accessibility Discussion

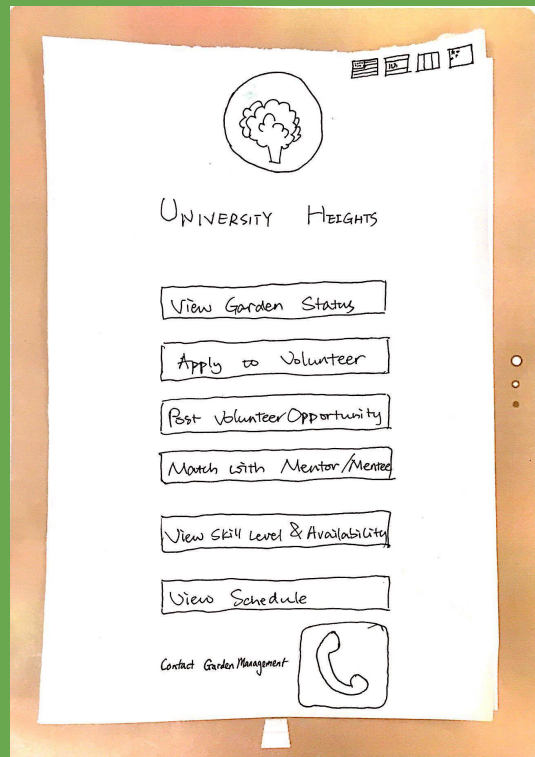
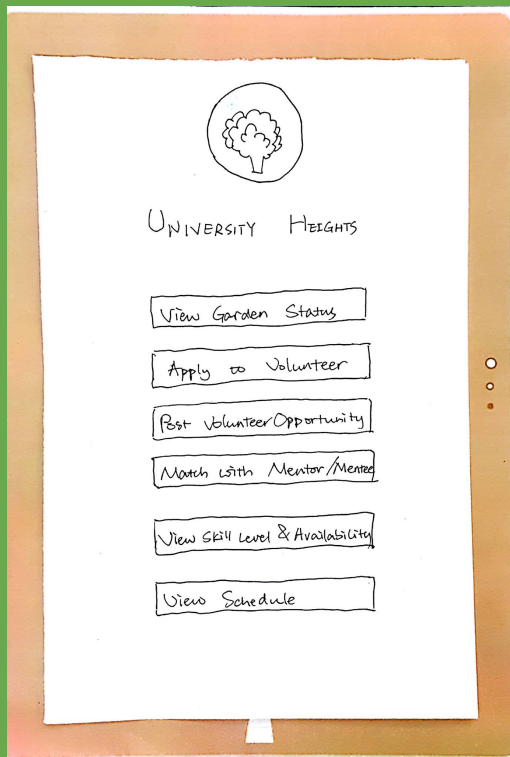
Text based user interface presents issues:

- Illiteracy
- Lack of English fluency

Phone notifications:

- Confirmation messages for people without phones

Accessibility Discussion



Accessibility Discussion

VOLUNTEERING APPLICATION

To: (OWNER)

* NAME:

* PHONE NUMBER:

EMAIL:

* SKILL LEVEL: Novice Intermediate Skilled

AVAILABILITY: M T W Th F Sa Su

* MAX COMMITMENT: hr/week

MESSAGE:

* Required Fields



Volunteer Application

To: (Owner)

Personal Info

* Name: Please check at least one preferred contact method.

* Preferred Contact Method: Phone:
 Email:
 Other:

Gardening Preference

* Skill Level: Novice Intermediate Skilled

Availability: M T W Th F Sa Su

* Max Commitment: hr/week

Message:

* Required Fields

Usability Testing

3 participants

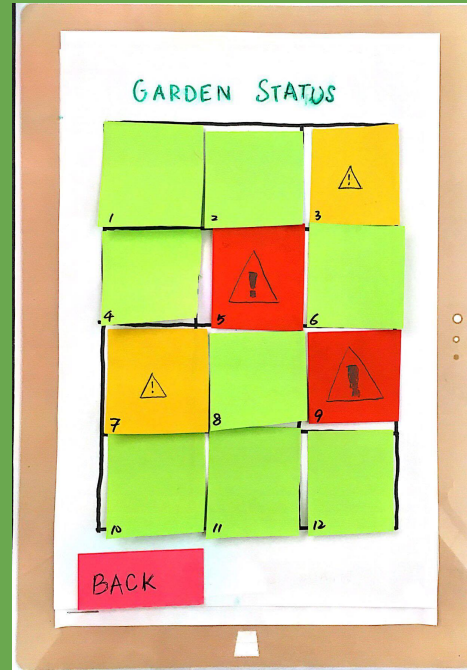
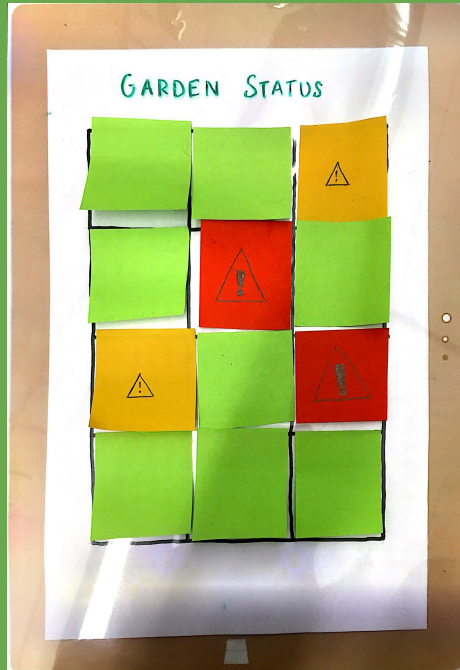
- Person interested in gardening
- Community garden member
- Community garden management

Process

- Explain the product/situation
- Present each task, have participant try to complete it
- Allow to explore the interface on their own

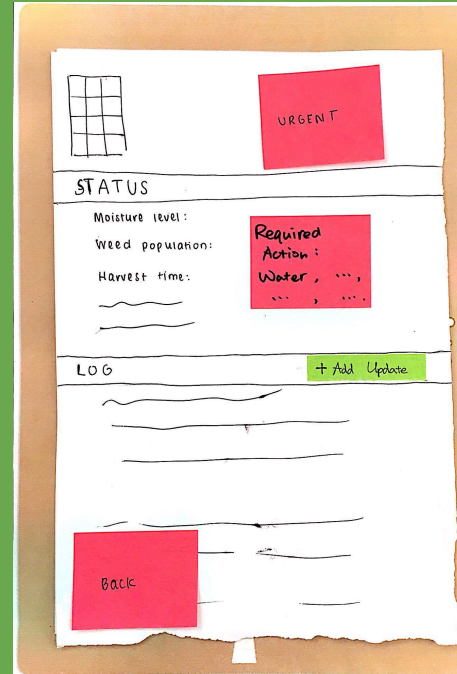
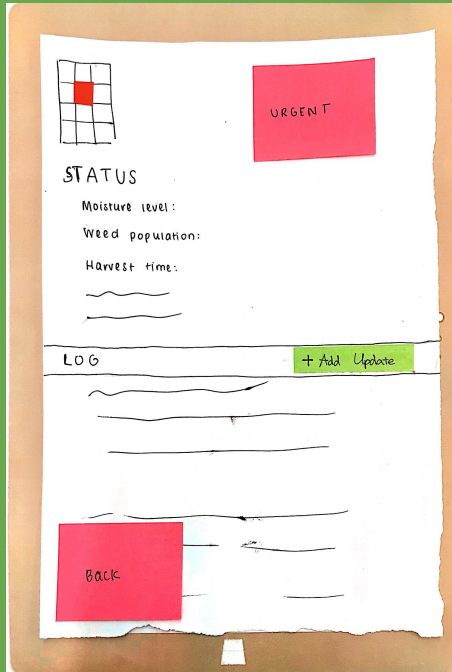
Usability Testing

1. Plots unnumbered



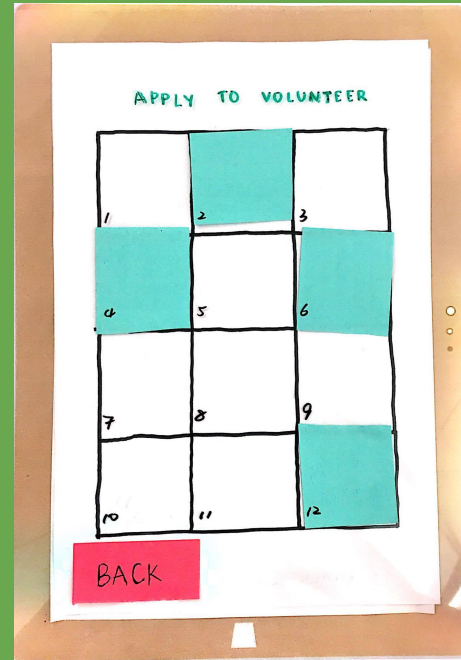
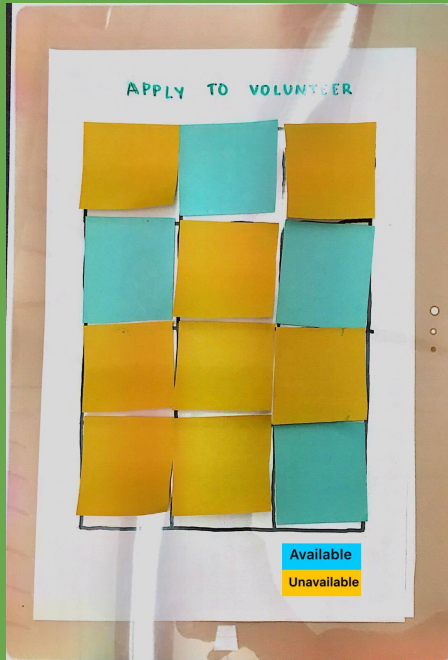
Usability Testing

2. Required action missing on garden status



Usability Testing

3. Too much color on volunteering grid



Usability Testing

4. Number selection (positive)

VOLUNTEERING APPLICATION

To: (OWNER)

* NAME: 1

* PHONE NUMBER: 2 7

EMAIL: 3

* SKILL LEVEL: _____

AVAILABILITY: _____

* MAX COMMITMENT: 5 hours

MESSAGE: _____

7

8

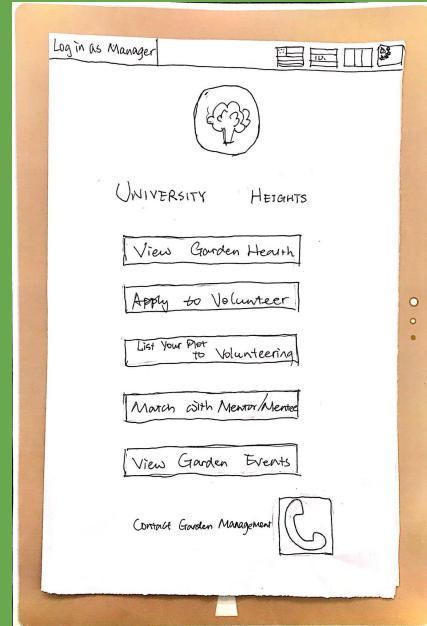
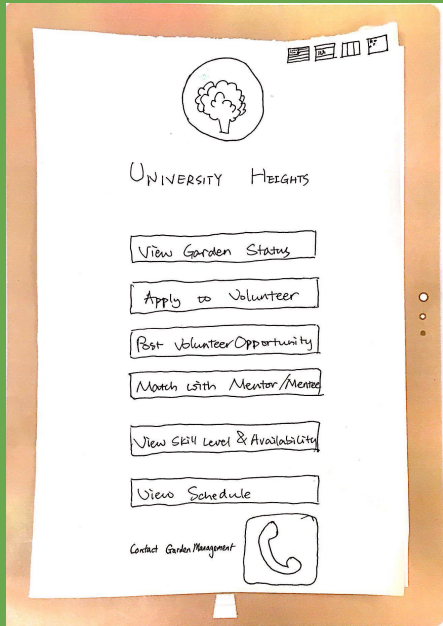
9

10

* BONUS FIELD

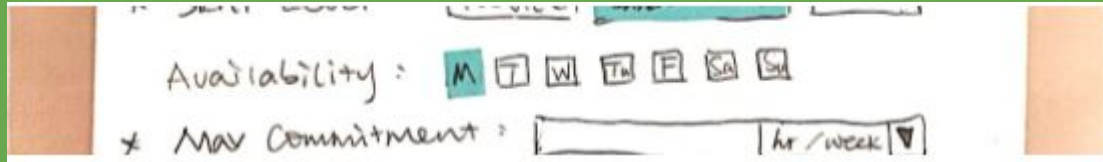
Usability Testing

5. Menu page buttons are not clear



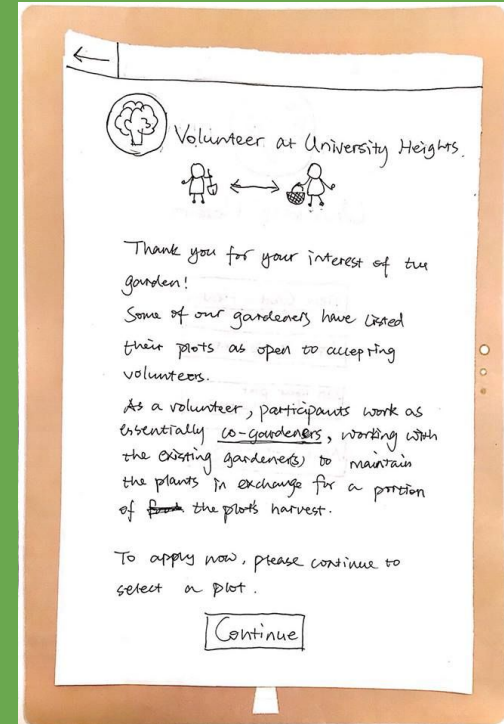
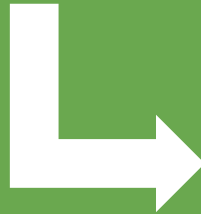
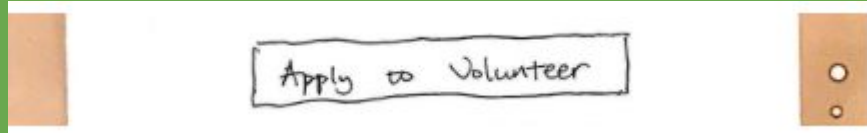
Usability Testing

6. Availability section on volunteer form is redundant



Usability Testing

7. Role of "volunteer" unclear



Usability Testing


8. Default choices on skill level & availability confusing

Volunteer Application

To: (Owner)

Personal Info

* Name: Please check at least one preferred contact method.

* Preferred Contact Method: 

Phone:

Email:

Other:

Gardening Preference

* Skill Level:

Availability:

* Max Commitment: hr/week

Message:


* Required Fields

Volunteer Application

To: (Owner)

Personal Info

* Name:

* Preferred Contact Method: 

Phone:

Email:

Other:

Gardening Preference

* Skill Level:

Availability:

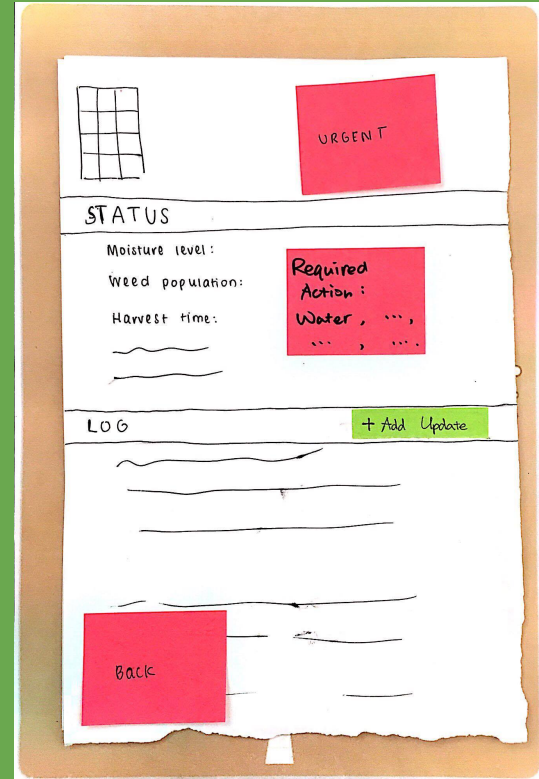
* Max Commitment: hr/week

Message:

* Required Fields

Usability Testing

9. Unclear whether “Urgent” and “Required Action” statuses were buttons or just notifications to read

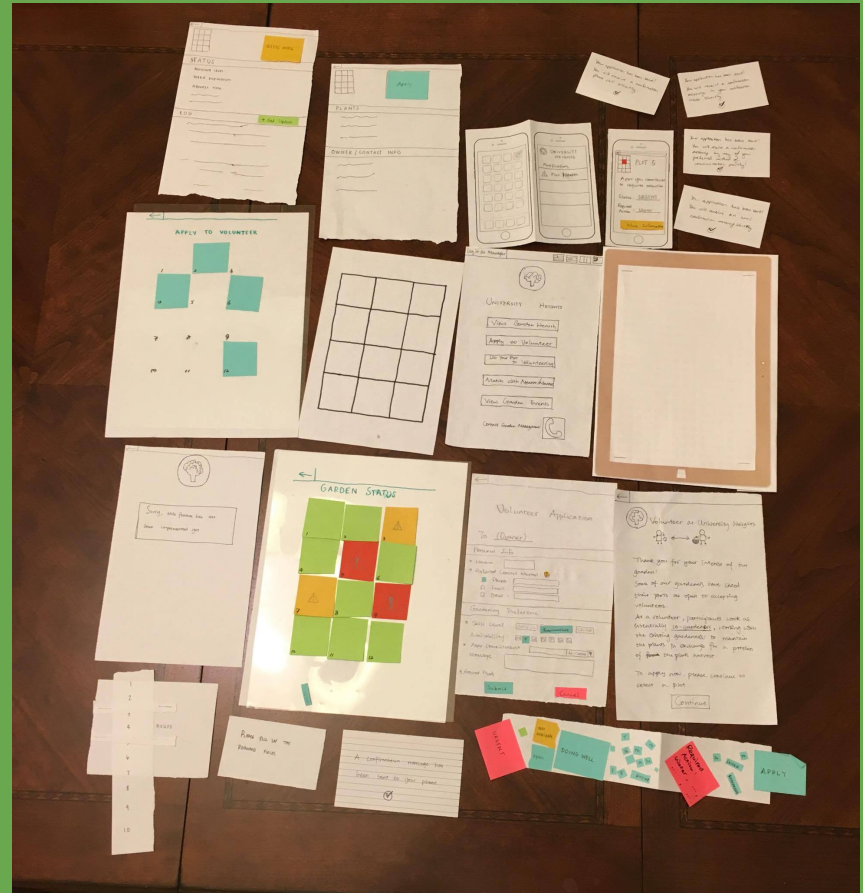


Design Critique

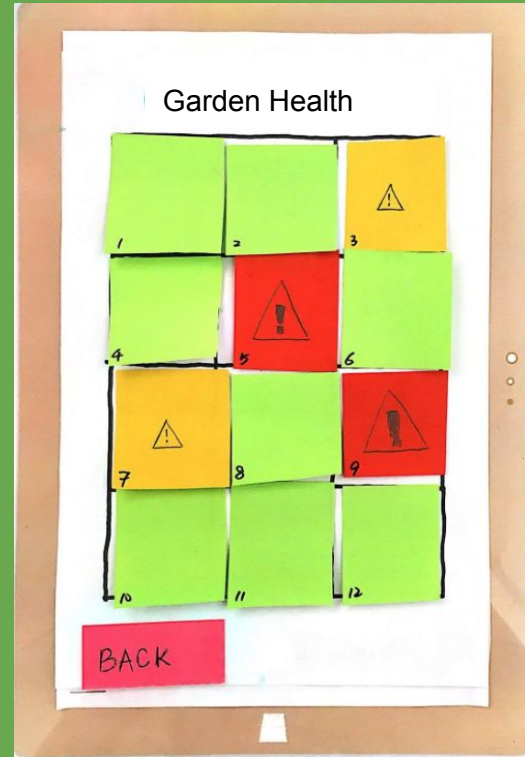
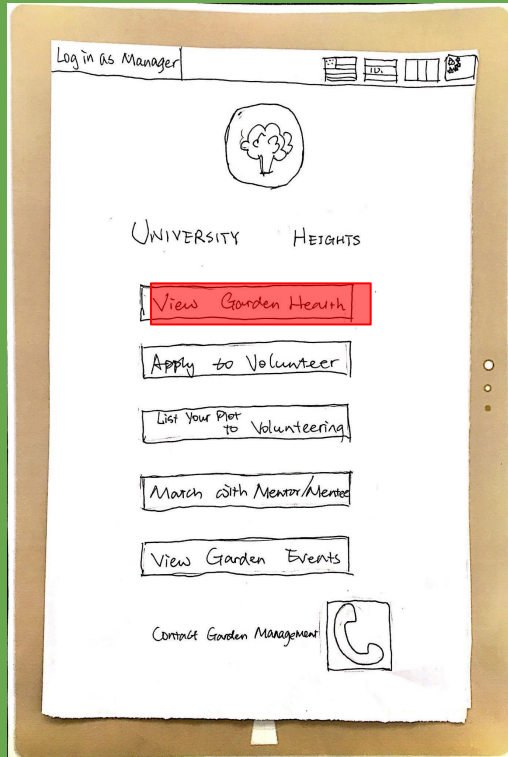
Back buttons are not in the top left hand corner

- violates external consistency with other applications
- altered this in our digital mock up

Final Paper Prototype Overview



Task 1: Garden Health



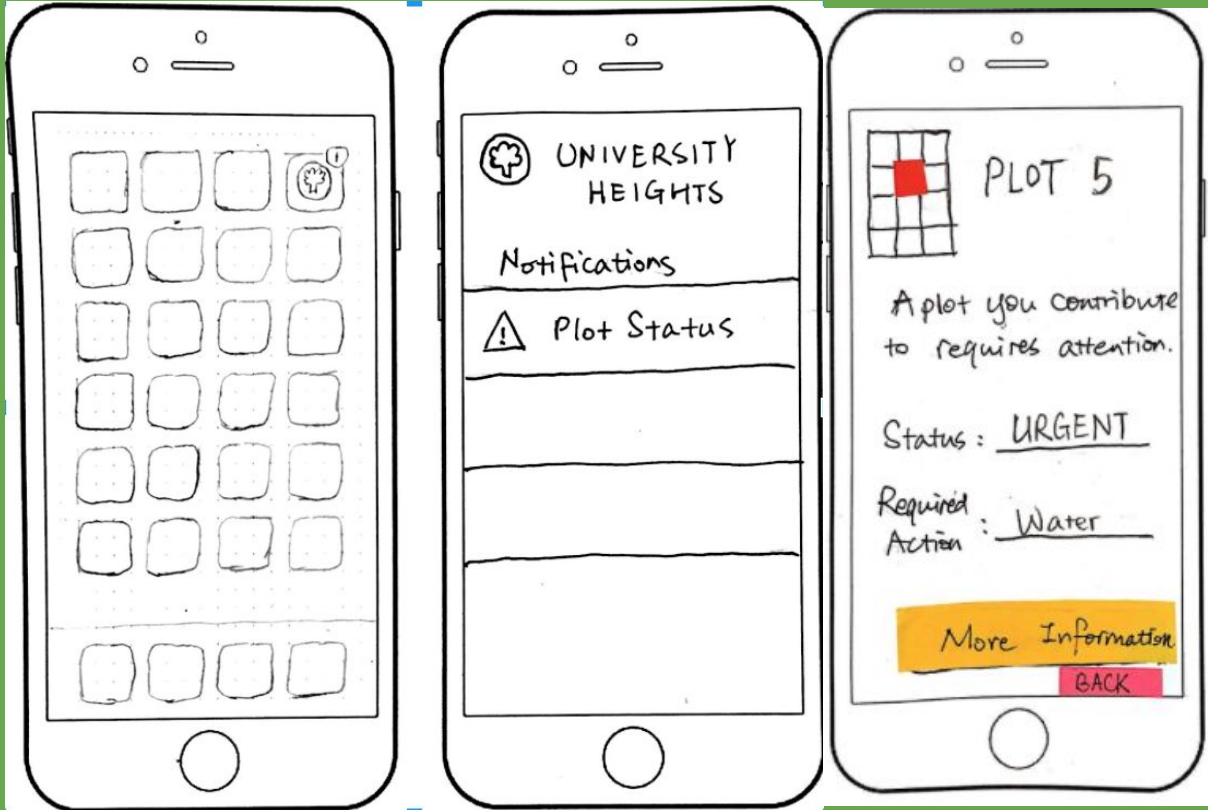
Task 1: Garden Health

A hand-drawn card on a white background with a 4x4 grid icon in the top left. A yellow sticky note with the text "NEEDS WORK" is attached to the top right. Below the grid, the word "STATUS" is written. Underneath, there are three lines of text: "Moisture level:", "Weed population:", and "Harvest time:", each followed by a wavy line. A horizontal line separates the top section from a "LOG" section. To the right of "LOG" is a green sticky note with "+ Add Update". Below the "LOG" section are three horizontal lines. At the bottom left, a red sticky note with the word "Back" is attached.

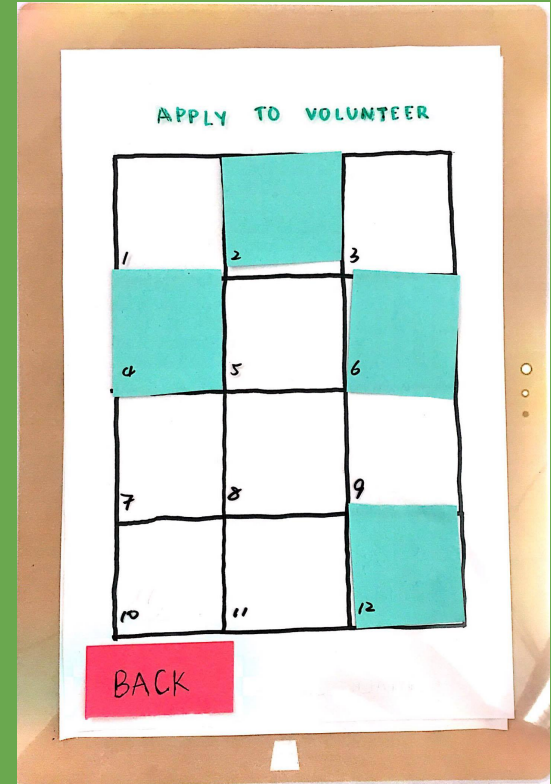
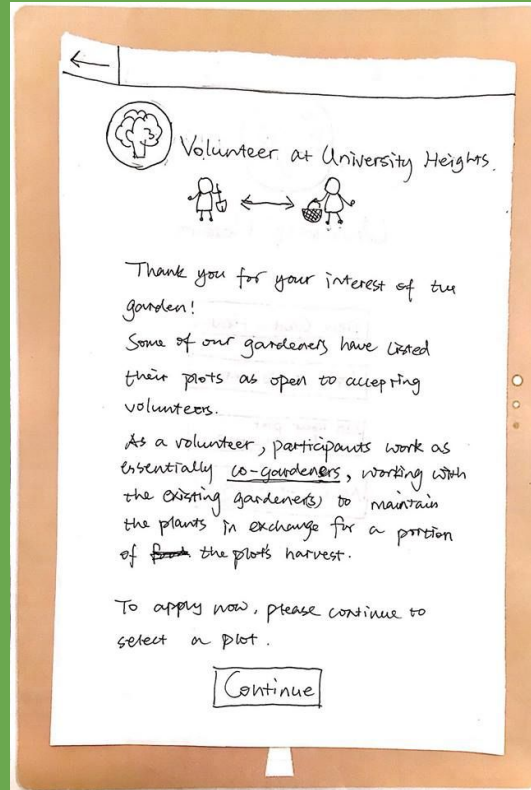
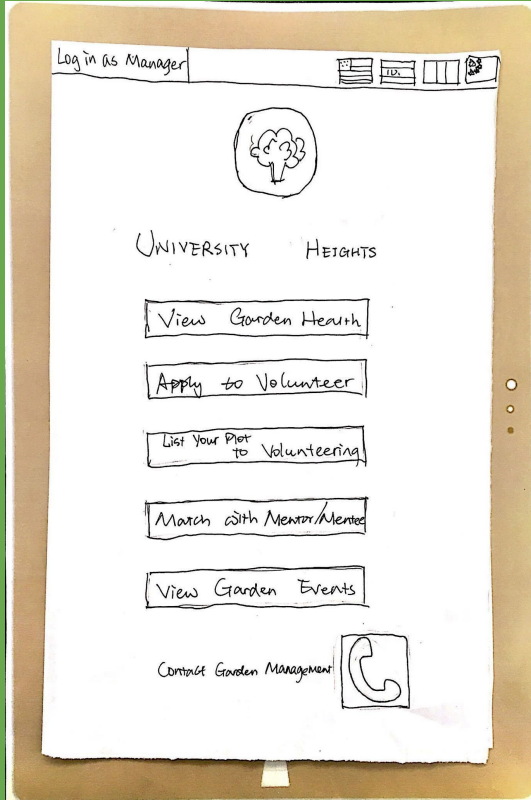
A hand-drawn card on a white background with a 4x4 grid icon in the top left. A teal sticky note with the text "DOING WELL" is attached to the top right. Below the grid, the word "STATUS" is written. Underneath, there are three lines of text: "Moisture level:", "Weed population:", and "Harvest time:", each followed by a wavy line. A horizontal line separates the top section from a "LOG" section. To the right of "LOG" is a green sticky note with "+ Add Update". Below the "LOG" section are three horizontal lines. At the bottom left, a red sticky note with the word "Back" is attached.

A hand-drawn card on a white background with a 4x4 grid icon in the top left. A red sticky note with the text "URGENT" is attached to the top right. Below the grid, the word "STATUS" is written. Underneath, there are three lines of text: "Moisture level:", "Weed population:", and "Harvest time:", each followed by a wavy line. A horizontal line separates the top section from a "LOG" section. To the right of "LOG" is a green sticky note with "+ Add Update". Below the "LOG" section are three horizontal lines. At the bottom left, a red sticky note with the word "Back" is attached. To the right of the "STATUS" section, a red sticky note contains the text "Required Action: Water, ... , ... , ...".

Task 1: Garden Health



Task 2: Volunteer Application



Task 2: Volunteer Application

A hand-drawn form on a white sheet of paper with a grid icon in the top left corner. The grid is 4x4 with the bottom-right cell shaded blue. To the right of the grid is a teal rectangular box containing the word "APPLY". Below the grid, the text "PLANTS" is followed by three wavy lines. Below that, the text "OWNER / CONTACT INFO" is followed by three wavy lines. At the bottom left is a red rectangular box containing the word "Back".

A hand-drawn form on a white sheet of paper with a grid icon in the top left corner. The grid is 4x4 with the top-left cell shaded yellow. To the right of the grid is a yellow rectangular box containing the words "NOT AVAILABLE". Below the grid, the text "PLANTS" is followed by three wavy lines. Below that, the text "OWNER / CONTACT INFO" is followed by three wavy lines. At the bottom left is a red rectangular box containing the word "Back".

Task 2: Volunteer Application

Volunteer Application

To: (Owner):

Personal Info

* Name:

* Preferred:

- P
- E
- G

PLEASE FILL IN THE REQUIRED FIELDS

Gardening

* Skill Level: Novice Intermediate Skilled

Availability: M T W Th F Sa Su

* Max Commitment: hr/week

Message:

* Required Fields

Volunteer Application

To: (Owner):

Personal Info

* Name:

* Preferred Contact Method: ?

- Phone:
- Email:
- Other:

Gardening Preference

* Skill Level: Novice Intermediate Skilled

Availability: M T W Th F Sa Su

* Max Commitment: hours

Message:

* Required Fields

PLANTS

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OWNER

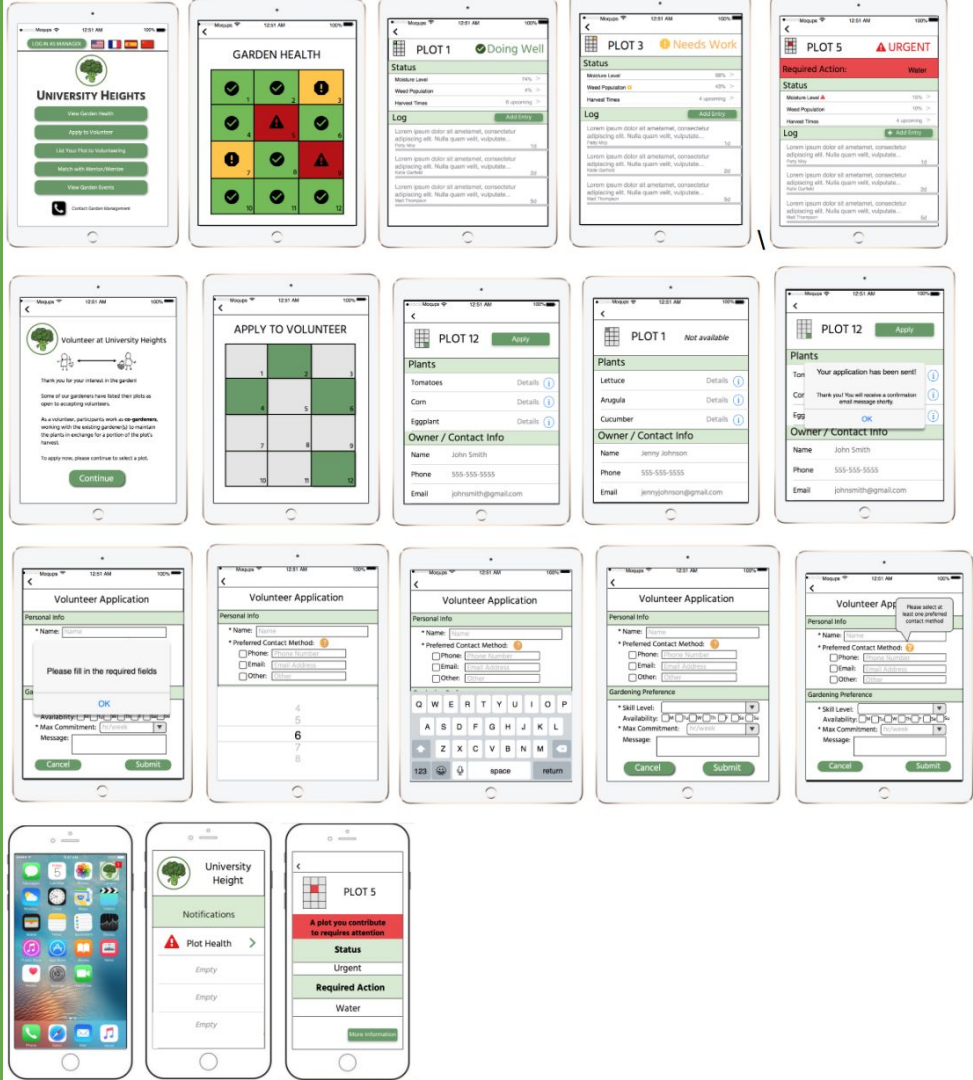
Your application has been sent!  
You will receive an email confirmation message shortly.

✓

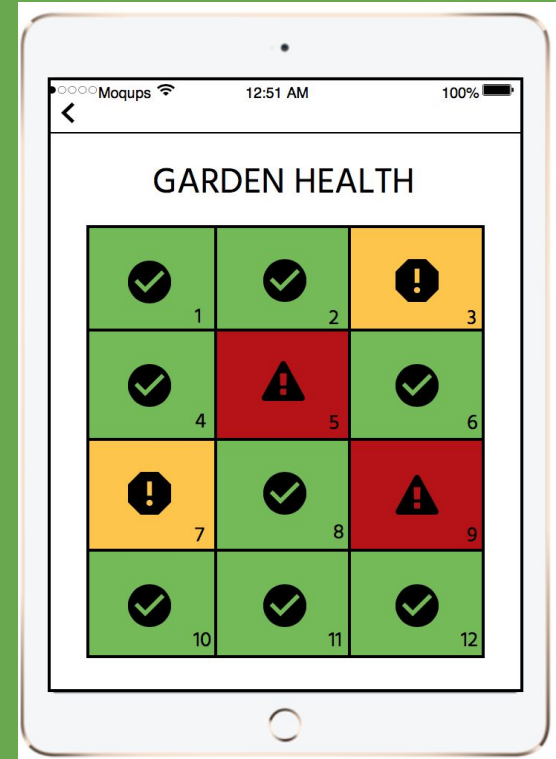
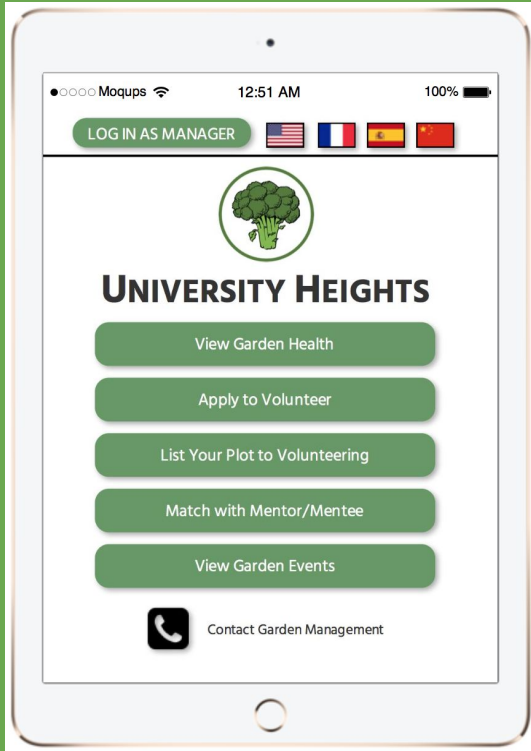
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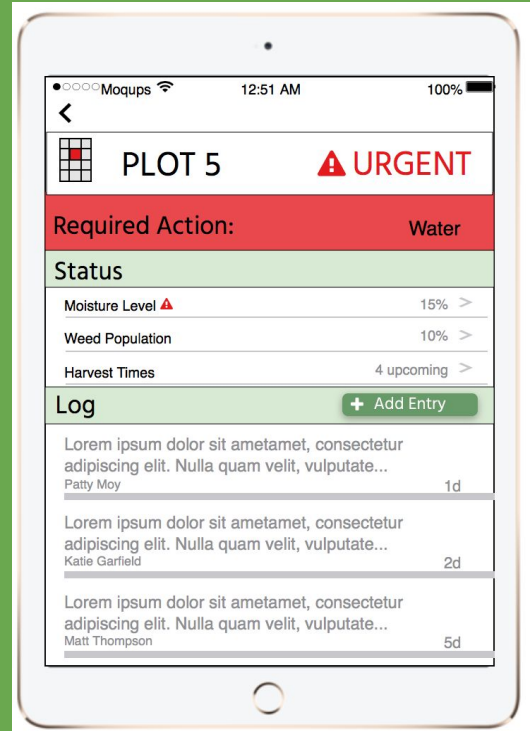
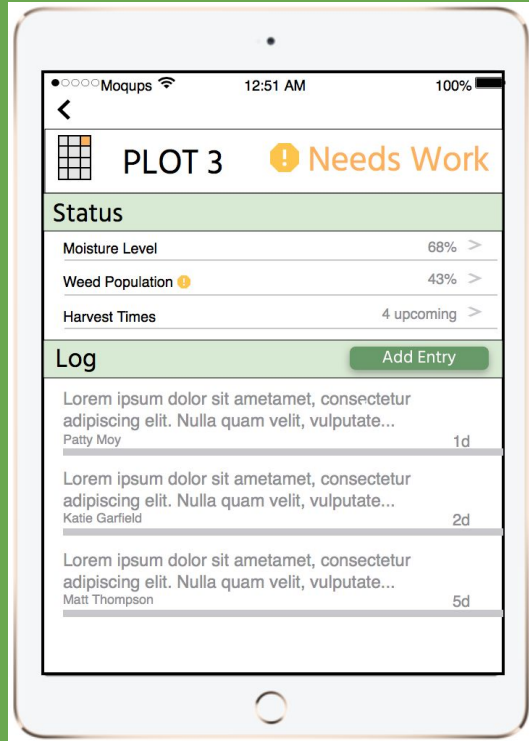
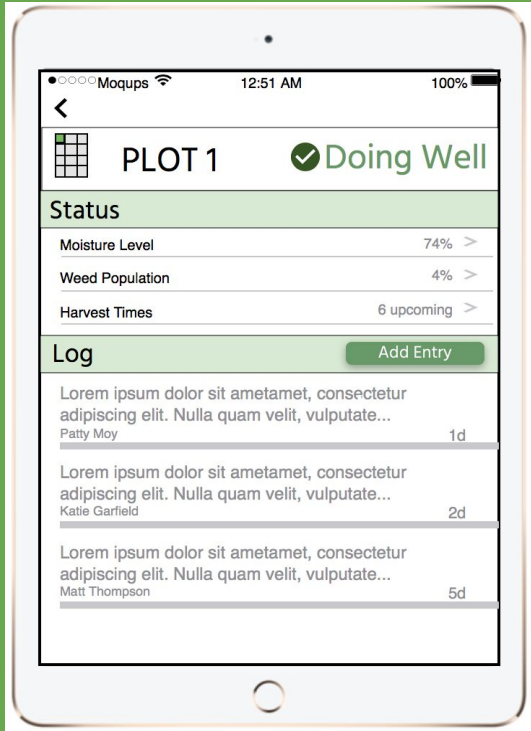
Digital Mock-Up Overview



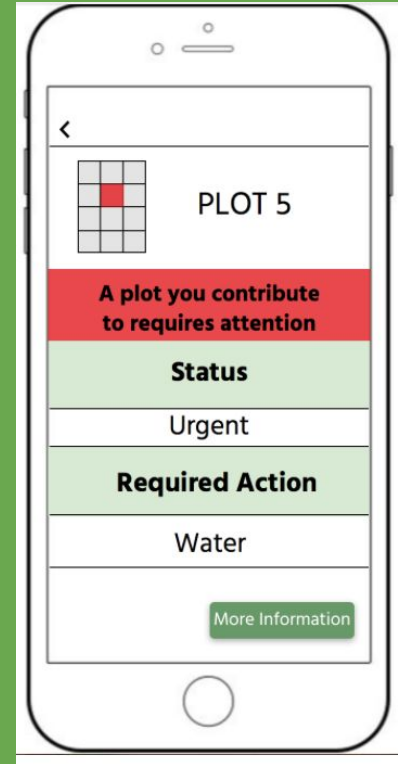
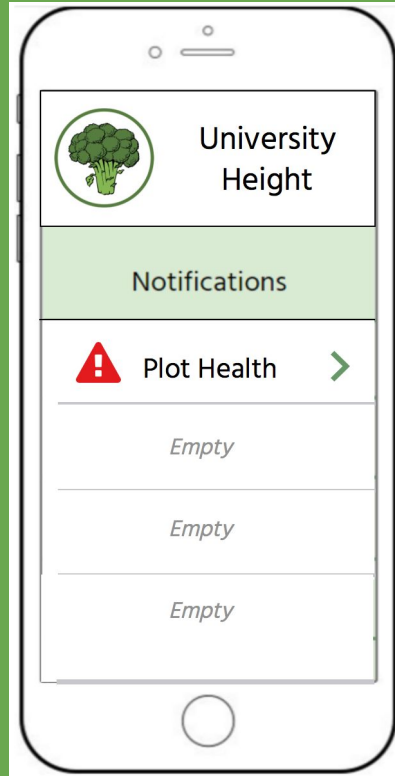
Task 1: Garden Health



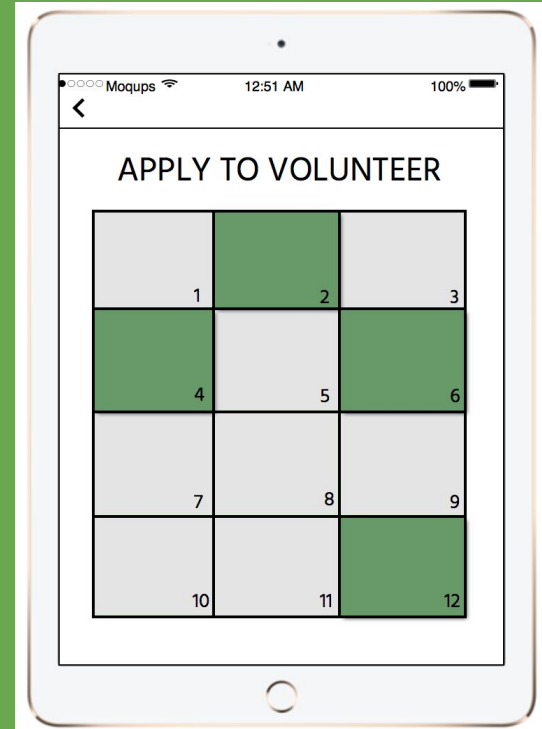
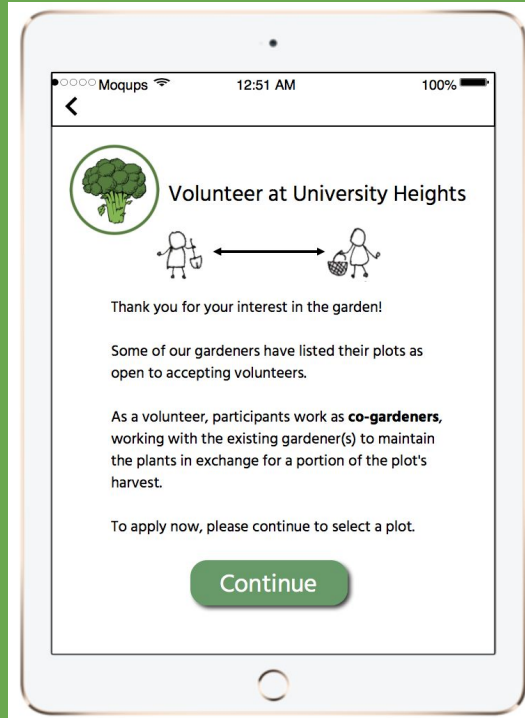
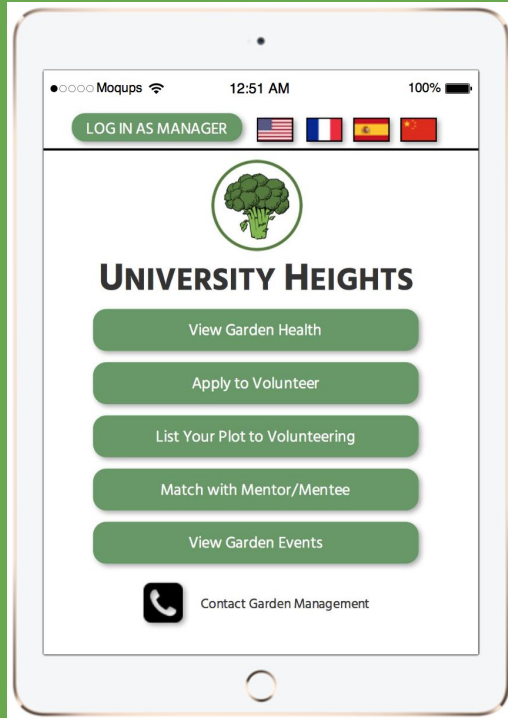
Task 1: Garden Health



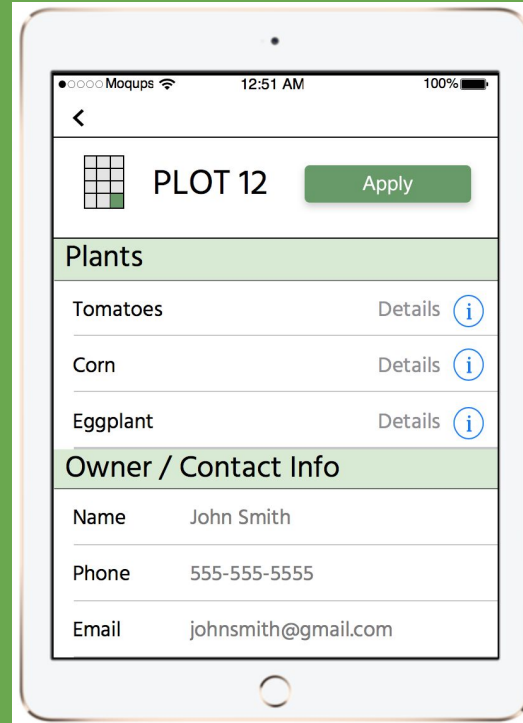
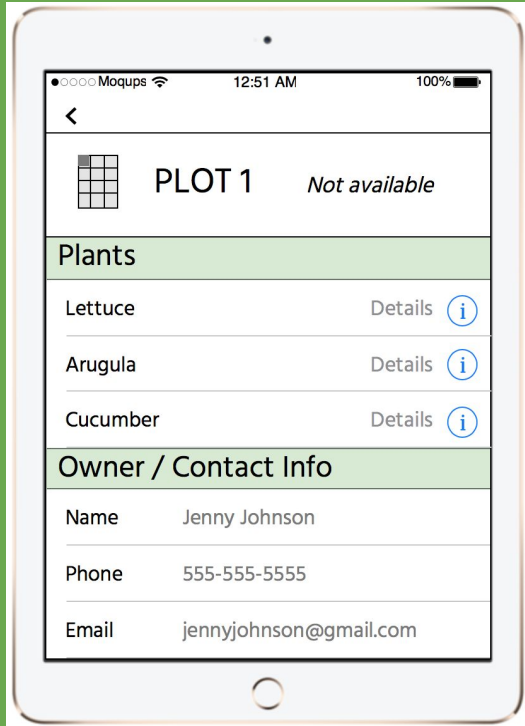
Task 1: Garden Health



Task 2: Volunteer Application



Task 2: Volunteer Application



Task 2: Volunteer Application

Moqups 12:51 AM 100%

Volunteer Application

Personal Info

* Name:

* Preferred Contact Method: ?

Phone:

Email:

Other:

Gardening Preference

* Skill Level:

Availability: M Tu W Th F Sa Su

* Max Commitment:

Message:

Cancel Submit

Moqups 12:51 AM 100%

Volunteer App

Personal Info

* Name:

* Preferred Contact Method: ?

Phone:

Email:

Other:

Gardening Preference

* Skill Level:

Availability: M Tu W Th F Sa Su

* Max Commitment:

Message:

Cancel Submit

Please select at least one preferred contact method

Moqups 12:51 AM 100%

Volunteer Application

Personal Info

* Name:

* Preferred Contact Method: ?

Phone:

Email:

Other:

Gardening Preference

* Skill Level:

Availability: M Tu W Th F Sa Su

* Max Commitment:

Message:

Cancel Submit

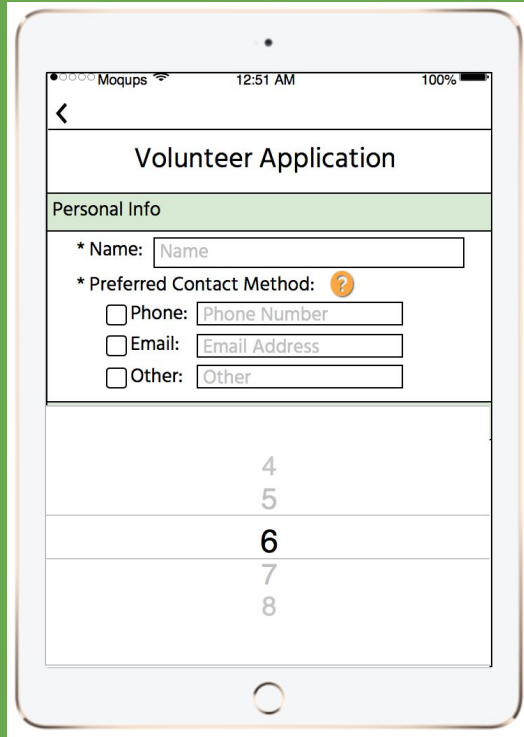
Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123 😊 🎤 space return

Task 2: Volunteer Application




Moqups 12:51 AM 100%

Volunteer Application

Personal Info

* Name:

* Preferred Contact Method: 

Phone:

Email:

Other:

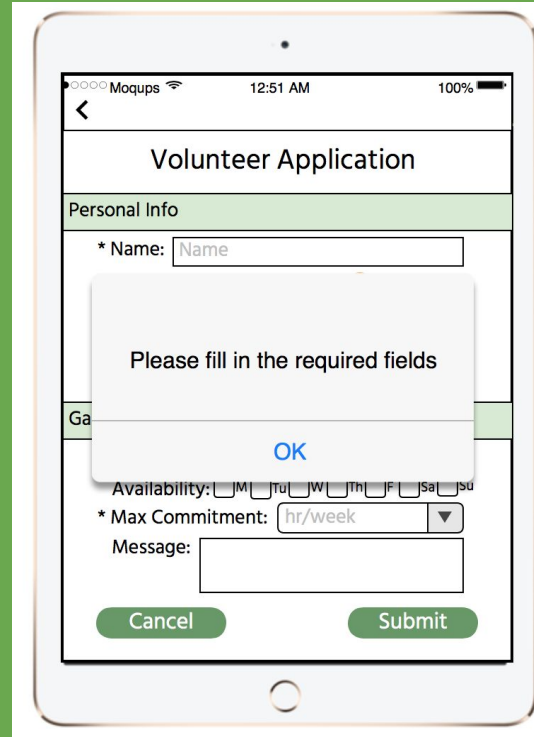
4

5

6

7

8



Moqups 12:51 AM 100%

Volunteer Application


Personal Info

* Name:

Please fill in the required fields

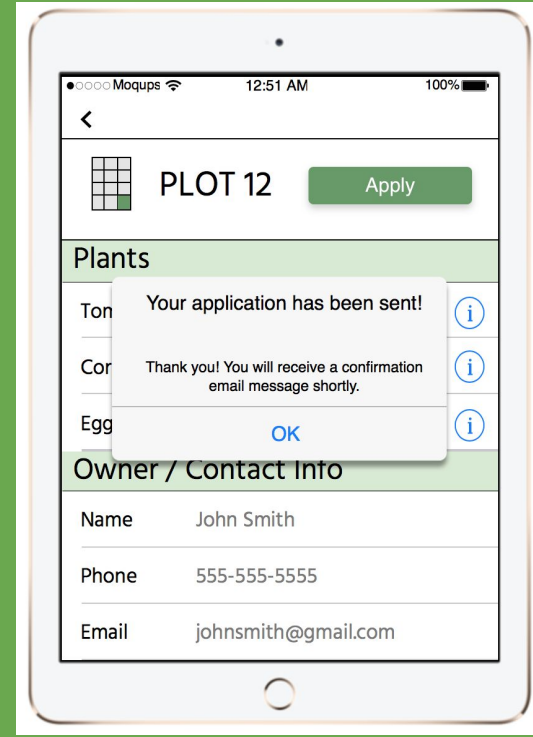
OK

Availability: M Tu W Th F Sa Su


* Max Commitment: 

Message:


Cancel Submit





Moqups 12:51 AM 100%

 PLOT 12

Plants

Ton 

Cor 

Egg 

Your application has been sent!

Thank you! You will receive a confirmation email message shortly.

OK

Owner / Contact Info

Name John Smith

Phone 555-555-5555

Email johnsmith@gmail.com



Summary

First solution to a problem is not always the best one

Difficult for us to determine intuitiveness on our own

Terms and language are very important. Even “volunteer” means different things to different people



FOR ALL