



BROCCOLI FOR ALL

BRINGING FRESH PRODUCE TO EVERYONE

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Will Huang | jack of all trades

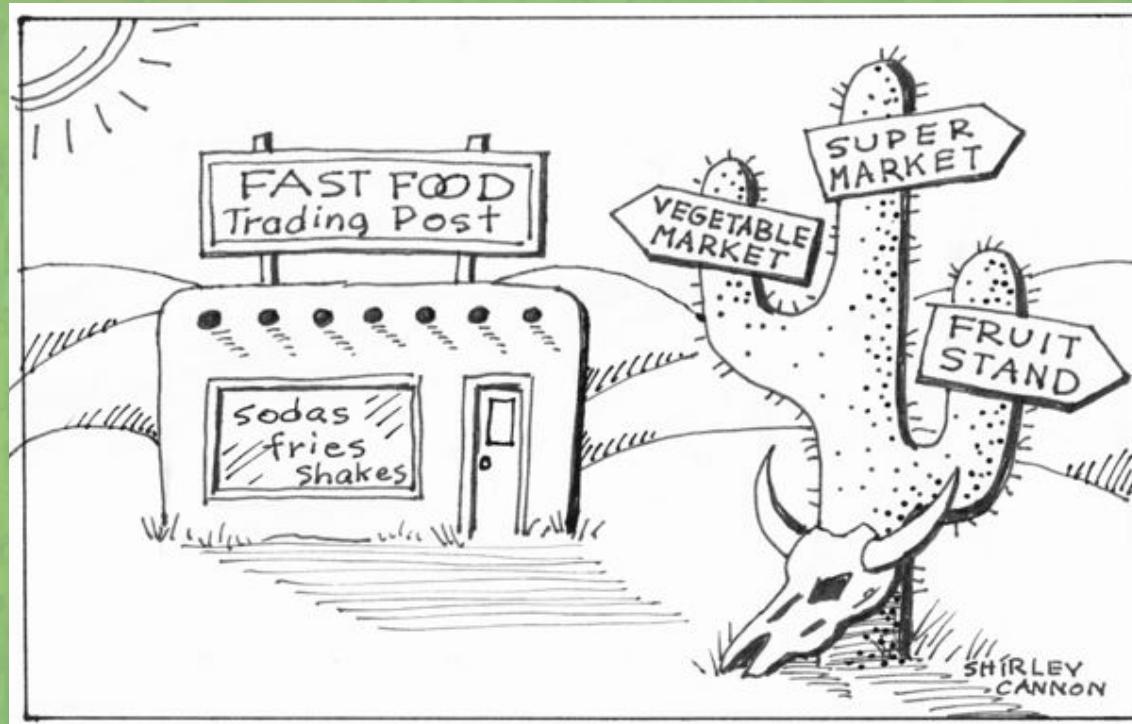
Yilin Jin | design lead

Aishwarya Nirmal | communications/outreach

Problem

Fresh produce can be difficult to obtain.

Problem



<https://contexts.org/articles/food-deserts/>

Initial Paper Prototype

Two Tasks



Garden Health

Determine what needs to be improved in the garden.



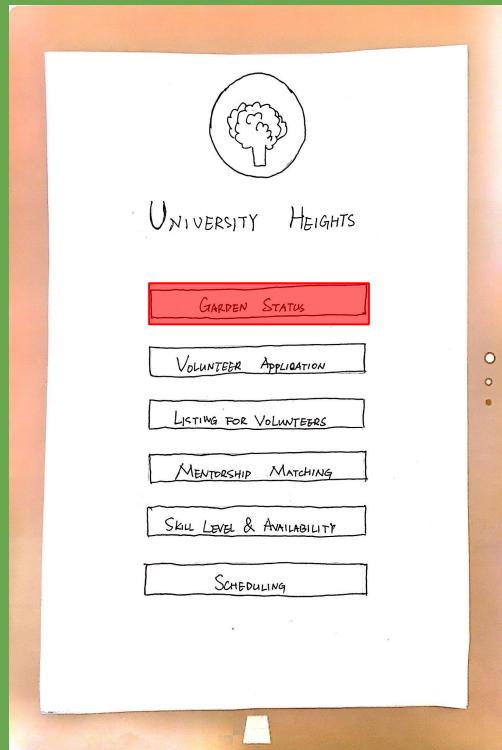
Volunteer Application

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

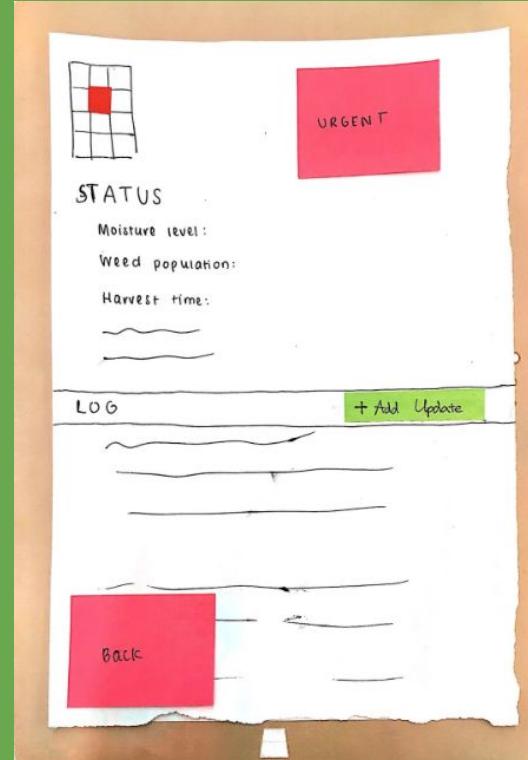
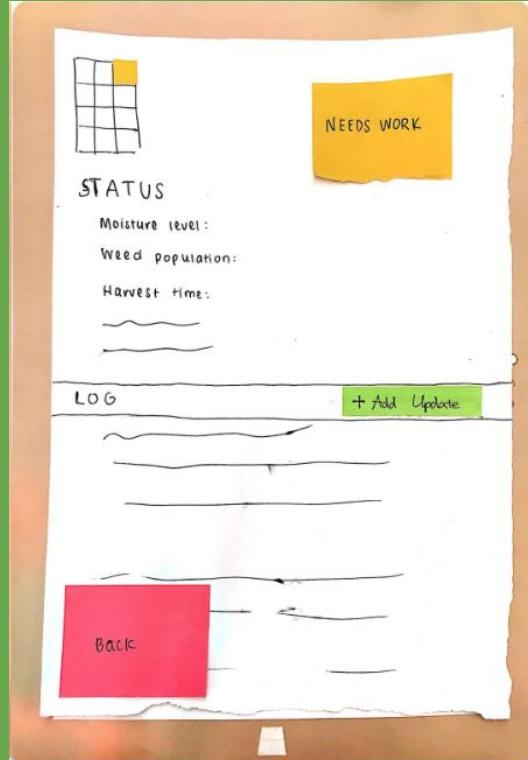
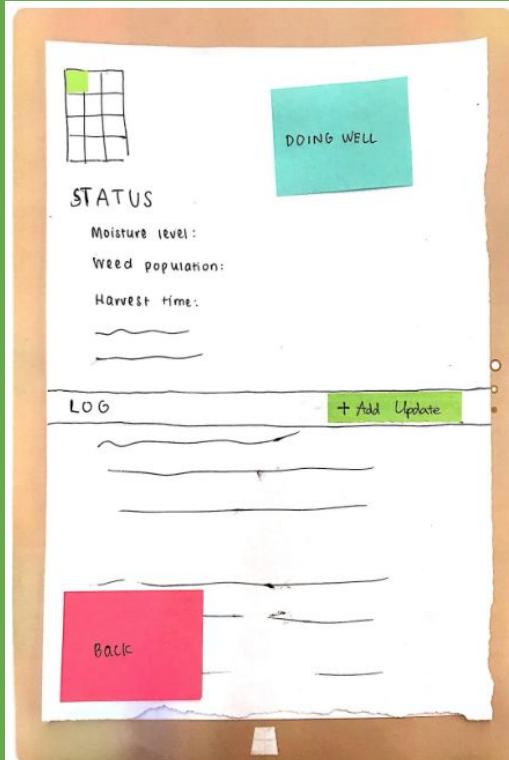
Initial Paper Prototype Overview



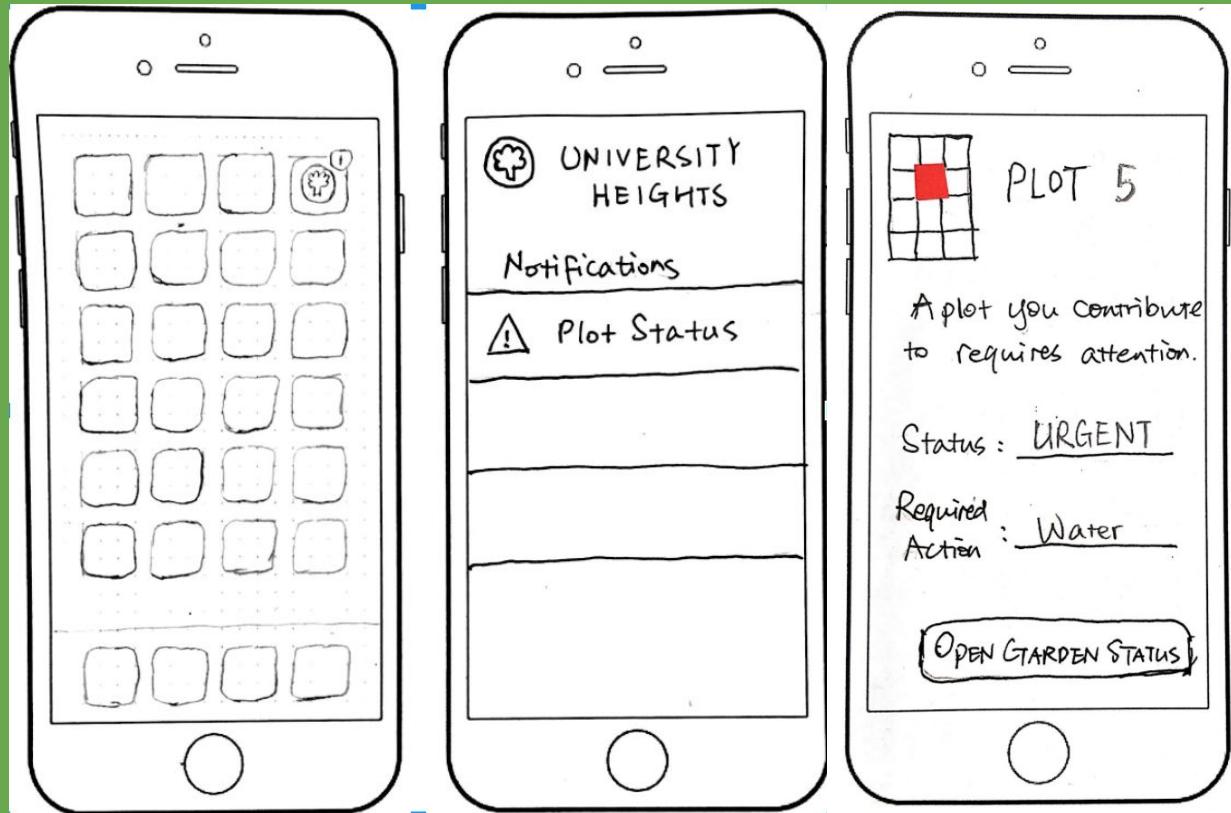
Task 1: Garden Health



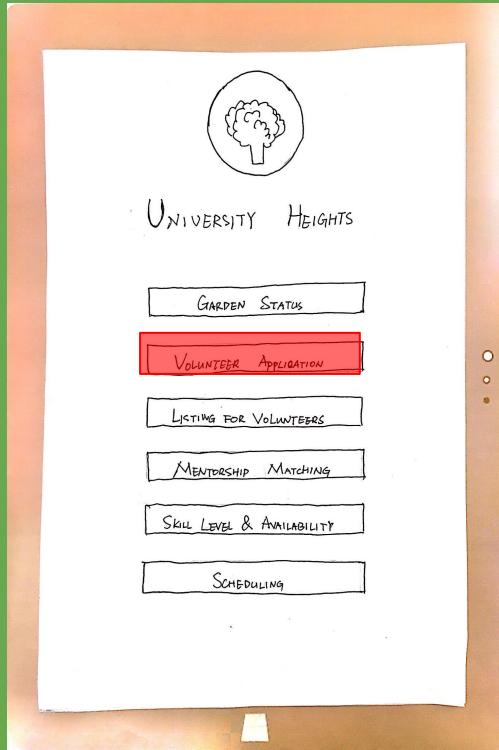
Task 1: Garden Health



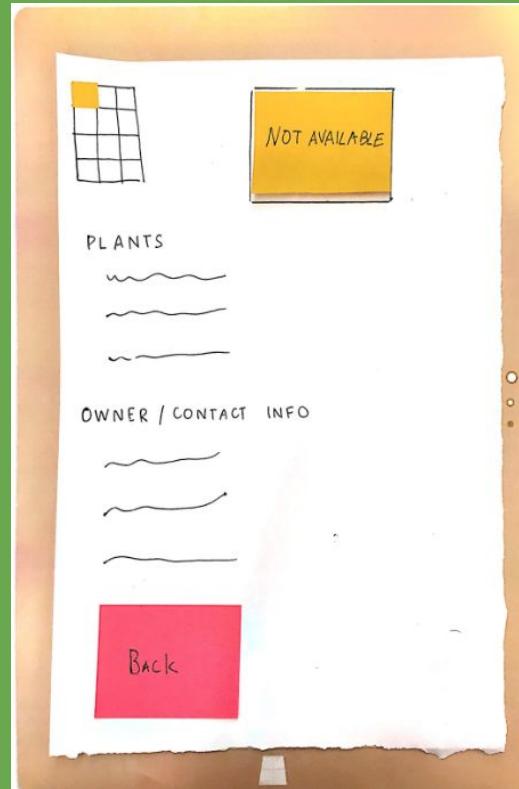
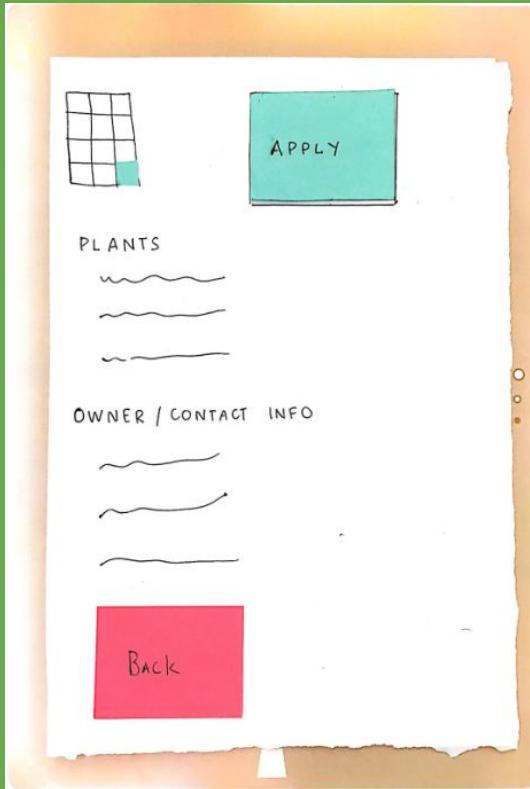
Task 1: Garden Health



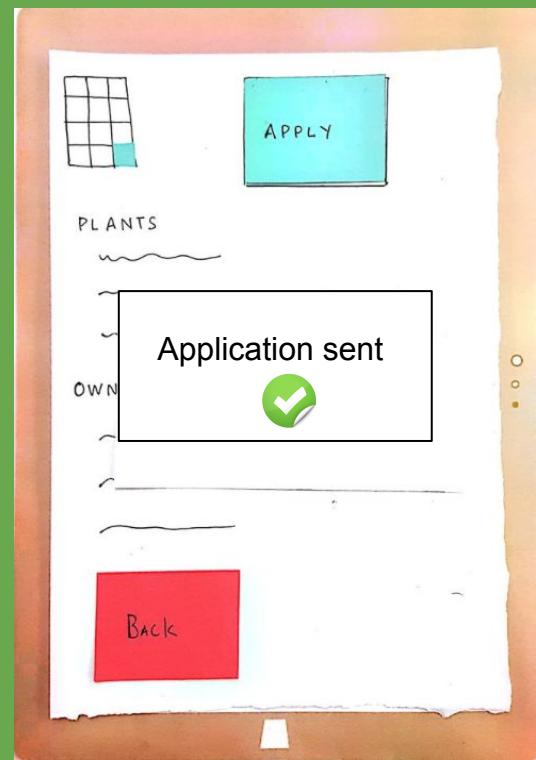
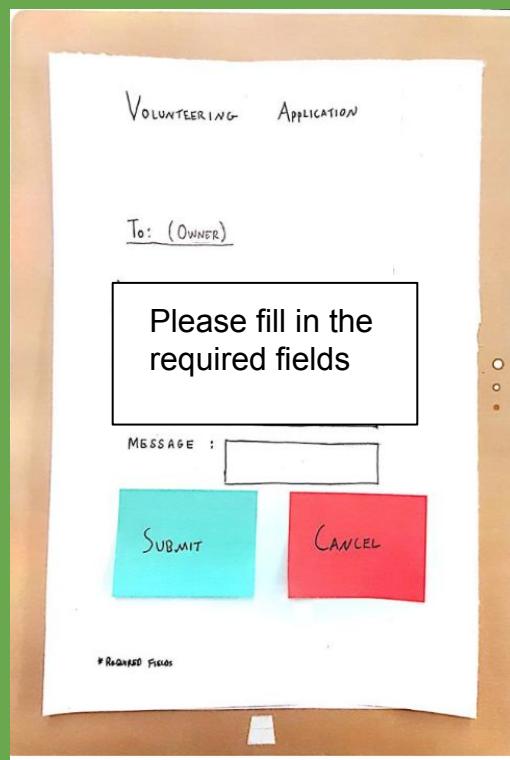
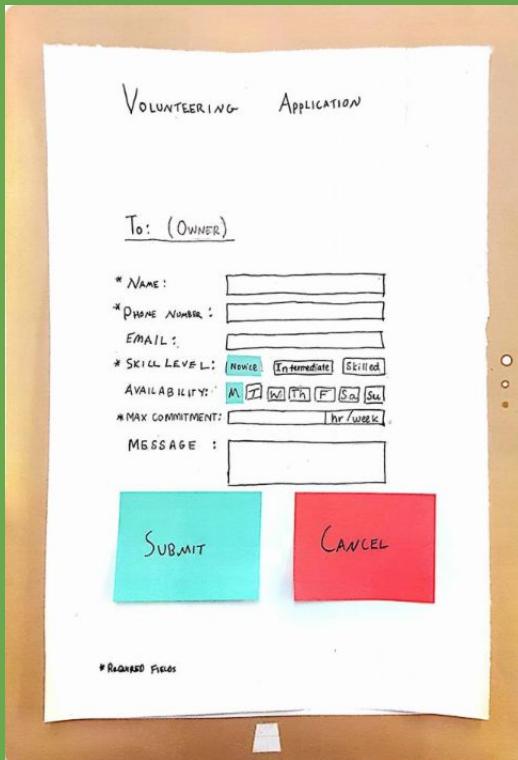
Task 2: Volunteer Application



Task 2: Volunteer Application

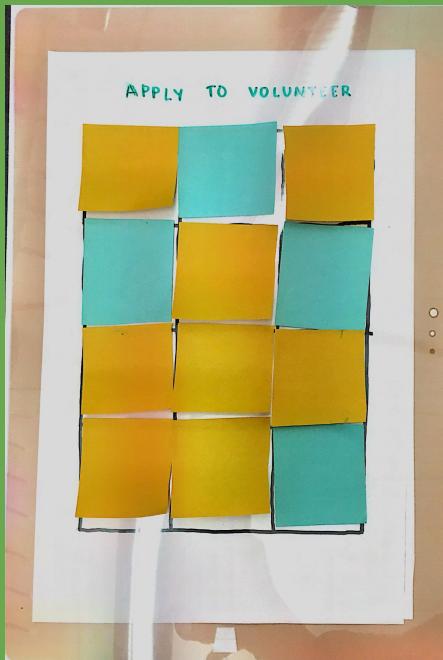


Task 2: Volunteer Application



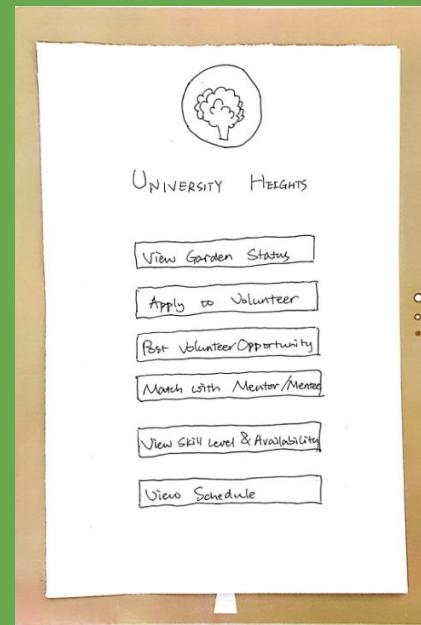
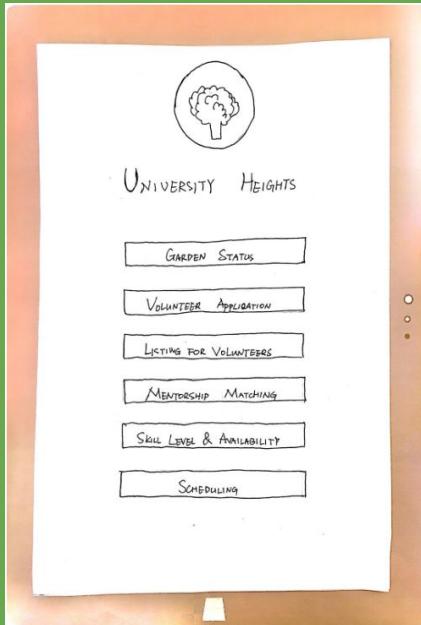
Heuristic Evaluation

1. Missing “Back” buttons



Heuristic Evaluation

2. Menu wording is not clear



Heuristic Evaluation

3. Potential for illegal input

COMMITMENT: M W Th F Sa Su

* MAX COMMITMENT: hr / week

MESSAGE:



VOLUNTEERING APPLICATION

To: (OWNER)

* NAME:

* PHONE NUMBER:

EMAIL:

* SKILL LEVEL:

AVAILABILITY:

* MAX COMMITMENT: hours

MESSAGE:

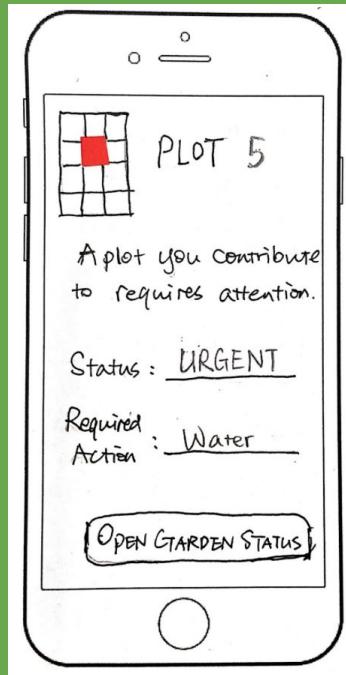
SUBMIT

* Required fields

1 2 3 4 5 6 7 8 9 10

Heuristic Evaluation

4. Poorly worded button



Heuristic Evaluation

5. Feedback for volunteer applications missing



Accessibility Discussion

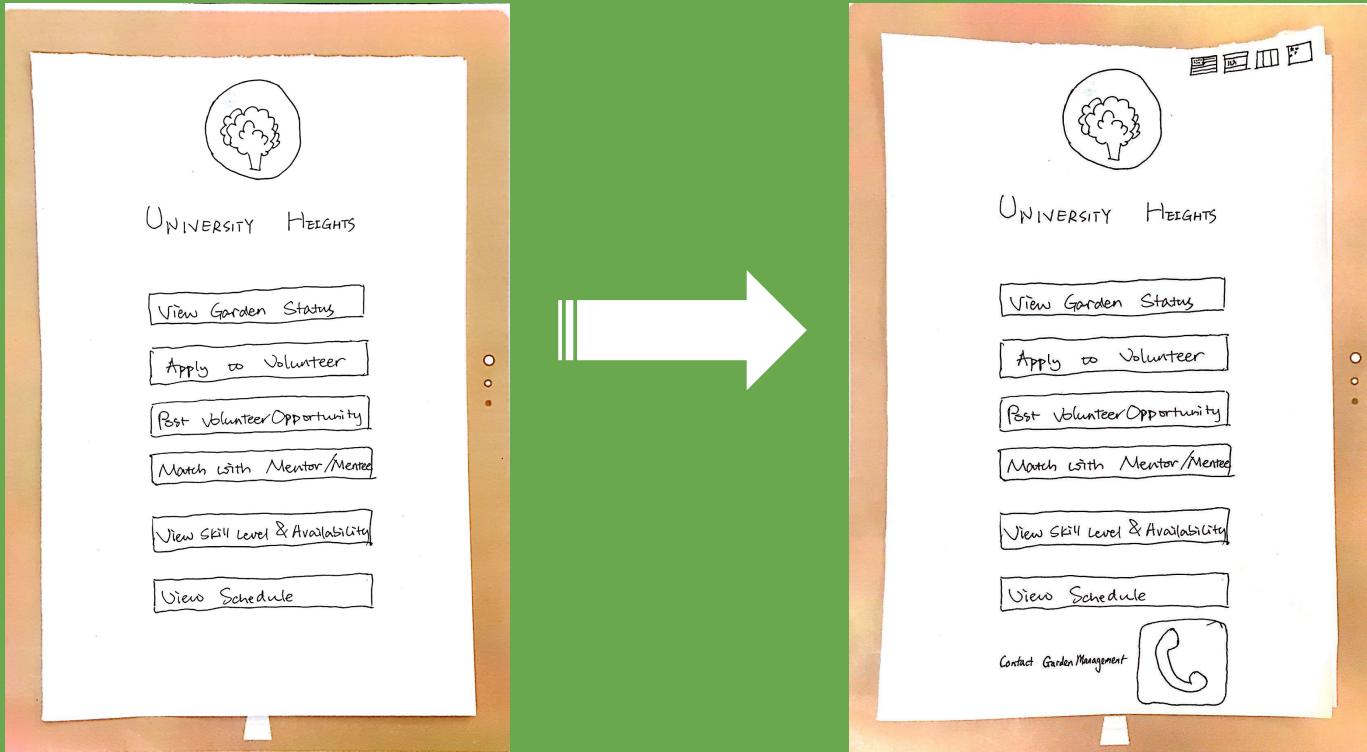
Text based user interface presents issues:

- Illiteracy
- Lack of English fluency

Phone notifications:

- Confirmation messages for people without phones

Accessibility Discussion



Accessibility Discussion

VOLUNTEERING APPLICATION

To: (Owner)

* NAME: [Text Input]

* PHONE NUMBER: [Text Input]

EMAIL: [Text Input]

* SKILL LEVEL: Novice Intermediate Skilled

AVAILABILITY: M T W Th F Sa Su

* MAX COMMITMENT: [Text Input] hr/week

MESSAGE: [Text Area]

Submit **CANCEL**

* REQUIRED FIELDS



Volunteer Application

To: (Owner)

Person Info

* NAME: [Text Input] Please check at least one preferred contact method.

* Preferred Contact Method: Phone: [Text Input] Email: [Text Input] Other: [Text Input]

Gardening Preference

* Skill Level: Novice Intermediate Skilled

Availability: M T W Th F Sa Su

* Max Commitment: [Text Input] hr/week

Message: [Text Area]

* Required Fields

Submit **CANCEL**

Usability Testing

3 participants

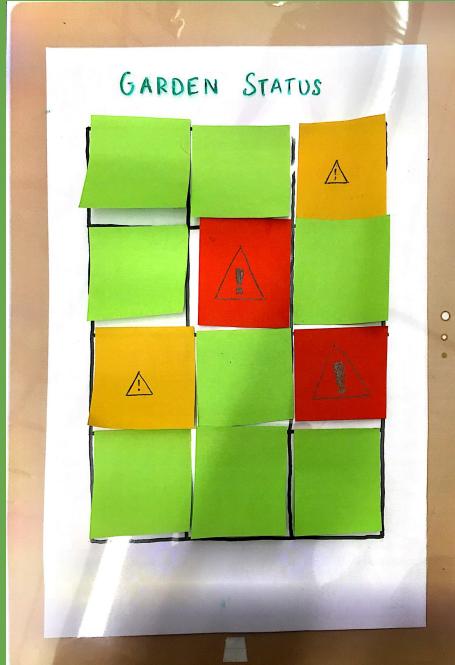
- Person interested in gardening
- Community garden member
- Community garden management

Process

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

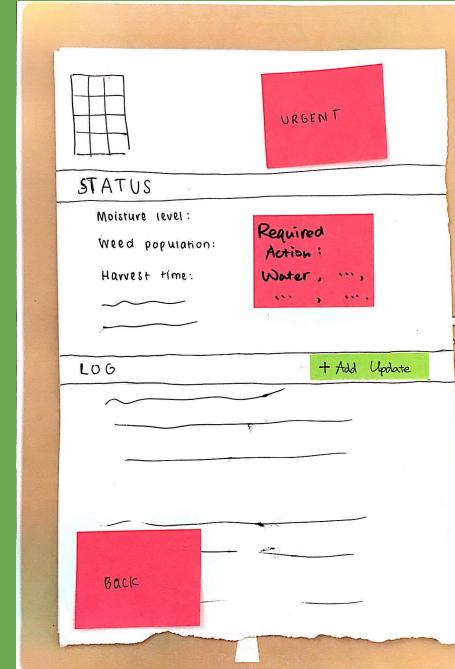
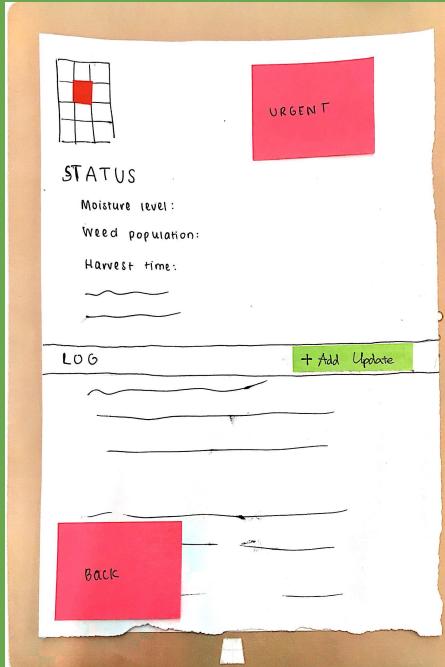
Usability Testing

1. Plots unnumbered



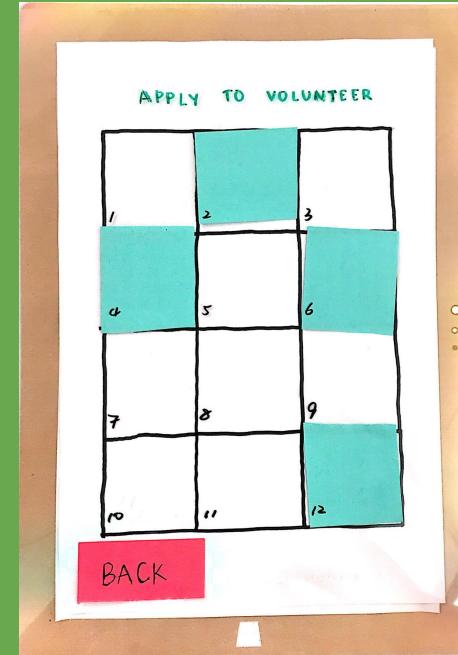
Usability Testing

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:

* PHONE NUMBER: 1 2 3

EMAIL:

* SKILL LEVEL: 1 2 3 4 5 6 7 8 9 10

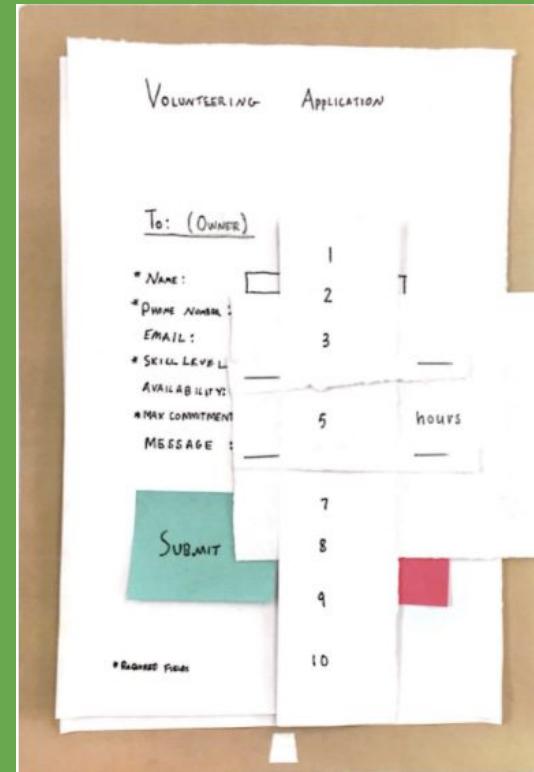
AVAILABILITY:

* MAX COMMITMENT: HOURS

MESSAGE:

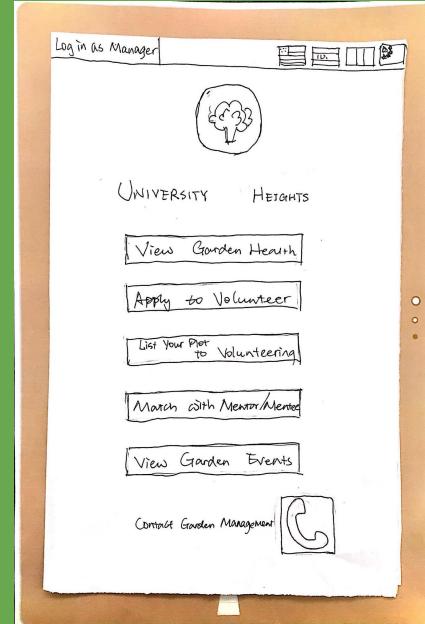
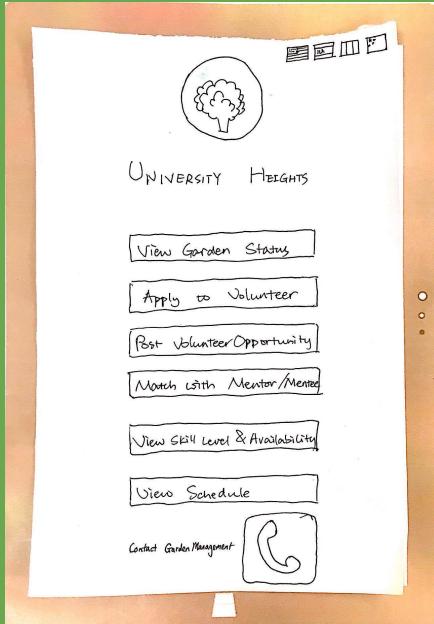
SUBMIT

* Required Fields



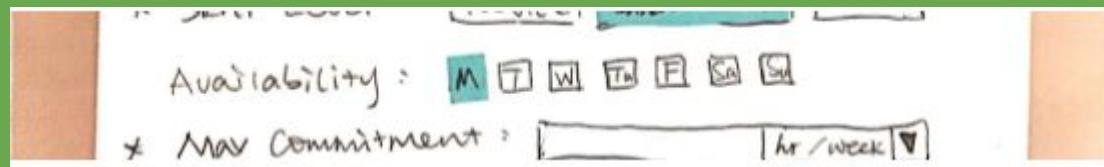
Usability Testing

5. Menu page buttons are not clear



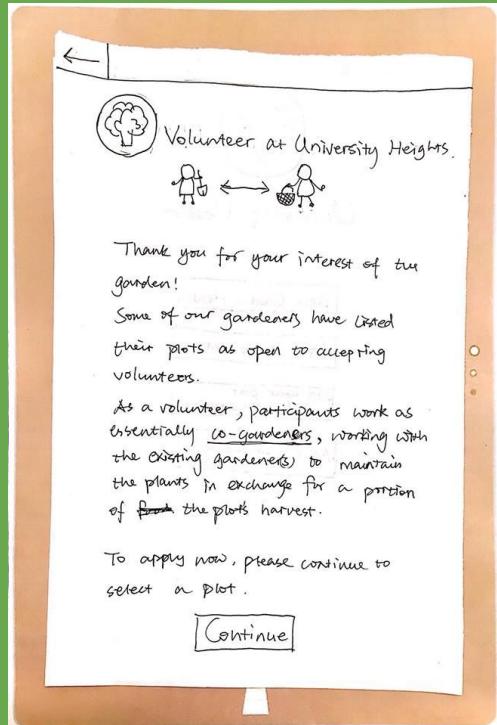
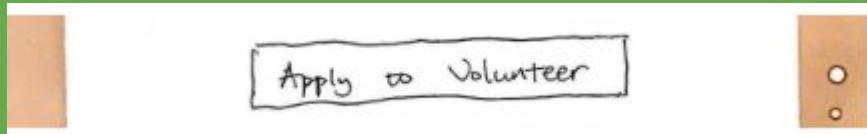
Usability Testing

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 select 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 S 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 S Su

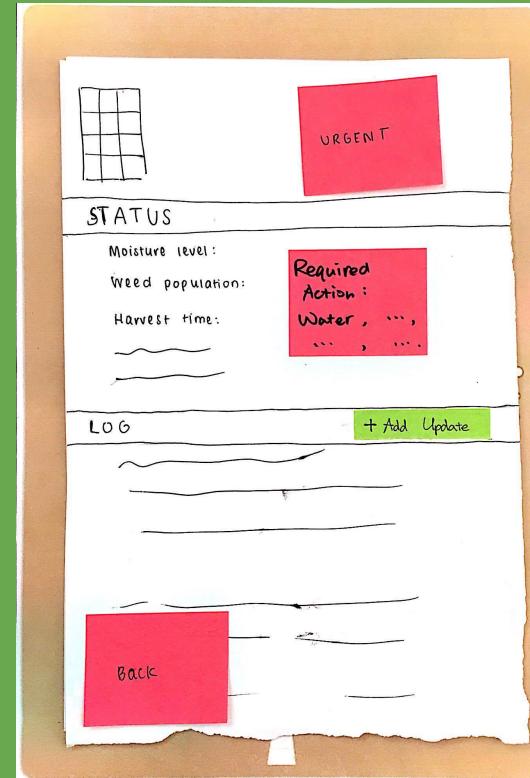
* Max Commitment: hr / week

Message:

* Required Fields

Usability Testing

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

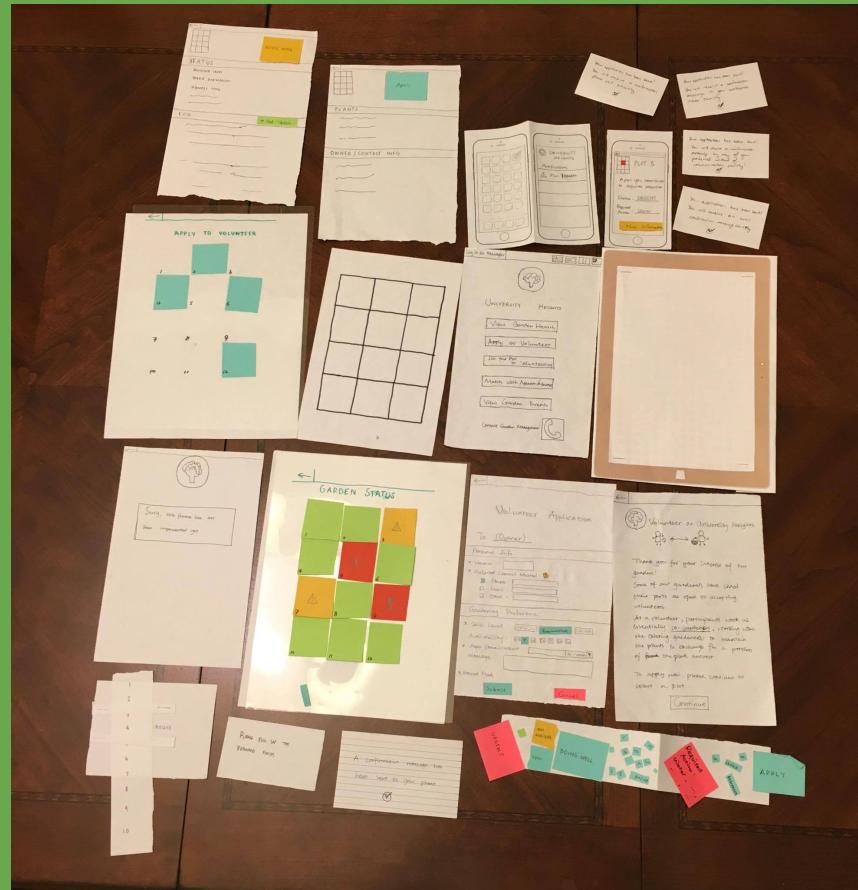


Design Critique

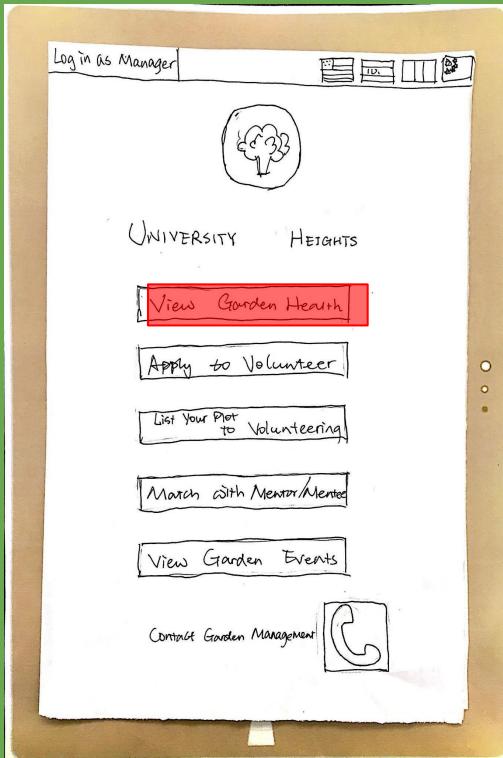
Back buttons are not in the top left hand corner

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

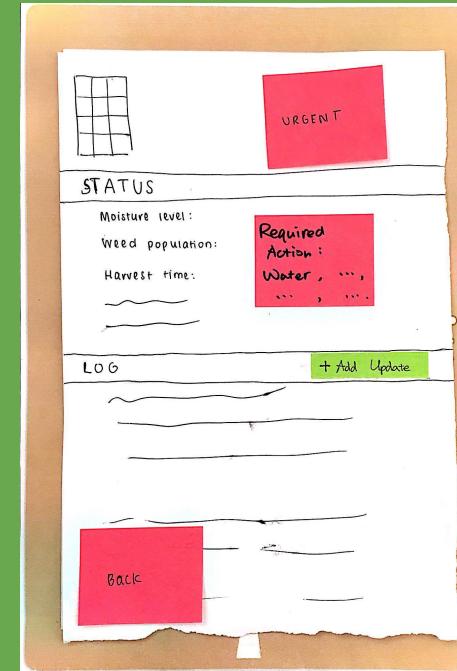
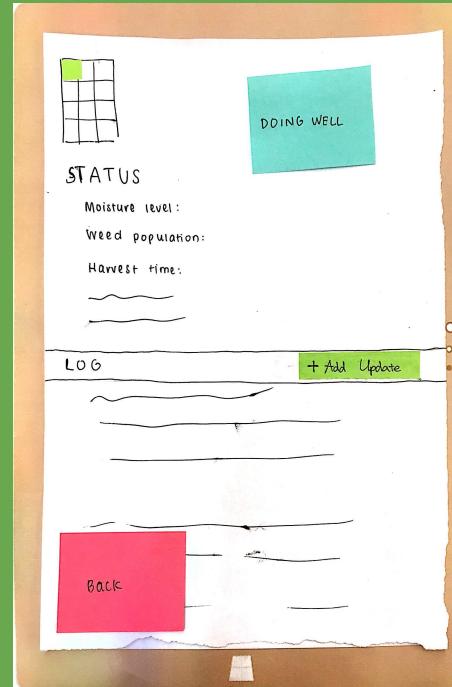
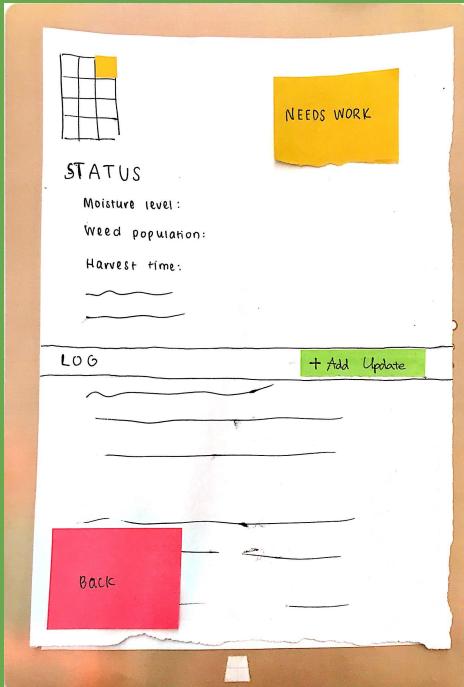
Final Paper Prototype Overview



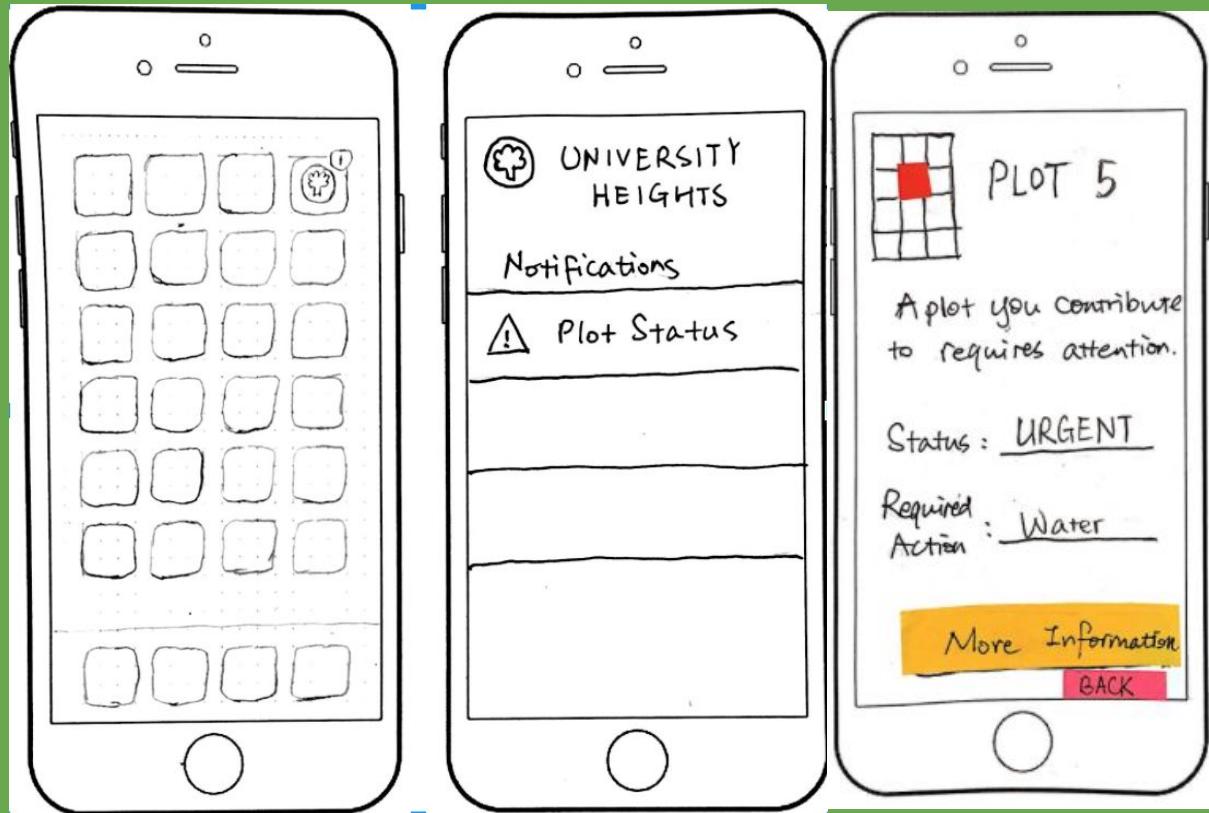
Task 1: Garden Health



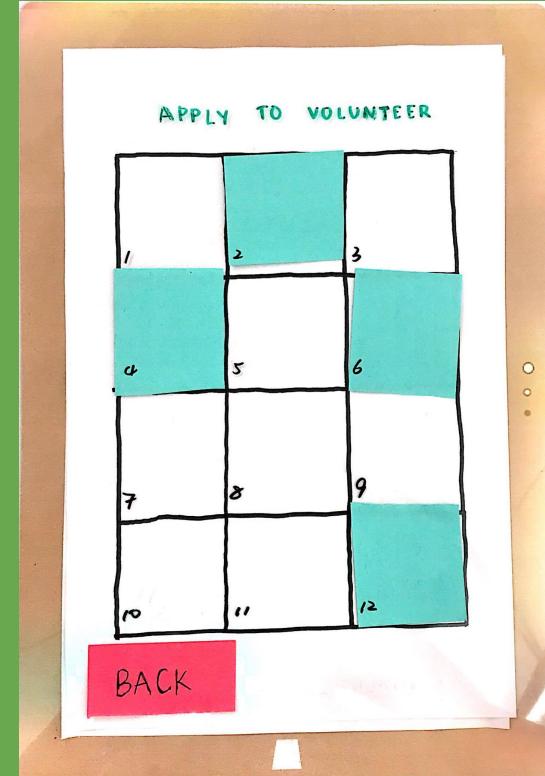
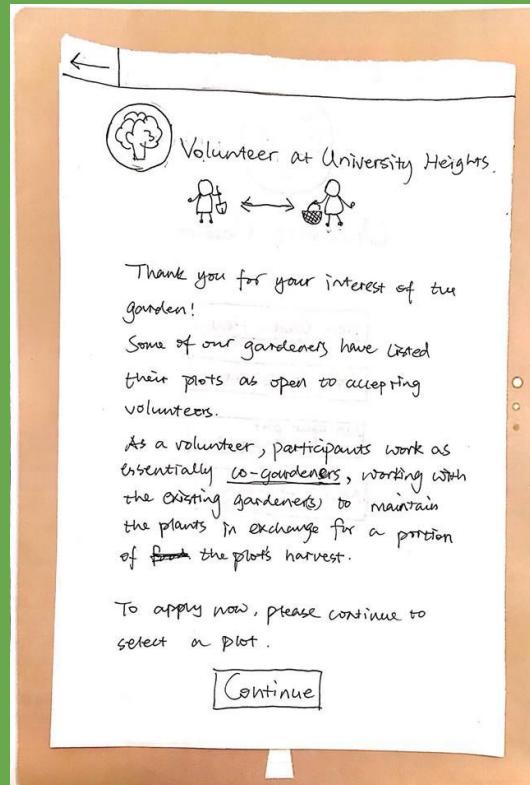
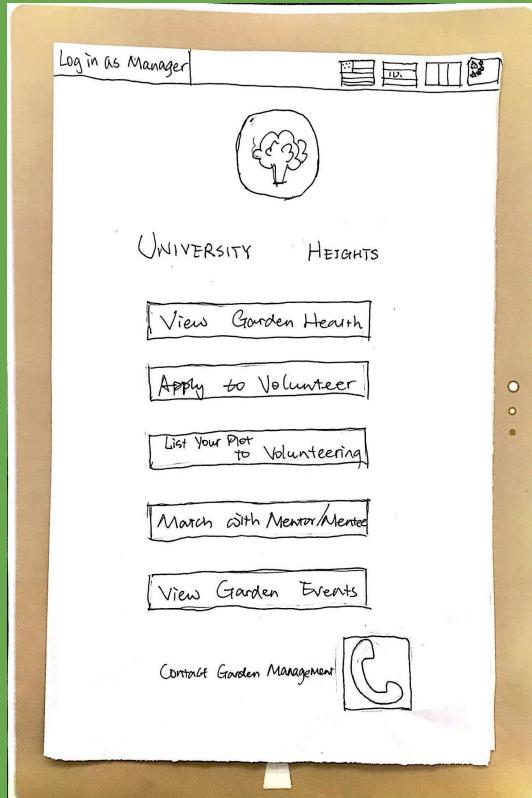
Task 1: Garden Health



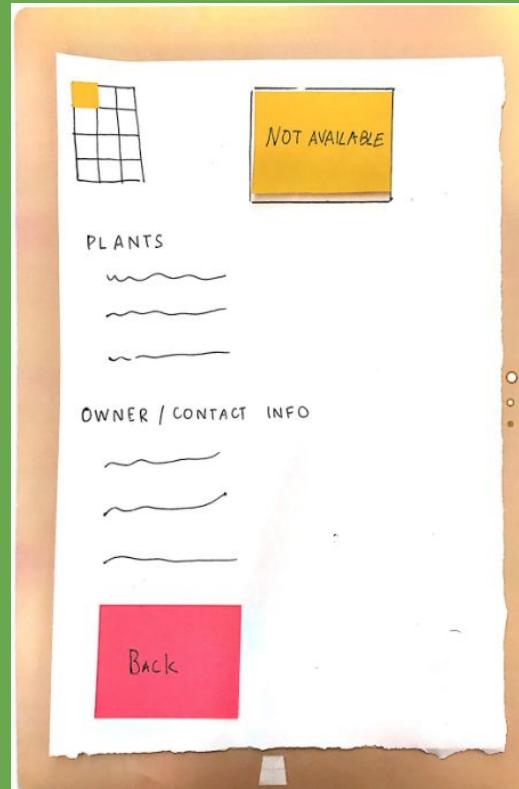
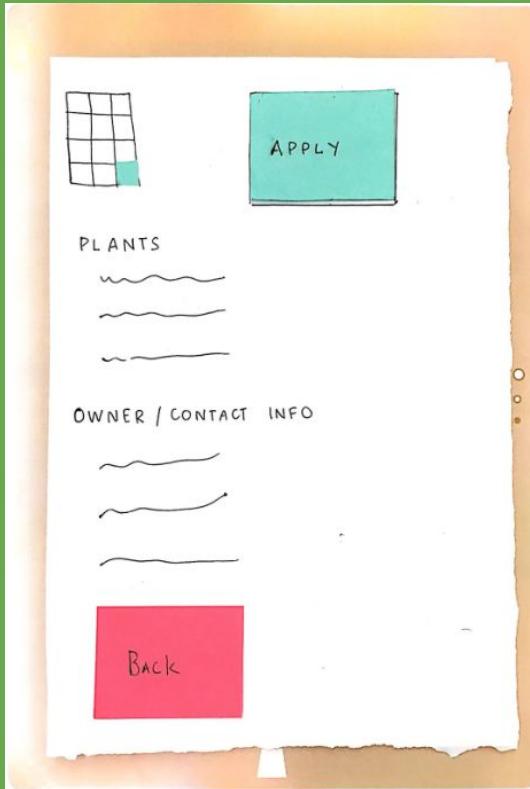
Task 1: Garden Health



Task 2: Volunteer Application



Task 2: Volunteer Application



Task 2: Volunteer Application

Volunteer Application

To : (Owner)

Personal Info

* Name :

* Preferred Contact Method : Phone Email Other

PLEASE FILL IN THE REQUIRED FIELDS

Gardening

* Skill Level : Novice Intermediate Skilled

Availability : M T W R F S

* Max Commitment : 1 hr / week

Message :

* Required Fields

Volunteer Application

To : (Owner)

Personal Info

* Name :

* Preferred Contact Method : Phone Email Other

Gardening Preferences

* Skill Level : N I S

Availability : M T W R F S

* Max Commitment : 5 hours

Message :

* Required Fields

1
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PLANTS

Apply

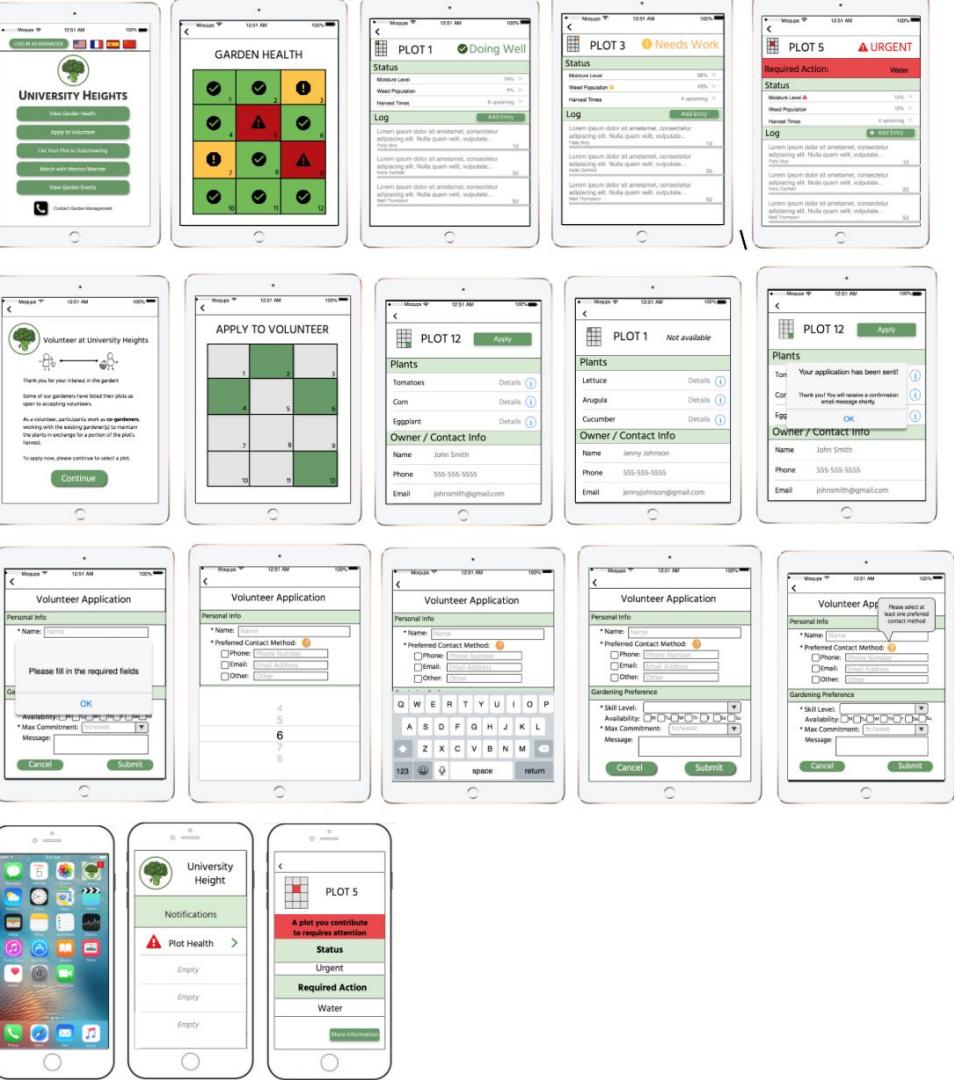
OWNE

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

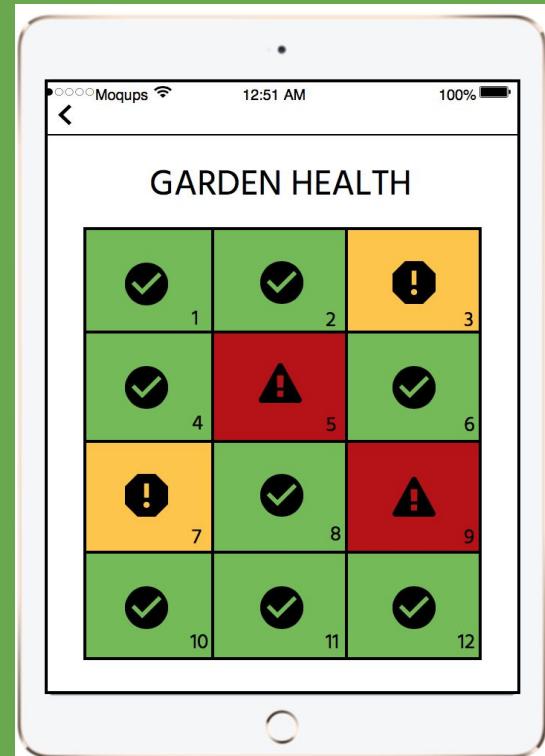
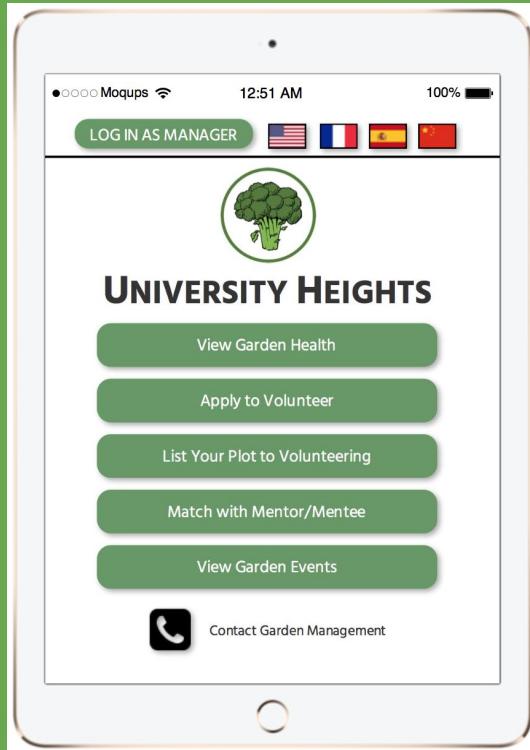
✓

BACK

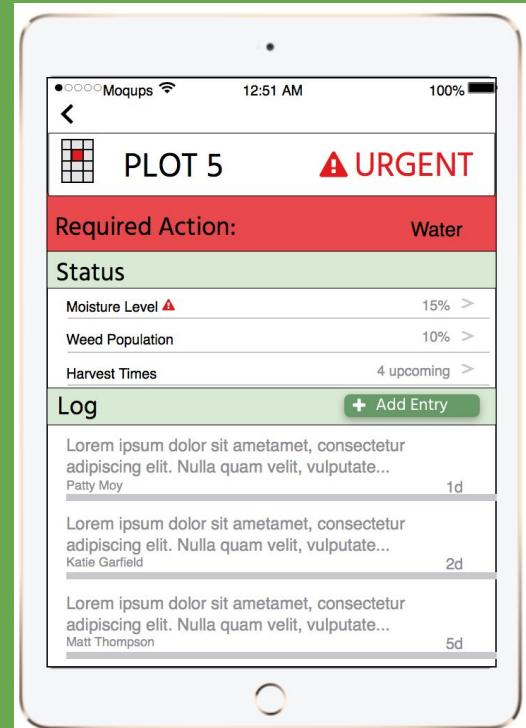
Digital Mock-Up Overview



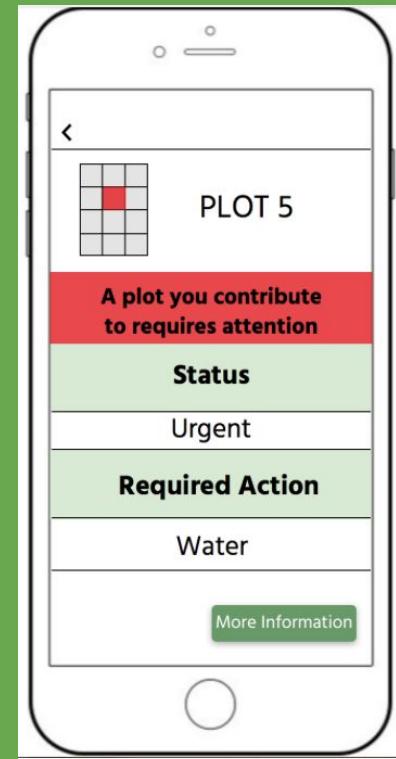
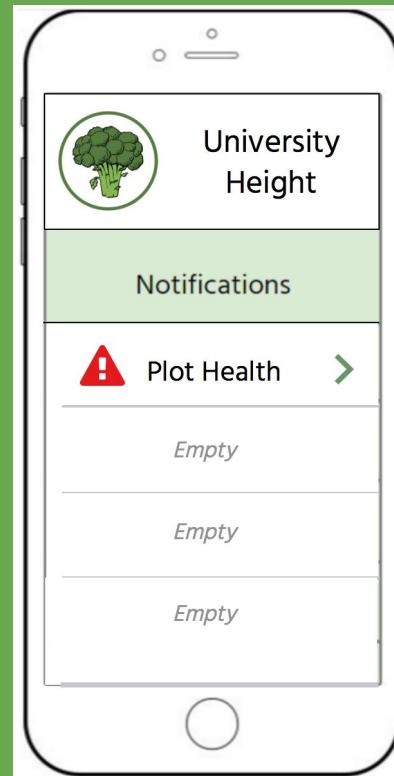
Task 1: Garden Health



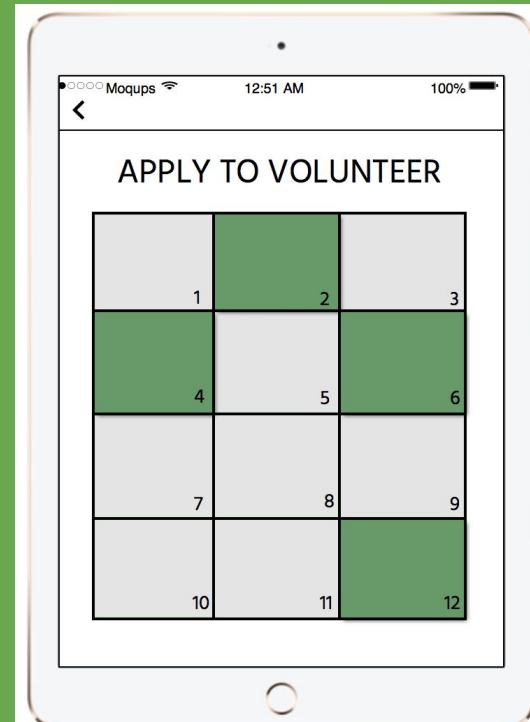
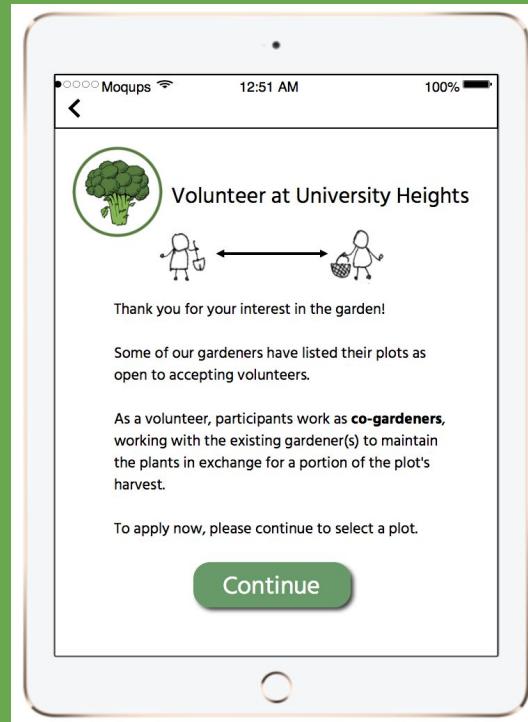
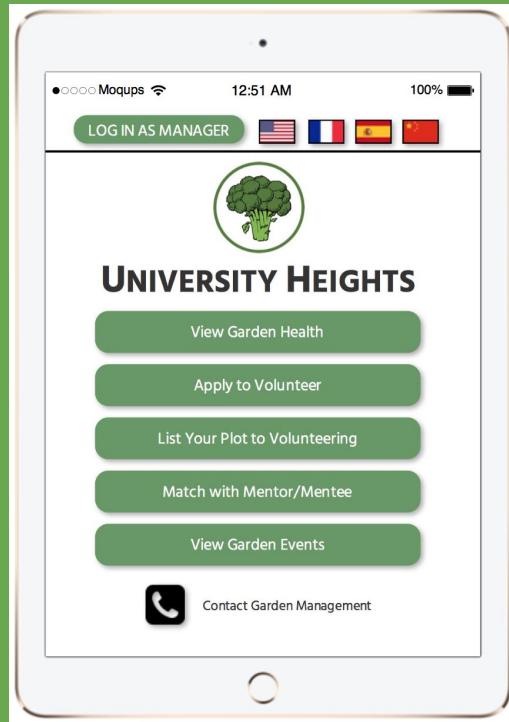
Task 1: Garden Health



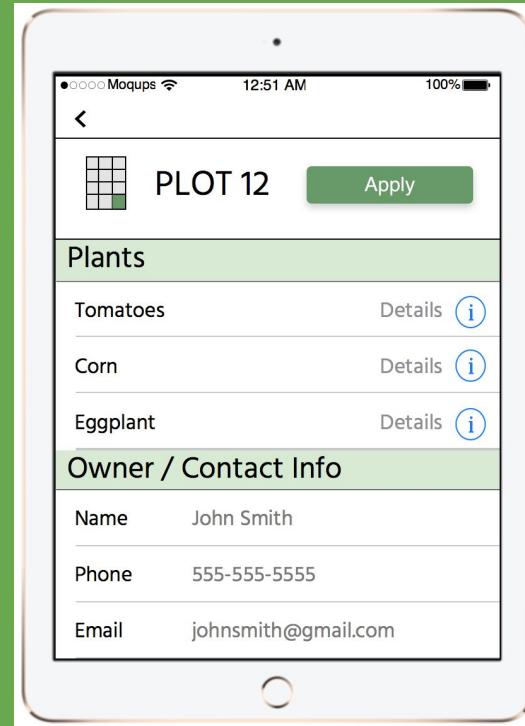
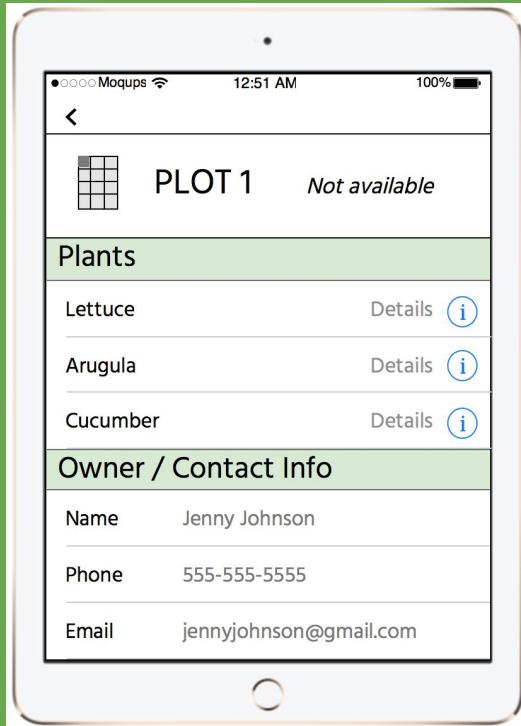
Task 1: Garden Health



Task 2: Volunteer Application



Task 2: Volunteer Application



Task 2: Volunteer Application

Smartphone screen showing the initial state of a volunteer application form. The screen includes a header with signal strength, time (12:51 AM), battery level (100%), and a back arrow. The main content area has a title "Volunteer Application" and a section titled "Personal Info". It contains fields for Name (marked with an asterisk), Preferred Contact Method (with a question mark icon), Phone (checkbox), Email (checkbox), and Other (checkbox). Below this is a section titled "Gardening Preference" with fields for Skill Level (dropdown menu), Availability (checkboxes for days of the week), Max Commitment (dropdown menu), and a Message input field. At the bottom are "Cancel" and "Submit" buttons.

Volunteer Application

Personal Info

* Name:

* Preferred Contact Method: ?

Phone: Phone Number

Email: Email Address

Other: Other

Gardening Preference

* Skill Level:

Availability: M Tu W Th F Sa Su

* Max Commitment: hr/week

Message:

Cancel Submit

Smartphone screen showing a validation error. A speech bubble appears above the "Preferred Contact Method" field with the message "Please select at least one preferred contact method". The rest of the form is identical to the first screenshot.

Volunteer Application

Personal Info

* Name:

* Preferred Contact Method: ?

Phone: Phone Number

Email: Email Address

Other: Other

Gardening Preference

* Skill Level:

Availability: M Tu W Th F Sa Su

* Max Commitment: hr/week

Message:

Cancel Submit

Smartphone screen showing the on-screen keyboard open over the application form. The keyboard is a standard QWERTY layout with additional keys for punctuation, numbers (123), a smiley face, a microphone, a space bar, and a return key.

Volunteer Application

Personal Info

* Name:

* Preferred Contact Method: ?

Phone: Phone Number

Email: Email Address

Other: Other

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 x
123 ! ? space return

Task 2: Volunteer Application

Smartphone screen showing the start of a volunteer application form. The status bar indicates Moqups, 12:51 AM, and 100% battery. The app title is "Volunteer Application". The "Personal Info" section contains fields for Name (mandatory) and Preferred Contact Method (Phone, Email, Other). Below the form are four numbered lines (4, 5, 6, 7, 8).

| | |
|-----------------------------|--|
| * Name: | Name |
| * Preferred Contact Method: | <input type="checkbox"/> Phone: Phone Number <input type="checkbox"/> Email: Email Address <input type="checkbox"/> Other: Other |

4
5
6
7
8

Smartphone screen showing a modal dialog box. The message says "Please fill in the required fields". The background shows the "Personal Info" section of the form.

Please fill in the required fields

OK

Availability: M Tu W Th F Sa Su

* Max Commitment:

Message:

Cancel Submit

Smartphone screen showing the application has been sent. The status bar indicates Moqups, 12:51 AM, and 100% battery. The app title is "Volunteer Application". The "Plants" section shows a message: "Ton Your application has been sent!". The "Owner / Contact Info" section lists Name: John Smith, Phone: 555-555-5555, and Email: johnsmith@gmail.com.

PLOT 12 Apply

Plants

Ton Your application has been sent!

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

Egg 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