Ideating and Lo-Fi Prototype

CPSC 481 Fall 2019

Application Idea

- Our idea is a smartphone app

- The app is a gardening assistant that provides help to new and inexperienced gardeners

- It would help users select which plants grow well in a given environment/setting, provide instructions on planting and caring for the plants, provide reminders for tasks such as watering, track the status of the garden, and provide a social network for mutual assistance and sharing
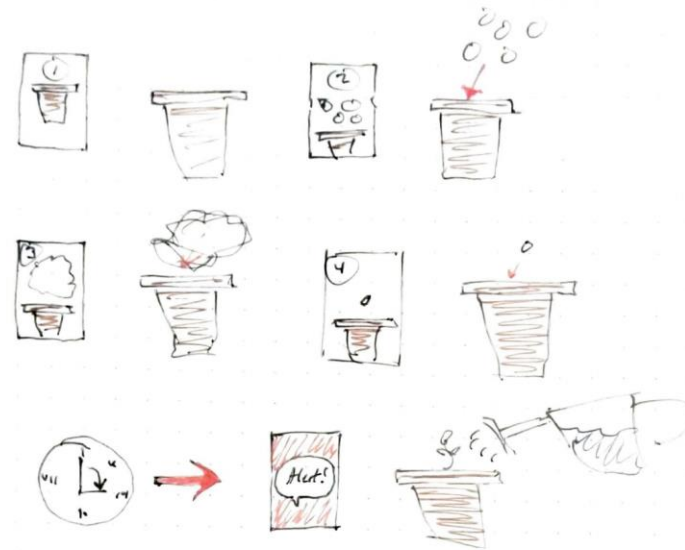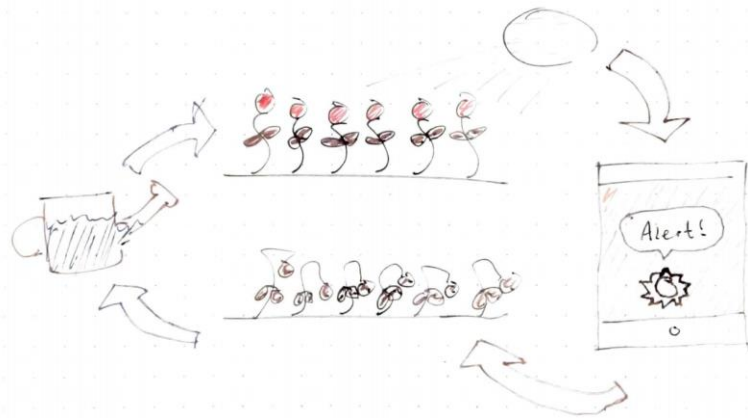
Brainstorming

- Brainstormed via sketching
- Made many sketches of different aspects of the app
- How should it look?
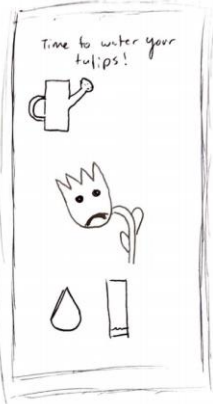- How will it work?
- What functions should it have?
- What tasks will users need to do?

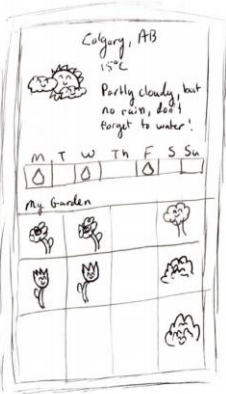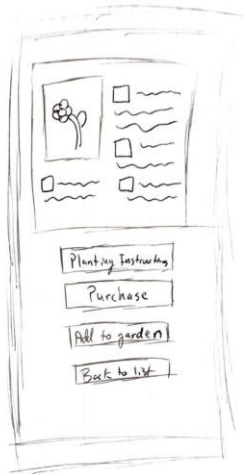# Brainstorming

Brainstorming

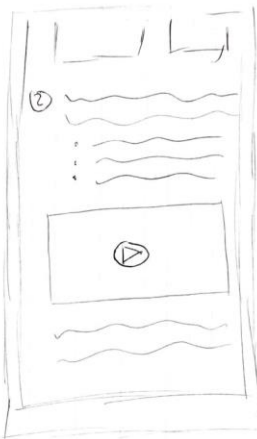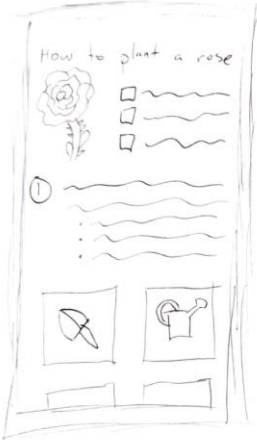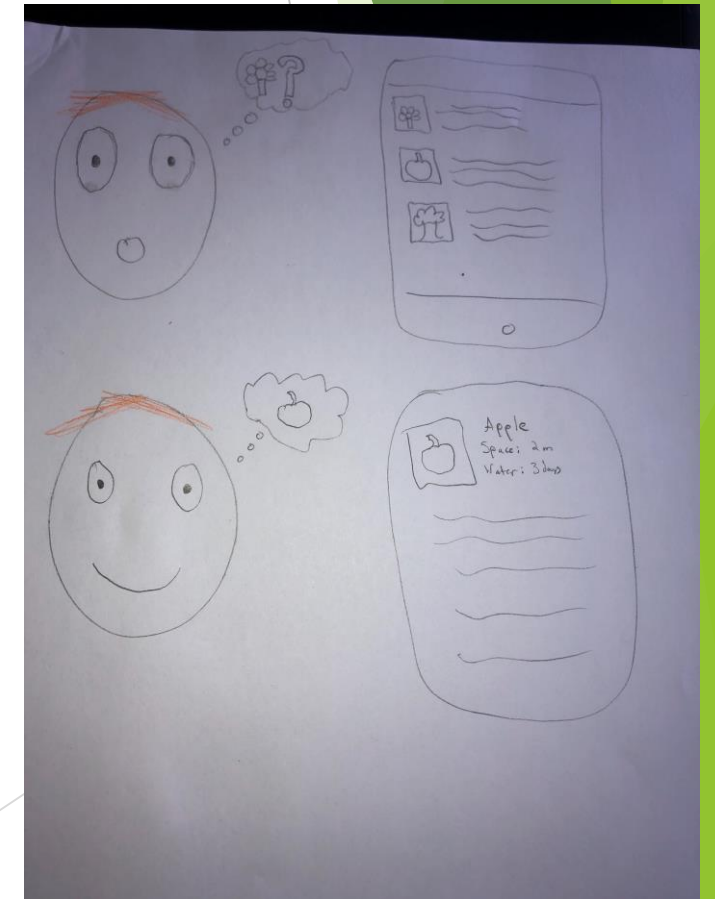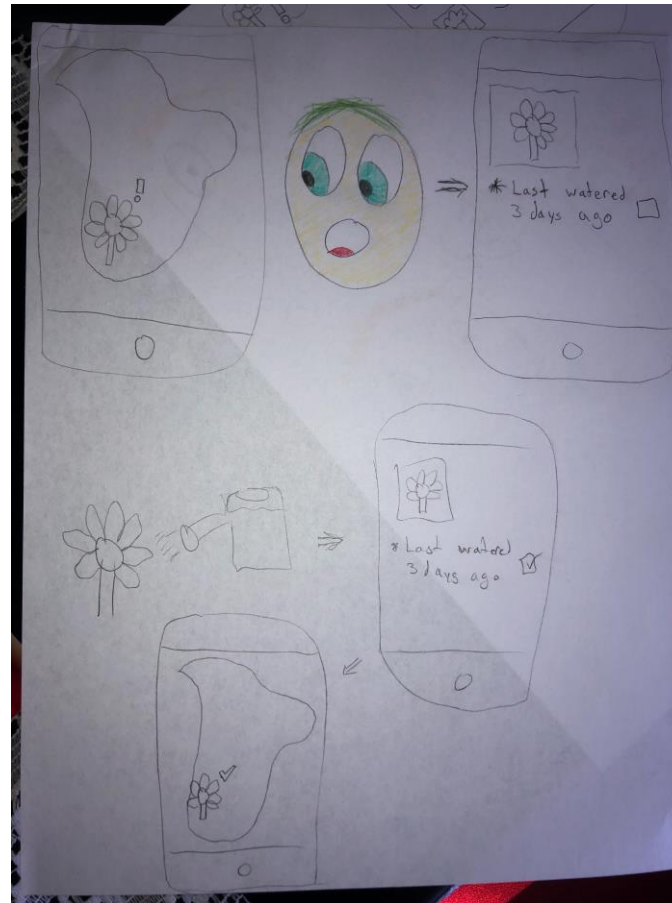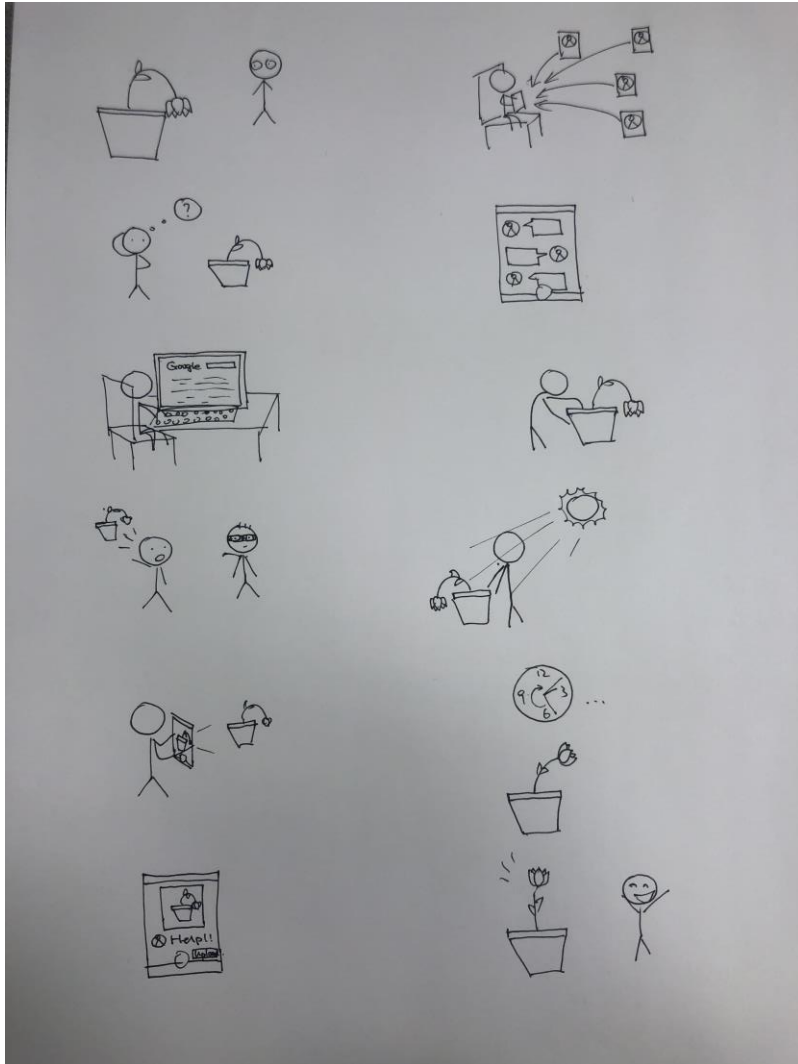# Brainstorming

TCD Walkthrough

▶ In our previous deliverable, we had identified the tasks that our users can do with our app

▶ To refine these ideas and identify which functionality is needed, we conducted walkthroughs of four tasks

▶ These walkthroughs also helped to identify issues that would need to be solved

Description of task step	Does the user have the training to complete this step? Is it believable that they would do it?	Comments (including possible solutions)
Determining location of user using GPS of smartphone or (if user declines) using postal code	Yes, after downloading the app and creating an account, the app automatically directs the user to the setup garden screen, which prompts the user for permission to use GPS data, so it only takes one click. If the user declines the app permission to do this, they only need to enter their postal code, which most people know.	Have a 'use my location' button on this screen even if user declines permission at first so that if they don't know their postal code, they can reconsider just using GPS location services.
Answering a few simple questions about prospective garden eg. "indoor or outdoor", "how large is the garden" to refine plant recommendations	These questions should be simple enough that someone without any training can answer them, although size could be confusing if a user doesn't understand square metres. User motivation could suffer if confusion arises but otherwise believable.	Make sure the text fields/answers are explicitly formatted or give a list of answers to select from to reduce confusion or errors in answering.
Select plants for garden from the app provided list of recommended plants (generated from location and answers to questions) or search for desired plant in database	Every user should be able to handle selecting plants from the app recommendations. Searching for a specific plant is easy enough for anyone who has used google. Believable that user would do this.	Make recommended plants more prominent that search option so that new gardeners stick to recommendations and don't plant something that won't grow.
Read/watch instructions on how to plant selected plant(s)	Text instructions with embedded video is simple enough for all users to use. Believable that users can would do this if instructions aren't too long or complex.	Make sure instructions are simple enough for anyone to understand. Lots of videos and images, not just text.
Add plant to virtual garden with drag-and-drop onto grid/visualization of garden	Yes, most users should be comfortable with touch screens. Some may not care about laying out virtual garden.	Make sure it is simple and quick.

Sharing a plant health problem on social network

Description of task step	Does the user have the training to complete this step? Is it believable that they would do it?	Comments (including possible solutions)
Make new post in our app	Yes, most users are familiar with Facebook and similar social networks. User wants help from other users so is motivated.	Post creation happens on our app but is ultimately posted to our Facebook group, so users need to have FB accounts.
Add text and photo to post	Yes, most users can type in a text box and take a photo with their smartphone. This information is needed to get help so user motivated.	Users may need guidance on what information to put in post so that they can get an answer.
Upload post to Facebook group	Will be one button process, no training needed. Believable since it is needed to finish posting.	Need to have Facebook account linked so that our app can post from their account to our page.
Read reply	Notification will be on main page of app and one click takes user to post so no training needed. Believable since they want to get help for their plant, although motivation could decrease if it takes too long to get a response.	Might have to screen responses for content to avoid spam or trolls.

Harvesting a plant and removing from virtual garden

Description of task step	Does the user have the training to complete this step? Is it believable that they would do it?	Comments (including possible solutions)
User receives notification that it is time to harvest plant (like potatoes) and presses for info an to open app	Yes, simple click requires no training. Believable that they would want to harvest plant, although some users may have lost interest.	Remind me later option or add to calendar since user probably not ready in that instant to get gardening.
Access instructions for harvesting	Instruction screen like ones for planting so user is familiar. Users that need help will want instructions, more experienced gardeners can skip step.	Make sure instructions are simple enough for anyone to understand. Lots of videos and images, not just text.
Delete plant from virtual garden	Users will probably need instructions on how to do this. May have low motivation to maintain virtual garden and real garden.	Make sure this is simple to do, maybe even on click "done" on notification and have app handle the rest.

Actioning a watering reminder

Description of task step	Does the user have the training to complete this step? Is it believable that they would do it?	Comments (including possible solutions)
User receives notification that it is time to water a plant and presses for info and to open app	Yes, simple click requires no training. Believable that they would want to water plant, although some users may have lost interest.	Remind me later option or add to calendar since user probably not ready in that instant to get gardening.
Access instructions for watering	Instruction screen like ones for planting so user is familiar. Users that need help will want instructions, more experienced gardeners can skip step.	Make sure instructions are simple enough for anyone to understand. Lots of videos and images, not just text.
Confirm watering	No training, one click to confirm. May have low motivation to maintain virtual garden and real garden.	Make sure this is simple/fast.

Storyboard

▶ Once we had brainstormed and completed our task walkthroughs, it was time to complete and demonstrate the lo-fi prototype

▶ However, to do this it was necessary to plan the video

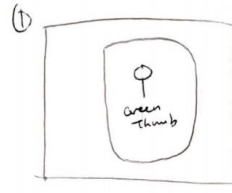▶ The storyboards we created outline these different tasks which were fully prototyped in Balsamiq and filmed

Storyboard 1
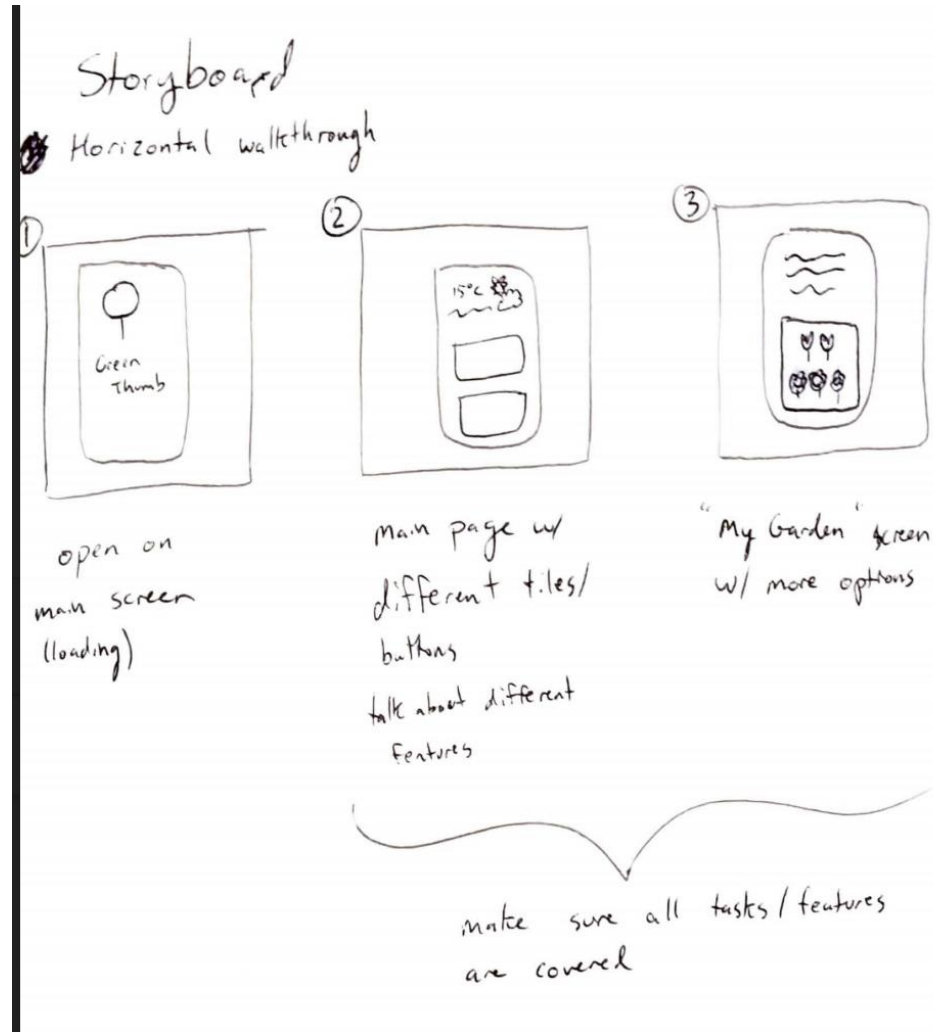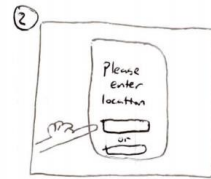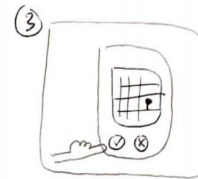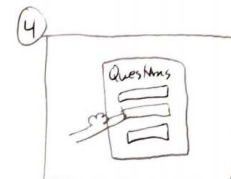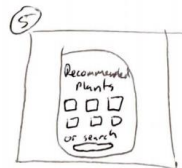
Storyboard 2

Set up new garden

① App starts

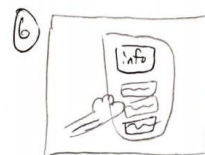② User can use GPS to auto detect location or user can use postal code

we will select "use my location"

③ Map w/ users location appears, user can confirm

④ User answers series of questions to refine garden recommendations show user answer a couple examples
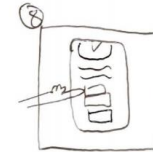
⑤ user gets list of recommended plants, can also search.
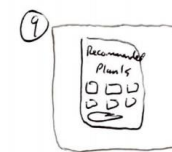
we choose a recommended plant

⑥ user gets info on selected plant, with buttons for "help", "add to garden", "buy", and "back/cancel" select "help"
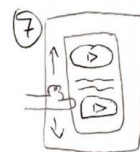
⑦ Help screen displays planting instructions with text, images, and videos.

⑧ User has options to "buy", "add to garden", "back/cancel". User selects "add to garden"
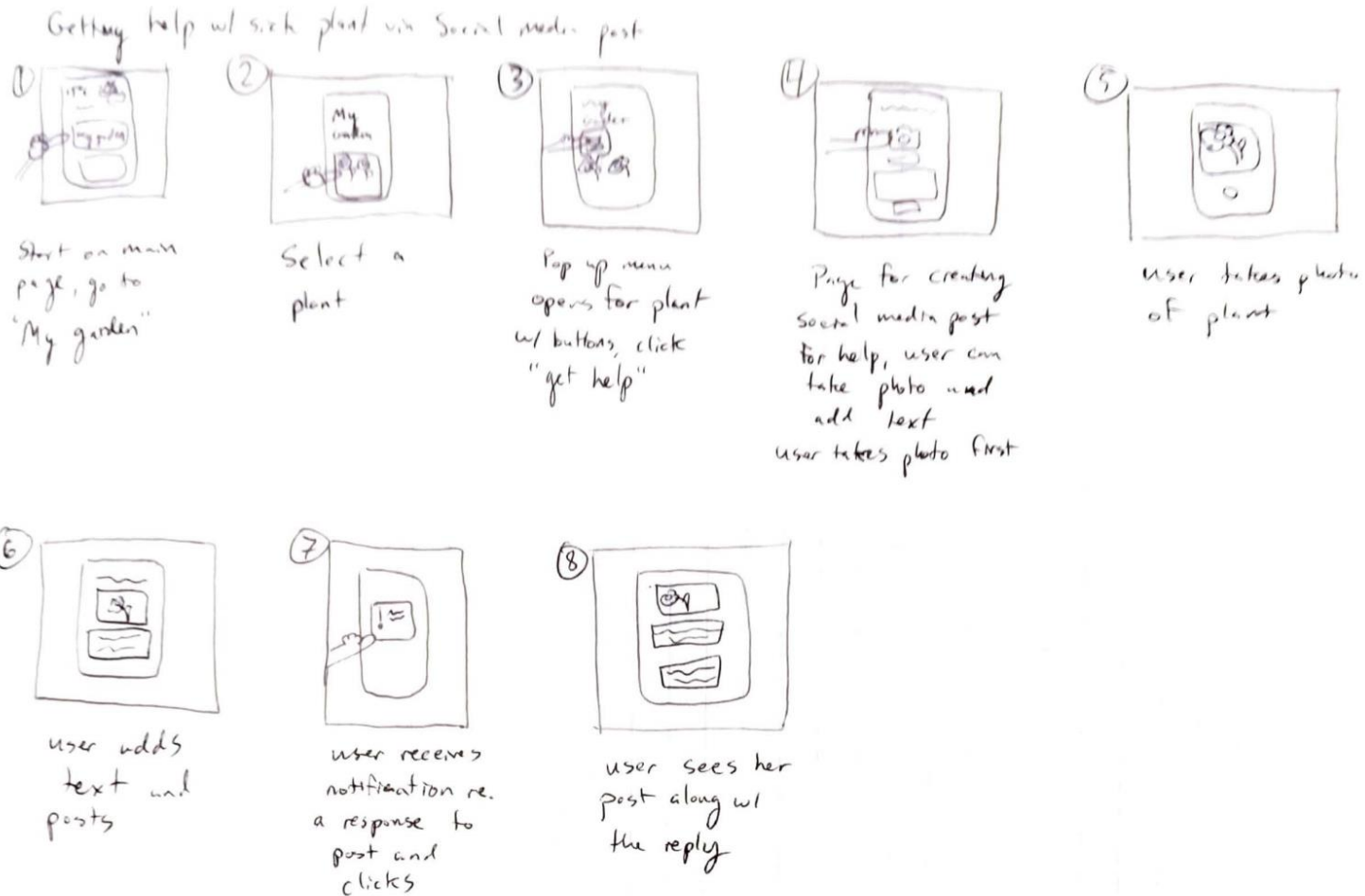
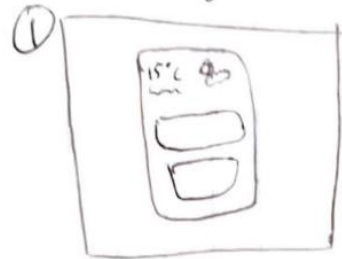⑨ user is taken back to recommended plants page. selects "Finish adding" to complete garden

⑩ We are taken to "my garden" page where we can see the added plant
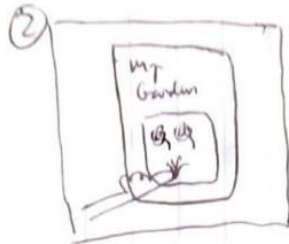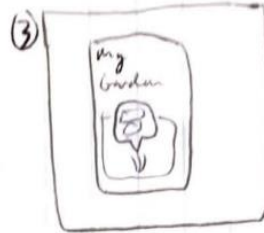
Storyboard 3

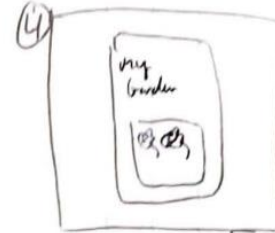# Storyboard 4

Harvesting a Plant / Deleting from garden

① User has harvested potato, time to delete from garden

Start on main page click "my garden"
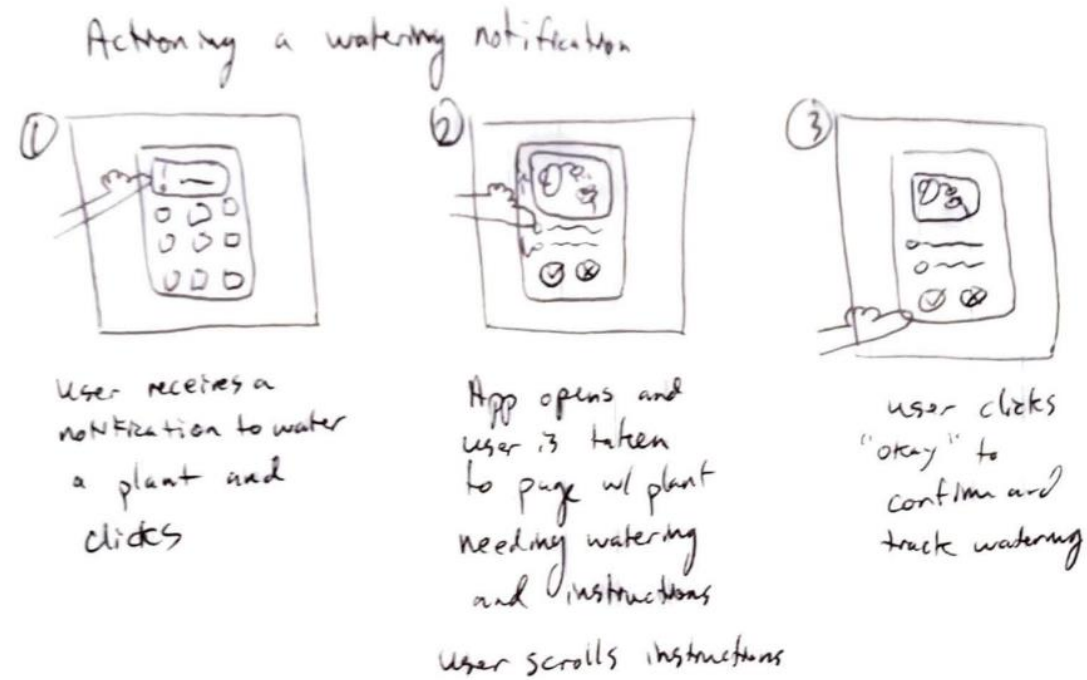
② user clicks her potato plant

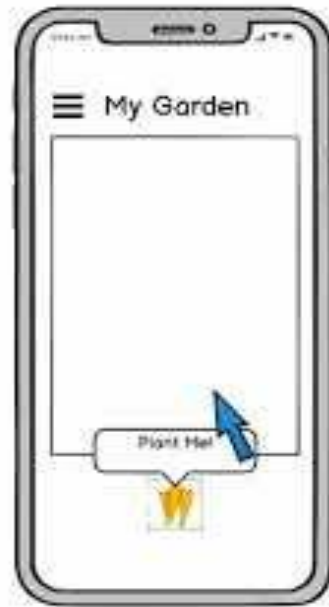**③** pop-up menu with buttons, this time selects "remove from garden"

④ Plant is now gone from garden

Storyboard 5

Actioning a watering notification

1. User receives a notification to water a plant and clicks

2. App opens and user is taken to page w/ plant needing watering and instructions
   user scrolls instructions

3. user clicks "okay" to confirm and track watering

Video Prototype

Thank you!