

Gardening App Idea

Research Document by Christie Thornton

Problem Statement

Hypothesis

Based on articles and posts I've seen on facebook there seems to be a new trend where some people are switching to backyard gardens possibly due to:



- concerns over GMOs
- concerns with pesticides
- rising grocery store prices for fresh foods
- wanting a new hobby
- wanting control over their food source

(these are reasons I believe people are growing their own food, but research will confirm/refute this)

I can imagine people wanting to garden but not knowing the slightest thing about gardening in today's modern age. There is information spread out all over the internet, I want to create an app that concentrates the information into one place and helps instruct beginning gardeners to make gardening more accessible to those who want to do it, but don't know where to begin

Potential Solution

The app could possibly have the following features:



recommend fruits, veggies, and herbs to grow based on climate (dry, wet, humid) and gardening space (balcony, yard, indoor only)



estimate time and monetary commitment based on garden size and variety



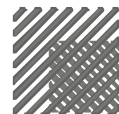
alerts and reminders to help user maintain garden



assistance troubleshooting issues ie tomatoes plant not flowering, fruits not fully ripening ect.



ideas for natural pesticides



tips for laying out garden



tips for preserving excess food



ways to connect with food banks and other gardeners to donate and swap excess food

Perceptions about gardening and fresh produce

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The goal of this research is to understand people's current relationship with fresh produce and to determine why some people try gardening and others do not. I want to identify challenges and perceived obstacles that people face and by the end of this research I should have a better understanding of the ideal target user, what challenges this app should help them overcome and which features would be most beneficial in a mobile application.



Survey Results

I created a survey using Google Forms and analyzed responses from **44** participants

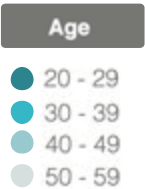
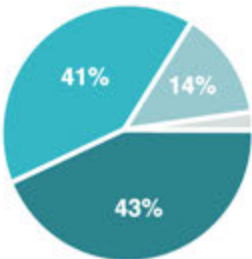
Demographics

M

30% Male

F

70% Female



- 39% live in apartment style housing with a balcony
- 27% live in housing with a good sized yard (1/3 of an acre)
- 23% live in housing with a small outdoor space
- 11% live in apartment style housing with no balcony

Shopping Trends



When asked 'How much do you typically spend on fresh produce each week?'



56% of users cook most of the time as opposed to eating out

57% of users find the price of fresh produce to be too high

47% of users prefer organic, locally sourced produce

Gardening



When asked 'How much time would you be willing to spend gardening each week?'

- 50% between one and three hours
- 25% less than one hour
- 18% don't want to garden

- 59% have tried gardening already
- 77% would be open to learning about ways to donate, trade or preserve excess food

Why haven't you tried gardening?

- Dont have time/don't think i'd be able to do it.
- Not doable in the winter.
- It'd be simpler go eat f&v but idk how to start it all.
- We don't feel we have the space, skill, or upstart cash to make it "worth it".
- I have limited space since I live in an apartment.

Perceptions about gardening and fresh produce

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I interviewed four people to get a better understanding of user needs and motivations. Below are notes from the interviews and a summary of key take-away items.

Interviews

Interview Notes



Female , Late 50s

Would not consider gardening ever. Grew up on a farm and did plenty of gardening as a child, and has no interest. Does not believe there is any motivator in existence to get her to start gardening again.

Male, Late 20s

While living with his mother she had a garden and the entire family would help maintain it. Once his mother moved away they no longer kept the garden up. Would consider gardening in the future, however would need guidance. When asked what features would be useful in an application, he recommended a way to identify correct moisture levels in the soil, and ways to identify the correct placement of plants to ensure optimal sunlight for growth.

Female , Late 20s

Killed a cactus and has low confidence in gardening abilities. Says she doesn't have a green thumb. Would be interested in gardening however needs help and guidance. Thinks it would be cool to be able to go and grab food from her back yard. Believes she would need to know helpful tips and ways to identify pests and remove them.

Female , Early 20s

Would not consider gardening. Is not something she is interested in, does not believe this is something she will ever want to try.

Interview Insights



- Some people have no interest in gardening and cannot be convinced to try. This app should be directed towards people who already have an interest in gardening.
- Lack of confidence can be an issue. This app will need to holster a sense of accomplishment and guidance.
- This app will need to appear simple to the user. It will need to eliminate as much complexity as possible while slowly introducing people to the concept of gardening.

Ambitious Alisha

"I am so excited to do this"



Age: 31
Profession: Non Profit Coordinator
Marital Status: Married, no children
Housing: House with small yard

Alisha's mom had a garden while growing up. She is no expert, but has seen it done and is confident she can do it too.

Confidence:

Experience:

Biography:

Alisha and her husband just bought their first home two years ago. They have finally finished all of the projects inside the home and now want to tackle the outdoors. She's read about the 'grow gardens not lawns' movement on facebook and now wants to try gardening. Her mother had a garden when she was younger, so Alisha feels comfortable with it, she just needs some tips and reminders to guide her. Alisha and her husband pretty much work the same schedule, and they like to cook together in the evenings. Alisha feels that gardening will be a fun hobby, will help provide the freshest ingredients possible and potentially eliminate some grocery costs.

Hobbies and Interests:

Following local politics, refurbishing furniture, HGTV

Goals:

- I want to grow a garden to feed my husband and myself
- I want to pick bell peppers and make a stirfry
- I want to learn gardening so that I can teach my future children how to garden

Frustrations:

- Alisha has so many questions about what to do while gardening, but doesn't want to bother her mom with questions all the time.

Gardening Attitudes:

optimistic

excited

nostalgic

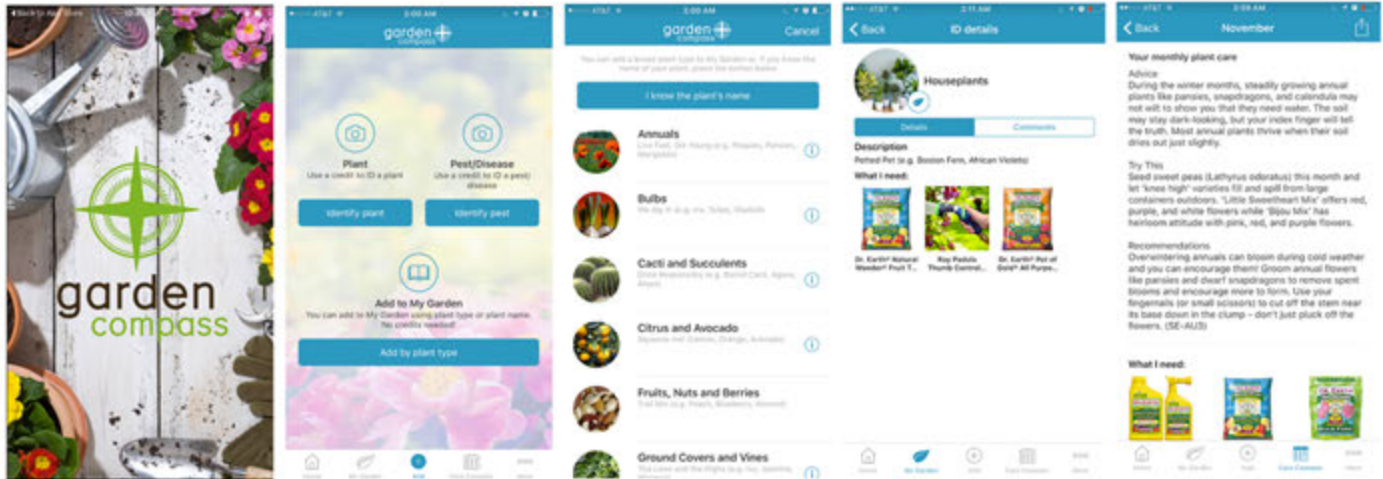
Heuristics Analysis

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I researched several apps to better understand what solutions are currently on the market. I wanted to see which features currently exist and to identify what I would like to include in my app.

Findings

Garden Compass



Description of Features

- Upload pictures for an expert to identify a plant or a pest (must purchase a credit to interact with an expert)
- Add a plant to your garden (up to 3 max, must purchase credits to add more)
 - search by typing in a plant name (long text list, no pictures)
 - search by plant group (ie annuals, bulbs, cacti, fruits, ground covers and vines). If you use this feature you can only add the general plant type. There are no plants grouped under these categories.
- View Garden
 - see the 3 items you added to your garden
 - you have the option to remove items from your garden
 - you can select an item to view additional details
- View Additional Details for an Item in your Garden
 - see a short description of the item
 - see recommended items for successfully growing item
 - add a photo of your plant and chat with an expert about your plant
- View a Care Calendar for your Garden
 - see a monthly care tip for each of the plants in your garden
 - you can scroll to any month to read the care tip
 - tips are in paragraph format. No images.
 - recommended products listed at the bottom of the tips.

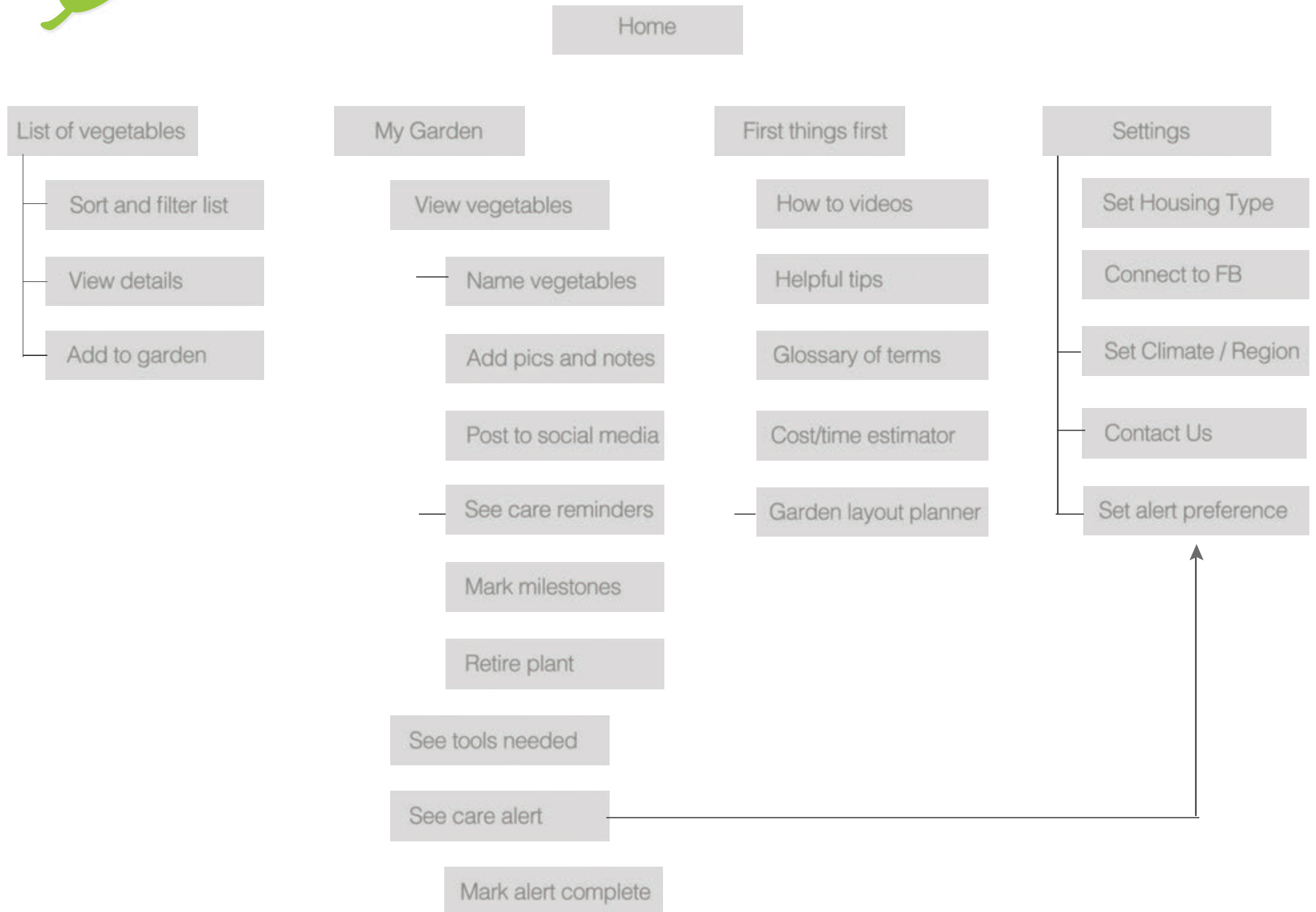
Summary

The app is styled well and is somewhat intuitive, however the features don't seem fully developed. Heavy emphasis is placed on purchasing credits and speaking with experts. This app seems useful for troubleshooting gardening issues, but not for guidance throughout the process for novices. The recommended products section is a nice feature I will investigate for a more mature version my app, and I like the ability to reach out for assistance. Adding plant images is definitely a plus that will be included in my app. I like the idea of a care calendar, I just don't feel it has been executed well within this app.



Gardening App Sitemap

Early revision of a sitemap for the gardening app.



User Stories		
DECIDING WHAT TO GROW		
as a user	I want to see recommended vegetables based on where I am located	so I will grow vegetables that have a good chance of succeeding
as a user	I want to see recommended vegetables based on the season	so I will grow vegetables that have a good chance of succeeding
as a user	I want to see recommended vegetables based on how easy it is to grow them	so I will grow vegetables that have a good chance of succeeding
as a user	I want to see recommended vegetables based on how long it takes them to grow	so I will grow vegetables that have a good chance of succeeding
as a user	I want to see recommended vegetables based on the amount of sunlight I get	so I will grow vegetables that have a good chance of succeeding
as a user	I want to select which vegetables I will grow	so I can customize what I want to grow
STARTING THE GARDEN		
as a user	I want to see details about each vegetable	so I can learn about the vegetable I am growing
as a user	I want to see which products I will need to start and care for my garden	so I will know what to purchase
as a user	I want to see cost estimate for the product I will need to start and care for my garden	so I will know how much money I must spend
as a user	I want to see videos and images demonstrating how to plant vegetables	so I can have rich visual examples for instruction
as a user	I want to indicate when I have planted my vegetables	so I can properly care for my plant
as a user	I want to indicate how much of each plant I am growing	so the app can help me plan appropriately
as a user	I want to indicate if I have purchased a plant, or am growing from seeds	so the app can tailor alerts to my particular growing situation
as a user	I want to see how much space to give each plant to grow	so I can layout my garden properly
as a user	I want to see how long it will take each plant to produce vegetables	so I can have appropriate expectations for how long it will take
as a user	I want to name my vegetables	so I can have an emotional connection to my vegetable
as a user	I want to see terminology that I can understand as a novice	so I can relate to the language used in the app
MAINTAINING THE GARDEN		
as a user	I want to set up alerts to assist with caring for vegetables	so I can receive the assistance needed to grow my garden
as a user	I want to mark tasks as complete	so I can mark my progress
as a user	I want to see videos and images demonstrating how to water and care for vegetables	so I can have engaging content to teach me what to do
as a user	I want to know that my plant is growing and blossoming properly	so I will have confidence that I am doing things correctly
as a user	I want to see tips and tricks for taking care of my vegetables	so I will learn things I might not necessarily know otherwise
as a user	I want to see tips for preventing pests	so I can eliminate the problem before it begins
as a user	I want to know when is the correct time to harvest my vegetables	so I will know when to harvest my vegetables
as a user	I want to know how to harvest my vegetables	so I will know the best way to go about harvesting my vegetables
as a user	I want to see how my plant should be progressing (plant growth, fruit blossom, fruit growth)	so I will have an example to compare my progress against
PESTS AND OTHER ISSUES WITH PLANT HEALTH		
as a user	I want to see common issues and resolutions for each plant	so I can 'troubleshoot' my garden
SHARING MY PROGRESS		
as a user	I want to take pictures of my plant to document progress	so I can refer back to my plant and see the progress I've made
as a user	I want to share pictures of my plant on social media	so I can have pride in my accomplishments
TASKS		
as a user	I want to see reminders to water my plant	so I can properly care for my plant
as a user	I want to see reminders to prune my plant	so I can properly care for my plant
as a user	I want to see reminders for when to fertilize the soil	so I can properly care for my plant
as a user	I want to indicate when I first start to see fruit growing	so I can properly care for my plant
as a user	I want to know when my vegetables are ripe for picking	so I can properly care for my plant
CONTACT		
as a user	I want to contact the development team	so I can send questions, comments, complaints, or praise
REPORTING		
as an admin	I want to know which vegetables are being selected by users	so I can learn from users interactions and improve the experience
as an admin	I want to see user demographics	so I will know who my customer base is
as an admin	I want to know when users are first seeing their plant blossom	so I will know the app is working successfully
as an admin	I want to know which users quit using the app	so I can reach out to them and understand why, or try to spot trends
as an admin	I want to know if the help videos are useful	so I will know if the content is of value to the customer