

# Garden Guardian

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Charlie Lake

# Project overview



## The product:

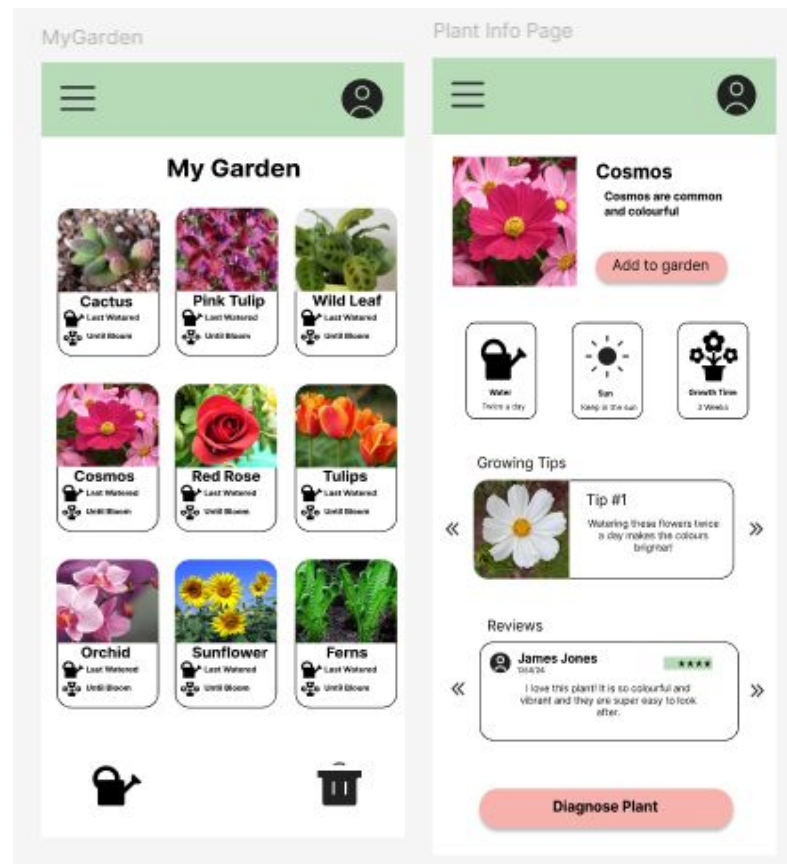
This app was designed to help people to diagnose their plants, and give them advice on how to treat it. Built for both beginner and advanced plant owners.



## Project duration:

Start: March 2024

End: August 2024



# Project overview



## The problem/prompt:

The problem we wanted to solve with this app was to make it easier for people to find the issues with their plants as well as finding the best way to heal it.



## The goal:

Create designs for an app that will help customers to diagnose issues with their houseplants.

# Project overview



## Steps of the project:

The steps of the project included:

- Finding the target audience
- Build a wireframes
- Create low-fidelity prototypes
- Gather UX research
- Create high-fidelity prototypes



## The end goal:

The end goal of this project is to have a high-fidelity design that has been optimised and refined to ensure that it meets all the users needs and would be a marketable product.

# Understanding the user

- User research
- Personas
- Problem statements
- User journey maps

# User research: summary



User Interviews were conducted on peers who had used similar applications or who regularly looked after plants. This gave me a good understanding of what people might want in an app such as this.

The initial assumptions about this project was that users would be more inclined into diagnosing their plants. However, it became apparent that users wanted more than that such as information about the plants as well as reminders as people said they often struggled with remembering how often they needed to water them and how much sun exposure they needed to keep healthy plants.

# User research: pain points

1

## Lack of Knowledge

Some people might not know much about plants in general. This could even include the plant name or what it may need

2

## Decision fatigue

It might be difficult for users to decide on the best method to help their plant

3

## Information Overload

Finding information online could lead to information overload.

4

## Lack of support

A lack of support might be an issue. Users might be searching multiple platforms for information.

# User Journey Map

The end goal is to determine what the users issue is with their plant.

This map allows us to see what some problems the user might run into.

Goal: Determine what the issue is with the plant

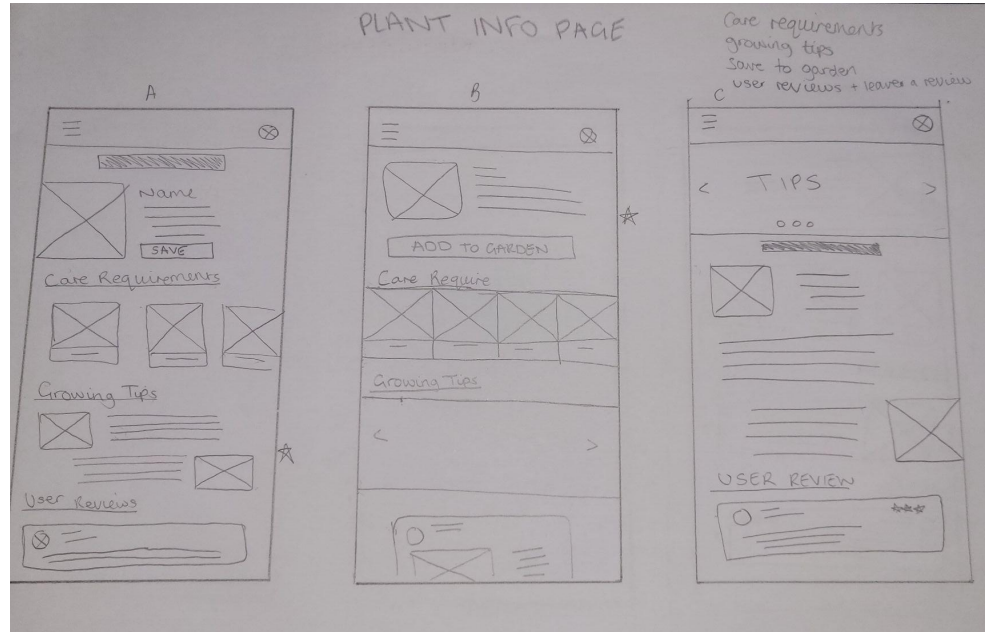
ACTION	Name the plant you need help with	Search online for specific plant	Sift through information about plant	Identify potential issues	Compare solutions	Implement solution
TASK LIST	Tasks Get the name of plant(name might not be known) Search online for plant name	Tasks Look up features of the plant Or Search the plant name	Tasks Search one site at a time for different information on the plant	Tasks Use the information to identify issues Or Find the specific issue online	Tasks Use all information gathered to compare for best solution	Tasks Buy items needed. Give the plant what it needs
FEELING ADJECTIVE	<ul style="list-style-type: none"><li>Confused</li><li>Intimidated</li></ul>	<ul style="list-style-type: none"><li>Lost</li></ul>	<ul style="list-style-type: none"><li>Bored</li><li>Overwhelmed</li><li>Confused</li></ul>	<ul style="list-style-type: none"><li>Overwhelmed</li><li>Hopeful</li></ul>	<ul style="list-style-type: none"><li>Hopeful</li><li>Intimidated</li></ul>	<ul style="list-style-type: none"><li>Excited</li></ul>
IMPROVEMENT OPPORTUNITIES	<ul style="list-style-type: none"><li>Better way to identify plants</li></ul>	<ul style="list-style-type: none"><li>Better way to identify plants</li></ul>	<ul style="list-style-type: none"><li>More efficient way to get information</li></ul>	<ul style="list-style-type: none"><li>More concise solutions to problem</li></ul>	<ul style="list-style-type: none"><li>More concise solutions to problem</li></ul>	<ul style="list-style-type: none"><li>Easier access to recommended</li></ul>



# Paper wireframes

During this phase of the project, I aimed to create 4-6 wireframes of each of the necessary pages. The process began with writing down some of the different features that addressed most of the pain points identified.

Iterations were then created with these in mind, including all features whilst trying to maintain a simplistic and intuitive information architecture.



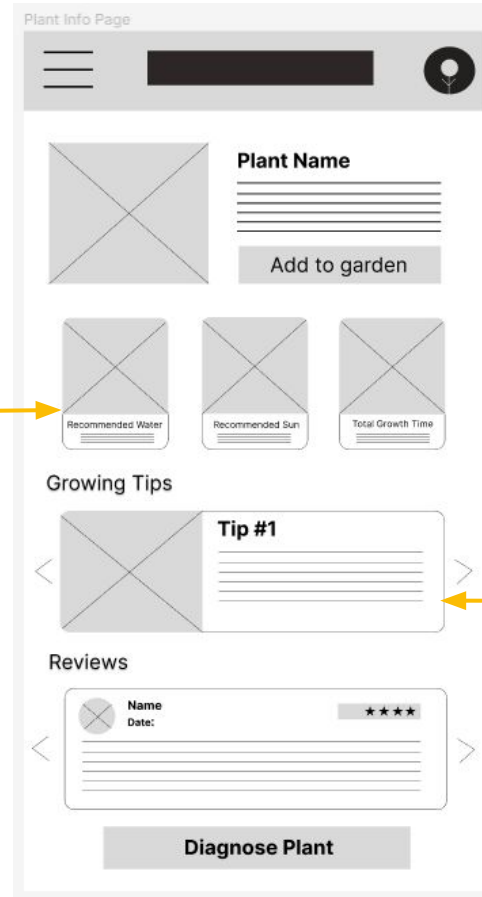
Stars were used to mark elements of each design that I particularly liked and wanted to incorporate in the final design

# Digital wireframes

The goal for the digital wireframes was to create more professional and finalised versions of the designs.

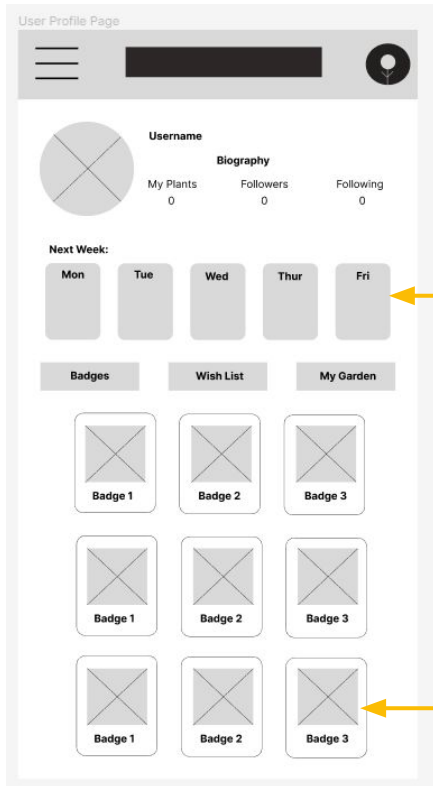
During this step, I was able to see things that were looked past or pages that hadn't been thought about in the user flow.

User gets clear information on the plants basic needs to avoid information overload



If a user is lacking in knowledge, they can get short tips which are precise and easy for the user to understand

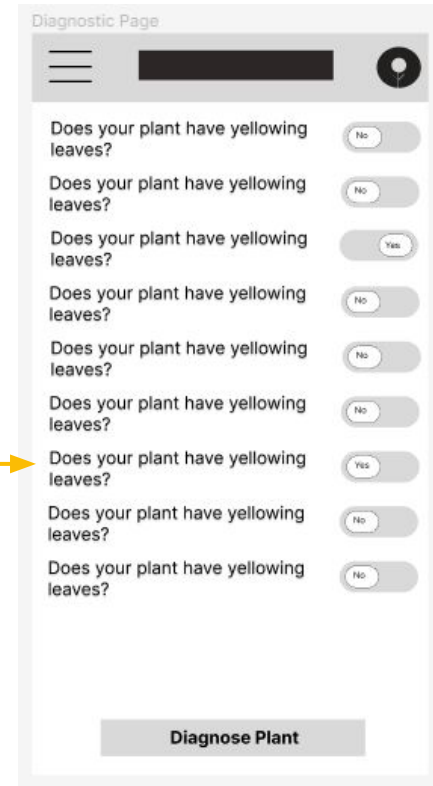
# Digital wireframes



The week ahead calendar reminds users when they need to do things. One less thing to remember!

User answers simple yes/no questions. Whether they lack knowledge or just to avoid searching the web

A badge feature, incentivises the users to keep using the app.

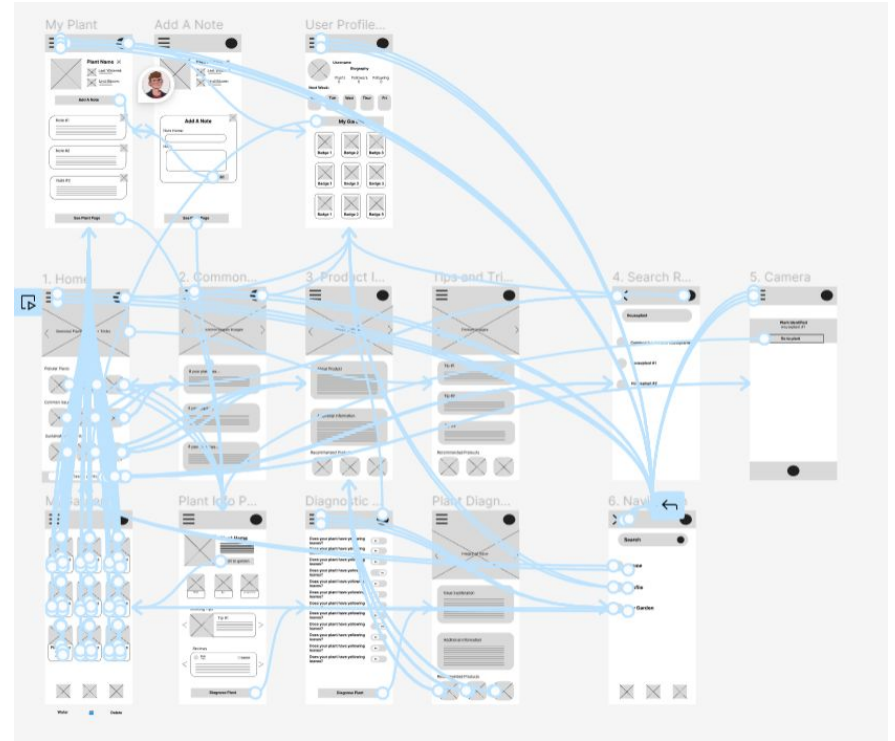


# Low-fidelity prototype

[Click here to view the prototype](#)

The user starts on the home page, and can access main pages through the side navigation.

Other pages like general information pages can be accessed from the home page.



# Usability study: findings

We had a total of 6 participants complete an unmoderated usability study where we asked them to complete a few tasks and then explore the app prototype on their own. The following is our findings from that study:

## Our Findings

- 1 Users thought diagnosing a plant was somewhat difficult
- 2 Users were confused at the following feature given the lack of community features
- 3 Users would also like if there was an extended calendar rather than the one week ahead

# Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

# Mockups

In the usability research, users said that the process of diagnosing a plant was somewhat difficult.

The page was filled with lots of text which was overwhelming to users. We revised a solution to act similarly with less information/text.

Before usability study

Diagnostic Page

Does your plant have yellowing leaves?  No

Does your plant have yellowing leaves?  No

Does your plant have yellowing leaves?  No

Does your plant have yellowing leaves?  Yes

Does your plant have yellowing leaves?  No

Does your plant have yellowing leaves?  No

Does your plant have yellowing leaves?  No

Does your plant have yellowing leaves?  No

Does your plant have yellowing leaves?  No

Does your plant have yellowing leaves?  Yes

Does your plant have yellowing leaves?  No

Does your plant have yellowing leaves?  No

Does your plant have yellowing leaves?  No

Diagnose Plant



After usability study

Diagnostic Page

Please select all symptoms that your plant is displaying:

Yellow Leaves Leaf Curling

Wilting Leaf Dropping Pests

Bad Smell Weak Stem

Discolored Stem Black Spots

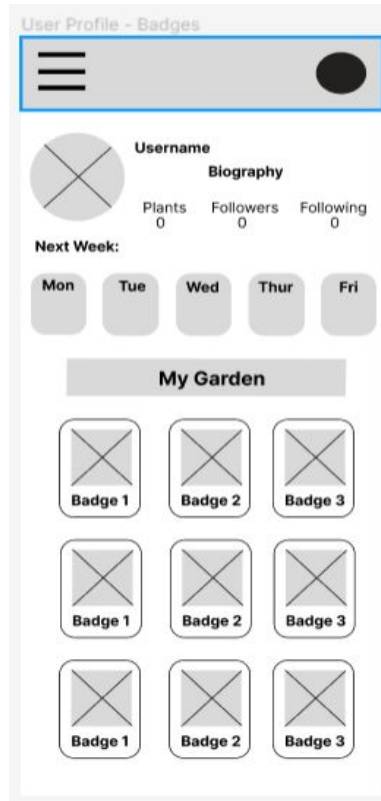
Diagnose Plant

# Mockups

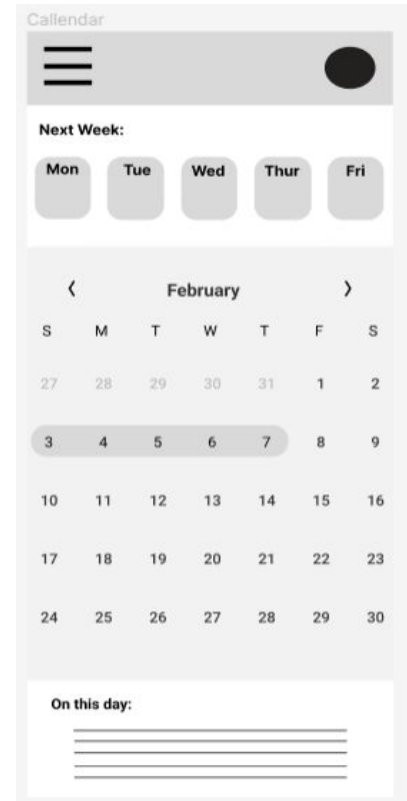
Previously, users could only get their calendar of the week in advance to let them know what was up and coming.

However, this new page has been added to let users see their calendar as a whole. Users can access this from the side nav or clicking the week on their profile

Before usability study



After usability study

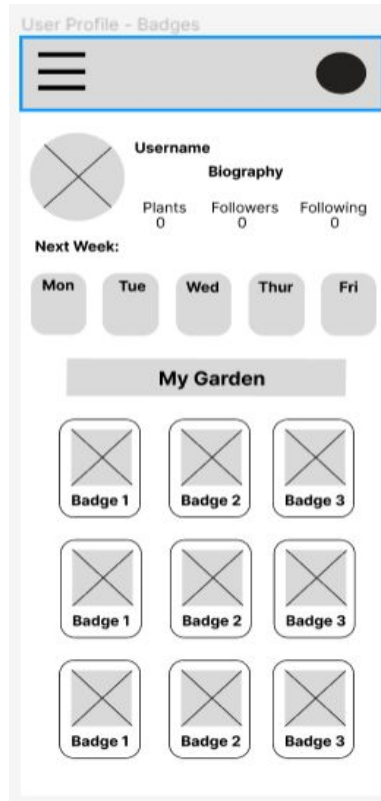


# Mockups

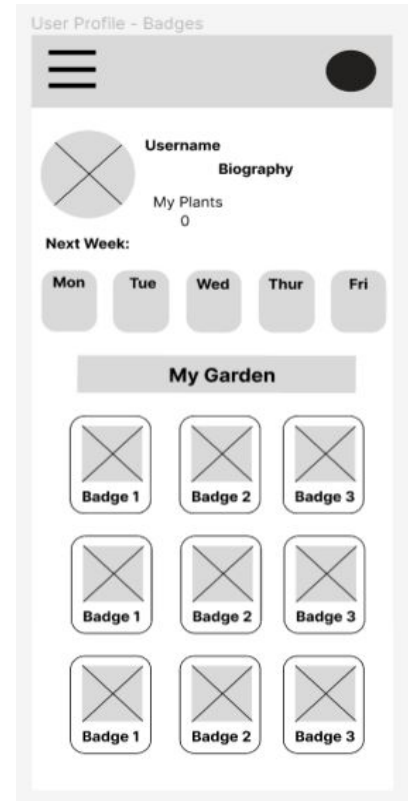
The final insight we got was that it didn't make sense to have following features without any other community features.

Because of this, we removed those to avoid confusion. Community features could be added later on.

Before usability study



After usability study

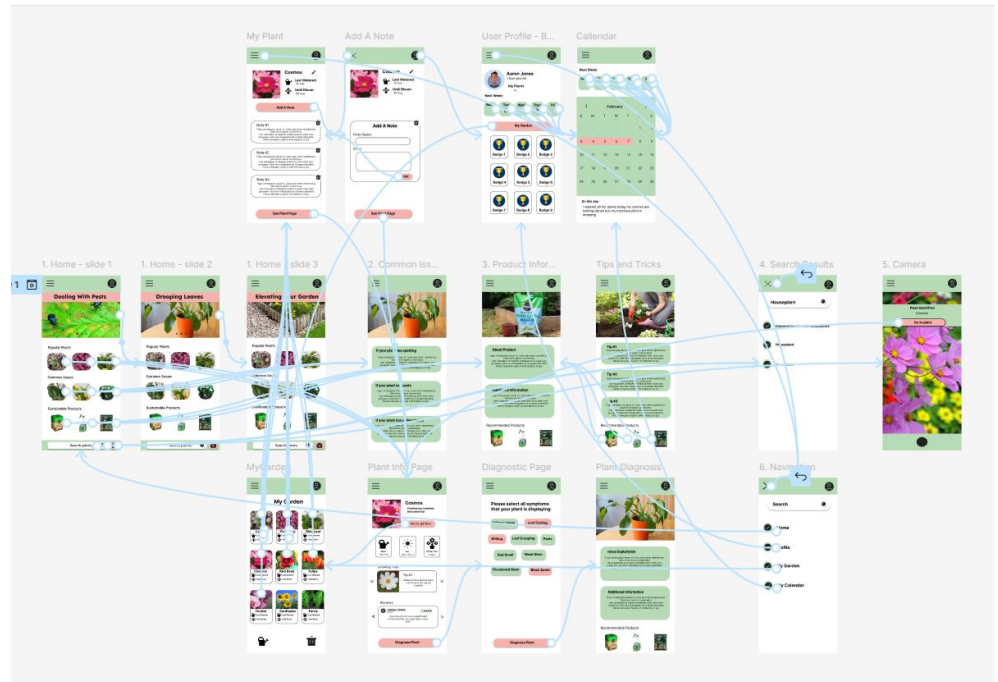


# High-fidelity prototype

[Click here to view the prototype](#)

The user starts on the home page, and can access main pages through the side navigation.

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# Accessibility considerations

1

## Colour Contrast

The colour contrast between backgrounds and text are all on par with the WCAG guidelines.

Contrast with colours is strong throughout all of the designs

2

## Spacing

The spacing between items on each page are consistent and the pages are not too cluttered.

Content hierarchy is clear on all pages.

3

## Navigating

The navigation between page is clear and consistent on all pages meaning it is easier for people to navigate around naturally.

# Going forward

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- Takeaways
- Next steps

# Takeaways



## Impact:

“The final design supports plant owners in identifying issues and improving plant care by combining diagnosis tools, personalised tips, and a clear plant catalogue. Iterative feedback during critiques highlighted the clarity of the workflows and the usefulness of having all plant information in one place.”



## What I learned:

Throughout the project, I learned how beneficial user feedback is and how creating quick iterations of pages can generate new and creative ideas.

# Next steps

1

One next step in the design process might be to create a sign-in and welcome page that the user will see upon opening the app for the first time

2

Implement personalised plant care reminders and notifications to help users maintain consistent watering, feeding, and plant health routines.

3

Expand the plant diagnosis system by adding a larger plant library and more detailed issue detection to improve accuracy and user confidence.