# HERBARIUM

Thesis Process Book Yang Lei GR\_830 Thesis 2



### Introduction

This design project aims to delve into and showcase the importance of herbariums, employing various media to help young individuals better understand and appreciate the beauty and science of plants.

Through avenues such as books, applications, and toolkits, we explore how to present herbariums in an easy and enjoyable manner, fostering interest and engagement among young learners.

### **Content Index**

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FIG	recu	$\mathbf{v}$	EIVI	ΕW

Design Purpose

#### **Target Audience**

Audience Persona

#### **Visual Assets**

**Creative Proces** 

#### **User testing**

User testing process

#### Deliverable set

Final outcome

#### **Project Background**

With the advent of the digital age, people's understanding of plants relies more on information in the virtual world, leading to a growing disconnect from nature. The background of this project lies in rekindling curiosity and love for plants among the younger generation by reintroducing traditional herbarium-making, bridging the gap between the digital era and the natural world.

### **Project Introduction**

#### **Project Objectives**

Our goal is to create an easily understandable, fun, and captivating learning experience, igniting the interest of young individuals aged 13 to 50 in the art of making herbariums. Through this project, we aim to guide them not only to comprehend plants on a knowledge level but also to experience the actual process of creating herbariums, fostering a profound understanding of botany.

#### **Design Purpose**

The ultimate purpose of the design is to provide young individuals with a simple, innovative way to deepen their understanding of the mysteries of plants through participation in herbarium making. Additionally, the design aims to cultivate hands-on skills through craft activities. We aspire for the design to be not only educational but also a medium that sparks interest and imagination.

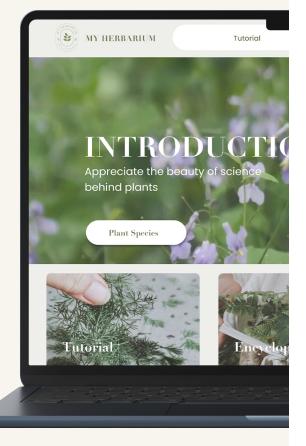
## Project Overview

This project comprises four main elements: books, applications, toolkits, and a website. Through the design of these four aspects, we form a comprehensive learning experience for herbariums. Each element is interconnected, collectively constructing an organic whole, with the goal of opening the doors of botany for young learners.

#### **Project Elements**

The core elements of the design include a herbarium book, an interactive application, a herbarium toolkit, and a website. Together, these elements create a multi-layered, multimedia learning platform, allowing users to experience the joy of herbariums in different environments.













#### **Books & Toolkit**

The book's design, with its blend of science, aesthetics, and user-friendly features, serves as an accessible gateway to the wonders of plant life.

#### App & Website

Simultaneously, the app and website amplify this experience by providing a dynamic platform for interactive learning, DIY projects, and community engagement.

#### **Multimedia Learning**

The integration of books, an app, and toolkits provides a holistic learning experience. This caters to the varied preferences of the target audience, allowing them to choose the medium that best suits their learning style.

#### **Parental Involvement**

Recognizing that parents play a crucial role in their children's education, the design encourages parental involvement. This is achieved by creating a user-friendly interface on the app, enabling parents to guide and support their teenagers in the herbarium-making process.

### **Audience Analysis**

#### **Analysis of Target Audience Needs**

The primary target audience for this design project includes teenagers aged 13 to 50 and their parents. For teenagers, there is a need for educational content that is both engaging and relatable. They seek interactive experiences that align with their digital lifestyles while fostering an appreciation for nature and science. Parents, on the other hand, are likely to value educational tools that are informative, safe, and encourage their children's curiosity.

#### **Meeting Audience Interests and Needs**

Through Design Choices: Interactive Learning Tools: Recognizing the digital inclinations of teenagers, the interactive application is designed to provide step-by-step tutorials and engaging content. This meets their interest in technology while imparting valuable knowledge about herbariums.

Hands-On Experience: Both teenagers and parents share an interest in educational activities that promote practical skills.

The herbarium toolkit, with its physical components and simple steps, caters to this need by offering a hands-on experience in crafting.

### Audience Statement

#### **Teenagers & parents**

The main audience is teenagers and parents. As a popular science book and reference book, the main purpose is to let more people participate in a simple way and lower the learning threshold.

01. 02.





#### Lauren

Status : Teenager

Age : 14

She likes to make things by herself, such as sewing clothes for her dolls, and she also likes to decorate her own room with her handmade products

#### Abner

Status : Parents

Age : 42

He and his son will study all kinds of children's interests, because he does not want to miss any important moment in his son's development.

# Both teenagers and parents share an interest in educational activities that promote practical skills.



#### Lauren

Status : Teenager

Age : 14



#### David

Status : Biology Student

Age : 26



#### Galetti

Status : Science Teacher

Age : 34



#### Susannah

Status : Florist Age : 61



#### Abner

Status : Parents Age : 42



#### Farrell

Status : Farmer Age : 72 There are so many interesting things in the world waiting for me to discover.

Lauren

David

The core of educational resources is people and the most important thing is ideas.

Caletti

When I see a client holding a plant

I learned awkwardly to be a good

To inspire people by educating

father-play an all-knowing scholar

in my son's childhood.

Susannah Abner Farrell

 $that\ I\ grow\ , the\ sense\ of\ accom-$ 

plishment and happiness.

### **Insights Persona**

nature.

and caring for all living things in

If people have no motivation to discover the beauty of flowers and plants because the learning difficulty is too high, they will not achieve the original intention of popular science to let people enjoy the beauty of nature.





#### **Source of Design Inspiration**

The design inspiration for this project arises from the desire to bridge the gap between traditional botanical knowledge and the modern, digitally-driven world. The following sources served as inspiration.

#### **Scientific Illustrations**

Drawing inspiration from classic botanical illustrations, the design incorporates detailed images of plants. This connection to scientific tradition adds an educational and timeless dimension to the project.

Inspiration

#### Nature's Aesthetics

The simplicity and beauty found in plant lines and forms are translated into the design. This inspiration aims to create visually appealing content that resonates with both the scientific and aesthetic aspects of botany.

#### **Educational Considerations**

The inspiration also comes from the need to create educational materials that are not only informative but also enjoyable. The design draws from pedagogical principles to ensure that the learning experience is engaging and effective.

### **Design Inspiration**

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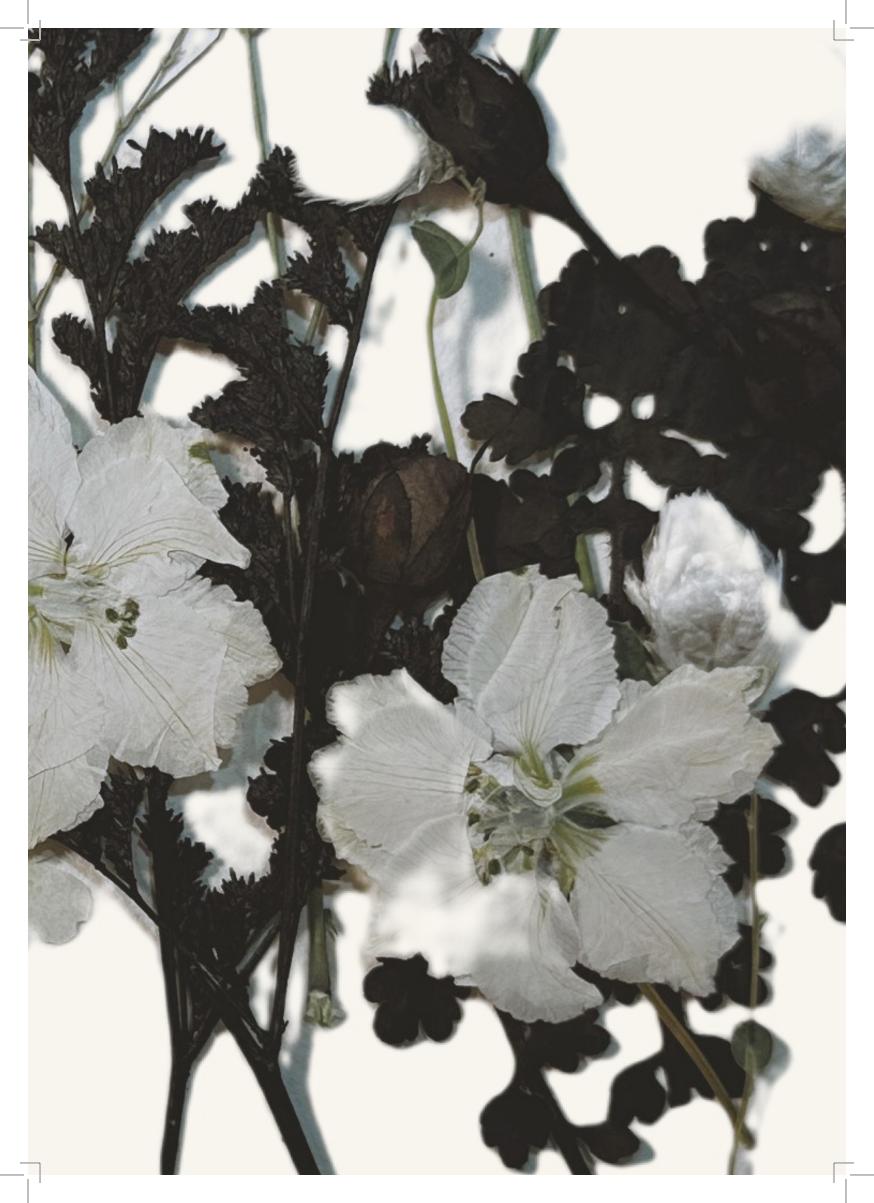
#### **Nature's Aesthetics**

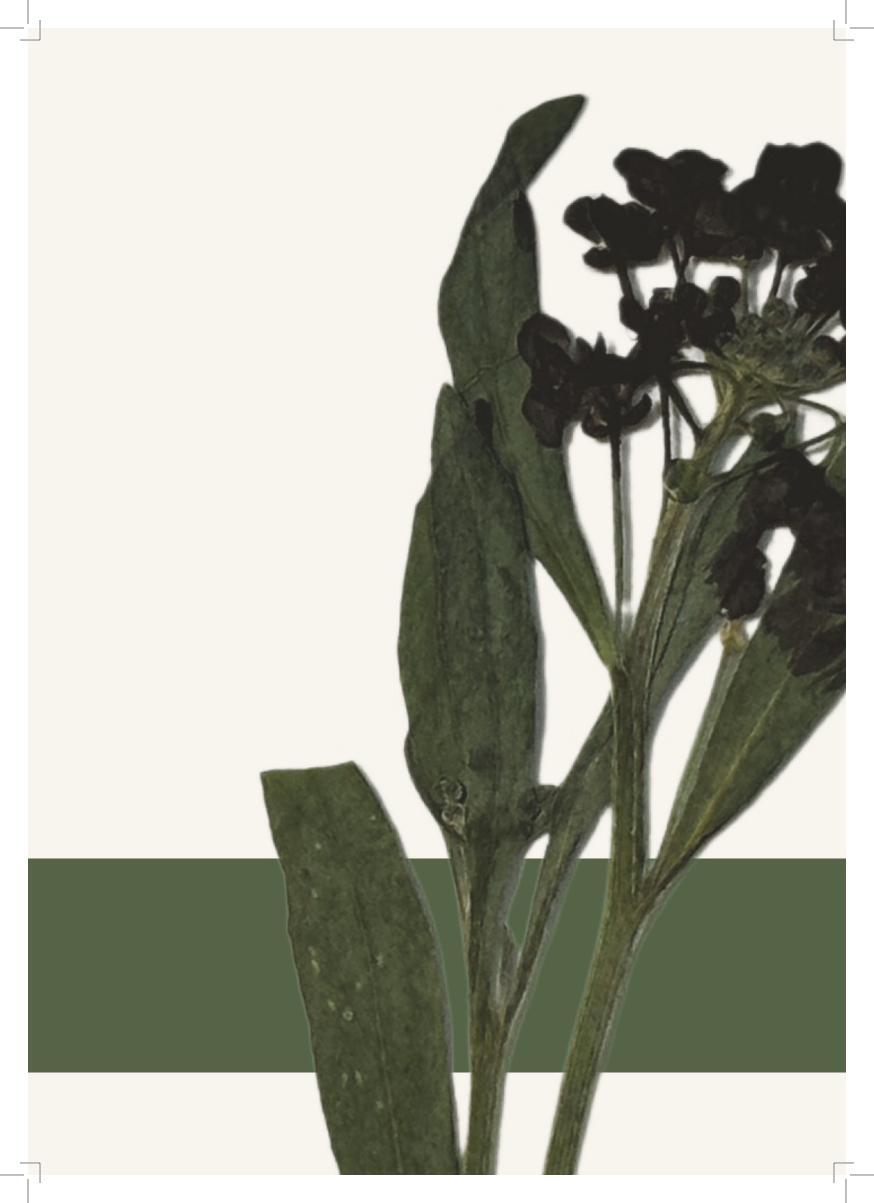
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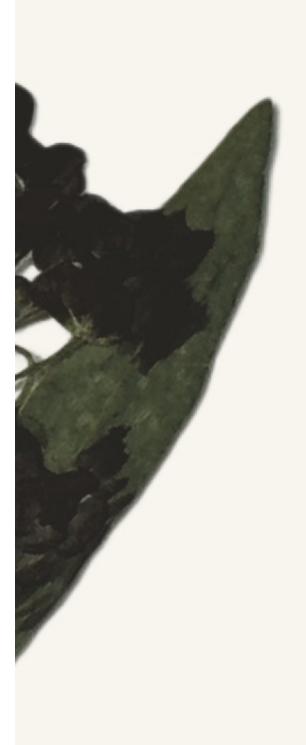
#### **Educational Considerations**

The inspiration also comes from the need to create educational materials that are not only informative but also enjoyable. The design draws from pedagogical principles to ensure that the learning experience is engaging and effective.









#### **Connection to Plants, Science, and Education**

Through a thoughtful blend of modern technology, traditional craftsmanship, and scientific accuracy, this design project aspires to captivate its target audience and foster a deeper connection to the world of plants.

#### **Botanical Accuracy**

The detailed representation of plants in the design is inspired by a commitment to scientific accuracy. It aims to instill a sense of appreciation for the diversity and beauty of plant life.

#### **Scientific Discovery**

The design draws inspiration from the idea of unveiling the secrets behind ecological phenomena. It seeks to evoke a sense of scientific discovery, encouraging curiosity and exploration among the audience.

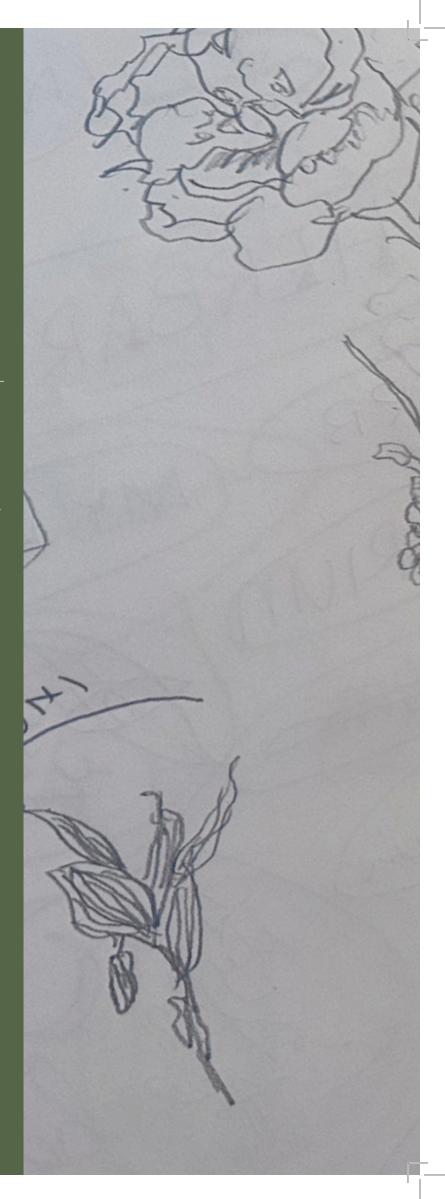
#### **Educational Empowerment**

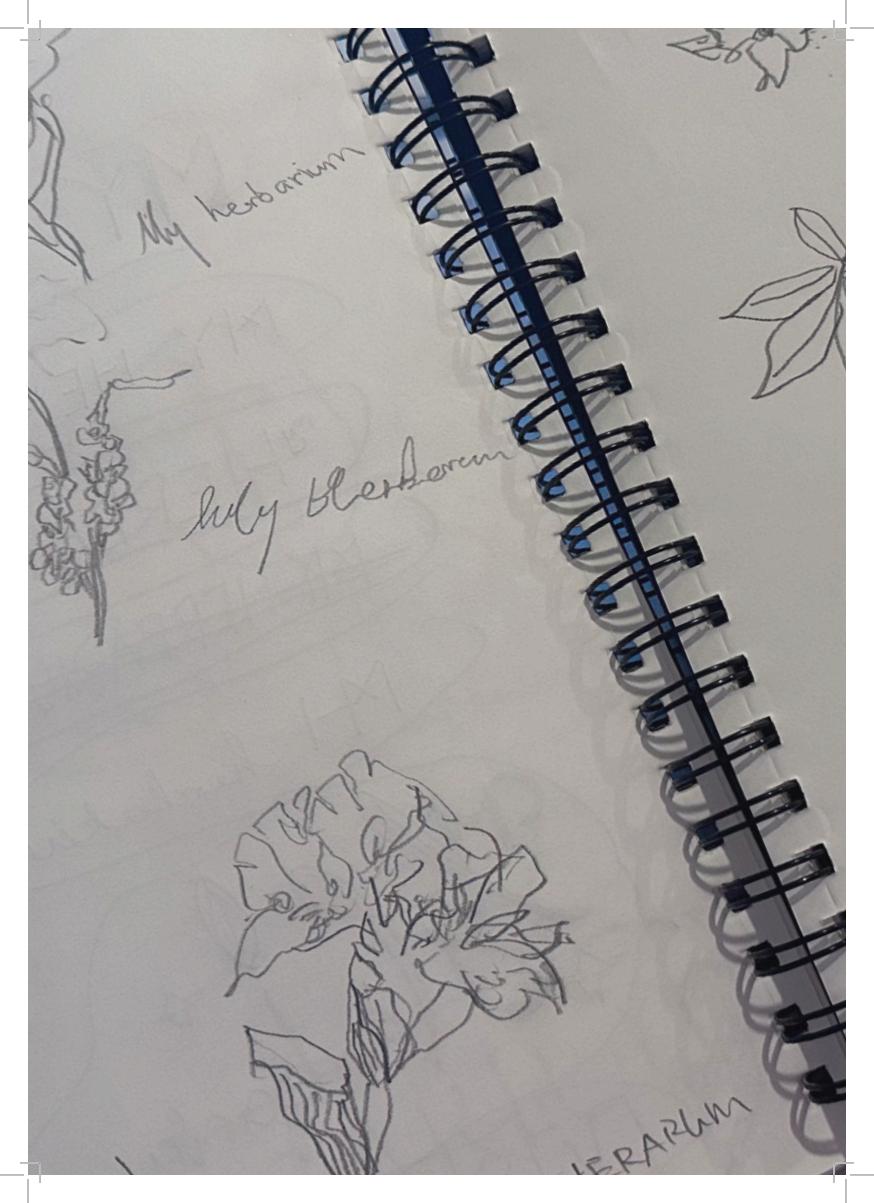
The educational aspect of the design is inspired by the belief that knowledge empowers. By presenting information in a clear and accessible manner, the design aims to empower teenagers and parents with botanical knowledge and skills.

### **Creative Process**

#### Introduction

Showcase different stages of design, from initial concepts to final implementation. Include sketches, design drafts









### **Creative Process**

#### Introduction

Discuss the selection and purpose of fonts, colors, graphics, etc.

## Logo

#### **Leaf Icon**

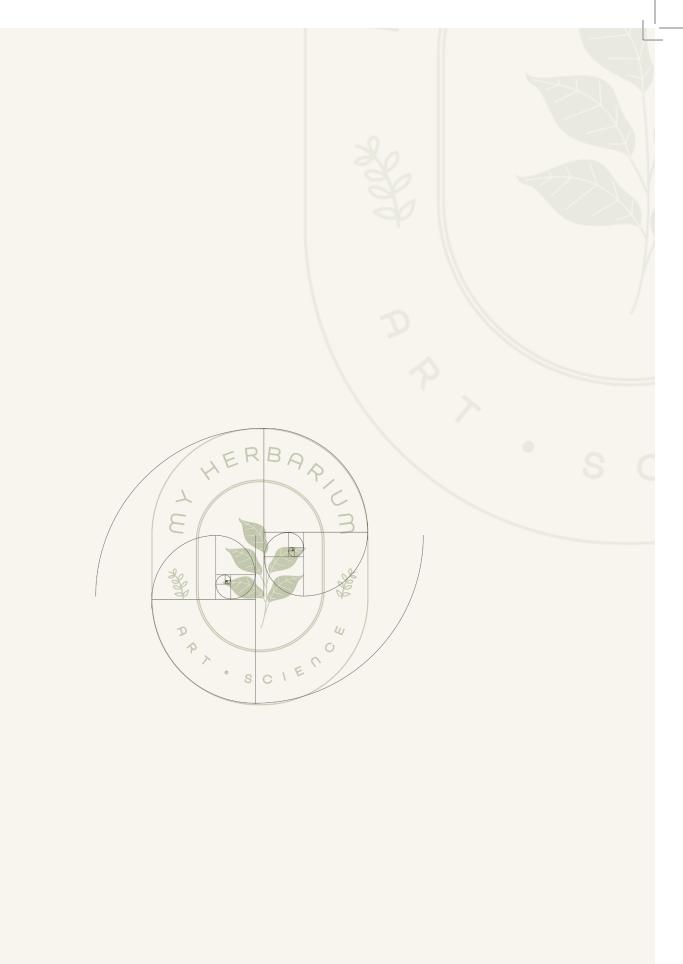
The central leaf icon is a direct reference to plant life, representing growth, life, and the beauty of nature. It anchors the logo in its botanical theme and serves as a recognizable symbol of the project.

#### **Curved Lines**

The curved lines framing the leaf add a sense of elegance and continuity, suggesting the seamless integration of traditional botanical knowledge with modern educational methods.

#### **Typography**

The rounded, clean font used for "My Herbarium" and the accompanying text ("Art" and "Science") reflects modernity and accessibility, ensuring the logo is approachable for the intended audience.





#### **Primary Leaf Icon**

Positioned centrally within an oval frame, the leaf icon follows the golden ratio for optimal placement, ensuring it draws the viewer's attention immediately.

#### **Oval Frame**

The overall shape of the logo is an oval, proportioned according to the golden ratio, creating a pleasing and balanced visual flow.

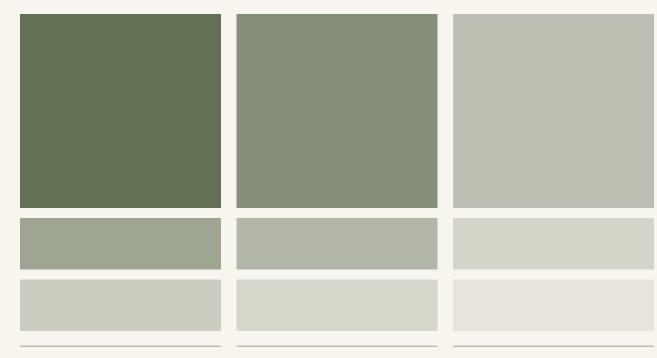
#### **Text Placement**

The text "My Herbarium" arcs around the top of the oval, while "Art" and "Science" are positioned at the bottom, evenly spaced and aligned according to golden ratio divisions, ensuring symmetry and balance.

#### **Additional Elements**

The small decorative elements (such as the small leaves on the sides) are positioned at golden ratio points within the oval to maintain visual harmony.



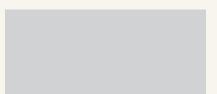


HEX #6b7552 C:58 M:37 Y:69 K:25 R:107 G:117 B:82

pantone 371 U HEX #91957d C:45 M:30 Y:50 K:13 R:145 G:149 B:125

pantone PQ-8340C HEX #c8c8b9 C:25 M:17 Y:28 K:2 R:200 G:200 B:185

pantone 413 UP



HEX #dadada C:0 M:0 Y:0 K:20 R:218 G:218 B:218

pantone Cool Gray 2 C Cool Gray 2 U 179-4C

HEX #878787 C:0 M:0 Y:0 K:60 R:153 G:153 B:153

pantone Cool Gray 8 C Cool Gray 8 U 179-9C

HEX #3c3c3b C:0 M:0 Y:0 K:90 R:60 G:60 B:59

pantone Cool Gray 11 C Cool Gray 11 U 179-14C

### Color Palette

#### **Color Palette**

The green tones used in the logo are inspired by the natural colors found in plants. Green symbolizes growth, freshness, and a deep connection to nature, aligning perfectly with the botanical theme of the project.

#### **Ecological Relevance:**

Green is visually associated with nature and botany, which ties in closely with the theme of my project. Green is the main color of plants, so itcan visually emphasize the botanical and ecological elements of the project.

#### **Attracting a Young Audience:**

Considering that my target audience is teenagers aged 13 to 50 years old, green is generally considered an attractive color for youth and education. It conveys a fresh and positive feeling that helps capture the attention of young viewers.

#### **Health and Sustainability:**

Green is also associated with health and sustainability, which is important for topics in botany and ecology.

# **Typography**

#### **Didot and Poppins**

Didot is used to convey the formal, scientific aspects of the project, while Poppins enhances readability and modern appeal. This font combination not only enhances the professional and aesthetic qualities of the design but also makes the entire project visually appealing and cohesive.



### AaBbCcDd EeFfGgHhIi JjKkLlMmNnOoPpQqRr SsTtUuVvWwXxYyZz

0123456789 (&?!/,:;-\_+;%@\*")

The Quick Fox Jump Over The Lazy Dog.
The Quick Fox Jump Over The Lazy Dog.

### AaBbCcDd EeFfGgHhli JjKkLlMmNnOoPpQqRr SsTtUuVvWwXxYyZz

0123456789 (&?!/,:;-\_+;%@\*")

The Quick Fox Jump Over The Lazy Dog.

The Quick Fox Jump Over The Lazy Dog.



### BOTANICAL BOOK

#### Introduction

A book packaging design that provides a sense of science and shows the simplicity and beauty of plant lines. The content is simple and easy to understand, combining pictures and text.

#### Strategy

Create an exciting way of reading where the book interacts with students to increase engagement with the readers.







# THE IMPORTANCE OF HERBARIUM

### Plant Rubbings Preamble

- Choose a smooth and thin paper to use for the rubbing.
  You may also want to tape or clip the paper to the surface to prevent it from moving during the process.
- 3. Place a leaf or flower face down on the paper
- Hold the paper firmly in place and use a pencil or crayon to rub over the plant. Apply firm but gentle pressure to transfer the texture and shape of the plant onto the paper.
- 5. Rub over the entire surface of the plant, including the ster and veins if desired.
- 6. Remove the plant and admire the finished rubbing





### Additional Tips

#### Ideas for making

Experiment with different cools of paper and art materials for a variety of effects. Try using different parts of the plant, such as the backside of a leaf or a seed pod. If the plant is too thick or has too much moisture, it may not transfer well onto the paper.

Don't be afraid to layer multiple rubbings or combine them with other art techniques to create a unique piece.

### Practice & have fun

- While paper and pencils or crayons are the most common materials used for plant rubbings, you can also try using other materials like fabric or colored pencils. You may also want to try using different types of paper, such as handmade or textured paper, for a unique effect.
  - Different plants have different textures and shapes, so it's important to choose the right plants for the effect you want to achieve. Leaves with prominent veins, flowers with detailed petals, and bark with interesting patterns can all make great subjects for plant rubbings.

### **Toolkit**

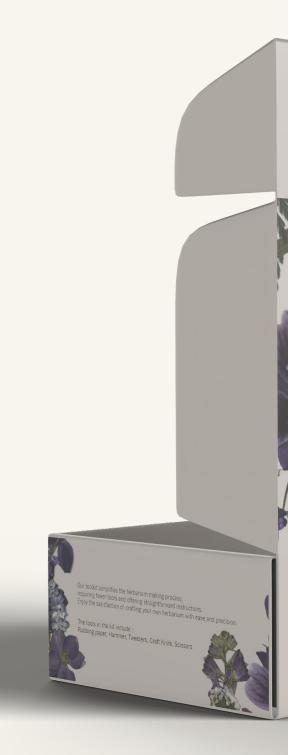
### Introduction

A physical kit that is easy to follow through simple steps and requires fewer tools to make your

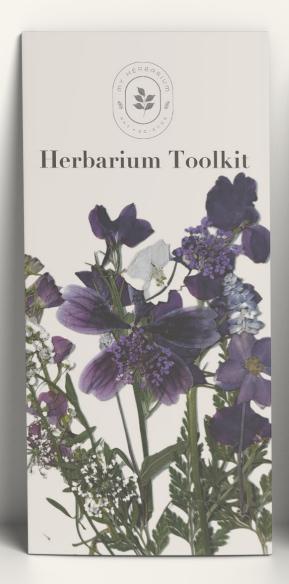
simplified version of the herbarium at home.

### Strategy

Provide a handicraft activity that is simple yet an innovative way for students to participate.









### Herbarium Toolkit

Experience the wonders of botany with our comprehensive toolkit, designed to ignite curiosity and creativity in students of all ages. Our toolkit includes everything you need to embark on an exciting herbarium-making journey, right in the comfort of your home.

### Plant Rubbings Preamble

- 1. Collect a variety of plants with interesting shapes
- Choose a smooth and thin paper to use for the rubbing. You may also want to tape or clip the paper to the surface to prevent it from moving during the process.
- 3. Place a leaf or flower face down on the paper.
- Hold the paper firmly in place and use a pencil or crayon to rub over the plant. Apply firm but gentle pressure to transfer the texture and shape of the plant onto the paper.
- 5. Rub over the entire surface of the plant including the stem and veins if desired.
- 6. Remove the plant and admire the finished rubbing.





### Tri-Fold Pamphlet

#### Introduction

A physical kit that is easy to follow through simple steps and requires fewer tools to make your

simplified version of the herbarium at home.

#### Strategy

Provide a handicraft activity that is simple yet an innovative way for students to participate.

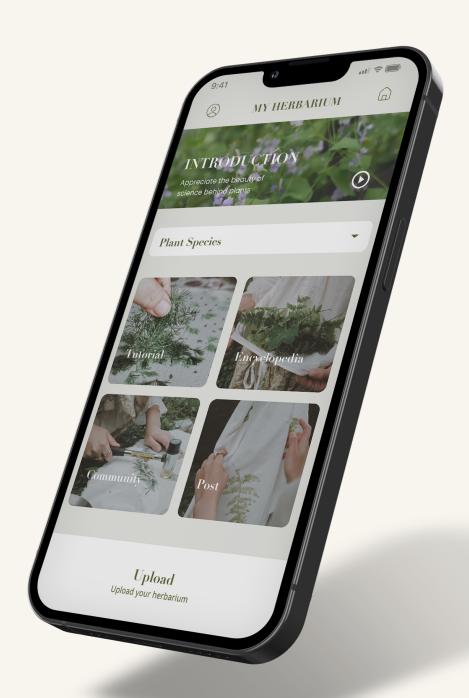
### **APP**

#### Introduction

As a herbarium museum, the app displays herbarium and popular science videos. Display various herbarium-related projects that users can perform at home. Each video comes with a step-by-step tutorial explaining the project's procedures. An information section that provides a list of tools the user needs to complete the project. Comment section that allows users to ask questions, share experiences or results, and provide feedback.

#### Strategy

Video tutorials provide visual cues to help increase deeper learning of the materials for students by allowing them to work on projects at their own pace.



### none X ®

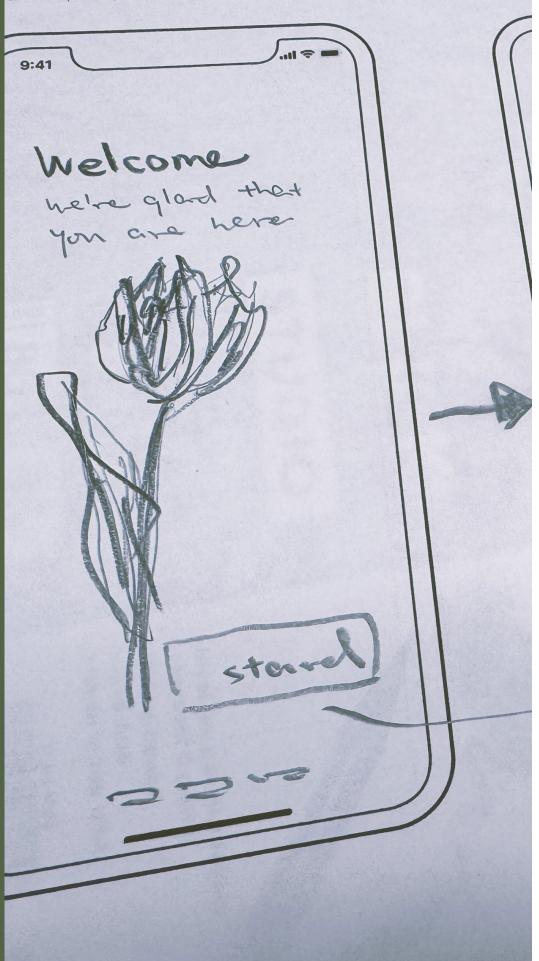
ame template by www.themore.eu

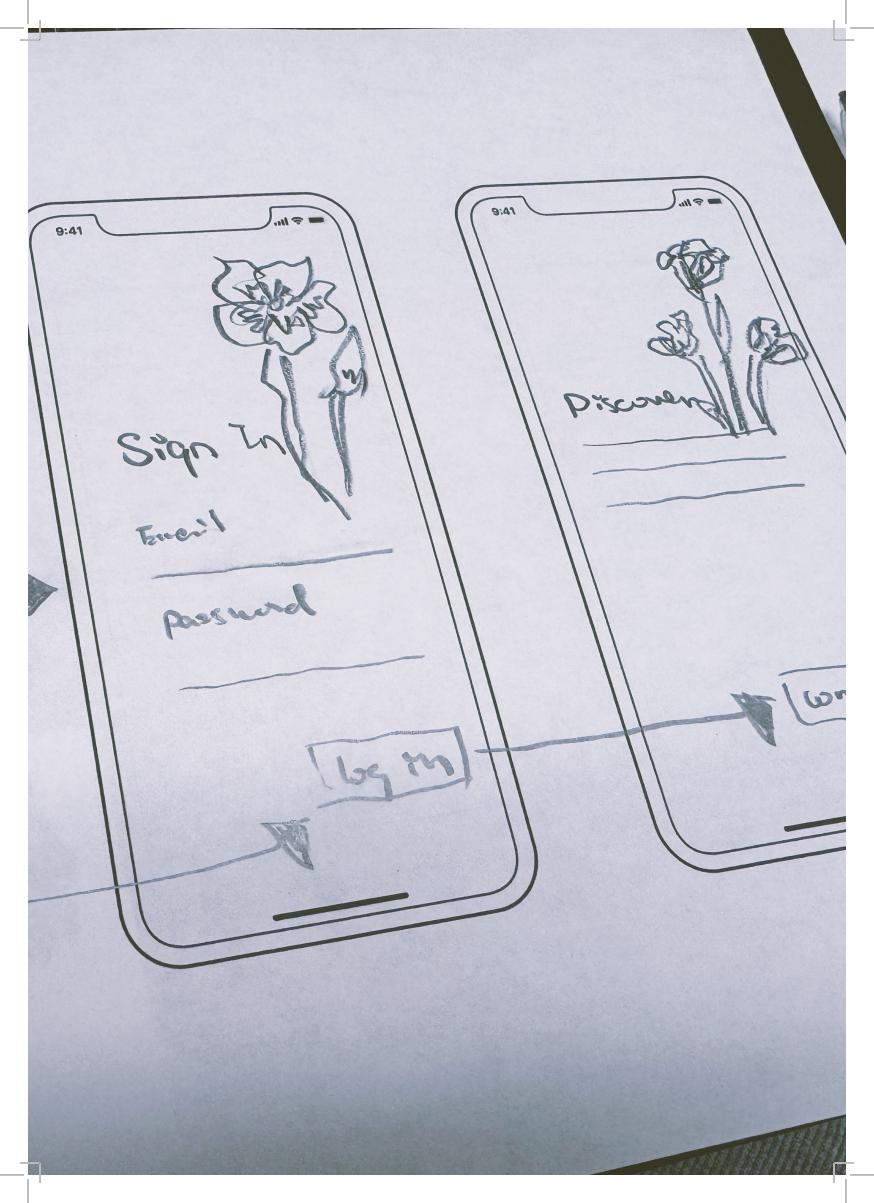
### Login Screen

The login screen serves as the gateway for users to access the personalized features of the My Herbarium app. It ensures secure access, protecting user data and providing a personalized experience once logged in.

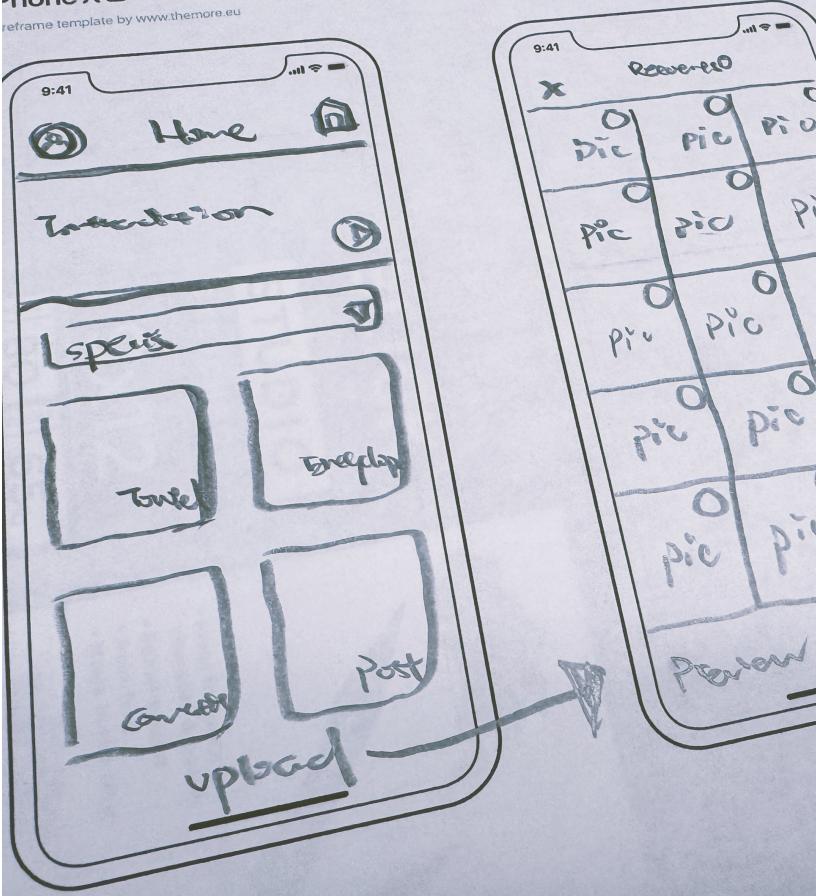
### Background

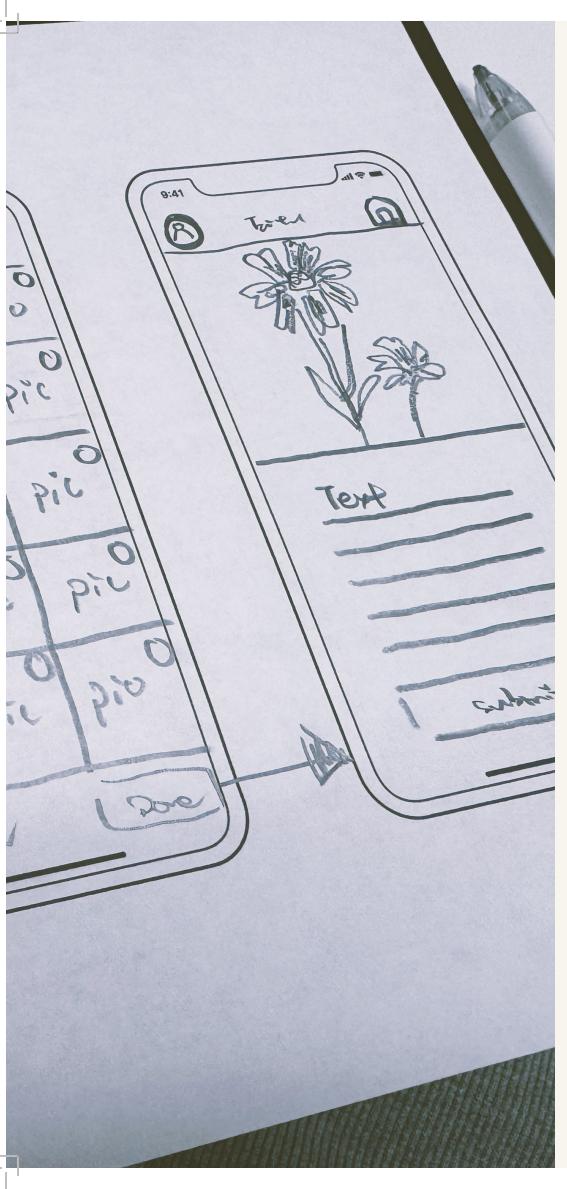
The background features a high-quality image of pressed flowers, aligning with the botanical theme and creating a visually appealing backdrop.





PhoneX®



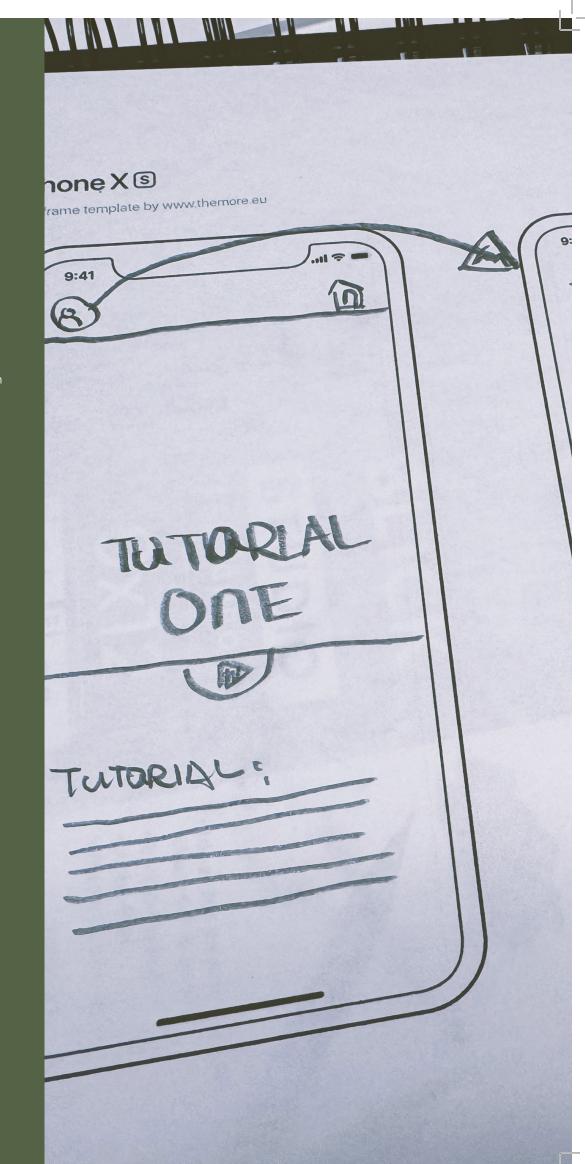


### **Posting Selection**

The screens provide a comprehensive guide to herbarium creation, allowing users to discover, learn, and share botanical knowledge through a structured and engaging digital experience.

#### **Photo Selection**

Allows users to upload and select photos of plants from their gallery.



### **Tutorial Screens**

Introduces the tutorial on botanical rubbings, providing a detailed guide on how to create rubbings using ferns.

#### Layout

The screen features a large, prominent image of a hand working with a fern, a play button to start the video tutorial, and step-by-step written instructions below.

J.111 = 1 9:41 ···· = 1 0 P 9:41 NAME 9 fourier list

18 Tutorial 1:54

8 Accurat Ca Es la con

### APP

### **Educational and Interactive Features**

The tutorial and encyclopedia sections provide valuable educational resources, catering to the app's goal of making learning about herbariums fun and accessible.

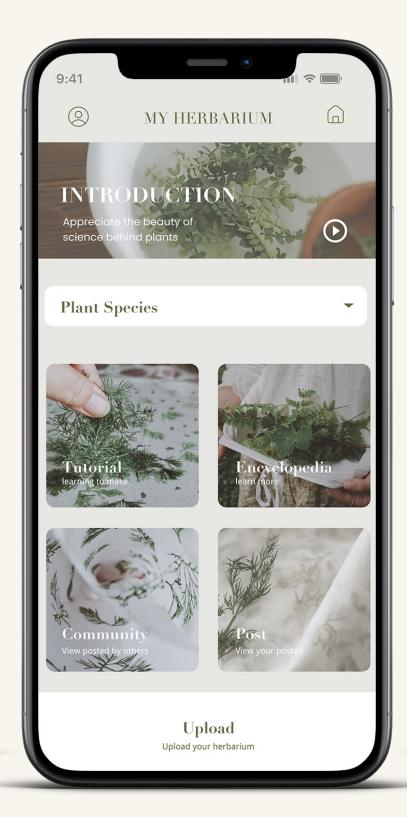
### Strategy

The community feature encourages user engagement and interaction, fostering a sense of belonging and shared learning.









### APP

### **Logical Grouping**

Grouping related functions (e.g., tutorial and community) helps users understand the app's structure and find relevant features quickly.

### Main Home Page as a Hub

Centralizing the main features under the home page simplifies navigation and ensures users can easily access all functionalities from one place.

### **UX** Documentation

### Structure and Flow

#### **Initial Pages**

Logo Page: The starting point of the app, creating brand recognition.

Welcome Page: Greets users and introduces the app's purpose.

Sign-In and Create Account: Essential for user authentication and personalized experience.

Continue: Leads users into the main

functionalities of the app.

#### **Main Home Page**

Central hub that connects all primary features of the app.

### **Primary Features**

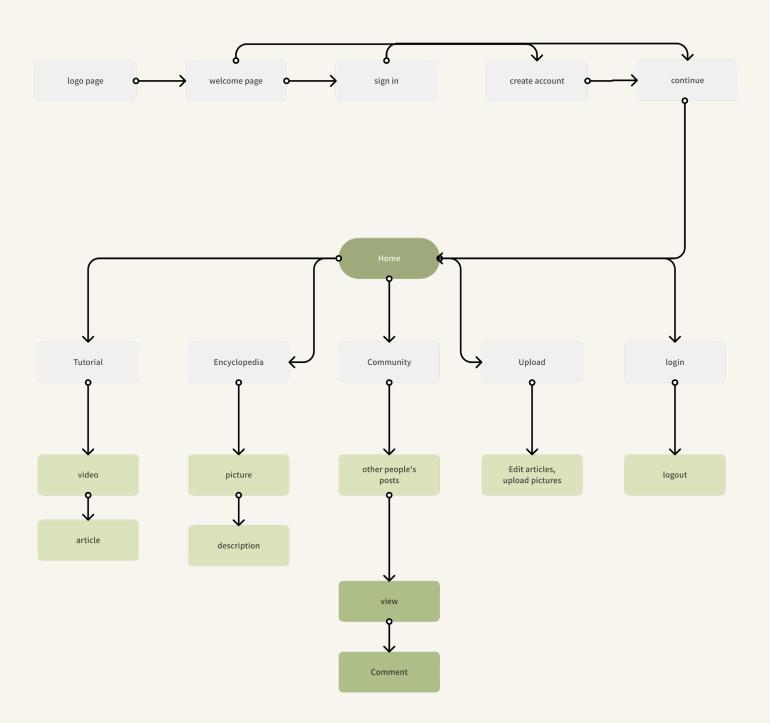
Tutorial: Provides educational content, split into video and article formats, to guide users in creating herbariums.

Encyclopedia: Acts as a knowledge base, offering pictures and descriptions of various plants.

Community: Allows interaction with other users, viewing and commenting on posts.

Upload:Enables users to add their own content, such as articles and pictures.

Login/Logout: Manages user sessions and access.

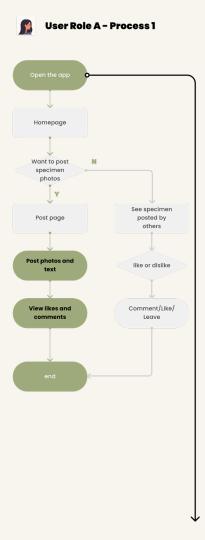


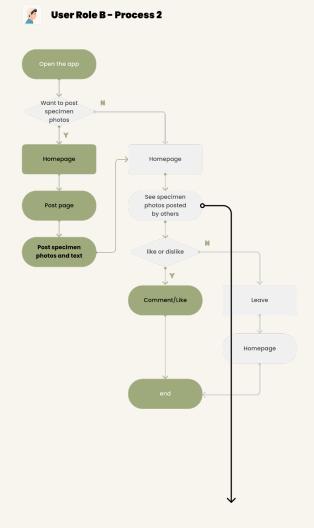
#### **TOP-LEVEL ARCHITECTURE**

The top-level architecture outlines the user flow and structure of the My Herbarium application. It details the main pages and features available to users, organized in a hierarchical format.



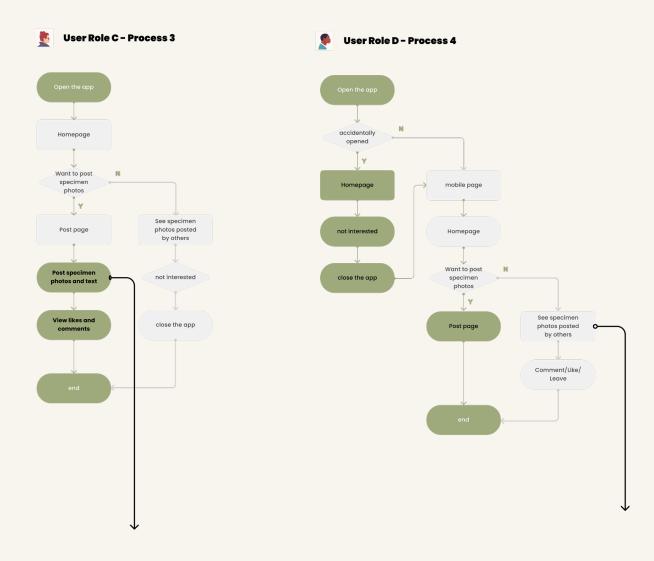
Have a picture of peoples specimen. Allow likes and comments





Cultivate interest in plant specimens through various channels such as schools, museum exhibitions, and nature trips. Learn about the importance of herbaria and discover more through websites, social media platforms and workshops.

### **USER FLOW**



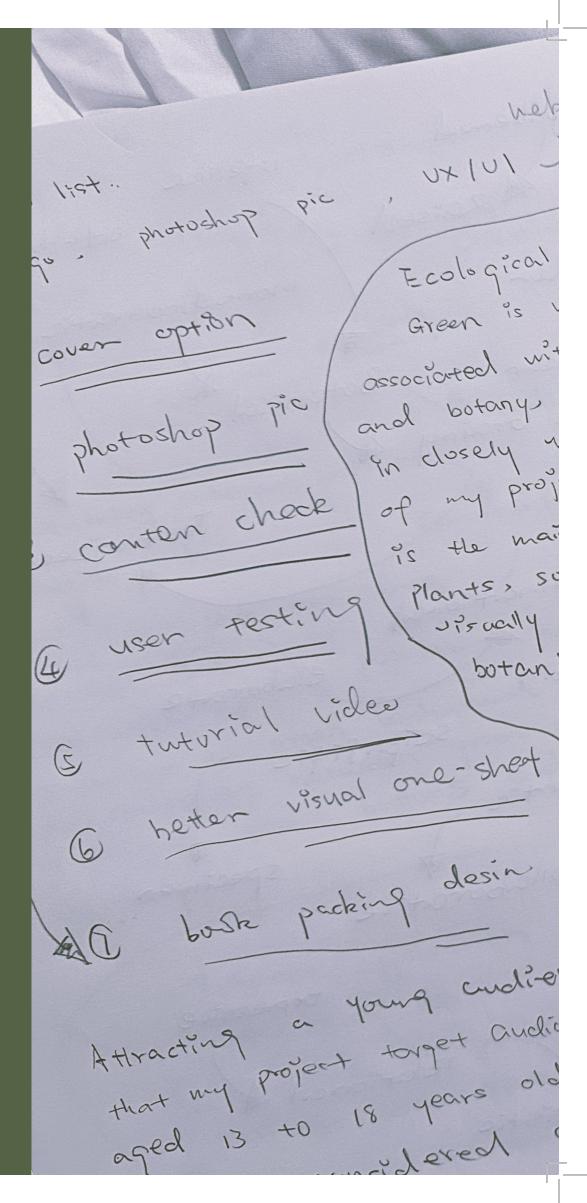
Follow detailed step-by-step instructions for herbarium preparation and learn about plants' scientific names and ecological importance. Share your own herbarium work, participate in exhibitions or competitions, and continue to learn and learn more about herbaria.

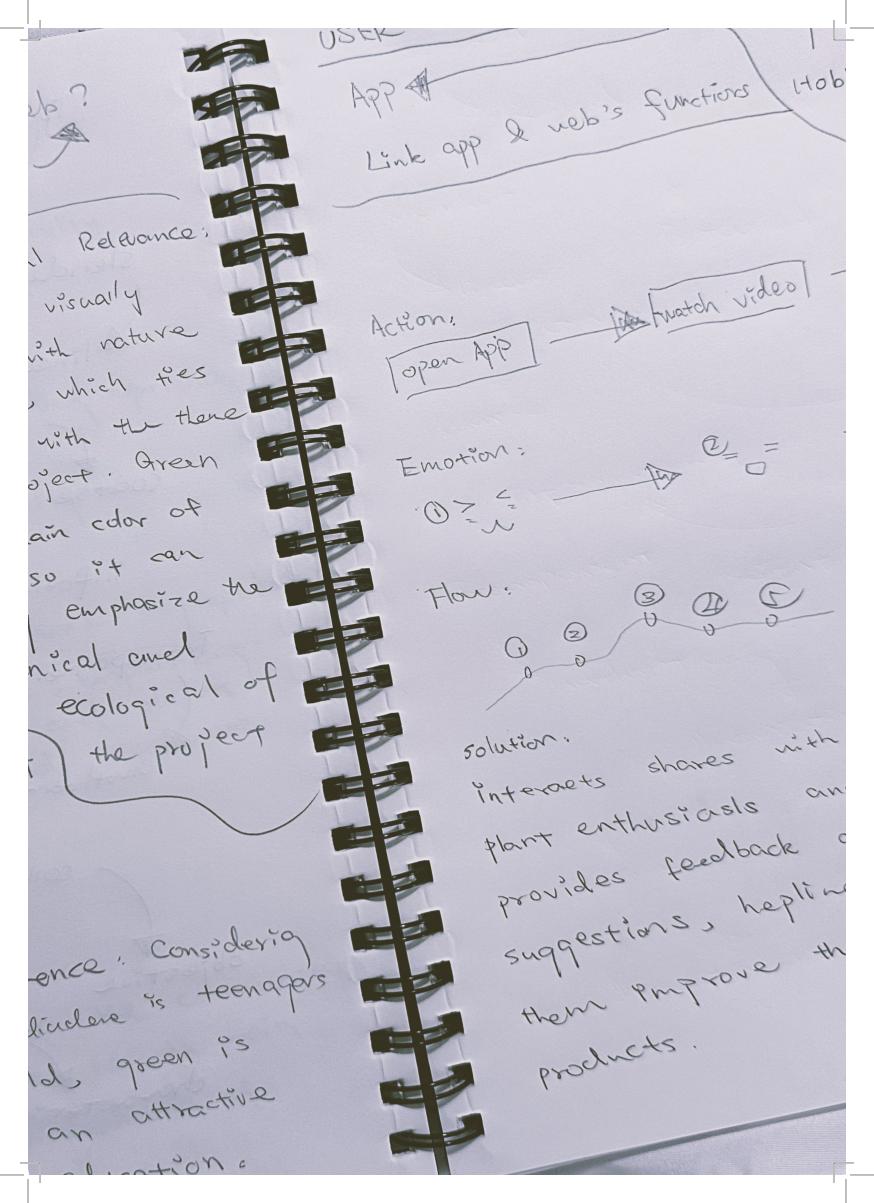
### USER JOURNEY PROGRESS

Children and parents are exposed to the concept of herbarium through various channels such as school, museum exhibitions, nature trips, or online ads.

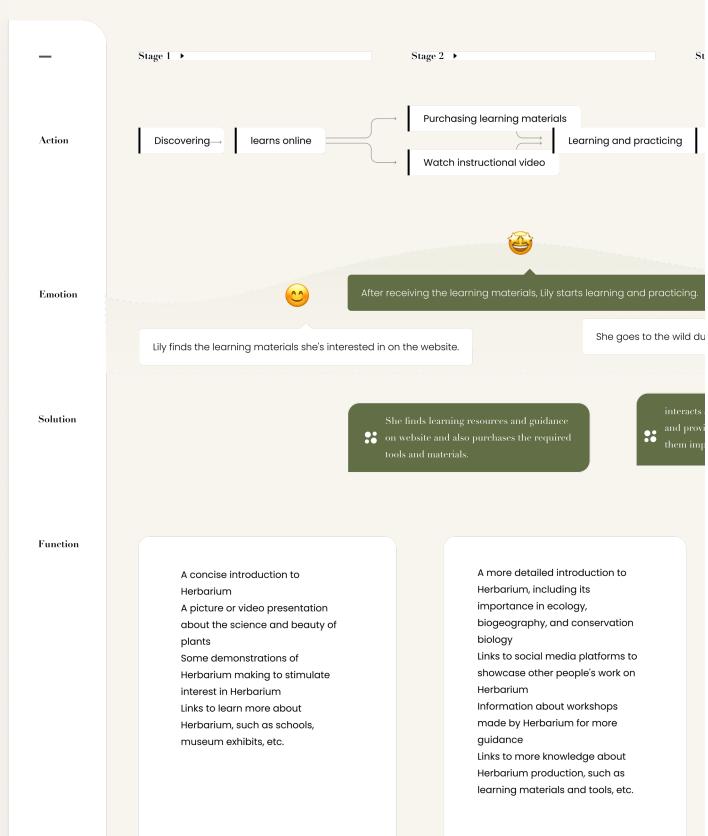
### Interest and Exploration

They experience the joy and satisfaction of creating something with their own hands and understand the beauty and science behind plants.









### **USER JOURNEY MAP**





ing

ild during her vacation to collect plants, makes specimens, and places them in her Herbarium.

racts and shares with other plant enthusiasts provides feedback and suggestions, helping n improve their products and services.

> A learning resources section, designed for kids and parents, to cover the basics of Herbarium making.

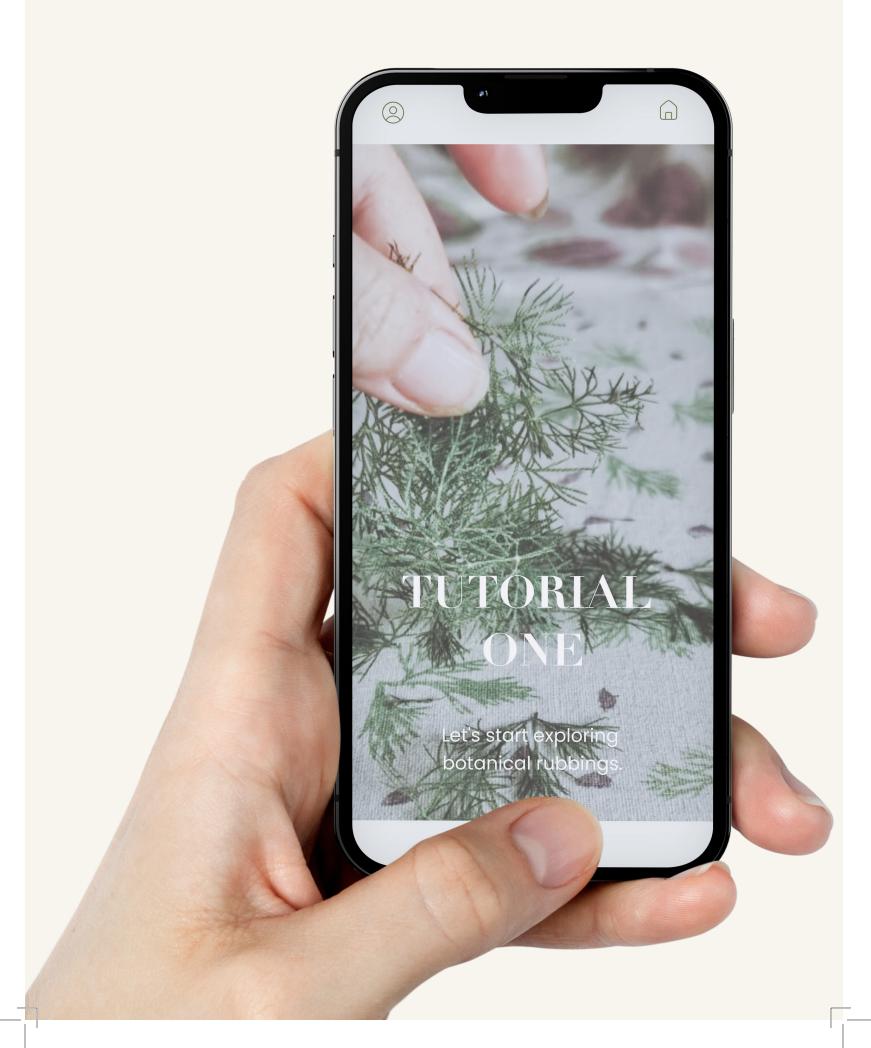
> There should be a checklist that helps users gather the necessary materials.

There should be an easy-to-use navigation key that helps users find the information they need.

# User testing Process

- 1. Provide the testers with the required device, such as a smartphone or tablet, and let them open the figama simulation application prototype.
- 2. Observe the tester's operation process, record their steps and reactions when clicking on the application.
- 3. Ask testers to select the "upload" section of the app and see if they have trouble with the flow when posting content.
- 4. Ask testers if they found the tutorial section location, and observe if they get confused or have problems choosing to click on the section.
- 5. Have testers look for the tutorial tiles and observe their reactions and interactions as they look.
- 6. After clicking Encyclopedia, testers are asked to try to conduct relevant user habit click tests, and observe their understanding and effects when performing steps.





# User testing Process

- 7. Watch to see if testers are able to find and use the "Encyclopedia" section of the app to get the plant information they need.
- 8. Encourage testers to use the "post" section, ask questions, share experiences or results, and observe their comfort level and engagement in communicating.
- 9. Provide specific questions to find out what testers say about the app's overall experience and functionality.
- 10. Based on testers' feedback and observations, note what they like and don't like about the app, and suggest improvements.

### User Feedback

The tester successfully opened the application and quickly found the "upload" section.

In the homepage list, testers can easily find the tutorial and find the tutorial page.

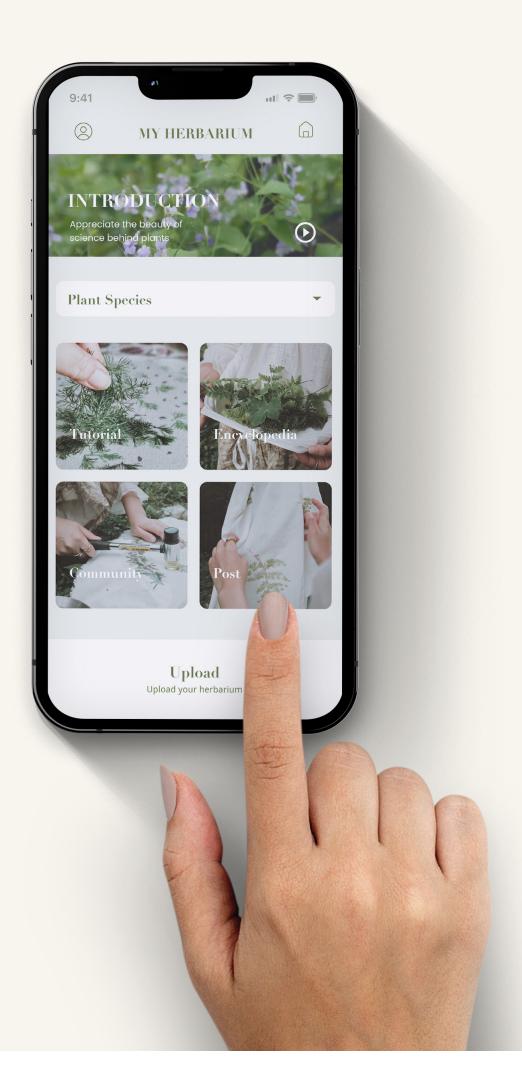
Testers encountered no confusion or problems when looking for the tutorial section.

When viewing the plant profile, the testers showed concentration and interest, and switched by clicking the left arrow in the plant profile.

Testers were able to easily find the "Encyclopedia" section of the app and view plant information of interest.

In the "Comment" section, testers actively participate by asking questions, sharing experiences and results, and interacting with other users.

Testers were satisfied with the overall experience of the app and found the video content to be entertaining and easy to understand, helping them learn and execute home projects.





### Website

#### Introduction

An online library that provides easy access for students to purchase various books about plants and DIY herbarium toolkits, and other merchandise such as shirts, hats, etc

### Strategy

Create a user-friendly way for teenagers to access numerous plant-related books, toolkits, and merchandise.





## HERBARIUM

Thesis Process Book Yang Lei GR\_830 Thesis 2

