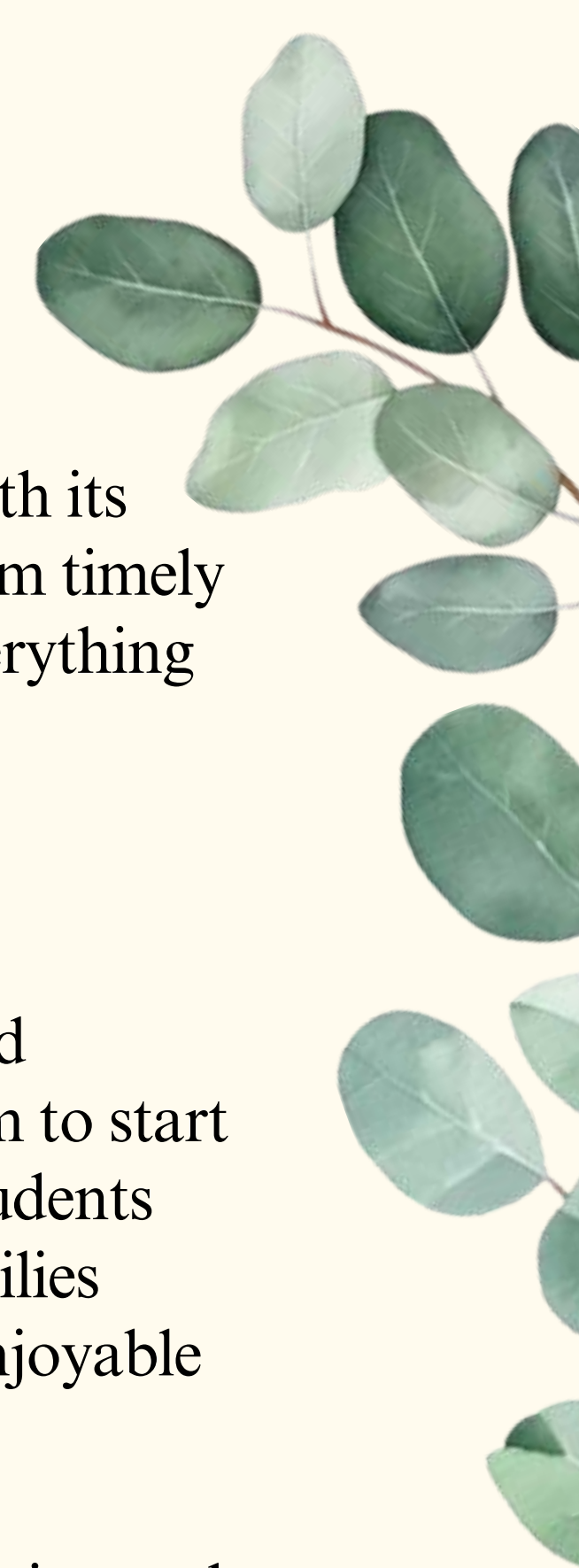


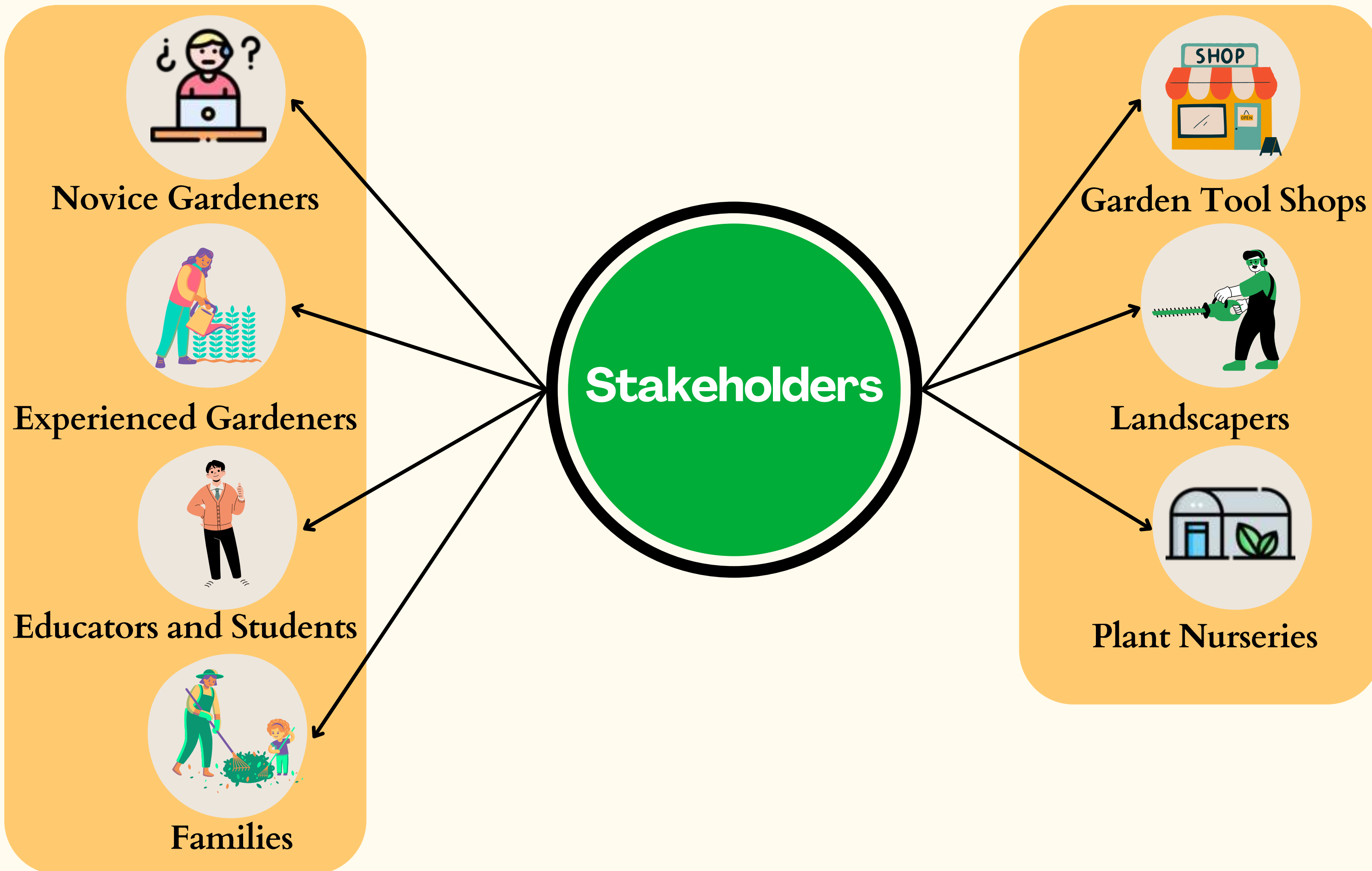


Introduction :

- Meet "GreenBuddy," the friendly mobile app designed to transform your home gardening experience. GreenBuddy is here to guide you through the joys of plant care, making it both easy and enjoyable. With its intuitive design, GreenBuddy offers a suite of features specifically catered to gardeners of all levels. From timely watering reminders to customized care advice, and access to a community of gardening enthusiasts, everything you need is at your fingertips. Whether you're tending to your first plant or managing a full garden, GreenBuddy ensures your green friends get the care they deserve, so you can relish the tranquility and fulfillment of a thriving garden.
 - "GreenBuddy" caters to a wide range of stakeholders within the gardening community, from novice and experienced gardeners to educators, students, and families. Novice gardeners find a welcoming platform to start their journey, while experts discover advanced insights to enhance their green spaces. Educators and students can use the app as a dynamic educational tool, making learning about botany interactive and fun. Families enjoy GreenBuddy as a way to come together and nurture their home gardens, making gardening an enjoyable activity for all ages.
 - In today's gardening landscape, the "GreenBuddy" app is a must-have. It tackles the challenge of managing and nurturing a garden by providing a comprehensive platform for care tips, tool trading, and the latest gardening trends. For gardeners at any level, GreenBuddy simplifies the entire gardening process, making it accessible and enjoyable. It's the essential digital companion for the modern gardener.
- 

Users

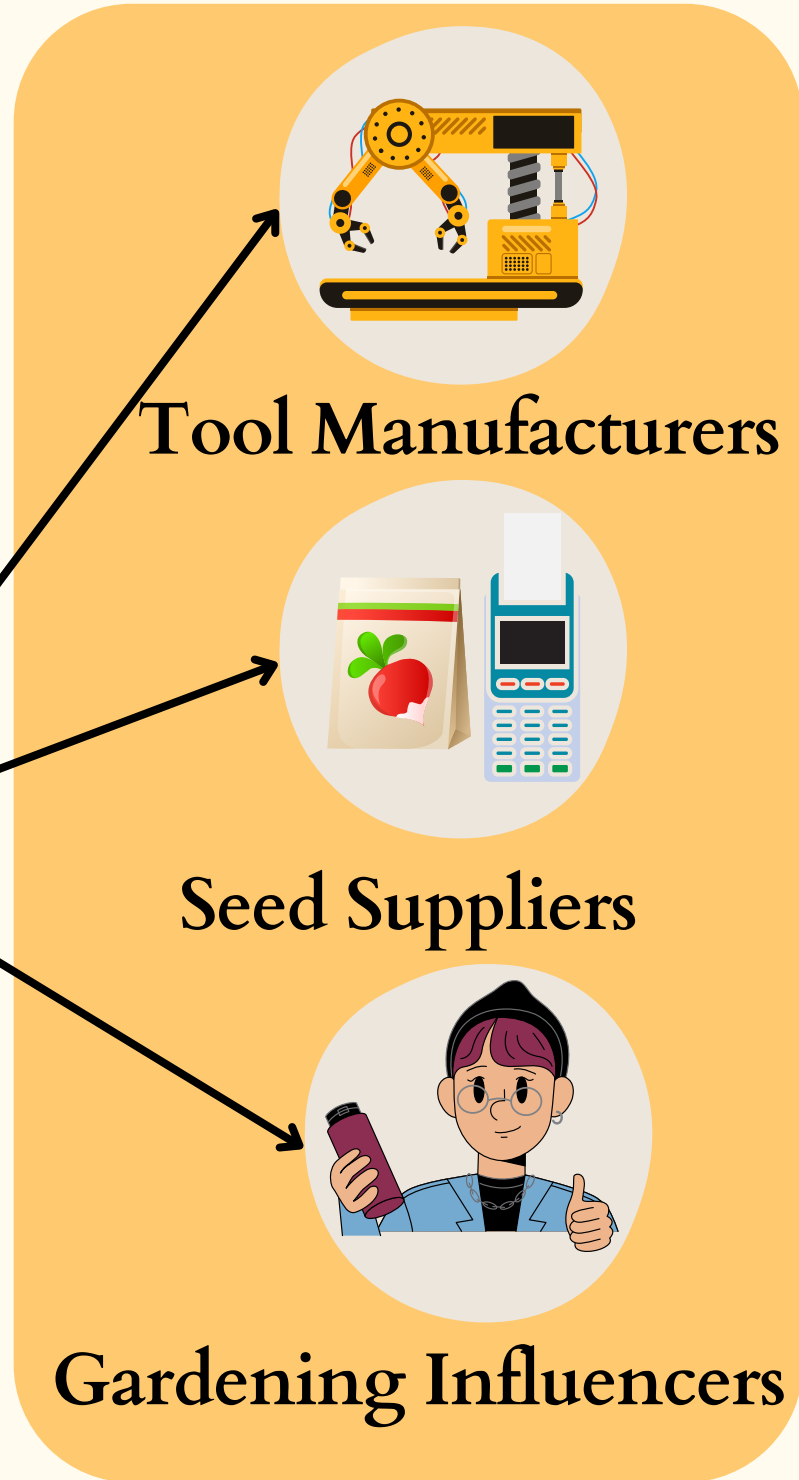
Gardening Service Providers



App Development



Gardening Community



Project Diary

For the GreenBuddy App, we've mapped out our user base as follows:

- Primary Users:
 - Novice Gardeners, Experienced Gardeners, Landscapers



- Secondary Users:
 - Educators and Students

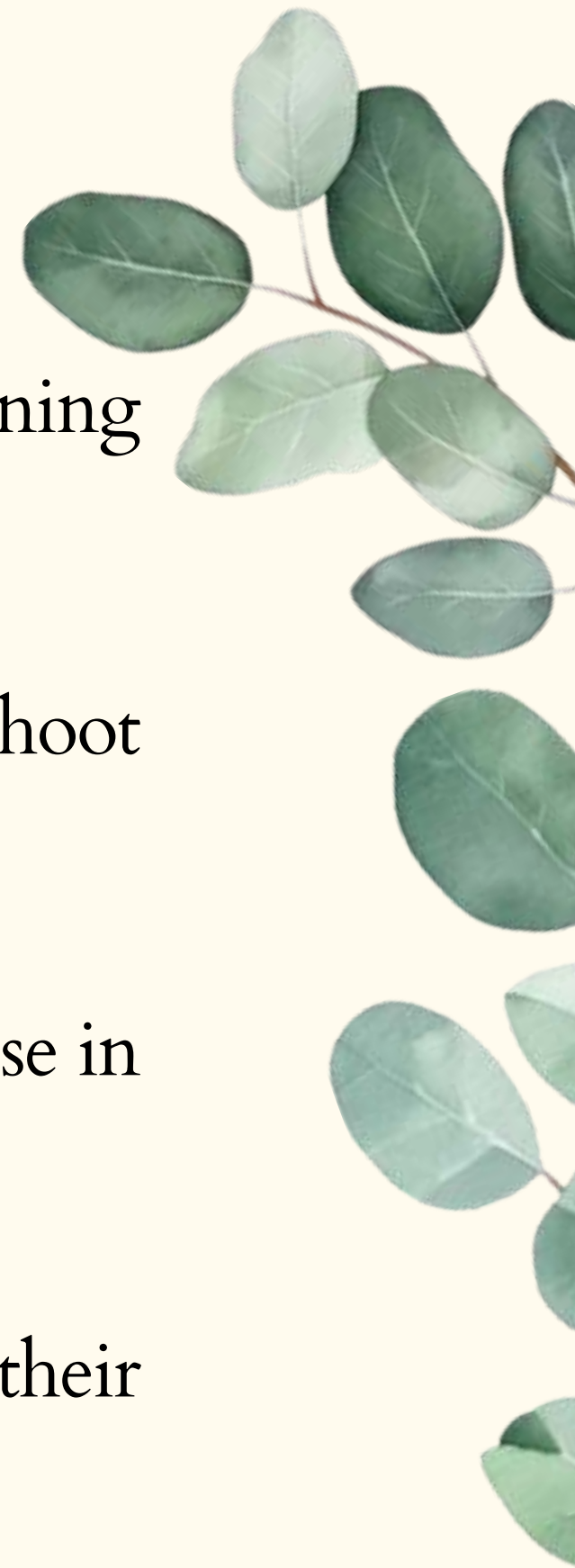


- Tertiary Users:
 - Garden Tool Shops





Project Diary



Novice gardeners will primarily utilize **GreenBuddy** to gain foundational gardening knowledge and manage their first plants.

Experienced gardeners will engage with the app to refine their techniques, troubleshoot plant issues, and customize their gardening strategies.

Landscapers will find in **GreenBuddy** a platform to offer their services, providing expertise in garden design and maintenance to users seeking professional help.

Educators and students are expected to leverage the app's resources to complement their curriculum on plant life and environmental studies.

Garden Tool Shops, as tertiary users, can utilize the app to reach their target market, showcasing their tools and supplies to app users, and providing exclusive offers.



Project Diary

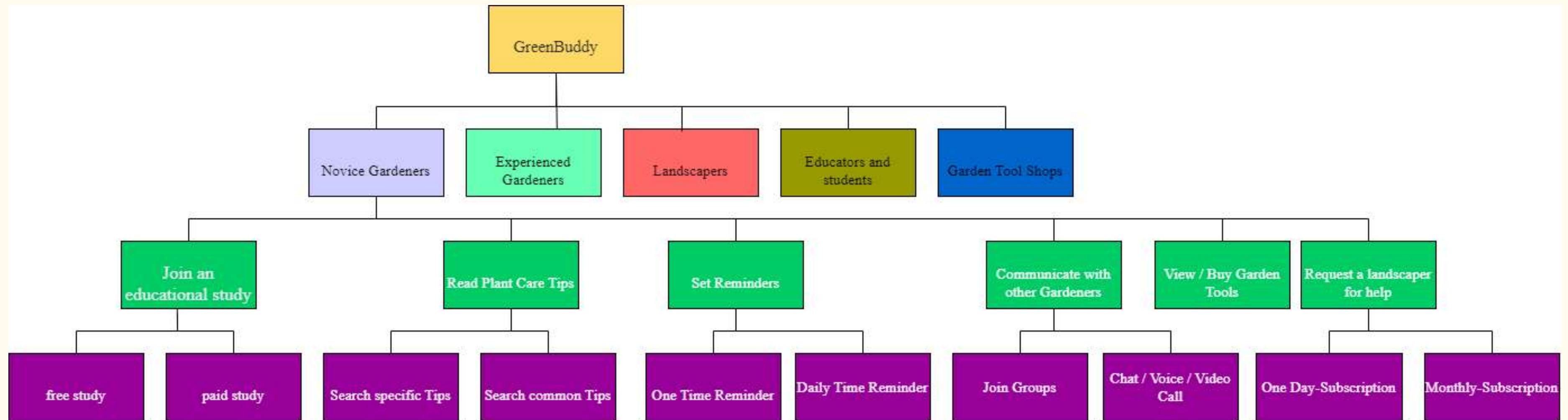


The initial release of **GreenBuddy** will focus on the core functionalities for novice and experienced gardeners, with additional features for our secondary and tertiary users slated for subsequent updates.

User feedback and data for this project were collected through surveys answered by a diverse group of participants, with detailed insights presented in the HTA.

HTA Hiarchical Task Analysis

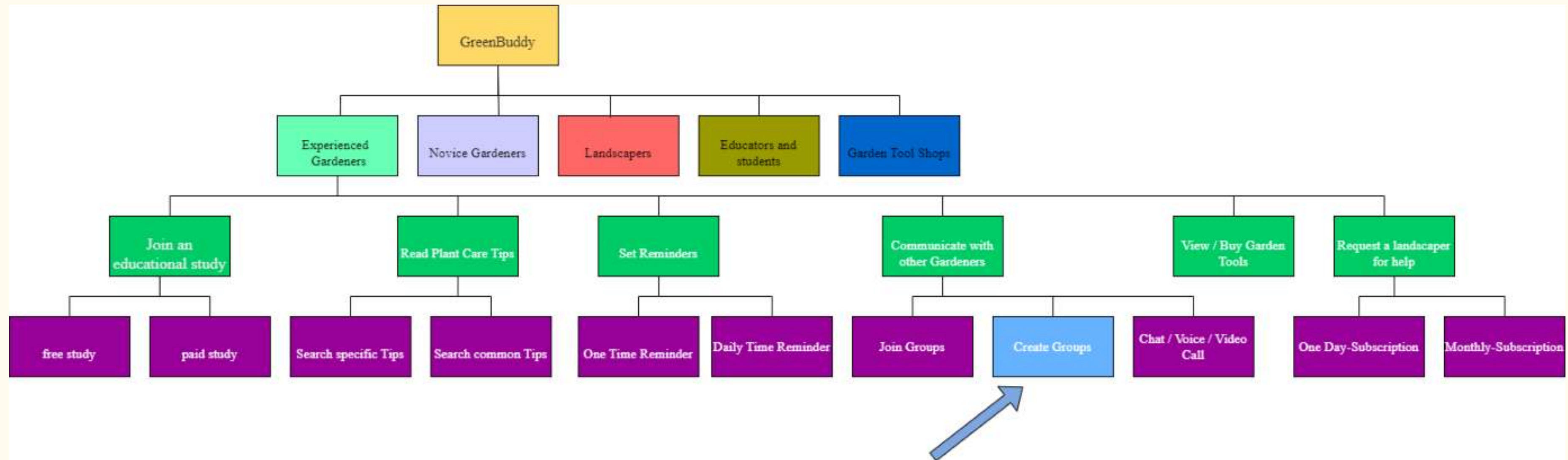
Novice Gardeners:



HTA Hiarchical Task Analysis

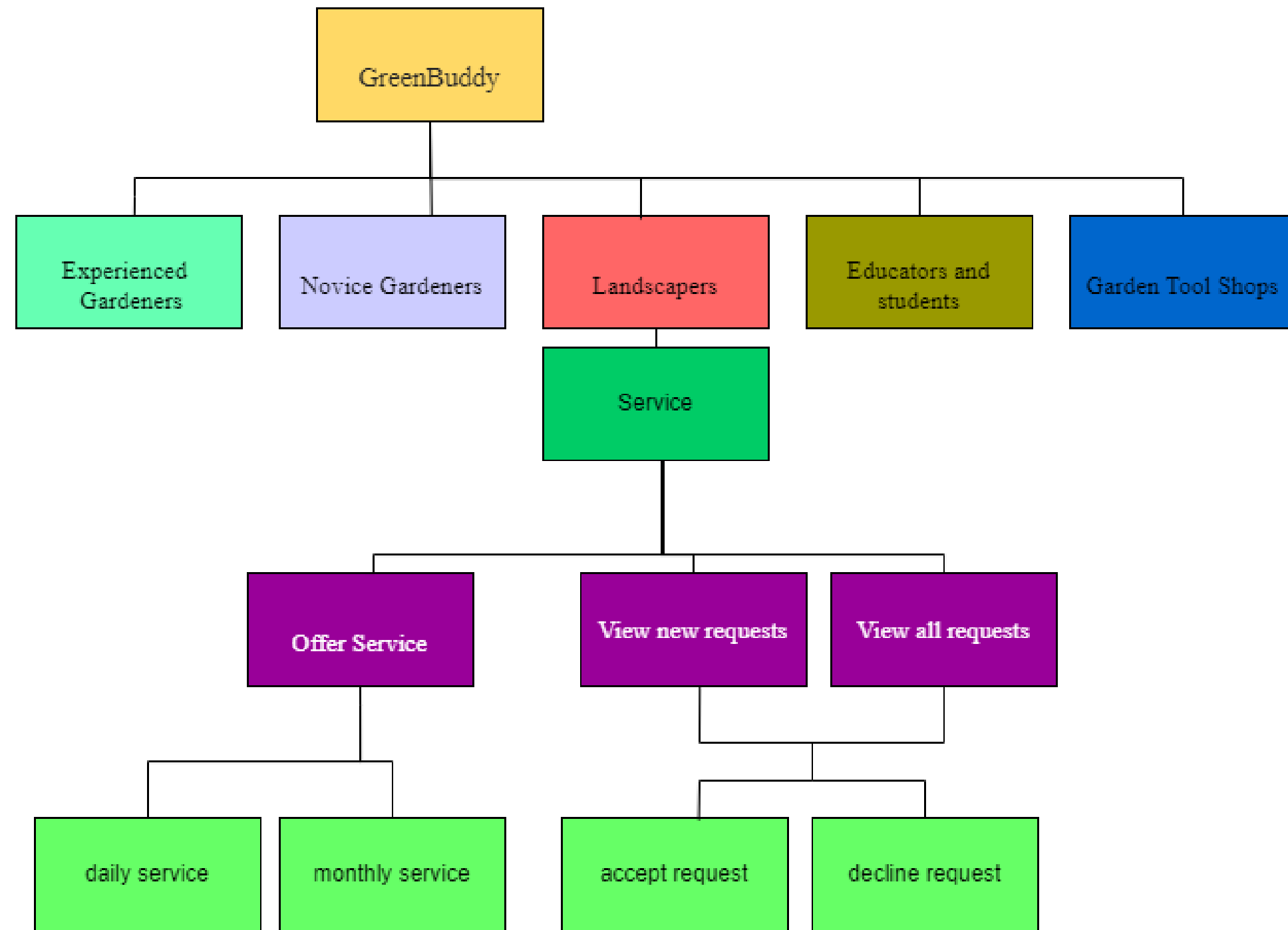
Experienced Gardeners:

Same as the tasks for novice but with the ability to create groups in the community section.



HTA Hiarchical Task Analysis

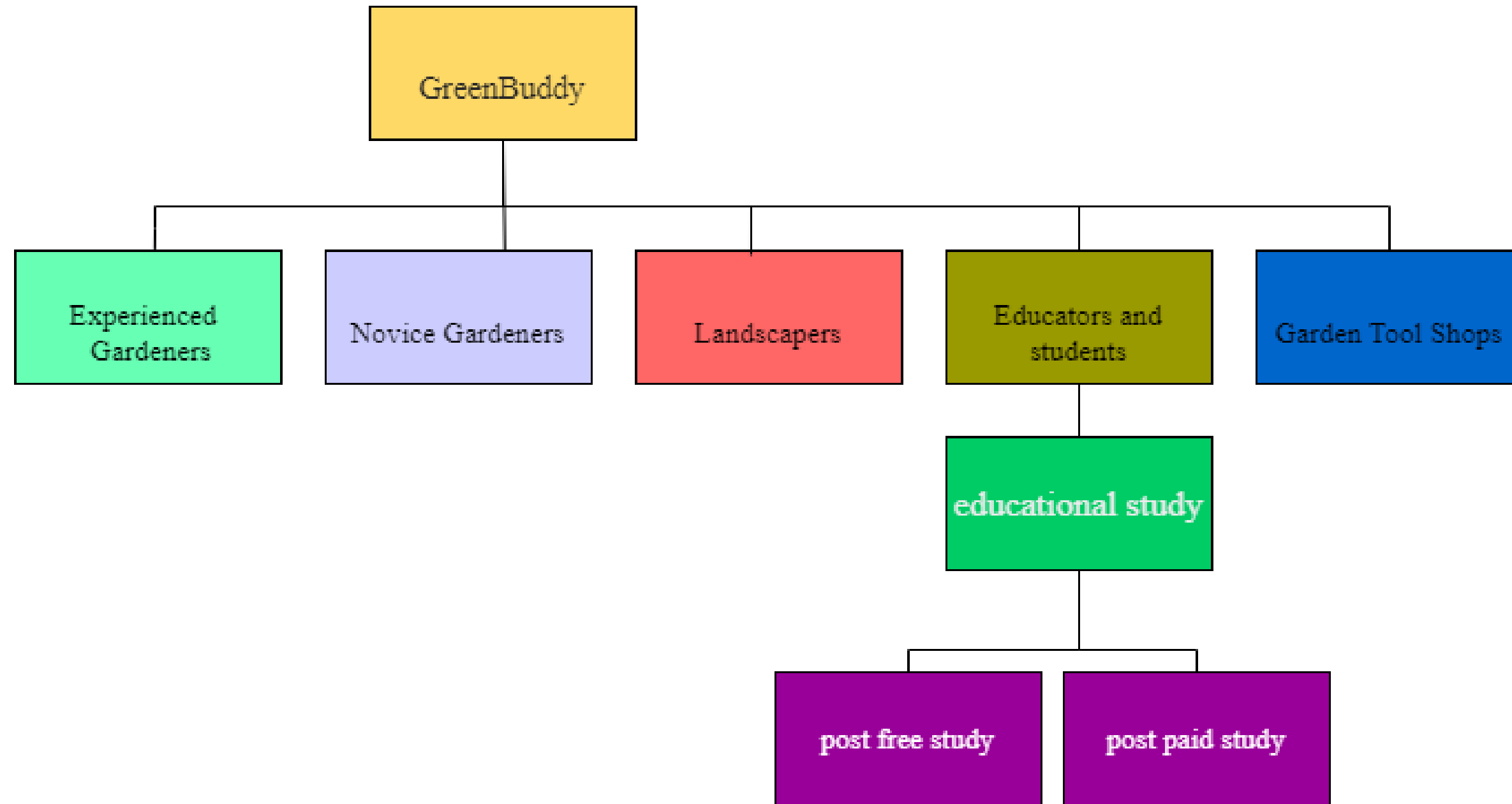
Landscapers:



HTA Hiarchical Task Analysis

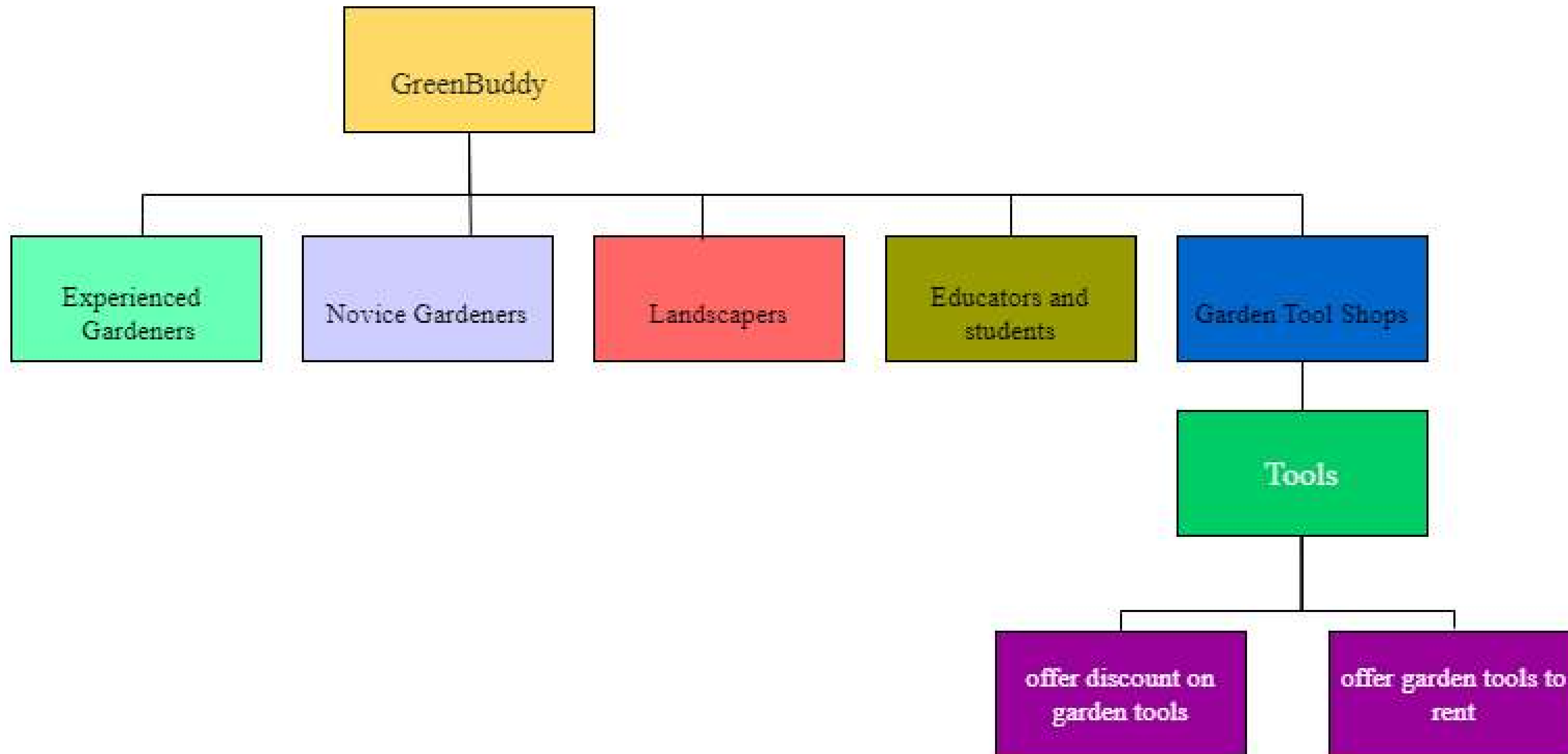
Educators and students:

They can also do the same tasks as the novice/experienced gardeners.



HTA Hiarchical Task Analysis

Garden Tool Shops:





Information and processing needs:



The primary focus groups for our **GreenBuddy** app are Novice Gardeners, Experienced Gardeners, Landscapers, Educators and Students, and Garden Tool Shops. While some functionalities overlap, each group has unique requirements within the gardening management system.

Here we detail the specific needs and tasks for each **group**, identified through targeted interviews:

Novice Gardeners:

1. Join educational studies created by students or educators, available for free or at a cost.
2. View and receive personalized plant care tips.
3. Set one-time or recurring reminders for plant care tasks.
4. Communicate with other gardeners by joining existing community groups, starting chats, and initiating voice or video calls.
5. View, purchase, or rent garden tools.
6. Request services from landscapers for one-time or monthly assistance.



Information and processing needs:



Experienced Gardeners:

1. Carry out all the tasks available to novice gardeners.
2. Possess the added capability to create and manage groups within the community section of the app.

Landscapers:

1. Offer their services on a daily or monthly basis.
2. Accept or decline job requests from app users.

Educators and Students:

1. Post educational studies about plants, available as free content or for purchase, facilitating participation and learning within the gardening community.

Garden Tool Shops:

1. Provide discounts on garden tools and offer rental services to gardeners.

This system aims to create a cohesive community around gardening while addressing the specific needs of each user group within the ecosystem of GreenBuddy.



Datagathering and Interview



Datagathering

To ensure that our design is user-centric and data-driven, we conducted extensive interviews with a diverse group of individuals. This rigorous data gathering process allows us to refine and enhance our design to meet the specific needs and preferences of our users.

For our mobile app's data collection process:

- We targeted a diverse demographic, ages 18 to 50.
- Participants were located in Germany.
- All were bilingual, fluent in both English and German.
- They had a good grasp of new technologies, making them ideal for testing our app's usability.
- Their active interest in gardening meant they could offer valuable insights into community engagement within the app.



Data gathering and Interview



Interview questions: English

1. Which of the following best describes you?

- Novice Gardener
- Experienced Gardener
- Professional Landscaper
- Student with an interest in botany or horticulture
- Garden Tool Shop Owner

2. How often do you use apps to assist with your hobbies, including gardening?

- Daily
- Weekly
- Rarely
- Never

3. Which features are most important to you in a gardening app?

- Plant care tips and reminders
- Community forums and messaging
- Tool rental and purchase options
- Educational content and studies
- Landscaping service booking



Datagathering and Interview



Interview questions: German

1. Welche der folgenden Aussagen beschreibt Sie am besten?

- Anfängergärtner
- Erfahrener Gärtner
- Professioneller Landschaftsgärtner
- Student mit Interesse an Botanik oder Gartenbau
- Inhaber eines Gartengerätegeschäfts

2. Wie oft nutzen Sie Apps zur Unterstützung Ihrer Hobbys, einschließlich Gartenarbeit?

- Täglich
- Wöchentlich
- Selten
- Nie

3. Welche Funktionen sind Ihnen in einer Garten-App am wichtigsten?

- Tipps und Erinnerungen zur Pflanzenpflege
- Gemeinschaftsforen und Messaging
- Miet- und Kaufmöglichkeiten für Gartengeräte
- Bildungsinhalte und Studien
- Buchung von Landschaftsgärtnerei-Diensten



Data gathering and Interview



Interview questions: English

4. Have you previously used any gardening apps?
 - Yes, regularly
 - Tried a few times
 - No, never used one

5. What do you prioritize when participating in a gardening community?
 - Sharing experiences and tips
 - Seeking advice on specific issues
 - Organizing local gardening events
 - Connecting with professional landscapers

6. What type of notification would you find most helpful in a gardening app?
 - Watering reminders
 - Fertilizing schedules
 - Weather alerts
 - New community posts
 - Pest outbreak alerts
 - Seasonal gardening tips



Datagathering and Interview



Interview questions: German

4. Haben Sie bereits Garten-Apps verwendet?
 - Ja, regelmäßig
 - Ein paar Mal ausprobiert
 - Nein, noch nie verwendet

5. Was priorisieren Sie, wenn Sie an einer Garten-Community teilnehmen?
 - Erfahrungen und Tipps teilen
 - Nach Rat für spezifische Probleme suchen
 - Lokale Gartenveranstaltungen organisieren
 - Kontakt zu professionellen Landschaftsgärtnern aufnehmen

6. Welche Art von Benachrichtigungen würden Sie in einer Garten-App am hilfreichsten finden?
 - Erinnerungen zum Gießen
 - Düngerpläne
 - Wetterwarnungen
 - Neue Beiträge in der Community
 - Warnungen bei Schädlingsausbrüchen
 - Saisonale Gartentipps



Data gathering and Interview



Interview questions: English

7. What challenges do you face in gardening that you'd like an app to help with?
 - Identifying plant diseases
 - Understanding plant care for different species
 - Finding quality gardening tools
 - Managing gardening schedules

8. What is your primary interest in gardening?
 - Personal enjoyment and home gardening
 - Educational purposes, learning about plants and gardening
 - Commercial, for business or professional services
 - Community engagement, to connect with other gardening enthusiasts

9. How do you typically learn about new gardening techniques and information?
 - Online blogs and articles
 - Gardening apps and forums
 - Books and magazines
 - Workshops and community events



Datagathering and Interview

Interview questions: German



7. Mit welchen Herausforderungen in der Gartenarbeit sind Sie konfrontiert, bei denen Ihnen eine App helfen könnte?

(Mehrfachauswahl möglich)

- Pflanzenkrankheiten identifizieren
- Pflanzenpflege für verschiedene Arten verstehen
- Qualitativ hochwertige Gartengeräte finden
- Gartenpflegepläne verwalten

8. Was ist Ihr primäres Interesse an der Gartenarbeit?

- Persönliches Vergnügen und Gartenarbeit zu Hause
- Bildungszwecke, Lernen über Pflanzen und Gartenarbeit
- Kommerziell, für Geschäfts- oder professionelle Dienstleistungen
- Community-Engagement, um sich mit anderen Gartenfreunden zu verbinden

9. Wie informieren Sie sich üblicherweise über neue Gartentechniken und Informationen?

- Online-Blogs und Artikel
- Garten-Apps und Foren
- Bücher und Zeitschriften
- Workshops und Community-Events



Datagathering and Interview



Interview questions: English

10. Would you be interested in contributing to or accessing studies on plant care and garden maintenance?

- Yes, I would like to contribute
- Yes, I would access for learning
- No, I am not interested in studies

11. If you are a student, what type of content would help you the most in a gardening app?

- In-depth guides on plant species
- Interactive quizzes and flashcards
- Videos and tutorials on gardening techniques
- Option to connect with experts for project guidance

12. How often would you consider renting or purchasing garden tools through an app?

- Very frequently
- Occasionally
- Rarely
- Never



Datagathering and Interview



Interview questions: German

10. Wären Sie daran interessiert, zu Studien über Pflanzenpflege und Gartenwartung beizutragen oder auf diese zuzugreifen?

- Ja, ich würde gerne beitragen
- Ja, ich würde sie zum Lernen nutzen
- Nein, ich bin nicht an Studien interessiert

11. Wenn Sie Student sind, welche Art von Inhalten würde Ihnen in einer Garten-App am meisten helfen?

- Ausführliche Anleitungen zu Pflanzenarten
- Interaktive Quizze und Lernkarten
- Videos und Tutorials zu Gartentechniken
- Möglichkeit, sich für Projektberatung mit Experten zu verbinden

12. Wie oft würden Sie in Betracht ziehen, Gartengeräte über eine App zu mieten oder zu kaufen?

- Sehr häufig
- Gelegentlich
- Selten
- Nie



Datagathering and Interview



Interview questions: English

13. As a gardener, how important is having access to professional landscaping services through the app?

- Critical
- Important
- Somewhat important
- Not important

14. If you are a professional landscaper, how would you like to connect with potential clients through the app?

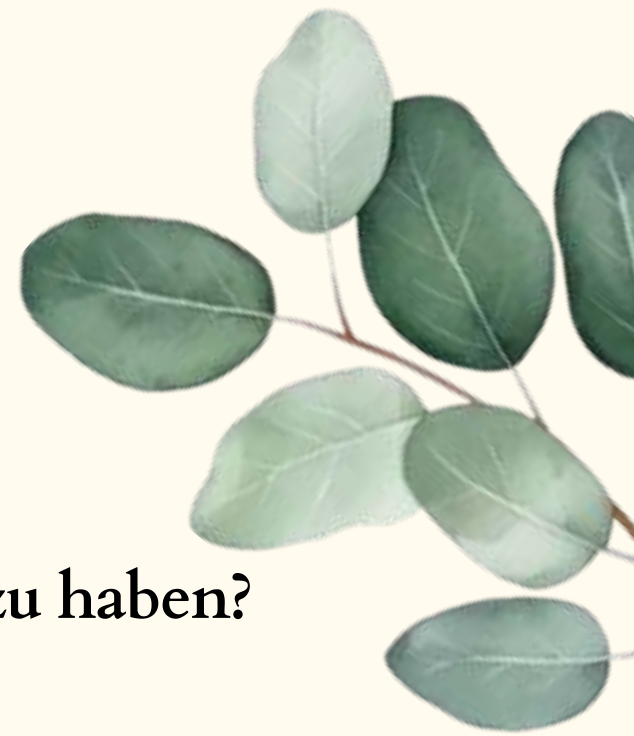
- Immediate job requests
- Scheduled bookings
- Service listings and promotions
- Customer reviews and ratings

15. Is there any particular function or feature you feel is missing from existing gardening apps that you would like to see in GreenBuddy?



Datagathering and Interview

Interview questions: German



13. Wie wichtig ist es für Sie als Gärtner, über die App Zugang zu professionellen Landschaftsgärtnerei-Diensten zu haben?
- Entscheidend
 - Wichtig
 - Etwas wichtig
 - Unwichtig
14. Wenn Sie ein professioneller Landschaftsgärtner sind, wie möchten Sie über die App mit potenziellen Kunden in Kontakt treten?
- Sofortige Arbeitsanfragen
 - Geplante Buchungen
 - Auflistung und Werbung für Dienstleistungen
 - Kundenbewertungen und -ratings
15. Gibt es eine bestimmte Funktion oder ein bestimmtes Merkmal, das Ihrer Meinung nach in bestehenden Garten-Apps fehlt und das Sie gerne in GreenBuddy sehen würden?



Datagathering and Interview



Interview questions: results (10 participants)

1. Which of the following best describes you?

- Novice Gardener (3 participants)
- Experienced Gardener (2 participants)
- Professional Landscaper (1 participants)
- Student with an interest in botany or horticulture (3 participants)
- Garden Tool Shop Owner (1 participants)

2. How often do you use apps to assist with your hobbies, including gardening?

- Daily (4 participants)
- Weekly (2 participants)
- Rarely (3 participants)
- Never (1 participants)

3. Which features are most important to you in a gardening app?

- Plant care tips and reminders (8 participants)
- Community forums and messaging (6 participants)
- Tool rental and purchase options (7 participants)
- Educational content and studies (4 participants)
- Landscaping service booking (5 participants)



Data gathering and Interview



Interview questions: results (10 participants)

4. Have you previously used any gardening apps?
 - Yes, regularly (3 participants)
 - Tried a few times (4 participants)
 - No, never used one (3 participants)
5. What do you prioritize when participating in a gardening community?
 - Sharing experiences and tips (3 participants)
 - Seeking advice on specific issues (6 participants)
 - Organizing local gardening events (4 participants)
 - Connecting with professional landscapers (5 participants)
6. What type of notification would you find most helpful in a gardening app?
 - Watering reminders (7 participants)
 - Fertilizing schedules (4 participants)
 - Weather alerts (5 participants)
 - New community posts (6 participants)
 - Pest outbreak alerts (4 participants)
 - Seasonal gardening tips (6 participants)



Data gathering and Interview



Interview questions: results (10 participants)

7. What challenges do you face in gardening that you'd like an app to help with?
 - Identifying plant diseases (7 participants)
 - Understanding plant care for different species (8 participants)
 - Finding quality gardening tools (5 participants)
 - Managing gardening schedules (6 participants)

8. What is your primary interest in gardening?
 - Personal enjoyment and home gardening (6 participants)
 - Educational purposes, learning about plants and gardening (2 participants)
 - Commercial, for business or professional services (1 participants)
 - Community engagement, to connect with other gardening enthusiasts (1 participants)

9. How do you typically learn about new gardening techniques and information?
 - Online blogs and articles (5 participants)
 - Gardening apps and forums (6 participants)
 - Books and magazines (3 participants)
 - Workshops and community events (4 participants)



Datagathering and Interview



Interview questions: results (10 participants)

10. Would you be interested in contributing to or accessing studies on plant care and garden maintenance?

- Yes, I would like to contribute (2 participants)
- Yes, I would access for learning (6 participants)
- No, I am not interested in studies (2 participants)

11. If you are a student, what type of content would help you the most in a gardening app?

- In-depth guides on plant species (3 participants)
- Interactive quizzes and flashcards (4 participants)
- Videos and tutorials on gardening techniques (2 participants)
- Option to connect with experts for project guidance (1 participants)

12. How often would you consider renting or purchasing garden tools through an app?

- Very frequently (2 participants)
- Occasionally (4 participants)
- Rarely (2 participants)
- Never (2 participants)



Datagathering and Interview



Interview questions: results (10 participants)

13. As a gardener, how important is having access to professional landscaping services through the app?

- Critical (2 participants)
- Important (3 participants)
- Somewhat important (3 participants)
- Not important (2 participants)

14. If you are a professional landscaper, how would you like to connect with potential clients through the app?

- Immediate job requests (1 participants)
- Scheduled bookings (1 participants)
- Service listings and promotions (1 participants)
- Customer reviews and ratings

15. Is there any particular function or feature you feel is missing from existing gardening apps that you would like to see in GreenBuddy?

Pretty much everyone we chatted with thinks the gardening apps out there are spot on, giving them just what they need for their plants. Just one person thought it might be cool to add some tips on saving water.



Data gathering and Interview



Key-Findings:

All Kinds of Gardeners

We've got everyone from new gardeners to experts, students to pros who are excited about our app.

Loyal Users

Many people we talked to use gardening apps often. This means they might love to use GreenBuddy a lot too.

Wanted Features

Everyone really wants tips for looking after their plants, a way to buy or borrow gardening tools, and to talk with other gardeners in the app.

Gardeners Coming Together

We've got everyone from new gardeners to experts, students to pros who are excited about our app.

Learning to Grow

There's a big interest in learning about gardening in the app with things like lessons and easy guides.

Reminders

People would find it helpful to get reminders from the app about when to water their plants or get them ready for different seasons.



Data gathering and Interview



Key-Findings:

Gardening Help

Some common problems are knowing what's wrong with their plants and how to take care of different kinds. The app could help solve these.

Help from Pros

Some gardeners want to easily find professional help for their gardens right in the app.

Tools on Tap

People like the idea of getting their gardening tools through the app, either to have for their own or just to use for a while.

Requirements

Typ

```
graph TD; Typ[Typ] --> Usability[Usability]; Typ --> Functional[Functional]; Typ --> NonFunctional[Non-Functional];
```

Usability

The app will be specifically designed for mobile use.
It will be available for Android and iOS users.

Functional

- Users can join educational studies or access plant care tips.
- Users can set reminders for plant care.
- The app will facilitate communication within the gardening community through chat and calls.
- Users can view, buy, or rent garden tools through the app.
- Users can request landscaping services and landscapers can offer their services.
- The app will include a community forum for gardeners to share experi

Non-Functional

- Account creation and login will be required for personalized experience.
- The app will ensure data security and user privacy.
- Strong password protocols will be enforced to protect user accounts.
- The app will support bilingual functionality in English and German.

Initial design

Sign up

A hand-drawn sketch of a sign-up form. It consists of a large rounded rectangle containing five smaller rounded rectangles stacked vertically. The first four rectangles are labeled 'Firstname', 'lastname', 'Email', and 'Password' respectively. The fifth rectangle at the bottom is labeled 'Sign up'.

Sign in

A hand-drawn sketch of a sign-in form. It consists of a large rounded rectangle containing three smaller rounded rectangles stacked vertically. The first two rectangles are labeled 'Email' and 'Password' respectively. The third rectangle at the bottom is labeled 'Sign in'.

Initial design

Start Site

Gardener

Educator

Landscaper

Shop owner

Educator - Study
(publish study)

Subject

Survey as pdf

upload

Paid Yes ☐
 No ☒

Post

Initial design

Landscaper - Service
(Provide Service)

(Type of service)

location

Price

Daily ☐

Monthly ☒

Add

Shop - Owner
(Add Product)

Name

Image

upload

Details

sell

---\$

rent

---\$

Add product

Initial design

Gardner-Reminder

Tomato

Title

Time

Daily ☒

Weekly ☐

Add

Gardner-Community

Group Name

chat

B.

. B

B.

. B

.

Initial design

Gardner-Survey

Subject

question:

A) - - - - ☐

B) - - - - ☒

C) - - - - ☐


Done

Gardner-Care Tips


My Plants

Tomato

Sun

- - - - 

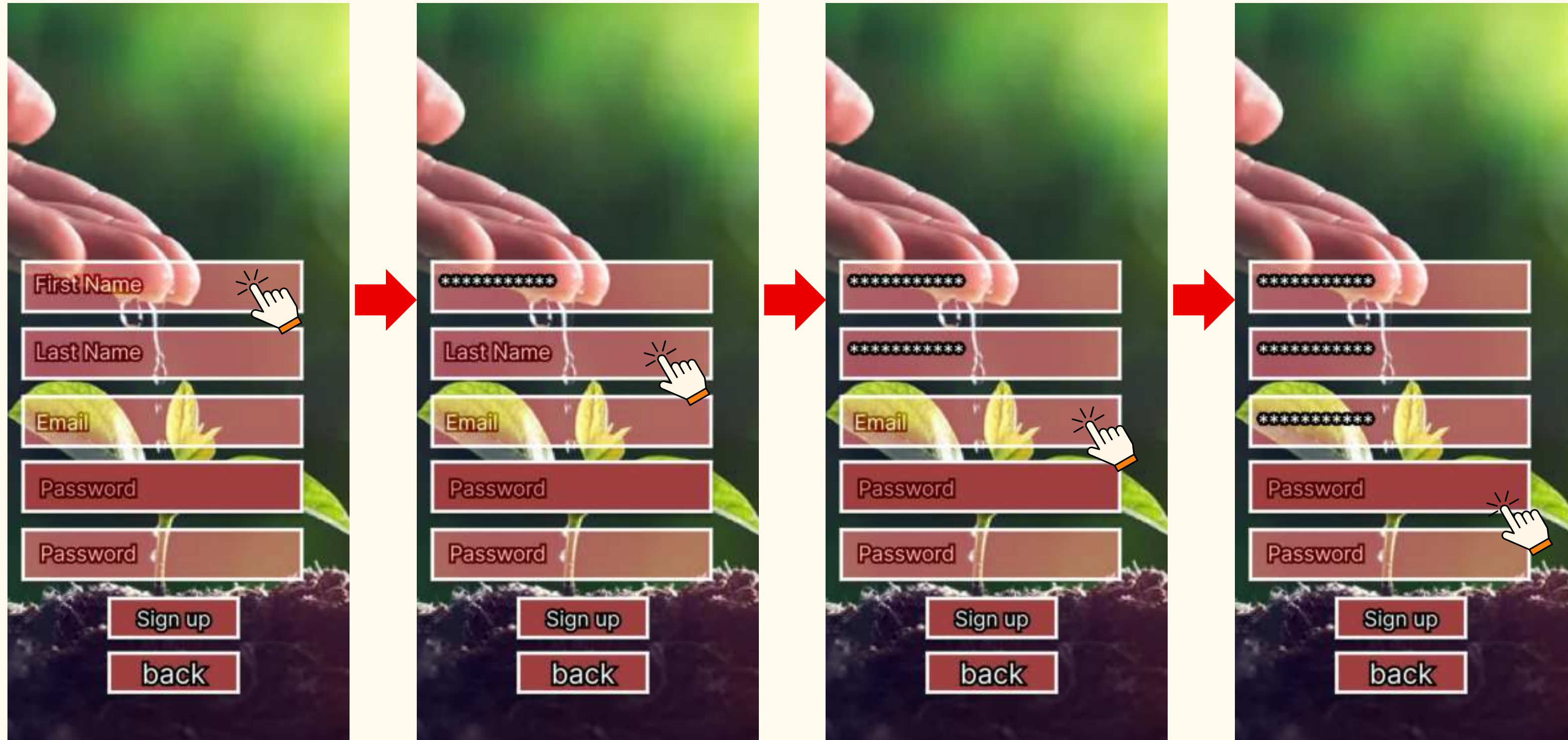
Water

- - - - 

Add

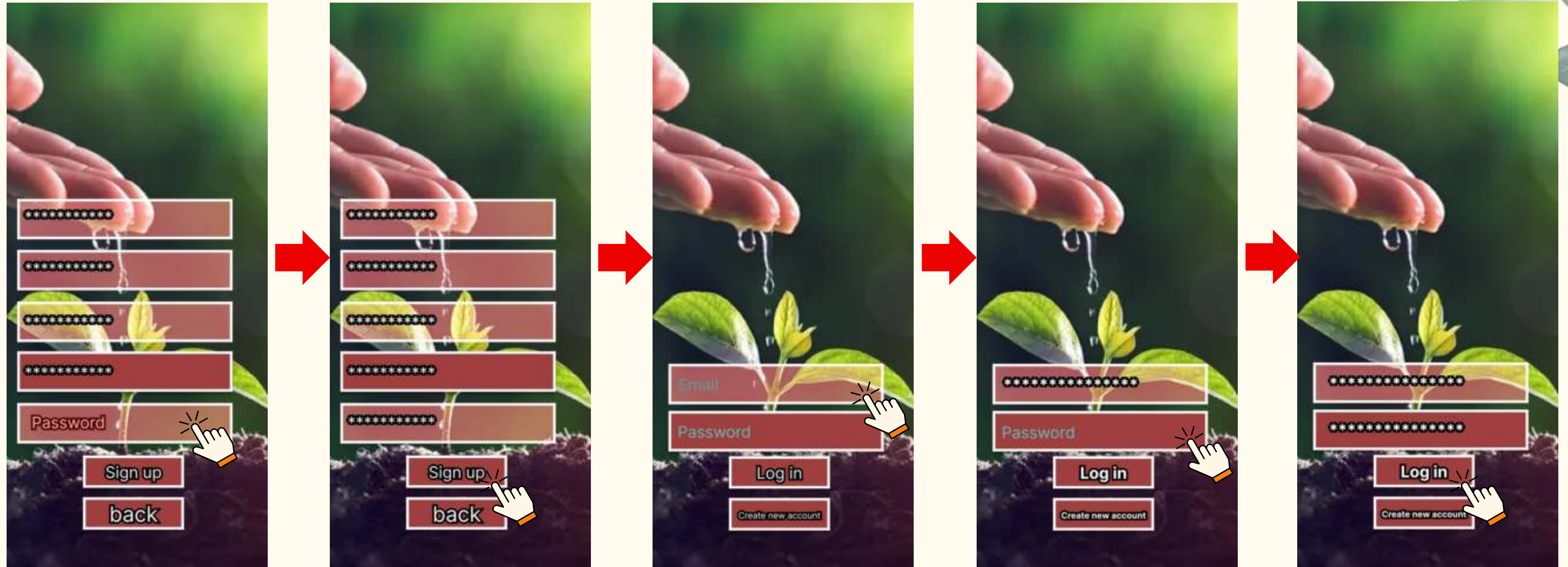
Conceptual models & Interaction design

Sign up



Conceptual models & Interaction design

Sign up & Sign in



Conceptual models & Interaction design

Educator



Conceptual models & Interaction design

Landscaper - Service



Conceptual models & Interaction design

Landscaper - Requests



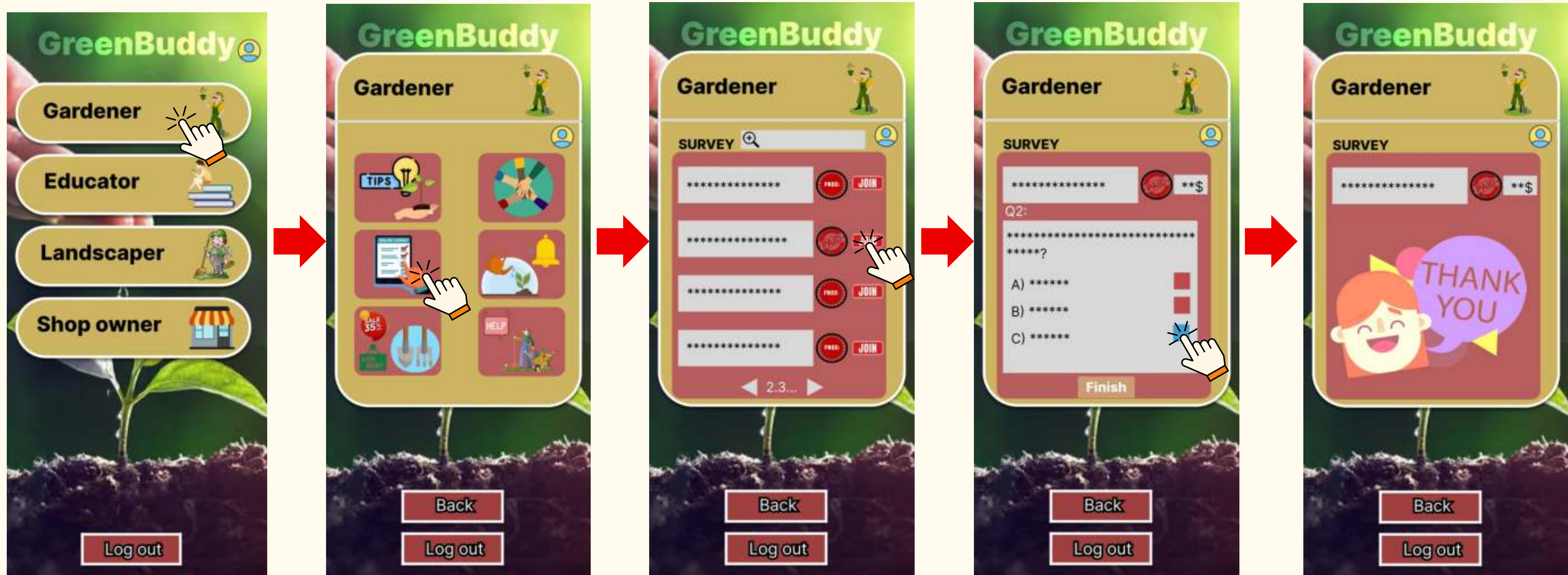
Conceptual models & Interaction design

Shop - Owner



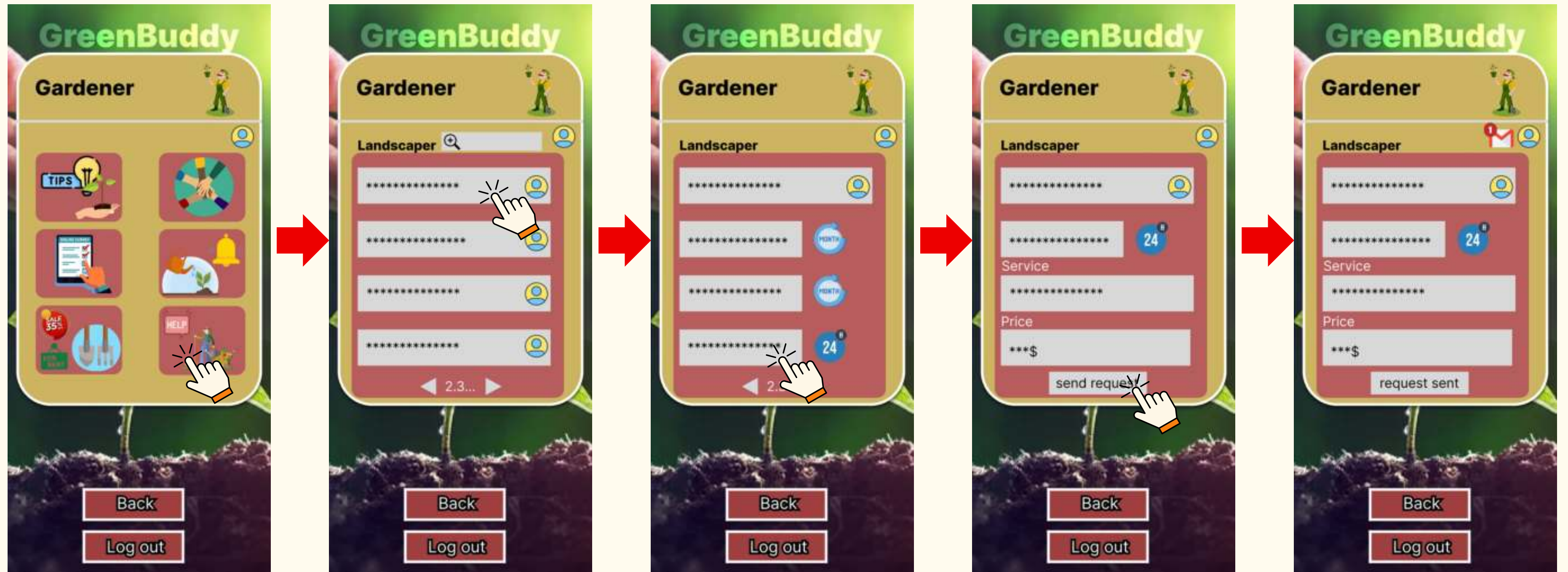
Conceptual models & Interaction design

Gardener - Survey



Conceptual models & Interaction design

Gardener - Landscaper

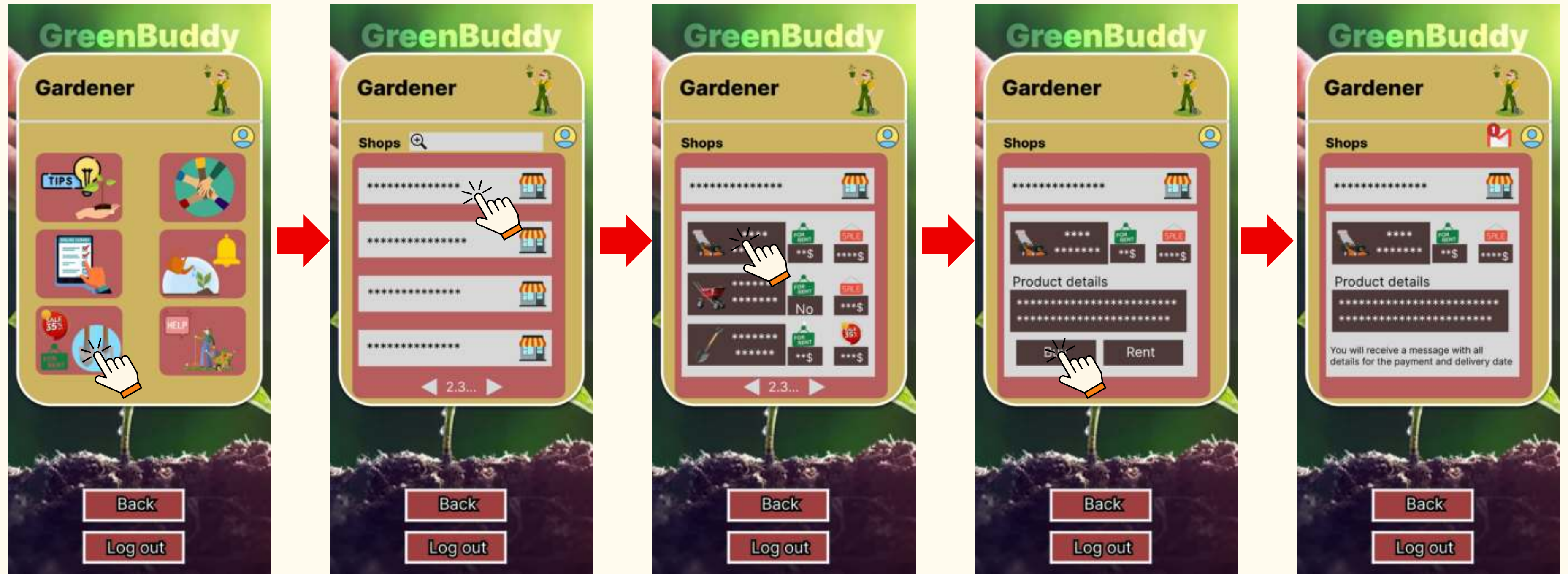




Conceptual models & Interaction design



Conceptual models & Interaction design



Conceptual models & Interaction design

Gardener - Community



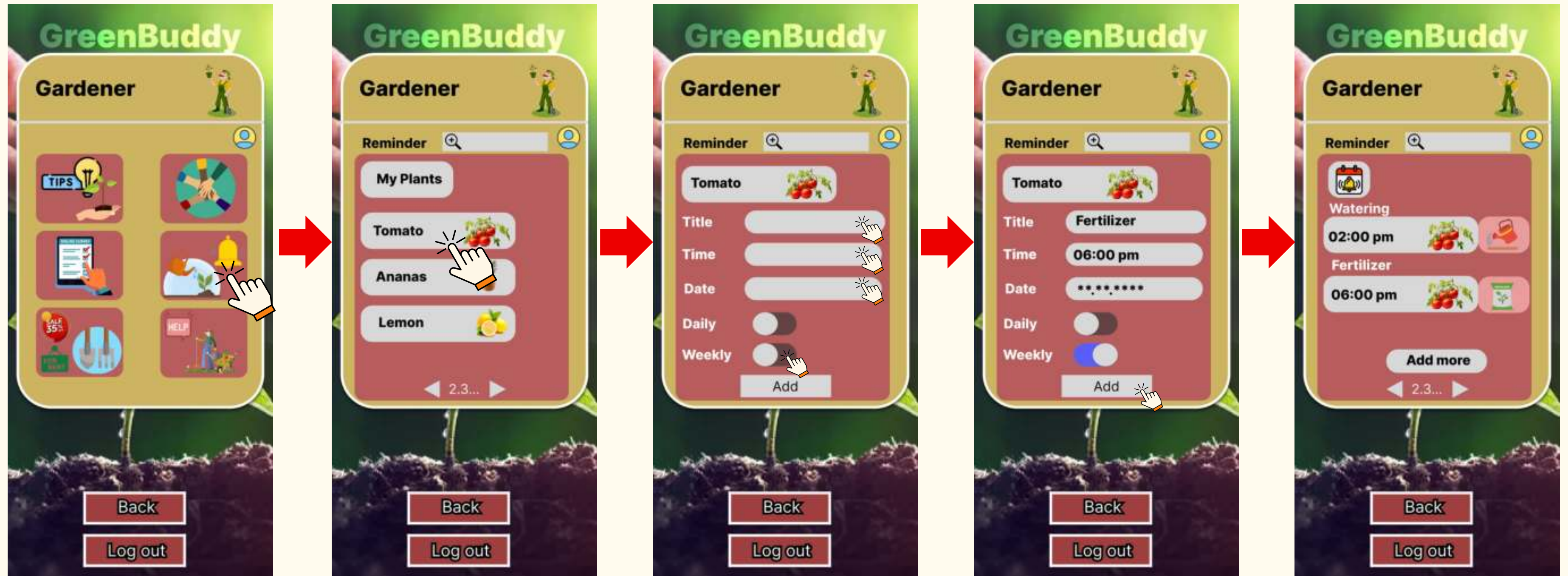
Conceptual models & Interaction design

Gardener - Care Tips



Conceptual models & Interaction design

Gardener - Reminder



Conceptual models & Interaction design

Interface Design

