



Exploratory Research

NMIX Capstone Fall 2024

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Meet the Client

The idea for UGArden started with a group of students who were passionate about the environment and sustainable agriculture. Together, they formed a group called the Campus Community Garden Initiative and created the proposal for a student farm.

Since then, the UGArden has flourished into a fully functioning community garden at UGA. Their four main goals are: to empower students to grow their own food by teaching them the principles of organic farming through service and experiential learning, to share fresh produce with local community members who are facing food insecurity, to enhance collaboration between organizations pursuing a just and sustainable food system, and to serve as an interdisciplinary research site that provides diverse opportunities for exploration, to promote leadership development, innovation, and social entrepreneurship among our students.

The UGArdens mission is “to teach students about medicinal herb production and business practices that enrich communities and create social change — one herb at a time.” UGArden Herbs are a feature of the UGArden that grows over 40 different medicinal herbs and teaches students and community members how to grow using organic practices and incorporate medicinal herbs into everyday life. They dry, process and use the herbs in handcrafted herbal teas, both loose leaf and now pre bagged, that is sold throughout the community.

TY BROOKS

[Ty Brooks](#), Farm Director is a Double Dawg with a bachelor's in Wildlife Biology and master's in Agricultural and Environmental Education. He is an experienced farmer who is passionate about organic growing practices.

APRIL MCCOY

[April McCoy](#), Farm Manager graduated from UGA with a degree in Ecology and a minor in Studio Art. She is interested in making sustainable agriculture accessible to more diverse communities.

**A TEACHING FARM
A COMMUNITY FOOD HUB
A SMALL BUSINESS**

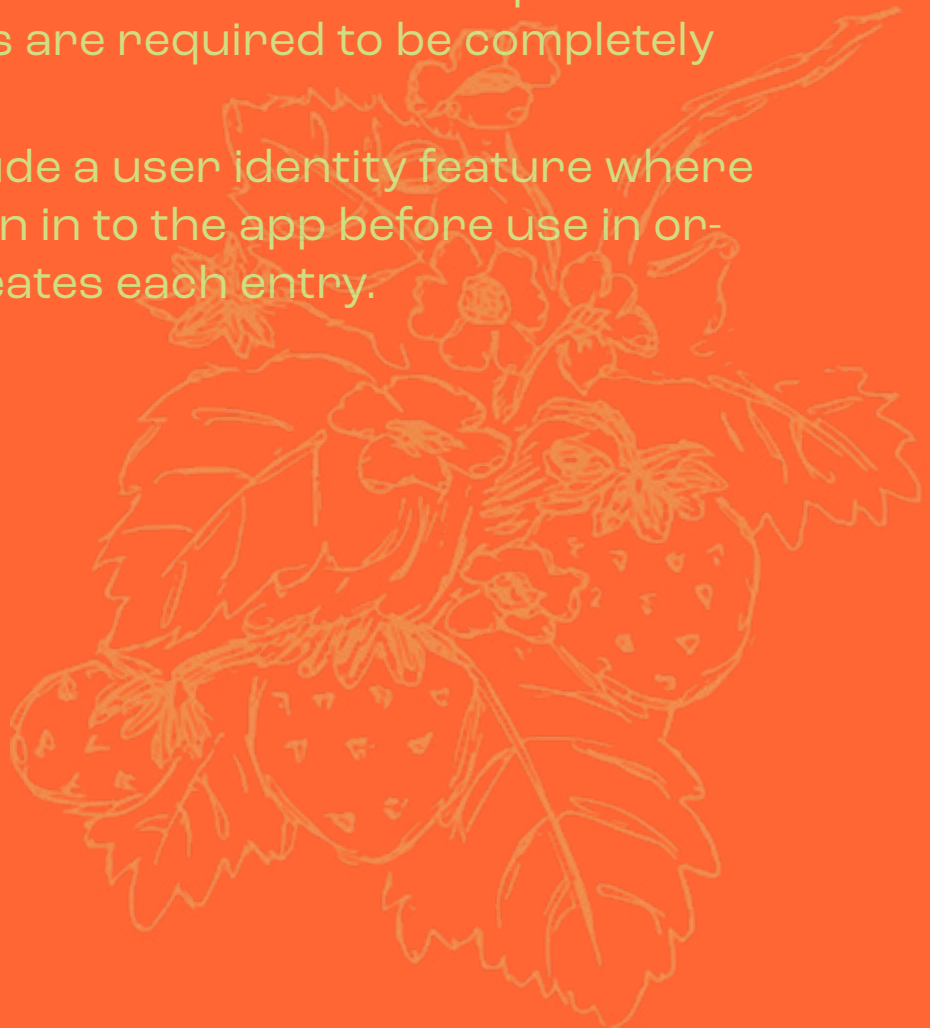
Our Project

We will be creating an iOS app using the old version of the UGArden Herbs (Herbs) app that assists in taking inventory of the herbs grown and sold by the UGArden using Airtable and Swift UI. The app will be designed to be ran on iPads and will track and sort all herbs throughout the tea making process.

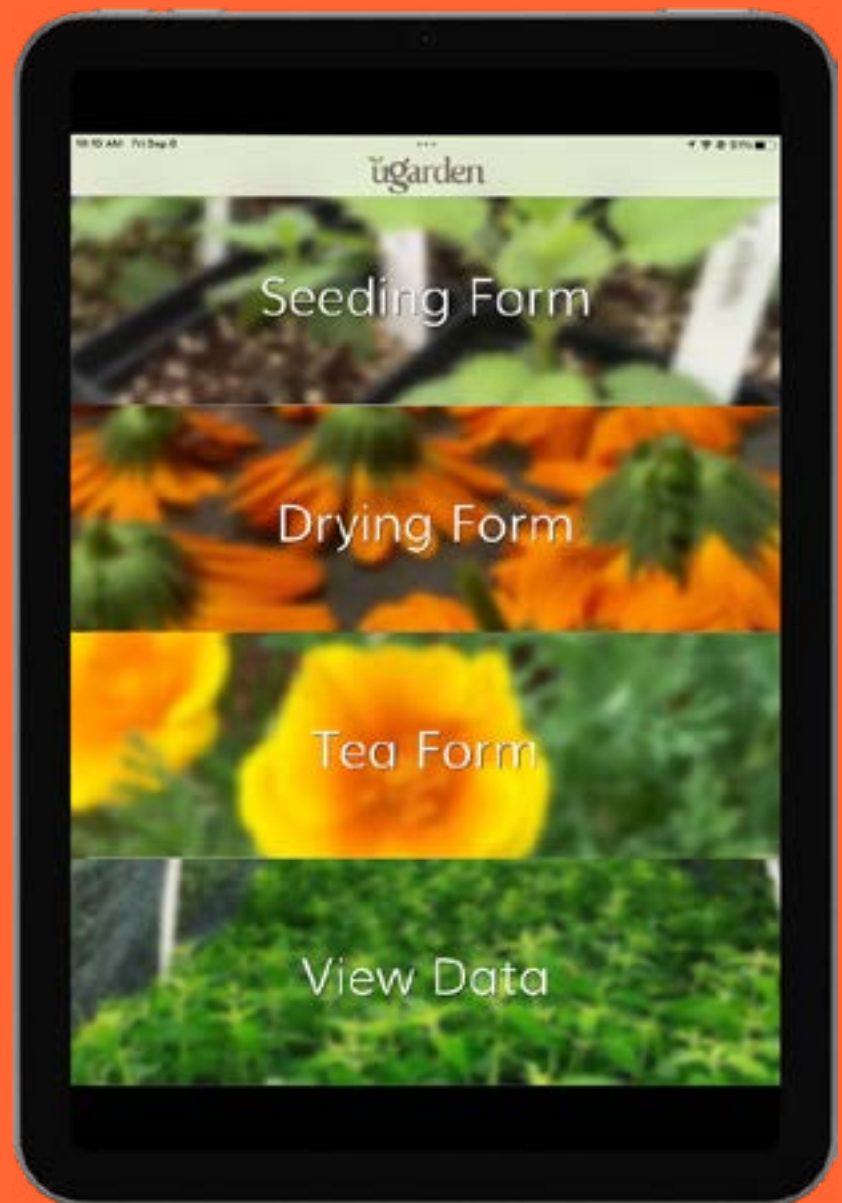
The app will include 2 main forms: the drying form and the harvest form as well as organization for each form and each of the products they are offering. They can select the form, add products, and search for specific things.

Entries into the app will be color coded based on completion status, as well as editable after completion. We will ensure the forms are required to be completely filled out.

We also want to include a user identity feature where users will have to sign in to the app before use in order to track who creates each entry.



On top of these features, we want to include a record of how much of each tea has been made/completed, a camera button to easily scan QR codes, differentiation in the forms for each type of process, automated inventory updates, as well as numbers and visuals to make the app more easily navigatable



(Old App Example)

Our Research

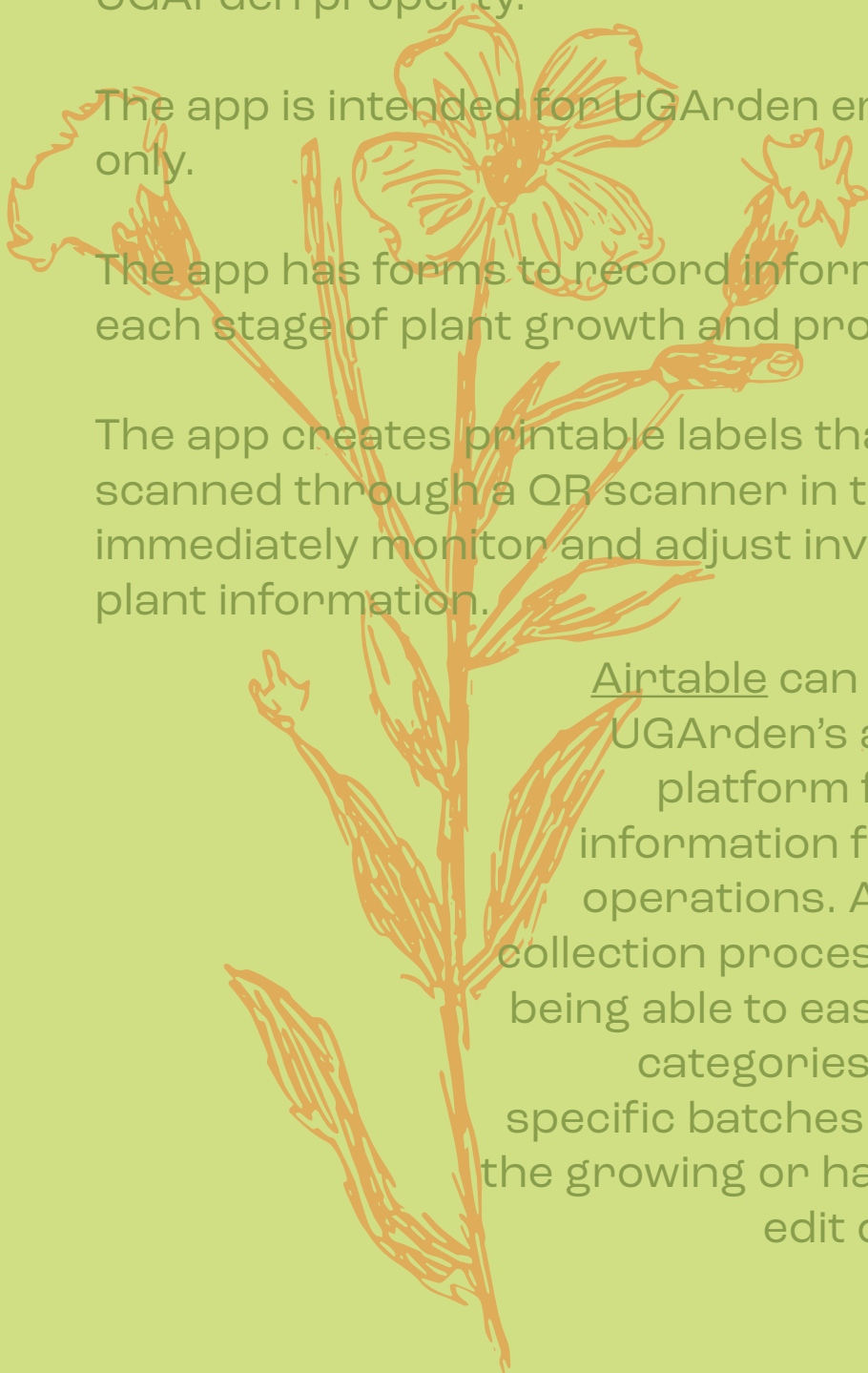
The app requires user login via a UGArden account. However, the app prompts the user to enable location-based services to bypass the need for authentication when on UGArden property.

The app is intended for UGArden employee use only.

The app has forms to record information from each stage of plant growth and processing.

The app creates printable labels that can be scanned through a QR scanner in the app to immediately monitor and adjust inventory and plant information.

Airtable can store data collected on UGArden's app and will be the best platform for the garden to track information from its herb and blend operations. Airtable makes the data collection process seamless, with users being able to easily create new product categories, mark the progress of specific batches (e.g., where they are in the growing or harvesting process), and edit data entries as needed.



By utilizing Swift UI, we can integrate this Airtable tracking into the app we are designing for the UGArden so that all of their inventory is automatically updated when entries are made or edited on the app.

Airtable is made to work with smaller data sets, such as the one that UGArden uses for its herbs. The platform also runs smoothly on iPadOS devices, making it ideal for the UGArden's record keeping as the garden prefers using iPads for their tracking.

iPads are easier for them to use as they are actively working and using their hands during the data collection process. A laptop would be too bulky to carry for their data collection, but pen and paper would not be efficient for seamless data collection.

Airtable also has easily navigable and color-coded organization tabs that can be customized. These additional organization functions will greatly assist in the tracking process, making it easy to record what specific herb batches are being used to produce each of their tea blends. Clear organization will create a more seamless transition from seed to tea!



Resources

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