

Project Documentation

“GAIA” Plant Care Mobile App

Course Code: COMP2125 - 02

Team Name: Group 1

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Project Overview

Our objective is to build a mobile phone application that helps users care for their plants. The app will store users' data about their plants that sets reminders for watering or feeding and has helpful hints about plant care.

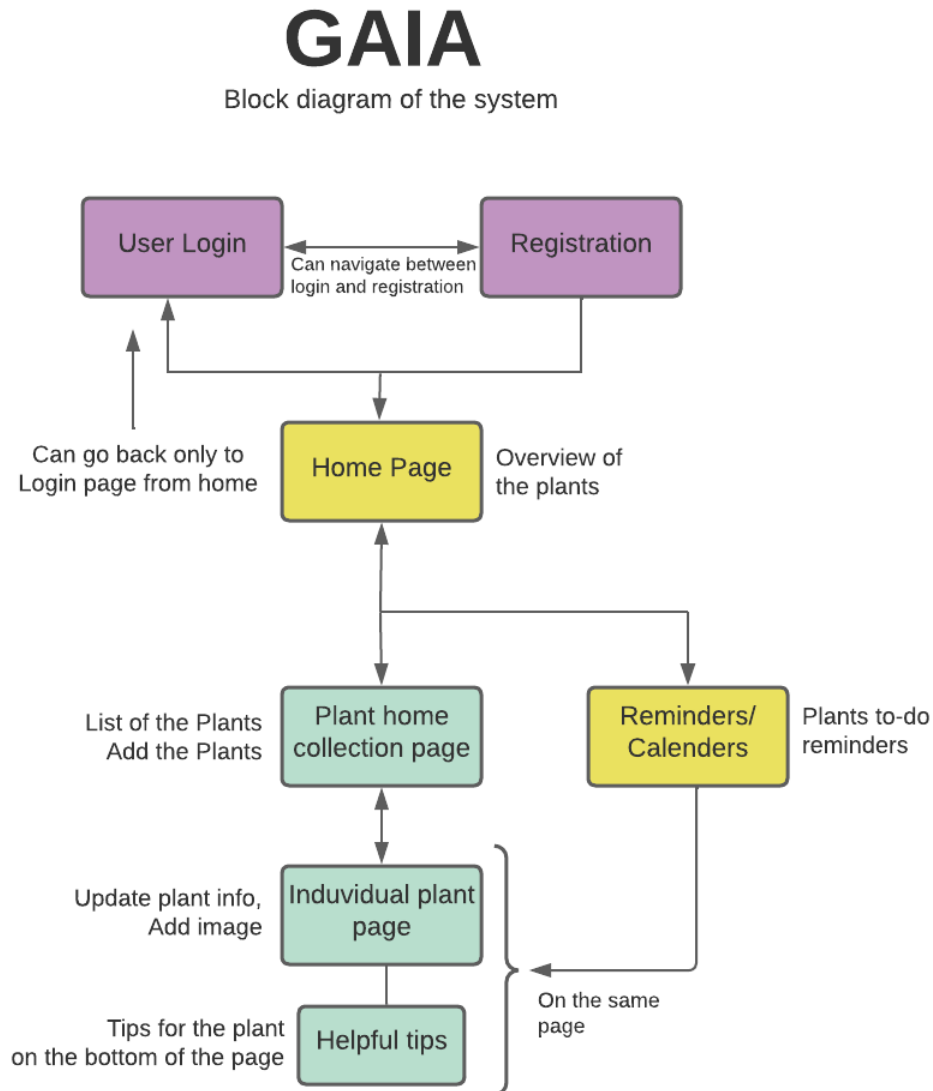
We will be using XCode to build an iOS 15 app for currently supported iOS devices, focussing on initial release to the newer iPhone 14 range of products. We'll be using some of the main features available in Storyboards and UIKit. Some additional technologies or third-party tools or libraries that intend on using are Core Data and accessing local JSON files; MapKit to display location of the plant collection; and using Firebase to manage and authenticate app users.

Functional Requirements / Use Cases

- The user must be able to register for an account if not already created
- The user must be able to login to an existing account
- The user must be able to view all their existing plants displayed in a collection; each plant can be queried from an online database or persistent database on the device for offline use
- The user must be able to add additional plants to their collection
- The user must be able to edit current plants from their collection
- The user must be able to delete plants from their collection
- The user must be able to set reminders for watering and/or feeding times and dates
- Each plant must be able to display helpful tips for the user for best growth for its type/species and in its current environment (home, dorm room, office, etc.)
- The user must be able to view a general list of tips.

Project Design

Block Diagram



Main Views

1. User login and out
2. User registration
3. Plant home page (overview, directory, status of plants)
4. Plant home collection page (list of plants user has added to their Collection)
5. Individual plant page (update info or add an image)
6. Reminders/calendar page (Create, update, and delete reminders)
7. Helpful tips page (update notes about what to buy or do)

Work Assignments

Person	Views	Classes	Additional
Roshan	Login/Registration using Firebase	User	Block Diagram Design/logo Presentation (.ppt)
Cassandra	Plant Collection Page, Individual Plant Page	Plant Collection	Presentation (.ppt) Core Data
Mic	Plant Home Page, Reminders Page, Tips Page	Reminder Tip	Proposal write-up Final documentation write-up

Lessons Learned (Issues and Opportunities)

- Needed more time to research and implement Core Data
- Integrated 3rd party service Firebase to authenticate and manage users.
- Debugging and error-handling will take much longer than you think.

Future Enhancements and Features

- Add calendar view to the reminders page, and functionality to sort or filter specific dates, and push notifications to user.
- Need to convert some hard-coded data to a database or flat-file.
- Addition of a database to pull plant information from
- A plant discovery page, to vie plants you may want in the future.