# Gardener's Best Friend

Shakira Perry, Lucy Gauldin, Vrushank Mali, and Wesley Duclos

UT-Martin

November 7, 2023

## Motivation

So why did we pick this project?

- Love of plants
- Keep plants ALIVE!!!
- Improve plant health



# Project Goals

So what do we think we need to have?

#### Plant Journal

• Keep record of plant's health with journal entries.

#### Photo records

Journal entries will contain photos that can be updated by the user.

#### Calendar Reminders

 Depending on the schedule assigned by the user, a reminder will be sent to water their plants.

#### Plant Information

 If the plant is within the app's database, the user will be presented further information about their plant's care.



# Technology

#### Technology used:

- Android Studio
- Kotlin programming language
- SQLite
- Plant API from Perenual
- GitHub



# Android Studio

- Integrated Development Environment
- Developed By Google
- Based on IntelliJ IDEA
- Emulator
- LINT Checker
- Android Jetpack



## Kotlin

- Official Language for Android
- Interoperability
- Comprehensive Standard Library



- Multiplatform Development
- Gradle Support
- Concise and Readable



# **SQLite**

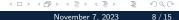
- Embedded Database
- Zero Configuration
- ACID Compliant
- Cross-platform
- Highly Reliable
- 6 Low Maintainance



# Plant API from Perenual

- Plant Marketplace
- Based on RESTful API
- Stateless
- Uniform Interface
- Cacheability
- Security





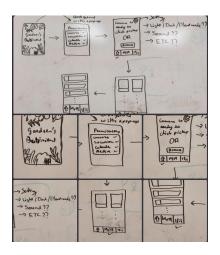
# Github

- Version Control
- Code Hosting
- Collaboration
- Branches
- Security Features
- Code Search



# Journey to the App

### First Mockup



# Page Mockups





# Demonstration

Demonstration Video



## Results

Things that worked?

Things that didn't work?
Mixing Java Database and SQLite

Challenges?

Permissions

Reminders

Database Storage and Retrieval

Android Studio communicating with Github for version control

Deciding on what features the app needed

# Conclusions

While it has been a fun yet challenging project, there is a lot more left to do.

- Journal entry storage for retrieval.
- Access API database.

# Any Questions?

Questions?

Comments?

GitHub Repo: https://github.com/shaaperr/GardenersBestFriend

Further project/author information: Wesley Duclos: wescducl@ut.utm.edu Lucy Gauldin: bildgaul@ut.utm.edu Vrushank Mali: vrujmali@ut.utm.edu Shakira Perry: shaaperr@ut.utm.edu

