

Team 10 CSC 4350:  
Software Engineering  
Dr. Rao Casturi

Team Members:

1. Chima Ezulike
2. Collier Hawkins
3. Cameron Manning
4. Jessica Morales Deleon
5. Junzhi Wen
6. Dan Williams

Project Name: **Water Me!**

# **Project Description**

## **Introduction**

In the midst of the Covid-19 pandemic that has caused millions to be confined indoors, gardening and collecting plants has shifted from a niche hobby held by older demographics to a more popular hobby that now contains a wide demographic of plant owners with vastly varying knowledge on how to properly take care of plants. Taking care of a plant has a significant amount of therapeutic benefits such as reducing anxiety and allowing people to relax. As people battle the effects of isolation, these benefits are becoming more important. However, many people struggle to take care of plants. Some people forget to water their plants while others are unsure of the lighting or soil best suited for their plant.

Our idea will create an app that will use a phone's tick and timezone information to remind a user to water a plant or change the soil based on the needs of that particular plant. The app will use notifications that will remind the user more frequently as the watering or soil change date becomes nearer. In addition to this, the app will allow the user to save a large quantity of plants and rename them as desired. Each plant will have a profile page that contains important information such as adequate sunlight and soil that the user can use to best care for their plant.

We believe that by building this app we can create a useful app that can improve the mental wellbeing of those affected by isolation as well as create a simple and easy introduction for those who wish to start a hobby in plant care.

## **Technologies**

We will be using Google's open source framework, Flutter, for all of the front-end and basic functional components of the app. This allows us to build an app compatible for iOS and Android with a single codebase. We would likely need to use an API that contains various plant information such as history, scientific facts, and living conditions. The living conditions, in particular, how often a plant needs water and type of soil, are what the app would use to help remind the user to care for their plants. Another option is potentially using a database for the backend. It would likely be a local database such as SQFLite, which is unique to flutter, will be sufficient.

## Team-Bio Data

**Collier Hawkins:** is a senior computer science student at Georgia State University with roughly 3 years of programming experience. He has intermediate knowledge in Java, Python, HTML, CSS, and MySQL. In his game design course, he has become familiar with JavaScript by working with a team to build a platformer game. He has also become versed with JavaScript's React framework by creating a personal portfolio website. Collier also demonstrates a great ability to adapt and problem solve.

**Junzhi Wen:** is a first-year PhD student from computer science at Georgia State University with 3 years of programming experience. He is familiar with Python and Java and has moderate knowledge of Git, HTML, CSS, and MySQL. He uses Python a lot in his research and has built machine/deep learning models for solar flare prediction. He has experience of using MySQL by doing the project in his Database Systems course. He is interested in web/software development and wants to learn new technologies that will be applied in this project.

**Jessica Morales-Deleon:** is a senior computer science student at Georgia State University. Jessica has six months of knowledge in programming languages like JavaScript, HTML, and CSS. Through her web programming course, Jessica worked with a team to create a website with many other programming languages like php, java, and MySQL. She is interested in learning more about mobile application development and the new technologies that are applied in this project.

**Cameron Manning:** is a senior computer science student at Georgia State University with a year of programming experience in python and moderate knowledge of HTML, CSS, Javascript, PHP, and Java. He has done several different group and individual projects through classes offered at GSU. He has also had years of experience as a trader and does independent research for before and after his investments.

**Daniel Williams:** is a senior computer science student at Georgia State University Downtown Atlanta with about 3 years of programming. Dan is a Navy Veteran who has also worked for the federal government developing a Database system for multi billion dollar equipment all around

the world. Dan worked alone developing his own library rental system using Flask, HTML and MySQL. Dan is interested in learning as much as possible when it comes to software development and project management.

**Chima Ezulike:** is a senior computer science student at Georgia State University with about 2 years of programming experience. She is most familiar with HTML/CSS and JavaScript. In her web programming course, she developed a memory game using JavaScript, and last semester she worked with a team to develop an appliance app that helped users with appliance maintenance. Chima is specifically interested in human computer interaction, with experience in human centered design, user research, and usability testing.

## **Why did we pick this project?**

We selected this project because we believe this would provide a substantial learning experience in mobile app development. We also believe this project could battle the effects of Covid-19 isolation and allow people to cultivate a new hobby that has significant therapeutic and environmental benefits.