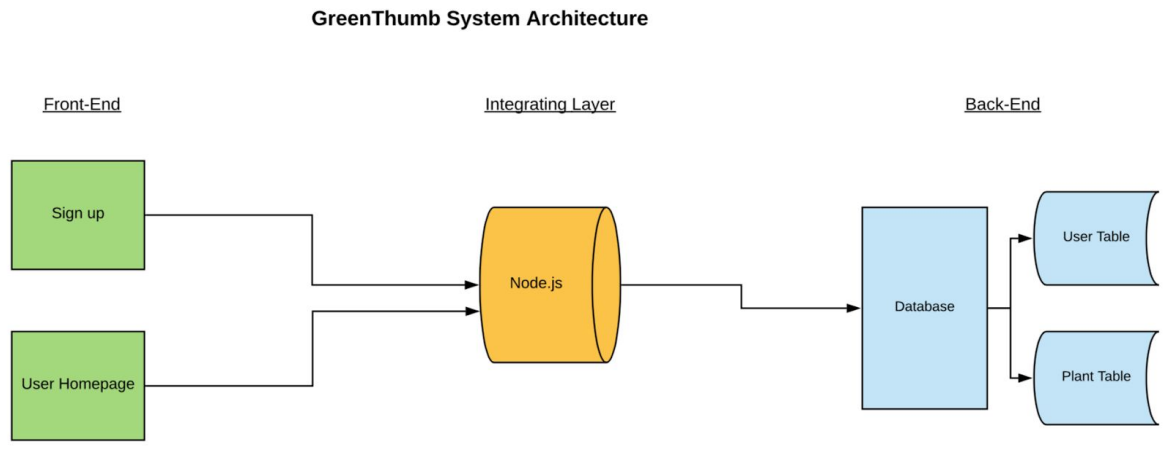
Milestone 4 –Application Design and Architecture

Contents:

Revised List of Application Features:

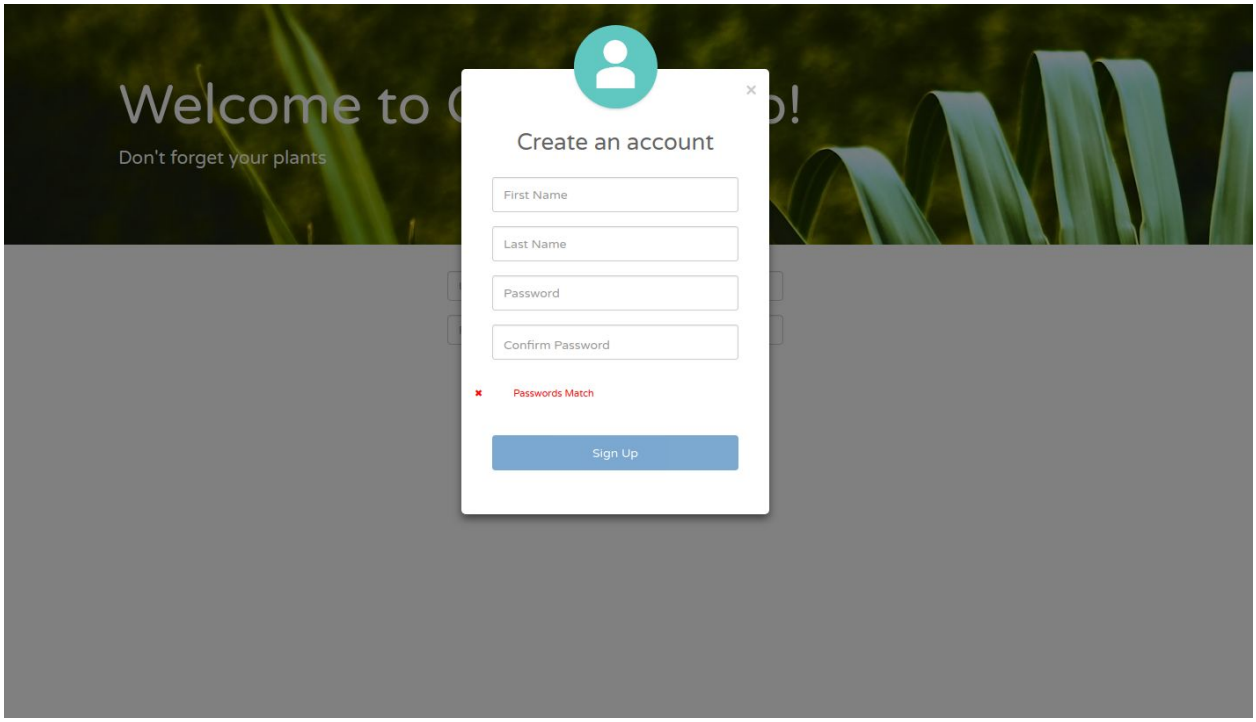
1) Account Creation
2) Plant Object Creation
3) Editing (the users) Plants
4) Setting Watering Alarm
5) Keeping notes (for each individual plant)
6) Searching for plants
7) Identifying plant based on characteristics

Architecture Diagram

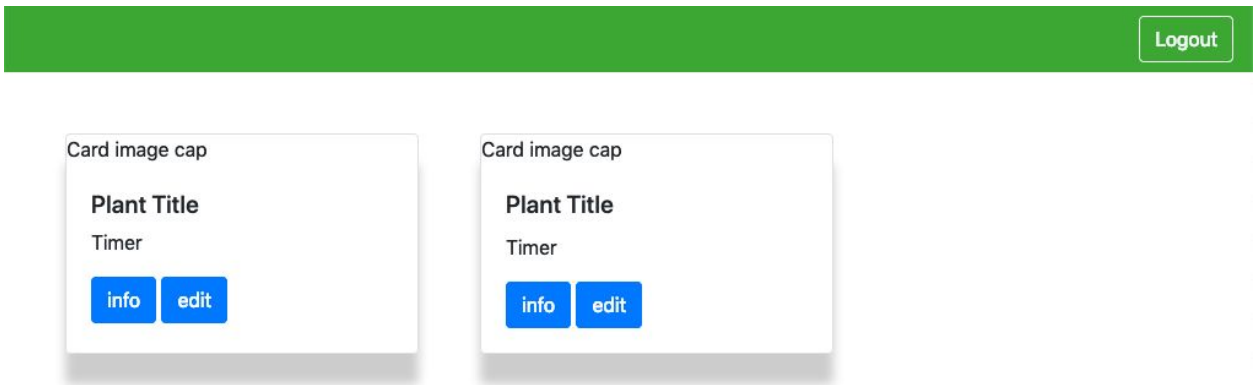


Front End Design

Create Account Page



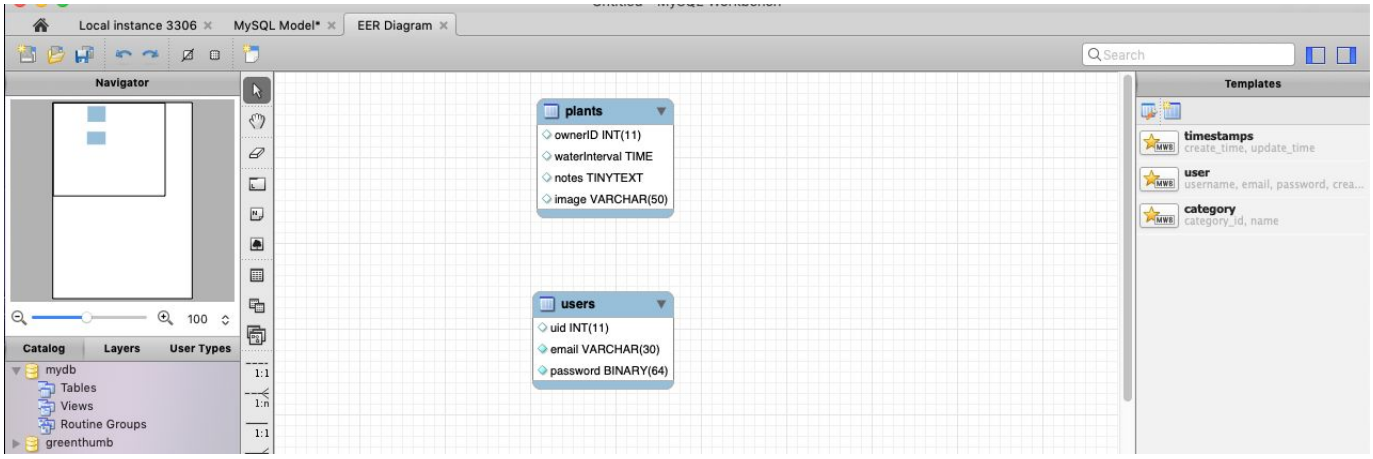
- Our front end design will use HTML5 in conjunction with the Bootstrap library to showcase and implement our app's design and features.



Web Service Design

- Possible use of two web API's in our project
    - Trefle API - The Trefle API supports JSON format to return botanical data for plant species, data is gathered from several sources including the USDA. The data from the API would be used to give the user beneficial information about a certain plant type (the user) has.
    - Plant.id API - The Plant.id API returns plant identification data in JSON format, where it can identity plants from images. Possible functionality for this web application would include allowing the user to upload a photo and be able to identify what plant (the user) has.

Back end Design



- The MySQL database consists of a Users table and a Plants table. MySQL was used because our team is more familiar with it, however we may choose to use Postgres in the future. The Users table stores a user ID, the user's email address, and the hashed value of the user's password. The Plants table stores the ID of its owner, the time interval used for setting the watering timer, the user's notes for the plant (up to 255 characters), and the filepath for the image of the plant.