CS4530 FINAL PROJECT: COMMUNITY GARDEN

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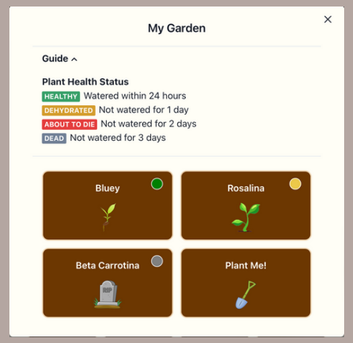
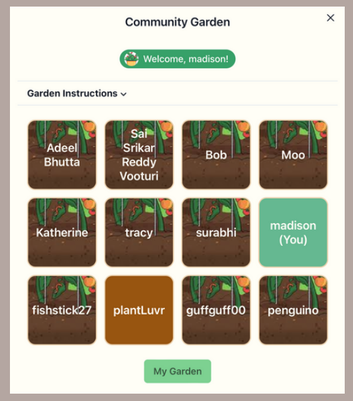
Our Feature

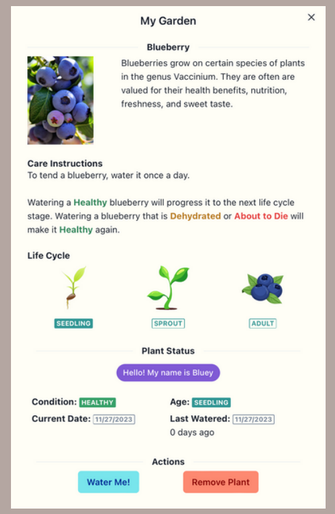
Our feature for Covey.Town is an interactive community garden. Many people enjoy taking care of plants as a hobby, so we figured it would be an interesting addition! We have garden areas in the map that users can enter to tend or view plants. Each user is given their own plot, and once a user plants a seed, they can return to the same town later to care for the plant and check in on its growth. After a set amount of time, the plant will need watering, or else it will die. A user can water their plants, check their health status and info, and grow them to adulthood.

Demo and Source

Our demo site: https://garden-frontend.onrender.com
Our codebase: https://github.com/neu-cs4530/covey-town-project-205







Technology Stack & Design

We implemented our feature the existing covey.town codebase. Each garden area is represented as an “object” in the tilemap, which can be easily manipulated using the map editor, “Tiled.” These objects are dynamically constructed when the map is loaded, and rendered on the screen by Phaser. When a user enters a garden area, a group of gardens are displayed, using a React/Chakra UI modal. The user can choose to enter any garden and view plants, or care for them if it’s their garden. The frontend connects to the backend through the garden-client.ts. This client calls methods from the GardenController, which makes requests from the MongoDB database. Our continuous integration pipeline runs an automated Jest test suite on the frontend and backend components, and then deploys the site using Render.

Future Work

There were a couple of possible extensions to the feature that we thought of. One extension was a point or reward system for nurturing plants to adulthood, which could act as a sort of currency for purchasing new plants. We think that such a system could add incentive to take care of plants and gamify the feature more. Another extension we considered was adding observers such that a user could see who else is viewing the community garden or a specific plot. If we were to continue working on the feature, we would add a wait period before a plant can be watered again, so the user can’t grow a plant to adult immediately. We also would want to add more plant types. We currently have three that have similar care instructions, so we would ideally add more that also differ in their life cycle lengths and watering times.