

We are developing a database and application for the Trees for Oakland nonprofit. Residents are allowed to register onto the website by providing their first name, last name, email, street, zipcode, and creating a password. Residents are a part of a neighborhood where trees will be planted within the neighborhood. Trees contain a: name, scientific name, minimum height, maximum height, minimum width, maximum width, minimum planting bed width, the ability to be planted under power lines, their nativity to california, their drought tolerance, growth rate, foliage type, debris, root damage potential, nursery availability, visual attraction, harsh sites, bay, urbanization, if they are near natural areas, and their inventory on how many trees the organization are able to plant. These trees are planted through tree requests which have a submission date, site description, approval status, street, and zipcode. However, trees require a permit with an approval status and decision date and permits can be applied for by residents. Residential users are also able to fill out a volunteer application (to assist in the planting of a tree) which has a creation date, approval status, and additional notes. These users can only fill this application out once and if they are denied, they must appeal via email to the organization members. Organization members are also users (who inherited the attributes of residents) with a role assigned to them and a start date. If the application is approved, the user is able to become a volunteer (which inherits the attributes from a resident) and participate with events. If the tree request is approved, a scheduled planting and scheduled visit are created (both inheriting a scheduled event which contains a timestamp, cancellation status, and additional notes). A scheduled planting has volunteers to help assist the event and is led by an organization member. The planting event (composing the scheduled planting) contains observations, whether or not there needs to be additional planting, and links to photos for the before and after stage. It contains volunteers to help plant as well as an organization member to assist leading. Visiting the event (composing of the scheduled visit) contains additional details on the observations and whether or not additional visits are required.