Ryan Morris, Randy Mangel

Colorado Tree Coalition Tree Finder Project Summary

Phase 2 deliverable

Project status: Partially Complete

* Startup Screen: The startup screen displays the logo of the Colorado Tree Coalition (obtained from their website) with buttons to go to the map and settings pages. The interface is created with jquery mobile using the default blue theme and is minimalistic, intuitive to use and functional.
* Map Screen (Main function): The map screen uses the jquery-ui map plugin for the google maps api to plot the map on screen. Right now it resizes to the screen width of the device while the height remains fixed (we hope to get height resizing to the screen width in the final). On device ready it loads a javascript file “main.js” that checks the settings file and then populates the map with tree locations that fall within the alert radius of the user. The tree location are stored locally on the device in an sql database. The bottom of the map screen has two buttons to access the home and settings screens again created with jquery mobile using the default blue theme. When the page loads the device attempts to get its current location via html 5. If successful it loads the map centered around this position, otherwise it outputs an error message to the user. Our app cannot function without access to valid location and internet access. So functionality stops if this is the case.
* Settings Screen: The settings screen allows the user to adjust the alert radius and poll interval to optimize performance, or battery life. On load it uses the cordova local storage to read a configuration file that stores the setting values or the last user change or the default values. The page itself consists of two sliders generated with jquery mobile using the default white theme and a done button in the header (we are considering moving the done button to a footer similar to the maps page to create a sense of consistency in our ui). When the done button is clicked the current settings are saved to the configuration file (via the local storage api) and the user is returned the startup screen.

Work done (note times are estimates and include research):

* Set up development environment 6 hours
* Set up git repository and collaborator access 1 hour
* Create Project and get Cordova running on mobile device 2 hours
* Get jquery and jquery mobile running on mobile device 3 hours
* Get ui for startup screen running on mobile device 2 hours
* Polish UI elements for startup screen 6 hours
* Create map page and get startup screen linking to it 1 hour
* Get google maps api working on mobile device 6 hours (scrapped)
* Get jquery ui map plugin working on mobile device 6 hours
* Get map to automatically resize to screen resolution 8 hours (partially completed)
* Get settings page set up and get startup screen linking to it 1hour
* Create sliders and ui elements that link to map and startup page 2 hours
* Modify settings page to meet our new technical goals 15min
* Get local storage saving settings to configuration file 4 hours
* Organize data structure of SQL table 1 hour
* Deal with unexpected problems 6 hours

Need to accomplish

* Build sql database 3 hours
* Get map screen reading from sql table 1 hour
* Calculate radial distance from current location to database locations 2 hours
* Plot points that lie within radius on map 1 hour
* Make geolocation repeatedly poll 1 hour
* Get map page reading config files

Modifications from initial plan

* Got rid of “No Internet” and “No GPS” user stories (technically infeasible)
* Simplified settings page to be practicle
* Simplified contents of database to only include tree type, name and location (may change later)