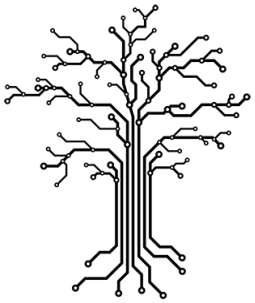
CLIMATETREE



Frontend

Developer Guide

Overview

The ClimateTree frontend is a mobile responsive React App which provides an interface for users to interact with ClimateTree functions such as searching for and posting climate change solution stories from across the web. It is organized into individual components that are grouped according to their functionality.

Intended Audience

Anyone who wishes to implement the ClimateTree application or wants to extend it further

Tools, technologies, and servers used

1. React for most functionality
2. React hooks for reusable logic
3. OpenLayers for the mapping UI
    a. ArcGIS basemaps are currently used, but OpenLayers allows us to easily change providers if necessary
4. GeoServer for communication between the map and backend services (handled in a different repo)

Process when one pulls app from Git

1. Clone repo from GitHub : https://github.com/climatetree/frontend
2. Move into the “frontend” directory
3. Run `npm install` to add dependencies
4. Run `npm start` to start a development server

Folder Structure

At the root of the repo are a number of files related to the DevOps process (not documented here). Otherwise, the file structure is similar to other React Apps created with the `create-react-app` command. Tests are under `tests` (to future developers: we need tests!), served files are under `public`, and source code is under `src`. Most code is under the `components` directory under `src`, and components are split up further into functional groups.

How did we use services

Standard processes for frontend API calls were used to interact with services. All services are contacted through an API Gateway. The Gateway documentation should be consulted to see the most up to date endpoints, but as of writing, the base URL is: https://climatetree-api-gateway.azurewebsites.net

Both the native JS fetch API and the Axios library are used to call endpoints in the codebase (this is an opportunity for refactoring).

Importing stylesheets and resolving paths

For the most part, stylesheets are created for individual components and reside next to the component they style. There is one case - for story components - in which there is a single large CSS file (this is an opportunity for refactoring).

We had to move quickly to get this project finished within our time constraints. We did our best to organize and document code, but you will likely find plenty of opportunities for refactoring and adding comments. Indeed, looking for opportunities to refactor the code base and add comments is a great way to become familiar with the ClimateTree code base.

Known issues and risks

Currently known issues can be found here: https://github.com/climatetree/frontend/issues. This is also where new issues can be logged.

Future features:

There are still many things that could be added to ClimateTree, for the most up-to-date priorities, contact Greg Schundler. At the time of writing these are some needed improvements:

- As a moderator, I can view a list of the most flagged stories so that I can easily remove inappropriate content.