# Front End Development

## Vue.js

Vue.js is a JavaScript framework used for the site UI components, routing, and state management. Vue allows portions of a page to be broken down into small, reusable components that can be used as-is, extended, or modified by other developers to better suit their needs.

## Vuetify

Vuetify is a Material Design UI Framework for Vue.js used as a simple, quick framework for UI design on top of custom design elements required for the site.

## Apache ECharts

Apache ECharts is a JavaScript visualization library used for the charts displayed on the site. The library allows for easy creation and extensive customization of data visualizations.

## Leaflet.js

Leaflet.js is a JavaScript library for interactive maps used to create the location selection and choropleth maps throughout the site.

## Stamen Map Tiles

Stamen Map Tiles are base tile layers for interactive mapping. The Toner tiles provide a clean base for the shaded choropleth maps on the site.

## Yarn

Yarn is a package manager and build tool for JavaScript projects used to manage dependencies and build the front-end project artifact.

## Babel

Babel is a JavaScript compiler used to make modern JavaScript backwards compatible with older browsers.

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## Java 11

Java is an object oriented programming language used for the site’s server-side code.

## Spring Boot

Spring Boot is an application framework for the Java programming language used for the site’s REST API, connecting the user interface with the database.

## Liquibase

Liquibase is a Java library used to track and apply database changes across environments.

## PostgreSQL

PostgreSQL is a relational database management system (RDBMS) used to organize and store the data for the site, including the spatial data for the site’s interactive maps.

## Docker Community Edition

Docker Community Edition is a container framework used for quick database scaffolding in the local development environment.

## Apache Maven

Apache Maven is a package manager and build tool for Java projects used to manage dependencies and build the full web application project artifact.