

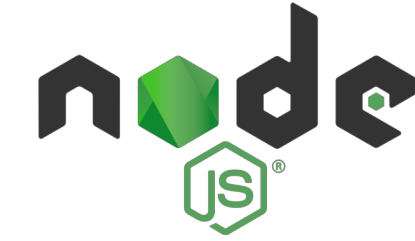


Engineering
& Computing

School of Computing
& Information Sciences

School of Computing & Information Sciences

Spring 2019 Senior Design Project



Miami-Dade County Animal Abuser Registry v1.0

Student: Eddy Mogollon

Mentors: Jay Alvarez, Elio Perez, Daniel Stanisky, Javier Ruiz

Instructor: Dr. Masoud Sadjadi, Florida International University

Problem



Animal cruelty is a **serious** problem.

Miami-Dade County needs an Animal Abuser Registry to be used by both the public and the Animal Services Department, whereas persons convicted of animal cruelty can be identified.

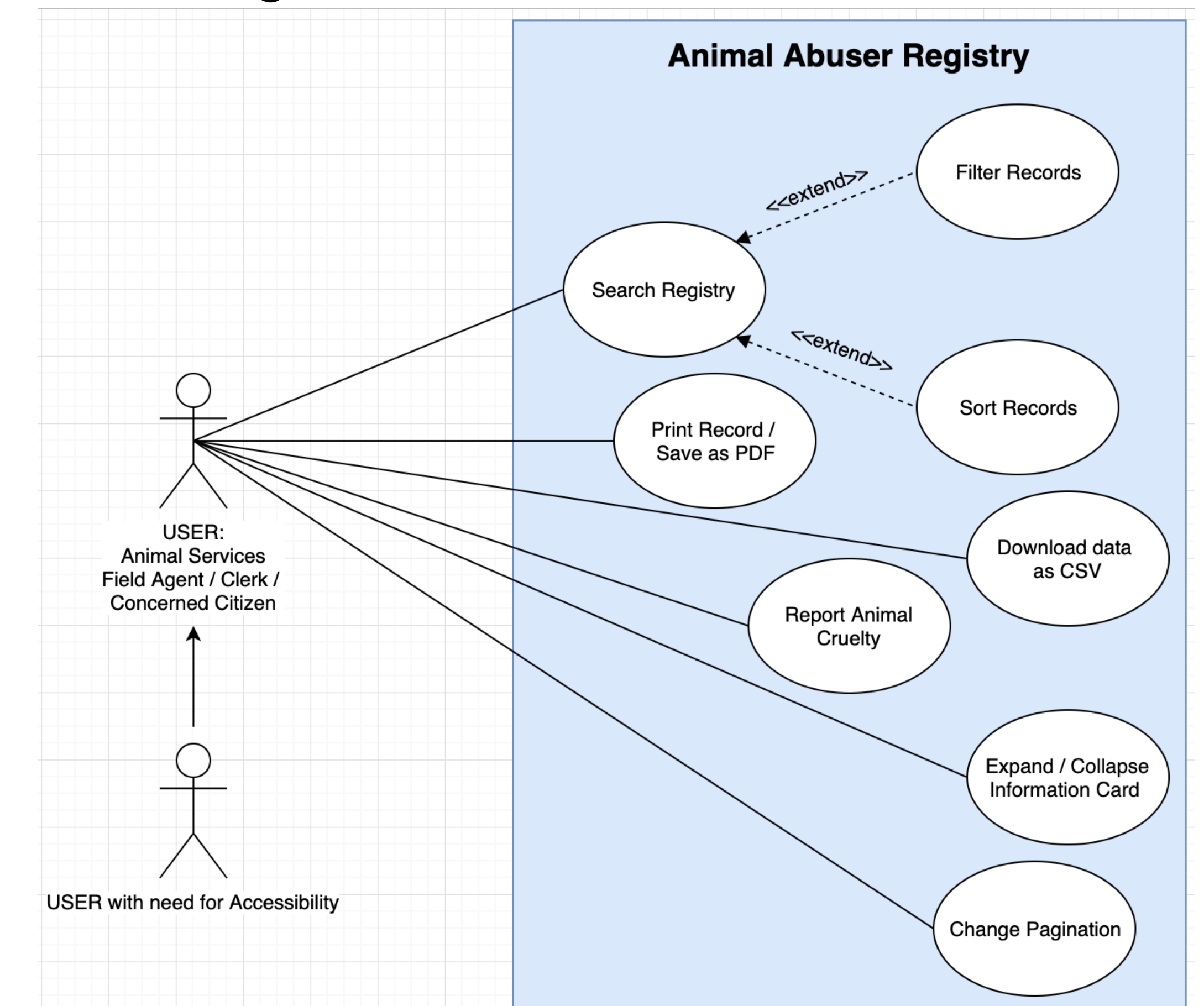
Current System

The Miami-Dade Animal Abuser Registry v1.0 is now complete! its scope being the front-end with the following features:

- Coherent design and theme, easy to recognize as an official Miami Dade County site.
- Easy navigation through the use of information card components.
- Responsive site capable of being displayed in small screens (e.g. smartphones).
- Several options to filter and sort records to quickly find any convicted criminal.
- Compliant to accessibility standards to help those with visual impairments or other disabilities.
- ArcGIS API connection to serve users needing to download data as a CSV file.
- Ability to save and print records as PDF, for users who need to keep electronic and physical records stored.

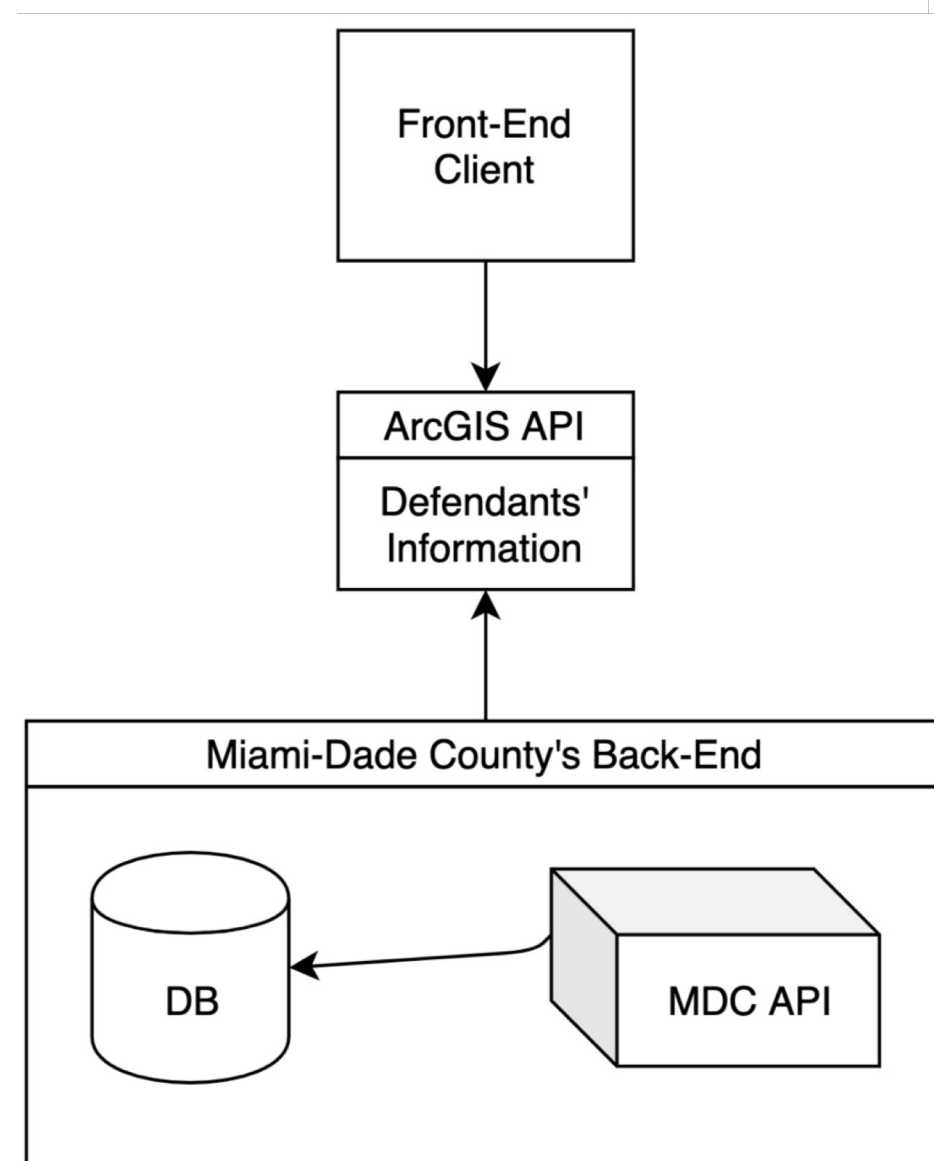
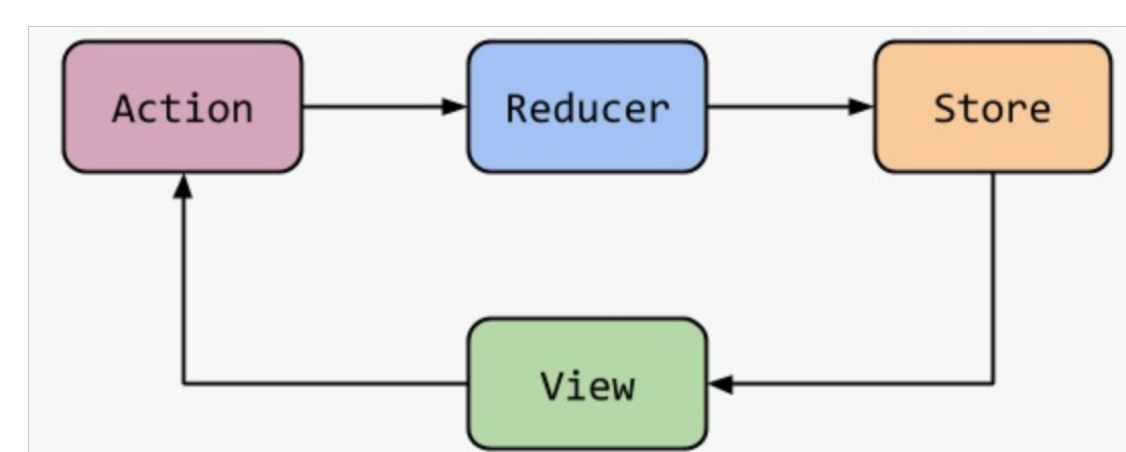
Requirements

Miami-Dade County required a **responsive, accessible, theme coherent** site with the following use cases:

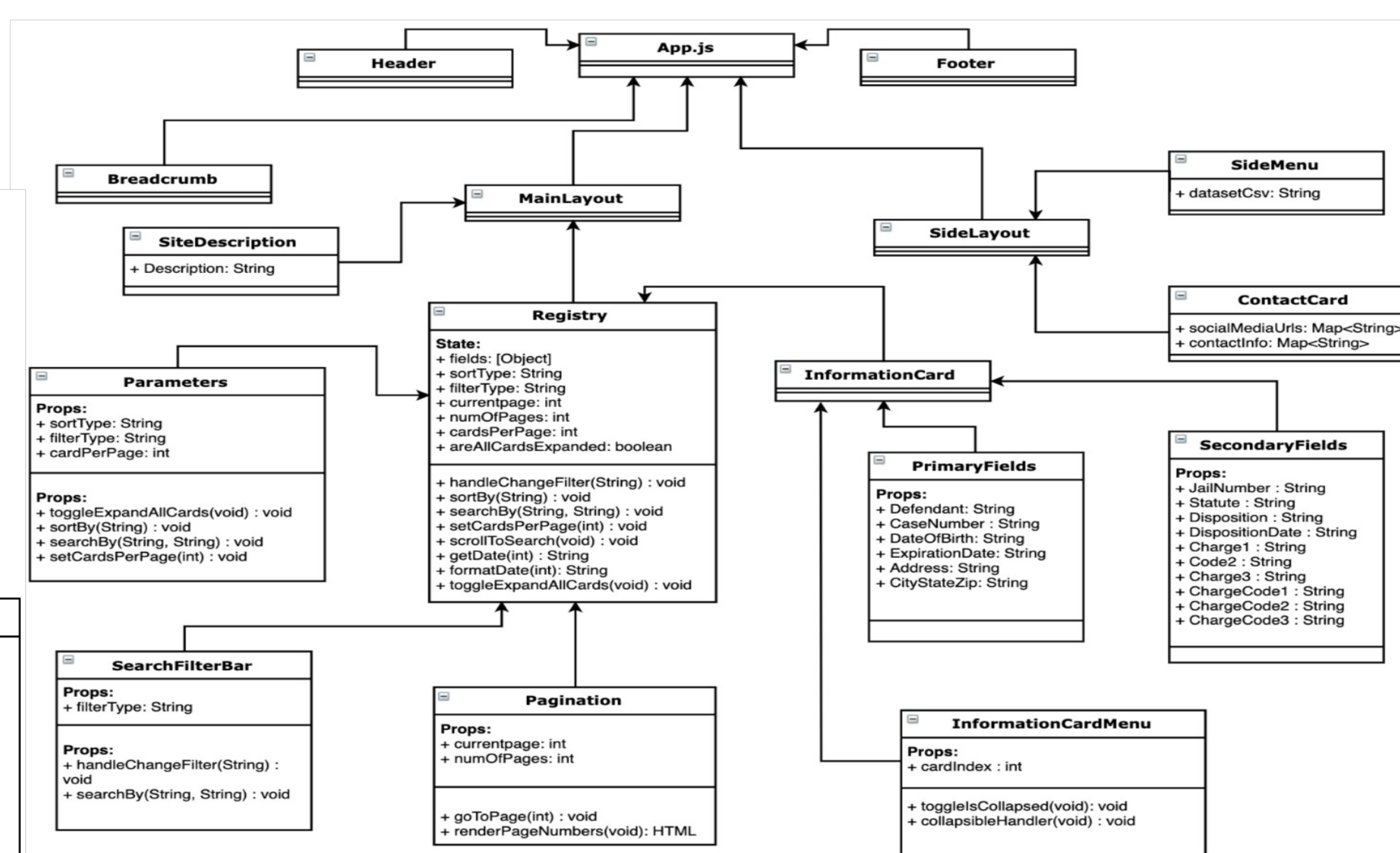


System Design

- Functional and stateful components
- Flux architecture using Redux
- Loosely-coupled system
- Composition of components
- Event-driven Architecture
- Interoperability



Class diagram depicting the components hierarchy in the system and their interactions



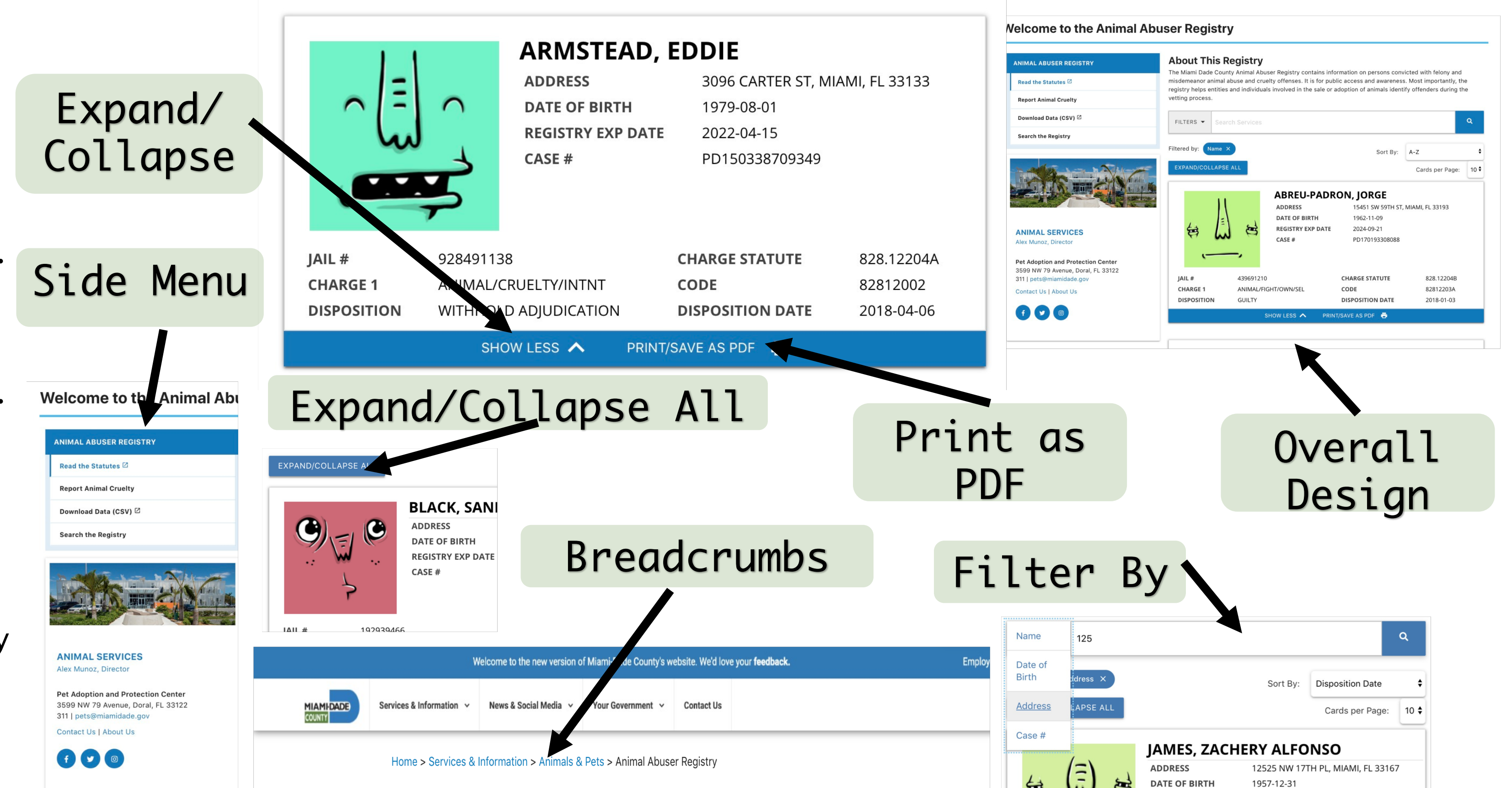
Implementation

- The front-end is built on React, JavaScript, HTML5 and CSS
- Node.js to execute the server
- MaterializeCSS front-end framework
- MDC's Open Data Hub as REST API
- Heroku for deployment

My Contributions

- Design contributions to the information card component, including expand/collapse feature
- The implementation of the fetch call to ArcGIS API that retrieves the records and displays it on information card components
- A WCAG 2.1/ADA compliant site that is easy for people with disabilities to use.
- A way to filter records by the most distinctive identifying information.
- Breadcrumbs so the users can quickly backtrack to a previous website if needed.
- The ability to print/save records as PDF.
- A pagination feature to allow users to conveniently manage how many records they see at once.
- A side menu with links to useful resources to get informed about animal cruelty and how to report it.

Screenshots



Verification

- Utilized **Jest** (JavaScript unit testing framework) and **Enzyme** (JavaScript Testing utility for React) for unit testing the UI components.
- SiteImprove** and **Lighthouse** Chrome extensions for testing and evaluating accessibility issues

Summary

The Animal Abuse Registry v1.0 serves as a platform to provide updated information about individuals convicted for animal offenses.

The users can look at the data via information cards and search for specific individuals. The registry will make an immediate impact within Miami-Dade County and help to protect the wellbeing of the animal who live here.

Acknowledgment

The material presented in this poster is based upon the work supported by Miami-Dade County and our team's PO Jay Alvarez. I am thankful for the cooperation and assistance that I received from my group member Pablo Mueller.