

Front-End Web Development Final Project

Title:	Pet Finder App
Class:	COMPSCI X425-001
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Application Overview

- The built application is a pet adoption web page that allows searching for adoptable pets, researching different types of pets, and finding locations where pets can be adopted.
- User Stories:
 - 1. A family wants to search for a new pet and want to see what is available in there area, what type of pet makes sense for their situation,, and where to go to adopt the pet.
 - 2. A volunteer is interesting in fostering or helping at an adoption center and wants to find locations where they can help.
- Application Requirements:
 - Searchable database of pets based on user entered location.
 - Database of pet types and links to information on each.
 - Adoption center location database with mapping function.

Application Description

- Capability 1: Searching for Pets
 - Utilizing the PetFinders API from Purina, the application takes a user entered location and returns a list of adoptable pets. The pets each are shown in an individual “card” as defined by the API documentation and acts a link to the PetFinder website for detailed information.
- Capability 2: Researching Pet Types
 - With the MediaWiki API, searching of Wikipedia for articles on pet types is available via a user-defined input. The search input is limited to and provides autocompletes for the available breeds, which is a list generated from the articles found on the Wikipedia list of breeds for cats and dogs.
- Capability 3: Locating Adoption Centers
 - The final capability is two-fold. Through accessing a JSON file, adoption centers can be listed by chosen state. The centers locations can then be displayed on a map generating using the Leaflet Maps API based on their JSON stored address.

Challenges in Development

- Several challenges were encountered during the development of this application. These included:
 - 1. General API incorporation and functionality. Much of the API documentation is written for experienced developers, which required significant additional research to find examples of use.
 - 2. The MediaWiki API search would commonly return irrelevant data for generic pet types (e.g., a Harrier dog breed would return the aircraft). Appending the pet type in the search improved the results and limited them to relevant articles.
 - 3. No database of animal shelters was found available. A JSON file was created for this purpose, but it requires manual loading of the data which can be time consuming.

Future Application Updates

- Future application updates to improve usability or expand upon functionality include:
 - 1. Further develop animal shelter database to include additional cities and states. A python script to scrape data from the net and automatically format the JSON file would be a viable way to do this for a large quantity of results.
 - 2. Styling of the web pages can be improved to provide a more sleek and modern look. Writing CSS code that provides a professional appearance is very challenging and no “off-the-shelf” CSS files seemed to fit the specific needs of this application.

References

- PetFinder: <https://www.petfinder.com/developers/>
- MediaWiki: https://www.mediawiki.org/wiki/API:Main_pagepet
- Leaflet: <https://leafletjs.com/reference.html>