

Potential Projects

1. Financial Income Calculator/Comparison Analytics Tool

Project Name

Compensation and Cost of Living Decision Support System

Problem Statement

Important decisions in our life require a lot of information. Most of the time the information required could be hard to find. Even if the information was available, it would be spread across multiple websites and in the end, the user has to do the analysis and decide what he needs. Our team looks to build a single tool that will provide users with all the information they may need to plan major decisions, one example is, If a person is planning to move from the city he is currently living in, some of the major factors the user would potentially consider while buying his new house, would be commute time to work, pay vs expenses in the area, school zones and nearby grocery stores. We aim to provide all this information as a one-stop shop to the users.

Project Description

The Compensation and Cost of Living Supporting System is a website platform that provides users an insight into the living quality in an area based on their income and personal household needs. In this project, users can input any zip code and their income with a selection of specific requirements such as the size of household, the score of a school district, and crime rate. The project can generate a tailored analytic report for users that illustrates whether it would be good to live in the area.

Project Scope and Deliverables

The Compensation and Cost of Living Supporting System website aim to provide decision support services within all the U.S. zip codes. The report supports searching multiple zip codes for users to make comparisons. The final deliverable of the project is a report that contains basic geographic information, a net paycheck calculator, tables, and graphs to show the numeric data for users.

2. Animal Shelter

Project Name

Shelter Finder or Find A Shelter

Problem Statement

Rescuing a dog has become increasingly more difficult. Between puppy mills, fake shelters, and backyard breeders; modern websites like petfinder.com and adoptapet.com have become cluttered with old posts, bots, and fake posts trying to take advantage of people trying to adopt their next best friend. This project aims to provide exclusive access to verified shelters in a user's area, without the issues rendering the other sites basically unusable today.

Project Description

First, a user will be greeted with a welcome page where they enter their zip code/city, state. Then they will be greeted with a default radius map view on the left and a default list view displaying the shelters in that radius. They will then have the option to change the radius using a drop-down list on the map view, or change the list view to dogs or cats in the current radius using a button at the top of the list. Potential expansions of the app could include additional filters for the dog and cat list views, as well as adding additionally supported shelters (stretch goal: every shelter in Virginia)

Project Scope and Deliverables

- Mobile or web app
- Style
 - Minimal
 - Use one of the websites from this post for art?
<https://www.instagram.com/p/CTuWj31DLNn>
 - Google Material or Instagram Aesthetic
- Welcome Page asking for zip code
- Map view on left, list view on the right
- Radius option in map view
- List view button to filter just dogs, cats, or shelters in the map radius
- Potentially add additional filters like sex/breed/color
- Web crawl adoption page URL of verified shelters
 - First approval in Blacksburg and Northern VA?

Team Members and Roles*

- Mark Paes - Project Manager/Requirement Analysis
- Srija Gurijala - Back-End
- Steven Barnett - Front-End
- Xu Wang - Front-End
- Chris Luersen - Full-Stack

Communication

- Weekly meeting during class periods at the Falls Church classroom or on Discord
- Asynchronously through Discord

Stack*

- Communication - Discord
- Version Control - GitLab
- Project Management - Trello (Kanban)
- Design - Balsamiq/LucidChart
- Framework - Django
- Front-End - Bootstrap or Vue.js
- Database - SQLite
- Integrations
 - Wheel
 - Pandas

Timeline*

- Phase 1 - Finalize the project selection and make a case for the need that our system can fulfill in the marketplace. Plan the project, come up with use cases and user stories and begin our design and implementation cycle.
- Phase 2 - Finalize the design of the project, develop use cases, create user stories and a product backlog, and will begin working towards the first sprint.
- Sprint 1 -
- Sprint 2 -
- Sprint 3 -