

ShelterHelp

Team B10

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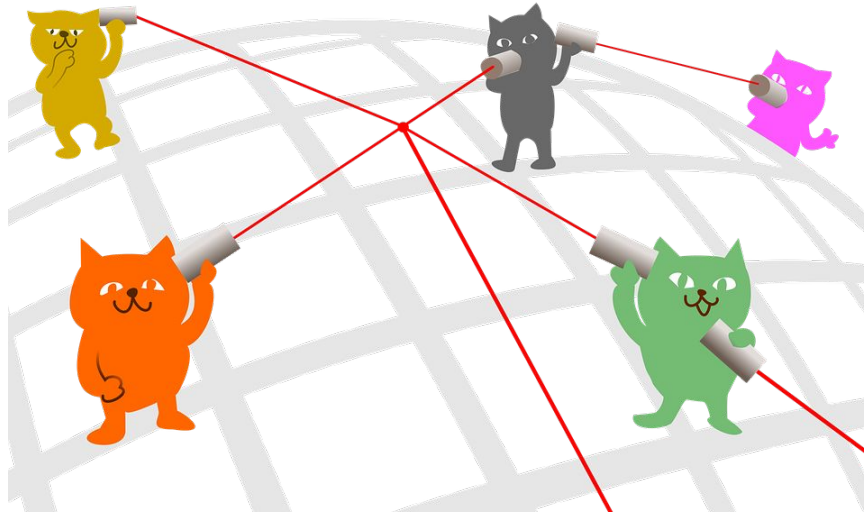
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Status Quo

- Shelters lack a communication channel between each other
- Most shelters have internal information and the distribution method of this information is outdated



Consequences

- Issues that arise:
 - Overcrowding at shelters
 - Certain shelters lack resources to aid animals
 - Information lost between shelters



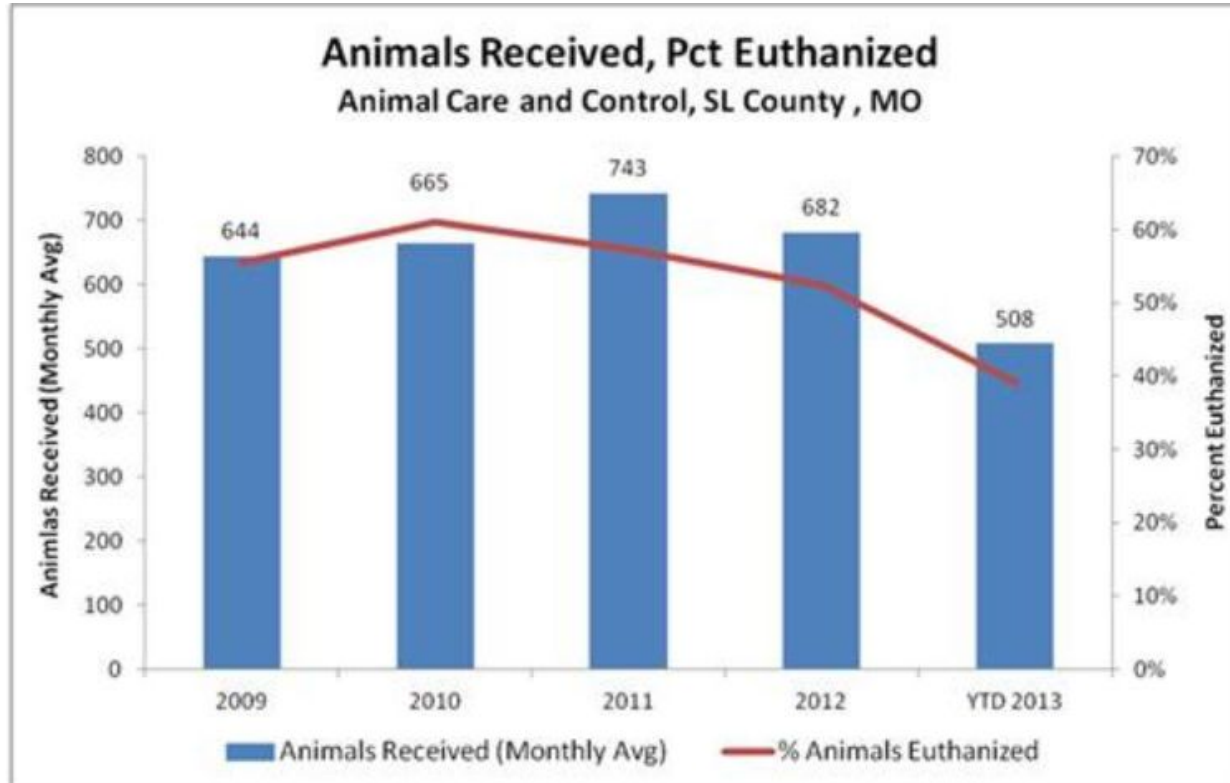
Client Vexation

- Shelters forced to kill animals due to negligence and lack of succor
- Sharon Gray, the head of an Animal Rescue and Foster Program in Greensboro, North Carolina mentioned:
 - **She and other rescues try to get an animal out but have to wait days if not weeks to do so due to lack of communication or information.**

Startling Facts

- An animal shelter in Cleveland in 2010 euthanized 5500 out of 6900 dogs brought in
 - 50% of these euthanizations were due to overcrowding
 - The rest of the euthanizations were due to lack of proper care for sick animals

Startling Facts



Balancing Shelters

- Using these statistics, we want to come up with a solution that can:
 - Properly distribute animals across shelters to balance shelter capacities in the region
 - Educate consumers to ultimately drive higher animal adoption rates



Shelter Availability

- Also using these statistics:
 - Make people aware of shelter availability
 - When users find stray animals they can take them to:
 - Shelters that are not full
 - Shelters that handle spaying and neutering



Overcrowded Hospitals

- When a human hospital gets overcrowded, people are transferred to a less crowded one
- Overcrowded human hospitals require transfers to balance patient loads
- Certain hospitals provide exclusive accommodations that are inaccessible elsewhere in the area.

Introducing ShelterHelp!

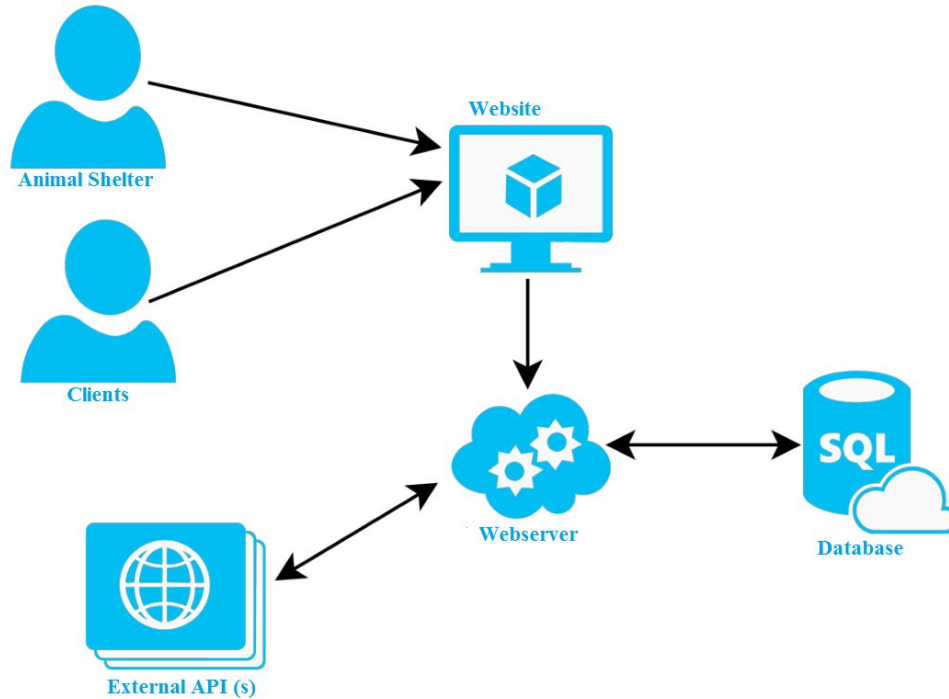
- A web application that can:
 - Create an interface for animal shelters to communicate
 - Can show inventory information, medical policies, and other information to each other
 - Can request animal transfers from specific shelters
 - Save animal lives!



Animal Shelters Molded

- Take all animal shelter information, convert it to the same format and store it in our database
- Have an interface for shelters to view other shelters
 - View other shelter's animal capacity
- Organize transfer of resources and animals

The Component Architecture



Animals Saved, Humans Happy!

- With proper communication and consistent storage of information:
 - Animals will not need to be killed as often
 - Shelter workers are less stressed
 - Animals can get the proper care when sick

5 Major Functions

Feature: Transfer

Short Description: Allow shelters to transfer an animal to another shelter

Requirements: Shelters must be allowed to submit a transfer request to any other shelter. Shelters must be allowed to deny or approve any incoming transfer request. Once a transfer is complete the animal must be moved from the source shelter to the destination shelter's inventory.

Feature: Favorite

Short Description: Allow adopters to favorite an animal so that they may revisit them quickly

Requirements: Adopters must be able to favorite any animal they desire. Adopters must be able to view their favorite animals in a convenient manner, faster way than can reach all other animals. Adopters must be able to request an adoption for any animal they favorite.

Feature: Filter

Short Description: Animals should be recommended to adopters based on information about the adopter

Requirements: Adopters must be given a set of animals that are predicted to be compatible with them. Adopters must be able to favorite or request to adopt any of these animals.

Feature: Stats

Short Description: Shelters should be able to quickly visualize the current and max capacities of other shelters

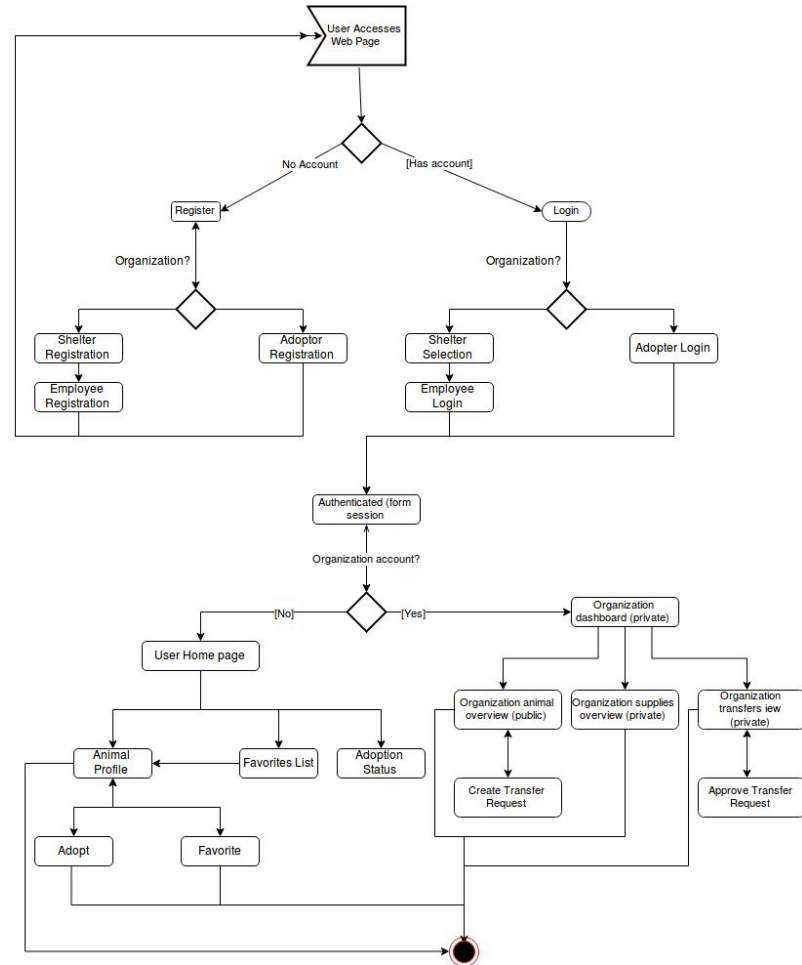
Requirements: Shelters must be able to view how full other capacities are in an easy to understand and visual manner

Feature: Adopt

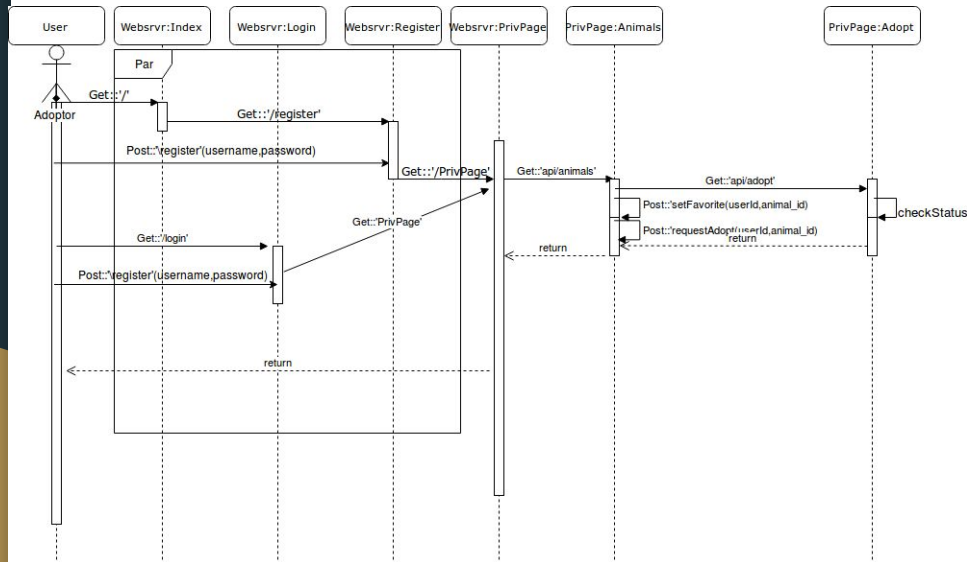
Short Description: Adopters should be able to adopt animals from shelters

Requirements: Adopters must be able to request an adoption with a shelter. Adopters must be able to view the status of their pending adoption request.

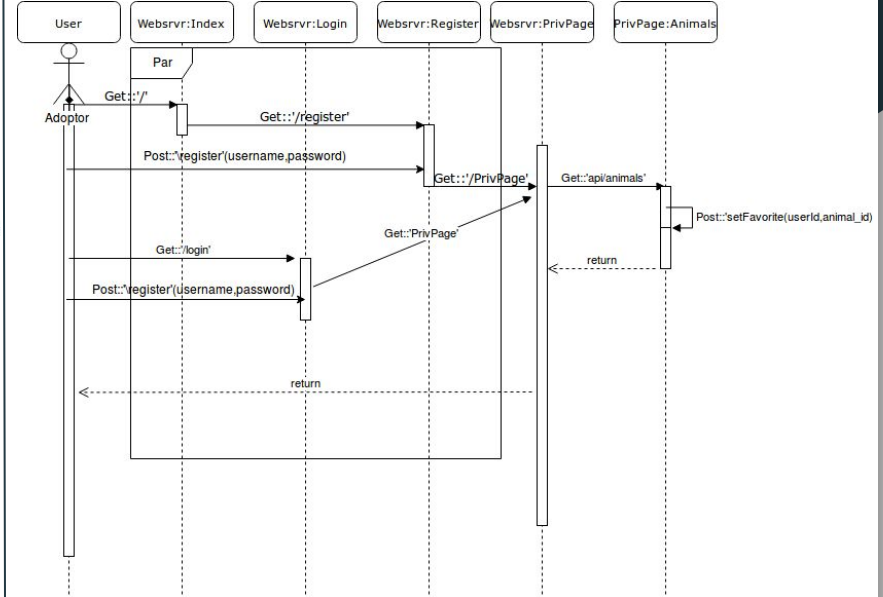
Activity Diagram



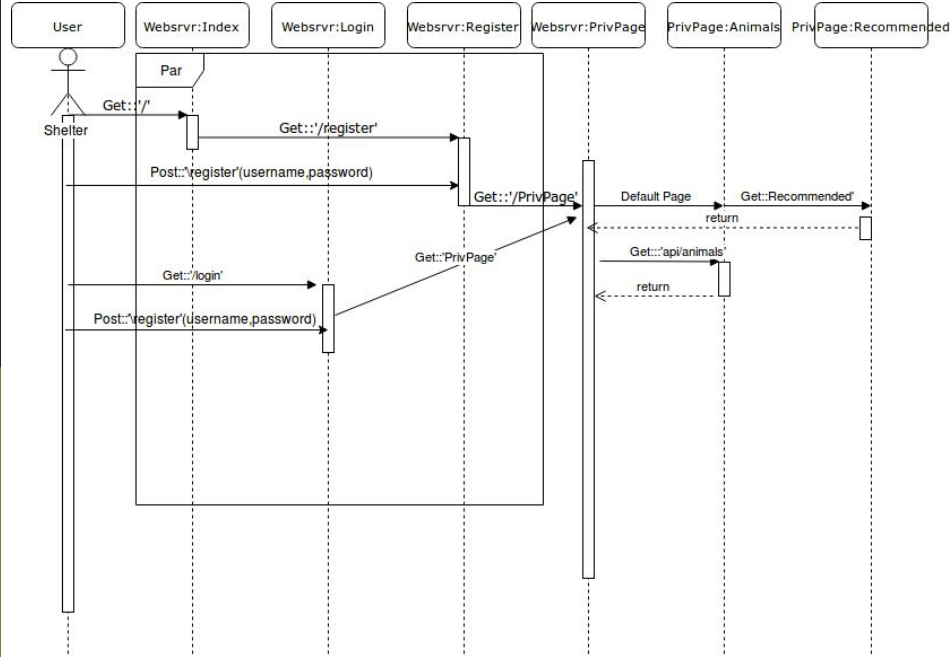
Sequence Diagram for Adoption



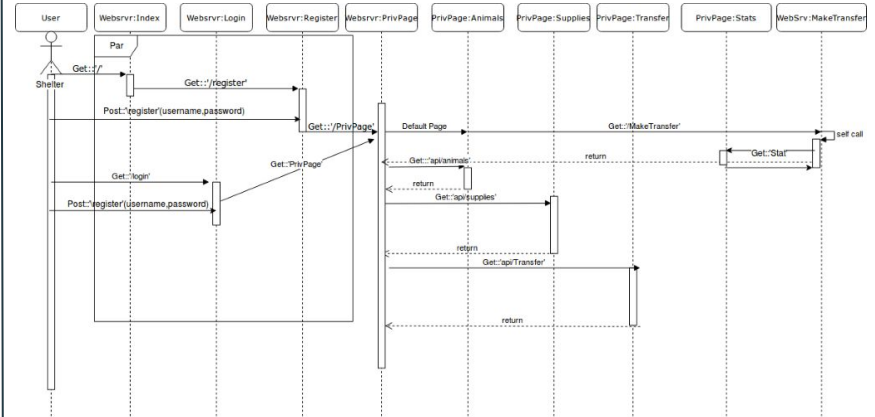
Sequence Diagram for Favorites



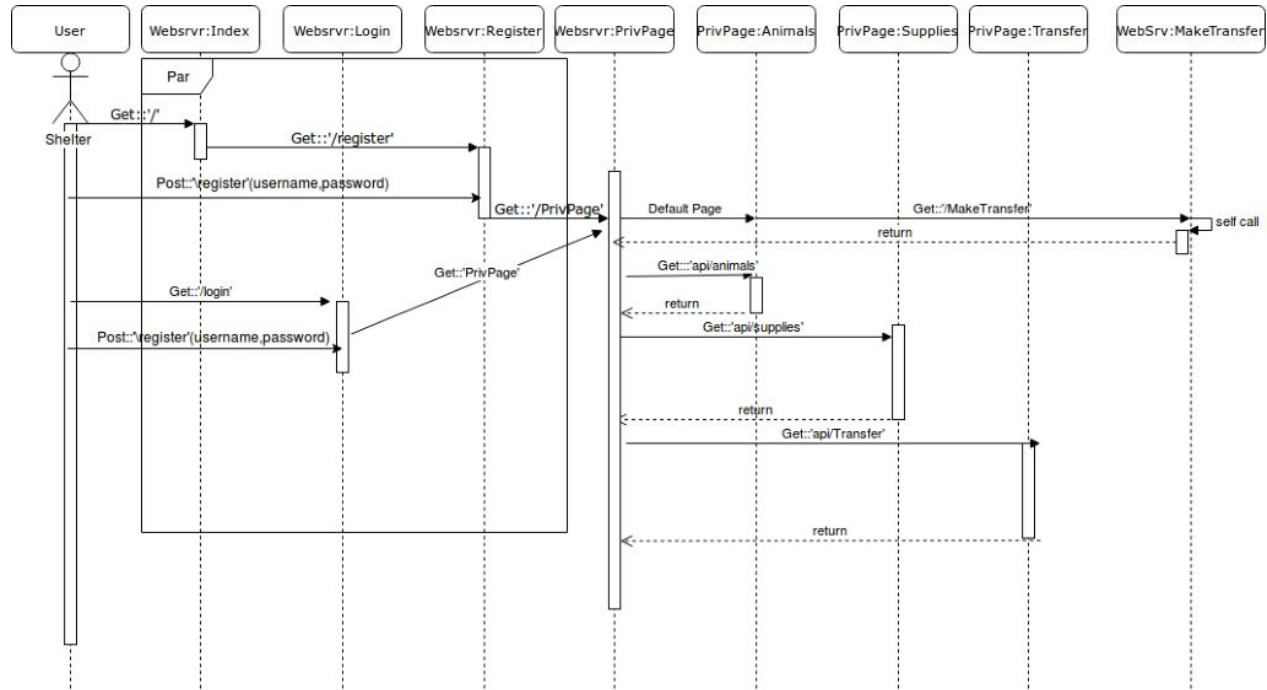
Sequence Diagram for Matching



Sequence Diagram for Stats



Sequence Diagram for Transfer





And now for the demo!!!!

Future Work

- Use machine learning to build a smarter recommendation system for animal matching.
 - Take into account Health accommodations necessary



Post Implementation Review

- What we did right:
 - Clear and Constant Communication:
 - We always communicated through Slack whenever we had to complete an artifact
 - Whenever anyone had any doubts about of how something would work or if an idea was actually viable they would speak up and have their opinion heard so the team could explain or change the idea
- What we did wrong:
 - Documents were not thorough enough
 - Should have made more frequent in-person meetings
- What we would change:
 - Earlier submission
 - Regular group reviews



Questions/Comments?