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## Seattle ♥ Dogs

### Vision

The Seattle ♥ Dogs is a project in which we seek to create a single website that combines the data from multiple Seattle animal shelters and local certified dog breeders, to provide the ease of searching for the right dog for potential buyers. While a lot of dog adoption sites and mobile application exists today, there has not been one that allows potential dog seekers to search both shelters and local breeders at once, especially since buying a purebred dog from breeders can be very tricky and requires buyers to already have connections to the breeders. Seattle ♥ Dogs will not only help users explore (with some short questionnaires) whether adopt or buy is right for them, search for the right dog, connect with respective shelters or breeders, it will also allows local dog breeders to advertise new litters, and help locate shelters dogs into new, loving homes, all done on a single platform.

### Software Architecture

We will be using the open-source Scrapy (python) Framework to extract data from online shelter websites. Breeders will individually register with the site to promote their kennel, and their data will be stored in an SQL database. Back-end development such as search query and user questionnaires will be implemented with java. For our front-end interactions on the website we will use the Angular JS framework by Google, HTML, and JavaScript for development. Lastly, we will use an email server to forward outgoing messages for users to contact shelters and breeders. The model will consist of breeder data, shelter data, and users' dog preferences. The View will handle user interaction, including search options, breeder registration form, and contact form. The project will provide us with a lot of learning opportunities and experience with web scraping and web development.



## **Challenges and Risks**

Our biggest challenge in developing this product will be the process of learning all the languages and tools listed above in the software architecture sections to create our database from data collected with web scrapping tools. Also, while some of us might have previous experience with web programming (writing JavaScript etc.), the majority of us don't and it will take additional time to pick up the languages. So overall, there are a lot of new tools from back-end to front-end that we need to get familiar with in order to execute this project.

To minimize the risk of running out of time, our group will meet more often than the required once a week and we will frequently consult with the TAs to help us learn new skills and technologies.