

Executive Summary

This project applies Ethereum techniques to an online pet shop. The decentralized application (DApp) takes Ethereum addresses and associates them with the pet shop functionalities. The development of my DApp is based on the seed application *petShopTutorial* provided in the *MetaMask_petshop* assignment. The feature that comes with the seed application is Adoption and five more are added by me. The function for the user to like a pet has referenced the *Election* DApp in the mini course. The other four features are original.

1. *Like a Pet*

The user can like one or multiple pets listed on the webpage by clicking the like button located under each pet. Each user can like each pet once. The number of likes will be tracked and displayed as Likes: #of like.

-Front and back-end features modified from **index.html**, **app.js** and **Adoption.sol**.

2. *Most Adopted Breed*

The website will keep track of and publish the most adopted breed. When it comes to a tie, the most recently adopted breed will be shown.

-Front and back-end features modified from **index.html**, **app.js** and **Adoption.sol**.

3. *Track #Adoptions and #Customers served*

The website will keep track of the number of adopted pets and the number of customers served. The customer count will increment by one for new customer adoption. Multiple adoptions performed by one customer will not increase the number of customers served. The customer-served count will not decrease after a user has returned all of the pets as it is still considered a future potential.

-Front and back-end features modified from **index.html**, **app.js** and **Adoption.sol**.

4. *Returning Pet*

The user can return a pet by clicking on the return button for a fee greater than a certain threshold (0.01ETH for example). The adoption count will decrease by one after the return process. The returned pet will be available again to all the users.

-Front and back-end features modified from **index.html**, **app.js** and **Adoption.sol**.

5. *Track owned pets*

For each user, the DApp will keep track of the pets they own after adoption. A list of pets' names will be shown.

-Front and back-end features modified from **index.html**, **app.js** and **Adoption.sol**.