Pet Shop DApp Executive Summary

**Overview**

This DApp is the result of project programming plan A, starting from the pet store seed DApp. We have retained the pet adoption function and added four major functions, which will be described in detail below. We use python language to reprogram the DApp front end and use navbar in HTML to connect all the main functions. In addition to the four main functions added, we also added an account switching function to this pet shop DAPP to change the user's Ganache account. At the same time, we also made some changes to the rendering of HTML.

**Vote Pets (transferred from Elections )**

The function of voting pets is on the pet shop's main page. In this function, each account can vote for his favorite pets by clicking the “like” button which is next to the “adopt” button. After voting, the number of votes of the objective pet displayed on the front-end will be increased by one, and the "Like" button of other pets will be disabled. Each account can only vote once. After the account changing by the “ChangeYourAccount” page, the “like” button will be reactivated.

**Add Pets (transferred from Marketplace)**

The function of adding pets is on the page next to the pet shop page of the navbar. In this function, people need to enter the pet’s name, breed, age, location, and price to add a pet. If one or more of the entered information is empty, this addition will fail. The page will display an error in incomplete information. If the information is complete, a certain gas fee will be charged and pets will be added to the contract. The current page will show that the pet has been added successfully. People can keep adding multiple pets. At the same time, all pets added will be displayed on the pet purchase page. These added pets will only be used for purchase not for adoption.

**Buy Pets (transferred from Marketplace)**

The pet purchase function is located on the next page of the navigation bar. At first, it was a blank page. After successfully adding a pet through the add pet function, this page will display all the pets that have been added. The pets will be shown with all their information and their owner account address. When people click the "buy" button, the contract will transact and the specific price of the objective pet will be transferred from the purchase account to the owner account. After purchase, the owner of the pet will be changed to the purchase account and the "buy" button of this specific pet will be disabled. If the purchase account is the same as the owner account, the purchase will fail and show an error of "you cannot buy your own pets" on the page. People can use the "ChangeYourAccount" of the navbar to change accounts.

**Donate Ether (transferred from Web3Basics SendMeEther)**

The function of donating ether allows people to trade their ether from their accounts to contract accounts. People can use GWei units to fill in the value of the ether they want to trade, and then click the "donate" button to activate the contract. The front end of the donation page can display the balance of the contract account before and after the donation. The contract balance will be shown in unit ETH. After the donation is successful, the page will jump to the thank you page, click the "Back" button to enter the donation page again.