

## Executive Summary

### 1. Show the owner of the pet (possibly none or 1)

By clicking a specific “Owner” button, the current owner of the pet will be shown.

- updated **src/js/app.js**:  
modified markAdopted(), handleAdopt(), initContract()
- updated **contracts/Pets.sol** for new data structure to support new functions: added create(), idExists(), idFind();  
modified adopt(), getPets()

### 2. Up/down vote a pet

By clicking the “Up Vote” or the “Down Vote” button, the user can up/down vote a pet, the current vote number will be reflected immediately.

- updated **src/js/app.js**:  
added markVotes(), handleUpVote(), handleDownVote();  
modified init(), bindEvents()
- updated **contracts/Pets.sol**: added upVote(), downVote()

### 3. Return a pet

By clicking the “Return” button, the user can return an adopted pet.

- updated **contracts/Pets.sol** to support pet return: added returnPet()
- updated **src/js/app.js**: modified init(), bindEvents(), markAdopted() to support the behaviour of "Return" button; added handleReturnPet() to return the pet for a fee
- updated **index.html** to support the "Return" button

### 4. Adoption histories

By clicking the “Adoption History” button, the user can view the adoption history.

- updated **src/js/app.js**: modified markAdopted() to support the behaviour of "Adoption History" button; added handleReturnPet() to return the pet for a fee
- updated **index.html** to support the "Adoption History" button.

### 5. Track the number of adopted pets and served customers

The number of served customers and adopted pets is placed under the title of the

Pet Shop, allowing the user to know the popularity of the shop.

- updated **contracts/Pets.sol**: added `addCust()` to track customers, `trackPet()` and `trackCust()` to get how many customers have been served and how many pets adopted
- updated **src/js/app.js**: add `markPets()`, `markCusts()` to support the behavior; modified `markVotes()` `handleAdopt()` to trigger the behaviour
- updated **index.html** to support information display

6. Use “@truffle/contract” instead of “truffle contract”.

- updated **index.html** and **bs-config.json**
- deleted **src/js/truffle-contract.js** and **src/js/web3.min.js**

7. Use npm “bootstrap” resources instead of local “bootstrap” resources

- updated **index.html** and **bs-config.json**
- deleted **src/js/bootstrap.min.js**, **src/css/bootstrap.min.css**, and **src/css/bootstrap.min.css.map**