Arica Conrad

BIT 465 – REST API Development

February 27, 2022

Final Project – Web Service API

Catastic Companions - Cat Shelter API

The Cat Shelter API is designed as an internal web service for a cat shelter named Catastic Companions. The employees of the cat shelter can sign up and log in to the system. Once logged in, they can view all the cats they currently have and make changes to the data, such as by adding a new cat, editing the information of an existing cat, or deleting a cat.

Security Controls

Viewing the data is only accessible by logging in, since this is mimicking an internal web service. All read and update operations are able to be completed once a user is logged in. There will also likely be error trapping for bad input during the sign up and log in process.

Section One – Sign Up and Login

SignUp

**API call:**

POST http://catasticcompanions.com/api/signup

**Parameters:**

None.

**Examples of API call:**

http://catasticcompanions.com/api/signup

**Request body:**

{ “username”: “Arica Conrad”, “password”: “12345” }

**API response:**

{ “message”: “Successfully signed up.” }

Login

**API call:**

POST http://catasticcompanions.com/api/login

**Parameters:**

None.

**Examples of API call:**

http://catasticcompanions.com/api/login

**Request body:**

{ “username”: “Arica Conrad”, “password”: “12345” }

**API response:**

{ “message”: “Successfully logged in.” }

Section Two - Cats

GetAllCats

**API call:**

GET http://catasticcompanions.com/api/cats

**Parameters:**

None.

**Examples of API call:**

http://catasticcompanions.com/api/cats

**API response:**

[{ “cat\_id”: 1, “name”: “Buddy”, “age”: 13, “gender”: “Male”, “weight”: 8.5, “date\_admitted\_to\_shelter”: “2022-02-27”, “is\_spayed\_or\_neutered”: true, “physical\_description”: “Thin, tuxedo, yellow eyes.”, “about\_me”: “Buddy is a shy cat, but is friendly when he warms up to you.”, “is\_adopted”: true },

{ “cat\_id”: 2, “name”: “Ginger”, “age”: 5, “gender”: “Female”, “weight”: 10.0, “date\_admitted\_to\_shelter”: “2022-02-28”, “is\_spayed\_or\_neutered”: true, “physical\_description”: “Small dilute ginger with blue eyes.”, “about\_me”: “Ginger is a friendly cat who loves to play with toys.”, “is\_adopted”: false }]

GetCat

**API call:**

GET http://catasticcompanions.com/api/signup/cat/cat\_id={id}

**Parameters:**

Must provide a valid Cat ID (int).

**Examples of API call:**

http://catasticcompanions.com/api/cat/1

**API response:**

{ “cat\_id”: 1, “name”: “Buddy”, “age”: 13, “gender”: “Male”, “weight”: 8.5, “date\_admitted\_to\_shelter”: “2022-02-27”, “is\_spayed\_or\_neutered”: true, “physical\_description”: “Thin, tuxedo, yellow eyes.”, “about\_me”: “Buddy is a shy cat, but is friendly when he warms up to you.”, “is\_adopted”: true }

AddCat

**API call:**

POST http://catasticcompanions.com/api/cats

**Parameters:**

None.

**Examples of API call:**

http://catasticcompanions.com/api/cats

**Request body:**

{ “cat\_id”: 2, “name”: “Ginger”, “age”: 5, “gender”: “Female”, “weight”: 10.0, “date\_admitted\_to\_shelter”: “2022-02-28”, “is\_spayed\_or\_neutered”: true, “physical\_description”: “Small dilute ginger with blue eyes.”, “about\_me”: “Ginger is a friendly cat who loves to play with toys.”, “is\_adopted”: false }

**API response:**

{ “message”: “Successfully added a new cat.” }

UpdateCat

**API call:**

PUT http://catasticcompanions.com/api/cats/cat\_id={id}

**Parameters:**

Must provide a valid Cat ID (int).

**Examples of API call:**

http://catasticcompanions.com/api/cats/1

**Request body:**

{ “cat\_id”: 2, “name”: “Ginger”, “age”: 5, “gender”: “Female”, “weight”: 10.0, “date\_admitted\_to\_shelter”: “2022-02-28”, “is\_spayed\_or\_neutered”: true, “physical\_description”: “Small dilute ginger with blue eyes.”, “about\_me”: “Ginger is a friendly cat who loves to play with toys.”, “is\_adopted”: **true** }

**API response:**

{ “message”: “Successfully updated the cat’s information.” }

DeleteCat

**API call:**

DELETE http://catasticcompanions.com/api/cats/cat\_id={id}

**Parameters:**

Must provide a valid Cat ID (int).

**Examples of API call:**

http://catasticcompanions.com/api/cats/1

**API response:**

{ “message”: “Successfully deleted the cat.” }

Summary

My Cat Shelter API adheres to the best practices for RESTful web services, as the proper HTTP methods are being called for certain actions. Reading data uses GET, adding or creating data (which includes signup and login) are POST, updating data uses PUT, and deleting data uses DELETE. The data is supplied in JSON format, and the API responds with messages to show the user that the application is working. The URIs are concise and easy to remember.