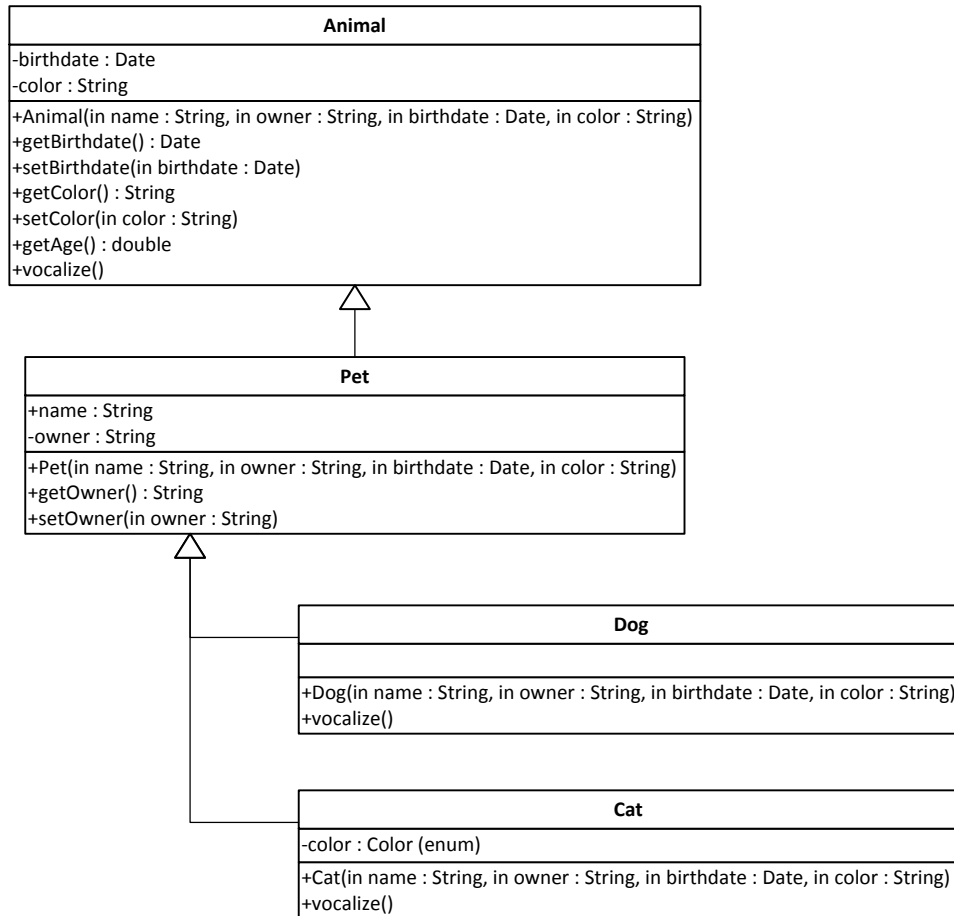


## Lab 8: Pets

1. Create classes for Animal, Pet, Dog, and Cat as shown below. Remember that a '-' in front of a property indicates private, and a '+' indicates public.



2. Create a vocalize method for Animal, which will System.out.print the sound that an animal makes. Override this method to make an appropriate dog sound and cat sound.
3. Cats come in only 25 standard colors:

black, gray, white, black tiger, brown tiger, gray tiger, orange tiger, black and white, gray and white, black tiger and white, brown tiger and white, gray tiger and white, orange tiger and white, calico, tortie, torbie, muted calico, muted tortie, muted torbie, buff, chocolate point, flame point, lynx point, seal lynx point, and snowshoe.

Rather than allowing any String to identify a cat color, override the color property by using an enum inside the Cat class called Color. (You don't have to do all twenty-five colors...but do a good number of them.)

4. Now create a driver program PetApp.

**a. Part One: Using private and public properties**

Create a pet. Print to the console the pet name and the owner name.

**b. Part Two: Building a method**

Create two dogs. Print to the console the pet name and the owner name as in Part One. BUT... as we do not want to repeat code, create a method in PetApp to print pet name and owner name for any pet. Use the method on your dogs.

**c. Part Three: Dealing with changes in inherited and overridden properties**

Create a cat. Use the display method created in Part Two to display the cat information.

**d. Part Four: Overriding methods.**

For each of your four animals, print a sentence that describes the animal and the sound they make, as shown in the sample output below. For extra points, don't hard-code the words "pet", "dog", or "cat in these sentences.

PART ONE

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Pet name: Dexter  
Owner: Amber Robbins

PART TWO

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Pet name: Madgen  
Owner: Derek Brown

Pet name: Cocoa  
Owner: Bill McCauley

PART THREE

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Pet name: Jasmine  
Owner: Amber Robbins

PART FOUR

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Dexter, the 3.7 year-old, yellow pet says, "(I don't know how to vocalize)."  
Madgen, the 7.2 year-old, brindle dog says, "Ruff, ruff."  
Cocoa, the 3.6 year-old, chocolate brown dog says, "Ruff, ruff."  
Jasmine, the 0.4 year-old, muted tortie cat says, "Meow."

