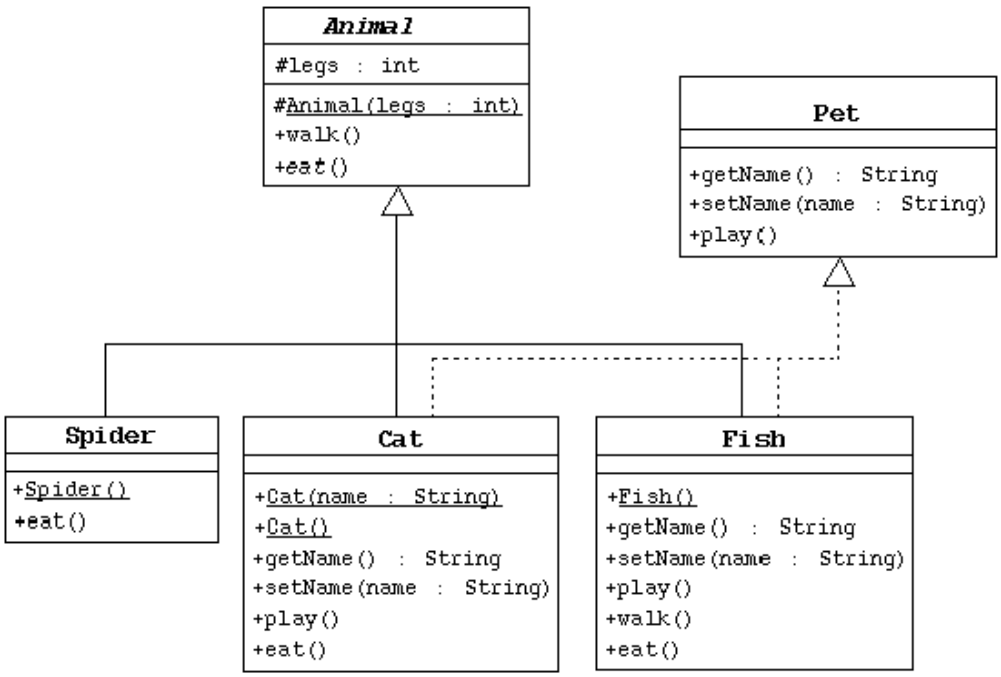


**Note:** If you are not so good at inheritance, just ignore the Pet part and only inherit from the Animal class first.

1. Create the `Animal` class, which is the **abstract** superclass of all animals
    1. Declare a protected integer attribute called `legs`, which records the number of legs for this animal.
    2. Define a constructor that initializes the `legs` attribute.
    3. Declare an **abstract** method `eat`.
    4. Declare a **concrete** method `walk` that prints out something about how the animals walks (include the number of legs).
2. Create the `Spider` class.
    1. The `Spider` class is a subclass of the `Animal` class.
    2. Define a default constructor that calls the superclass constructor to specify that all spiders have eight legs.
    3. Implement the `eat` method.
3. Create the `Pet` class specified by the UML diagram.
4. Create the `Cat` class that inherits `Animal` and `Pet`.
    1. This class must include a `String` attribute to store the name of the pet.
    2. Define a constructor that takes one `String` parameter that specifies the cat's name. This constructor must also call the superclass constructor to specify that all cats have four legs.

    3. Define another constructor that takes no parameters. Have this constructor call the previous constructor (using the `this` keyword) and pass an empty string as the argument.
    4. Implement the `Pet` class methods.
    5. Implement the `eat` method.
5. Create the `Fish` class. Override the `Animal` methods to specify that fish can't walk and don't have legs.
6. Create a main method. Create and manipulate instances of the classes you created above. Create an object for each classes and make some operations with those objects. Use new/delete tags for at least one classes.

**Bonus:** You can count how many cat instance is created by using static variable of the class.