

CyberPet.java

PetTester.java

CyberPet.txt

Create a class for a CyberPet

There will be private data attributes for the following:

name will be a String

isEating and isSleeping will be boolean for the CyberPet's state

There will be public methods:

Constructors:

Write a default constructor that will give initial values of isEating to true, isSleeping to false, and set name to "Fido"

Write an overloaded parameter constructor that passes in a String n to give your pet it's own name

Set methods

Write a void eat method that changes the state of isEating to true and isSleeping to false. It also prints a message of "Pet is eating"

Write a void sleep method that changes the state of isSleeping to true and isEating to false. It also prints a message of "Pet is sleeping"

Write a void method setName that has a String parameter that is used to change the CyberPet's name

Get methods

Write a return method called getName() that returns the pet's name

This method will be called on a System.out.println statement

Add in a static instance variable allFood that will

keep track of all food eaten. It should be given a value of 10.

Also add a static method that will check this allFood, and print a message of need to buy more food if allFood is less than 5.

Add a private data attribute of a String kind //Be sure to give a value in all constructors

Add a 3rd constructor with 2 parameters, 1 for name and 1 for kind

Add getKind and setKind methods

Add a getState method: It will return a string of "Eating", "Sleeping", or "Error in state" message

#1 Write the toString method: have the cyberpet object able to print from the System.out.println() by writing your own toString method

it should return the pet's name and it's kind called by statement: System.out.println(pet1);

#2 Add in a isPlaying state, so cyberpet could eat, sleep or play, printing

an appropriate message when the play method is called. Give value in all constructors.

#3 Add a size instance variable making certain it can be set to either big or small.

Write an encounter(CyberPet) method that allows one CyberPet to encounter another.

Note that the method should take a CyberPet parameter. Depending on the

size of the pet, the small pet should be chased by the larger pet or the two should befriend each other. Use the .equals method to check a string's value.

```
if (other.size.equals("big") && this.size.equals("big"))  
    System.out.println("Same size; let's be friends.");
```

PetTester.java

```
import java.util.Scanner;  
import java.io.*;  
  
public class PetTester  
{  
    public static void main(String args[]) throws IOException  
    {  
        Scanner input = new Scanner(new File("CyberPet.txt"));  
        CyberPet pet1 = new CyberPet();  
        pet1.eat();  
        pet1.sleep();  
        pet1.eat();  
        pet1.eat();  
        pet1.eat();  
  
        System.out.println("This pet's name is "+pet1.getName());  
        pet1.setName("Max");  
        pet1.setKind("dog");  
        System.out.println(pet1.getName()+" is a "+pet1.getKind());  
        System.out.println();  
  
        System.out.println("Enter name of your pet: ");  
        String text = input.nextLine();  
        System.out.println("Enter the kind of pet: ");  
        String kind = input.nextLine();  
        CyberPet myPet = new CyberPet(text,kind);  
  
        myPet.eat();  
        myPet.sleep();  
        myPet.eat();  
        myPet.eat();  
        myPet.eat();  
        CyberPet.checkFood();  
  
        System.out.println("This pet's name is "+myPet.getName());  
        System.out.println(myPet.getName()+" is a "+myPet.getKind());  
        System.out.println(myPet.getName()+" is "+myPet.getState());
```

```
        System.out.println(pet1);

        pet1.play();
        System.out.println(pet1+" and it is "+ pet1.getState());

        myPet.encounter(pet1);
    }
}
```

OUTPUT

```
Fido is eating
Fido is sleeping
Fido is eating
Fido is eating
Fido is eating
This pet's name is Fido
Max is a dog

Enter name of your pet:
Enter the kind of pet:
Spencer is eating
Spencer is sleeping
Spencer is eating
Spencer is eating
Spencer is eating
There is only 2 pounds; you are low on food, buy more
This pet's name is Spencer
Spencer is a cat
Spencer is Eating
Max is a dog animal.
Max is playing
Max is a dog animal. and it is Playing
Same size; let's be friends.
```