CS62: Spring 2025 | Lecture #4 (Inheritance) worksheet | Jingyi Li

Recall your Cat class. You also made a Dog class for the animal shelter, but realized there are lots of commonalities – name, sex, age, daysInRescue. Let's make a parent class Animal that both Dog and Cat can extend. From your research, people who adopt cats care about their furType (short, long, etc.) and people who adopt dogs care about their breed (Corgi, Golden Retriever, etc.). Write 3 classes to represent this information. Be sure to:

- Put all the classes in an appropriate package
- Choose the right access modifiers for your fields and methods
- Have getter and setter methods for your instance variables
- Have a constructor (that takes all the relevant parameters) and a counter variable for each class
- Have a toString() method for each class, with Dog and Cat calling the Animal's toString() before adding their own information.

(There's no starter code for this problem: practice remembering the syntax by yourself!)

```
public class ClassA {
    public void methodOne(int i) {
    }
    public void methodTwo(int i) {
    }
    public static void methodThree(int i) {
    }
    public static void methodFour(int i) {
    }
}

public class ClassB extends ClassA {
    public static void methodOne(int i) {
    }
    public void methodTwo(int i) {
    }
    public void methodThree(int i) {
    }
    public static void methodFour(int i) {
    }
}
```

1. Which method *overrides* a method in the superclass?

2. Which method *hides* a method in the superclass?

3. What do the other methods do?