

```
package virtualfunctions;

public class Animal {
    public void voice() {
        System.out.println("??");
    }
    public void voice(int i) {
        for (int j=0;j<i;j++) {
            voice();
        }
    }
    public void greet(Animal a) {
        System.out.println("Hi Animal!");
        voice();
        a.voice();
    }

    public void greet(Cat c) {
        System.out.println("Hi Cat!\n");
        voice();
        c.voice();
    }

    public static void noise() {
        System.out.println("zzz");
    }

    public static void moreNoise(Animal a) {
        System.out.println("ZZZZ!");
        noise();
        a.noise();
        a.voice();
    }

    public static void moreNoise(Cat c) {
        System.out.println("PRRRR!");
        noise();
        c.noise();
        c.voice();
    }

    public static void insistentNoise(Animal a) {
        noise();
        a.noise();
    }

    public void veryInsistentNoise(Animal a) {
        voice();
        noise();
        a.voice();
        a.noise();
    }
}
```

```
public static void main(String[] args) {
    Animal anAnimal = new Animal();
    Animal anotherAnimal = new Cat();
    Cat aCat = new Cat();

    System.out.println("-----");
    anAnimal.voice();
    System.out.println("-");
    anAnimal.voice(3);
    System.out.println("-");
    anotherAnimal.voice();
    System.out.println("-");
    anotherAnimal.voice(3);
    System.out.println("-");
    aCat.voice();
    System.out.println("-");
    aCat.voice(3);
    System.out.println("-----");
    anAnimal.greet(anAnimal);
    System.out.println("-");
    anAnimal.greet(anotherAnimal);
    System.out.println("-");
    anAnimal.greet(aCat);
    System.out.println("---");
    anotherAnimal.greet(anAnimal);
    System.out.println("-");
    anotherAnimal.greet(anotherAnimal);
    System.out.println("-");
    anotherAnimal.greet(aCat);
    System.out.println("---");
    aCat.greet(anAnimal);
    System.out.println("-");
    aCat.greet(anotherAnimal);
    System.out.println("-");
    aCat.greet(aCat);
    System.out.println("-----");
    anAnimal.noise();
    System.out.println("-");
    anotherAnimal.noise();
    System.out.println("-");
    aCat.noise();
    System.out.println("-----");
    anAnimal.moreNoise(anAnimal);
    System.out.println("-");
    anAnimal.moreNoise(anotherAnimal);
    System.out.println("-");
    anAnimal.moreNoise(aCat);
    System.out.println("---");
    anotherAnimal.moreNoise(anAnimal);
```

```

        System.out.println("-");
        anotherAnimal.moreNoise(anotherAnimal);
        System.out.println("-");
        anotherAnimal.moreNoise(aCat);
        System.out.println("---");
        aCat.moreNoise(anAnimal);
        System.out.println("-");
        aCat.moreNoise(anotherAnimal);
        System.out.println("-");
        aCat.moreNoise(aCat);
        System.out.println("-----");
        anAnimal.insistentNoise(anAnimal);
        System.out.println("-");
        anAnimal.insistentNoise(anotherAnimal);
        System.out.println("-");
        anAnimal.insistentNoise(aCat);
        System.out.println("---");
        anotherAnimal.insistentNoise(anAnimal);
        System.out.println("-");
        anotherAnimal.insistentNoise(anotherAnimal);
        System.out.println("-");
        anotherAnimal.insistentNoise(aCat);
        System.out.println("---");
        aCat.insistentNoise(anAnimal);
        System.out.println("-");
        aCat.insistentNoise(anotherAnimal);
        System.out.println("-");
        aCat.insistentNoise(aCat);
        System.out.println("-----");
        anAnimal.veryInsistentNoise(anAnimal);
        System.out.println("-");
        anAnimal.veryInsistentNoise(anotherAnimal);
        System.out.println("-");
        anAnimal.veryInsistentNoise(aCat);
        System.out.println("---");
        anotherAnimal.veryInsistentNoise(anAnimal);
        System.out.println("-");
        anotherAnimal.veryInsistentNoise(anotherAnimal);
        System.out.println("-");
        anotherAnimal.veryInsistentNoise(aCat);
        System.out.println("---");
        aCat.veryInsistentNoise(anAnimal);
        System.out.println("-");
        aCat.veryInsistentNoise(anotherAnimal);
        System.out.println("-");
        aCat.veryInsistentNoise(aCat);
        System.out.println("-----");
    }
}

```

```
package virtualfunctions;

public class Cat extends Animal {

    public void voice() {
        System.out.println("miao");
    }
    public void voice(int i) {
        for (int j=0;j<i;j++) {
            voice();
        }
    }
    public static void noise() {
        System.out.println("prrrrr");
    }
}
```