

```
public class TestProgram
{
    public static void main(String[ ] args)
    {
        Animal genericAnimal = new Animal( );
        Canine genericCanine = new Canine( );
        Wolf bigBad = new Wolf( );
        Dog Lassie = new Dog( );
        Cat Garfield = new Cat( );
        FemaleHuman FDoe = new FemaleHuman ( );
        MaleHuman MDoe = new MaleHuman( );
        genericAnimal.makeNoise("x");
        genericAnimal.roam("x");
        genericAnimal.eat("x");
        System.out.println("Number in the house: " + genericAnimal.numberInTheHouse( ));
        System.out.println( );
        genericCanine.makeNoise("y");
        genericCanine.roam("y");
        genericCanine.eat("y");
        genericCanine.bite("y");
        System.out.println("Number in the house: " + genericCanine.numberInTheHouse( ));
        System.out.println( );
        bigBad.makeNoise("Wolf");
        bigBad.roam("Wolf");
        bigBad.eat("Wolf");
        bigBad.bite("Wolf");
        System.out.println("Number in the house: " + bigBad.numberInTheHouse( ));
        System.out.println( );
        Lassie.makeNoise("Dog");
        Lassie.roam("Dog");
        Lassie.eat("Dog");
        Lassie.bite("Dog");
        System.out.println("Number in the house: " + Lassie.numberInTheHouse( ));
        System.out.println( );
        Garfield.makeNoise("Cat");
        Garfield.roam("Cat");
        Garfield.eat("Cat");
        Garfield.scratch("Cat");
        System.out.println("Number in the house: " + Garfield.numberInTheHouse( ));
        System.out.println( );
        FDoe.makeNoise("Female Human");
        FDoe.roam("Female Human");
        FDoe.eat("Female Human");
        FDoe.bite("Female Human");
        System.out.println("Number in the house: " + FDoe.numberInTheHouse( ));
        System.out.println( );
        MDoe.makeNoise("Male Human");
        MDoe.roam("Male Human");
        MDoe.eat("Male Human");
        System.out.println("Number in the house: " + MDoe.numberInTheHouse( ));
        System.out.println( );
        System.out.println("Bye");
    }
}
```

```
public class Animal
{
    public void makeNoise(String type)
    {
        System.out.println (type + " generic animal noise");
    }
    public void roam(String type)
    {
        System.out.println (type + " generic animal roam about");
    }
    public void eat(String type)
    {
        System.out.println (type + " generic animal eat food");
    }
    public int numberInTheHouse( )
    {
        return(number);
    }
    protected int number = 8;
}
```

```
public class Canine extends Animal
{
    public void makeNoise(String type)
    {
        System.out.println (type + " generic canine noise");
    }
    public void roam(String type)
    {
        System.out.println (type + " generic canine roam about");
    }
    public void eat(String type)
    {
        System.out.println (type + " generic canine eat meat");
    }
    public void bite(String type)
    {
        System.out.println (type + " generic canine bites");
    }
    public int numberInTheHouse( )
    {
        return(number);
    }
    public int number = 0;
}
```

```
public class Wolf extends Canine
{
    public void makeNoise(String type)
    {
        System.out.println ("Wolf howls");
    }
    public void roam(String type)
    {
        System.out.println ("Wolf roams in packs");
    }
    public void eat(String type)
    {
        System.out.println ("Wolf eats raw meat");
    }
    public void bite(String type)
    {
        System.out.println ("Wolf bites with fangs");
    }
    private int number = 5;
}
```

```
public class Dog extends Canine
{
    public void makeNoise(String type)
    {
        System.out.println ("Dog bow wow");
    }
    public void eat(String type)
    {
        System.out.println ("Dog eat Alpo");
    }
    public int numberInTheHouse( )
    {
        return(number);
    }
    private int number = 1;
}
```

```
public class Cat extends Animal
{
    public void makeNoise(String type)
    {
        System.out.println ("Cat meow meow");
    }
    public void eat(String type)
    {
        System.out.println ("Cat eats mice");
    }
    public void scratch(String type)
    {
        System.out.println (type + " scratches with claws");
    }
    public int numberInTheHouse( )
    {
        return(number);
    }
}
```

```
public class FemaleHuman extends Animal
{
    public void makeNoise(String type)
    {
        System.out.println (type + " endless chatter");
    }
    public void roam(String type)
    {
        System.out.println (type + " roam about the mall");
    }
    public void bite(String type)
    {
        System.out.println (type + " bites when mad");
    }
    public int numberInTheHouse( )
    {
        return(number);
    }
    private int number = 3;
}
```

```
public class MaleHuman extends Animal
{
    public void eat(String type)
    {
        System.out.println ("Male Human eat pizza");
    }
    public int numberInTheHouse()
    {
        return(number);
    }
    private int number = 2;
}
```