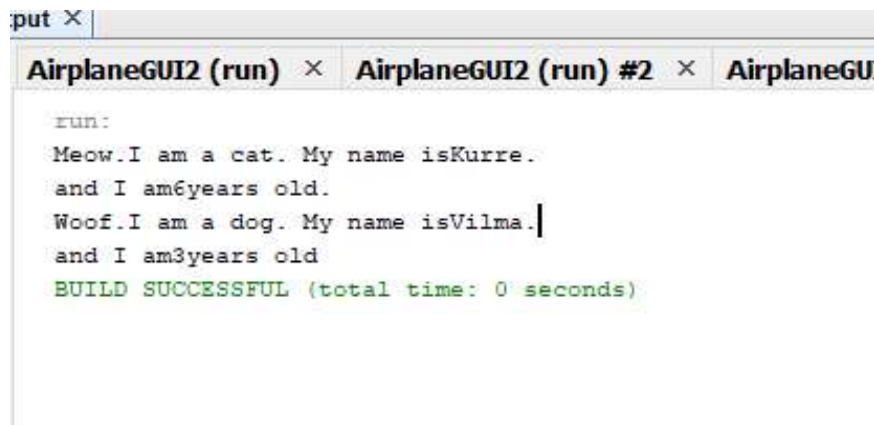


Questions:

- What will be printed?



```
put X |
AirplaneGUI2 (run) x AirplaneGUI2 (run) #2 x AirplaneGU
run:
Meow.I am a cat. My name isKurre.
and I am6years old.
Woof.I am a dog. My name isVilma.
and I am3years old
BUILD SUCCESSFUL (total time: 0 seconds)
```

- Explain how it is that the instance variable age of Animal can be used in Cat and Dog when it is declared in Animal.

Answer : It was using the concept of inheritance. Because the class Cat and class Dog is the subclass of Animal.

- What actually consists an instance of?

Answer: The object of Animal which is Kurre and Vilma consist an instance of Cant and Dog.

- And what consists a class of?

Answer: Class is contains data field description and class are usually field types and names that will be associated with state variable at program run time. These state variable either belong to the class or specific instance of the class.

- What is the difference between a class and an instance?

Answer: Instance variables are declared in a class, but outside a method,constructor or any block. Class variables also known as static variables are declared with the static keyword in a class, but outside a method,constructor or a block.

- Change the declaration of the instance variable age of Animal to a class variable using static, in this way:

```
public static int age;
```

Answer: public class Animal {

```
    public static int age;
```

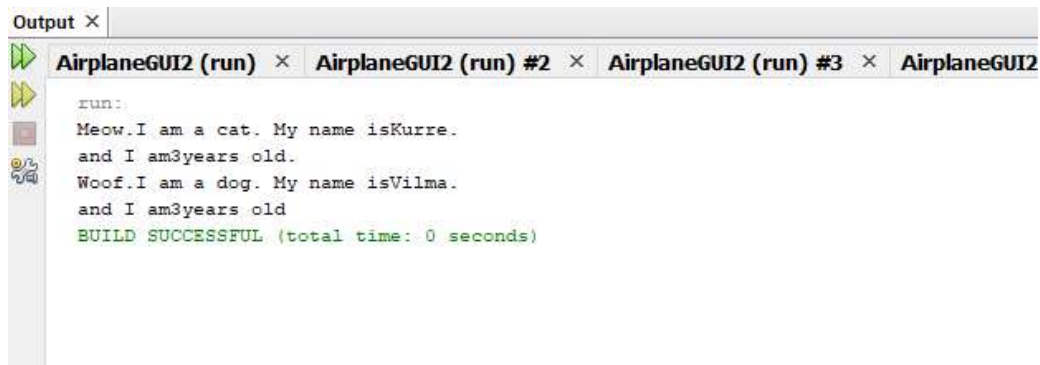
```
    public void introduceYourself(){
```

```
        System.out.println("Morr.I am an animal.");
```

```
        System.out.println("and I am" + this.age + "yearsold" );
```

```
}  
}
```

- What is the result of the output now? Why? Answer:



```
Output X  
AirplaneGUI2 (run) × AirplaneGUI2 (run) #2 × AirplaneGUI2 (run) #3 × AirplaneGUI2  
run:  
Meow.I am a cat. My name isKurre.  
and I am3years old.  
Woof.I am a dog. My name isVilma.  
and I am3years old  
BUILD SUCCESSFUL (total time: 0 seconds)
```

Answer: Because there is only one instance was exist and share with all object of the same classes. And since now the variable of age is a static field in Animal so the age will be the same in two animal which is Kurre and vilma

- It may happen that you get warnings from the compiler that you should access the variable age via Animal.age, but it should be possible to run the program anyway. Otherwise, change the references to age into Animal.age.

- Where is the value of an instance variable stored?

Answer: The value of an instance variable will be stored under the class that defined in.

- Where is the value of a class variable stored?

Answer: The value of class will be stored inside the property of the class of the object. So , the class variable age will be store in the Animal instance.

- What refers the variable this to?

Answer: “this” is refer to the class itself.