

Exercise 04

```
System.out.println(m instanceof Animal);
```

This statement checks if the object m of type Mammal is an instance of Animal.

Since Mammal extends Animal, the output is true.

```
System.out.println(d instanceof Mammal);
```

This statement checks if the object d of type Dog is an instance of Mammal.

Since Dog extends Mammal, the output is true.

```
System.out.println(d instanceof Animal);
```

This statement checks if the object d of type Dog is an instance of Animal.

Since Dog extends Mammal, and Mammal extends Animal, the output is true.

Inheritance allows objects of a derived class to be treated as objects of their superclass. In this case, the Dog class is a subclass of Mammal, which in turn is a subclass of Animal. Therefore, an object of type Dog is also considered an object of type Mammal and Animal. Hence, all the instanceof checks return true.