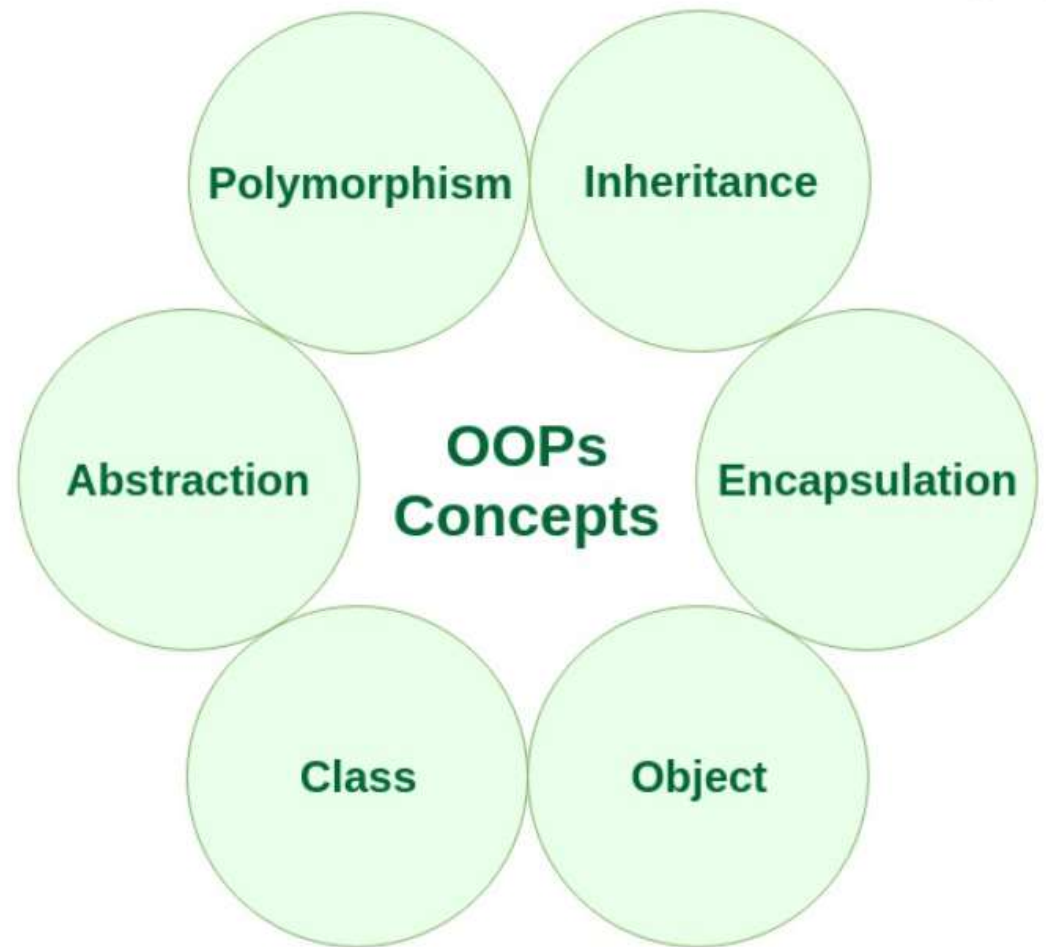




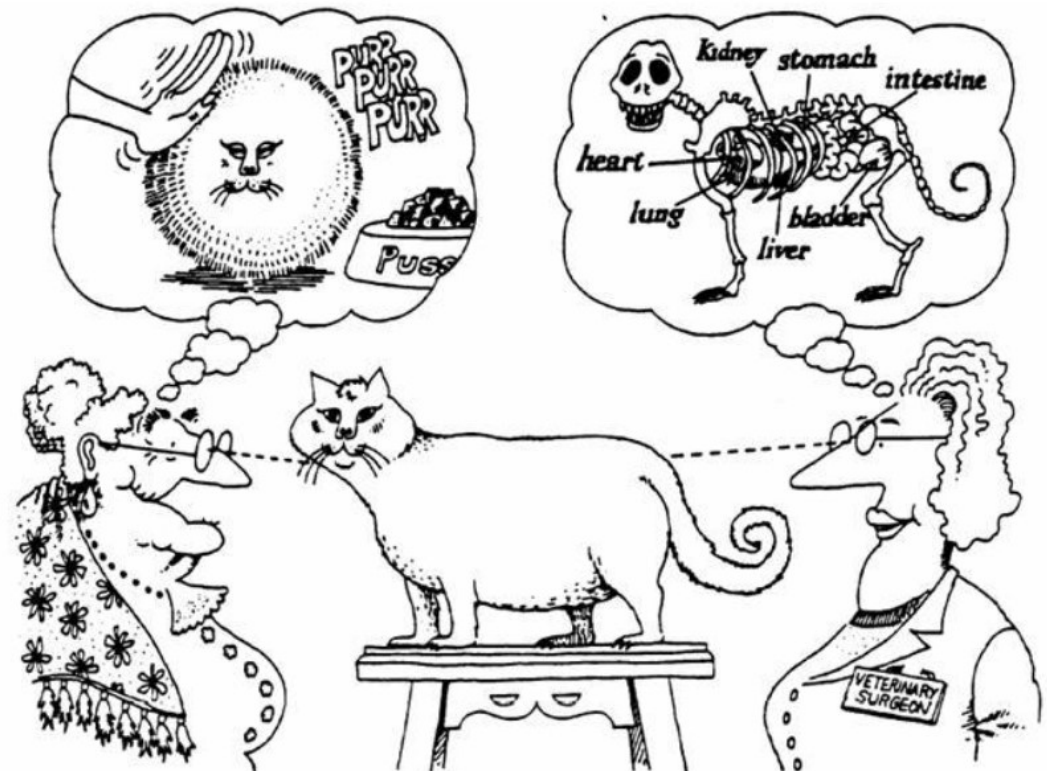
OOP

Java

Paradigma OO

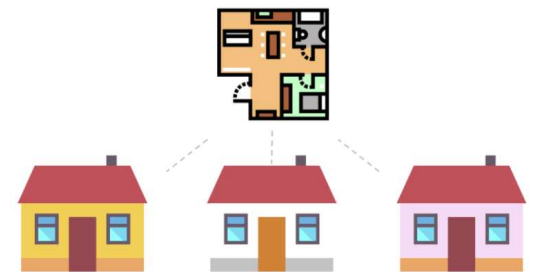
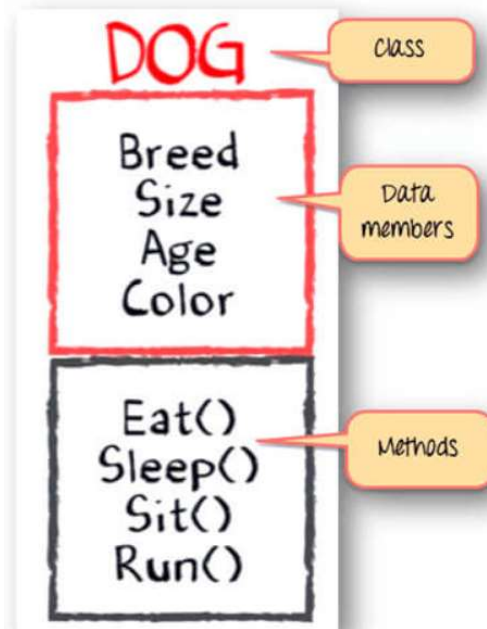


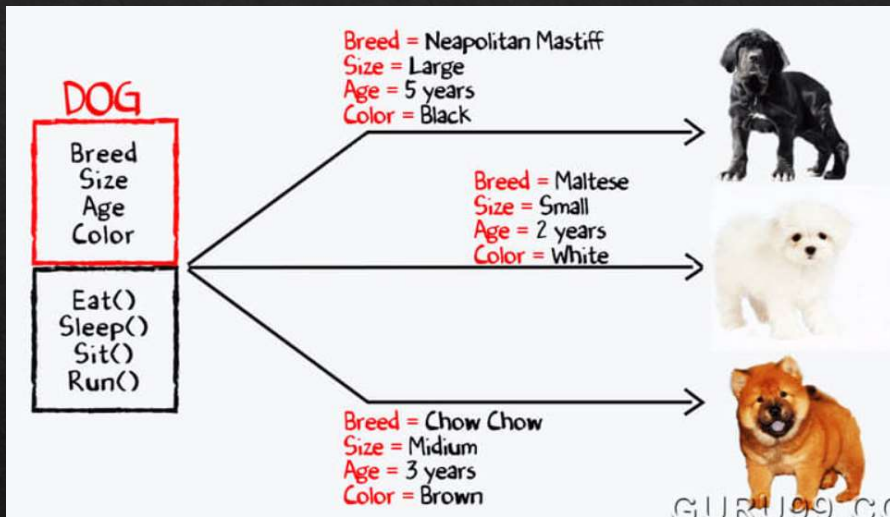
Abstração



Abstraction focuses upon the essential characteristics of some object, relative to the perspective of the viewer.

Classe

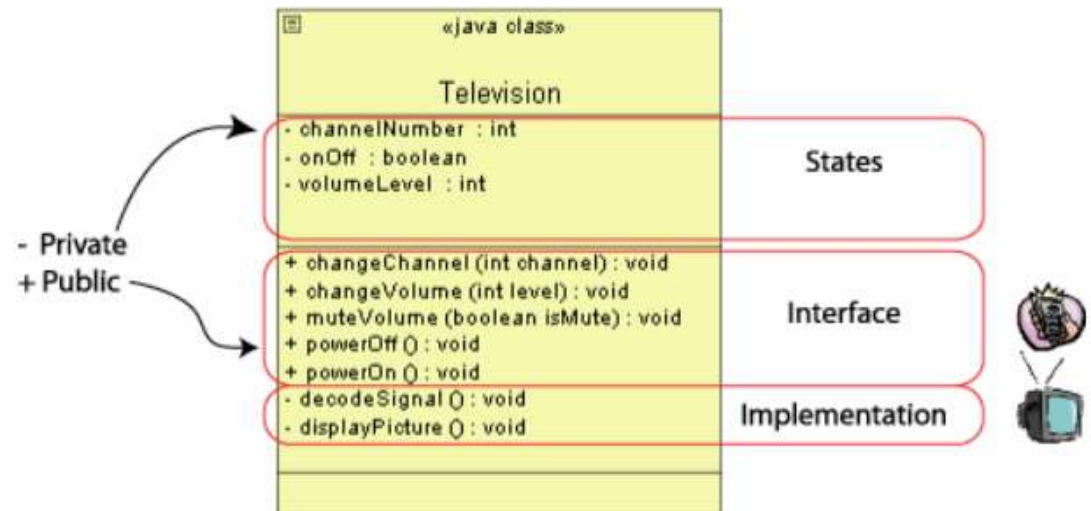
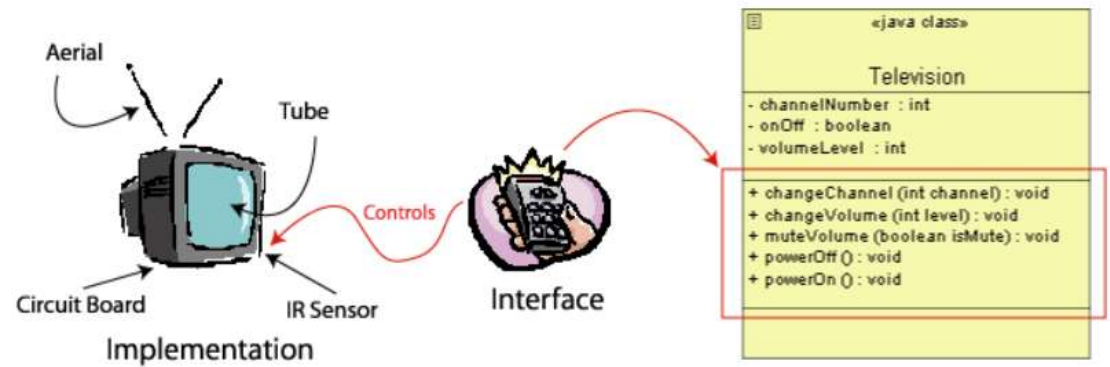


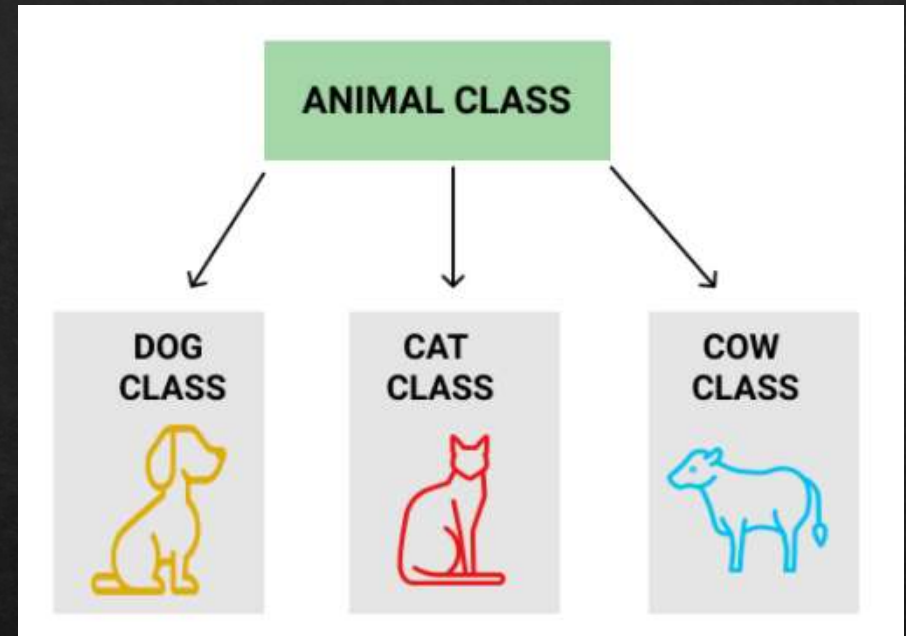
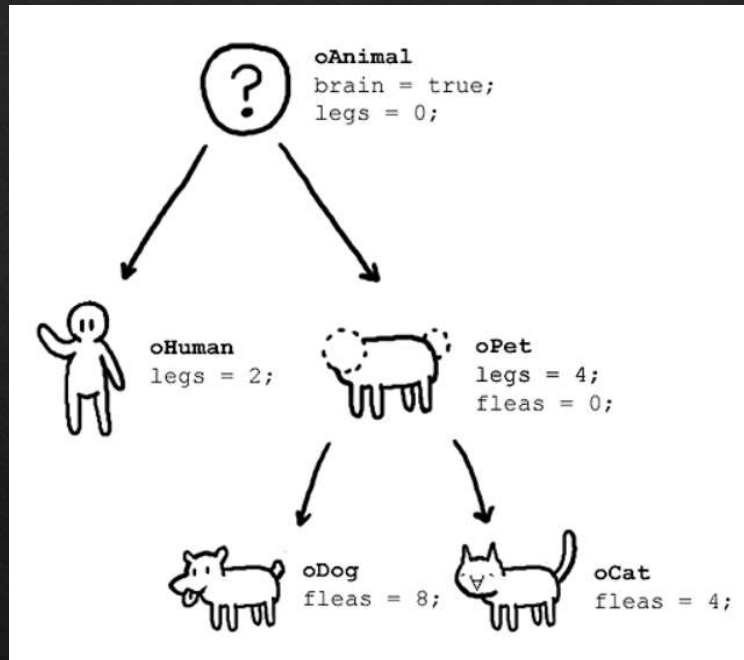


Object 1		Object 2	
Model	Volkswagen Polo	Model	Volkswagen Vento
Fuel	Petrol	Fuel	Diesel
Make	2017	Make	2017
Start() Break() Accelerate()		Start() Break() Accelerate()	

Objeto/Instancia

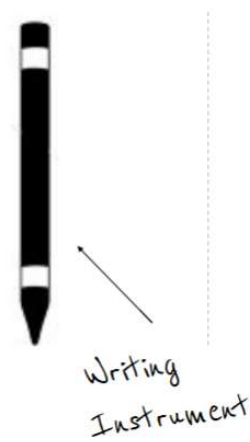
Encapsulamento





Herança

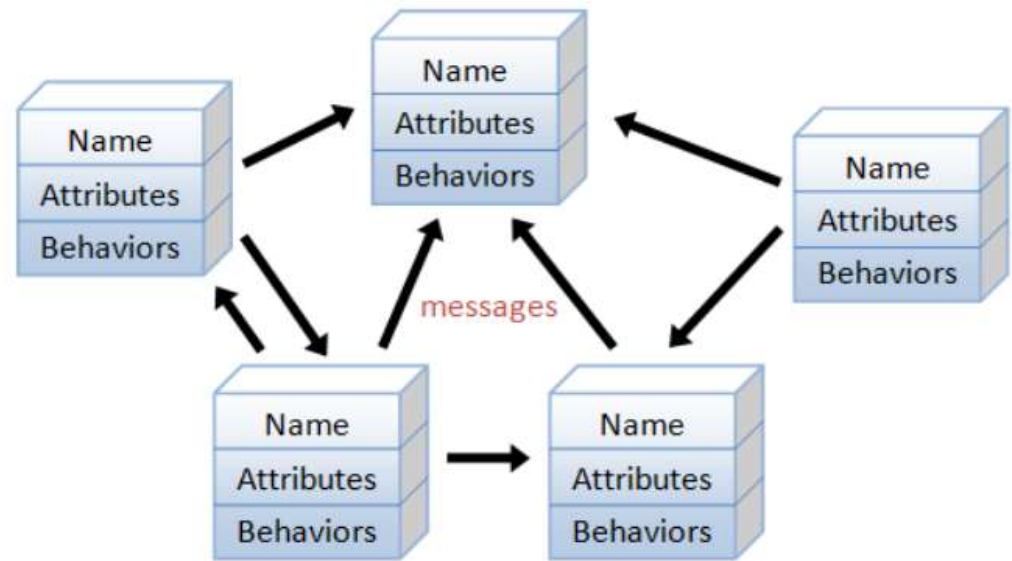
Polimorfismo



```
public class WritingInstrument{  
    public void Write(){  
        // Makes visible mark  
    }  
}  
  
public class Pen : WritingInstrument{  
    public void Write(){  
        // Makes visible mark with ink  
    }  
}
```

```
public class WritingInstrument{  
    public void Write(){  
        // Makes visible mark  
    }  
    public void Write(int fontSize){  
        // Makes visible mark of given font  
        // size  
    }  
}
```


Sistema Orientado a Objeto



An object-oriented program consists of many well-encapsulated objects and interacting with each other by sending messages

Associação

- ◆ Agregação
- ◆ Composição



Composition: every car has an engine.



Aggregation: cars may have passengers, they come and go

Composition vs. Inheritance

