1. Inheritance

Inheritance: Introduction

Inheritance

1. Inheritance

Fuente: www.unsplash.com

1. Inheritance

Jeans

Socks

Scarf

1. Inheritance

Jeans
cod: 9663/310 price: 39.95€ size: 40 color: blue

Socks
cod: 7347/305 price: 5.95€ size: M color: grey

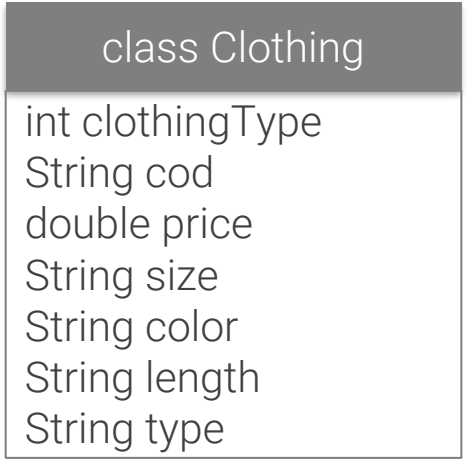
Scarf
cod: 7747/205 price: 15.95€ size: U color: grey

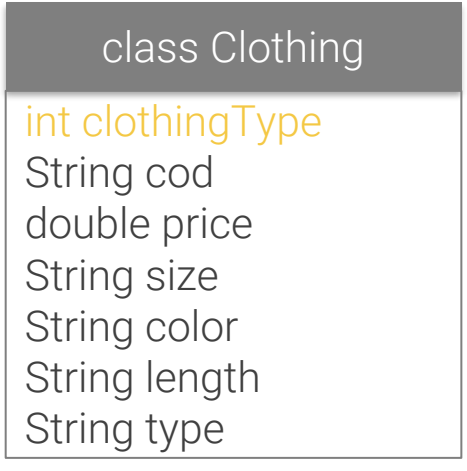
1. Inheritance

Jeans
cod: 9663/310 price: 39.95€ size: 40 color: black type: slim

Socks
cod: 7347/305 price: 5.95€ size: M color: grey length: mid-calf

Scarf
cod: 7747/205 price: 15.95€ size: U color: grey


class Clothing
int clothingType
String cod
double price
String size
String color
String length
String type


class Clothing
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String cod
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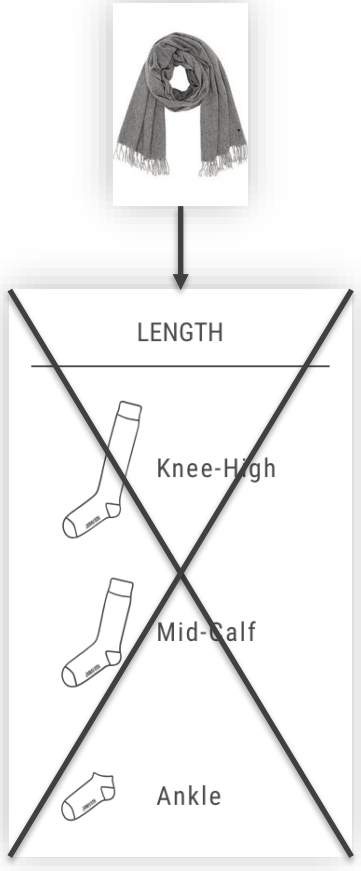
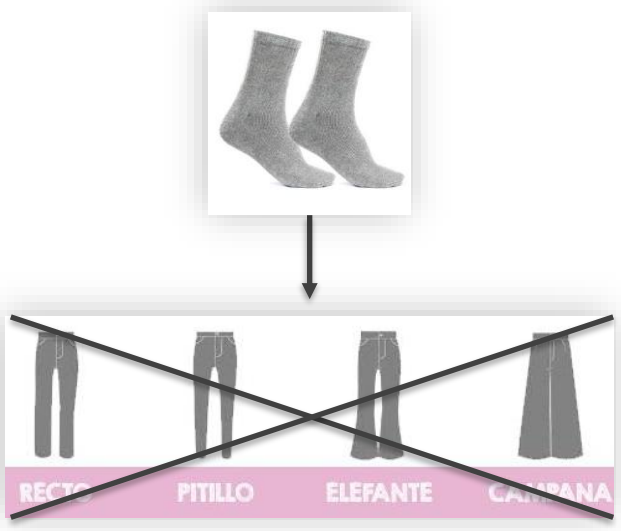
1. Inheritance

class Clothing
int clothingType String cod double price String size String color String length String type



1. Inheritance

class Clothing
int clothingType String cod double price String size String color String length String type



1. Inheritance

class Jeans
String cod double price String size String color String type

class Socks
String cod double price String size String color String length

class Scarf
String cod double price String size String color

1. Inheritance

class Jeans
String cod double price String size String color String type

class Socks
String cod double price String size String color String length

class Scarf
String cod double price String size String color

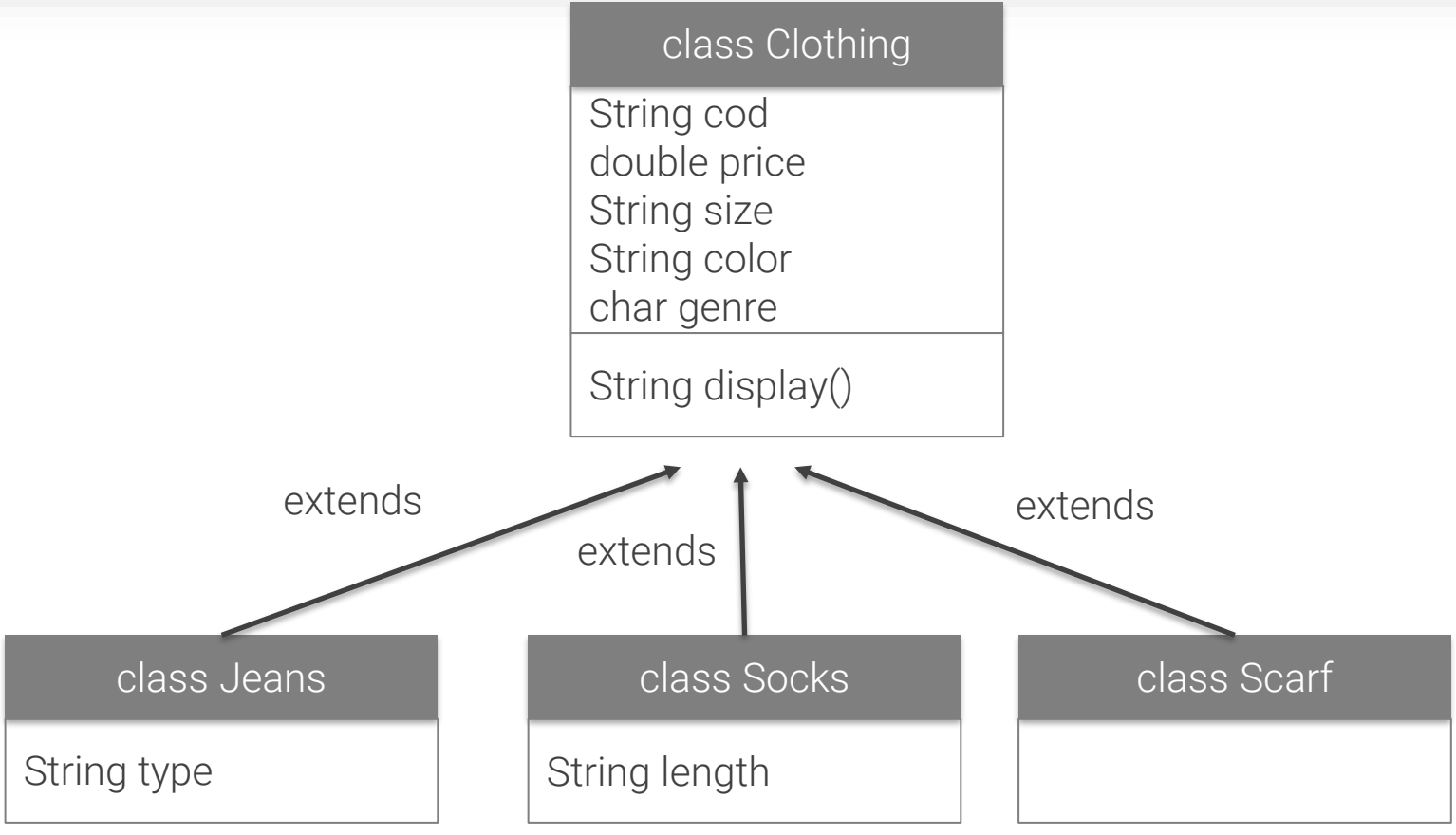
1. Inheritance

class Jeans
String cod double price String size String color **char genre** String type

class Socks
String cod double price String size String color **char genre** String length

class Scarf
String cod double price String size String color **char genre**

1. Inheritance



```
public class Clothing{

  //field declarations
  String cod;
  double price;
  String size;
  String color;
  char genre; //M=Man, W=Woman

  //method implementations
  public String display() {
    return "cod='" + cod + '\'' +
        ", price=" + price +
        ", size='" + size + '\'' +
        ", color='" + color + '\'' +
        ", genre=" + genre;
  }
}
```

Clothing.java

1. Inheritance

```
public class Jeans extends Clothing{

  //field declarations
  String type; //slim, fit, …

  //method implementations

}
```

Troursers.java

1. Inheritance

```
public class Jeans extends Clothing{

  //field declarations
  String type; //slim, fit, …

  //method implementations

}
```

Troursers.java

1. Inheritance

```
public class Clothing{
  String cod;
  double price;
  String size;
  String color;
  char genre;
  public String display() {…}
}
```

```
public class Jeans extends Clothing{
   String type;
   …
}
```

Super class
==
Parent

Sub class
==
Child

1. Inheritance

```
public class Clothing{
  String cod;
  double price;
  String size;
  String color;
  char genre;
  public String display() {…}
}
```

```
public class Jeans extends Clothing{
  String cod;
  double price;
  String size;
  String color;
  char genre;
  String type;
  public String display() {…}
}
```

Super class
==
Parent

Sub class
==
Child

1. Inheritance

```
public class Clothing{
  String cod;
  double price;
  String size;
  String color;
  char genre;
  public String display() {…}
}
```

```
public class Socks extends Clothing{
   String length;
   …
}
```

Super class
==
Parent

Sub class
==
Child

1. Inheritance

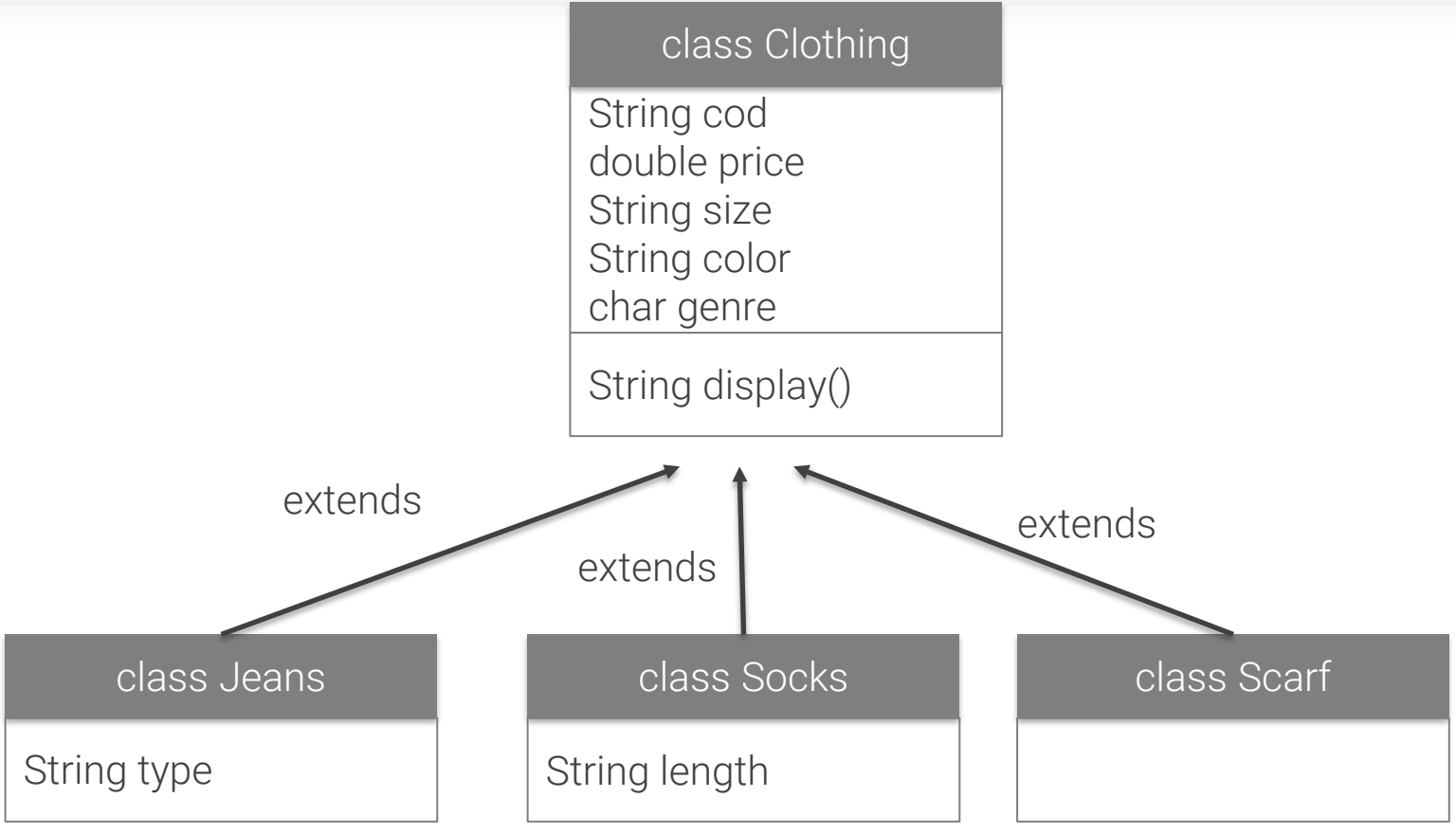
```
public class Clothing{
  String cod;
  double price;
  String size;
  String color;
  char genre;
  public String display() {…}
}
```

```
public class Scarf extends Clothing{
  …
}
```

Super class
==
Parent

Sub class
==
Child

1. Inheritance

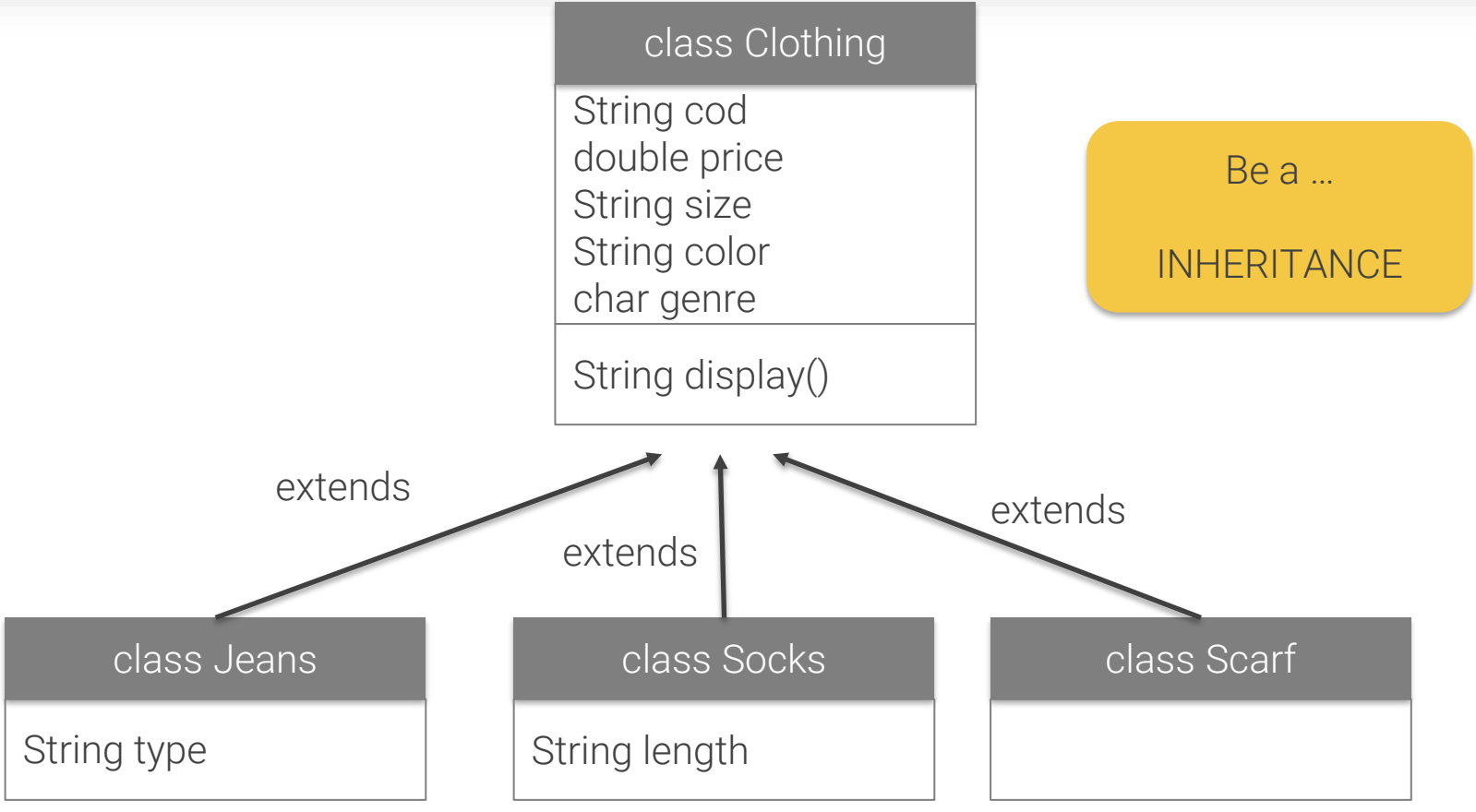


Do not confuse the concepts:

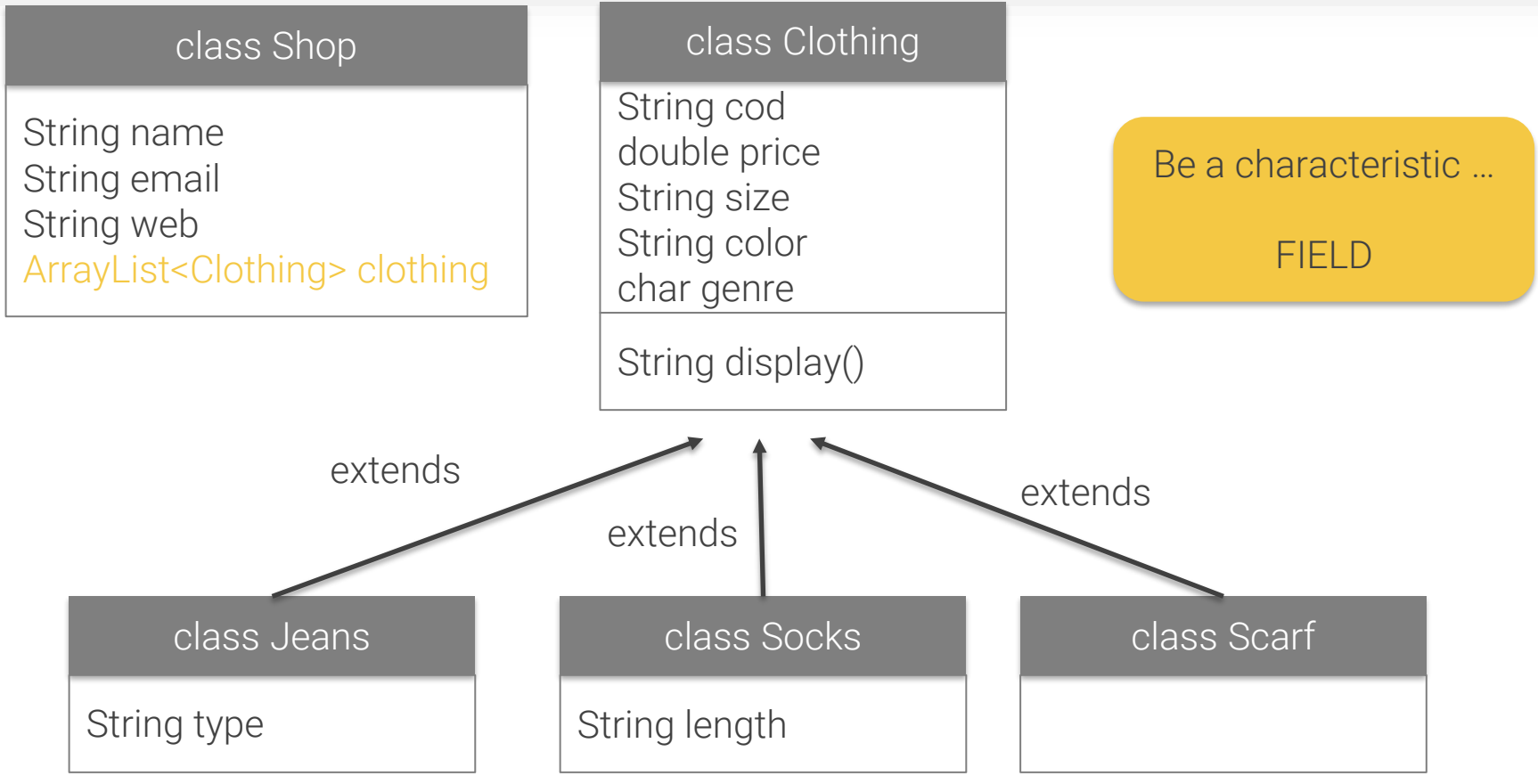
Being a: that corresponds to a relationship of type of specialization or generalization (INHERITANCE)

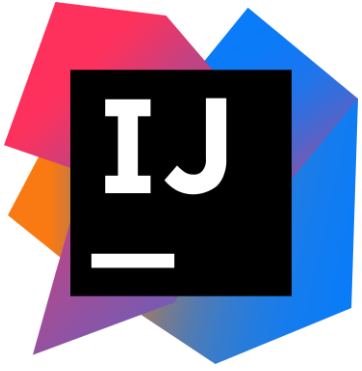
Being a characteristic / part of: that corresponds to an aggregation relation (ATTRIBUTE or FIELD)

1. Inheritance



1. Inheritance





ClothingManager_init

1. Inheritance

- ✓ Create a class called Clothing with: cod, price, size, color, genre fields and display method that returns a String with the fields value
- ✓ Create a class called Jeans that extends Clothing with: type field
- ✓ Repeate the same form Socks class and Scarf class
- ✓ In the main method, create an object of each of the 3 child classes
- ✓ Make sure you can access the cod, price, size, color, genre fields (set them an read them)
- ✓ Make sure you can access display method

“Advice to students: Leap in and try thngs. If you succeed, you can have enormous influence. If you fail, you have still learned something, and your next attempt is sure to be better for it“

Brian Kernigan, científico de la computación que trabajó el laboratorios Bell y ayudó en la creación del sistema operativo Unix.