Static fields and methods

1. Object’s life-time
2. Static fields
3. Static methods

Object’s life-time

1. Object's life-time

class Car

String brand
String model
double speed

Object

coche1

brand: Ford
model: Ka
speed: 50 km/h

Object

coche2

brand: Opel
model: Zafira
speed: 20 km/h

1. Object's life-time

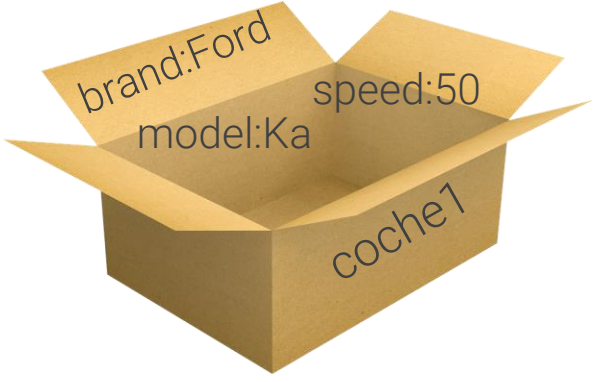
Object

class Car

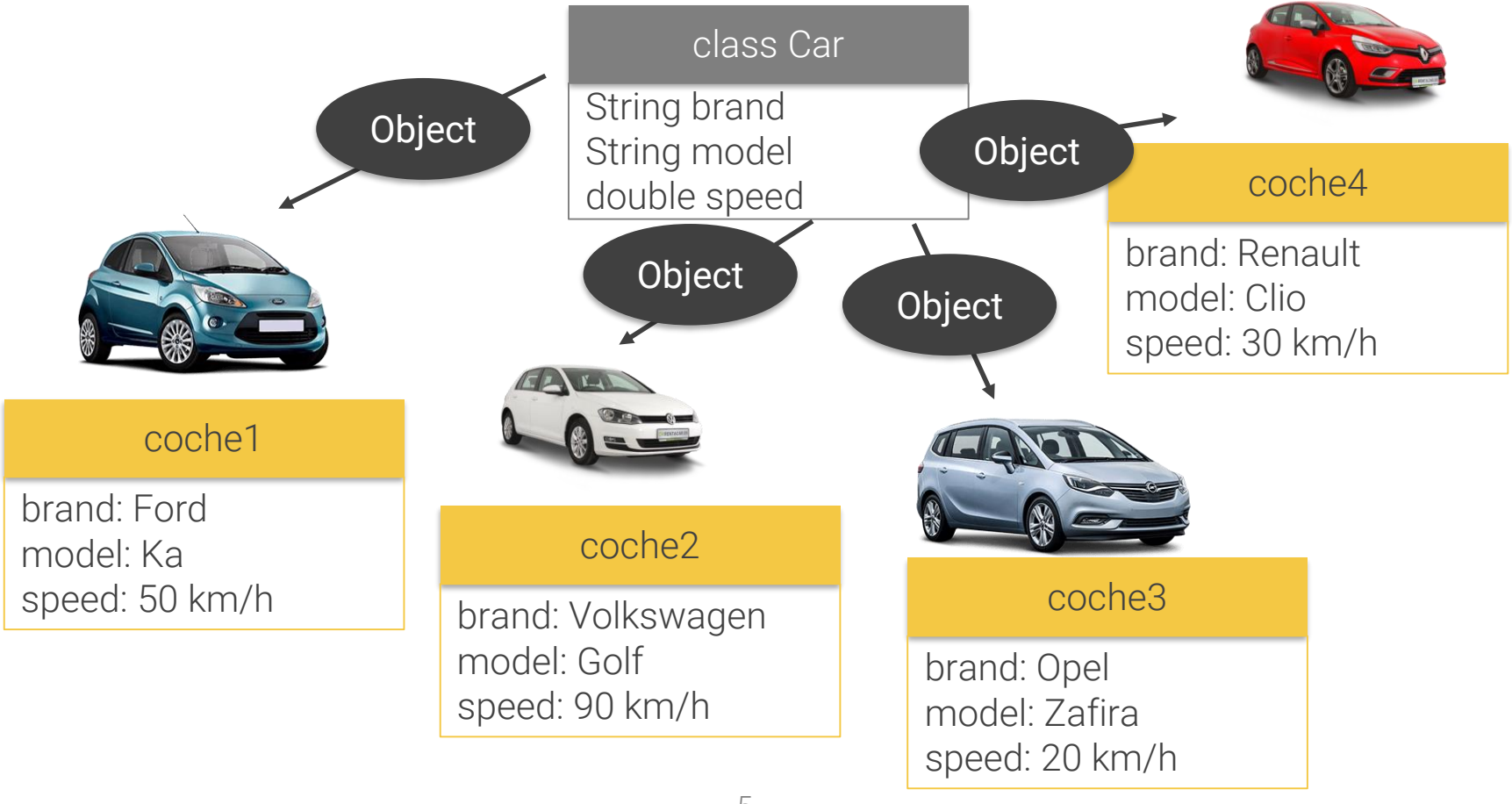
String brand
String model
double speed

coche1

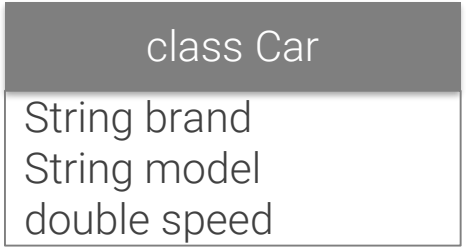
brand: Ford
model: Ka
speed: 50 km/h



1. Object's life-time



1. Object's life-time



1. Object's life-time

```
public class Main{

   …

   public void method(){
      …
      Car coche1 = new Car();
      coche1.speed = 50;
      …

   }

}
```

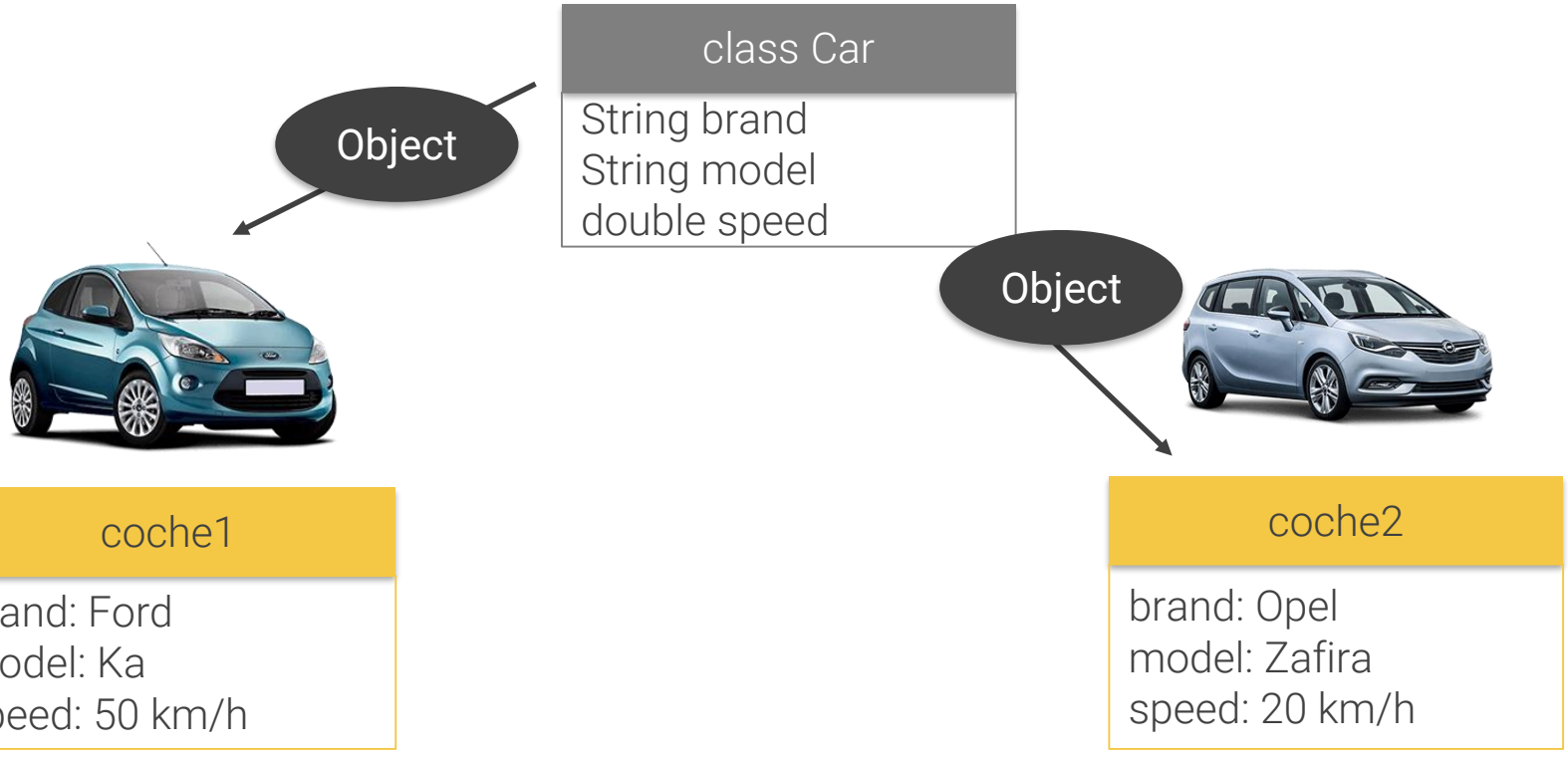
Main.java

1. Object's life-time

```
public class Main{

   …

   public void method(){
      …
      Car coche1 = new Car();
      coche1.speed = 50;
      …

   }

   coche1 ??

}
```

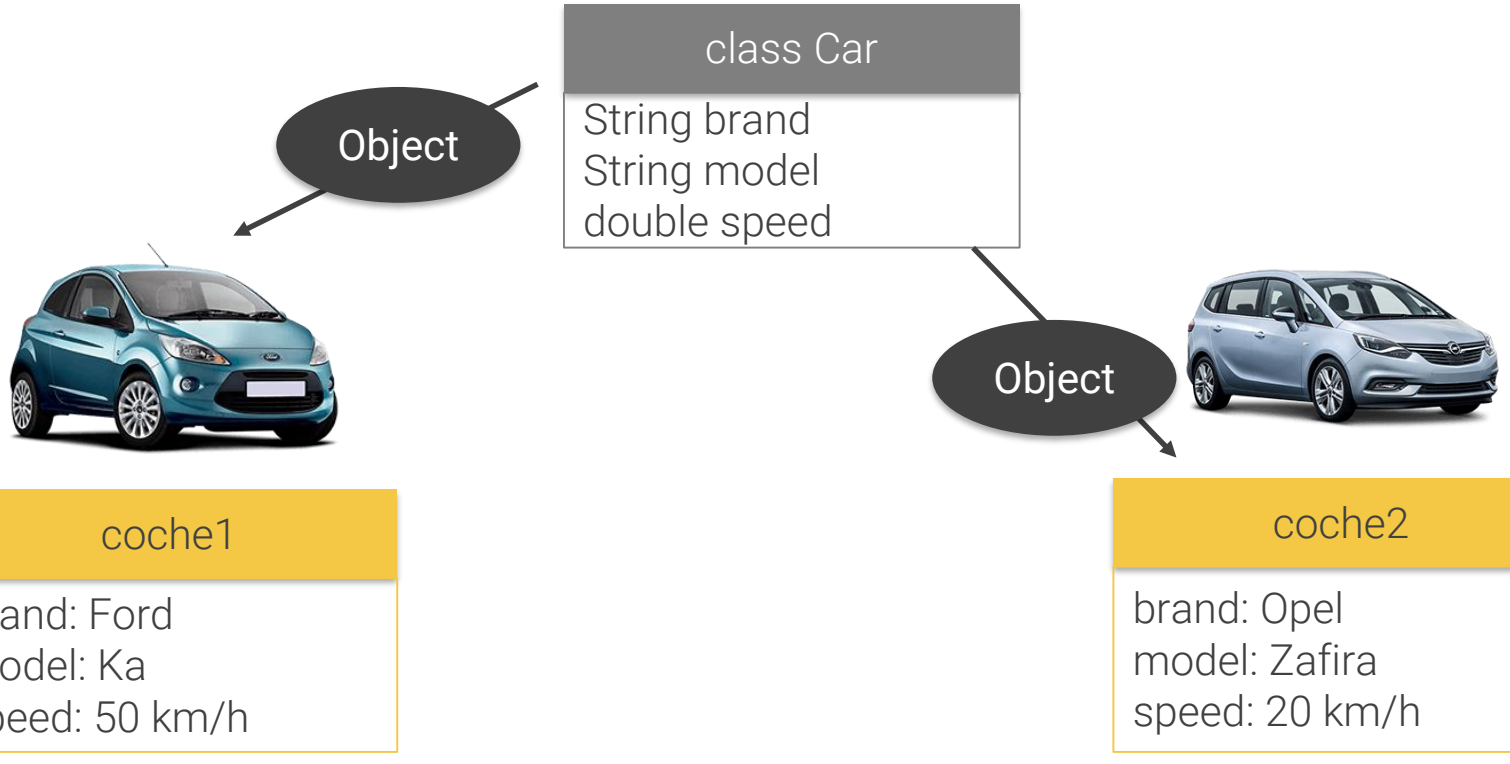
Main.java

1. Object's life-time

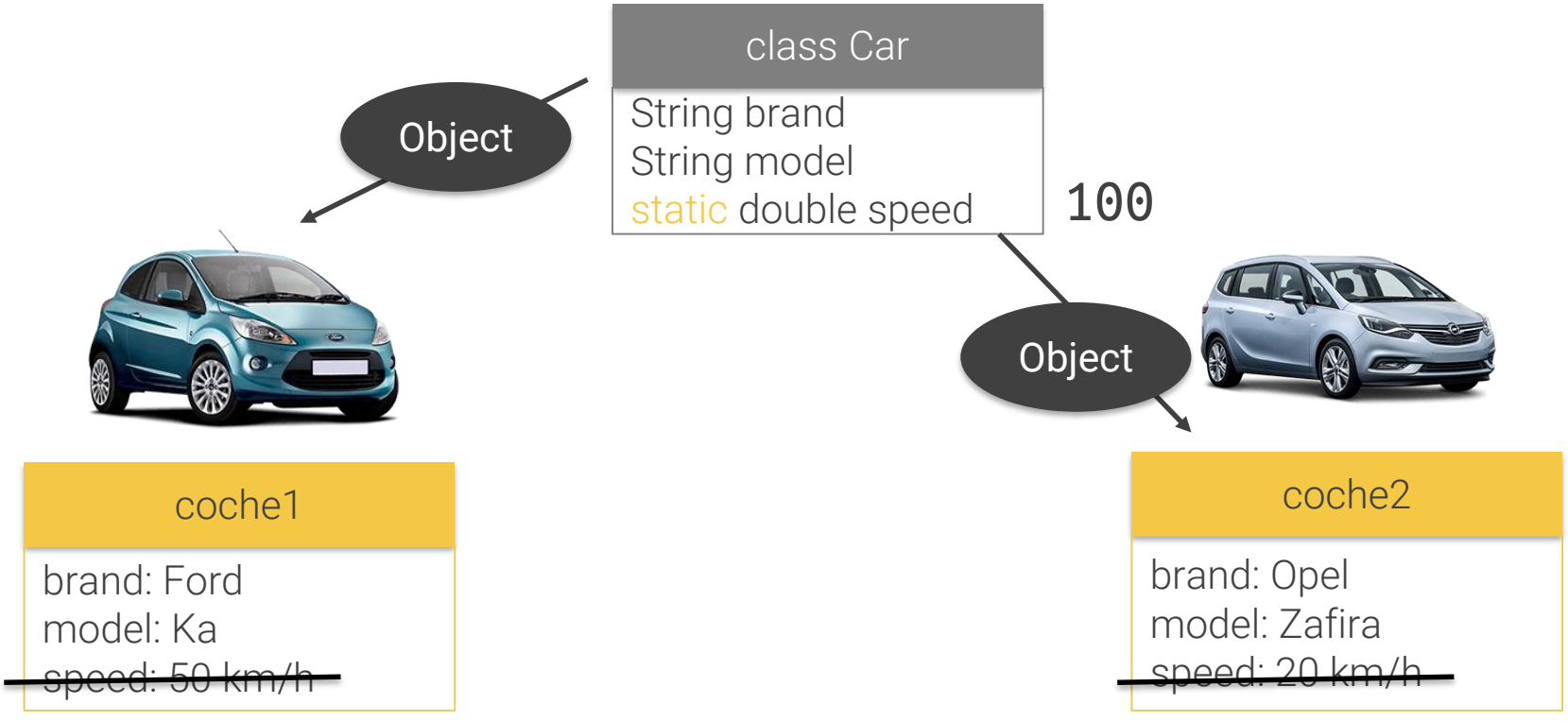


Static fields

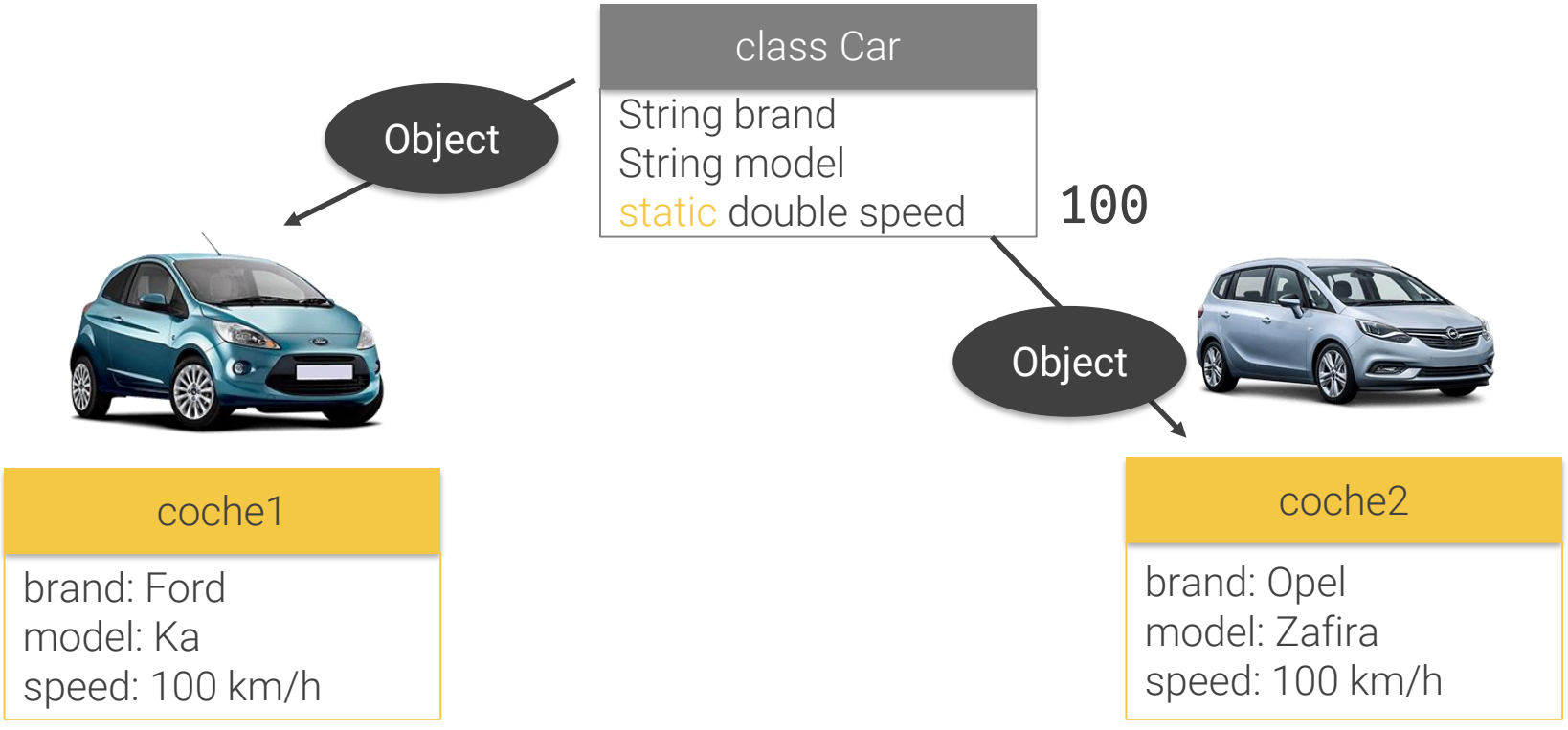
2. Static fields



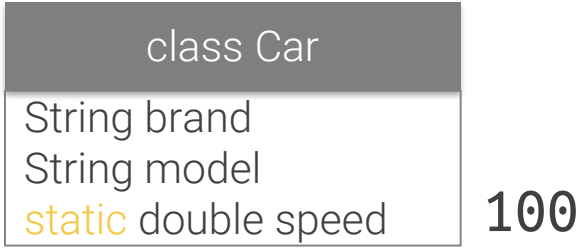
2. Static fields



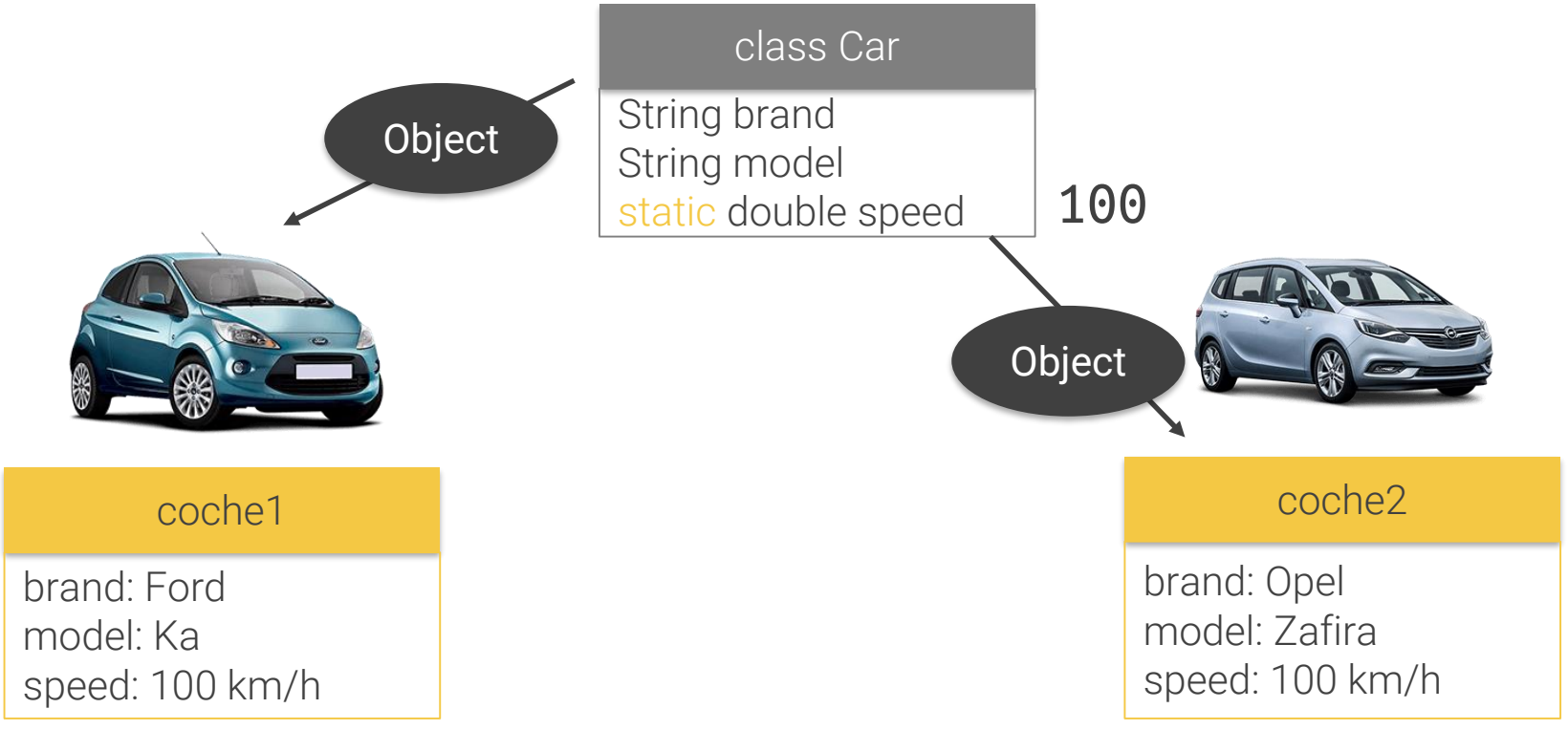
2. Static fields



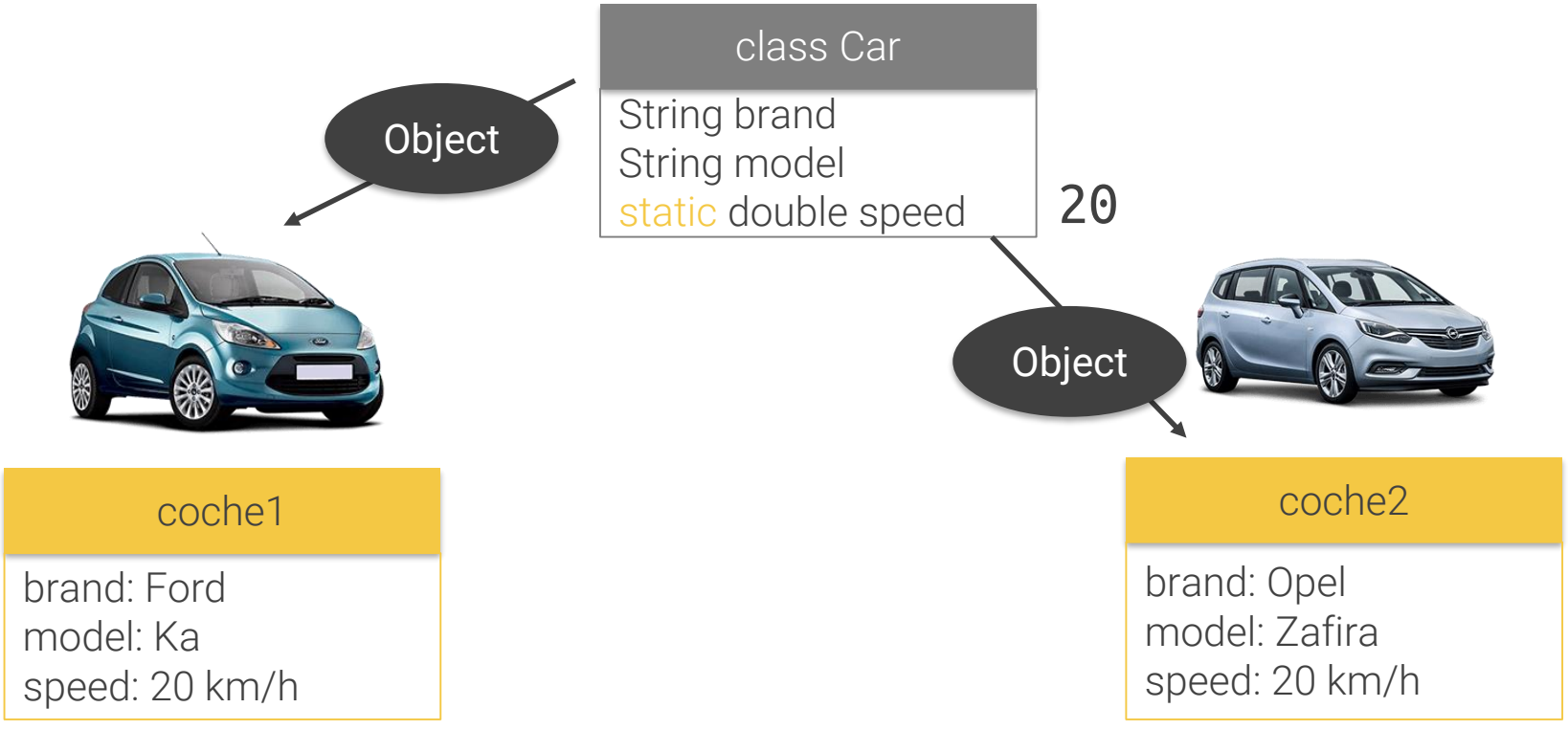
2. Static fields



2. Static fields



2. Static fields



2. Static fields

```
public class Main{

   …

   public void method(){
      …
      Car coche1 = new Car();
      coche1.speed = 50;
      …

   }

}
```

Main.java

2. Static fields

```
public class Main{

   …

   public void method(){
      …
      Car.speed = 50;
      …

   }

}
```

Main.java

2. Static fields

```
public class Main{

   …

   public void method(){
      …
      Car.speed = 50;
      …

   }

}
```

Main.java

2. Static fields

```
public class Main{

   …

   public void method(){
      …
     Car coche1 = new Car(“Ford”,”Ka”);
     Car coche2 = new Car(“Opel”,”Zafira”);
     Car.speed = 50;
     System.out.println(coche1.speed); //Prints 50
     System.out.println(coche2.speed); //Prints 50
      …

   }

}
```

Main.java

Static methods

3. Static methods

```java
public class Calculator{

   public static int add(int a, int b){
      return a + b;
   }
   public static int substract(int a, int b){
      return a - b;
   }
}
```

Calculator.java

3. Static methods

```java
public class Calculator{

   public static int add(int a, int b){
      return a + b;
   }
   public static int substract(int a, int b){
      return a - b;
   }
}
```

Calculator.java

3. Static methods

```java
public class Calculator{

   public static int add(int a, int b){
      return a + b;
   }
   public static int substract(int a, int b){
      return a - b;
   }
}
```

Calculator.java

Using a static method

```
public class Calculator{

   public static int add(int a, int b){
      return a + b;
   }
   public static int substract(int a, int b){
      return a - b;
   }
}
```

```
int r = Calculator.add(3,4);
```

“Después de subir una gran colina, uno encuentra que hay muchas más colinas que subir.“

Nelson Mandela, activista, abogado y político sudafricano conocido principalmente por luchar pacíficamente contra la segregación racial en Sudáfrica