# Class Vehicle

java.lang.Object
    Vehicle

**All Implemented Interfaces:**

`java.lang.Comparable<Vehicle>`

---

```
public abstract class Vehicle
extends java.lang.Object
implements java.lang.Comparable<Vehicle>
```

This class represents a vehicle.

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## *Field Summary*

**Fields**

| Modifier and Type | Field and Description |
|---|---|
| `private java.lang.String` | **`code`**<br>The vehicle's code. |
| `private int` | **`mileage`**<br>The vehicle's mileage in km. |

## *Constructor Summary*

**Constructors**

| Constructor and Description |
|---|
| **`Vehicle`**`(java.lang.String code, int mileage)`<br>Constructs a vehicle with a specific code and mileage. |

## *Method Summary*

**All Methods** | **Instance Methods** | **Abstract Methods** | **Concrete Methods**

| Modifier and Type | Method and Description |
| --- | --- |
| abstract double | calculatePrice()<br>Calculates the cost of the vehicle. |
| int | compareTo(Vehicle other)<br>Sorts vehicle alphabetically by type in the order cars, trucks, vans, and each type is then sorted by the calculated price in ascending order (lowest to highest price). |
| java.lang.String | getCode()<br>Returns the vehicle's code. |
| int | getMileage()<br>Returns the current mileage of the vehicle. |
| void | testDrive(int distance)<br>Increases the mileage by the distance the vehicle was driven in the test drive (in km). |
| java.lang.String | toString()<br>Returns a formatted textual string containing information about the vehicle including code, mileage, and calculated price. |

### Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

## *Field Detail*

### code

private java.lang.String code

The vehicle's code.

### mileage

private int mileage

The vehicle's mileage in km.

## *Constructor Detail*

### Vehicle

```
public Vehicle(java.lang.String code,
               int mileage)
```

Constructs a vehicle with a specific code and mileage.

**Parameters:**

`code - the code of the vehicle.`

`mileage - the mileage of the vehicle.`

## *Method Detail*

### getCode

```
public java.lang.String getCode()
```

Returns the vehicle's code.

**Returns:**

`returns the vehicle's code.`

### getMileage

```
public int getMileage()
```

Returns the current mileage of the vehicle.

**Returns:**

`returns the current mileage of the vehicle.`

### testDrive

```
public void testDrive(int distance)
```

Increases the mileage by the distance the vehicle was driven in the test drive (in km).

**Parameters:**

`distance - the distance of the test drive in km.`

### compareTo

```
public int compareTo(Vehicle other)
```

Sorts vehicle alphabetically by type in the order cars, trucks, vans, and each type is then sorted by the calculated price in ascending order (lowest to highest price).

**Specified by:**

compareTo in interface java.lang.Comparable<Vehicle>

**Parameters:**

other - the vehicle being compared to this vehicle.

**Returns:**

the result of the comparison.

### calculatePrice

public abstract double calculatePrice()

Calculates the cost of the vehicle.

**Returns:**

the calcuated cost of the vehicle.

### toString

public java.lang.String toString()

Returns a formatted textual string containing information about the vehicle including code, mileage, and calculated price.

**Overrides:**

toString in class java.lang.Object

**Returns:**

textual string containing the code, mileage, and cost of the vehicle.