In Java programming language, an interface is used to specify a behavior that classes must implement. Java world offers us two such interfaces Comparable and Comparator! Comparable in Java is used to sort the objects with natural ordering while Comparator is used to sort attributes of different objects.

**Comparable v/s Comparator in Java**

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| --- | --- |
| Comparable in Java | Comparator in Java |
| Comparable interface is used to sort the objects with natural ordering. | Comparator in Java is used to sort attributes of different objects. |
| Comparable interface compares “this” reference with the object specified. | Comparator in Java compares two different class objects provided. |
| Comparable is present in java.lang package. | A Comparator is present in the java.util package. |
| Comparable affects the original class, i.e., the actual class is modified. | Comparator doesn’t affect the original class |
| Comparable provides compareTo() method to sort elements. | Comparator provides compare() method, equals() method to sort elements. |

## ****What is Comparable in Java?****

As the name itself suggests, **Comparable** is an interface which defines a way to compare an object with other objects of the same type. It helps to sort the objects that have self-tendency to sort themselves, i.e., the objects must know how to order themselves. **Eg:** Roll number, age, salary. This interface is found in java.lang package and it contains only one method, i.e., compareTo(). Comparable is not capable of sorting the objects on its own, but the interface defines a method int compareTo() which is responsible for sorting.

## ****What is the compareTo method and how it is used?****

This method is used to compare the given object with the current object. The **compareTo()** method returns an int value. The value can be either positive, negative, or zero.

## ****What is Comparator in Java?****

A Comparator interface is used to order the objects of a specific class. This interface is found in java.util package. It contains two methods;

* compare(Object obj1,Object obj2)
* equals(Object element).

The first method, compare(Object obj1,Object obj2)  compares its two input arguments and showcase the output. It returns a negative integer, zero, or a positive integer to state whether the first argument is less than, equal to, or greater than the second.

The second method, equals(Object element), requires an Object as a parameter and shows if the input object is equal to the comparator. The method will return true, only if the mentioned object is also a Comparator. The order remains the same as that of the Comparator.

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