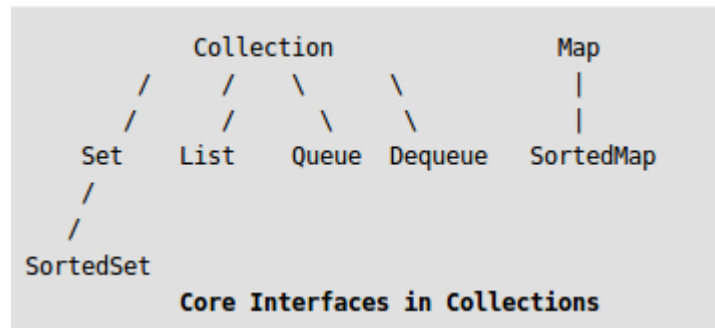


SortedSet Interface in Java with Examples

SortedSet is an interface in **collection framework**. This interface extends **Set** and provides a total ordering of its elements. Exemplified class that implements this interface is **TreeSet**.



All elements of a SortedSet must implement the Comparable interface (or be accepted by the specified Comparator) and all such elements must be mutually comparable (i.e, Mutually Comparable simply means that two objects accept each other as the argument to their compareTo method)

Methods of Sorted Set interface:

1. **comparator()** : Returns the comparator used to order the elements in this set, or null if this set uses the natural ordering of its elements.
2. **first()** : Returns the first (lowest) element currently in this set.
3. **headSet(E toElement)** : Returns a view of the portion of this set whose elements are strictly less than toElement.
4. **last()** : Returns the last (highest) element currently in this set.
5. **subSet(E fromElement, E toElement)** : Returns a view of the portion of this set whose elements range from fromElement, inclusive, to toElement, exclusive.
6. **tailSet(E fromElement)** : Returns a view of the portion of this set whose elements are greater than or equal to fromElement.

```
public interface SortedSet extends Set
{
    // Range views
    SortedSet subSet(E fromElement, E toElement);
    SortedSet headSet(E toElement);
    SortedSet tailSet(E fromElement);

    // Endpoints
    E first();
    E last();

    // Comparator access
    Comparator comparator();
}
```

// A Java program to demonstrate working of SortedSet

```
import java.util.SortedSet;
import java.util.TreeSet;

public class Main
{
    public static void main(String[] args)
    {
        // Create a TreeSet and inserting elements
        SortedSet<String> sites = new TreeSet<>();
        sites.add("practice");
        sites.add("geeksforgeeks");
        sites.add("quiz");
        sites.add("code");

        System.out.println("Sorted Set: " + sites);
        System.out.println("First: " + sites.first());
        System.out.println("Last: " + sites.last());

        // Getting elements before quiz (Excluding) in a sortedSet
        SortedSet<String> beforeQuiz = sites.headSet("quiz");
        System.out.println(beforeQuiz);

        // Getting elements between code (Including) and
        // practice (Excluding)
        SortedSet<String> betweenCodeAndQuiz =
            sites.subSet("code", "practice");
        System.out.println(betweenCodeAndQuiz);

        // Getting elements after code (Including)
        SortedSet<String> afterCode = sites.tailSet("code");
        System.out.println(afterCode);
    }
}
```

[Run on IDE](#)

Output:

```
Sorted Set:
First: code
Last: quiz
[code, geeksforgeeks, practice]
```

```
[code, geeksforgeeks]  
[code, geeksforgeeks, practice, quiz]
```

Reference:

<http://docs.oracle.com/javase/tutorial/collections/interfaces/sorted-set.html>

This article is contributed by **Pratik Agarwal**. If you like GeeksforGeeks and would like to contribute, you can also write an article using contribute.geeksforgeeks.org or mail your article to contribute@geeksforgeeks.org. See your article appearing on the GeeksforGeeks main page and help other Geeks.

Please write comments if you find anything incorrect, or you want to share more information about the topic discussed above.

GATE CS Corner Company Wise Coding Practice

Java Java-Collections

Recommended Posts:

[NavigableSet in Java with Examples](#)

[How to remove an element from ArrayList in Java?](#)

[SortedMap Interface in Java with Examples](#)

[Queue Interface In Java](#)

[TreeSet class in Java with Examples](#)

[Java.lang.String.compareTo\(\)](#)

[Templates in C++ vs Generics in Java](#)

[Converting Text to Speech in Java](#)

[Difference between x++ and x=x+1 in Java](#)

[JavaBean class in Java](#)

(Login to Rate and Mark)

2.2 Average Difficulty : **2.2/5.0**
Based on **5** vote(s)

Add to TODO List

Mark as DONE

Writing code in comment? Please use ide.geeksforgeeks.org, generate link and share the link here.

Load Comments

Share this post!