

```

import java.util.*;
class TreeSetDemo1
{
    public static void main(String[] args)
    {
        TreeSet t = new TreeSet();
        t.add(new StringBuffer("Shershah"));
        System.out.println(t); //ClassCastException
    }
}

```

### Output:- Runtime Exception

```

C:\Windows\system32\cmd.exe
Exception in thread "main" java.lang.ClassCastException: java.lang.StringBuffer cannot be cast to java.lang.Comparable
    at java.util.TreeMap.compare(Unknown Source)
    at java.util.TreeMap.put(Unknown Source)
    at java.util.TreeSet.add(Unknown Source)
    at TreeSetDemo1.main(TreeSetDemo1.java:7)
Press any key to continue . . .

```

```

import java.util.*;
class TreeSetDemo3
{
    public static void main(String[] args)
    {
        TreeSet t = new TreeSet(new MyComparator());
        t.add(200);
        t.add(150);
        t.add(300);
        t.add(199);
        t.add(300);
        System.out.println(t);
    }
}
class MyComparator implements Comparator
{
    public int compare(Object obj1, Object obj2)
    {
        Integer ob1=(Integer)obj1;
        Integer ob2=(Integer)obj2;
        if(ob1 < ob2) return +1;
        else if(ob1 > ob2) return -1;
        else return 0;
    }
}

```

### Output:-

C:\Windows\system32\cmd.exe

```
[300, 200, 199, 150]
Press any key to continue . . .
```

```
import java.util.*;
class TreeSetDemo2
{
    public static void main(String[] args)
    {
        TreeSet t = new TreeSet(new MyComparator());
        t.add(200);
        t.add(150);
        t.add(300);
        t.add(199);
        t.add(300);
        System.out.println(t);
    }
}
class MyComparator implements Comparator
{
    public int compare(Object obj1, Object obj2)
    {
        Integer ob1=(Integer)obj1;
        Integer ob2=(Integer)obj2;
        return ob1.compareTo(ob2);
    }
}
```

C:\Windows\system32\cmd.exe

```
[150, 199, 200, 300]
Press any key to continue . . .
```

```

import java.util.*;
class TreeSetDemo2
{
    public static void main(String[] args)
    {
        TreeSet t = new TreeSet(new MyComparator());
        t.add(200);
        t.add(150);
        t.add(300);
        t.add(199);
        t.add(300);
        System.out.println(t);
    }
}
class MyComparator implements Comparator
{
    public int compare(Object obj1, Object obj2)
    {
        Integer ob1=(Integer)obj1;
        Integer ob2=(Integer)obj2;
        return -ob1.compareTo(obj2);
    }
}

```

C:\Windows\system32\cmd.exe

```

[300, 200, 199, 150]
Press any key to continue . . .

```

```

import java.util.*;
class TreeSetDemo2
{
    public static void main(String[] args)
    {
        TreeSet t = new TreeSet(new MyComparator());
        t.add(200);
        t.add(150);
        t.add(300);
        t.add(199);
        t.add(300);
        System.out.println(t);
    }
}
class MyComparator implements Comparator
{
    public int compare(Object obj1, Object obj2)
    {
        Integer ob1=(Integer)obj1;
        Integer ob2=(Integer)obj2;
        return ob2.compareTo(obj1);
    }
}

```

C:\Windows\system32\cmd.exe

```

[300, 200, 199, 150]
Press any key to continue . . .

```

```

import java.util.*;
class TreeSetDemo2
{
    public static void main(String[] args)
    {
        TreeSet t = new TreeSet(new MyComparator());
        t.add(200);
        t.add(150);
        t.add(300);
        t.add(199);
        t.add(300);
        System.out.println(t);
    }
}
class MyComparator implements Comparator
{
    public int compare(Object obj1, Object obj2)
    {
        Integer ob1=(Integer)obj1;
        Integer ob2=(Integer)obj2;
        return -ob2.compareTo(ob1);
    }
}

```

C:\Windows\system32\cmd.exe

```

[150, 199, 200, 300]
Press any key to continue . . .

```

```

import java.util.*;
class TreeSetDemo2
{
    public static void main(String[] args)
    {
        TreeSet t = new TreeSet(new MyComparator());
        t.add(200);
        t.add(150);
        t.add(300);
        t.add(199);
        t.add(300);
        System.out.println(t);
    }
}
class MyComparator implements Comparator
{
    public int compare(Object obj1, Object obj2)
    {
        Integer ob1=(Integer)obj1;
        Integer ob2=(Integer)obj2;
        return +1;
    }
}

```

C:\Windows\system32\cmd.exe

```

[200, 150, 300, 199, 300]
Press any key to continue . . .

```

```
-----  
  
import java.util.*;  
class TreeSetDemo2  
{  
    public static void main(String[] args)  
    {  
        TreeSet t = new TreeSet(new MyComparator());  
        t.add(200);  
        t.add(150);  
        t.add(300);  
        t.add(199);  
        t.add(300);  
        System.out.println(t);  
    }  
}  
class MyComparator implements Comparator  
{  
    public int compare(Object obj1, Object obj2)  
    {  
        Integer ob1=(Integer)obj1;  
        Integer ob2=(Integer)obj2;  
        return -1;  
    }  
}
```

```
CA: C:\Windows\system32\cmd.exe  
[300, 199, 300, 150, 200]  
Press any key to continue . . .
```

```
-----  
  
import java.util.*;  
class TreeSetDemo2  
{  
    public static void main(String[] args)  
    {  
        TreeSet t = new TreeSet(new MyComparator());  
        t.add(200);  
        t.add(150);  
        t.add(300);  
        t.add(199);  
        t.add(300);  
        System.out.println(t);  
    }  
}  
class MyComparator implements Comparator  
{  
    public int compare(Object obj1, Object obj2)  
    {  
        Integer ob1=(Integer)obj1;  
        Integer ob2=(Integer)obj2;  
        return 0;  
    }  
}
```

```
CA: C:\Windows\system32\cmd.exe  
[200]  
Press any key to continue . . .
```

```

import java.util.*;
class myTreeSet2
{
    public static void main(String[] args)
    {
        TreeSet t = new TreeSet(new MyComparator());
        t.add("Ram");
        t.add("Mohan");
        t.add("Suraj");
        t.add("Ajeet");
        t.add("Sanjay");
        System.out.println(t);
    }
}
class MyComparator implements Comparator
{
    public int compare(Object obj1, Object obj2)
    {
        String s1=(String)obj1;
        String s2=(String)obj2;
        return s2.compareTo(s1);
    }
}

```

```

C:\Windows\system32\cmd.exe
[Suraj, Sanjay, Ram, Mohan, Ajeet]
Press any key to continue . . .

```

```

import java.util.*;
class myTreeSet2
{
    public static void main(String[] args)
    {
        TreeSet t = new TreeSet(new MyComparator());
        t.add("Ram");
        t.add("Mohan");
        t.add("Suraj");
        t.add("Ajeet");
        t.add("Sanjay");
        System.out.println(t);
    }
}
class MyComparator implements Comparator
{
    public int compare(Object obj1, Object obj2)
    {
        String s1=(String)obj1;
        String s2=(String)obj2;
        return -s1.compareTo(s2);
    }
}

```

```

C:\Windows\system32\cmd.exe
[Suraj, Sanjay, Ram, Mohan, Ajeet]
Press any key to continue . . .

```

```
import java.util.*;
class myTreeSet2
{
    public static void main(String[] args)
    {
        TreeSet t = new TreeSet(new MyComparator());
        t.add("Ram");
        t.add("Mohan");
        t.add("Suraj");
        t.add("Ajeet");
        t.add("Sanjay");
        System.out.println(t);
    }
}
class MyComparator implements Comparator
{
    public int compare(Object obj1, Object obj2)
    {
        String s1=obj1.toString();
        String s2=obj2.toString();
        return -s1.compareTo(s2);
    }
}
```

cmd. C:\Windows\system32\cmd.exe

```
[Suraj, Sanjay, Ram, Mohan, Ajeet]
Press any key to continue . . .
```