S.No: 30	Exp. Name: *Write java program(s) that use collection framework classes. (TreeMap class)*	Date:2023-12-03

Aim:

Write a java program(s) that use collection framework classes.(TreeMap class)

Source Code:

Treemap.java

```java
// Java Program to Iterate Over Entries in a TreeMap

import java.util.*;

// Importing required
// Main class
class Treemap{

    // Main driver method
    public static void main(String[] args)
    {

        // Creating a TreeMap class object
        // Objects are of key-value pairs (integer and
        // string type)
        TreeMap<Integer, String> tm
            = new TreeMap<Integer, String>();

        // Customly adding elements
        System.out.print("No.Of Mapping Elements in TreeMap:");
        Scanner sc= new Scanner(System.in);
        int n = sc.nextInt();
        for (int i=0; i<n; i++){
            System.out.print("Integer:");
            Scanner b = new Scanner(System.in);
            int num= b.nextInt();
            System.out.print("String:");
            Scanner a = new Scanner(System.in);
            String str= a.nextLine();
            tm.put(num,str);
        }
        // Get all entries usign the entrySet() method
        Set<Map.Entry<Integer, String> > entries
            = tm.entrySet();

        // Getting an iterator
        Iterator<Map.Entry<Integer, String> > iterator
            = entries.iterator();

        // Additional step here
        // To Initialize object holding for
        // key-value pairs to null
        Map.Entry<Integer, String> entry = null;

        // Holds true till there is no element remaining in
```

```
            // the object using hasNExt() method
        while (iterator.hasNext()) {

            // Moving onto next pairs using next() method
            entry = iterator.next();

            // Printing the key-value pairs
            // using getKet() and getValue() methods
            System.out.println(entry.getKey() + "->"
                        + entry.getValue());
        }
    }
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
No.Of Mapping Elements in TreeMap: 2
Integer: 1
String: HELLO
Integer: 2
String: WORLD
1->HELLO
2->WORLD

Test Case - 2
User Output
No.Of Mapping Elements in TreeMap: 3
Integer: 25
String: UNIVERSITY
Integer: 26
String: KNOWLEDGE
Integer: 27
String: TECHNOLOGIES
25->UNIVERSITY
26->KNOWLEDGE
27->TECHNOLOGIES