**Program 1:**

WAP that returns and removes the entry associated with the specified key from a TreeMap.

**Code:**

import java.util.TreeMap;

public class Ques1{

    public static void main(String[] args) {

        // Creating a TreeMap with some initial values

        TreeMap<String, Integer> treeMap = new TreeMap<>();

        treeMap.put("One", 1);

        treeMap.put("Three", 3);

        treeMap.put("Two", 2);

        // Display initial TreeMap

        System.out.println("Initial TreeMap: " + treeMap);

        // Remove the entry with the key "Two"

        Integer removedValue = treeMap.remove("Two");

        System.out.println("Removed value = " + removedValue);

        // Check if the entry with key "Three" still exists

        boolean isThreeRemoved = !treeMap.containsKey("Three");

        System.out.println("Is the entry {Three=3} removed? " + isThreeRemoved);

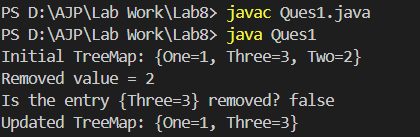
        // Display updated TreeMap

        System.out.println("Updated TreeMap: " + treeMap);

    }

}

**Output:**



**Program 2:**

WAP to navigate over the elements of the treemap.(All methods)

**Code:**

import java.util.Map;

import java.util.TreeMap;

public class Ques2 {

    public static void main(String[] args) {

        TreeMap<String, Integer> treeMap = new TreeMap<>();

        treeMap.put("One", 1);

        treeMap.put("Two", 2);

        treeMap.put("Three", 3);

        // Using different methods to navigate the TreeMap

        navigateUsingEntrySet(treeMap);

        navigateUsingKeySet(treeMap);

        navigateUsingValues(treeMap);

        navigateUsingIterator(treeMap);

    }

    public static void navigateUsingEntrySet(TreeMap<String, Integer> map) {

        System.out.println("Navigating using entrySet:");

        for (Map.Entry<String, Integer> entry : map.entrySet()) {

            System.out.println("Key: " + entry.getKey() + ", Value: " + entry.getValue());

        }

    }

    public static void navigateUsingKeySet(TreeMap<String, Integer> map) {

        System.out.println("\nNavigating using keySet:");

        for (String key : map.keySet()) {

            System.out.println("Key: " + key + ", Value: " + map.get(key));

        }

    }

    public static void navigateUsingValues(TreeMap<String, Integer> map) {

        System.out.println("\nNavigating using values:");

        for (Integer value : map.values()) {

            System.out.println("Value: " + value);

        }

    }

    public static void navigateUsingIterator(TreeMap<String, Integer> map) {

        System.out.println("\nNavigating using iterator:");

        var iterator = map.entrySet().iterator();

        while (iterator.hasNext()) {

            Map.Entry<String, Integer> entry = iterator.next();

            System.out.println("Key: " + entry.getKey() + ", Value: " + entry.getValue());

        }

    }

}

**Output:**

