Lab16-Assignment

Name: M Bhagyalaxmi Student id: AF0339449

1)Write a program in Java to create a Map Interface where we can store the cricketer name in it along with his scores and search for the batsman name and display his score. [Hint:use containsKey() method to search batsman name]

```
package com.wrapperclass.examples;
import java.util.HashMap;
import java.util.Map;
import java.util.Scanner;
public class CricketScoreMap {
    public static void main(String[] args) {
        // Create a Map to store cricketer names and
scores
        Map<String, Integer> cricketScoreMap = new
HashMap<>();

        // Adding some sample data
        cricketScoreMap.put("Virat Kohli", 102);
        cricketScoreMap.put("Rohit Sharma", 78);
        cricketScoreMap.put("Dhoni", 110);
        cricketScoreMap.put("Kane Williamson", 90);

        // Taking user input to search for a batsman
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the batsman name to
search: ");
        String batsmanName = scanner.nextLine();

        // Check if the batsman name exists in the map
        if (cricketScoreMap.containsKey(batsmanName)) {
            // Display the score if the batsman is
found
            int score =
cricketScoreMap.get(batsmanName);
            System.out.println(batsmanName + "'s score
is: " + score);
```

```
        } else {
            // Display a message if the batsman is not
found
            System.out.println("Batsman not found in
the records.");
        }
    }

}
```

Output:

```
1 package com.wrapperclass.examples;
2 import java.util.HashMap;
3 import java.util.Map;
4 import java.util.Scanner;
5 public class CricketScoreMap {
6     public static void main(String[] args) {
7         // Create a Map to store cricketer names and scores
8         Map<String, Integer> cricketScoreMap = new HashMap<>();
9
10        // Adding some sample data
11        cricketScoreMap.put("Virat Kohli", 102);
12        cricketScoreMap.put("Rohit Sharma", 78);
13        cricketScoreMap.put("Dhoni", 110);
14        cricketScoreMap.put("Kane Williamson", 90);
15
16        // Taking user input to search for a batsman
17        Scanner scanner = new Scanner(System.in);
18        System.out.print("Enter the batsman name to search: ");
19        String batsmanName = scanner.nextLine();
```

Problems Javadoc Declaration Console Coverage

<terminated> CricketScoreMap [Java Application] C:\Users\USER\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_19.0.2.v20230129-1123\jre\bin\

```
Enter the batsman name to search: Dhoni
Dhoni's score is: 110
```

2)Write a Java program that demonstrates the functionality of this dictionary application using a TreeMap. Your program should include the following features: i)A TreeMap named dictionary to store word-definition pairs. ii)A way to input word-definition pairs and add them to the dictionary. iii)A way to retrieve and display the definition of a specific word. iv)An iteration through the dictionary to display all word-definition pairs in alphabetical order based on words

```
package com.wrapperclass.examples;
import java.util.Iterator;
import java.util.Map;
import java.util.Scanner;
```

```
import java.util.Set;
import java.util.TreeMap;

public class Dictionary {
      public static void main(String argv[])
        {
                  TreeMap hm = new TreeMap();

    //put(String key, Object value)
                  hm.put("dawn","early morning");
                  hm.put("rigid","Constant");
                  hm.put("vintage","Older");
                  hm.put("robust","Anticipating
problems");
                  hm.put("boilerplate","REpeated set of
code in an application");

                  Scanner obj = new Scanner(System.in);

                  System.out.println("Enter a word to add
into Dictionary");
                  String word = obj.next();
                  System.out.println("Enter meaning of
the word");
                  String meaning = obj.next();

                  hm.put(word, meaning);

                  System.out.println("Enter a word to
find meaning");
                  word = obj.next();

                  if(hm.containsKey(word))
                  {
                   System.out.println("Meaning of the
word: " + hm.get(word));
                  }
                  else
                  {
```

```
                    System.out.println("Searching word not
present in the dictionary...");
                }

                Set s = hm.entrySet();


                Iterator it = s.iterator();

                System.out.println("\n\nWord and
Synonym present in Treeset");
                while (it.hasNext())
                {
                        Map.Entry me = (Map.Entry)
it.next();

                        System.out.println(me.getKey()
+ "-" + me.getValue());}
                }
}
```

Output:

```
1  package com.wrapperclass.examples;
2  import java.util.Iterator;
3  import java.util.Map;
4  import java.util.Scanner;
5  import java.util.Set;
6  import java.util.TreeMap;
7
8  public class Dictionary {
9       public static void main(String argv[])
10        {
11              TreeMap hm = new TreeMap();
12
13     //put(String key, Object value)
```

Problems | Javadoc | Declaration | Console | Coverage

```
<terminated> Dictionary [Java Application] C:\Users\USER\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_19.0.2.v20230129-1123\jre\bin\ja
Enter a word to add into Dictionary
abondan
Enter meaning of the word
course of action
Enter a word to find meaning
Searching word not present in the dictionary...


Word and Synonym present in Treeset
abondan-course
boilerplate-REpeated set of code in an application
dawn-early morning
rigid-Constant
robust-Anticipating problems
vintage-Older
```