**Lab 3**

**1.Write a Java program to associate the specified value with the specified key in a HashMap.**

import java.util.HashMap;

public class HashMapExample {

public static void main(String[] args) { HashMap<String, Integer> hashMap = new HashMap<>();

hashMap.put("apple",10);

hashMap.put("banana",20);

hashMap.put("orange",15);

System.out.println("HashMap: "+hashMap);

hashMap.put("apple",25);

System.out.println("Updated HashMap: " + hashMap);

}

}

Output:

HashMap: {orange=15, banana=20, apple=10}

Updated HashMap: {orange=15, banana=20, apple=25}

**2.Write a Java program to check whether a HashMap contains key-value mappings (empty) or not.**

import java.util.HashMap;

public class HashMapCheckEmpty {

public static void main(String[] args) {

HashMap<String, Integer> hashMap = new HashMap<>();

if (hashMap.isEmpty()) {

System.out.println("HashMap is empty.");

} else {

System.out.println("HashMap is not empty.");

}

hashMap.put("apple", 10);

hashMap.put("banana", 20);

hashMap.put("orange", 15);

if (hashMap.isEmpty()) {

System.out.println("HashMap is empty.");

} else {

System.out.println("HashMap is not empty.");

}

}

}

Output:

Hash is empty

Hash is not empty

**3.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.**

import java.util.HashMap;

import java.util.Map;

public class CricketerScores{

public static void main(String[] args) {

Map<String, Integer> cricketerScores = new HashMap<>();

cricketerScores.put("Virat Kohli", 70);

cricketerScores.put("Rohit Sharma", 90);

cricketerScores.put("Steve Smith", 80);

cricketerScores.put("Kane Williamson", 85);

cricketerScores.put("Joe Root", 75);

String batsmanName = "Virat Kohli";

if(cricketerScores.containsKey(batsmanName)) {

int score = cricketerScores.get(batsmanName);

System.out.println(batsmanName + "'s score is: " + score);

} else {

System.out.println("Batsman not found in the records.");

}

}

}

Output:

Virat Kohli's score is: 70