Varsha M CSE

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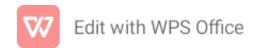
Program:

```java
  import java.util.HashMap;


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


      // Add key-value pairs to the HashMap
      hashMap.put("key1", 100);
      hashMap.put("key2", 200);
      hashMap.put("key3", 300);


      // Print the HashMap
      System.out.println("HashMap: " + hashMap);
   }
}
```

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

Program:

```java
import java.util.HashMap;
```

```java
public class HashMapCheckEmpty {

    public static void main(String[] args) {

        // Create a new HashMap

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


        // Check if the HashMap is empty

        if (hashMap.isEmpty()) {

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

        } else {

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

        }


        // Add key-value pairs to the HashMap

        hashMap.put("key1", 100);

        hashMap.put("key2", 200);


        // Check again if the HashMap is empty

        if (hashMap.isEmpty()) {

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

        } else {

            System.out.println("HashMap 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.

Program:

```java
import java.util.HashMap;

import java.util.Map;


public class CricketerScores {

    public static void main(String[] args) {

        // Create a Map to store cricketer names and scores

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


        // Add cricketer names and scores to the map

        cricketerScores.put("Sachin Tendulkar", 18426);

        cricketerScores.put("Virat Kohli", 12169);

        cricketerScores.put("Ricky Ponting", 13378);

        cricketerScores.put("Brian Lara", 11953);


        // Search for a batsman's name and display his score

        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.");

        }

    }
```

}