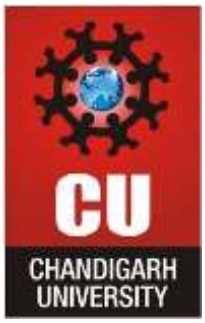
**CHANDIGARH UNIVERSITY**

**UNIVERSITY INSTITUTE OF ENGINEERING**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**




| | |
|---|---|
| **Submitted By: Yash Kumar** | **Submitted To: Ma'am Neeru Sharma** |
| **Subject Name** | **Project based learning in Java lab** |
| **Subject Code** | **20CSP-321** |
| **Branch** | **Computer Science** |
| **Semester** | **5th Semester** |

# LAB INDEX

| Sr. No. | Program | Date | Evaluation | | | | Sign. |
|---|---|---|---|---|---|---|---|
| | | | LW (12) | VV (10) | FW (8) | Total (30) | |
| 01. | Create a program to set view of Keys from Java Hashtable. | 01/09/ 2022 | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

# Experiment Title - 04

**Student Name: Yash Kumar** **UID: 20BCS9256**
**Branch: CSE** **Section/Group: 616 'B'**
**Semester: 5th** **Date of Performance: 01/09/2022**
**Subject Name: Project based learning in Java lab**
**Subject Code: 20CSP-321**

**1. Aim**
Create a program to set view of Keys from Java Hashtable.

**2. Software Requirements:** Eclipse IDE

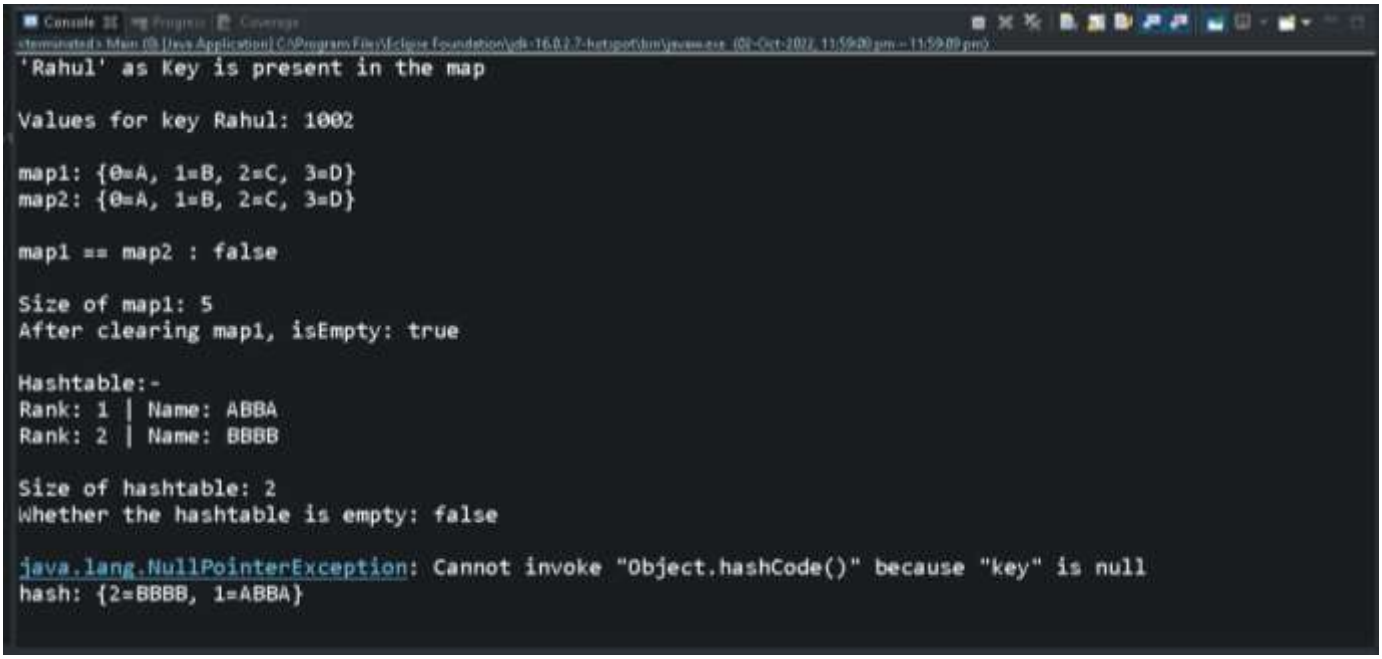
**3. Code**

```
package exp.four;

import java.util.HashMap;
import java.util.Hashtable;

public class Main {

	public static void main(String[] args) {
		HashMap<String, Integer> map1 = new HashMap<>();
		map1.put("Yash", 1001);
		map1.put("Rahul", 1002);
		// The value is updated if same key is used again
		map1.put("Rahul", 1002);
		map1.put("Raj", 1004);
		map1.put("Ravi", 1009);
		map1.put("Ramu", 1010);

		HashMap<Integer, String> map2 = new HashMap<>();
		map2.put(0, "A");
```

```
        map2.put(1, "B");
        map2.put(2, "C");
        map2.put(3, "D");

        // Searching key using contains Key
        if (map1.containsKey("Rahul")) {
                System.out.println("'Rahul' as Key is present in the map");
        } else {
                System.out.println("'Rahul' as Key is not present in the map");
        }

        // For getting value of the key
        System.out.println("\nValues for key Rahul: " + map1.get("Rahul"));
        // Printing the map
        System.out.println("\nmap1: " + map2);
        System.out.println("map2: " + map2);

        System.out.println("\nmap1 == map2 : " + map1.equals(map2));

        System.out.println("\nSize of map1: " + map1.size());
        map1.clear();
        System.out.println("After clearing map1, isEmpty: " + map1.isEmpty());

        // Hashtable
        Hashtable<Integer, String> hash = new Hashtable<Integer, String>();
        hash.put(1, "ABBA");
        hash.put(2, "BBBB");
        System.out.println("\nHashtable:-");
        hash.forEach((key, value) -> System.out.println("Rank: " + key + " | Name: " +
value));

        System.out.println("\nSize of hashtable: " + hash.size());
        System.out.println("Whether the hashtable is empty: " + hash.isEmpty());

        // Null as key Value
        try {
                hash.put(null, "ACAC");
        } catch (Exception e) {
                System.out.println();
```

```
                System.out.println(e);
            } finally {
                System.out.println("hash: " + hash);
            }
        }
}
```

## 4. Output




## Learning outcomes (What I have learnt):

1. Learn about hashtable.
2. Learn about hashmap.
3. Learn to put key and value inside hash table.
4. Learn that hashtable does not allow null key value.
5. Learn to print hashtable.