

Tab 1

```

package com.mycompany.hashmap;

import java.util.*;
public class Hashmap {

    public static void main(String[]args) {
        HashMap<Integer,String>hashMap=new HashMap<>();
        hashMap.put(1,"Red");
        hashMap.put(2,"Green");
        hashMap.put(3,"Blue");
        System.out.println("HashMap Elements:");
        for(Integer key : hashMap.keySet()){
            System.out.println("Key:"+key+",Value:"+hashMap.get(key));
        }
        Hashtable<Integer,String>hashtable=new Hashtable<>();
        hashtable.put(1,"Aji");
        hashtable.put(2,"Azeen");
        hashtable.put(3,"Banu");
        System.out.println("\nHashtable Elements:");
        for(Integer key : hashtable.keySet()){
            System.out.println("Key:"+key+",Value:"+hashtable.get(key));
        }
    }
}

```

Output - Run (Hashmap)

```

HashMap Elements:
Key:1,Value:Red
Key:2,Value:Green
Key:3,Value:Blue

Hashtable Elements:
Key:3,Value:Banu
Key:2,Value:Azeen
Key:1,Value:Aji

BUILD SUCCESS
-----
Total time: 0.779 s
Finished at: 2026-01-03T16:04:41+05:30
-----
```

Tab 2

```
package com.mycompany.stack;
import java.util.*;
public class Stack {
    public static void main(String[] args) {
        Stack<Integer> stack = new Stack<>();
        Scanner scanner = new Scanner(System.in);
        System.out.println("\nStack Operations:");
        System.out.println("1.Push");
        System.out.println("2.Pop");
        System.out.println("3.Peek");
        System.out.println("4.Display Stack");
        System.out.println("5.Exit");
        while(true){
            System.out.print("\nEnter your choice:");
            int choice = scanner.nextInt();
            switch (choice) {
                case 1:
                    System.out.print("Enter a number to push:");
                    int num = scanner.nextInt();
                    stack.push(num);
                    System.out.println(num +" pushed onto the stack.");
                    break;
                case 3:
                    if (!stack.isEmpty()) {
                        System.out.println("Top element:" + stack.peek());
                    } else {
                        System.out.println("Stack is empty.");
                    }
                    break;
                case 4:
                    System.out.println("Current Stack:"+ stack);
                    break;
                case 5:
                    System.out.println("Exiting program...");
                    return;
                default:
                    System.out.println("Invalid choice! Please enter a valid option.");
            }
            scanner.close();
        }
    }
}
```

Output - Run (Stack)

```
cd C:\Users\1BSCCSA43\Documents\NetBeansProjects\Stack; "JAVA_HOME=C:\\Program Files\\Apache NetBeans\\jdk" cmd /c "\"C:\\Program Files\\
WARNING: A terminally deprecated method in sun.misc.Unsafe has been called
WARNING: sun.misc.Unsafe::staticFieldBase has been called by com.google.inject.internal.aop.HiddenClassDefiner (file:/C:/Program%20Files/
WARNING: Please consider reporting this to the maintainers of class com.google.inject.internal.aop.HiddenClassDefiner
WARNING: sun.misc.Unsafe::staticFieldBase will be removed in a future release
Scanning for projects...

-----< com.mycompany:Stack >-----
[INFO] Building Stack 1.0-SNAPSHOT
[INFO] from pom.xml
----- [ jar ] -----
[INFO] --- resources:3.3.1:resources (default-resources) @ Stack ---
[INFO] skip non existing resourceDirectory C:\Users\1BSCCSA43\Documents\NetBeansProjects\Stack\src\main\resources
[INFO] --- compiler:3.13.0:compile (default-compile) @ Stack ---
```