

Aim:

Write a java program(s) that use collection framework classes.(HashMap class)

Source Code:

HashMapclass.java

```
import java.util.HashMap;
import java.util.*;
// Main class
public class HashMapclass{

    // Main driver method
    public static void main(String[] args){

        HashMap<String,Integer> map = new HashMap<>();
        System.out.print("No.Of Mapping Elements in HashMap:");
        Scanner sc= new Scanner(System.in);
        int n = sc.nextInt();
        for (int i=0; i<n; i++){
            System.out.print("String:");
            Scanner b = new Scanner(System.in);
            String str= b.nextLine();
            System.out.print("Integer:");
            int num= b.nextInt();
            map.put(str,num);
        }

        // using for-each loop for iteration over Map.entrySet()
        for (Map.Entry<String,Integer> entry : map.entrySet())
            System.out.println("Key = " + entry.getKey() +", Value = "
                               + entry.getValue());

        // Printing elements in object of Map
        System.out.println(map);
    }
}
```

Execution Results - All test cases have succeeded!

Test Case - 1

User Output

No.Of Mapping Elements in HashMap: 3

String: hi

Integer: 1

String: hello

Integer: 2

String: world

Integer: 3

Key = hi, Value = 1

Key = world, Value = 3
Key = hello, Value = 2
{hi=1, world=3, hello=2}

Test Case - 2
User Output
No.Of Mapping Elements in HashMap: 3
String: Students
Integer: 200
String: Teachers
Integer: 5
String: Principal
Integer: 1
Key = Teachers, Value = 5
Key = Students, Value = 200
Key = Principal, Value = 1
{Teachers=5, Students=200, Principal=1}