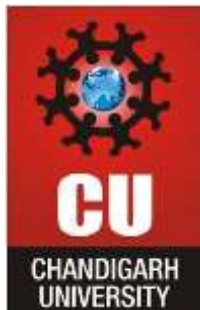


CHANDIGARH UNIVERSITY
UNIVERSITY INSTITUTE OF ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



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	5 th Semester		



LAB INDEX

Sr. No.	Program	Date	Evaluation				Sign.
			LW (12)	VV (10)	FW (8)	Total (30)	
01.	Create a program to show the usage of Sets of Collection interface.	02/09/2022					

Experiment Title - 05

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 show the usage of Sets of Collection interface.

2. Software Requirements: Eclipse IDE

3. Code

```
package exp.five;
```

```
import java.util.Arrays;  
import java.util.HashSet;  
import java.util.Iterator;  
import java.util.Set;
```

```
public class Main {
```

```
    public static void main(String[] args) {  
        Set<Integer> s1 = new HashSet<Integer>();  
        s1.add(4);  
        s1.add(2);  
        s1.add(1);  
        s1.add(1);  
        s1.add(5);  
    }
```

```
Integer[] arr = { 7, 1, 2, 3, 1, 5 };
Set<Integer> s2 = new HashSet<Integer>();
s2.addAll(Arrays.asList(arr));

System.out.println("s1: " + s1);
System.out.println("s2: " + s2);

System.out.println("\ns1 == s2: " + s1.equals(s2));

Set<Integer> union = new HashSet<Integer>(s1);
union.addAll(s2);
System.out.println("\nUnion of s1 & s2: " + union);

System.out.println("\nRemove 2 from set s1.");
s1.remove(2);
System.out.println("s1: " + s1);

Iterator newData = s1.iterator();
System.out.println("\nPrinting values using Iteratore!");
System.out.print("s1: ");
while (newData.hasNext()) {
    System.out.print(newData.next() + " ");
}

System.out.println("\n\nSize of s2: " + s2.size());
System.out.println("Clearing elemets from s2!");
s2.clear();
System.out.println("Whether set2 is empty: " + s2.isEmpty());
s2.clear();

}

}
```

4. Output

```
Console | Progress | Coverage
terminated: Main (0) [Java Application] C:\Program Files\Eclipse Foundation\jdk-18.0.2.7-hotspot\bin\java.exe (00-Oct-2022, 12:27:40 am - 12:27:49 am)

s1: [1, 2, 4, 5]
s2: [1, 2, 3, 5, 7]

s1 == s2: false

Union of s1 & s2: [1, 2, 3, 4, 5, 7]

Remove 2 from set s1.
s1: [1, 4, 5]

Printing values using Iterator!
s1: 1 4 5

Size of s2: 5
Clearing elements from s2!
Whether set2 is empty: true

Writable | Smart Insert | 41 / 1 (2) |
```

Learning outcomes (What I have learnt):

1. Learn about set.
2. Learn about how to initialize the set.
3. Learn about how to print the set.
4. Learn usage of iterator in set.
5. Learn to clear the set.