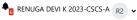
REC-CIS



CS23333-Object Oriented Programming Using Java-2023

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Quiz navigation



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Status Finished Started Saturday, 16 November 2024, 9:26 PM Completed Saturday, 16 November 2024, 9:57 PM Duration 31 mins 2 secs

Question 1 Marked out of 1.00 Flag question

Java HashSet class implements the Set interface, backed by a hash table which is actually a HashMap instance.

No guarantee is made as to the iteration order of the hash sets which means that the class does not guarantee the constant order of elements over time.

This class permits the null element.

The class also offers constant time performance for the basic operations like add, remove, contains, and size assuming the hash function disperses the elements properly among the buckets.

Java HashSet Features

A few important features of HashSet are mentioned below

- Implements Set Interface.
- The underlying data structure for HashSet is Hashtable
- As it implements the Set Interface, duplicate values are not allowed.
- Objects that you insert in HashSet are not guaranteed to be inserted in the same order. Objects are inserted based on their hash code
- NULL elements are allowed in HashSet.
- HashSet also implements **Serializable** and **Cloneable** interfaces.

```
public \ class \ HashSet<E> \ extends \ AbstractSet<E> \ implements \ Set<E>, \ Cloneable, \ Serializable \ Sample \ Input \ and \ Output:
Sample Output:
78 was found in the set.
Sample Input and output:
Sample Input and output:
5 was not found in the set.
```

Answer: (penalty regime: 0 %)

```
Reset answer
   1 .import java.util.HashSet;
2 import java.util.Scanner;
3 . class prog {
4 . public static void main(String[] args) {
               Scanner sc= new Scanner(System.in);
int n = sc.nextInt();
// Create a HashSet object called numbers
| HashSet<Integer> numbers = new HashSet<>();
  8
9
10
11
12
                for(int i=0;i<n;i++)
  13
14
15
16
17
18
19
20
                   numbers.add(sc.nextInt());
               int skey=sc.nextInt();
               // Show which numbers between 1 and 10 are in the set
               if (numbers.contains(skey))
                     System.out.println(skey + " was found in the set.");
  21
22
23
24 *
25
26
27
28
29 }
                     System.out.println(skey + " was not found in the set.");
```

1	5	78 was found in the set.	78 was found in the set.	
	90			
	56			
	45			
	78			
	25			
	78			
2	3	5 was not found in the set.	E was not found in the set	
-	-1	5 was not round in the set.	5 was not round in the set.	
	2			
	4			
	5			

Ouestion 2 Correct Marked out of ▼ Flag question

Write a Java program to compare two sets and retain elements that are the same

Sample Input and Output:

Football

Hockey

Cricket Volleyball

Baskethall

```
Badminton
Hockey
Volleyball
Handball
SAMPLE OUTPUT:
Football
Hockey
Cricket
Volleyball
Basketball
Answer: (penalty regime: 0 %)
1 v import java.util.HashSet;
2 import java.util.Scanner;
          public class CompareSets {
   public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
}
                       int n1 = sc.nextInt();
                      sc.nextLine();
HashSet<String> set1 = new HashSet<>();
    10
11
12
                      for (int i = 0; i < n1; i++) {
    set1.add(sc.nextLine());</pre>
    13
14
15
16
17
18
19
20
21
                       }
                       int n2 = sc.nextInt();
                      sc.nextLine();
HashSet<String> set2 = new HashSet<>();
                       for (int i = 0; i < n2; i++) {
    set2.add(sc.nextLine());</pre>
   22
23
24
25
26
27
                       set1.retainAll(set2);
                       for (String element : set1) {
    System.out.println(element);
}
    28
29
30
31
32 }
                       sc.close();
       Test Input
                             Expected Got
```

```
Cricket Cricket
      Football
                  Hockey Hockey
Volleyball Volleyball
      Hockey
Cricket
                   Football Football
      Volleyball
      Basketball
      Golf
      Football
      Hockey
      Volleyball
2
      Toy
      Bus
      Auto
3
      Bus
      Lorry
```

Passed all tests!

7 // HashSet 2: Golf Cricket

Question 3
Correct
Marked out of 1.00
Flag question

```
Java HashMap Methods
```

containsKey() Indicate if an entry with the specified key exists in the map

 ${\color{blue} \textbf{containsValue()}} \ \textbf{Indicate if an entry with the specified value exists in the map}$

putlfAbsent() Write an entry into the map but only if an entry with the same key does not already exist

remove() Remove an entry from the map

replace() Write to an entry in the map only if it exists

size() Return the number of entries in the map

Your task is to fill the incomplete code to get desired output

Answer: (penalty regime: 0 %)

Test	Input	Expected	Got
1	3	ONE : 1	ONE : 1
	ONE	TWO : 2	TWO : 2
	1	THREE : 3	THREE : 3
	TWO		
	2	SIX: 6	SIX: 6
	THREE	ONE : 1	ONE : 1
	3	TWO : 2	TWO : 2
		SEVEN: 7	SEVEN: 7
		THREE : 3	THREE : 3
		2	2
		true	true
		true	true
		4	4

Passed all tests!

Finish review