

SCALA PROGRAMMING

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Ques - Write a Scala program to create a set and find the common elements between two sets.

CODE :-


```
object CommonElementsSetExample {  
  def main(args: Array[String]): Unit = {  
    // Create two sets  
    val set1 = Set(1, 2, 3, 4, 5)  
    val set2 = Set(4, 5, 6, 7, 8)  
    // Print the sets  
    println("Set1: " + set1)  
    println("Set2: " + set2)  
    // Find the common elements between the two sets  
    val commonElements = set1.intersect(set2)  
    // Print the common elements  
    println("Common elements: " + commonElements)  
  }  
}
```

OUTPUT :-

Set1: HashSet(5, 1, 2, 3, 4)

Set2: HashSet(5, 6, 7, 8, 4)

Common elements: HashSet(5, 4)



The screenshot shows a Scala IDE interface. The top bar includes a file name 'HelloWorld.scala', a user identifier '3zpskz7c', and buttons for 'NEW', 'SCALA', 'RUN', and a settings icon. The main editor area displays the Scala code for finding common elements between two sets. The output pane on the right shows the execution results: 'Set1: HashSet(5, 1, 2, 3, 4)', 'Set2: HashSet(5, 6, 7, 8, 4)', and 'Common elements: HashSet(5, 4)'. The code in the editor is as follows:

```
1 object CommonElementsSetExample {  
2   def main(args: Array[String]): Unit = {  
3     // Create two sets  
4     val set1 = Set(1, 2, 3, 4, 5)  
5     val set2 = Set(4, 5, 6, 7, 8)  
6     // Print the sets  
7     println("Set1: " + set1)  
8     println("Set2: " + set2)  
9     // Find the common elements between the two sets  
10    val commonElements = set1.intersect(set2)  
11    // Print the common elements  
12    println("Common elements: " + commonElements)  
13  }  
14 }  
15
```

In this program first, we create two sets set1 and set2 with some elements. To find the common elements between the two sets, we use the intersect method. This returns a new set containing the elements common to both sets. In the program, we find the common elements between set1 and set2 by using the line `val commonElements = set1.intersect(set2)`. Finally, we print the sets and the common elements.

To find the union of sets and then the common elements present in between this set and the third set.

CODE :-

```
object CommonElementsSetExample {
  def main(args: Array[String]): Unit = {
    // Create two sets
    val set1 = Set(1, 2, 3, 4, 5)
    val set2 = Set(4, 5, 6, 7, 8)
    val set3 = Set(9,2,10,6,12)
    // Print the sets
    println("Set1: " + set1)
    println("Set2: " + set2)
    println("Set3: " + set3)
    // Find the common elements between the two sets
    val commonElements = (set1.union(set2)).intersect(set3)
    // Print the common elements
    println("Common elements: " + commonElements)
  }
}
```

OUTPUT :-

```
Set1: HashSet(5, 1, 2, 3, 4)
Set2: HashSet(5, 6, 7, 8, 4)
Set3: HashSet(10, 6, 9, 2, 12)
Common elements: HashSet(6, 2)
```

HelloWorld.scala
3zpskkz7c
NEW
SCALA
RUN

```

1 object CommonElementsSetExample {
2   def main(args: Array[String]): Unit = {
3     // Create two sets
4     val set1 = Set(1, 2, 3, 4, 5)
5     val set2 = Set(4, 5, 6, 7, 8)
6     val set3 = Set(9,2,10,6,12)
7     // Print the sets
8     println("Set1: " + set1)
9     println("Set2: " + set2)
10    println("Set3: " + set3)
11    // Find the common elements between the two sets
12    val commonElements = (set1.union(set2)).intersect(set3)
13    // Print the common elements
14    println("Common elements: " + commonElements)
15  }
16 }
17

```

STDIN

Input for the program (Optional)

Output:

Set1: HashSet(5, 1, 2, 3, 4)
Set2: HashSet(5, 6, 7, 8, 4)
Set3: HashSet(10, 6, 9, 2, 12)
Common elements: HashSet(6, 2)

In this program we first, we create three sets set1, set2 and set3 with some elements. To find the union between two sets we used union function between set1 and set2 and then we are finding the common elements from the union set and set3 by using intersect method. In the program, we combine set1 and set2 by using the line set1.union(set2) and then to find the common elements between this set and set3 we used the line (set1.union(set2)).intersect(set3). Finally, we print the sets and the common elements.