

```

1  import java.util.*;
2
3  public class Main {
4
5      public static void main(String[] args) throws Exception {
6
7          Scanner sc = new Scanner(System.in);
8          System.out.println("Name:pavan kumar");
9          System.out.println("Sap id:51834695");
10         System.out.println("Enter the first string:");
11         String input = sc.nextLine();
12
13         System.out.println("Enter the second string:");
14         String rotation = sc.nextLine();
15
16         if (checkRotatation(input, rotation)) {
17             System.out.println(input + " and " + rotation
18                 + " are rotation of each other");
19         } else {
20             System.out.println("they are not rotation of
21             each other");
22         }
23         sc.close();
24     }
25
26     public static boolean checkRotatation(String original, String rotation) {
27         if (original.length() != rotation.length()) {
28             return false;
29         }
30
31         String concatenated = original + original;
32
33         if (concatenated.indexOf(rotation) != -1) {
34             return true;
35         }
36
37         return false;
38     }
39 }

```

```
Name:pavan kumar  
Sap id:51834695  
Enter the first string:  
xyz  
Enter the second string:  
zxy  
xyz and zxy are rotation of each other  
  
Process finished.
```

```
1  import java.util.Arrays;
2
3  class Main
4  {
5      public static void swap(int[] arr, int a, int b)
6      {
7          int temp = arr[a];
8          arr[a] = arr[b];
9          arr[b] = temp;
10     }
11
12     public static void bubbleSort(int[] arr, int x)
13     {
14         for (int a = 0; a < x - 1; a++) {
15             if (arr[a] > arr[a + 1]) {
16                 swap(arr, a, a + 1);
17             }
18         }
19         if (x - 1 > 1) {
20             bubbleSort(arr, x - 1);
21         }
22     }
23
24     public static void main(String[] args)
25     {
26         int[] arr = { 10,4,-4,17,3,20,1 };
27
28         bubbleSort(arr, arr.length);
29
30         System.out.println("Name:pavan kumar");
31         System.out.println ("Sap id:51834695");
32         System.out.println(Arrays.toString(arr));
33     }
34 }
```

```
Name:pavan kumar  
Sap id:51834695  
[-4, 1, 3, 4, 10, 17, 20]  
  
Process finished.
```