

Permutation.java

```
1 package StringPermutation;
2 import java.util.*;
3
4
5 public class Permutation {
6
7     public static void main(String args[])
8     {
9         Scanner sc = new Scanner(System.in);
10
11         System.out.println("Please, insert a string: ");
12         String Str1 = sc.nextLine();
13
14         System.out.print("The result of the permutation is: " + StrPermut(Str1));
15     }
16
17     public static Set<String> StrPermut(String Str1)
18     {
19         Set<String> strper = new HashSet<String>();
20
21         if(Str1 == null)
22         {
23             return null;
24         }
25         else if(Str1.length() == 0)
26         {
27             strper.add("");
28             return strper;
29         }
30
31         char first = Str1.charAt(0);
32         String Str2 = Str1.substring(1);
33
34         Set<String> Str4 = StrPermut(Str2);
35         for(String StrOne : Str4)
36         {
37             for(int x=0; x<=StrOne.length(); x++)
38             {
39                 strper.add(charInsert(StrOne,first,x));
40             }
41         }
42         return strper;
43     }
44
45     public static String charInsert(String Str1, char ch, int y)
46     {
47         String second = Str1.substring(0,y);
48         String last = Str1.substring(y);
49
50         return second + ch + last;
51     }
52 }
53
54
```