

```
1 package string;
2
3 /*
4  假设字符串的所有字符都不重复，如何输出字符串的所有组合？例如，输入"abc",输出a,b,c,ab,a
5  c,bc,,abc 7种组合 */
6
7 class PrintAllCombinationsOfAString {
8
9     public String[] printAllCombinationsOfAString(String inputString) {
10
11         if (inputString == null || inputString.length() == 0) {
12             return null;
13         }
14
15         int combinationsCount = Math.round((float) Math.pow(2, inputString.length()));
16         int standard = 1 << inputString.length();
17         String[] result = new String[combinationsCount - 1];
18
19         for (int i = 1; i < combinationsCount; i++) {
20             result[i - 1] = generateNewString(i, standard, inputString);
21         }
22
23         return result;
24     }
25
26     private String generateNewString(int currentNumber, int standard, String
27     inputString) {
28
29         StringBuilder result = new StringBuilder();
30
31         for (int i = 0; i < inputString.length(); i++) {
32             standard = standard >>> 1;
33             if ((currentNumber & standard) != 0) {
34                 result.append(inputString.charAt(i));
35             }
36         }
37
38         return result.toString();
39     }
40
41     public static void main(String[] args) {
42
43         String input = "abc";
44         String[] result
45             = new
46             PrintAllCombinationsOfAString().printAllCombinationsOfAString(input);
47
48         System.out.println("haha");
49     }
50 }
```