# 38. 字符串的排列

[NowCoder](https://www.nowcoder.com/practice/fe6b651b66ae47d7acce78ffdd9a96c7?tpId=13&tqId=11180&tPage=1&rp=1&ru=/ta/coding-interviews&qru=/ta/coding-interviews/question-ranking&from=cyc_github)

## 题目描述

输入一个字符串，按字典序打印出该字符串中字符的所有排列。例如输入字符串 abc，则打印出由字符 a, b, c 所能排列出来的所有字符串 abc, acb, bac, bca, cab 和 cba。

## 解题思路

private ArrayList<String> ret = new ArrayList<>();

public ArrayList<String> Permutation(String str) {
 if (str.length() == 0)
 return ret;
 char[] chars = str.toCharArray();
 Arrays.sort(chars);
 backtracking(chars, new boolean[chars.length], new StringBuilder());
 return ret;
}

private void backtracking(char[] chars, boolean[] hasUsed, StringBuilder s) {
 if (s.length() == chars.length) {
 ret.add(s.toString());
 return;
 }
 for (int i = 0; i < chars.length; i++) {
 if (hasUsed[i])
 continue;
 if (i != 0 && chars[i] == chars[i - 1] && !hasUsed[i - 1]) /\* 保证不重复 \*/
 continue;
 hasUsed[i] = true;
 s.append(chars[i]);
 backtracking(chars, hasUsed, s);
 s.deleteCharAt(s.length() - 1);
 hasUsed[i] = false;
 }
}