38. Count and Say

Description | Hints | Submissions | Discuss | Solution

Pick One

The count-and-say sequence is the sequence of integers with the first five terms as following:

```
1.     1
2.     11
3.     21
4.     1211
5.     111221
```

`1` is read off as `"one 1"` or `11`.

`11` is read off as `"two 1s"` or `21`.

`21` is read off as `"one 2"`, then `one 1"` or `1211`.

Given an integer *n*, generate the n^{th} term of the count-and-say sequence.

Note: Each term of the sequence of integers will be represented as a string.

第一个数是1，因为数出来为11，所以第二个数为11，数出来为21，第三个数为21，数出来为1211，第四个数为1211.

```
public class L38 {
     public String countAndSay(int n) {

         if(n <= 0)
             return null;

         String result = "1";
         int i = 1;
         /*
          * 每次循环计算出下一个的值，然后一直迭代。
          */
         while (i < n) {
            StringBuilder sb = new StringBuilder();
            int count = 1;
            for(int j = 1; j < result.length(); j++) {
                if(result.charAt(j) == result.charAt(j - 1)) {
                    count ++;
                }else {
                    sb.append(count);
                    sb.append(result.charAt(j - 1));
                    count = 1;
                }
            }
            sb.append(count);
            sb.append(result.charAt(result.length() - 1));
            result = sb.toString();
            i ++;
        }
         return result;
     }
}
```