

## 821. Shortest Distance to a Character

Given a string `s` and a character `c`, return an array of integers representing the shortest distance from the character `c` in the string.

```
class Solution {
    public int[] shortestToChar(String S, char C) {

        // two pass, left to right and right to left
        int[] res = new int[S.length()];
        int n = S.length();
        int pos = -n;

        // 第一次扫描计算当前位置字母与前一个目标字母之间的距离
        for (int i = 0; i < n; i++) {
            if (S.charAt(i) == C)
                pos = i;
            res[i] = i - pos;
        }

        // 后一次扫描计算当前位置字母与后一个字母之间的距离
        for (int i = n-1; i >= 0; i--) {
            if (S.charAt(i) == C)
                pos = i;
            res[i] = Math.min(res[i], Math.abs(i-pos));
        }

        return res;
    }
}
```