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821. Shortest Distance to a Character

Given a string s and a character c that occurs in s, return an array of integers answer where answer.length == s.length and answer[i] is the distance from index i to the **closest** occurrence of character c in s.

The **distance** between two indices i and j is abs(i - j), where abs is the absolute value function.

Example 1:

Input: s = "loveleetcode", c = "e" Output: [3,2,1,0,1,0,0,1,2,2,1,0] Explanation: The character 'e' appears at indices 3, 5, 6, and 11 (0-indexed). The closest occurrence of 'e' for index 0 is at index 3, so the distance is abs(0 - 3) = 3. The closest occurrence of 'e' for index 1 is at index 3, so the distance is abs(1 - 3) = 2. For index 4, there is a tie between the 'e' at index 3 and the 'e' at index 5, but the distance is still the same: abs(4 - 3) ==abs(4 - 5) = 1.The closest occurrence of 'e' for index 8 is at index 6, so the distance is abs(8 - 6) = 2.

Example 2:

Input: s = "aaab", c = "b" **Output:** [3,2,1,0]

Constraints:

- 1 <= s.length <= 10⁴
- s[i] and c are lowercase English letters.
- It is guaranteed that c occurs at least once in s.

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```
class Solution:
 1 ▼
          def shortestToChar(self, s: str, c: str) -> List[int]:
 2 ▼
 3
              ind = s.index(c)
              res = []
 4
 5
              for i, char in enumerate(s):
 6 ₹
 7 ▼
                   if char == c:
                       res.append(0)
 8
 9 ▼
                       if i > ind:
10
                           j = i-1
11
                           k = 1
                           p = ind+1
12
                           while res[p] == k:
13 ▼
14
                               res[j] = k
15
                               k+=1
16
                               j-=1
                               p+=1
17
                       ind = i
18
19 ▼
                   else:
20
                       res.append(abs(i-ind))
21
              return res
```

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