

1370. Increasing Decreasing String

Solved ●

Easy Topics Companies Hint

You are given a string `s`. Reorder the string using the following algorithm:

1. Pick the **smallest** character from `s` and **append** it to the result.
2. Pick the **smallest** character from `s` which is greater than the last appended character to the result and **append** it.
3. Repeat step 2 until you cannot pick more characters.
4. Pick the **largest** character from `s` and **append** it to the result.
5. Pick the **largest** character from `s` which is smaller than the last appended character to the result and **append** it.
6. Repeat step 5 until you cannot pick more characters.
7. Repeat the steps from 1 to 6 until you pick all characters from `s`.

In each step, If the smallest or the largest character appears more than once you can choose any occurrence and append it to the result.

Return the result string after sorting `s` with this algorithm.

Example 1:

Input: `s = "aaaabbbbcccc"`**Output:** `"abccbaabccba"`**Explanation:** After steps 1, 2 and 3 of the first iteration, result = `"abc"`After steps 4, 5 and 6 of the first iteration, result = `"abccba"`First iteration is done. Now `s = "aabbcc"` and we go back to step 1After steps 1, 2 and 3 of the second iteration, result = `"abccbaabc"`After steps 4, 5 and 6 of the second iteration, result = `"abccbaabccba"`

Example 2:

Input: `s = "rat"`**Output:** `"art"`**Explanation:** The word `"rat"` becomes `"art"` after re-ordering it with the mentioned algorithm.

Constraints:

- `1 <= s.length <= 500`
- `s` consists of only lowercase English letters.

Seen this question in a real interview before? 1/5

Yes No

Accepted 77.8K Submissions 101.9K Acceptance Rate 76.4%

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Hint 1

Hint 2



Hint 3



Discussion (19)

