2716. Minimize String Length

Solved ●

Easy   🏷 Topics   💡 Hint

Given a string `s`, you have two types of operation:

1. Choose an index `i` in the string, and let `c` be the character in position `i`. **Delete** the **closest occurrence** of `c` to the **left** of `i` (if exists).

2. Choose an index `i` in the string, and let `c` be the character in position `i`. **Delete** the **closest occurrence** of `c` to the **right** of `i` (if exists).

Your task is to **minimize** the length of `s` by performing the above operations zero or more times.

Return an integer denoting the length of the **minimized** string.

Example 1:

> **Input:** s = "aaabc"
>
> **Output:** 3
>
> **Explanation:**
>
> 1. Operation 2: we choose `i = 1` so `c` is 'a', then we remove `s[2]` as it is closest 'a' character to the right of `s[1]`. `s` becomes "aabc" after this.
>
> 2. Operation 1: we choose `i = 1` so `c` is 'a', then we remove `s[0]` as it is closest 'a' character to the left of `s[1]`. `s` becomes "abc" after this.

Example 2:

> **Input:** s = "cbbd"
>
> **Output:** 3
>
> **Explanation:**
>
> 1. Operation 1: we choose `i = 2` so `c` is 'b', then we remove `s[1]` as it is closest 'b' character to the left of `s[1]`. `s` becomes "cbd" after this.

Example 3:

> **Input:** s = "baadccab"
>
> **Output:** 4
>
> **Explanation:**
>
> 1. Operation 1: we choose `i = 6` so `c` is 'a', then we remove `s[2]` as it is closest 'a' character to the left of `s[6]`. `s` becomes "badccab" after this.
>
> 2. Operation 2: we choose `i = 0` so `c` is 'b', then we remove `s[6]` as it is closest 'b' character to the right of `s[0]`. `s` becomes "badcca" fter this.
>
> 3. Operation 2: we choose `i = 3` so `c` is 'c', then we remove `s[4]` as it is closest 'c' character to the right of `s[3]`. `s` becomes "badca" after this.
>
> 4. Operation 1: we choose `i = 4` so `c` is 'a', then we remove `s[1]` as it is closest 'a' character to the left of `s[4]`. `s` becomes "bdca" after this.

Constraints:

- `1 <= s.length <= 100`

- `s` contains only lowercase English letters

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

Yes   No

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Topics   ⌄

Hint 1   ⌄

Hint 2   ⌄

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