

2606. Find the Substring With Maximum Cost

Hint ⓘ

Medium ✓ 193 3 ☆ ↻

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You are given a string `s`, a string `chars` of **distinct** characters and an integer array `vals` of the same length as `chars`.

The **cost of the substring** is the sum of the values of each character in the substring. The cost of an empty string is considered `0`.

The **value of the character** is defined in the following way:

- If the character is not in the string `chars`, then its value is its corresponding position (**1-indexed**) in the alphabet.
 - For example, the value of 'a' is `1`, the value of 'b' is `2`, and so on. The value of 'z' is `26`.
- Otherwise, assuming `i` is the index where the character occurs in the string `chars`, then its value is `vals[i]`.

Return *the maximum cost among all substrings of the string* `s`.

Example 1:

Input: `s = "adaa", chars = "d", vals = [-1000]`
Output: `2`
Explanation: The value of the characters "a" and "d" is 1 and -1000 respectively.
The substring with the maximum cost is "aa" and its cost is $1 + 1 = 2$.
It can be proven that 2 is the maximum cost.

Example 2:

Input: `s = "abc", chars = "abc", vals = [-1,-1,-1]`
Output: `0`
Explanation: The value of the characters "a", "b" and "c" is -1, -1, and -1 respectively.
The substring with the maximum cost is the empty substring "" and its cost is 0.
It can be proven that 0 is the maximum cost.

Constraints:

- $1 \leq s.length \leq 10^5$
- `s` consist of lowercase English letters.
- $1 \leq chars.length \leq 26$
- `chars` consist of **distinct** lowercase English letters.
- `vals.length == chars.length`
- $-1000 \leq vals[i] \leq 1000$

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