# 1216. Valid Palindrome III Premium

Hard Topics Companies Hint

Given a string `s` and an integer `k`, return `true` if `s` is a `k`**-palindrome**.

A string is `k`**-palindrome** if it can be transformed into a palindrome by removing at most `k` characters from it.

**Example 1:**

```
Input: s = "abcdeca", k = 2
Output: true
Explanation: Remove 'b' and 'e' characters.
```

**Example 2:**

```
Input: s = "abbababa", k = 1
Output: true
```

**Constraints:**

- `1 <= s.length <= 1000`
- `s` consists of only lowercase English letters.
- `1 <= k <= s.length`

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

Yes No

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Topics

String Dynamic Programming

Companies

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Hint 1

Can you reduce this problem to a classic problem?

Hint 2

The problem is equivalent to finding any palindromic subsequence of length at least N-K where N is the length of the string.

Hint 3

Try to find the longest palindromic subsequence.

Hint 4

Use DP to do that.

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| | |
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| **Valid Palindrome IV** | Medium |

Discussion (15)