[Python3] Edit Distance

cenkay ★ 3413 Last Edit: October 5, 2019 10:14 PM 856 VIEWS

15

```python
class Solution:
    def isValidPalindrome(self, s: str, k: int) -> bool:
        n = len(s)
        dp = [[0] * (n + 1) for _ in range(n + 1)]
        for i in range(n + 1):
            for j in range(n + 1):
                if not i or not j:
                    dp[i][j] = i or j
                elif s[i - 1] == s[n - j]:
                    dp[i][j] = dp[i - 1][j - 1]
                else:
                    dp[i][j] = 1 + min(dp[i - 1][j], dp[i][j - 1])
        return dp[n][n] <= k * 2
```

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je390 ★ 74 Last Edit: October 6, 2019 12:35 AM

thanks !
same thoughts
edit distance where only deletion is allowed between s and reversed(s)

- if one of them is empty we have to delete the entire other
- if last character is the same then no need to delete any of these last 2
- if last characters are not the same then delete either or

the distance == total number of deletions in one string + total number of deletions in the other
implies it has to be <= 2 * k
(removing at most k in each)

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abhi1999 ★ 5 October 6, 2019 12:22 AM

Nice code

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hl1117 ★ 6 October 5, 2019 11:53 PM

Nice code!! Just one question about it, could you please explain the last line? Why dp[n][n] <= k * 2? Thx

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