541 Reverse String II

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Given a string and an integer k, you need to reverse the first k characters for every 2k characters counting from the start of the string. If there are less than k characters left, reverse all of them. If there are less than 2k but greater than or equal to k characters, then reverse the first k characters and left the other as original.

Example:

Input: s = "abcdefg", k = 2

Output: "bacdfeg"

Restrictions:

1. The string consists of lower English letters only.
2. Length of the given string and k will in the range [1, 10000]

来自 <https://leetcode.com/problems/reverse-string-ii/description/>

给定一个字符串和一个整数 k，你需要对从字符串开头算起的每个 2k 个字符的前k个字符进行反转。如果剩余少于 k 个字符，则将剩余的所有全部反转。如果有小于 2k 但大于或等于 k 个字符，则反转前 k 个字符，并将剩余的字符保持原样。

要求:

1. 该字符串只包含小写的英文字母。
2. 给定字符串的长度和 k 在[1, 10000]范围内。

Solution for Python3:

```python
class Solution:
    def reverseStr(self, s, k):
        """
        :type s: str
        :type k: int
        :rtype: str
        """
        a = list(s)
        for i in range(0, len(a), 2*k):
            a[i:i+k] = reversed(a[i:i+k])
        return ''.join(a)
```

Solution for C++:

```cpp
class Solution {
public:
    string reverseStr(string s, int k) {
        for (int p = 0; p < s.length(); p +=
2 * k) {
            int i = p, j = min(p + k - 1,
int(s.length() - 1));
            while (i < j) {
                char t = s[i];
                s[i++] = s[j];
                s[j--] = t;
            }
        }
        return s;
    }
};
```