345 Reverse Vowels of a String

2018年4月9日   20:21

Question：

Write a function that takes a string as input and reverse only the vowels of a string.

Example 1:

Given s = "hello", return "holle".

Example 2:

Given s = "leetcode", return "leotcede".

Note:

The vowels does not include the letter "y".

来自 <https://leetcode.com/problems/reverse-vowels-of-a-string/description/>

编写一个函数，以字符串作为输入，反转该字符串中的元音字母。

示例 1：

给定 s = "hello", 返回 "holle".

示例 2：

给定 s = "leetcode", 返回 "leotcede".

注意：

元音字母不包括 "y"。

Solution for Python3:

```python
class Solution:
    def reverseVowels(self, s):
        """
        :type s: str
        :rtype: str
        """
        L = ['a', 'e', 'i', 'o', 'u', 'A', 'E', 'I', 'O', 'U']
        i, j = 0, len(s) - 1
        LS = list(s)
        while i < j:
            while i < j and s[i] not in L:
                i += 1
            while j > i and s[j] not in L:
                j -= 1
            if i < j:
                LS[i], LS[j] = LS[j], LS[i]
                i += 1
                j -= 1
        return ''.join(LS)
```

Solution for C++:

```cpp
class Solution {
public:
    string reverseVowels(string s) {
        int i = 0, j = s.length() - 1;
        while (i < j) {
            i = s.find_first_of("aeiouAEIOU", i);
            j = s.find_first_of("aeiouAEIOU", j);
            if (i < j) {
                swap(s[i++], s[j--]);
            }
        }
        return s;
    }
};
```