[345 Reverse Vowels of a String (link)](link)

Description

Given a string `s`, reverse only all the vowels in the string and return it.

The vowels are `'a'`, `'e'`, `'i'`, `'o'`, and `'u'`, and they can appear in both lower and upper cases, more than once.

Example 1:

```
Input: s = "hello"
Output: "holle"
```

Example 2:

```
Input: s = "leetcode"
Output: "leotcede"
```

Constraints:

- `1 <= s.length <= 3 * 10`^{5}
- `s` consist of **printable ASCII** characters.

(scroll down for solution)

Solution

Language: cpp

Status: Accepted

```cpp
#include <string>
#include <unordered_set>
using namespace std;

class Solution {
public:
    string reverseVowels(string s) {
        unordered_set<char> vowels = {'a', 'e', 'i', 'o', 'u', 'A', 'E', 'I', 'O', 'U
        int left = 0, right = s.length() - 1;

        while (left < right) {
            // Перемещаем left к следующей гласной
            while (left < right && vowels.find(s[left]) == vowels.end()) {
                left++;
            }
            // Перемещаем right к предыдущей гласной
            while (left < right && vowels.find(s[right]) == vowels.end()) {
                right--;
            }
            // Обмениваем гласные символы
            if (left < right) {
                swap(s[left], s[right]);
                left++;
                right--;
            }
        }

        return s;
    }
};
```