

Reverse Vowel of String in C++

```
#include <iostream>
#include <string>
#include <algorithm>
using namespace std;
bool isVowel(char ch) {
    return (ch == 'A' || ch == 'E' || ch == 'I' || ch ==
'O' || ch == 'U' ||
        ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o'
|| ch == 'u');
}
```

```
string reverseVowel(string s) {
    int left = 0;
    int right = s.length() - 1;

    while (left < right) {
        while (left < right && !isVowel(s[left])) {
            left++;
        }

        while (left < right && !isVowel(s[right])) {
            right--;
        }

        if (left < right) {
            swap(s[left], s[right]);
            left++;
            right--;
        }
    }

    return s;
}
```

```
int main() {
    string s = "hello";
    string result = reverseVowel(s);
    cout << result << endl; // Output should be "holle"
    return 0;
}
```

Input:

```
string s = "hello";
```

Vowels: e, o

🔄 Dry Run Table:

| Step | left | right | s[left] | s[right] | Action | String After Change |
|------|------|-------|---------|----------|-----------------------------------|---------------------|
| 1 | 0 | 4 | h | o | h is not a vowel → left+ + | "hello" |
| 2 | 1 | 4 | e | o | Both are vowels → swap e and o | "holle" |
| 3 | 2 | 3 | l | l | No further vowel swap needed | "holle" |

✓ **Final Output:**

| | |
|--|---|
| | holle |
| |  |

| | |
|-------|--|
| | |
| holle | |