

Write a function to reverse a string in-place ↴ .

Breakdown

In general, an "in-place" algorithm will require swapping elements.

Solution

We swap the first and last characters, then the second and second-to-last characters, and so on until we reach the middle.

```
void reverse(string& str)
{
    size_t startIndex = 0;
    size_t endIndex = str.length() - 1;
    while (startIndex < endIndex) {
        // swap characters
        swap(str[startIndex], str[endIndex]);

        // move towards middle
        ++startIndex;
        --endIndex;
    }
}
```

C++ ▼

Complexity

$O(n)$ time and $O(1)$ space.

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