

## **151. Reverse Words in a String**

- Given an input string `s`, reverse the order of the words.
- A word is defined as a sequence of non-space characters. The words in `s` will be separated by at least one space.
- Return a string of the words in reverse order concatenated by a single space.
- Note that `s` may contain leading or trailing spaces or multiple spaces between two words. The returned string should only have a single space separating the words. Do not include any extra spaces.

### **Example 1:**

- **Input:** `s = "the sky is blue"`
- **Output:** `"blue is sky the"`

### **Example 2:**

- **Input:** `s = " hello world "`
- **Output:** `"world hello"`
- **Explanation:** Your reversed string should not contain leading or trailing spaces.

### **Example 3:**

- **Input:** s = "a good example"
- **Output:** "example good a"
- **Explanation:** You need to reduce multiple spaces between two words to a single space in the reversed string.

### **Constraints:**

- $1 \leq s.length \leq 10^4$
- s contains English letters (upper-case and lower-case), digits, and spaces ' '.
- There is at least one word in s.

**Follow-up:** If the string data type is mutable in your language, can you solve it in-place with  $O(1)$  extra space?