

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 <= s.length <= 104`
- `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?