

# Problem: Reverse Words with Delimiters

**Company:** Facebook

## Scenario

Facebook asked this problem to test **string manipulation** and **delimiter handling**. The challenge is to reverse the words in a string while **preserving the delimiters in their original positions**.

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## Problem Statement

You are given a string *s* consisting of words and delimiters. You need to reverse the **words** in the string while keeping the relative order of the **delimiters** intact.

For example:

- Input: "hello/world:here"
- Output: "here/world:hello"

### Example 1:

**Input:**

"hello/world:here"

**Output:**

"here/world:hello"

### Example 2:

**Input:**

"hello/world:here/"

**Output:**

"here/world:hello/"

### Example 3:

**Input:**

"hello//world:here"

**Output:**

"here//world:hello"

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## Constraints

- The input string may contain multiple delimiters (/ , : , etc.)
  - Words consist only of lowercase alphabets.
  - Delimiters must remain in the same relative order.
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## Approaches

1. **Split + Reconstruct (Simple)**
    - Use regex or manual parsing to separate **words** and **delimiters**.
    - Reverse only the words.
    - Rebuild the string by placing reversed words back with original delimiters.
  2. **Two-Pointer Approach**
    - Traverse string and identify words.
    - Collect delimiters as they appear.
    - Reverse the list of words and merge with delimiters list.
  3. **Stack-based Approach**
    - Push all words into a stack.
    - Traverse the string again, placing delimiters as-is and popping words from stack in reverse order.
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## Practice Links

- [LeetCode Discuss Similar Problem](#)
  - [GeeksforGeeks String Reverse with Delimiters](#)
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## Task for Students

1. Solve this problem in **multiple approaches** (at least 2).
2. Maintain your **GitHub repository** with:
  - README.md (problem statement, explanation, approaches)
  - Code files with multiple solutions.
  - Test cases.
3. Be ready to **explain your thought process** in the next session.