Problem 1: Reverse Each Word in a String

Write a program that takes a string as input and reverses each word in the string while maintaining the original order of the words.

Example:

Input: "Hello World"Output: "olleH dlroW"

Problem 2: Count Vowels in a String

Write a program that counts the number of vowels (a, e, i, o, u) in a given string, regardless of their case.

Example:

• Input: "Programming is fun!"

• Output: 6

Problem 3: Remove Extra Spaces

Write a program that takes a string as input and removes any extra spaces between words, ensuring that only a single space exists between them. Also, trim any leading or trailing spaces.

Example:

Input: "Hello World "Output: "Hello World"

Problem 4: Count Anagram Words in a String

Write a function that, given a string, counts and returns the number of words that are anagrams of a given word. A word in a string is separated by space(s).

Example:

• Input: "listen silent enlist hello"

• Anagram Word: "listen"

• Output: 3 (the words "listen," "silent," and "enlist" are anagrams of each other)

Problem 5: Find All Unique Words in a String

Write a function that takes a string as input and returns a list of all unique words (case insensitive) present in the string. Words are separated by space(s).

Example:

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Input: "Hello world hello"Output: ["hello", "world"]
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Problem 6: Rotate a String

Write a function that takes a string and an integer n, and rotates the string to the right by n positions.

Example:

Input: "abcdef", 2Output: "efabcd"

Problem 7: Replace First and Last Character of Each Word in a String

Write a program that, given a string, replaces the first and last character of each word with a specified character.

Complete the function **replaceFirstLastChar()** that accepts a multi word string and a character, replacing the first and last character of every word in it with the specified character.

Note: Every two adjacent words in the given string will be separated by exactly one space character.

Example:

Input: "Hello World", *Output: "*ell* *orl*"