

1768. Merge Strings Alternately

22 August 2023 19:44

QUESTION:

You are given two strings word1 and word2. Merge the strings by adding letters in alternating order, starting with word1. If a string is longer than the other, append the additional letters onto the end of the merged string. Return the merged string.

From <https://leetcode.com/problems/merge-strings-alternately/?envType=study-plan-v2&envId=leetcode-75>

Example 1:

Input: word1 = "abc", word2 = "pqr"

Output: "apbqcr"

Explanation: The merged string will be merged as so:

word1: a b c

word2: p q r

merged: a p b q c r

Example 2:

Input: word1 = "ab", word2 = "pqr"

Output: "apbqrs"

Explanation: Notice that as word2 is longer, "rs" is appended to the end.

word1: a b

word2: p q r s

merged: a p b q r s

Example 3:

Input: word1 = "abcd", word2 = "pq"

Output: "apbqcd"

Explanation: Notice that as word1 is longer, "cd" is appended to the end.

word1: a b c d

word2: p q

merged: a p b q c d

SOLUTION:

Here in this problem we are given two strings word1 and word2 we have to add letters from each String alternatively. Firstly we will add letter from word1 and then word from word 2 and repeat the process until one of the String is empty. Now we can add remaining characters of other String to the end of it.

word1 = "abc" word2 = "pqr" pos = 0 str = ""

We will initialise a pointer as int pos=0 and also We will create a BufferString str to store the letter at the index of pos pointer. We will first print letter in word1 at index of pos, then we will print letter in word2 at index of pos. Then we will update our pos by 1. And again repeat the process. Return str.toString()

Example 1:-

First Iteration: pos = 0 ; word1 = "abc" ; word2 = "pqr" str = "ap"

Second Iteration:

pos = 1 ; word1 = "abc" word2 = "pqr" str = "apbq"

Third Iteration:

pos = 2 ; word1 = "abc" word2 = "pqr" str = "apbqcr"

In second Example length of word1 is 2 and length of word2 is 4. In this example we will add the remaining letters of word2 at the end of str

Example 2:-

word1 = "ab" word2 = "pqrs" str = "" pos = 0

First Iteration:-

pos = 0 word1 = "ab" word2 = "pqrs" str = "ap"

Second Iteration:-

Pos has reached at end of word1

Now these two remaining characters will be added at the end of str

pos = 1 word1 = "ab" word2 = "pqrs" str = "apbq"

Final str = "apbqrs"