

Geeks And The String

Our geek loves to play with strings, Currently, he is trying to reduce the size of a string by recursively removing all the consecutive duplicate pairs. In other words, He can apply the below operations any number of times.

- Remove all the consecutive duplicate pairs and concatenate the remaining string to replace the original string.

Your task is to find the string with minimum length after applying the above operations.

Note: If the string length become zero after applying operations, return "-1" as a string.

Example 1:

Input:

aaabbaaccd

Output:

ad

Explanation:

Remove (aa)abbaaccd => abbaaccd

Remove a(bb)aaccd => aaaccd

Remove (aa)accd => accd

Remove a(cc)d => ad

Example 2:

Input:

aaaa

Output:

Empty String

Explanation:

Remove (aa)aa => aa

Again removing pair of duplicates then (aa) will be removed and we will get 'Empty String'.

Your Task:

This is a **function** problem. You only need to **complete** the function **removePair()** that takes a **string** as a **parameter** and **returns** the **modified string**. Return an empty string if the whole string is deleted.

Expected Time Complexity: $O(N)$

Expected Auxiliary Space: $O(N)$

Constraints:

$1 \leq |\text{str}| \leq 10^4$