In a string S of lowercase letters, these letters form consecutive groups of the same character.

For example, a string like S = "abbxxxxzyy" has the groups "a", "bb", "xxxx", "z" and "yy".

Call a group *large* if it has 3 or more characters.  We would like the starting and ending positions of every large group.

The final answer should be in lexicographic order.

**Example 1:**

**Input:** "abbxxxxzzy"

**Output:** [[3,6]]

**Explanation**: "xxxx" is the single large group with starting 3 and ending positions 6.

**Example 2:**

**Input:** "abc"

**Output:** []

**Explanation**: We have "a","b" and "c" but no large group.

**Example 3:**

**Input:** "abcdddeeeeaabbbcd"

**Output:** [[3,5],[6,9],[12,14]]

**Note:** 1 <= S.length <= 1000