You are working on a project and need to cut films into scenes. to help streamline the creation of the final films, the team needs to

develop an automated way of breaking up individual shots (short sequence from a particular camera angle) in a film into scenes (a sequence of shots). there is already an algorithm that breaks the film up into shots and

labels them with a letter. Identical shots are labelled with the same letter. write a function to split the film into as many short scenes as

possible without confusing viewers by having the same shot appear in different scenes. This will partition the sequence of shot labels into

scenes so that no shot label appears in more than one scene and each scene is as short as possible. the output should be the length of each scene.

**Input**

the input to the function/method consists of a list of characters representing the sequence of shots.

**Output**

Return a list of integers representing the length of each scene, in the order in which it appears in the given sequence of shots.

**example 1:**

inputList = [a,b,a,b,c,b,a,c,a,d,e,f,e,g,d,e,h,i,j,h,k,l,i,j]

output:

[9,7,8]

**example 2:**

inputList=[a,b,c]

output:

[1,1,1]

**example 3:**

inputList =[a,b,c,a]

output:

[4]

**Example 4:**

inputList = [a,b,c,d,a,e,f,g,h,i,j,e]

output:

[5 7]

**Example 5:**

inputList = [z,w,c,b,z,c,h,f,i,h,i]

output:

[6 5]