Maximum Consecutive Ones

Given an array A of 0s and 1s, we may change upto K values from 0 to 1.
Return the length of the longest (contiguous) subarray that contains only 1s.

n=11

input : A = [1,1,1,0,0,0,1,1,1,1,0], K=2
Output : 6 : explanation: [1 1 1 0 0 1 1 1 1 1 1]

input: A = [0,0,1,1,0,0,1,1,1,0,1,1,0,0,0,1,1,1,1]
K=3, output : 10, explanation: [0 0 1 1 1 1 1 1 1 1 0 0 0 1 1 1 1]

Idea :-

* Longest subarray ढूंढो जिसमे atmost K zeroes हों।
* For each A[j], try to find the longest subarray
* If A[i]~A[j] has zeroes <= K, we continue to increament j.
* If A[i]~A[j] has zeroes > K, we ~~continue~~ increment i (as well as j).

Dry run eg K=2, 1 1 0 0 0 (i = 0 1 2 3 4)

z=0, i=0, ans=0, j=0 to n

Step-1 j=0, arr[0]==0 X and z>k (0>2 X)

simple ans = max(0, 0-0+1)

ans = 1

Step-2 j=1, arr[1]==0 X and 0>2 X

ans = max(1, 1-0+1) = max(1,2) = 2

Step-3 j=2, arr[2]==0 ✓ and 1>2 X

z++;

ans = max(2, 2-0+1) = max(2,3) = 3

Step-4 j=3, arr[3]==0 ✓ and 2>2 X

z++;

ans = max(3, 3-0+1) = max(3,4) = 4

Step-5 j=4, arr[4]==0 ✓ and 3>2 ✓

z++;

arr[0]==0 X; i++;

arr[1]==0 X; i++;

arr[2]==0 ✓; ~~z++~~ - so z=2

i++;

ans = max(4, 4-3+1)

= 4

ans = 4