EDITORIAL

SPOJ :- Sweet and sour rock

Problem Link

Prerequisite -DP ,recursion.

Here we can say that we have to partition the string into segments such that the segments have more number of one than zeroes and the sum of all such segments will be our answer.

Naive approach O(2^n) :-

Now we have n positions at which we can do partitions and at each such position we can do partition or not so and among all possibilities can choose the optimum answer.

DP solution O(n^3) :-

Just think about a position at which you are standing , first you can calculate the number of one's and zeroes and one's and do partition if you can or not if you don't want to be partition there.

So actually we have total n different position and for each position 2 different parameters of zeroes and one's so actually there are total (n*n*n) possible states.

Thus by storing all the previous steps and avoiding calculating further overlapping sub-problems we can do it in O(n^3) time complexity.

Author's code:- coded by enigma27