NOTE: Use Segment tree or Binary index tree to solve this problem to get full credit. Don't use kadane's algorithm.

Problem: Given an array A[], find the maximum subarray sum. Maximum subarray sum of array is the maximum possible value of A[l]+A[l+1]+A[l+2]... + A[r], for some l,r (l <= r).

Constraints:
n <= 200,000
$-10^9 <= A[i] <= 10^9$

Input: First line contains n(the size of array A[]).
Second line contains n space-seperated integers which denotes array A[].

Output: Single integer denoting the maximum subarray sum.

Note: An empty array will give sum 0 and therefore, answer will always be atleast 0.

Sample test 1:

Input	Output
5 1 2 -4 2 5	7

Sample test 2:

Input	Output
7 -1 3 2 1 6 5 4	21