Subarray Sum

Given an array of positive integers and a target value, return true if there is a subarray of consecutive elements that sum up to this target value.   
  
Input: Array of integers, target value  
Output: Boolean

# Example

Input: [6,12,1,7,5,2,3], 14 => Output: true (7+5+2)

Input: [8,3,7,9,10,1,13], 50 => Output: false

# Constraints

Time Complexity: O(N)  
Auxiliary Space Complexity: O(1)

All elements are positive

# Solution

1. Instantiate ‘current\_sum’ equal to the first element
2. Instantiate ‘start’ as 0 as an index representing the start of the sum.
3. Loop through array starting from 1.
   1. Add current value to ‘current\_sum’.
   2. If ‘current\_sum’ exceeds the ‘target’ perform a while loop until ‘current\_sum’ is less than or equal to ‘target’.
      1. In the while loop subtract off the value at ‘start’ and then increment ‘start’
   3. If ‘current\_sum’ is equal to the target value, return true.
4. If the loop is completed without a matching sum, return false.

# Notes

Asked at Amazon and Facebook

# Resources

http://www.geeksforgeeks.org/find-subarray-with-given-sum/