

# Smallest Subarray Greater than value

arr = [1, 4, 45, 6, 0, 19]

x = 51

Step 1:

Initialization

i = 0 j = 0 curr\_sum = 0

min\_subarr\_len = maxint

Step 2:

curr\_sum <= x  $\Rightarrow$  curr\_sum = 0 + 1  
curr\_sum = 1

j += 1  $\Rightarrow$  1

i = 0

Step 3:

curr\_sum <= x  $\Rightarrow$  curr\_sum = 1 + 4  
curr\_sum = 5

j += 1  $\Rightarrow$  2

i = 0

Step 4:

curr\_sum <= x  $\Rightarrow$  curr\_sum = 5 + 45  
curr\_sum = 50

j += 1  $\Rightarrow$  3

i = 0

Step 5:

curr\_sum <= x  $\Rightarrow$  curr\_sum = 50 + 6  
curr\_sum = 56

j += 1  $\Rightarrow$  4

i = 0

Step 6:

curr\_sum > x

min\_subarr\_len = min(maxint, 4 - 0)

min\_subarr\_len = 4

curr\_sum = 56 - 1 = 55

i = 1 j = 4

Similarly, we do the following operations, and find that

[4, 45, 6] subarray is

min length to reach the sum > x (i.e 51), where

the array length is 3