

LeetCode 209. 长度最小的子数组 min Sub Array len()

给定一个含有 n 个正整数的数组 $nums$ 和一个正整数 s 。

找出数组中满足其和 $\geq s$ 的长度最小的

连续子数组，并返回其长度

不存在，则返回 0

代码实现

$i = 0$, $result = Max$

for ($j = 0$; $j < nums.size$; $j++$) {

$sum += nums[j]$; 边界

while ($sum \geq s$) {

$subLen = j - i + 1$;

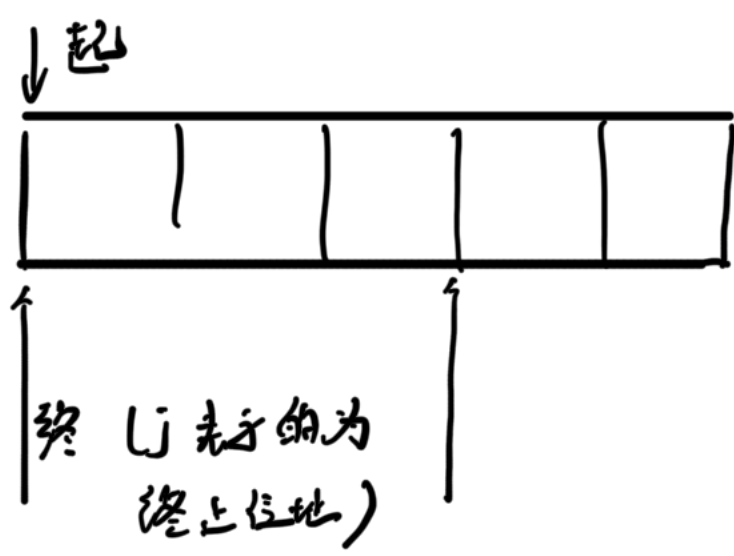
$result = \min(result, subLen)$

$sum = sum - nums[i]$;

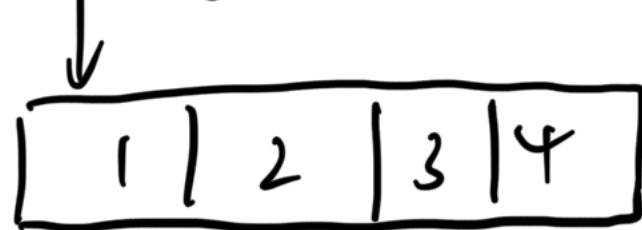
$i++$; }

}

滑动窗口解法



$i = 0$ target = 3.



$j++$

$j = 1$

$sum = 1 + 2 = 3 \geq 3$

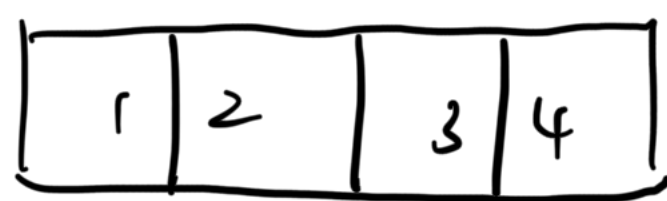
$subLen = 1 - 0 + 1 = 2$

$result = 2$

$sum = 3 - 1 = 2$

($2 < 3$) $j++$, $sum = 2 + 3 = 5$

$i = 1$



$j = 2$

$5 \geq 3$, $subLen = 2$ $result = 2$

$sum = 5 - 2 = 3$ $i++ = 2$

$sum = 3 \geq 3$.

$i = 2$



$j = 2$

$subLen = 2 - 2 + 1 = 1$

$result = 1$

$i++ = 3$ $sum = 3 - 3 = 0$

$j++$

$j = 3$



$j = 3$

$sum = 0 + 4 = 4$, $4 \geq 3$

$subLen = 1$, $result = 1$.

$sum = 4 - 4 = 0$

$i++ = 5$

$j++ = 5$

...

↙

return result