

**70.** Given an integer array `nums`, find the subarray which has the largest sum and return *its sum*.

Example 1:

Input: `nums = [-2,1,-3,4,-1,2,1,-5,4]`

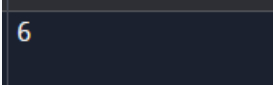
Output: 6

Explanation: `[4,-1,2,1]` has the largest sum = 6.

AIM: To find the maximum sub array

PROGRAM:

```
def maxSubArray(nums):  
    max_sum = nums[0] # Initialize max_sum to the first element of nums  
    current_sum = nums[0] # Initialize current_sum to the first element of nums  
    for num in nums[1:]:  
        current_sum = max(num, current_sum + num)  
        max_sum = max(max_sum, current_sum)  
  
    return max_sum  
nums = [-2, 1, -3, 4, -1, 2, 1, -5, 4]  
print(maxSubArray(nums))
```

OUTPUT: 

TIME COMPLEXITY:  $O(n)$