

### 69. . Maximum Subarray

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

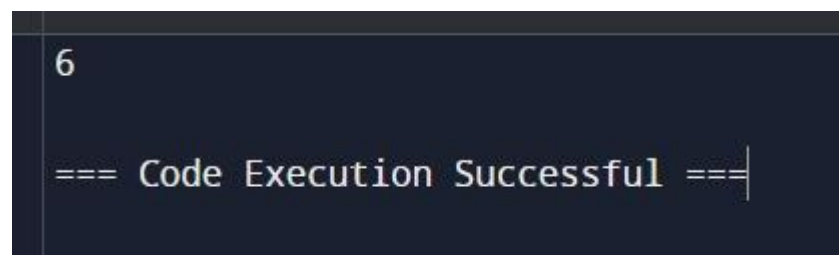
PROGRAM:-

```
def maxSubArray(nums):  
    if not nums:  
        return 0  
  
    max_sum = current_sum = nums[0]  
  
    for num in nums[1:]:  
        current_sum = max(num, current_sum + num)  
        max_sum = max(max_sum, current_sum)  
  
    return max_sum
```

# Example usage and output

```
nums1 = [-2, 1, -3, 4, -1, 2, 1, -5, 4]  
print(maxSubArray(nums1)) # Output: 6
```

OUTPUT:-



```
6  
  
=== Code Execution Successful ===
```

TIME COMPLEXITY:- $O(n)$