



STUDENT REPORT

DETAILS

Name

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Roll Number

KUB23CSE055

EXPERIMENT

Title

SUB-ARRAY WITH MAX SUM

Description

You are given a list of integers, and your task is to find the subarray with the maximum sum. Write a function or method to solve this problem efficiently and return the maximum sum.

Input:

n: the no of elements in the array

nums (List of integers): A list of integers ($1 \leq \text{len}(\text{nums}) \leq 10^5$)

Sample input:

8
-1 2 3 10 -4 7 2 -5

Sample output:

20

Explanation:

The max subarry sum is 20. The subarray is [2,3,10,-4,7,2]

Source Code:

```
def max_subarray_sum(n, nums):  
    if n == 0:  
        return 0  
  
    max_current = max_global = nums[0]  
  
    for i in range(1, n):  
        max_current = max(nums[i], max_current + nums[i])  
        if max_current > max_global:  
            max_global = max_current  
  
    return max_global  
  
n = int(input())  
nums = list(map(int, input().split()))  
  
print(max_subarray_sum(n, nums))
```

RESULT

5 / 5 Test Cases Passed | 100 %