Logo

STUDENT REPORT

DETAILS

Name

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Roll Number

KUB23MCA003

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 ($1 <= len(nums) <= 10^5$)

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(nums):
    max_so_far=nums[0]
    curr_max=nums[0]
    for num in nums[1:]:
        curr_max=max(num,curr_max+num)
        max_so_far=max(max_so_far,curr_max)
    return max_so_far
n=int(input())
nums=list(map(int,input().split()))
max_sum=max_subarray_sum(nums)
print(max_sum)
```

RESULT

5 / 5 Test Cases Passed | 100 %