STUDENT REPORT

DETAILS

Name

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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 = float('-inf')
    max_ending_here = 0

    for num in nums:
        max_ending_here += num

        if max_ending_here > max_so_far:
            max_so_far = max_ending_here

        if max_ending_here < 0:
            max_ending_here = 0

    return max_so_far

import sys

input = sys.stdin.read
data = input().strip().splitlines()

n = int(data[0])

nums = list(map(int, data[1].split()))

result = max_subarray_sum(nums)
print(result)
```

RESULT

5 / 5 Test Cases Passed | 100 %