



STUDENT REPORT

DETAILS

Name

ABDUL KHUDDUS KHAZI

Roll Number

KUB23CSE002

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(n, nums):  
    if n == 0:  
        return 0  
  
    max_sum = current_sum = nums[0]  
  
    for i in range(1, n):  
        current_sum = max(nums[i], current_sum + nums[i])  
        max_sum = max(max_sum, current_sum)  
  
    return max_sum  
  
# Sample input  
n = int(input())  
nums = list(map(int, input().split()))  
  
# Function call and output  
result = max_subarray_sum(n, nums)  
print(result) # Output: 20
```

RESULT

5 / 5 Test Cases Passed | 100 %