Close block drawer

Câu hỏi 5

Chính xác

Chấm điểm của 2,00

Given an array of integers.
Your task is to implement a function with following prototype:

```
int sumOfMaxSubarray(vector<int>& nums, int k);
```

The function returns the sum of the maximum value of every consecutive subarray of `nums` with fixed length `k`.

Note:
- The `iostream`, `vector`, `queue` and `deque` libraries have been included and `namespace std` is being used. No other libraries are allowed.
- You can write helper functions and classes.

For example:

Test	Result

`vector<int> nums {1, 2, 4, 3, 6};`
`int k = 3;`
`cout << sumOfMaxSubarray(nums, k);`
	14

Answer: (penalty regime: 0 %)

Reset answer

```
int sumOfMaxSubarray(vector<int>& nums, int k) {
    int n = nums.size();
    deque<int> dq;
    int sum = 0;
    for (int i = 0; i < n; i++) {
        while (!dq.empty() && dq.front() <= i - k) {
            dq.pop_front();
        }
        while (!dq.empty() && nums[dq.back()] < nums[i]) {
            dq.pop_back();
        }
        dq.push_back(i);
        if (i >= k - 1) {
            sum += nums[dq.front()];
        }
    }
    return sum;
}
```

Kiểm tra

	Test	Expected	Got	

✔	`vector<int> nums {1, 2, 4, 3, 6};`
	`int k = 3;`
	`cout << sumOfMaxSubarray(nums, k);`
		14	14	✔

✔	`vector<int> nums {8016};`
	`int k = 1;`
	`cout << sumOfMaxSubarray(nums, k);`
		8016	8016	✔

Passed all tests! ✔

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