1918. Kth Smallest Subarray Sum

Description

Given an integer array `nums` of length `n` and an integer `k`, return *the* `k th` ***smallest subarray sum.***

A **subarray** is defined as a **non-empty** contiguous sequence of elements in an array. A **subarray sum** is the sum of all elements in the subarray.

Example 1:

```
Input: nums = [2,1,3], k = 4
Output: 3
Explanation: The subarrays of [2,1,3] are:
- [2] with sum 2
- [1] with sum 1
- [3] with sum 3
- [2,1] with sum 3
- [1,3] with sum 4
- [2,1,3] with sum 6
Ordering the sums from smallest to largest gives 1, 2, 3, 3, 4, 6. The 4th smallest is 3.
```

Example 2:

```
Input: nums = [3,3,5,5], k = 7
Output: 10
Explanation: The subarrays of [3,3,5,5] are:
- [3] with sum 3
- [3] with sum 3
- [5] with sum 5
- [5] with sum 5
- [3,3] with sum 6
- [3,5] with sum 8
- [5,5] with sum 10
- [3,3,5], with sum 11
- [3,5,5] with sum 13
- [3,3,5,5] with sum 16
Ordering the sums from smallest to largest gives 3, 3, 5, 5, 6, 8, 10, 11, 13, 16. The 7th smallest is 10.
```

Constraints:

- `n == nums.length`
- `1 <= n <= 2 * 10 4`
- `1 <= nums[i] <= 5 * 10 4`
- `1 <= k <= n * (n + 1) / 2`