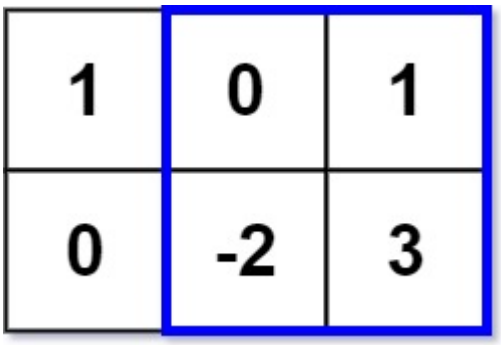
363. Max Sum of Rectangle No Larger Than K

Given an m x n matrix matrix and an integer k, return the max sum of a rectangle in the matrix such that its sum is no larger than k.

It is guaranteed that there will be a rectangle with a sum no larger than k.

Example 1:



Input: matrix = [[1,0,1],[0,-2,3]], k = 2

Output: 2

Explanation: Because the sum of the blue rectangle [[0, 1], [-2, 3]] is 2, and 2 is the max number no larger than k (k = 2).

Example 2:

Input: matrix = [[2,2,-1]], k = 3

Output: 3

Constraints:

- m == matrix.length
- n == matrix[i].length
- 1 <= m, n <= 100
- -100 <= matrix[i][j] <= 100
- -10^5 <= k <= 10^5

Follow up: What if the number of rows is much larger than the number of columns?