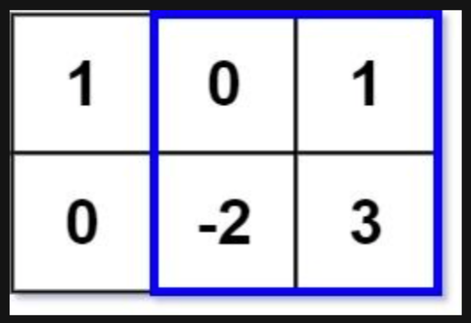
363. Max Sum of Rectangle No Larger Than K

Description

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?