**363. Max Sum of Rectangle No Larger Than K**

Hard

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Given a non-empty 2D matrix *matrix* and an integer *k*, find the max sum of a rectangle in the *matrix* such that its sum is no larger than *k*.

**Example:**

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

**Output:** 2

**Explanation:** Because the sum of rectangle [[0, 1], [-2, 3]] is 2,

  and 2 is the max number no larger than k (k = 2).

**Note:**

1. The rectangle inside the matrix must have an area > 0.
2. What if the number of rows is much larger than the number of columns?