Problem 1292: Maximum Side Length of a Square with Sum Less than or Equal to Threshold

Problem Information

Difficulty: Medium
Acceptance Rate: 53.81%
Paid Only: No
Tags: Array, Binary Search, Matrix, Prefix Sum

Problem Description

Given a `m x n` matrix `mat` and an integer `threshold`, return _the maximum side-length of a square with a sum less than or equal to_`threshold` _or return_`0` _if there is no such square_.

Example 1:

Input: mat = [[1,1,3,2,4,3,2],[1,1,3,2,4,3,2],[1,1,3,2,4,3,2]], threshold = 4 **Output:** 2
Explanation: The maximum side length of square with sum less than 4 is 2 as shown.

Example 2:

Input: mat = [[2,2,2,2,2],[2,2,2,2,2],[2,2,2,2,2],[2,2,2,2,2],[2,2,2,2,2]], threshold = 1
Output: 0

Constraints:

* `m == mat.length` * `n == mat[i].length` * `1 <= m, n <= 300` * `0 <= mat[i][j] <= 104` * `0 <= threshold <= 105`

Code Snippets

C++:

```
class Solution {
public:
int maxSideLength(vector<vector<int>>& mat, int threshold) {

}
};
```

Java:

```
class Solution {
public int maxSideLength(int[][] mat, int threshold) {

}
}
```

Python3:

```
class Solution:
def maxSideLength(self, mat: List[List[int]], threshold: int) -> int:
```