6101. Check if Matrix Is X-Matrix

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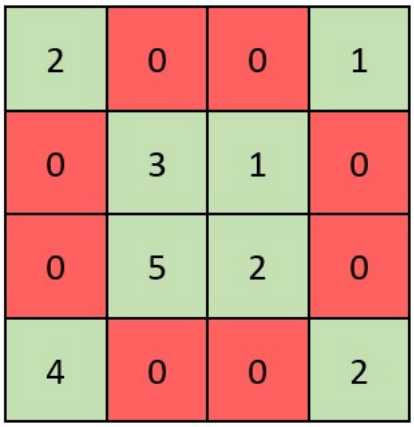
User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Easy

A square matrix is said to be an **X-Matrix** if **both** of the following conditions hold:

1. All the elements in the diagonals of the matrix are **non-zero**.
2. All other elements are 0.

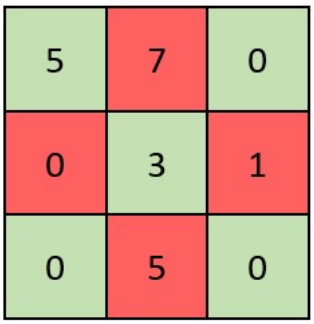
Given a 2D integer array `grid` of size `n x n` representing a square matrix, return `true` *if* `grid` *is an X-Matrix*. Otherwise, return `false`.

Example 1:




```
Input: grid = [[2,0,0,1],[0,3,1,0],[0,5,2,0],[4,0,0,2]]
Output: true
Explanation: Refer to the diagram above.
An X-Matrix should have the green elements (diagonals) be non-zero and the red elements be 0.
Thus, grid is an X-Matrix.
```

Example 2:




```
Input: grid = [[5,7,0],[0,3,1],[0,5,0]]
Output: false
Explanation: Refer to the diagram above.
An X-Matrix should have the green elements (diagonals) be non-zero and the red elements be 0.
Thus, grid is not an X-Matrix.
```

Constraints:

- `n == grid.length == grid[i].length`
- `3 <= n <= 100`
- `0 <= grid[i][j] <= 10^5`

JavaScript

```
const initialize2DArray = (n, m) => { let d = []; for (let i = 0; i < n; i++) { let t = Array(m).fill(0); d.push(t); }
return d; };

const checkXMatrix = (g) => {
    let n = g.length, m = g[0].length, ok = true, visit = initialize2DArray(n, m);
    for (let i = 0, j = 0; i < n; i++, j++) {
        if (g[i][j] == 0) ok = false;
        visit[i][j] = 1;
    }
    for (let i = n - 1, j = 0; ~i; i--, j++) {
        if (g[i][j] == 0) ok = false;
        visit[i][j] = 1;
    }
    for (let i = 0; i < n; i++) {
        for (let j = 0; j < m; j++) {
            if (visit[i][j]) continue;
            if (g[i][j] != 0) return false;
        }
    }
    return ok;
};
```

Custom Testcase | Use Example Testcases

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