

311. Sparse Matrix Multiplication

Medium👍 717👏 288💖 Add to List🔖 Share

Given two sparse matrices `mat1` of size `m x k` and `mat2` of size `k x n`, return the result of `mat1 x mat2`. You may assume that multiplication is always possible.

Example 1:

1	0	0
-1	0	3

×

7	0	0
0	0	0
0	0	1

=

7	0	0
-7	0	3

Input: mat1 = [[1,0,0],[-1,0,3]], mat2 = [[7,0,0],[0,0,0],[0,0,1]]  
Output: [[7,0,0],[-7,0,3]]

Example 2:

Input: mat1 = [[0]], mat2 = [[0]]  
Output: [[0]]

Constraints:

- `m == mat1.length`
- `k == mat1[i].length == mat2.length`
- `n == mat2[i].length`
- `1 <= m, n, k <= 100`
- `-100 <= mat1[i][j], mat2[i][j] <= 100`

Accepted 138,080Submissions 212,032

Seen this question in a real interview before?YesNo

Companies👤

0 ~ 6 months6 months ~ 1 year1 year ~ 2 years

Facebook5Cruise Automation2

Related Topics

ArrayHash TableMatrix

1class Solution {  
2public int[][] multiply(int[][] mat1, int[][] mat2) {  
3  
4}  
5}