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317. Shortest Distance from All Buildings

Hard 719 42 Add to List Share

You want to build a house on an *empty* land which reaches all buildings in the shortest amount of distance. You can only move up, down, left a
where:

- Each **0** marks an empty land which you can pass by freely.
- Each **1** marks a building which you cannot pass through.
- Each **2** marks an obstacle which you cannot pass through.

Example:

```
Input: [[1,0,2,0,1],[0,0,0,0,0],[0,0,1,0,0]]

1 - 0 - 2 - 0 - 1
|   |   |   |   |
0 - 0 - 0 - 0 - 0
|   |   |   |   |
0 - 0 - 1 - 0 - 0

Output: 7

Explanation: Given three buildings at (0,0), (0,4), (2,2), and an obstacle at (0,2),
             the point (1,2) is an ideal empty land to build a house, as the total
             travel distance of 3+3+1=7 is minimal. So return 7.
```

Note:
There will be at least one building. If it is not possible to build such house according to the above rules, return -1.

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