286. Walls and Gates Premium

Solved

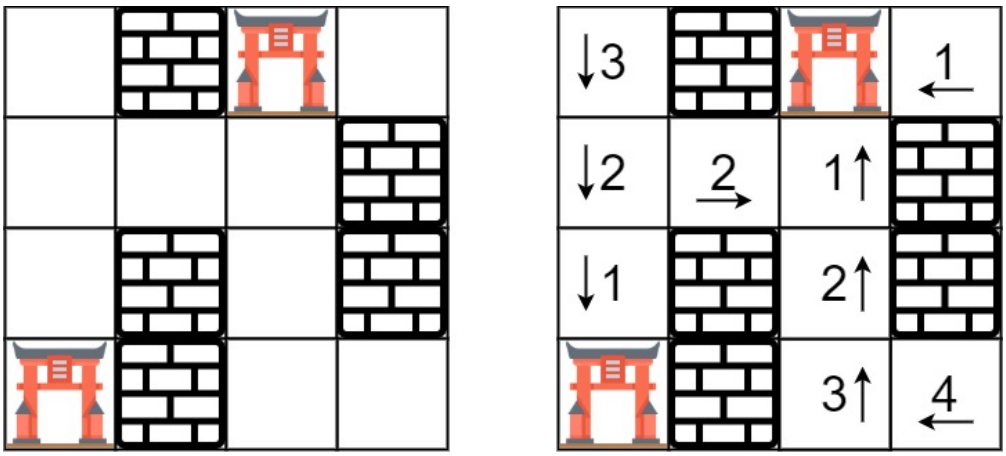
Medium Topics Companies

You are given an `m x n` grid `rooms` initialized with these three possible values.

- `-1` A wall or an obstacle.
- `0` A gate.
- `INF` Infinity means an empty room. We use the value $2^{31} - 1 = 2147483647$ to represent `INF` as you may assume that the distance to a gate is less than `2147483647`.

Fill each empty room with the distance to *its nearest gate*. If it is impossible to reach a gate, it should be filled with `INF`.

Example 1:




```
Input: rooms = [[2147483647,-1,0,2147483647],
[2147483647,2147483647,2147483647,-1],[2147483647,-1,2147483647,-1],
[0,-1,2147483647,2147483647]]
Output: [[3,-1,0,1],[2,2,1,-1],[1,-1,2,-1],[0,-1,3,4]]
```

Example 2: