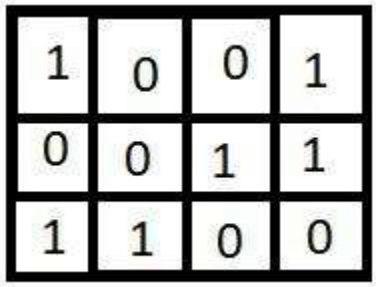
Distance of nearest cell having 1

Given a binary grid of **n*m**. Find the distance of the nearest 1 in the grid for each cell. The distance is calculated as $|i_1 - i_2| + |j_1 - j_2|$, where i_1, j_1 are the row number and column number of the current cell, and i_2, j_2 are the row number and column number of the nearest cell having value 1. There should be atleast one 1 in the grid.

Example 1:

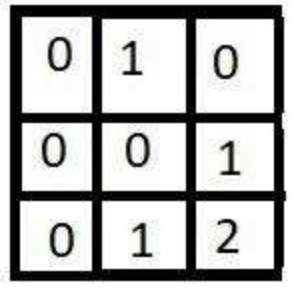
```
Input: grid = {{0,1,1,0},{1,1,0,0},{0,0,1,1}}
Output: {{1,0,0,1},{0,0,1,1},{1,1,0,0}}
Explanation: The grid is-
0 1 1 0
1 1 0 0
0 0 1 1
0's at (0,0), (0,3), (1,2), (1,3), (2,0) and
(2,1) are at a distance of 1 from 1's at (0,1),
(0,2), (0,2), (2,3), (1,0) and (1,1)
respectively.
```



Example 2:

```
Input: grid = {{1,0,1},{1,1,0},{1,0,0}}
Output: {{0,1,0},{0,0,1},{0,1,2}}
Explanation: The grid is-
```

```
1 0 1
1 1 0
1 0 0
0's at (0,1), (1,2), (2,1) and (2,2) are at a
distance of 1, 1, 1 and 2 from 1's at (0,0),
(0,2), (2,0) and (1,1) respectively.
```



Yout Task:
You don't need to read or print anything, Your task is to complete the function **nearest()** which takes the grid as an input parameter and returns a matrix of the same dimensions where the value at index (i, j) in the resultant matrix signifies the minimum distance of 1 in the matrix from grid[i][j].

Expected Time Complexity: O(n*m)
Expected Auxiliary Space: O(n*m)

Constraints:
$1 \leq n, m \leq 500$