Problem 3033: Modify the Matrix

Problem Information

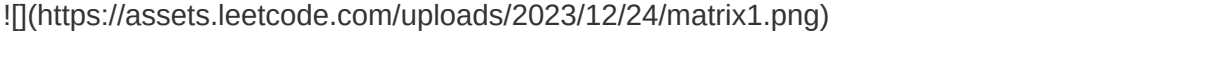
Difficulty: Easy
Acceptance Rate: 68.79%
Paid Only: No
Tags: Array, Matrix

Problem Description

Given a **0-indexed** `m x n` integer matrix `matrix`, create a new **0-indexed** matrix called `answer`. Make `answer` equal to `matrix`, then replace each element with the value `-1` with the **maximum** element in its respective column.

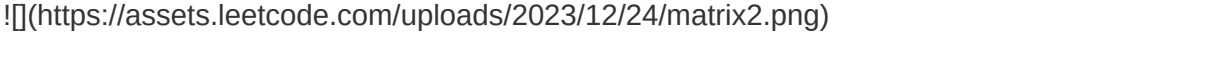
Return _the matrix_ `answer`.

Example 1:



Input: matrix = [[1,2,-1],[4,-1,6],[7,8,9]] **Output:** [[1,2,9],[4,8,6],[7,8,9]] **Explanation:** The diagram above shows the elements that are changed (in blue). - We replace the value in the cell [1][1] with the maximum value in the column 1, that is 8. - We replace the value in the cell [0][2] with the maximum value in the column 2, that is 9.

Example 2:



Input: matrix = [[3,-1],[5,2]] **Output:** [[3,2],[5,2]] **Explanation:** The diagram above shows the elements that are changed (in blue).

Constraints:

* `m == matrix.length` * `n == matrix[i].length` * `2 <= m, n <= 50` * `-1 <= matrix[i][j] <= 100` * The input is generated such that each column contains at least one non-negative integer.

Code Snippets

C++:

```
class Solution {
public:
vector<vector<int>> modifiedMatrix(vector<vector<int>>& matrix) {

}
};
```

Java:

```
class Solution {
public int[][] modifiedMatrix(int[][] matrix) {

}
}
```

Python3:

```
class Solution:
def modifiedMatrix(self, matrix: List[List[int]]) -> List[List[int]]:
```