1. Given an m x n integer matrix matrix, if an element is 0, set its entire row and column to 0's. You must do it in place.

```cpp
1    #include<iostream>
2    #include<vector>
3    using namespace std;
4    void setZeroes(vector<vector<int>>& matrix) {
5            int n = matrix.size();
6            int m = matrix[0].size();
7            int col0 = 1;
8          for(int i=0;i<n;i++){
9              if(matrix[i][0] == 0)col0 = 0;
10             for(int j=1;j<m;j++){
11                 if(matrix[i][j] == 0){
12                     matrix[0][j] = 0;
13                     matrix[i][0] = 0;
14                 }
15             }
16    }
17        for(int i = n - 1 ; i >= 0 ; i--){
18            for(int j = m - 1 ; j > 0 ; j--){
19                if(matrix[i][0] == 0 or matrix[0][j] == 0)
20                    matrix[i][j] = 0;
21            }
22        }
23    }
```