



Assignment Solutions | 2D Arrays - 3 | Week 6

1. Given an $m \times n$ integer matrix matrix, if an element is 0, set its entire row and column to 0's.

You must do it in place.

Input :

1 1 1

1 0 1

1 1 1

Output :

1 0 1

0 0 0

1 0 1

Solution :

```
#include<iostream>
#include<vector>
using namespace std;

void setZeroes(vector<vector<int>>& matrix) {
    int n = matrix.size();
    int m = matrix[0].size();

    int col0 = 1;

    for(int i=0;i<n;i++){
        if(matrix[i][0] == 0)col0 = 0;
        for(int j=1;j<m;j++){
            if(matrix[i][j] == 0){
                matrix[0][j] = 0;
                matrix[i][0] = 0;
            }
        }
    }

    for(int i = n - 1 ; i >= 0 ; i--){
        for(int j = m - 1 ; j > 0 ; j--){
            if(matrix[i][0] == 0 or matrix[0][j] == 0)
                matrix[i][j] = 0;
        }
    }
}
```
