073. Set Matrix Zeroes

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• array

Description

Given a m x n matrix, if an element is 0, set its entire row and column to 0. Do it in place.

click to show follow up.

Follow up:

Did you use extra space?

A straight forward solution using O(mn) space is probably a bad idea.

A simple improvement uses O(m + n) space, but still not the best solution.

Could you devise a constant space solution?

1. Thought line

2. Hash Table+array

```
1 class Solution {
 3
       void setZeroes(vector<vector<int>>& matrix) {
 4
          set<int> zeroRow, zeroCol;
         if (matrix.empty()) return;
 6
          for (int i = 0; i \le matrix.size()-1; ++i)
 7
               for (int j = 0; j \le matrix[i].size()-1; ++j)
                  if (matrix[i][j]==0){
 8
 9
                      zeroRow.insert(i), zeroCol.insert(j);
10
         for (int i=0; i \le matrix.size()-1; ++i)
11
12
            for (int j = 0; j \le matrix[i].size()-1; ++j)
               if (zeroRow.find(i)!=zeroRow.end() || zeroCol.find(j)!=zeroCol.end())
13
14
                  matrix[i][j]=0;
15
16 };
```