class Solution:

def setZeroes(self, matrix: List[List[int]]) -> None:

"""

Do not return anything, modify matrix in-place instead.

"""

r = len(matrix)

c = len(matrix[0])

set\_r = set()

set\_c = set()

for i in range(r):

for j in range(c):

if matrix[i][j] == 0:

set\_r.add(i)

set\_c.add(j)

for i in set\_r:

for j in range(c):

matrix[i][j] = 0

for i in set\_c:

for j in range(r):

matrix[j][i] = 0