## **Set Matrix Zero:**

Given an m x n matrix of 0s and 1s, if an element is 0, set its entire row and column to 0.

Input	Output
3 3 1 0 1 1 1 1 1 1 1	0 0 0 1 0 1 1 0 1
3 2 0 1 0 1 1 1	0 0 0 0 0 1
3 2 0 1 1 0 1 1	0 0 0 0 0 0
3 3 0 1 1 1 0 1 1 1 0	0 0 0 0 0 0 0 0 0

Bonus: Do it in place.

Doing inplace means you are not using any additional array for this.

## **Periodic String:**

Given two string p and q. You have to verify if  $p = q^k$  or not. k>=1; You may use library function strlen().

Input	Output
abcdabcdabcd abcd abcdabcdabcdk abcd	YES NO
abcdabcdabc abcd	NO
aaaa aa abc abc	YES YES
abcgabcabc	NO

## Hints:

- 1. Length of p should be divisible by length of q.
- 2. Write a function subStrPos(char p[], int start, char q[]). That will return 1, if q can be found at position start of string p, else return 0.
- 3. If subStrPos(p, 0, q), subStrPos(p, strlen(q), q), subStrPos(p, 2\*strlen(q), q) .... all are true, that means string q sums up string p.