Find 0’s in Boolean Matrix

Given a matrix with N rows and N columns where elements in the matrix can be either 1 or 0 and each row and column are sorted in ascending order, find the number of 0’s.  
  
Input: Matrix of elements with values either 0 or 1  
Output: An integer which is the count of all 0’s in the matrix

# Example

Input: [[**0, 0, 0,** 1],

[**0, 0,** 1, 1],

[**0,** 1, 1, 1],

[**0,** 1, 1, 1]]

=> Output: 7

# Constraints

Time Complexity: O(N)  
Auxiliary Space Complexity: O(1)  
  
Each row and column of the matrix is sorted in ascending order.  
  
Values of the matrix will be either 0 or 1.

# Solution

1. Initialize 3 variables, row, col, count:
   1. Set row equal to 0
   2. Set col equal to number of rows in matrix minus 1
   3. Set count equal to 0
2. Starting at the top right corner of the matrix run a loop while row is less than total number of rows in matrix and col is greater than or equal to zero
   1. Check if the current cell is “1”
      1. If true, move backwards one column (subtract 1 from col)
      2. If false, move down one row (add 1 to row) then add to count 1 plus col
3. Return count

# Notes

Onsite whiteboarding question for Google (2016).

# Resources

NA