

BATCH-2023-C3-S4-PRACTI... 5000 minutes

Question - 1 Replace all characters of the column with "*"

Replace all characters of the column, in an array 2D, by the character star ('*')

Input

- · The ARRAY 2D of characters
- The column index (integer)

Output

- The updated ARRAY 2D
- If the column index is not correct (not a column index of the array 2d) print "column error"

Examples

```
Input
                                             Output
  ["A", "B", "C"],
                                               ["A", "B", "*"],
                                               ["D", "F", "*"],
  ["D", "F", "C"],
  ["A", "A", "F"],
                                               ["A", "A", "*"],
  ["V", "B", "C"],
                                               ["V", "B", "*"],
2
                                             Explanation: we replace the column 2
                                             characters with *
                                             Column error
  ["A", "B"],
  ["D", "F"],
  ["A", "A"],
                                             No column 2 in this array, only columns 0
  ["V", "B"],
                                             and 1
2
```

Question - 2 Convert array 2D to normal array.

Convert array 2D to normal array.

Input

An array 2D

Output

An array

INPUT	OUTPUT
[['B', 'A', 'N', 'A', 'N', 'A'], ['C', 'O', 'C', 'O', 'N', 'U', 'T']]	['banana', 'coconut']
[['B', 'A', 'N', 'A', 'N', 'A']]	['banana']

Question - 3 Find numbers which appreas more than 1 time in the given array

Find numbers which appreas more than 1 time in the given array

Input

An array

Output

An array

INPUT	OUTPUT
[9, 9, 8, 8, 8, 1, 3]	[9, 8]
[6, 6, 6, 6, 8, 1, 3]	[6]
[6, 5, 7, 2, 8, 1, 3]	

Question - 4 Check if two arrays 2D are equal

Check if two arrays are equal

- Two arrays 2D can be equal if the number of rows, columns, and value need to be equal

$$\begin{bmatrix} 1 & 2 & 3 \\ 1,2,3 & ---- & [1,2,3], \\ [4,5,6] & ----- & [4,5,6] \\] &]$$

- -INPUT
 - 2 Arrays 2D
- OUTPUT
- display "equal" if these two arrays are equal, otherwise display "not equal"

Example:

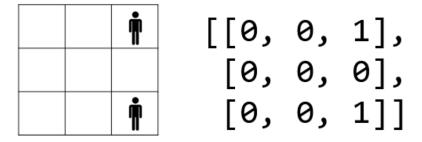
INPUT	OUTPUT
	equal
[0,0,0]	
[0,0,0]	
]	
[
[0,0,0]	
[0,0,0]	
]	
	not equal
[0,0,0]	
[7,7,7]	
]	
[0,0,0]	
[0,0,0]	
1	
[not equal
[0,0,0]	
1	
[0,0,0]	
[0,0,0]	

]	
[not equal
[0,0,7]	
[0,0,7]	
]	
[
[1,0,7]	
[0,3,7]	

Question - 5 Add people to the free room

We represent people in a room with an array 2D (3 rows, 3 columns)

- A free cell is represented by a 0
- · A cell with a person is represented by a 1



A new person can be added to the room at the position [row, column] if:

- This position is FREE
- And if only **2 people max** are already in the room

Input

- (Array 2D) : the current persons in the room
- (integer) the row position of the new person
- (integer) the column position of the new person

Output

- CAN ADD if the person can be added to the room
- CANNOT ADD: if the person cannot be added to the room

Examples

Input	Output
[[0, 0, 1],	CAN ADD
[0, 0, 0],	
[0, 0, 1]]	(only 2 persons in room
0	And the position (0,0) is
0	free)
[[1, 0, 0],	CANNOT ADD
[0, 0, 0],	/
[0, 0, 0]]	(only 1 person in room
0	but the position (0,0) is
0	not free)
[[0, 0, 1],	CANNOT ADD
[0, 0, 1],	
[0, 0, 1]]	(3 persons in room
0	So cannot add)
0	