

Description

Solution

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Submissions

### 566. Reshape the Matrix

Easy

👍 1996

🗨️ 231

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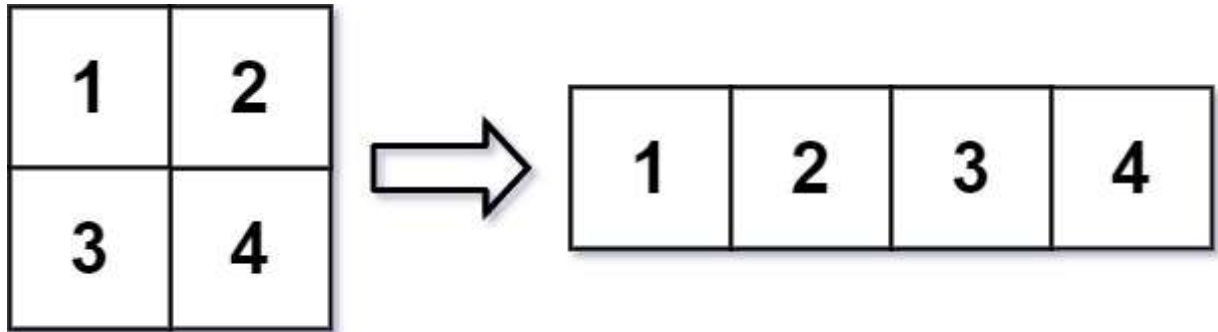
In MATLAB, there is a handy function called `reshape` which can reshape an  $m \times n$  matrix into a new one with a different size  $r \times c$  keeping its original data.

You are given an  $m \times n$  matrix `mat` and two integers `r` and `c` representing the number of rows and the number of columns of the wanted reshaped matrix.

The reshaped matrix should be filled with all the elements of the original matrix in the same row-traversing order as they were.

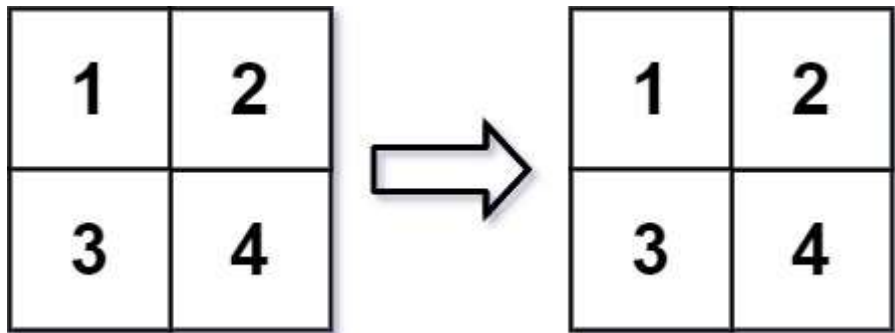
If the `reshape` operation with given parameters is possible and legal, output the new reshaped matrix; Otherwise, output the original matrix.

#### Example 1:



Input: `mat = [[1,2],[3,4]]`, `r = 1`, `c = 4`  
Output: `[[1,2,3,4]]`

#### Example 2:



Input: `mat = [[1,2],[3,4]]`, `r = 2`, `c = 4`  
Output: `[[1,2],[3,4]]`

i

Java

Autocomplete

i

{ }

↺

⚙️

🗉

```
1  class Solution {
2      public int[][] matrixReshape(int[][] mat, int r, int c) {
3
4          int row = mat.length;
5          int col = mat[0].length;
6
7          int rowNum = 0;
8          int columnNum = 0;
9
10         if(row * col != r * c)
11             return mat;
12
13         int[][] outputArray = new int[r][c];
14
15         for(int i = 0; i < row; i++){
16             for(int j = 0; j < col; j++){
17
18                 outputArray[rowNum][columnNum] = mat[i][j];
19                 columnNum++;
20
21                 if(columnNum == c){
22                     columnNum = 0;
23                     rowNum++;
24                 }
25             }
26
27         }
28
29         return outputArray;
30     }
31 }
```

Testcase

Run Code Result

Debugger

Accepted

Runtime: 0 ms

Your input

[[1,2],[3,4]]  
1

Output

[[1,2,3,4]]

☐ Diff

Expected

[[1,2,3,4]]