566. Reshape the Matrix

Easy 2455 279 Add to List Share

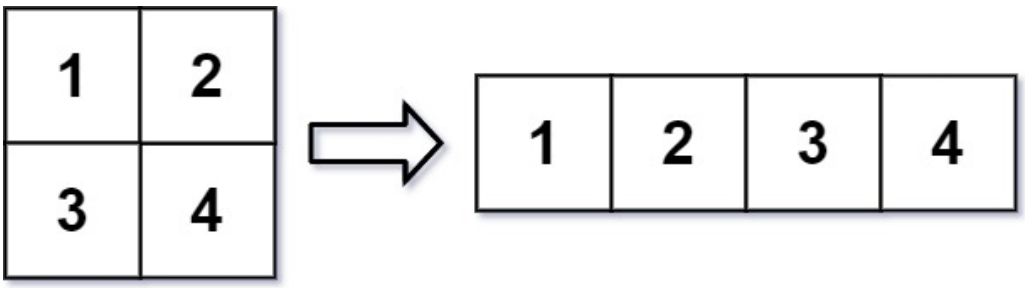
In MATLAB, there is a handy function called `reshape` which can reshape an `m x n` matrix into a new one with a different size `r x c` keeping its original data.

You are given an `m x 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.

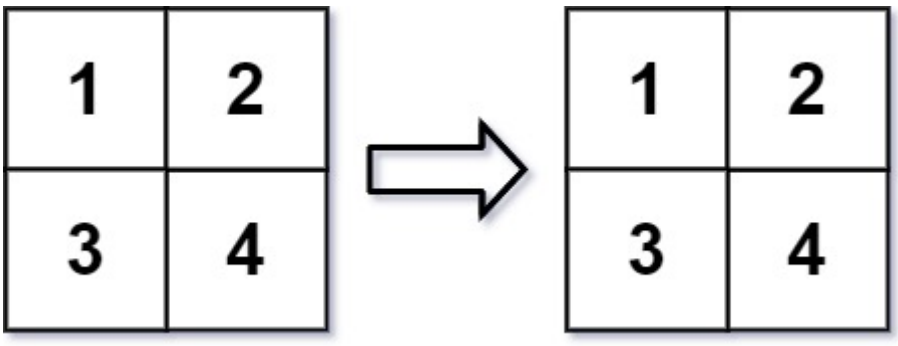
If the `reshape` operation with given parameters is possible and legal, output the new reshaped matrix; Otherwise, output the original matrix.

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]]
```

```
1  class Solut
2  public:
3      vector<
   matrixResha
   >& mat, int
4          int
5          if(
6
7          }
8
9          int
10         if(
11
12         }
13
14         int
15         int
16         if(
17
18         }
19         vec
   ans(r, vect
20
21         int
22         int
23         for
24
   j++){
25
   mat[k][l];
26
27
28
29
30
31         }
32         ret
33     }
34 };
```

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Accepted Runti

Your input [[1
1

Output [[1

Expected [[1