Rotate a matrix by 90 degree without using any extra space

```
R = 4
C = 4
def reverseColumns(arr):
   for i in range(C):
       j = 0
       k = C-1
       while j < k:
           t = arr[j][i]
           arr[j][i] = arr[k][i]
           arr[k][i] = t
           j += 1
           k -= 1
def transpose(arr):
   for i in range(R):
       for j in range(i, C):
           t = arr[i][j]
           arr[i][j] = arr[j][i]
           arr[j][i] = t

def printMatrix(arr):
   for i in range(R):
       for j in range(C):
           print(str(arr[i][j]), end =" ")
       print()

def rotate90(arr):
   transpose(arr)
   reverseColumns(arr)
arr = [[1, 2, 3, 4],
       [5, 6, 7, 8],
       [9, 10, 11, 12],
       [13, 14, 15, 16] ]
rotate90(arr)
printMatrix(arr)
```