**Merge Without Extra Space**

<https://practice.geeksforgeeks.org/problems/merge-two-sorted-arrays-1587115620/1>

**Hard**Accuracy: 44.55% Submissions: 29364 Points: 8

Given two sorted arrays **arr1[]** and **arr2[]**ofsizes **n** and **m** in non-decreasing order. Merge them in sorted order without using any extra space. Modify arr1 so that it contains the first N elements and modify arr2 so that it contains the last M elements.

**Example 1:**

**Input**:

n = 4, arr1[] = [1 3 5 7]

m = 5, arr2[] = [0 2 6 8 9]

**Output**:

arr1[] = [0 1 2 3]

arr2[] = [5 6 7 8 9]

**Explanation**:

After merging the two

non-decreasing arrays, we get,

0 1 2 3 5 6 7 8 9.

**Example 2:**

**Input**:

n = 2, arr1[] = [10, 12]

m = 3, arr2[] = [5 18 20]

**Output**:

arr1[] = [5 10]

arr2[] = [12 18 20]

**Explanation**:

After merging two sorted arrays

we get 5 10 12 18 20.

**Your Task:**  
You don't need to read input or print anything. You only need to complete the function**merge()**that takes arr1, arr2, n and m as input parameters and modifies them in-place so that they look like the sorted merged array when concatenated.

**Expected Time Complexity:**  O((n+m) log(n+m))  
**Expected Auxilliary Space:** O(1)

**Constraints:**  
1 <= n, m <= 5\*104  
0 <= arr1i, arr2i <= 107