

## PROBLEM

### Union of Two Sorted Arrays



Medium Accuracy: 31.39% Submissions: 194K+ Points: 4

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Given two sorted arrays of size  $n$  and  $m$  respectively, find their union. The Union of two arrays can be defined as the **common** and **distinct** elements in the two arrays. Return the elements in **sorted** order.

#### Example 1:

Input:

$n = 5, \text{arr1}[] = \{1, 2, 3, 4, 5\}$

$m = 5, \text{arr2}[] = \{1, 2, 3, 6, 7\}$

Output:

1 2 3 4 5 6 7

Explanation:

Distinct elements including both the arrays are: 1 2 3 4 5 6 7.

#### Example 2:

Input:

$n = 5, \text{arr1}[] = \{2, 2, 3, 4, 5\}$

$m = 5, \text{arr2}[] = \{1, 1, 2, 3, 4\}$

Output:

1 2 3 4 5

Explanation:

Distinct elements including both the arrays are: 1 2 3 4 5.

#### Example 3:

Input:

$n = 5, \text{arr1}[] = \{1, 1, 1, 1, 1\}$

$m = 5, \text{arr2}[] = \{2, 2, 2, 2, 2\}$

Output:

1 2

Explanation:

Distinct elements including both the arrays are: 1 2.

#### Your Task:

You do not need to read input or print anything. Complete the function `findUnion()` that takes two arrays `arr1[]`, `arr2[]`, and their size  $n$  and  $m$  as input parameters and returns a list containing the **union of the two arrays**.

Expected Time Complexity:  $O(n+m)$ .

Expected Auxiliary Space:  $O(n+m)$ .

#### Constraints:

$1 \leq n, m \leq 10^5$

$-10^9 \leq \text{arr1}[i], \text{arr2}[i] \leq 10^9$

**CODE**

#User function Template for python3

class Solution:

#Function to return a list containing the union of the two arrays.

def findUnion(self,arr1,arr2,n,m):

return sorted(list(set(a+b)))

'''

:param a: given sorted array a

:param n: size of sorted array a

:param b: given sorted array b

:param m: size of sorted array b

:return: The union of both arrays as a list

'''

# code here