

## 1122. Relative Sort Array

Given two arrays `arr1` and `arr2`, the elements of `arr2` are distinct, and all elements in `arr2` are also in `arr1`.

Sort the elements of `arr1` such that the relative ordering of items in `arr1` are the same as in `arr2`. Elements that don't appear in `arr2` should be placed at the end of `arr1` in ascending order.

Example 1:

```
Input: arr1 = [2,3,1,3,2,4,6,7,9,2,19], arr2 = [2,1,4,3,9,6]  
Output: [2,2,2,1,4,3,3,9,6,7,19]
```

```

class Solution {
    public int[] relativeSortArray(int[] arr1, int[] arr2) {

        HashMap<Integer, Integer> map = new HashMap<>();
        ArrayList<Integer> others = new ArrayList<>();

        int[] result = new int[arr1.length];

        for (int num : arr2)
            map.put(num, 0);

        for (int num : arr1) {
            if (map.containsKey(num)) {
                map.put(num, map.get(num) + 1);
            } else {
                others.add(num);
            }
        }

        int n = 0;
        for (int num : arr2) {
            for (int i = 0; i < map.get(num); i++) {
                result[n] = num;
                n++;
            }
        }

        Collections.sort(others);
        for (int num : others) {
            result[n] = num;
            n++;
        }

        return result;
    }
}

```