

Challenge: Implement Merge





The merge function should merge the sorted subarrays in array[p..q] and array[q+1..r] into a single sorted subarray in array[p..r]. The function starts by allocating two temporary arrays, lowHalf and highHalf, and copying array[p..q] into lowHalf and array[q+1..r] into highHalf.

You should complete the function:

- Make it repeatedly compare the lowest untaken element in lowHalf with the lowest untaken element in highHalf and copy the lower of the two back into array, starting at array[p].

- Once one of lowHalf and highHalf has been fully copied back into array, the remaining elements in the other temporary array are copied back into array.

Note: use indexes i,j and k to access elements in lowHalf,highHalf,and array.

 Java	 Python	 C++	 JS
---	---	--	---

```
class Solution {
    // Takes in an array that has two sorted subarrays,
    // from [p..q] and [q+1..r], and merges the array
    public static void merge(int[] array, int p, int q, int r) {
        // Repeatedly compare the lowest untaken element in
        // lowHalf with the lowest untaken element in highHalf
        // and copy the lower of the two back into array

        // Once one of lowHalf and highHalf has been fully copied
        // back into array, copy the remaining elements from the
        // other temporary array back into the array

    }
}
```

