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

  }
}
```