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package com.Simpli;

/* Java program for Merge Sort */
class MergeSort
{
    void merge(int arr[], int l, int m, int r)
    {
        int n1 = m - l + 1;
        int n2 = r - m;

        /* Create temp arrays */
        int L[] = new int [n1];
        int R[] = new int [n2];

        /*Copy data to temp arrays*/
        for (int i=0; i<n1; ++i)
            L[i] = arr[l + i];
        for (int j=0; j<n2; ++j)
            R[j] = arr[m + 1+ j];

        int i = 0, j = 0;

        int k = l;
        while (i < n1 && j < n2)
        {
            if (L[i] <= R[j])
            {
                arr[k] = L[i];
                i++;
            }
            else
            {
                arr[k] = R[j];
                j++;
            }
            k++;
        }
        while (i < n1)
        {
            arr[k] = L[i];
            i++;
            k++;
        }

        while (j < n2)
        {
            arr[k] = R[j];
            j++;
            k++;
        }
    }
    void sort(int arr[], int l, int r)
    {
        if (l < r)

```

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    {

        int m = (l+r)/2;

        sort(arr, l, m);
        sort(arr , m+1, r);

        merge(arr, l, m, r);
    }
}

static void printArray(int arr[])
{
    int n = arr.length;
    for (int i=0; i<n; ++i)
        System.out.print(arr[i] + " ");
    System.out.println();
}

// Driver method
public static void main(String args[])
{
    int arr[] = {12, 11, 13, 5, 6, 7};

    System.out.println("Given Array");
    printArray(arr);

    MergeSort ob = new MergeSort();
    ob.sort(arr, 0, arr.length-1);

    System.out.println("\nSorted array");
    printArray(arr);
}
}

```

impli/MergeSort.java - Eclipse IDE

Project Run Window Help

