Assisted Project 7

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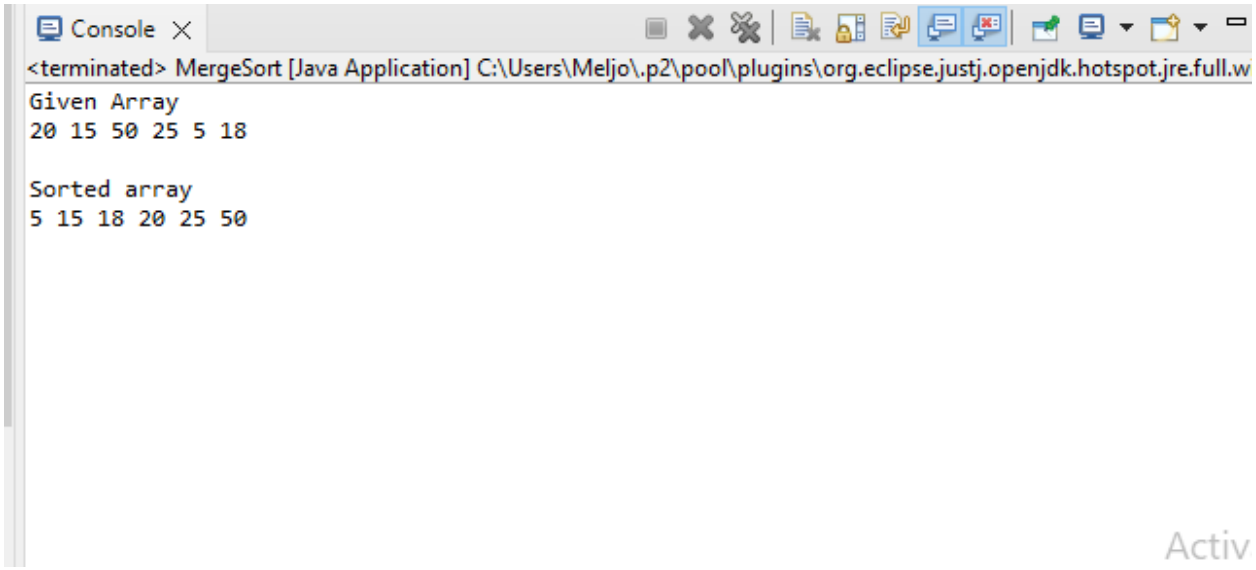
```
package ap_7;
public class MergeSort {
        void merge(int arr[], int l, int m, int h)
        {

            int n1 = m - l + 1;
            int n2 = h - 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 h)
    {
        if (l < h)
        {

            int m = (l+h)/2;

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

            merge(arr, l, m, h);
        }
    }
        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[] = {20,15,50,25,5,18};
        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);
    }
}
```



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