

eclipse-workspace - PracticeProject7/src/MergeSort.java - Eclipse IDE

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```
1
2 class MergeSort {
3     void merge(int arr[], int l, int m, int r)
4     {
5
6         int n1 = m - l + 1;
7         int n2 = r - m;
8
9         /* Create temp arrays */
10        int L[] = new int [n1];
11        int R[] = new int [n2];
12
13        /*Copy data to temp arrays*/
14        for (int i=0; i<n1; ++i)
15            L[i] = arr[l + i];
16        for (int j=0; j<n2; ++j)
17            R[j] = arr[m + 1+ j];
18        int i = 0, j = 0;
19
20        int k = l;
21        while (i < n1 && j < n2)
22        {
23            if (L[i] <= R[j])
24            {
25                arr[k] = L[i];
26                i++;
27            }
28            else
29            {
30                arr[k] = R[j];
31                j++;
32            }
33            k++;
34        }
35        while (i < n1)
36        {
37            arr[k] = L[i];
38            i++;
39            k++;
40        }
41    }
```

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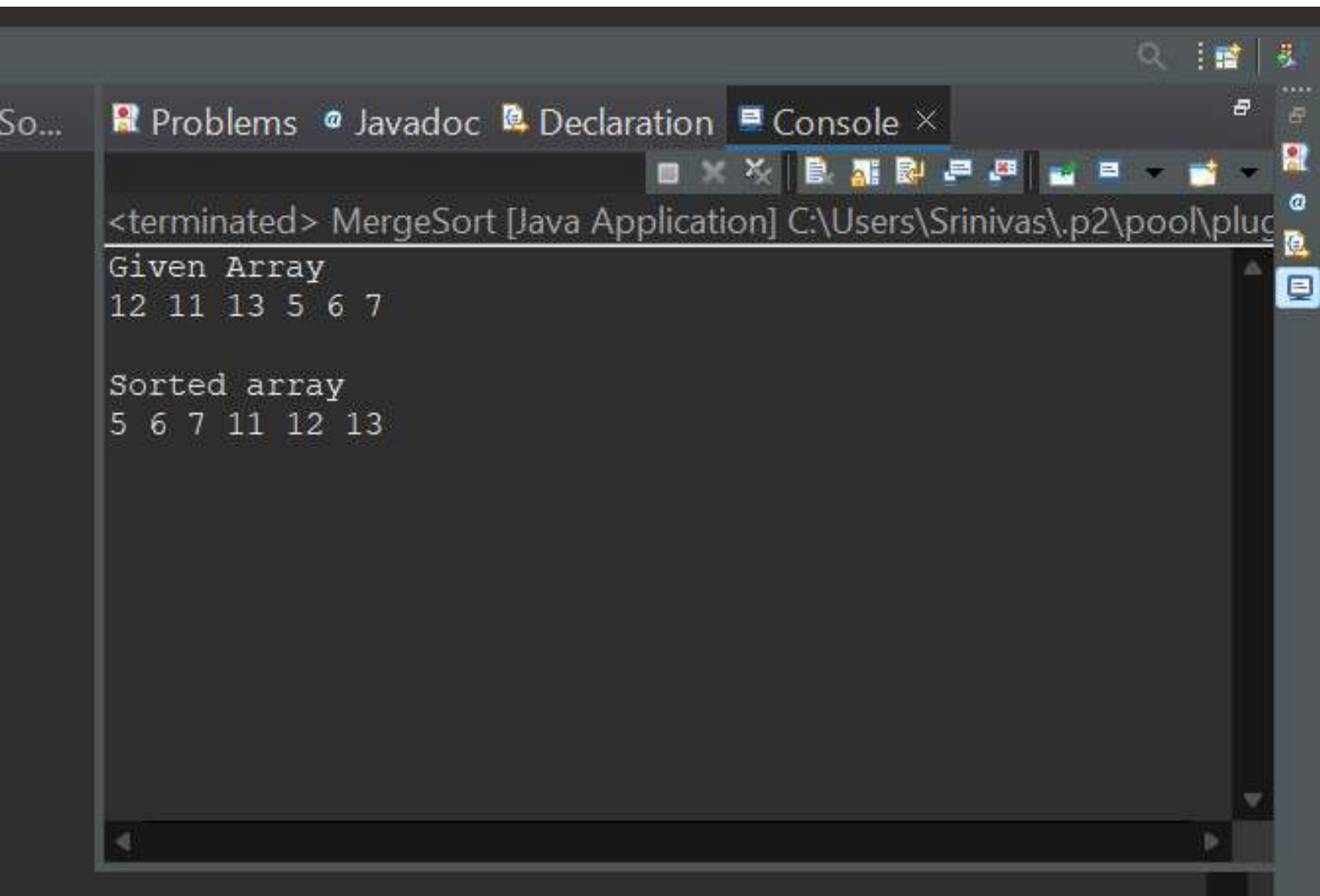
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```
45     arr[k] = R[j];
46     j++;
47     k++;
48 }
49 }
50 void sort(int arr[], int l, int r)
51 {
52     if (l < r)
53     {
54         int m = (l+r)/2;
55
56         sort(arr, l, m);
57         sort(arr, m+1, r);
58         merge(arr, l, m, r);
59     }
60 }
61
62 static void printArray(int arr[])
63 {
64     int n = arr.length;
65     for (int i=0; i<n; ++i)
66         System.out.print(arr[i] + " ");
67     System.out.println();
68 }
69
70 // Driver method
71
72 public static void main(String[] args) {
73     // TODO Auto-generated method stub
74     int arr[] = {12, 11, 13, 5, 6, 7};
75
76     System.out.println("Given Array");
77     printArray(arr);
78
79     MergeSort ob = new MergeSort();
80     ob.sort(arr, 0, arr.length-1);
81
82     System.out.println("\nSorted array");
83     printArray(arr);
84 }
85
86 }
```



The screenshot shows an IDE's console window with a dark theme. The title bar of the console tab reads "<terminated> MergeSort [Java Application] C:\Users\Srinivas\.p2\pool\plug". The console output consists of two lines of text: "Given Array" followed by "12 11 13 5 6 7", and "Sorted array" followed by "5 6 7 11 12 13". The IDE's interface includes tabs for "Problems", "Javadoc", "Declaration", and "Console". A vertical toolbar on the right side of the console contains icons for various actions like copy, paste, and search.

```
<terminated> MergeSort [Java Application] C:\Users\Srinivas\.p2\pool\plug  
Given Array  
12 11 13 5 6 7  
  
Sorted array  
5 6 7 11 12 13
```