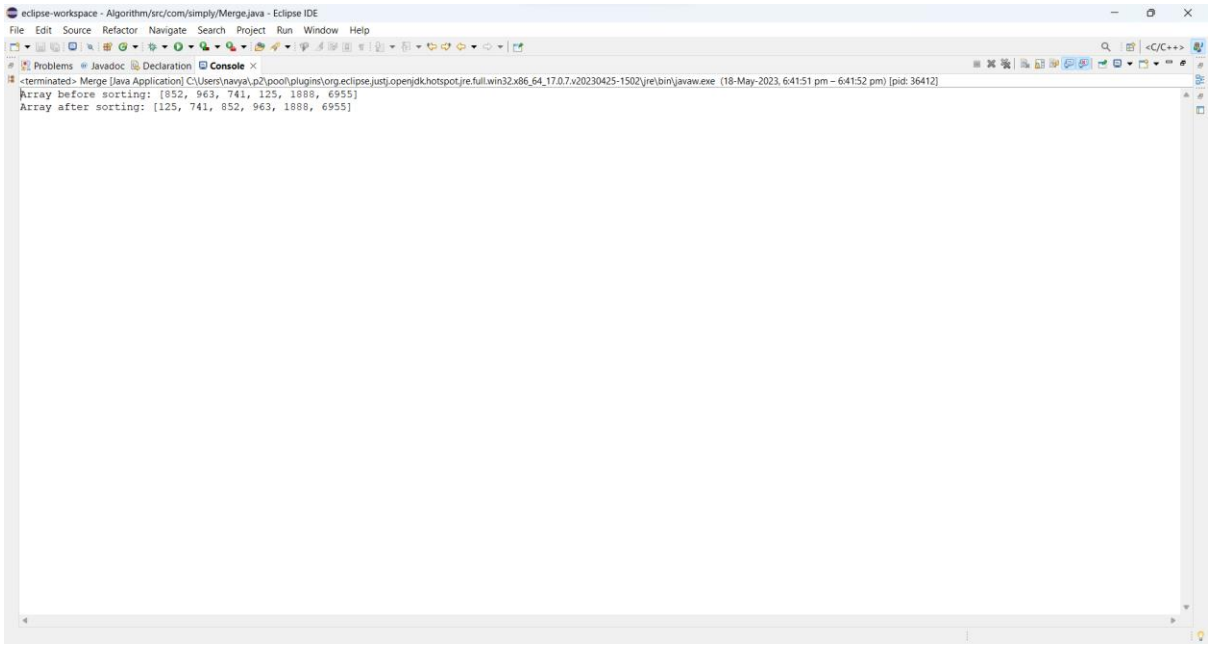
```
package com.simply;

import java.util.Arrays;

public class Merge {
    public static void mergeSort(int[] arr) {
        if (arr.length <= 1) {
            return;
        }

        int mid = arr.length / 2;

        int[] left = Arrays.copyOfRange(arr, 0, mid);
        int[] right = Arrays.copyOfRange(arr, mid, arr.length);

        mergeSort(left);
        mergeSort(right);

        merge(arr, left, right);
    }

    public static void merge(int[] arr, int[] left, int[] right) {
        int i = 0, j = 0, k = 0;

        while (i < left.length && j < right.length) {
            if (left[i] <= right[j]) {
                arr[k++] = left[i++];
            } else {
                arr[k++] = right[j++];
            }
        }
```

```
        while (i < left.length) {
            arr[k++] = left[i++];
        }

        while (j < right.length) {
            arr[k++] = right[j++];
        }
    }

    public static void main(String[] args) {
        int[] array = { 852, 963, 741, 125, 1888, 6955 };

        System.out.println("Array before sorting: " + Arrays.toString(array));

        mergeSort(array);

        System.out.println("Array after sorting: " + Arrays.toString(array));
    }


}
```


eclipse-workspace - Algorithm/src/com/simply/Merge.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Problems Javadoc Declaration Console
<terminated> Merge [Java Application] C:\Users\navya\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.7.v20230425-1502\jre\bin\javaw.exe (18-May-2023, 6:41:51 pm – 6:41:52 pm) [pid: 36412]
Array before sorting: [852, 963, 741, 125, 1888, 6955]
Array after sorting: [125, 741, 852, 963, 1888, 6955]