

# Algoritmo mergeSort en java



```
1 import java.util.Arrays;
2
3 public class MergeSort { new *
4
5     public static int[] mergeSort(int[] data) { 3 usages new *
6         if (data.length > 1) {
7             int mitad = data.length / 2;
8             int[] izquierda = Arrays.copyOfRange(data, from: 0, mitad);
9             int[] derecha = Arrays.copyOfRange(data, mitad, data.length);
10            System.out.println(Arrays.toString(izquierda) + " --- " + Arrays.toString(derecha));
11
12            mergeSort(izquierda);
13            mergeSort(derecha);
14
15            int i = 0, d = 0, k = 0;
16            while (i < izquierda.length && d < derecha.length) {
17                if (izquierda[i] < derecha[d]) {
18                    data[k] = izquierda[i];
19                    i++;
20                } else {
21                    data[k] = derecha[d];
22                    d++;
23                }
24                k++;
25            }
26
27            while (i < izquierda.length) {
28                data[k] = izquierda[i];
```

Main.java MergeSort.java x

3 public class MergeSort { new \*

5 public static int[] mergeSort(int[] data) { 3 usages new \*

26

27 while (i < izquierda.length) {

28 data[k] = izquierda[i];

29 i++;

30 k++;

31 }

32

33 while (d < derecha.length) {

34 data[k] = derecha[d];

35 d++;

36 k++;

37 }

38 }

39 System.out.println("regreso de rec: " + Arrays.toString(data));

40 return data;

41 }

42

43 ▶ public static void main(String[] args) { new \*

44 System.out.println("..... MERGE .....");

45 int[] info = {38, 27, 43, 3, 9, 82, 10, 19, 50, 61};

46 System.out.println(Arrays.toString(mergeSort(info)));

47 }

48 }

49

50

mergeSort > src > MergeSort > mergeSort 32:1 CRLF UTF-8 4 spaces

Main.javaMergeSort.java

RunMergeSort

↑  
↓  
↕  
⇅  
🖨  
🗑

```
..... MERGE .....  
[38, 27, 43, 3, 9] --- [82, 10, 19, 50, 61]  
[38, 27] --- [43, 3, 9]  
[38] --- [27]  
regreso de rec: [38]  
regreso de rec: [27]  
regreso de rec: [27, 38]  
[43] --- [3, 9]  
regreso de rec: [43]  
[3] --- [9]  
regreso de rec: [3]  
regreso de rec: [9]  
regreso de rec: [3, 9]  
regreso de rec: [3, 9, 43]  
regreso de rec: [3, 9, 27, 38, 43]  
[82, 10] --- [19, 50, 61]  
[82] --- [10]  
regreso de rec: [82]  
regreso de rec: [10]  
regreso de rec: [10, 82]  
[19] --- [50, 61]  
regreso de rec: [19]  
[50] --- [61]  
regreso de rec: [50]  
regreso de rec: [61]
```

mergeSort > src > MergeSort > mergeSort32:1 CRLF UTF-8 4 spaces

Main.java MergeSort.java x

Run MergeSort x

Run

```
↑ [3] --- [9]
↓ regreso de rec: [3]
|| regreso de rec: [9]
|| regreso de rec: [3, 9]
⇓ regreso de rec: [3, 9, 43]
⇓ regreso de rec: [3, 9, 27, 38, 43]
⇓ [82, 10] --- [19, 50, 61]
⇓ [82] --- [10]
⇓ regreso de rec: [82]
⇓ regreso de rec: [10]
⇓ regreso de rec: [10, 82]
⇓ [19] --- [50, 61]
⇓ regreso de rec: [19]
⇓ [50] --- [61]
⇓ regreso de rec: [50]
⇓ regreso de rec: [61]
⇓ regreso de rec: [50, 61]
⇓ regreso de rec: [19, 50, 61]
⇓ regreso de rec: [10, 19, 50, 61, 82]
⇓ regreso de rec: [3, 9, 10, 19, 27, 38, 43, 50, 61, 82]
⇓ [3, 9, 10, 19, 27, 38, 43, 50, 61, 82]
```

Process finished with exit code 0

ergeSort > src > MergeSort > mergeSort

32:1 CRLF UTF-8 4 spaces