Merge Sort

Manuel Camacho Padilla

A01423135
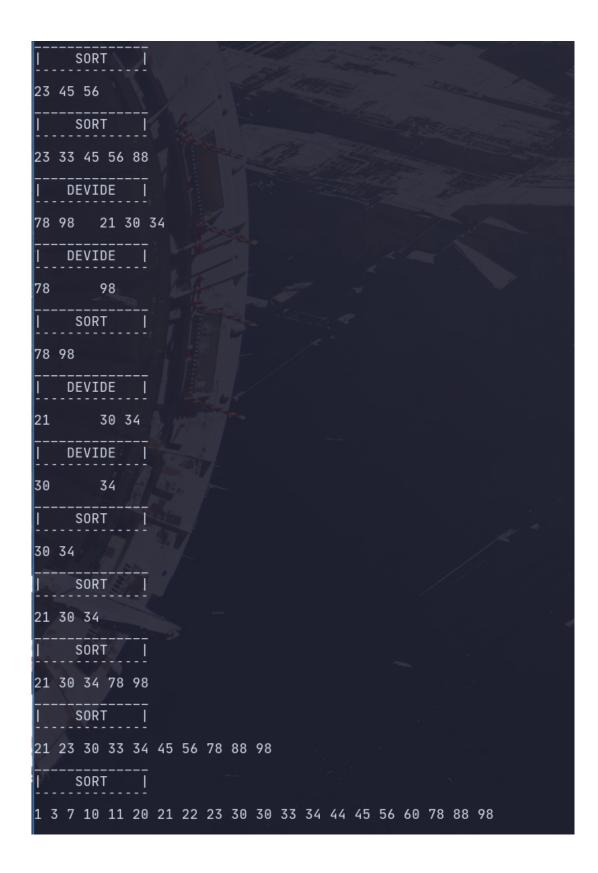
MergeSort Input


```
→  Merge_sort git:(master) ✗ ./out
Número de elementos en la lista: 20
1: 1
2: 3
3: 7
4: 60
5: 30
6: 20
7: 10
8: 11
9: 22
10: 44
11: 88
12: 33
13: 23
14: 45
15: 56
16: 78
17: 98
18: 21
19: 30
20: 34

Array input: 1 3 7 60 30 20 10 11 22 44 88 33 23 45 56 78 98 21 30 34
```

Pasos

```
_____
|    DEVIDE    |
 - - - - - - - - -
1 3 7 60 30 20 10 11 22 44        88 33 23 45 56 78 98 21 30 34
_____
|    DEVIDE    |
 - - - - - - - - -
1 3 7 60 30      20 10 11 22 44
_____
|    DEVIDE    |
 - - - - - - - - -
1 3      7 60 30
_____
|    DEVIDE    |
 - - - - - - - - -
1        3
_____
|    SORT     |
 - - - - - - - - -
1 3
_____
|    DEVIDE    |
 - - - - - - - - -
7        60 30
_____
|    DEVIDE    |
 - - - - - - - - -
60        30
_____
|    SORT     |
 - - - - - - - - -
30 60
_____
|    SORT     |
 - - - - - - - - -
7 30 60
_____
|    SORT     |
 - - - - - - - - -
1 3 7 30 60
_____
|    DEVIDE    |
 - - - - - - - - -
20 10    11 22 44
_____
|    DEVIDE    |
 - - - - - - - - -
20        10
```

```
------------
|   DEVIDE   |
------------
11       22 44
------------
|   DEVIDE   |
------------
22       44
------------
|    SORT    |
------------
22 44
------------
|    SORT    |
------------
11 22 44
------------
|    SORT    |
------------
10 11 20 22 44
------------
|    SORT    |
------------
1 3 7 10 11 20 22 30 44 60
------------
|   DEVIDE   |
------------
88 33 23 45 56  78 98 21 30 34
------------
|   DEVIDE   |
------------
88 33    23 45 56
------------
|   DEVIDE   |
------------
88       33
------------
|    SORT    |
------------
33 88
------------
|   DEVIDE   |
------------
23       45 56
------------
|   DEVIDE   |
------------
45       56
```

```
------------
|    SORT    |
------------
23 45 56
------------
|    SORT    |
------------
23 33 45 56 88
------------
|   DEVIDE   |
------------
78 98    21 30 34
------------
|   DEVIDE   |
------------
78        98
------------
|    SORT    |
------------
78 98
------------
|   DEVIDE   |
------------
21        30 34
------------
|   DEVIDE   |
------------
30        34
------------
|    SORT    |
------------
30 34
------------
|    SORT    |
------------
21 30 34
------------
|    SORT    |
------------
21 30 34 78 98
------------
|    SORT    |
------------
21 23 30 33 34 45 56 78 88 98
------------
|    SORT    |
------------
1 3 7 10 11 20 21 22 23 30 30 33 34 44 45 56 60 78 88 98
```

Output

```
Array sorted: 1 3 7 10 11 20 21 22 23 30 30 33 34 44 45 56 60 78 88 98
```