

Proje 2

drot

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[16,21,11,8,12,22] -> Merge Sort

Yukarıdaki dizinin sort türüne göre aşamalarını yazınız.

Big-O gösterimini yazınız.

1. Merge Sort Aşamaları

```
[16,21,11,8,12,22]                                     +->merge[8,11,12,16,21,22]
```

```
|
```

```
-> 1 -> [16,21,11]                                     +-->merge 1 [11,16,21]--|
```

```
|
```

```
|   -> 1.1 -> [16,21]                                +->merge 1.1 [16,21]--|
```

```
|
```

```
|       |   -> 1.1.1 -> [16]--|                         |
```

```
|       |   -> 1.1.2 -> [21]--|                         |
```

```
|       |   -> 1.2 -> [11]----->merge 1.2 [11]----|
```

```
|
```

```
-> 2 -> [8,12,22]                                       +---->merge 2[8,12,22]----
```

```
|
```

```
|   -> 2.1 -> [8,12]                                   +->merge 2.1 [8,12]--|
```

```
|
```

```
|       |   -> 2.1.1 -> [8]---|                          |
```

```
|       |   -> 2.1.2 -> [12]--|                          |
```

```
|       |   -> 2.2 -> [22]----->merge 2.2 [22] ---|
```

2. Big-O gösterimi

 $O(n \log n)$