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Merge Sort Visualizator

https://maaf72.github.io/DAA-Course/Tupro/

Time Complexity Analyses

```python
def merge(arr1, arr2):
    arr3 = []

    while len(arr1) > 0 and len(arr2) > 0:
        arr3.append(arr1.pop(0) if arr1[0] <= arr2[0] else arr2.pop(0))

    while len(arr1) > 0:
        arr3.append(arr1.pop(0))

    while len(arr2) > 0:
        arr3.append(arr2.pop(0))

    return arr3
```

Kompleksitas = O(panjang array 1 + panjang array 2)

Time Complexity Analyses

```python
def merge_sort(arr):
    queue = [[i] for i in arr]
    while len(queue) > 1:
        temp = []
        while len(queue) > 1:
            temp.append(merge(queue.pop(0), queue.pop(0)))

        if len(queue) == 1:
            temp.append(queue.pop(0))

        queue = temp
    return queue.pop(0)
```

$$\text{Kompleksitas} = n + n * {}^{2}\log(n) \Rightarrow O(n * \log(n))$$

Bubble Sort vs Merge Sort

https://maaf72.github.io/DAA-Course/Tupro/compare.html

THANK YOU!