Merge Sort Report

1. Merge Sort Asamalari

Baslangic dizisi:

[16, 21, 11, 8, 12, 22]

1. Dizi ikiye bolunur:

[16, 21, 11] | [8, 12, 22]

2. Sol taraf [16, 21, 11] tekrar ikiye bolunur:

[16] | [21, 11]

[21, 11] tekrar bolunur:

[21] | [11]

 Merge: [11, 21]

Simdi sol taraf birlesir:

[16] + [11, 21] Merge: [11, 16, 21]

3. Sag taraf [8, 12, 22] ikiye bolunur:

[8] | [12, 22]

[12, 22] zaten sirali:

[12] | [22] Merge: [12, 22]

Simdi sag taraf birlesir:

[8] + [12, 22] Merge: [8, 12, 22]

4. Son birlesme:

[11, 16, 21] + [8, 12, 22]

 Merge: [8, 11, 12, 16, 21, 22]

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Sonuc: [8, 11, 12, 16, 21, 22]

2. Big-O Gosterimi

Merge Sort Zaman Karmasikliklari:

Best Case: O(n log n)

Average Case: O(n log n)

Worst Case: O(n log n)

Her bolme log n, her birlestirme n zaman alir O(n log n)