

Quick Sort and Merge Sort

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Overview:

- Both are similar
- $O(n \log n)$

Quick Sort:

- o We want what's best on average, even though it has potential to be worse

Merge Sort:

- o Easily adapted to operate on linked lists
- o And very large lists stored on slow media (disks)

Merge Sort:

- Stable
- "Divide and Conquer" method of sorting.
 - o Divide list into smallest unit
 - o Compare each element with adjacent list
 - o Repeat

Quick Sort:

- Performance can suffer if data is more ordered
- Used if we don't need a stable sort
- Only care about the average case performance
- Uses a pivot