Cheatography

Sorting algorithms Cheat Sheet by kimr843 via cheatography.com/31014/cs/9342/

Merge sort

1.Divides the array in half

2.Sorts each of these halves

3.Merges them back together

- Each of these haves have the same
- sorting algorithm applied to it

- Eventually you are merging just 2 single element arrays

Quick sort

Array is split in two parts based on a pivot point (one with elements larger than the pivot, one with elements smaller than the pivot) and is recursively repeated

Divide-and-conquer, massively recursive sort

Radix sort

1. First look at the least sig fig and sort everybody based on this.

2. Sort based on 2nd most sig fig ->

Whenever I have repetition in the 2nd digit - > the 2nd order already in the 1st one kicks in

3. Repeat for the most sig dig and maintain everybody else

Type of stable sort (order of duplicates is maintained)

С

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Asymptotic analysis

BIG-OH	INFORMAL NAME
O(1)	constant
$O(\log n)$	logąrithmic
O(n)	linear
$O(n \log n)$	$n\log n$
$O(n^2)$	quadratic
$O(n^3)$	cubic
$O(2^n)$	exponential