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SUMMARY OF INSERTION SORT ALGORITHM

Insertion sort is a simple sorting algorithm that builds the final sorted array one item at a time. It is much less efficient on large lists than more advanced algorithm.

Some advantages include simple implementation, efficient for small data sets much like other quadratic sorting algorithm and more efficient in practice than most simple quadratic.

Insertion sort iterates, consuming one input element each repetition, and growing a sorted output list. At each iteration, insertion sort removes one element from the input data, finds the location belong within the sorted list and insert it there. Repeat until no input elements remain.

The best case scenario has linear running time of O(n) and the worst case has quadratic running time O(.

Simple pseudocode for insertion sort

i ← 1

while i < length(A)

j ← i

while j > 0 and A[j-1] > A[j]

swap A[j] and A[j-1]

j ← j - 1

end while

i ← i + 1

end while