

ACOL106: Data Structures and Algorithms

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Data Structures

Heaps and Priority Queues

Problem

Given n entries create a min-heap of these entries.

- Method 1: Perform n insert operations in $O(n \log n)$ time.
- Method 2: **Bottom-up heap construction** in $O(n)$ time.

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Algorithm

HeapSort(A, n)

- Perform bottom-up heap construction on the array A and let H denote the heap
- for $i = 1$ to n
 - $B[i] \leftarrow H.removeMin()$
- return(B)

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End