ePAL - Fibonacci Heaps

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Outline

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Example 1

Create a Fibonacci heap from the input sequence $[30, 10, 90, 80, 60, 70, 20, 50, 40]$.

Example 2

Extract half of the data.

Do we get them in the right order?

Example 3

Decrease node 90 to 10.

How does the heap look?

Example 4

Extract the minimum key from the previous result heap, multiply it by 2.0, and insert it back in. Repeat these steps 10 times.

Example 5

Create a Fibonacci heap from the input sequence $[3, 10, 2, 1, 8, 4, 7, 9, 6, 5]$.

Example 6

Decrease node 10 to 1 and extract the minimum element from the previous heap.

Example 7

Decrease node 6 to 1 and extract the minimum element from the previous heap.

Example 8

Delete element 4 from the previous heap.

Example 9

Extract the minimum key from the previous result heap, multiply it by 2.0, and insert it back in. Repeat these steps 10 times.

References I