Session 33
Strategy 4: Transform-and-Conquer

Lecture Summary

Students encouraged to program heap operations and research applications of heaps

Representation Change: Heaps

1. More on basic heap operations
2. Efficiency of heap operation and comparisons to other dictionary data structures
3. Heap sort
4. 🕓 Other applications of heaps

Session Exercise

P21. Write code to implement heap bottom-up construction, insert, and max-key delete. **Hint**: a simple design can utilize the unused array element 0 to store the heap size.

P22. Write code to implement your answers to 🕮 Exercise 6.4:5.

🕮 **Exercise 6.4** • 1, 6, 7, 8, 9 🛠 5

Reading List

🕮 6.4

Keywords

Complete [binary tree], heap, "heapify", parental dominance, priority [queue]