# Session 32 Strategy 4: Transform-and-Conquer

## **Lecture Summary**

Students encouraged to program heap operations and research applications of heaps

#### **Representation Change: Heaps**

- 1. Motivation: priority queues and their applications
- 2. The heap data structure and the heap condition
- 3. Array implementation of heaps
- 4. Bottom-up construction

#### **Session Exercise**

**Exercise 6.4 •** 1, 6, 7, 8, 9

### **Reading List**

**6.4** 

## **Keywords**

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