# Chapter 9

**Heaps, Priority Queues, and Heap Sort**

9.1 ADT Priority Queue

Logical Level

Application Level

Implementation Level

Unsorted List

Array-Based Sorted List

Linked Sorted List

Binary Search Tree

9.2 A Nonlinked Representation of Binary Trees

9.3 Heaps

Logical Level

Application Level

Implementation Level

Application Level Revisited

Heaps Versus Other Priority Queue Representations

9.4 Heap Sort

Building a Heap

Sorting Using the Heap

Summary

Exercises