21.8 Wrap-Up

This chapter completes our presentation of data structures. We began in Chapter 16 with an introduction to the built-in collections of the Java Collections Framework and continued in Chapter 20 by showing you how to implement generic methods and collections. In this chapter, you learned to build generic dynamic data structures that grow and shrink at execution time. You learned that linked lists are collections of data items that are "linked up in a chain." You also saw that an application can perform insertions and deletions at the beginning and end of a linked list. You learned that the stack and queue data structures are constrained versions of lists. For stacks, you saw that insertions and deletions are made only at the top. For queues that represent waiting lines, you saw that insertions are made at the tail and deletions are made from the head. You also learned the binary tree data structure. You saw a binary search tree that facilitated high-speed searching and sorting of data and eliminating duplicate data items efficiently. Throughout the chapter, you learned how to create and package these data structures for reusability and maintainability.

In the next chapter, we'll demonstrate additional JavaFX features, including graphics, multimedia and customizing a GUI's look-and-feel with JavaFX's CSS (Cascading Style Sheets) capabilities.