16.15 Wrap-Up

This chapter introduced the Java collections framework. You learned the collection hierarchy and how to use the collections-framework interfaces to program with collections polymorphically. You used classes `ArrayList` and `LinkedList`, which both implement the `List` interface. We presented Java's built-in interface and class for manipulating queues. You used several predefined methods for manipulating collections. You learned how to use the `Set` interface and class `HashSet` to manipulate an unordered collection of unique values. We continued our presentation of sets with the `SortedSet` interface and class `TreeSet` for manipulating a sorted collection of unique values. You then learned about Java's interfaces and classes for manipulating key–value pairs —`Map`, `SortedMap`, `HashMap` and `TreeMap`. We discussed the `Collections` class's `static` methods for obtaining unmodifiable and synchronized views of collections. Finally, we introduced Java SE 9's new convenience factory methods for creating immutable `List`s, `Set`s and `Map`s. For additional information, visit `http://docs.oracle.com/javase/8/docs/technotes/guide`

In Chapter 17, Lambdas and Streams, you'll use Java SE 8's functional programming capabilities to simplify collection operations. In Chapter 23, Concurrency, you'll learn how to improve performance on multi-core systems using Java's

concurrent collections and parallel-stream operations.