Lesson 11 FAQs

Q: Besides using tabbed panes, are there other ways to display different views in Java?

A: Yes, there are several ways to display multiple views. The most straightforward approach, sometimes called a *brute force* method, is to just erase what's on the screen and put the new view in its place. Another way is to split the window and display side-by-side or top-and-bottom panes with different views in each pane. The tabbed approach is more efficient than the brute force method, though, and it gives each view more space to work with than the split screen does.

Q: Is there any way to support sorted lists without having to resort them every time I want to make sure the elements are in order?

A: There is another way to maintain a list so that it's always sorted. To do that, you need to use a TreeSet class instead of the ArrayList class to store the elements. Whenever we add a new element to a TreeSet, the class makes sure things stay in order at all times. That takes more overhead for inserts and deletes than with a regular list, but the list is always sorted. If you are doing a lot of inserts and deletes, it's probably more efficient to stay with the ArrayList and sort it when necessary. If you're only doing a few adds or deletes, the TreeSet may be more efficient.

There are two reasons I used the ArrayList and the Collections.sort() method in our application. First, the TreeSet class does not support the ListIterator. It only works with the standard Iterator class, which only allows one-way movement through the collection. With a TreeSet, we would be able to move forward through the list, but not backward.

The second reason is that we are only adding elements to the list once, so we only need to sort them once. Since that is the case, the ArrayList and sort() method worked most efficiently.