

Chapter 1: Introduction

Introduction

For the last few lessons, we've been concentrating on Java's GUI tools and how to use them to build an interactive application. While we haven't exhausted that topic by any means, there are some other topics I want to get to before we close out the course. We've gone over quite a few of the GUI classes, and the rest of them are similar enough that you'll be able to do a little digging and use them without too much trouble.

The topic we're going to dig into in this lesson is a group of Java's classes called *collections*. They're fundamental to a lot of programming, and you'll run into them frequently in real Java applications.

Java's collections are all designed to work with groups of data items. For example, if you think back to the team roster projects we did in Lessons 2 through 4, we used two of Java's collections there: arrays and ArrayLists. But there are several other types of collections, and we're going to look at a few of them in this lesson. Before we do, though, let's think about some of the data collections we use in everyday life. (We can forget about programming for a few minutes!)

We use various types of collections all the time. A to-do list, a calendar, and the phone numbers stored in our cell phones are all examples of collections. A collection is just an organized group of data. To-do lists and shopping lists organize things we need to do or buy. Our calendars organize our appointments and schedules. And our cell phones organize the phone numbers we want to save so we don't have to look them up in the phone book every time we want to call someone.

So it shouldn't be a surprise that one of the most common tasks in programming is working with groups of data items, and Java has some classes to help us do that.