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6.1: Prologue

A deck of cards, a list of corporate employee database, a stack of exceptions and David Letterman's top ten list. What do they have in common? They are all collections of objects. One of the most common and important structures in computing is a collection, which is a data structure that holds several objects or elements.

The java.util package contains the collections framework. It provides interfaces and concrete classes for organizing, storing and retrieving data in memory. They have a consistent and flexible interface, which makes it easy to learn and easy to integrate into your applications.

Before we dive in to the collections framework, we will first talk about type wrappers, which is essential in using the collections framework effectively.

We will then discuss boxing conversion, which provides short cuts to type wrappers. They also help in making your code more readable by avoiding too much casting and conversions.

And finally, we will talk about generic types. This is a technique to change an existing class into a custom, type-safe class. In other words, instead of using generic objects, a class that is type safe at compile time instead of run time.