Data Structures And Program Design

Data Structures

This is a C++ course in data structures. But data structures is *not* a C++-specific topic. It is a *language independent* topic. Some languages, like C++ and Java, have extensive libraries to support programming with data structures. Some languages, like Python and PHP, have support for data structures built right in. Some languages, like VBScript and Fortran, don't really have a lot except for arrays. But to be sure, no matter what language(s) you program in in the future, you'll probably need data structures.

You'll have to know what data structure is the right one for your application, and how to apply it, whenever there is support for it in the language, or not. That's what this course is all about.

In the simplest sense, a data structure is something a programmer can use to store and retrieve data. Two easy ways to think of a data structure are arrays and objects.

Arrays let the programmer store data at a numbered indexed position, and retrieve it by its index. Objects let the programmer student data by name, and retrieve it by that name. Both have limits -- the array by how many indexed positions there are, and objects by how many named "attributes" there are.

In this course on data structures you will learn about other data structures besides these.