Module 9
Arrays and Collection Classes

Lecture
Collection Classes

Module 9 Learning Objectives

Bloom Level	Number	Name	Description	Course Learning Objectives
2: Understand	1	Array/Collection Class Difference	Describe the key difference between arrays and collection classes	Basic Programming Concepts
3: Apply	2	Array and Collection Use	Develop a console application that uses arrays and lists	Basic Programming Concepts

Last time, we discussed arrays as a way to store multiple elements for ease of use

Arrays are available in almost every modern programming language, but we need to know exactly how many elements we need in the array when we create the array object

In this lecture, we're going to look at collection classes, which don't have that limitation

In-Lecture Quiz

Collection classes hold collections of

- A: elements
- B: coins
- C: dolls
- D: no matter what, this is NOT the answer

- What can we store in collection classes?
  - Anything! But …
  - A particular collection can only store a single data type
  - Where can we find the collection classes C# provides?

In-Lecture Quiz

Unlike with arrays, when we create a collection object we don't need to know

- A: the size
- B: the weight
- C: the mass
- D: your enemy

In-Lecture Quiz

We access individual elements of a List using

- A: the list name and an index
- B: the list name and a chainsaw
- C: the list name and an array name
- D: Am I on a list?

- Recap
  - We discussed how we can use collection classes instead of arrays when the size of our collection is likely to change
  - End of Module 9
- Next Time
  - We'll look at the last control structure we need to implement our problem solutions