Module 4
Classes and Objects

Lecture
Designing a Class

Module 4 Learning Objectives

Bloom Level	Number	Name	Description	Course Learning Objectives
3: Apply	1	Use Provided Classes	Develop a console application that uses provided classes	Basic OO Concepts,Basic Programming Concepts
6: Create	2	Design New Class	Design a new class	Basic OO Concepts

At this point in the module, we've discussed the foundational OO concepts and seen how we can use those concepts in a C# program.

In this lecture, we'll step back up from programming and do a class design exercise.

In-Lecture Quiz

Working to design a rubber chicken class would be

- A: awesome
- B: great
- C: fantastic
- D: wonderful

- What role does our rubber chicken play in the game?
  - Player avatar would be awesome – but not this time
  - Weapon (melee and ranged)
- State first, then behavior
- Would usually end up iterating between the two in practice

In-Lecture Quiz

Think about the information we'd need to store about the rubber chicken's state. When you're done, click Continue.

- Reasonable state information
  - Location
  - Velocity
  - Range
  - Accuracy
  - Damage
    - Probably variable (unless we use C4)
  - Owner

In-Lecture Quiz

Think about the behavior we'd need our rubber chicken to have. When you're done, click Continue.

- Reasonable behavior
  - Update (so location changes based on velocity)
  - Explode
  - Play animation
- Unreasonable behavior
  - Turn into a live chicken

- Recap
  - Covered the core OO concepts and C# implementations of those concepts
- Next Time
  - We'll start using XNA