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# Module 11

## Class Design and Implementation

### Lecture

### XNA Class:

### Constructor and Methods

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# Module 11 Learning Objectives

| Bloom Level   | Number | Name                                      | Description   | Course Learning Objectives           |
|---------------|--------|---|---|--------------------------------------|
| 2: Understand | 1      | Fields and Properties                     | Describe the relationship between fields and properties                           | Basic OO Concepts                    |
| 3: Apply      | 2      | Console Application Fields and Properties | Design and implement the fields and properties for a console application class    | Basic OO Concepts                    |
| 3: Apply      | 3      | Console Application Methods               | Design and implement the constructors and methods for a console application class | Basic OO Concepts                    |
| 3: Apply      | 4      | XNA Fields and Properties                 | Design and implement the fields and properties for an XNA class                   | Basic OO Concepts,Basic XNA Concepts |
| 3: Apply      | 5      | XNA Methods                               | Design and implement the constructor and methods for an XNA class                 | Basic OO Concepts,Basic XNA Concepts |

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Last time, we designed our rubber chicken class  
and implemented the fields and properties

In this lecture, we'll implement the constructor  
and methods in the class

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## In-Lecture Quiz

Objects get their identity when we call:






- A: for a pizza
  - B: the police
  - C: any method
  - D: the constructor
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- Simplified behavior
  - Update
    - Change position based on velocity
    - Detect click for launch
  - Draw




## RubberChicken

Class



### Fields

-  `active : bool`
-  `damage : int`
-  `drawRectangle : Rectangle`
-  `sprite : Texture2D`
-  `velocity : Vector2`

### Properties

-  `Active { get; set; } : bool`
-  `CollisionRectangle { get; } : Rectangle`
-  `Damage { get; } : int`

### Methods

-  `Draw(SpriteBatch spriteBatch) : void`
-  `Update(GameTime gameTime, MouseState mouse) : void`

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- Recap

- Implemented the constructor (for identity) and methods (for behavior) in our class

- Next Time

- We'll use our rubber chicken class in a game
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