

# HOW TO MAKE AN APP FOR BEGINNERS

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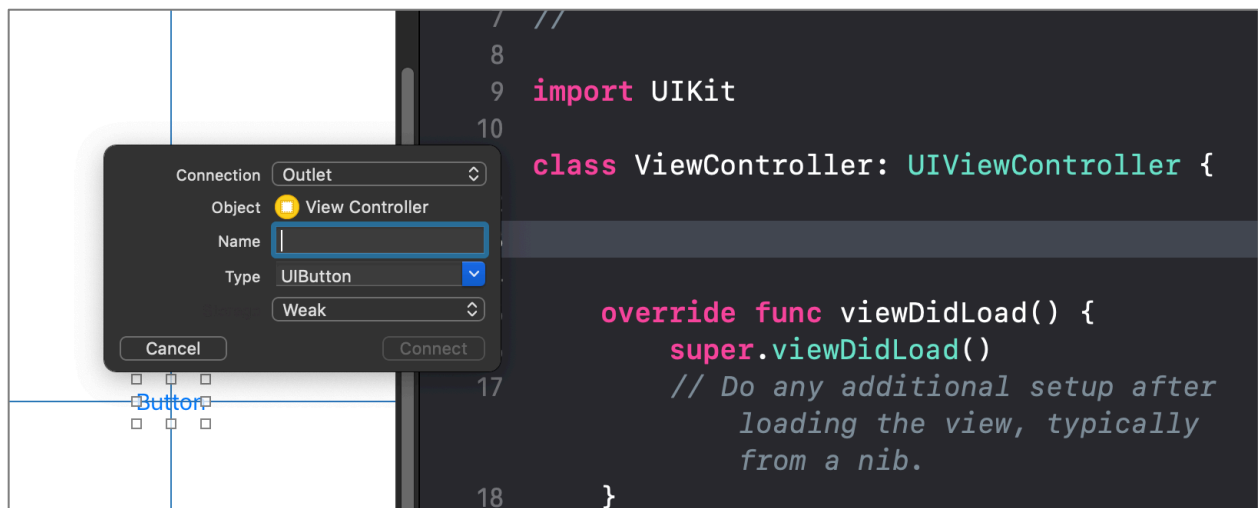
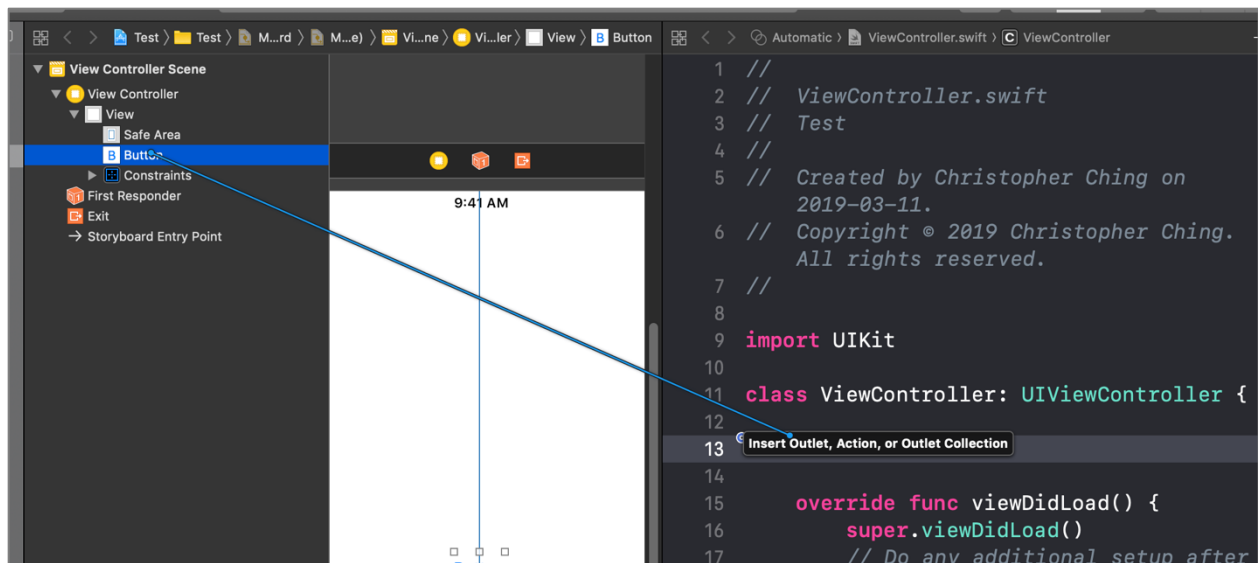
## Lesson 8 Connecting Elements

### RECAP NOTES



## Key Concepts

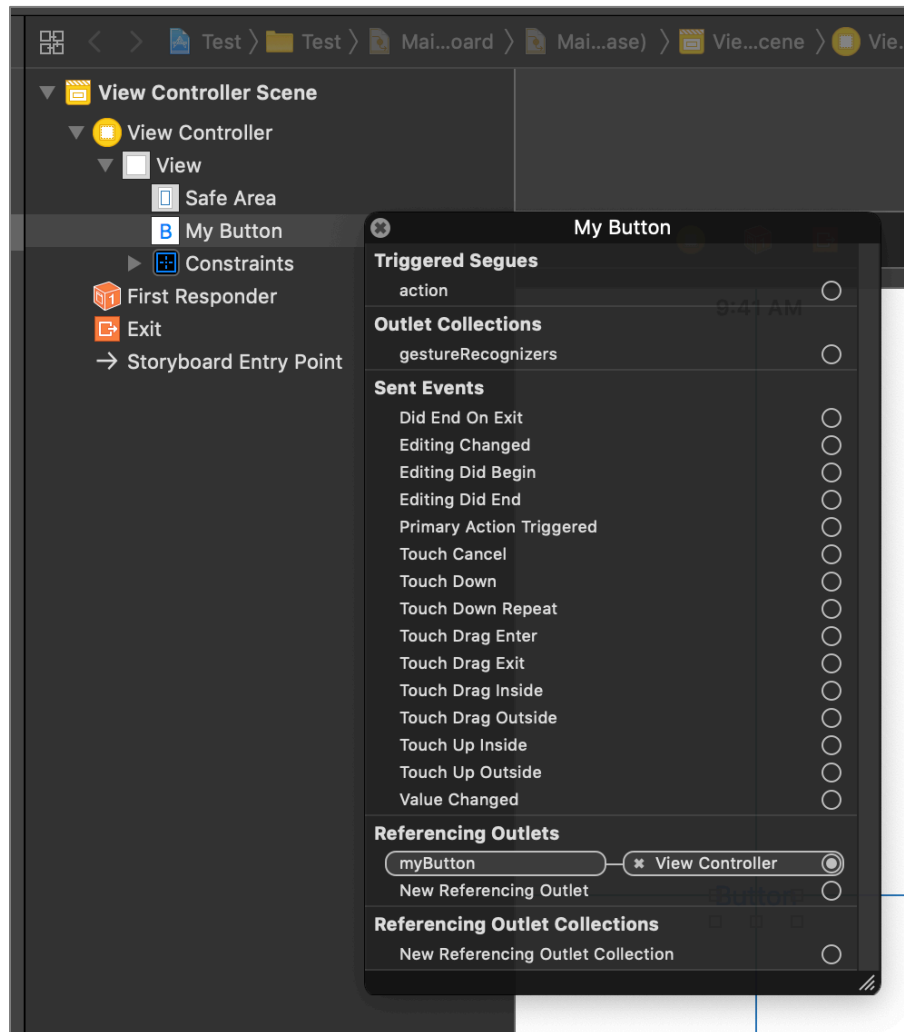
1. The elements you've been adding to the Xcode Storyboard represent objects of classes that are in the UIKit library.
2. For example, the button element in your storyboard is an instance of the UIButton class in UIKit.
3. The UIKit library is provided by Apple and it has many useful classes for app development including basic user interface elements, navigation controllers and more.
4. When you're configuring an element in your storyboard by setting its properties through the right hand pane (utility pane/attribute inspector), you're actually configuring the properties of that object.
5. So the storyboard is a giant visual builder that makes it easier for you to construct your user interface. There's an official name for this visual builder: Interface Builder.
6. You can actually create all of your user interface programmatically by using Swift code to create new objects, set their properties using dot notation and then putting them into the view.
7. If you're using Interface Builder, then you need to be able to access the objects you're configuring in your storyboard from the ViewController.swift file since the ViewController is supposed to be managing the view.
8. You can do this with IBOutlet properties which is simply a property in the class that references an object in your storyboard.
9. The easiest way to make this connection is to open up Assistant Editor, display your storyboard on the left while your ViewController.swift file is on the right. Then hold down CTRL and click and drag a line from the element you want to connect over to the right side where you would specify a property for the ViewController class.



10. You'll see a dialog menu pop up and you can name your IBOutlet. Afterwards, an IBOutlet property will be created for that class.

```
@IBOutlet weak var myButton: UIButton!
```

11. If you need to change the IBOutlet property name, make sure you break the connection by going to your storyboard, right-clicking (or CTRL clicking) the element to open up its connections dialog, then clicking the "x" beside the IBOutlet connection.



12. IBAction functions are methods in your class that are attached to events generated by your storyboard user interface elements.
13. They're connected in the same way IBOutlet properties are except that you choose "Action" for the connection typ.

