Custom Controls in iOS

Hands-On Challenges

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Challenge #4: Integration with Interface Builder

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Part I

Now that you can see and customize your Deluxe Button in Interface Builder, what other properties, if any, would you want to expose in your API?

Exposing the font size might be worthwhile. In the storyboard, we currently have a Deluxe Button that looks like this:

But maybe this text is a bit too large for this particular button! Underneath your public `text` property, add one for `fontSize`.

```
@IBInspectable
var fontSize: CGFloat {
  get {
    return label.font.pointSize
  }
  set {
    label.font = UIFont.systemFont(ofSize: newValue,
      weight: UIFontWeightHeavy)
  }
}
```

You `get` the point size of the font currently set on the label, and when you set a new point size, use the same assignment as you did when you set up the label.

Now you can set the font size to something a little less gigantic, from Interface Builder.

Are there any other properties you think need in a public API? Is there anything we have already exposed that doesn't need to be?

Part II

As of iOS 10, you can add haptic feedback to your custom controls! You will need a device capable of haptic feedback to test this part of the challenge. At the time of this writing, that is only the iPhone 7 and iPhone 7 Plus.

For the Deluxe Button, you are going to use the `UIImpactFeedbackGenerator`. Per Apple's documentation, this style of haptic feedback is meant "to indicate that an impact has occurred." Let us say that when the Deluxe Button is tapped, the label smashing down is meant to feel like an impact.

There are three steps to get this working. First, in DeluxeButton.swift, in `touchesBegan`, create a `UIImpactFeedbackGenerator`, and choose a feedback style.

```
    let feedbackGenerator = UIImpactFeedbackGenerator(style: .heavy)
```

On the next line, call the unique triggering method for this feedback generator subclass.

```
    feedbackGenerator.impactOccurred()
```

Now build and run on a supported device, and tap your impactful Deluxe Button!

There's a great deal more you can do with feedback generators. We suggest you read Apple's documentation. Apple gives us guidelines and suggested uses for haptic feedback in custom controls. Does it make sense for your deluxe button? It's your custom control, now. You decide!