Beginner

101: **iOS Apprentice Review Part 1**

Part 4: Challenge

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Part 4: Challenge Instructions

Validation!

There's nothing worse than an app that requires information, but refuses to hold the user accountable for obtaining that information. This Challenge will focus on validating your users' input.

We have two challenges:

1. **Add an alert view** to give the user feedback on missing data.
2. **Disable the Generate Story button** in order to prevent the user from generating the story without the required data.

Challenge A: Adding An Alert Controller

This is the simplest way to prevent a user from trying to generate a story without the required data is to throw up an alert when they attempt to do so.

Start by adding the following code to `showAlert()` in **ViewController.swift**:

```
let alertController = UIAlertController(title: "Missing Data!",
message: "Hey, you're missing something!", preferredStyle: .Alert)

let defaultAction = UIAlertAction(title: "OK", style: .Default,
handler: nil)
alertController.addAction(defaultAction)

presentViewController(alertController, animated: true, completion:
nil)
```

The code creates a UIAlertController with the title and message set. It then presents the alert to the user.

Next, add the following code at the top of `generateStory()`:

```
if (textField1.text.isEmpty || textField2.text.isEmpty) {
  showAlert()
  return
}
```

This code checks for the presence of text in each of the text fields. If no text is present, it calls `showAlert()`.

Build & Run the app to see all the fantastical things you've done!

Challenge B: Disable Buttons

This challenge requires you to disable the generate story button until the user enters the required data. In order to do that, you'll need to use the text field protocol and delegate methods.

To do this, add the following code to `checkValidationStatus()` in **ViewController.swift**:

```
if (textField1.text.isEmpty || textField2.text.isEmpty) {
  button.enabled = false
  button.alpha = 0.50
} else {
  button.enabled = true
  button.alpha = 1.0
}
```

Just like before, the validation code checks for the presence of text in the two fields. If text is not present, the button is disabled and its alpha value set to 0.50. If, on the other hand, text is present, the button is enabled and the alpha set to 1.0.

Next, you will need to add the following line of code to `viewDidLoad()`:

```
checkValidationStatus()
```

The reason you added it to viewDidLoad is because you want the Generate Story button to be disabled on load. While you could set this in the Interface Builder, sometimes setting values in code is easier (especially if you plan to have it do other things).

Note: You will also need to add that validation check to `resetStory()` since you want the button to be disabled after the story resets.

Finally, in order to detect changes to the text fields, you will need to set the two text fields' delegates. You will also need to populate the two delegate methods (`textFieldDidEndEditing` and `shouldChangeCharactersInRange`) with the following code:

```
checkValidationStatus()
```

Build & Run the app. Congratulations! You did it (I hope!). You should now have a fully functional Story Time app. If you're up for an extra challenge… turn the page.

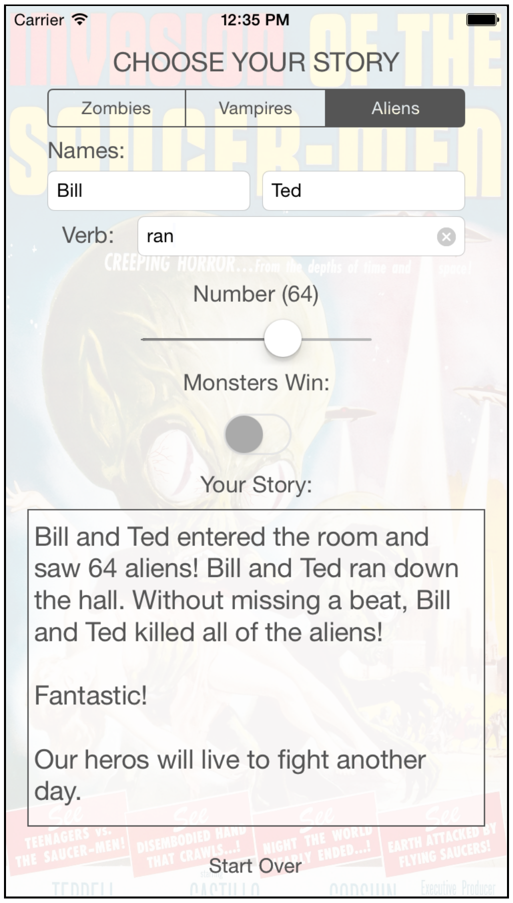
Look, Ma… No Hands!

With the two previous challenges, steps were given to help you along. With this challenge, however, step-by-step instructions will not be provided. Ready?

Challenge C: Extending The Story

In this challenge, you will need to extend the story to include another character. Here's a brief explanation of what to do:

1. Add another UITextField to capture a second name.
2. Add an IBOutlet and connect it to the newly created UITextField.
3. Verify the input for the second name is included in the validation.
4. Update the story to include the second name.
5. Update all constraints.
6. Verify your screen looks like this:



Bill and Ted entered the room and saw 64 aliens! Bill and Ted ran down the hall. Without missing a beat, Bill and Ted killed all of the aliens!

Fantastic!

Our heros will live to fight another day.