#### **Tutorial**



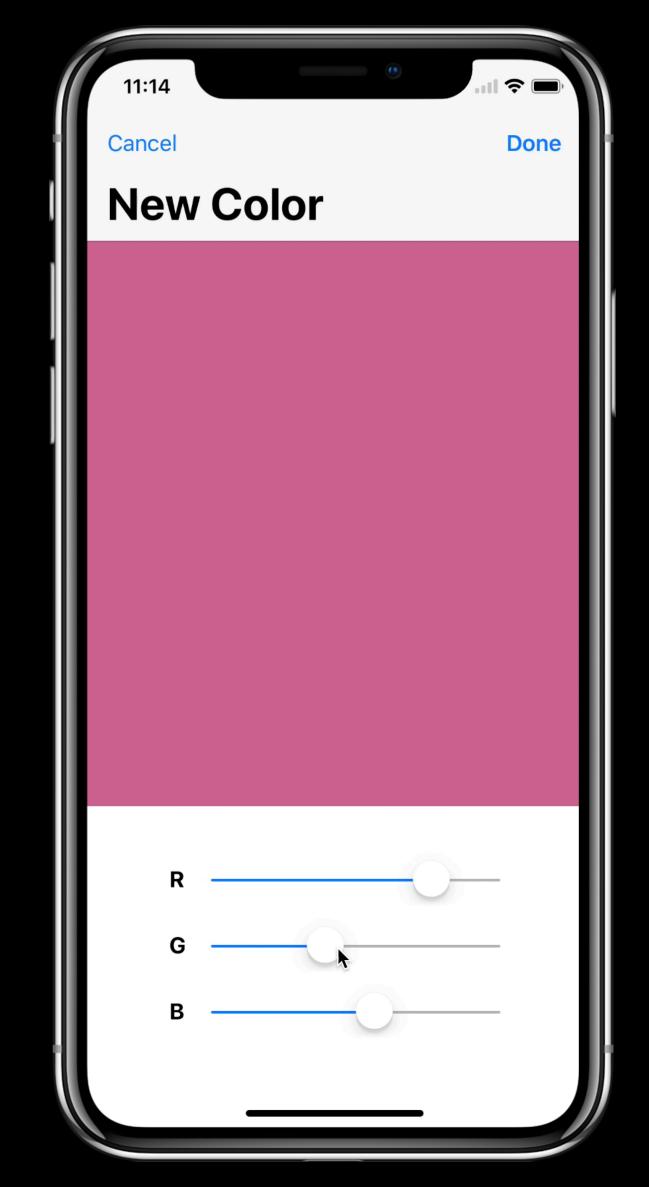
# Color Specs App

October 17, 2017

More on UITableView

UIViewController presentation and dismissal

Transferring data back and forth between view controllers



```
override func prepare(for segue: UIStoryboardSegue, sender: Any?) {
   if let destination = segue.destination as? ColorDetailViewController,
        let tableViewCell = sender as? UITableViewCell,
        let index = tableView.indexPath(for: tableViewCell)?.row {
        destination.color = self.colors[index]
    }
}
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Stubs can be found in Xcode Templates

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Get destination view controller with segue.destination

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Don't set UI-related variable in destination class

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Get destination view controller with segue.destination

Happens before viewDidLoad

Don't set UI-related variable in destination class

Update UI elements in viewDidLoad from destination class

What about passing data back and forth?

func afterRewinding(\_ segue: UIStoryboardSegue)

func afterRewinding(\_ segue: UIStoryboardSegue)

segue.destination.color = newColor

func afterRewinding(\_ segue: UIStoryboardSegue)



No, this does not exist.

# Passing back data with callback closure

```
var completionHandler: (String) -> (Int)
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Function as a variable

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Function takes type **String** and returns **Int** 

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let resultInt = self.completionHandler("Some String")
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Function as a variable

Function takes type **String** and returns **Int** 

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let resultInt = self.completionHandler("Some String")
```

Call this function the same way you call any other function

```
var completionHandler: (Int, String) -> Void
```

```
var completionHandler: (Int, String) -> Void
var completionHandler: (Int, String?) -> Void
```

```
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Parameters within function declarations can contain Optional values

```
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```

Parameters within function declarations can contain Optional values

Function declaration itself can be an Optional value

```
var completionHandler: (((Int, String?)?) -> Void)?
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var completionHandler: (((Int, String?)?) -> Void)?
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```
self.completionHandler?(15, "Some String")
```

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var completionHandler: (((Int, String?)?) -> Void)?
```

Parameters within function declarations can contain Optional values

Function declaration itself can be an Optional value

```
self.completionHandler?(15, "Some String")
```

Again, call this function the same way you call any other function

You can pass functions around just like any other variable

@escaping and @nonescaping (more later)

**Ononescaping** 

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Allows us to perform completion callback long after presentation

You can pass functions around just like any other variable @escaping (outlived) and @nonescaping (default, shortlived)

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```
self.completionHandler = completion
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self.completionHandler = completion
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You can store the function into a class variable

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```
self.completionHandler = completion
```

You can store the function into a class variable Automatically makes function @nonescaping

## Demo

# Challenge

Implement Search



## Hint for Adding Support for Search

Use UISearchController

Set its dimsBackgroundDuringPresentation property to false

Why does the navigation bar disappear when navigating to detailed color view?

## Sample Code

https://github.com/iosgatech/ColorSpecFall17