iPhone Programming
View Controllers

Tim Gegg-Harrison

Model-View-Controller

- **Controller** provides an interface between the **model** (program logic) and the **view** (user interactions)

- Simple View Controller

  - **UIViewController**

  - **UIView**

Model-View-Controller …

- App Delegate
  - contains an instance of `UIWindow` and `UIViewController`
    `application:didFinishLaunchingWithOptions:`

- `UIViewController`:
  ```
  var view: UIView!
  init(nibName nibName: String?,
       bundle nibBundle: NSBundle?)
  func loadView()
  func viewDidLoad()
  ```

- `UIView`:
  ```
  init(frame aRect: CGRect)
  ```

Screen Orientation

- A view controller can override the `shouldAutorotate` and `supportedInterfaceOrientations` variables to limit the list of supported orientations:

```
override var shouldAutorotate : Bool {
        return true
}

override var supportedInterfaceOrientations :
UIInterfaceOrientationMask {
        return UIInterfaceOrientationMask.all
}
```

Screen Orientation …

- Processing a screen orientation change:

```
override func viewWillTransition(to size: CGSize,
with coordinator:
UIViewControllerTransitionCoordinator) {
    // code to process screen orientation change
}
```

- Demo:

  `SimpleViewController`

Modal View Controller

- Overlay another view controller on top of an existing one

- Every view controller can present at most one modal view controller at a time

- A view controller that is presented as a modal view controller by another view controller has a reference to its parent view controller
  `var presentingController: UIViewController? { get }`

- The view controller that is presented by this view controller
  `var presentedViewController: UIViewController? { get }`

Modal View Controller ...

- Presenting a modal view controller:

```swift
func present(_ viewControllerToPresent: UIViewController,
                animated flag: Bool,
             completion completion: (() -> Void)?)
```

- Dismissing a modal view controller:

```swift
func dismiss(animated flag: Bool,
                     completion completion: (() -> Void)?)
```

- Demo:

    ModalViewController