

# MOBILE DEVELOPMENT

## LESSON 07

### TYING IB INTO CODE (CONTINUED), VIEW CONTROLLERS, SWITCH, AND ENUMS

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**GETTING STARTED**

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# LEARNING OBJECTIVES

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## GETTING STARTED

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# LEARNING OBJECTIVES

- Recap of Tying IB to Code
- AIM Profile Project (cont.)
  - Pair Programming
  - Tying IB into Code
- View Controller Lifecycle
- String Tricks
- Switch Statements
- Enumerated Types

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**GETTING STARTED**

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# **IN-CLASS PROJECT**

## **AIM PROFILE**

# IN-CLASS ASSIGNMENT

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## EXERCISE

### KEY OBJECTIVE(S)

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Extend the AIM Profile to display the data that was entered in different labels. Change the fonts, background, and text colors.

Add some pictures!

### TIMING

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*45 min* 1. Code with partner

*5 min* 2. Debrief

### DELIVERABLE

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Work in groups (assigned by Arthur). Ask questions if you need help!

**GETTING STARTED**

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# **VIEW CONTROLLER LIFECYCLE DEMO**

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**GETTING STARTED**

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# **VIEW CONTROLLER LIFECYCLE INFO**

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## VIEW CONTROLLER LIFECYCLE

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# BRIEF REVIEW ON VIEW CONTROLLERS

- “View controllers are a vital link between an app’s data and its visual appearance. Whenever an iOS app displays a user interface, the displayed content is managed by a view controller or a group of view controllers coordinating with each other. Therefore, view controllers provide the skeletal framework on which you build your apps.”
- Source: <https://developer.apple.com/library/ios/featuredarticles/ViewControllerPGforiPhoneOS/Introduction/Introduction.html>



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## VIEW CONTROLLER LIFECYCLE

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# THE LIFECYCLE

- `loadView()`
- `viewDidLoad()`
- `viewWillAppear()`
- `viewDidAppear()`
- `viewWillDisappear()`
- `viewDidDisappear()`

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## VIEW CONTROLLER LIFECYCLE

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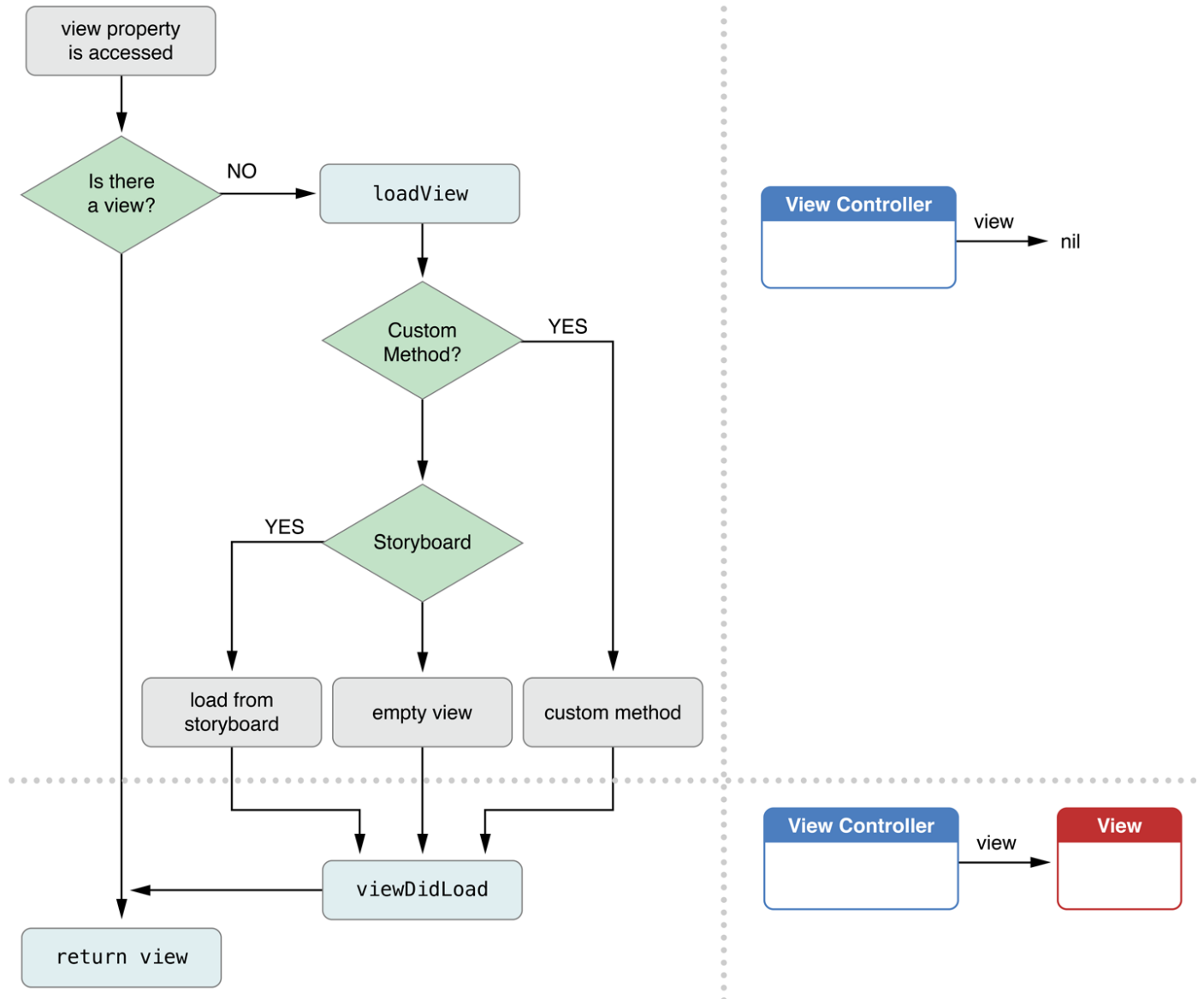
# LOADVIEW()

- Creates and links your view for you.
- This method is called IF-AND-ONLY-IF your view controller is backed by a xib or a storyboard file.
- If you are creating your view controller programmatically (e.g., without using storyboards or xibs), then this method will not be called.
- Do not override this method directly.

# VIEW CONTROLLER LIFECYCLE

## LOADVIEW()

- More info here:
- [https://developer.apple.com/library/ios/featuredarticles/ViewControllerPGforiPhoneOS/ViewLoadingandUnloading/ViewLoadingandUnloading.html#//apple\\_ref/doc/uid/TP40007457-CH10-SW2](https://developer.apple.com/library/ios/featuredarticles/ViewControllerPGforiPhoneOS/ViewLoadingandUnloading/ViewLoadingandUnloading.html#//apple_ref/doc/uid/TP40007457-CH10-SW2)



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# VIEW CONTROLLER LIFECYCLE

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## LOADVIEW()

- More info here:
- [https://developer.apple.com/library/ios/documentation/UIKit/Reference/UIViewController\\_Class/index.html#//apple\\_ref/occ/instm/UIViewController/loadView](https://developer.apple.com/library/ios/documentation/UIKit/Reference/UIViewController_Class/index.html#//apple_ref/occ/instm/UIViewController/loadView)

### Discussion

You should never call this method directly. The view controller calls this method when its `view` property is requested but is currently `nil`. This method loads or creates a view and assigns it to the `view` property.

If the view controller has an associated nib file, this method loads the view from the nib file. A view controller has an associated nib file if the `nibName` property returns a non-`nil` value, which occurs if the view controller was instantiated from a storyboard, if you explicitly assigned it a nib file using the `initWithNibName:bundle:` method, or if iOS finds a nib file in the app bundle with a name based on the view controller's class name. If the view controller does not have an associated nib file, this method creates a plain `UIView` object instead.

If you use Interface Builder to create your views and initialize the view controller, you must not override this method.

You can override this method in order to create your views manually. If you choose to do so, assign the root view of your view hierarchy to the `view` property. The views you create should be unique instances and should not be shared with any other view controller object. Your custom implementation of this method should not call `super`.

If you want to perform any additional initialization of your views, do so in the `viewDidLoad` method.

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## VIEW CONTROLLER LIFECYCLE

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# VIEWDIDLOAD()

- All view and sub-view configuration begins here, irrespective of how you instantiate your view controller (e.g., with or without storyboards/xibs).
- Always call `super.viewDidLoad()` before doing any other tasks.

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## VIEW CONTROLLER LIFECYCLE

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# VIEWWILLAPPEAR()

- Called every time the view controller becomes visible.
  - e.g. If you push back on a navigation controller, and it loads this view-controller, this method will be entered BEFORE that view becomes visible to the end user.

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## VIEW CONTROLLER LIFECYCLE

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# VIEWDIDAPPEAR()

- Called every time the view controller becomes visible.
  - e.g. If you push back on a navigation controller, and it loads this view-controller, this method will be entered AFTER that view becomes visible to the end user.

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## VIEW CONTROLLER LIFECYCLE

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# VIEWWILLDISAPPEAR()

- › Called every time the view controller is removed from the screen.
  - › e.g. If you push back on a navigation controller, and this view-controller is the one being dismissed/removed, this method will be entered right BEFORE that view is dismissed/removed.



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## VIEW CONTROLLER LIFECYCLE

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# VIEWDIDDISAPPEAR()

- Called every time the view controller is removed from the screen.
  - e.g. If you push back on a navigation controller, and this view-controller is the one being dismissed/removed, this method will be entered right AFTER that view is dismissed/removed.

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**GETTING STARTED**

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# SWITCH STATEMENT

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## CONTROL FLOW

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# SWITCH STATEMENT

- **switch** statements are like **if-else** statements, but usually depend on one primary condition (known as a **control expression**) that is evaluated over a large range of possibilities.
- Other notable keywords:
  - **case**
  - **break**
  - **default**
  - **where**
- To Playgrounds!

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## CONTROL FLOW

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# CASE

### ▸ case

- Defines a pattern/result for the control expression. If it's true, the code after **case** is evaluated.

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## CONTROL FLOW

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# DEFAULT

### ▸ default

- Code after this keyword is hit if all other patterns/results defined by the **case** keyword are not satisfied.

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## CONTROL FLOW

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# WHERE

### ▸ where

- Code after this keyword is evaluated if all other patterns/results defined by the **case** keyword are not satisfied.

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**GETTING STARTED**

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# ENUMERATIONS

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## ENUMERATION TYPES

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# ENUM

- › An enumeration, or **enum**, is a way to group related values together.
- › To Playgrounds!



## **GETTING STARTED**

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**QUESTIONS ABOUT ANYTHING  
WE'VE LEARNED IN THE LAST  
7 CLASSES?**

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**GETTING STARTED**

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# **HOMEWORK**

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## GETTING STARTED

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# HOMEWORK

- Read about:
  - Collections Chapter in Official Swift Book
    - [https://developer.apple.com/library/ios/documentation/Swift/Conceptual/Swift\\_Programming\\_Language/CollectionTypes.html](https://developer.apple.com/library/ios/documentation/Swift/Conceptual/Swift_Programming_Language/CollectionTypes.html)
- Continue with Week 2 Homework
  - Found in Assessments folder
  - Due Sunday at Midnight

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**GETTING STARTED**

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**NEXT CLASS**

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## GETTING STARTED

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## NEXT CLASS

- Arrays
- Dictionaries
- Table View Controllers