

RSSReader

Lesson 3

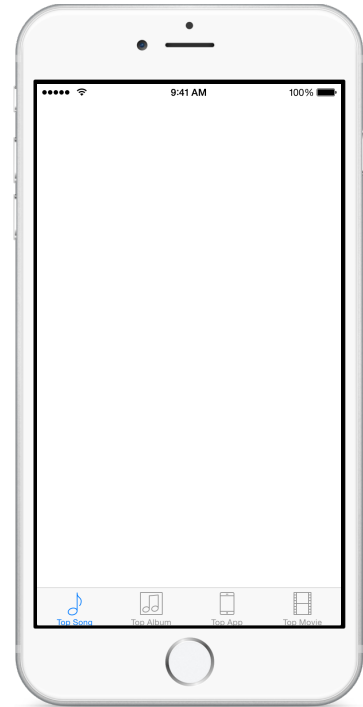


Description

Customize four view controllers associated with the tab bar controller.

Learning Outcomes

- Practice adding view controllers to a storyboard.
- Discover how to customize the tab bar buttons managed by a tab bar controller.
- Discover how to connect relationship segues between a tab bar controller and other view controllers.



Vocabulary

tab bar controller	view controller	storyboard
asset catalog	image set	tab bar button item
relationship segue		

Materials

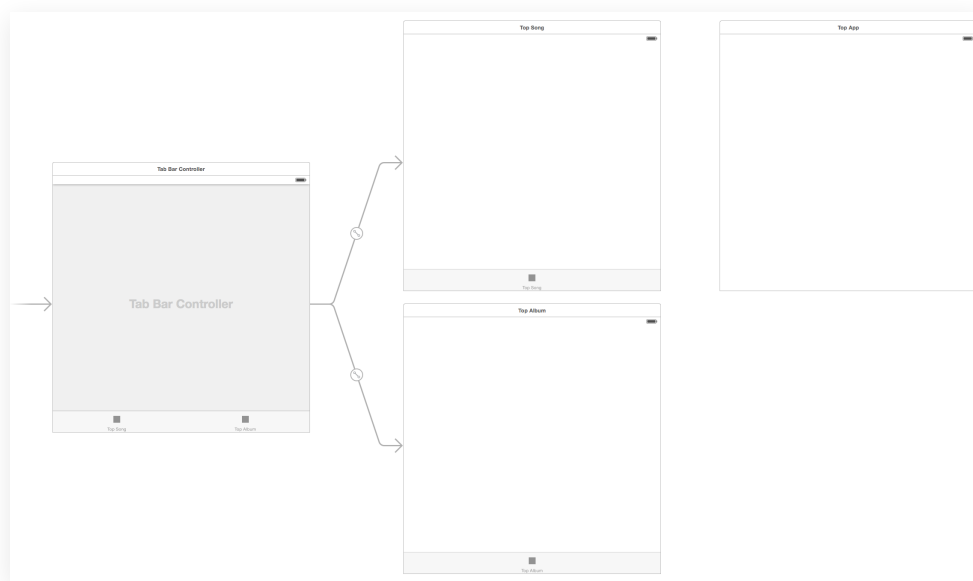
- **RSSReader Lesson 3** Xcode project
- **Tab Bar Controllers** presentation



Opening

What does a tab bar controller give us, and how might we customize it for our app?

Agenda

- Observe the main storyboard, which displays the default tab bar controller scene and two default view controller scenes.
- Discuss how the default tab bar controller consists of two tabs, with relationships bound to the two view controllers.
- Present the concept of tab bar controllers.
- Using the Project Navigator (⌘1), explore the **Images.xcassets** asset catalog and observe the image sets, where icons have been provided for the project.
- Using Interface Builder, select the Item 1 tab bar button at the bottom of the Item 1 view controller, open the Attributes Inspector (⇧⌘4), and change the Title attribute to **Top Song**, the Image attribute to **Top Song Icon**, and observe how the canvas reflects the change.
- Select the Item 2 tab bar button at the bottom of the Item 2 view controller, open the Attributes Inspector (⇧⌘4), change the Title attribute to **Top Album**, change the Image attribute to **Top Album Icon**, and observe how the canvas reflects the change.
- Zoom out of the storyboard, and, using the Object Library (⇧⌘L), drag a new View Controller onto the storyboard. Use the Document Outline (⇧⌘L) to rename it to **Top App**.



- Using the Document Outline () , Control-drag a connection from the Tab Bar Controller to the Top App controller, select the Relationship Segue called **view controllers**, and observe how the connection and new tab appear within the canvas.
- Explain how a tab bar controller manages an array of view controllers using a relationship segue.
- Zoom in to the storyboard, select the Item bar button item in the Top App controller, use the Attributes Inspector () to change the Title attribute to **Top App**, change the Image attribute to **Top App Icon**, and observe how the canvas reflects the change.
- Repeat the same procedure to add a fourth view controller to the storyboard, using **Top Movie** and **Top Movie Icon** for the tab bar button attributes.



- Run the app () and interact with the four tabs.

Closing

How might you add your own tab bar button icons to the app? What do the Apple Human Interface Guidelines suggest?

Modifications and Extensions

- Instead of using Interface Builder, implement the app delegate method `application:didFinishLaunchingWithOptions:` to build the four-tab interface.

Compare the benefits and drawbacks of both approaches to building the app interface.

Resources

View Controller Programming Guide for iOS <https://developer.apple.com/library/ios/featuredarticles/ViewControllerPGforiPhoneOS/index.html>

Cocoa Application Competencies for iOS: Storyboard <https://developer.apple.com/library/ios/documentation/General/Conceptual/Devpedia-CocoaApp/Storyboard.html>

View Controller Catalog for iOS: Tab Bar Controllers <https://developer.apple.com/library/ios/documentation/WindowsViews/Conceptual/ViewControllerCatalog/Chapters/TabBarController.html>

About Asset Catalogs https://developer.apple.com/library/ios/recipes/xcode_help-image_catalog-1.0/Recipe.html

iOS Human Interface Guidelines: Tab Bar https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/Bars.html#//apple_ref/doc/uid/TP40006556-CH12-SW52

Xcode Overview: Build a User Interface https://developer.apple.com/library/ios/documentation/ToolsLanguages/Conceptual/Xcode_Overview/edit_user_interface.html

Storyboard Help: Adding a Scene to a Storyboard https://developer.apple.com/library/ios/recipes/xcode_help-IB_storyboard/chapters/StoryboardScene.html

View Controller Programming Guide for iOS: Using Segues <https://developer.apple.com/library/ios/featuredarticles/ViewControllerPGforiPhoneOS/UsingSegues.html>

Storyboard Help: Adding a Segue Between Scenes in a Storyboard https://developer.apple.com/library/ios/recipes/xcode_help-IB_storyboard/chapters/StoryboardSegue.html