WordCollage
Lesson 1

Description

Gain familiarity with Xcode and Interface Builder by establishing a basic workflow of making changes and running the app in the iOS Simulator.

Learning Outcomes

- Operate Xcode and run an existing project in the iOS Simulator.
- Modify the visual scale of the iOS Simulator.
- Experiment with stopping apps in the iOS Simulator.
- Contrast mobile iOS apps with traditional desktop applications.
- Experiment with Interface Builder to change the visual appearance of an app interface.

Vocabulary

iOS	operating system	Xcode
project	source code	IDE
Interface Builder	user interface	frameworks
compiler	iOS Simulator	Label

Materials

- **Flashlight** Xcode project

Opening

How do you build iOS apps?

Agenda

- Open and run (⌘R) the **Flashlight** project.
- Observe the size of the simulator on the screen. Use the menu item *Window* > *Scale* to adjust the size of the simulator screen.
- Discuss what happens when opening a project and running it in the iOS Simulator, using the vocabulary terms as a guide.
- Demonstrate keyboard shortcuts ⌘R, ⌘TAB and ⌘. to run the app; switch to the simulator and back; and to stop the app from Xcode.
- Present the Xcode interface anatomy.
- Open and run (⌘R) the **WordCollage Lesson 1** project.
- Using the Project Navigator (⌘1), explore **Main.storyboard**.
- Using the Show Document Outline control (▭) in the lower left corner of the canvas, ensure that the document outline is visible.
- Double-click a Label in the collage to change its contents.
- Emphasize using the ⌘R shortcut to run the app.
- Run the app (⌘R), and witness the change in the iOS Simulator.
- Experiment with changing the content of the remaining labels to topics you care about.
- Run the app (⌘R), and witness the changes in the Simulator.

Closing

In what ways are mobile iOS apps different from applications that run on a desktop computer or game console?

Modifications and Extensions

- Create a new Single View Application from scratch.
- Explore the concepts of Auto Layout, Size Classes and Constraints. Reposition the labels, and use the *Editor* > *Resolve Auto Layout Issues* menu items to quickly resolve the differences between visual components and their constraints.

Resources

iOS Developer Program https://developer.apple.com/programs/ios/

Start Developing iOS Apps Today https://developer.apple.com/library/ios/referencelibrary/GettingStarted/RoadMapiOS/

iOS Technology Overview https://developer.apple.com/library/ios/documentation/Miscellaneous/Conceptual/iPhoneOSTechOverview/

iOS App Programming Guide: About iOS App Programming https://developer.apple.com/library/ios/documentation/iPhone/Conceptual/iPhoneOSProgrammingGuide/Introduction/Introduction.html

Xcode Overview https://developer.apple.com/library/ios/documentation/ToolsLanguages/Conceptual/Xcode_Overview/index.html

Xcode Basics Help https://developer.apple.com/library/ios/recipes/xcode_help-general/_index.html

Auto Layout Guide https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/AutolayoutPG/Introduction/Introduction.html

Adaptive User Interfaces https://developer.apple.com/design/adaptivity/