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

<table>
<thead>
<tr>
<th>iOS</th>
<th>operating system</th>
<th>Xcode</th>
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</thead>
<tbody>
<tr>
<td>project</td>
<td>source code</td>
<td>IDE</td>
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<tr>
<td>Interface Builder</td>
<td>user interface</td>
<td>frameworks</td>
</tr>
<tr>
<td>compiler</td>
<td>iOS Simulator</td>
<td>Label</td>
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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 (L) 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/


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