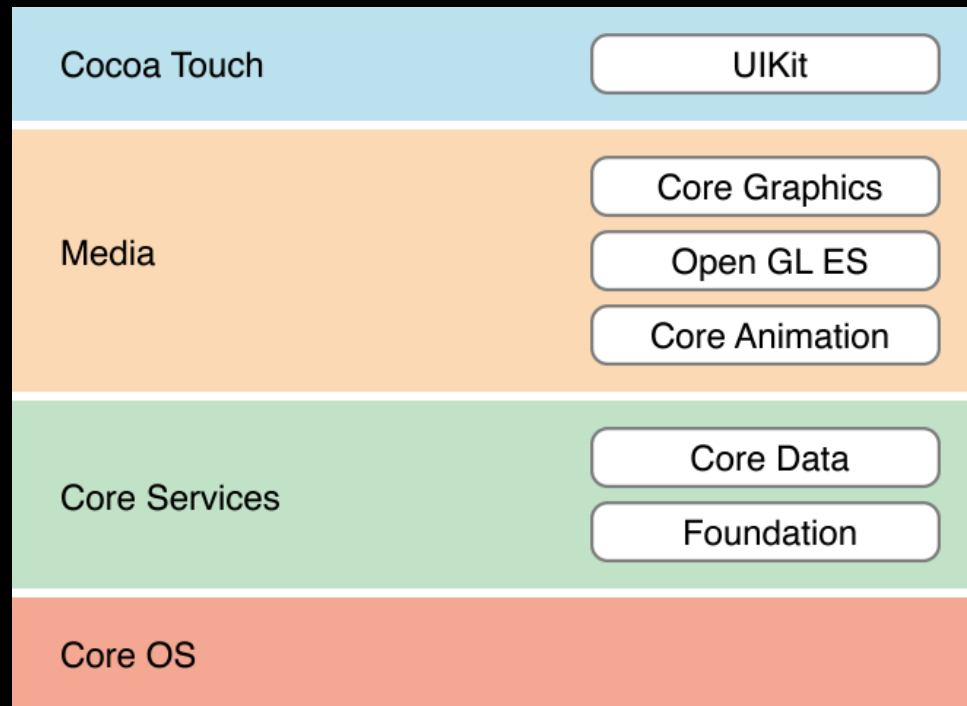Mobile Application Development
Aileen Pierce

FRAMEWORKS

iOS Frameworks

- iOS provides frameworks for incorporating technologies, services, and features into your apps.

- Frameworks provide the code and resources needed in your development

Foundation Framework

- The Foundation framework is the foundational toolkit for iOS programming
- Provides many object classes and data types

UIKit Framework

- The UIKit Framework provides the classes needed to construct and manage an application's user interface for iOS.
  - Creating common UI elements
  - Drawing to the screen
  - Event handling
  - Present text and web content
  - Handle touch and motion based events

User Interface Controls

- Apple developed a set of user interface controls that work well on the iPhone and iPad.

- You won't find a checkbox, radio button, or drop down menu in any native app.

UIKit Framework

- UIView class
  - A view is the rectangular area on the screen
  - Views display content
  - Views handle touch events
  - Hierarchical
    - One superview
    - May have many (or none) subviews
    - Hierarchy is usually constructed in Interface Builder
    - Subviews are displayed on top of its parent view

UIKit Framework

- UIWindow class
  - Subclass of UIView
  - Apps only have a single window
  - It's created automatically at run time
- UIImageView
- UILabel
- UIControl
  - Base class for all UI controls
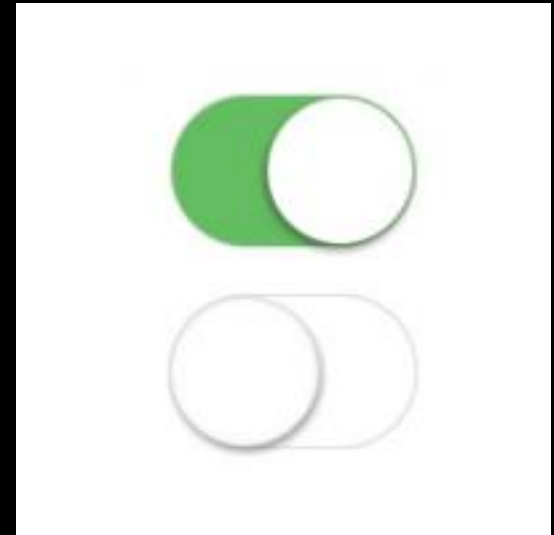
UIKit Framework

- Controls:
  - UIButton
  - UISwitch
  - UISlider
  - UISegmentedControl
  - UITextField
- And others that we'll be exploring this semester
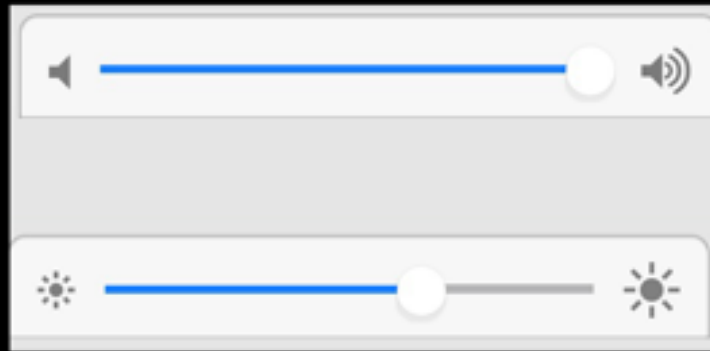
UI Controls

- Interface controls are used in three modes
  - Passive
    - Text field
  - Active
    - buttons
  - Static
    - Image view, labels
- Most UI controls can act in all three modes

Switch

- A switch is used to turn on and off a setting or feature.

- It toggles between Boolean values `true` and `false`

- UISwitch class

  - `on` property is of type Bool that is `true` when it's on otherwise it's `false`.
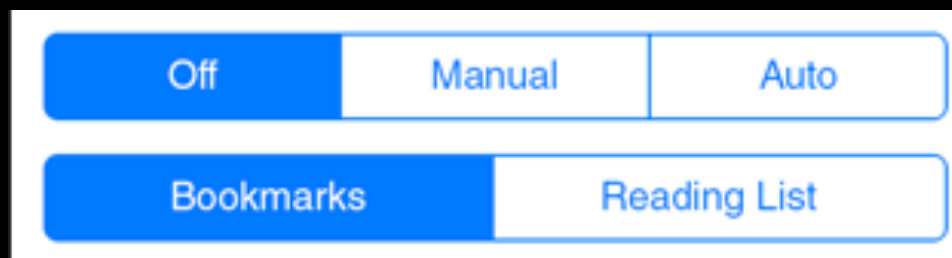
Slider

- A slider is used to specify a numeric value within a range of values.

- UISlider class
  - `value` property is a Float that stores the value.

Segmented Control

- A segmented control is a multiple choice control that allows users to select a single value.

- Behaves similarly to a radio button.

- UISegmentedControl class
  - `selectedSegmentIndex` is an Int that stores the selected index. Starts at 0.

There are many other frameworks to explore!