View Applications

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Views

- Display elements of user interface:
  - Buttons
  - Labels
  - Text fields
  - Sliders
  - Images
  - etc
View Hierarchy

- Views can be composed of other views
- Base view (of view controller) has other views (buttons, labels, etc) added as child views
- Establishes a view hierarchy
- Properties of views can inherit to subviews
  - e.g. if a view is hidden, its subviews are hidden
Widget Examples

* Simple application with 3 views:
  * Label (display text)
  * Text field (text input)
  * Button (initiates action)
WidgetExampleDemo
View Controllers

- Objects in iOS application that contain code for coordinating data and view components
- All view controllers derive from UIViewController class
- All iOS applications have at least one view controller
- Typically one window per application
Window with target screen and content views
View controller attached to window automatically adds its views as window subviews
Why One Window?

- iPhone applications have limited screen real estate
- User interface broken into views that are managed by view controller
  - Only one chunk displayed at a time
- Less of an issue on tablets and larger phones
- iPad apps often make use of multiple windows
Quiz Question!

True or false (A or B): each view requires its own, unique view controller to coordinate behavior with other views.
View Controller Types

- Two types of view controllers
  - Content view controllers (UIViewController)
    - Presents a view or a view hierarchy
  - Container view controllers (UINavigationController)
    - Contains content owned by other view controllers
    - Establishes a view controller hierarchy
UIViewController

- Display a combination of views
**UITableViewController**

- Displays list of things in tabular form
**UINavigationController**

- Contains and coordinates navigation between view controllers
UIPageViewController

- Simulates the notion of flipping through pages
UITabBarController

- Provides tabs to navigate between view controllers