

Views and View Controllers



Views

- Views are all of the individual elements that make up your user interface.
 - Buttons
 - Labels
 - Text Fields
 - etc.
- Views can contain other views.
 - Every view controller has a base view where other views can be added as subviews, creating a *view hierarchy*
- Any view can be hidden. If it is, all of its subviews are also hidden.

View Controllers

- *View Controllers* (VCs) are the objects in your iOS application that contain the code that coordinates communication between the data and view components.
- All VCs derive from the UIViewController class.
- All iOS applications have at least one VC, and at least one (but typically only one) window.

Two General Categories of VCs

- Content VCs: present content on the screen using a view or a group of views organization into a *view hierarchy*.
 - Ex. UIViewController
- Container VCs:
 - contain content owned by other VCs that are explicitly assigned to the container VC as its children
 - can be both a parent to other controllers and a child of another container
 - Ultimately, this combination of controllers establishes a *view controller hierarchy*.
 - Ex. UINavigationController

Basic View Controller

Used to display any combination of views (widgets):

- Labels
- Buttons
- Text Fields
- etc.

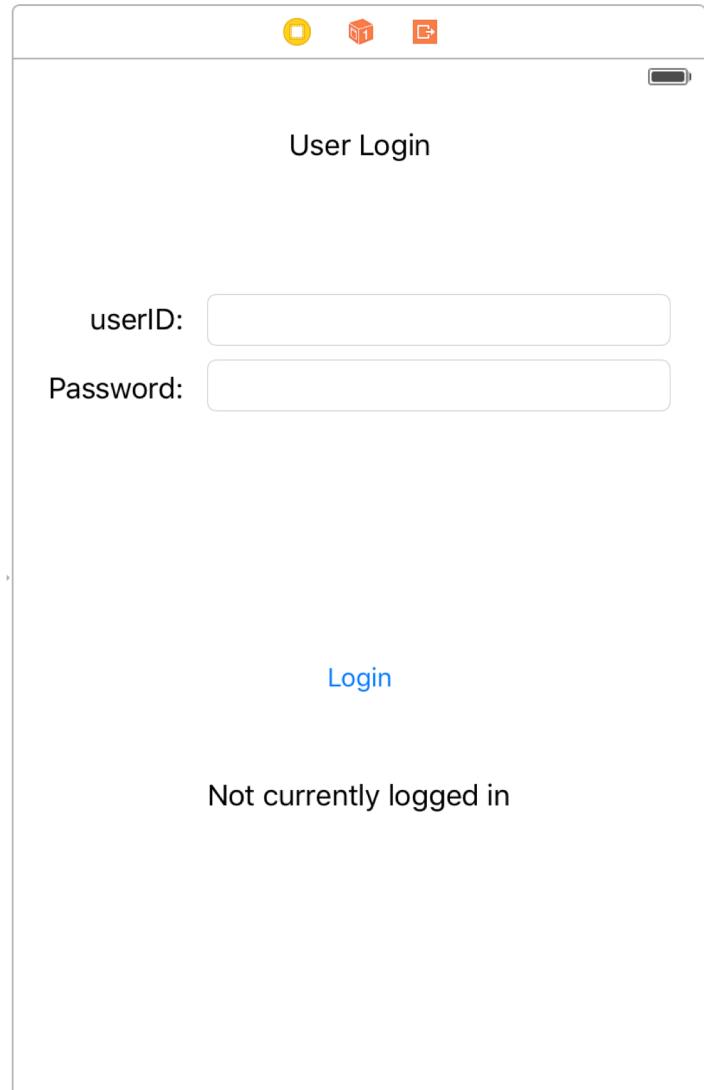


Table View Controller

Used to display a list of things in tabular form.

- Each item in the list is called a *table cell*.
- The default is for all cells to have the same layout: a single title and an optional image. However, you can write code to customize any cell.
- The view auto scrolls.
- There are many different flavors of Table VCs.

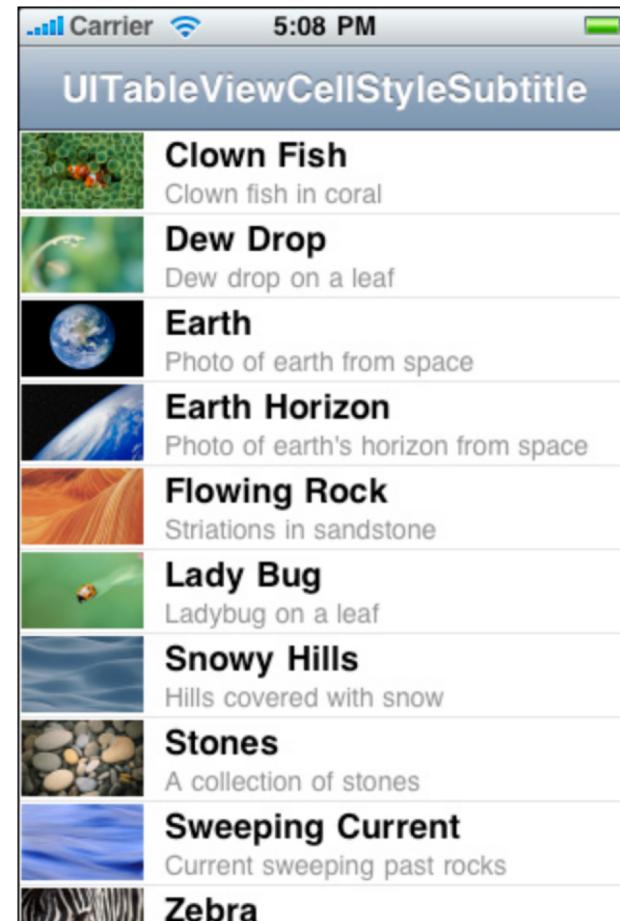
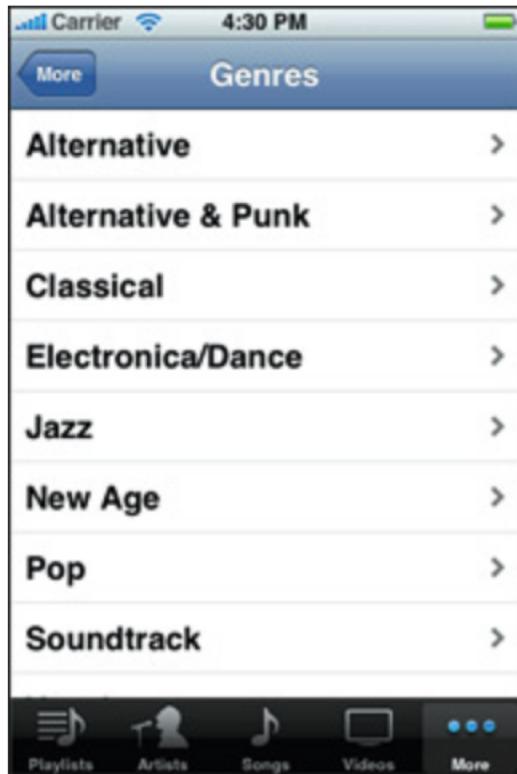
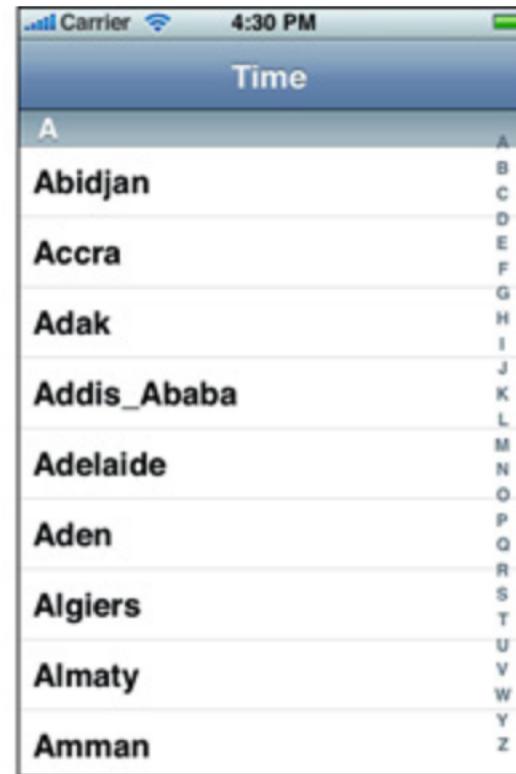


Table View Controller



allows users to navigate through
a hierarchical structure or to
provide details

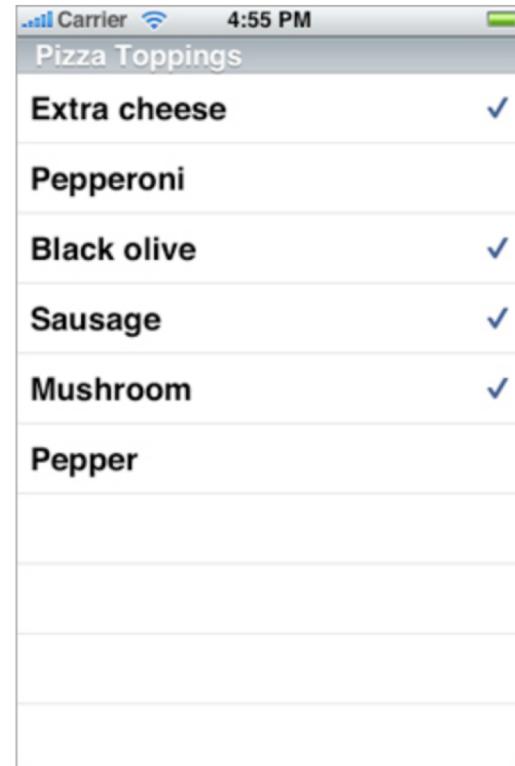


to present an indexed list of
items

Table View Controller



to display information in a visually distinct grouping

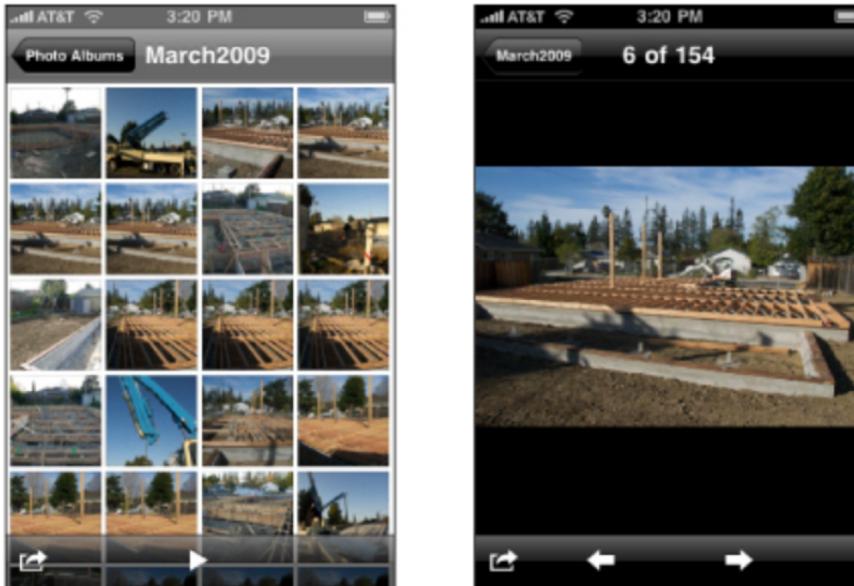


to allow selection of one or more entries in the table

Navigation View Controller

Used to coordinate navigating between one VC and another.

- Uses a portion of the top of the screen, where it provides an area for two optional buttons (top left and top right) and some text in the middle.



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As with most things, customizable

Page View Controller

- Has a single view to display your content
- Provides a UI for to simulate turning a page
- Has a row of dots that represent pages the user can navigate to
- Navigate via left or right swipes



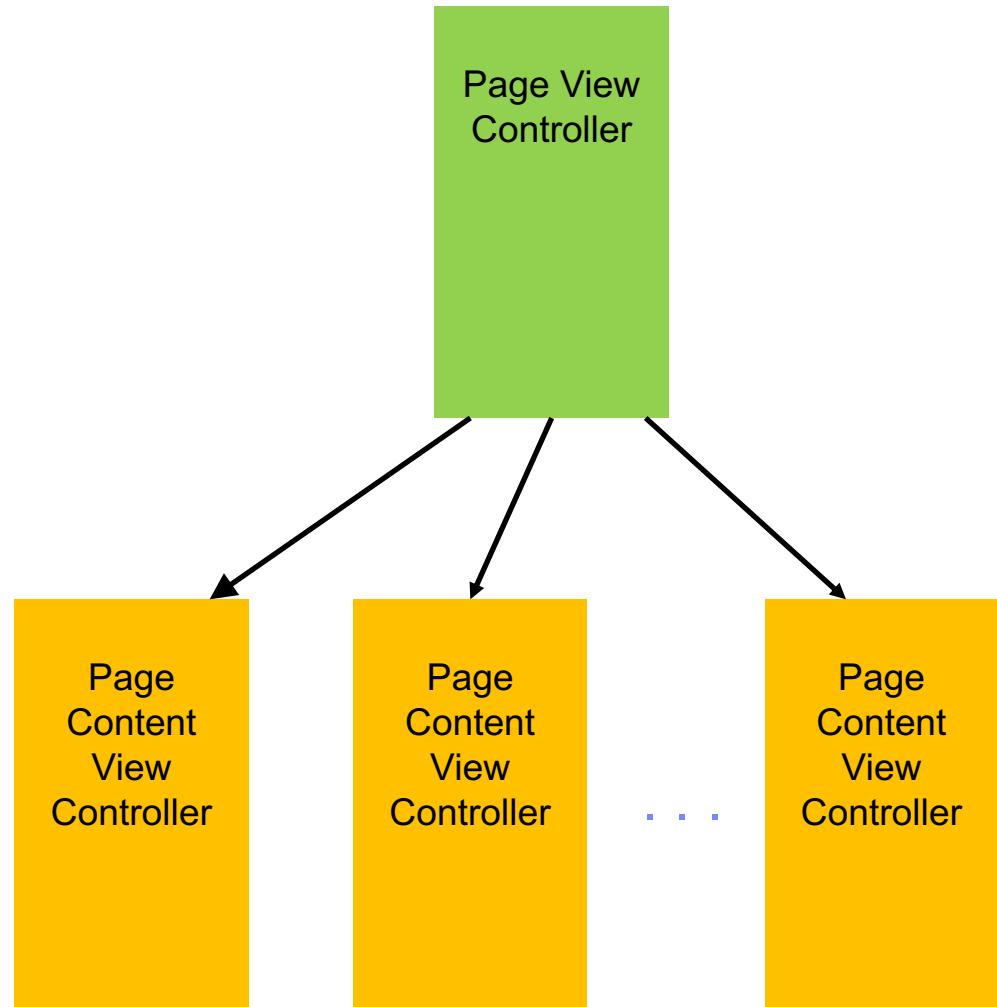
Page View Controllers

- You can define:
 - The orientation of the page views: vertical or horizontal
 - The transition style from page to page: curl or scrolling
 - The location of the spine (only applicable to curl transitions)
 - The space between pages (only applicable to scrolling transitions, to define the inter-page spacing)

Page View Controllers (cont.)

Classified as a *container* controller.

- Used to contain and manage multiple VCs shown in the app, as well as controlling the way one VC switches to another
- Each page is managed by its own VC



Tab View Controller

- Has a row of tabs at the bottom of the screen
- Each button navigates to a different VC

