

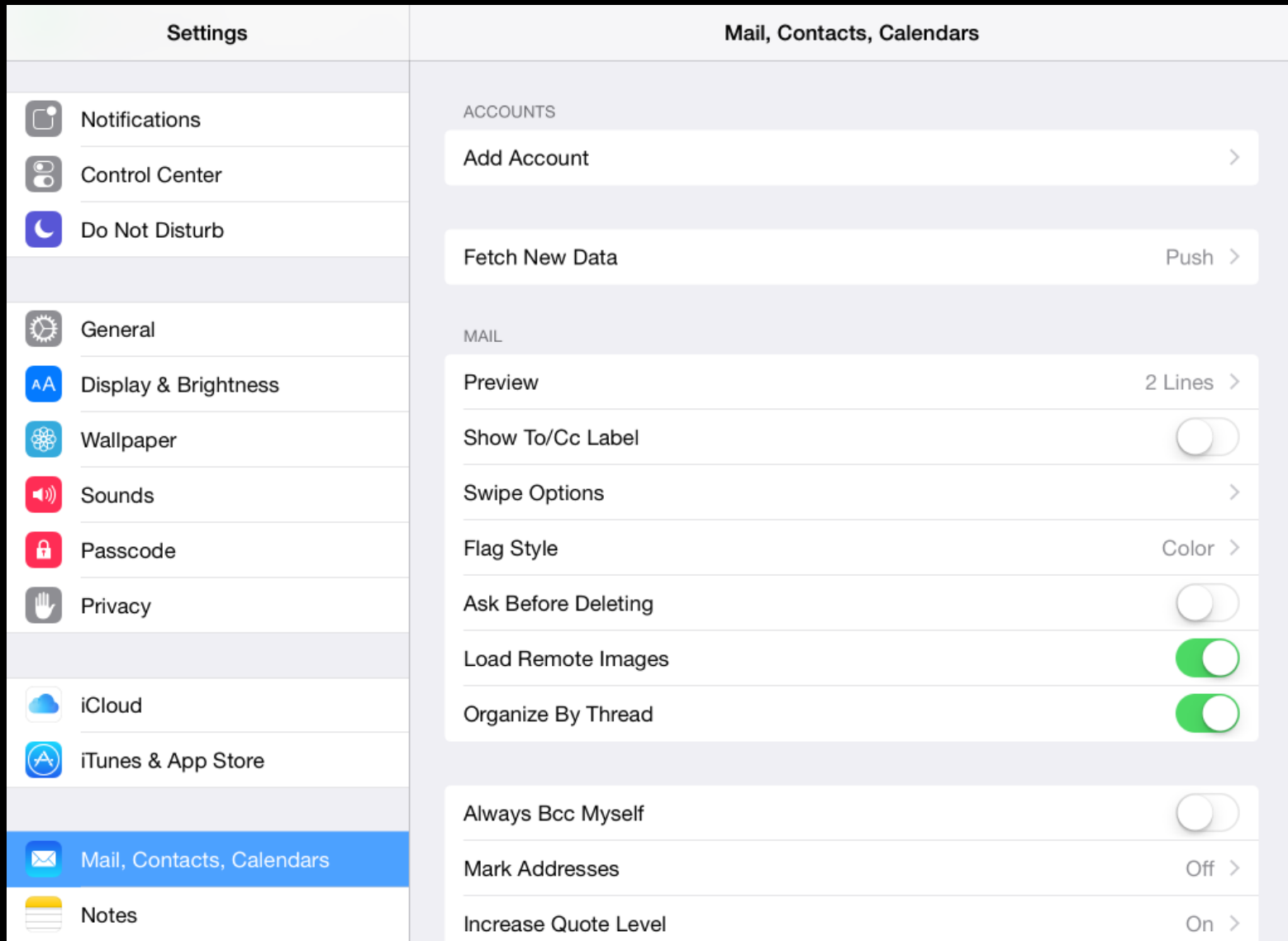
Mobile Application Development  
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# **SPLIT VIEW CONTROLLERS**

# Split View Controllers

- A split view controller is a full-screen controller that manages the presentation of two child view controllers
  - Primary pane (master): persistent information
  - Secondary pane (detail): related information to the selected item in the primary pane
- Before iOS 8 split view controllers were only available on the iPad

# Split View



# Split View Controllers

- Split view controllers must be the root view controller for an app.
- The panes in a split view can contain any other type of controller.
- **UISplitViewController** class
  - The **viewControllers** property is an array that stores the two controllers.
- The **UISplitViewControllerDelegate** protocol manages the presentation of the child view controllers.

# Split View Controllers

- Split view controllers use the size class to decide how to arrange its child view controllers
  - Horizontal regular: tries to display both panes side by side
    - iPad and iPhone 6 and 6s plus
  - Horizontal compact: only the secondary pane is displayed. A navigation button reveals and hides the primary pane. The primary pane is layered on top of the secondary pane when visible.
    - All other iPhones

# Display Mode

- The split view controllers **preferredDisplayMode** property specifies the display mode **UISplitViewControllerDisplayMode**
- The display mode will be set automatically or you can change it
- The split view controller will try to respect the display mode you specify but may not be able to accommodate that mode because of space constraints.

# Display Mode

## **UISplitViewControllerDisplayModeAutomatic**

- chooses the best display mode

## **UISplitViewControllerDisplayModeAllVisible**

- both view controllers are displayed on the screen, primary on the left typically narrower than the secondary on the right.

## **UISplitViewControllerDisplayModePrimaryHidden**

- the secondary view controller is displayed, the primary view controller is not

## **UISplitViewControllerDisplayModePrimaryOverlay**

- the secondary view controller is onscreen and the primary view controller is layered on top of it

# Display Mode

- The `displayModeButtonItem` method adds a bar button item that will show the primary pane as a popover
- When tapped it tells the split view controller to change its current display mode
- `targetDisplayModeForActionInSplitViewController()` provides the display mode
- This method is also called during rotation



# Rotation



# Popovers

- A popover is a temporary view that is revealed when the user taps the button on the toolbar
- Popovers can contain any view, but in a split view horizontally compact(portrait) it will contain the hidden left pane
- A popover should be dismissed when it's no longer needed(user makes a choice, taps outside the bounds of the popover, or taps a Done button)
- **UIPopoverPresentationController** class and **UIPopoverPresentationController Delegate** (added in iOS8)

# Popover

The image shows a mobile application interface with a calendar in the background. A 'New Event' popover is displayed over the calendar. The popover has a title bar with 'Cancel', 'New Event', and 'Add' buttons. The form contains the following fields:

- Meeting
- Conference Room C (with a close icon)
- All-day (toggle switch)
- Starts: Dec 8, 2014 9:00 AM
- Ends: 10:00 AM
- Repeat: Biweekly >
- End Repeat: Never >
- Travel Time: 15 min >
- Alert: 5 minutes before travel time >
- Second Alert: None >
- URL
- Bring doughnuts

The calendar in the background shows the month of December (DEC) and the year 2014. The date 8 is highlighted, indicating the event is scheduled for December 8th.

# iPad iOS9 Multitasking

- Slide-over lets users overlay an app to briefly interact with it and then hide it
- Split-view lets users display two apps side-by-side
  - Users can view, resize, and interact with both apps
- Requires iPad Air 2 or later
- iPad apps built with the iOS 9 SDK automatically have these capabilities
  - Must support all orientations