

# iPhone App Dev

## Lesson 6

# Source

<https://github.com/bryanttang/iOS-Class-2015-9.git>

# Contact

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# Test

- Scope: All in handout!
- Date: 10/22 (45 minites)

# Project

- Type: Game, Utility
- Demo date: 10/22 (1 hour)

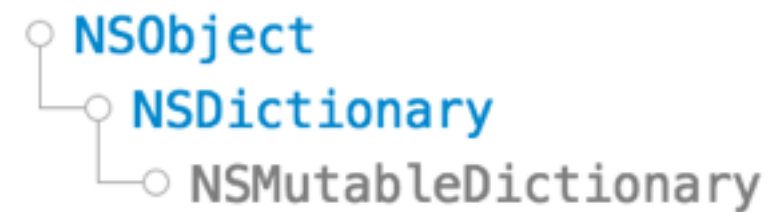
# Summary

- Custom Table View Cell, NSDictionary
- Navigation Controller
- View cycle
- Debug mode

# Dictionary (advance)

- NSMutableDictionary
- Add KeyPair
  - - setObject:forKey:
- Remove KeyPair
  - - removeObjectForKey:

## Inheritance



# Custom Table View Cell

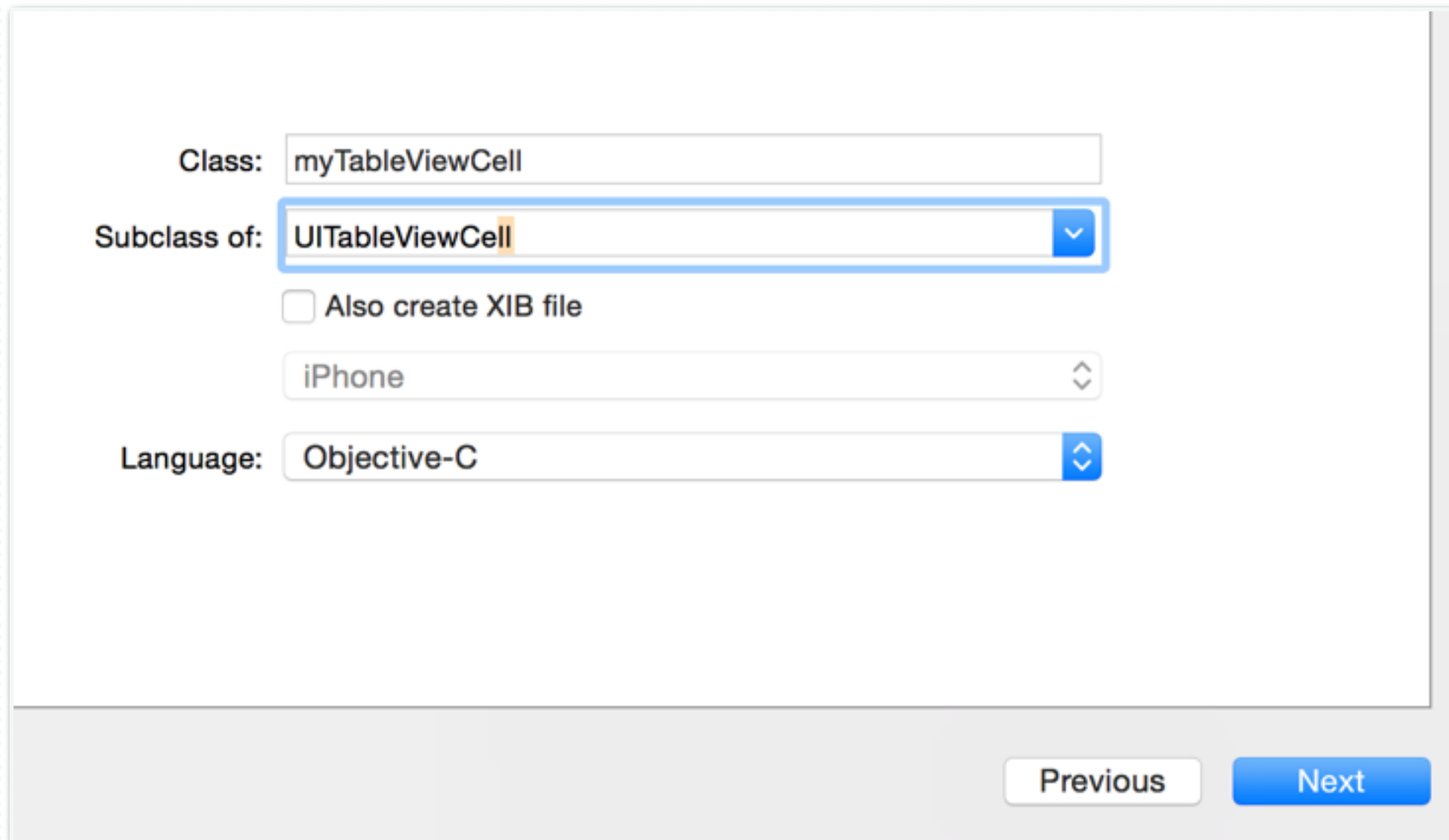
## How to make a custom Cell?

- New a Class inheritance **TableViewCell**
- Define what information would show on cell  
(e.g. name, user image, description)
- Design custom cell UI in storyboard
- Implement cell in DataSource function in TableViewController



# Custom Table View Cell

New a Class inheritance **TableViewCell**



The image shows the 'New Class' dialog box in Xcode. It is a light gray window with a white content area and a gray footer. The 'Class' field contains 'myTableViewCell'. The 'Subclass of' field is a dropdown menu with 'UITableViewCell' selected and highlighted with a blue border. Below this is an unchecked checkbox labeled 'Also create XIB file'. The 'Device' dropdown menu shows 'iPhone'. The 'Language' dropdown menu shows 'Objective-C'. At the bottom right, there are two buttons: 'Previous' (disabled, light gray) and 'Next' (active, blue).

Class: myTableViewCell

Subclass of: UITableViewCell

☐ Also create XIB file

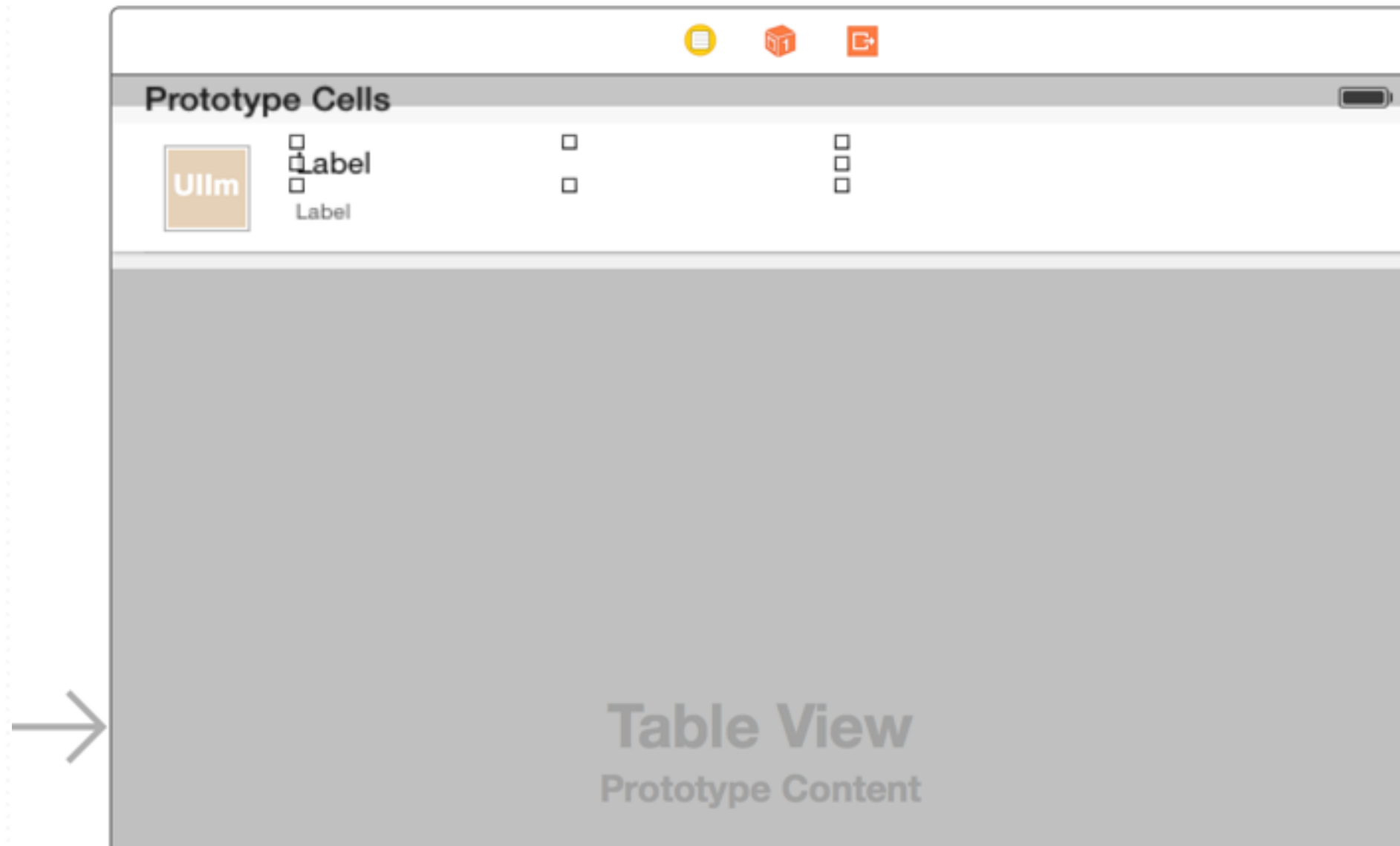
iPhone

Language: Objective-C

Previous Next

# Custom Table View Cell

- Define what information would show on cell  
(e.g. name, user image, description)
- Design custom cell UI in storyboard

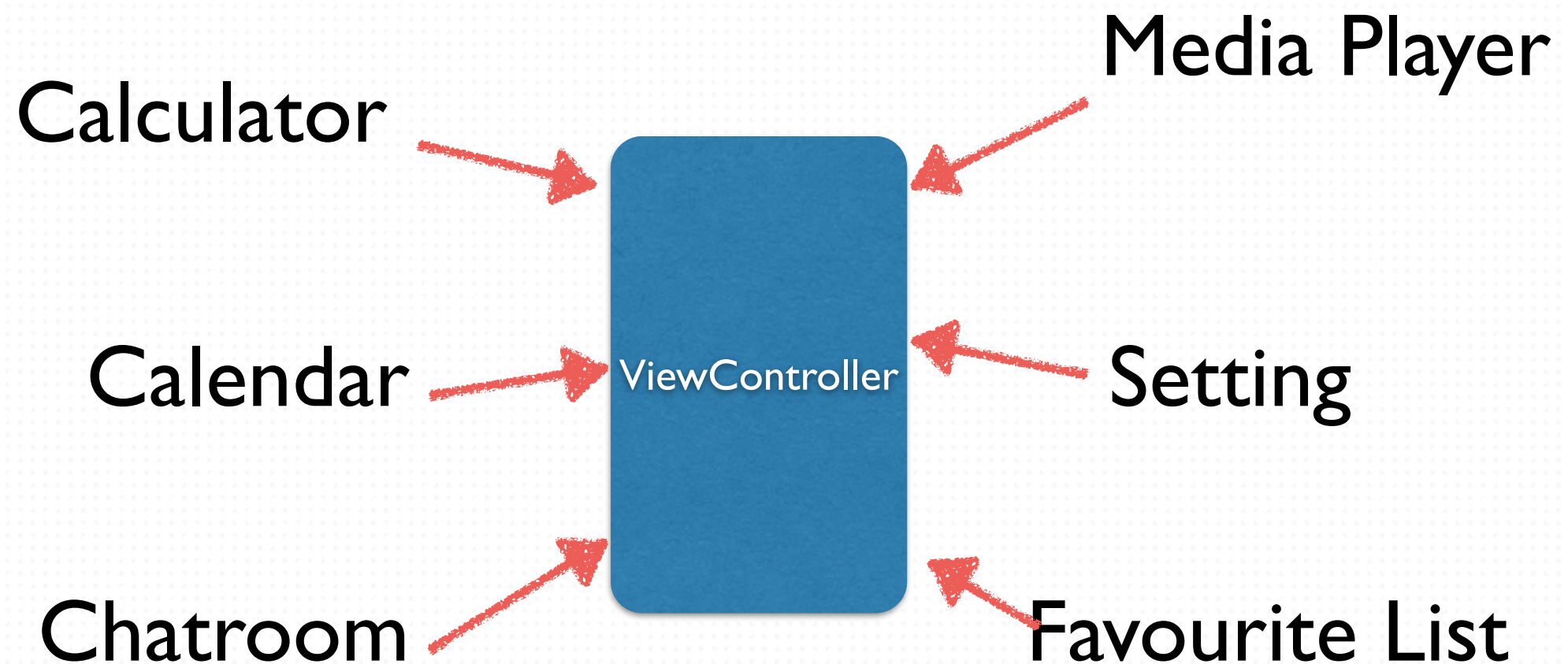


# Navigation Controller

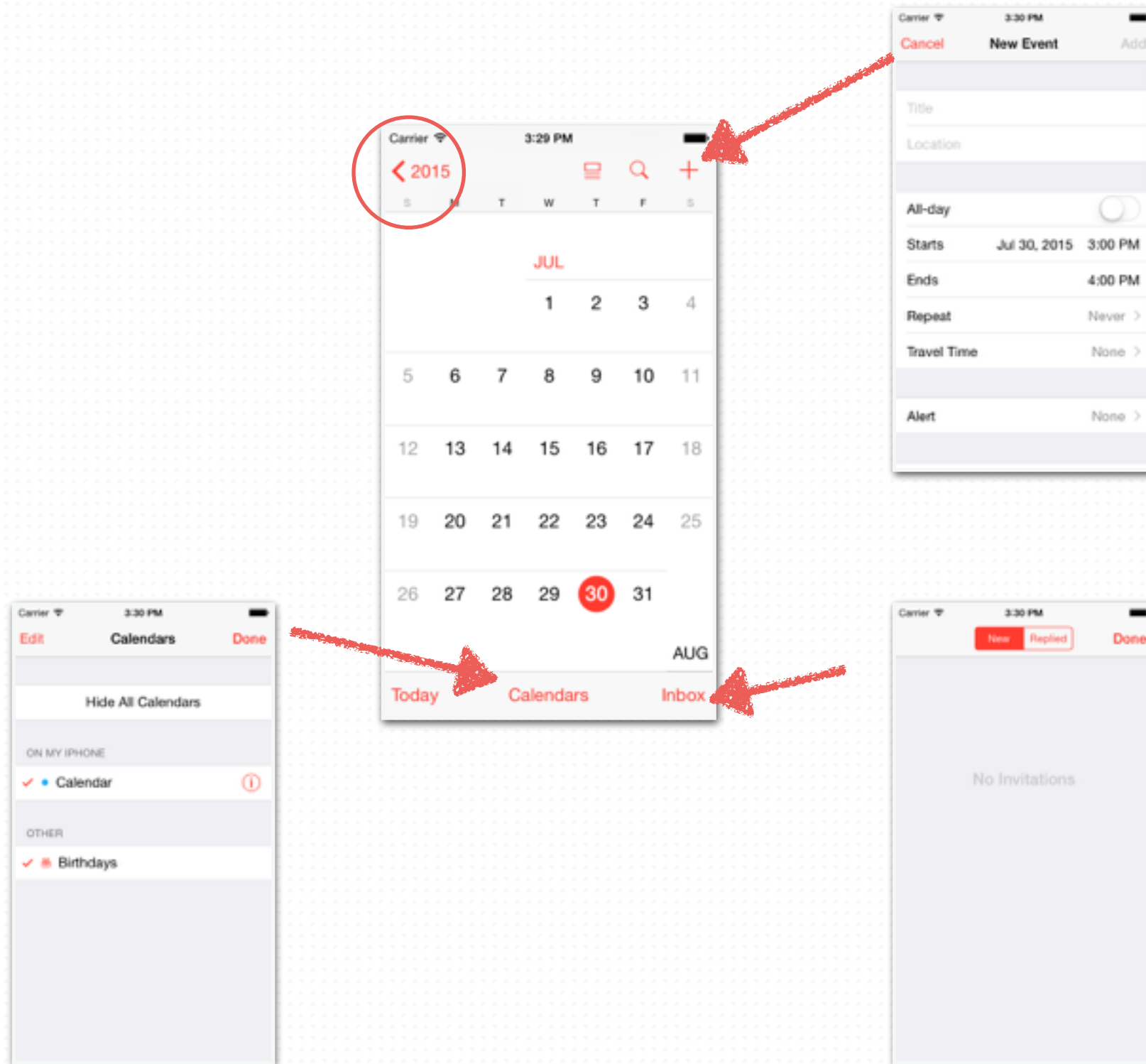
Demo

# Navigation Controller

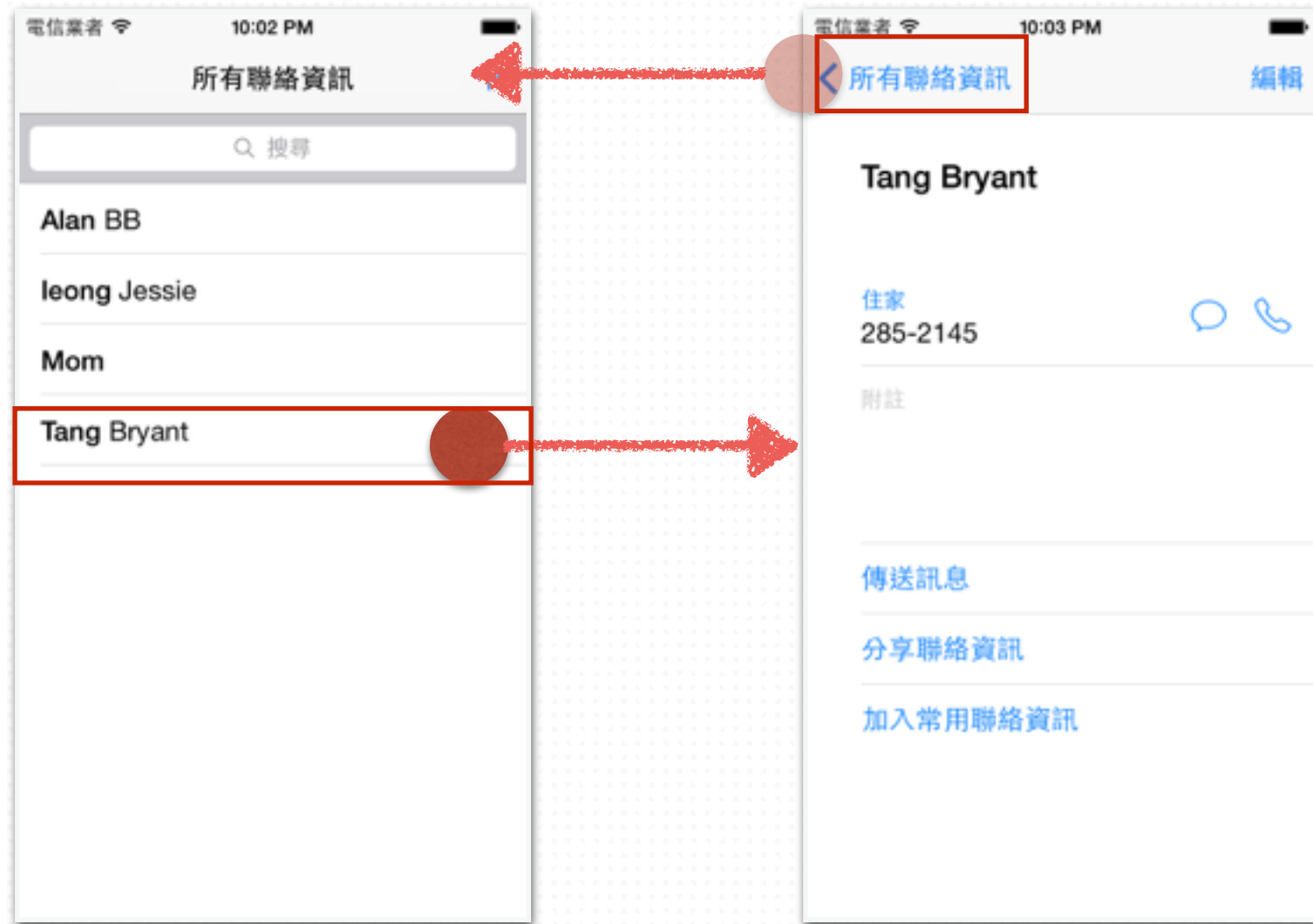
- Don't use only “ONE” Controller in your app



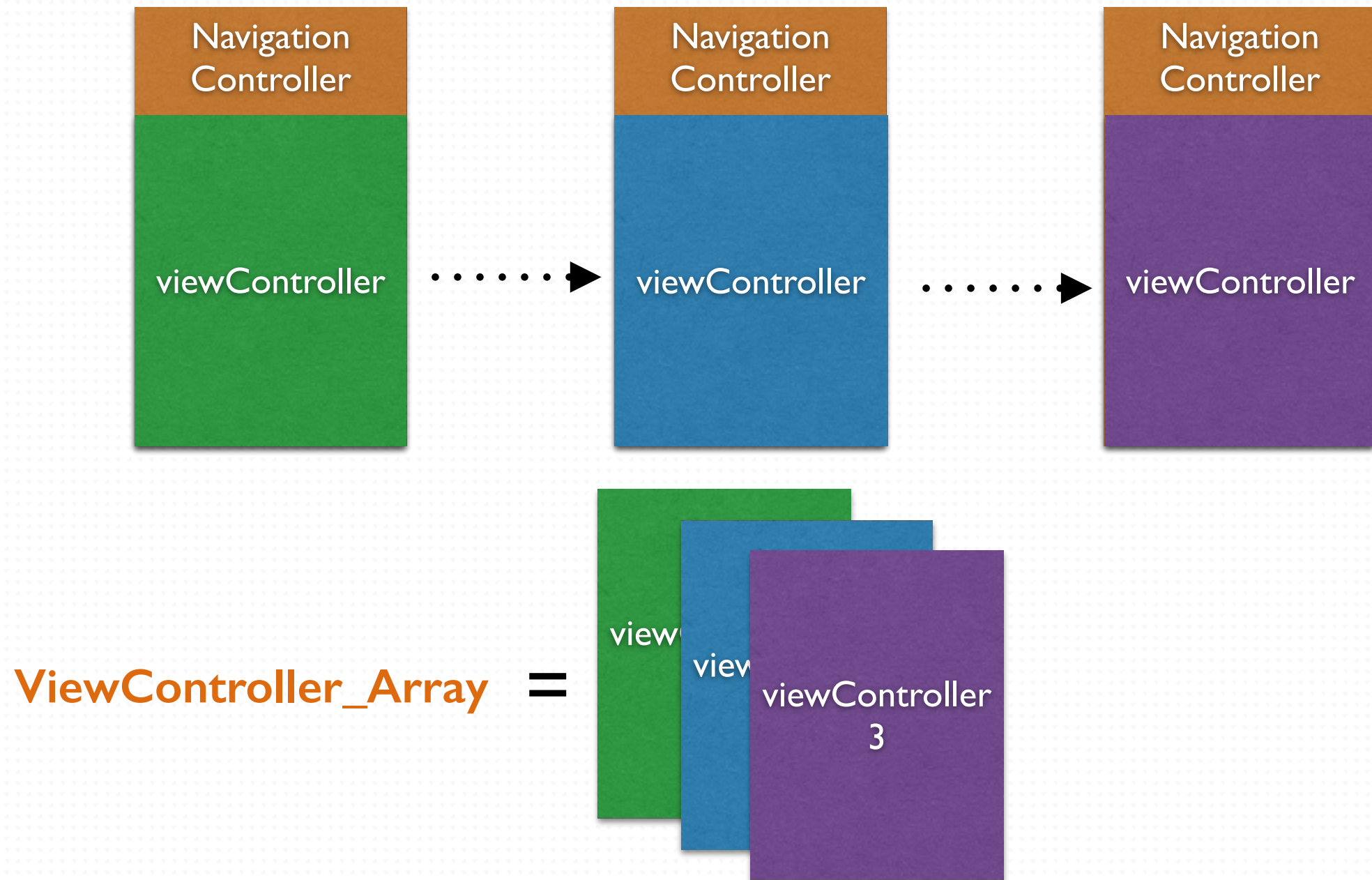
# Navigation Controller



# Navigation Controller



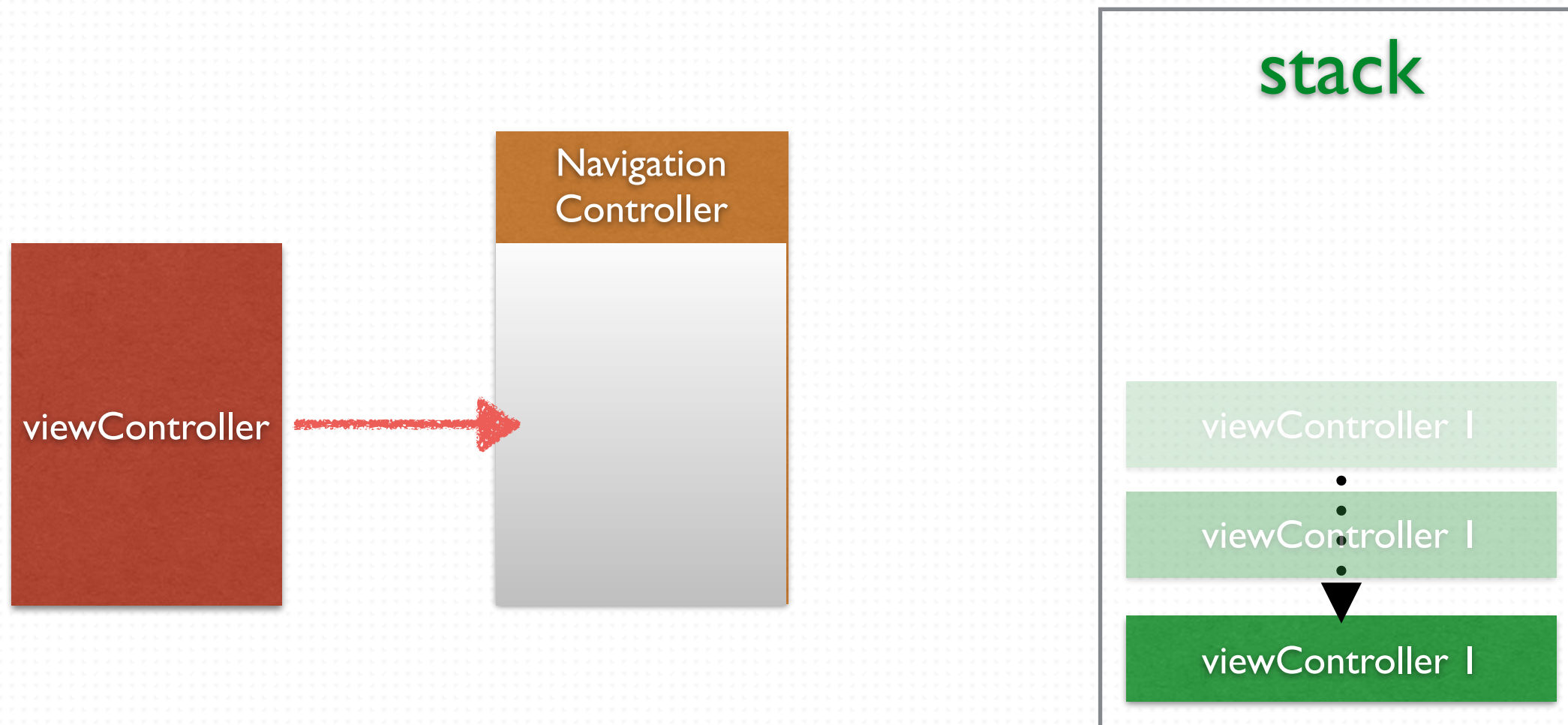
# Navigation Controller



Navigation Controller Manages the navigation of hierarchical content

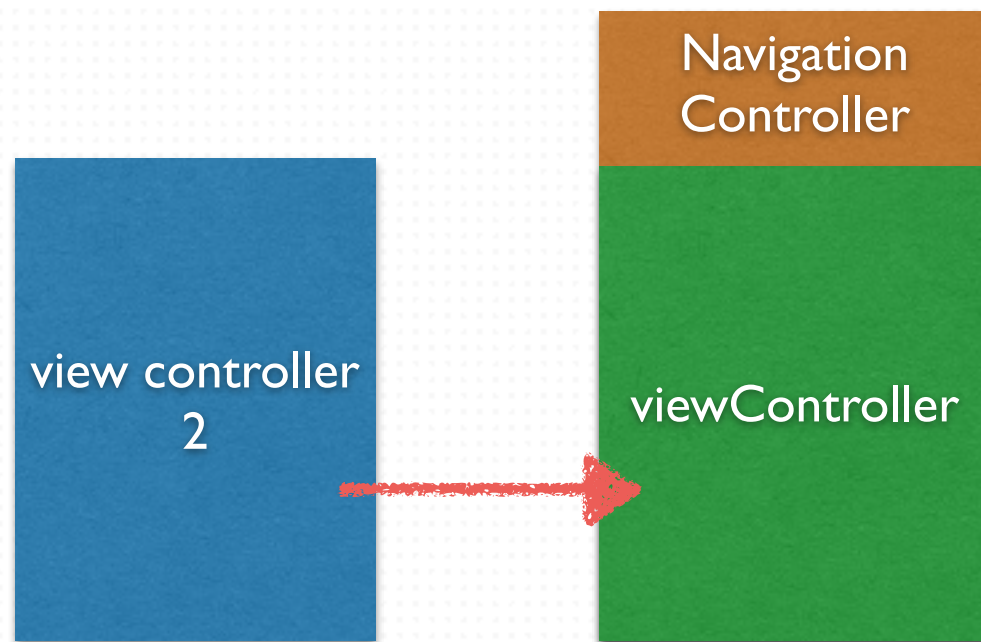


# Navigation Controller

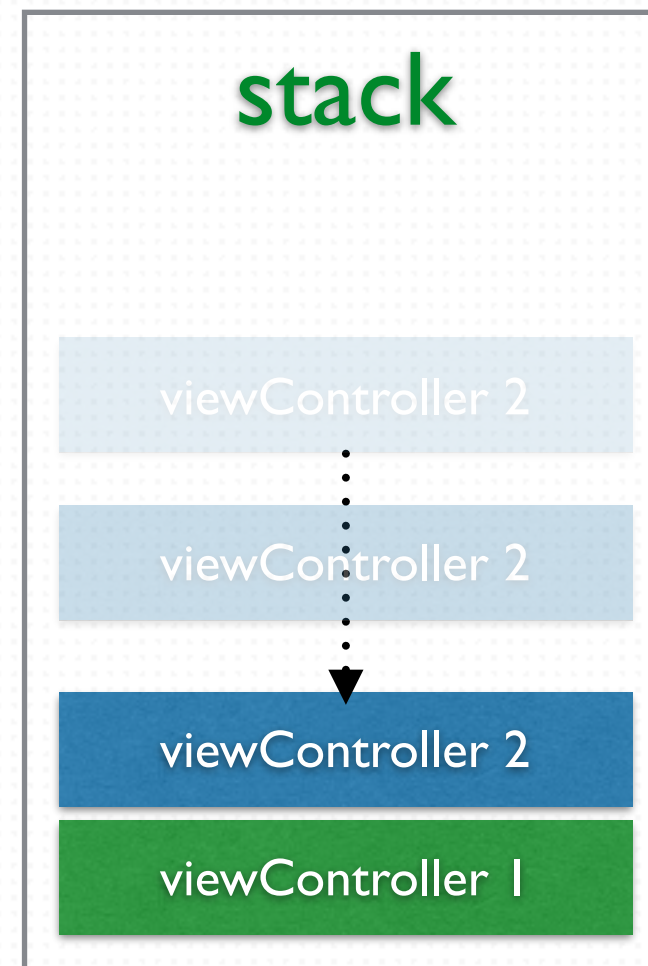


There is at least one ViewController in Navigation Controller -  
**RootViewController**

# Navigation Controller

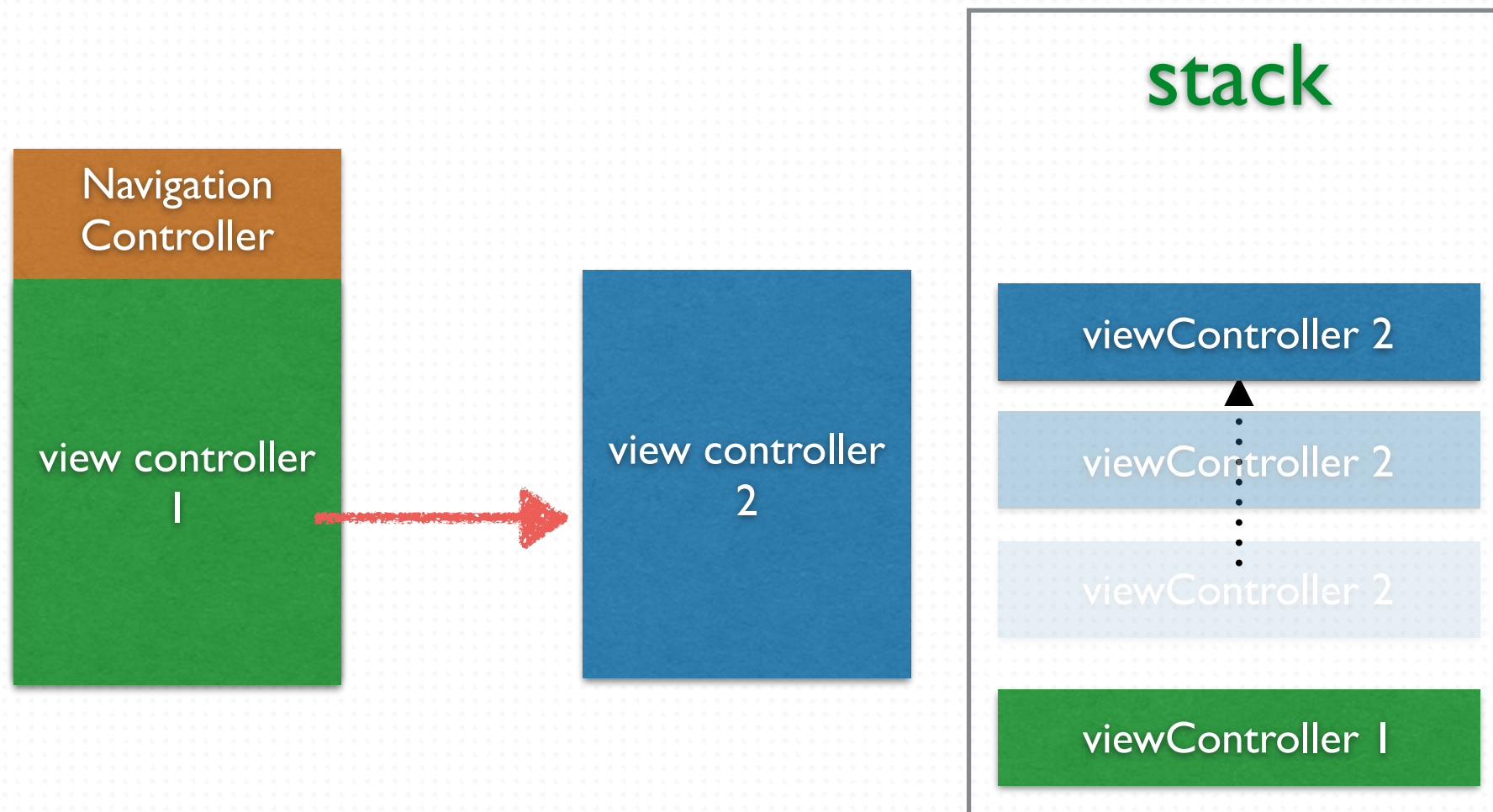


Action: **Push**



Transit to view controller 2

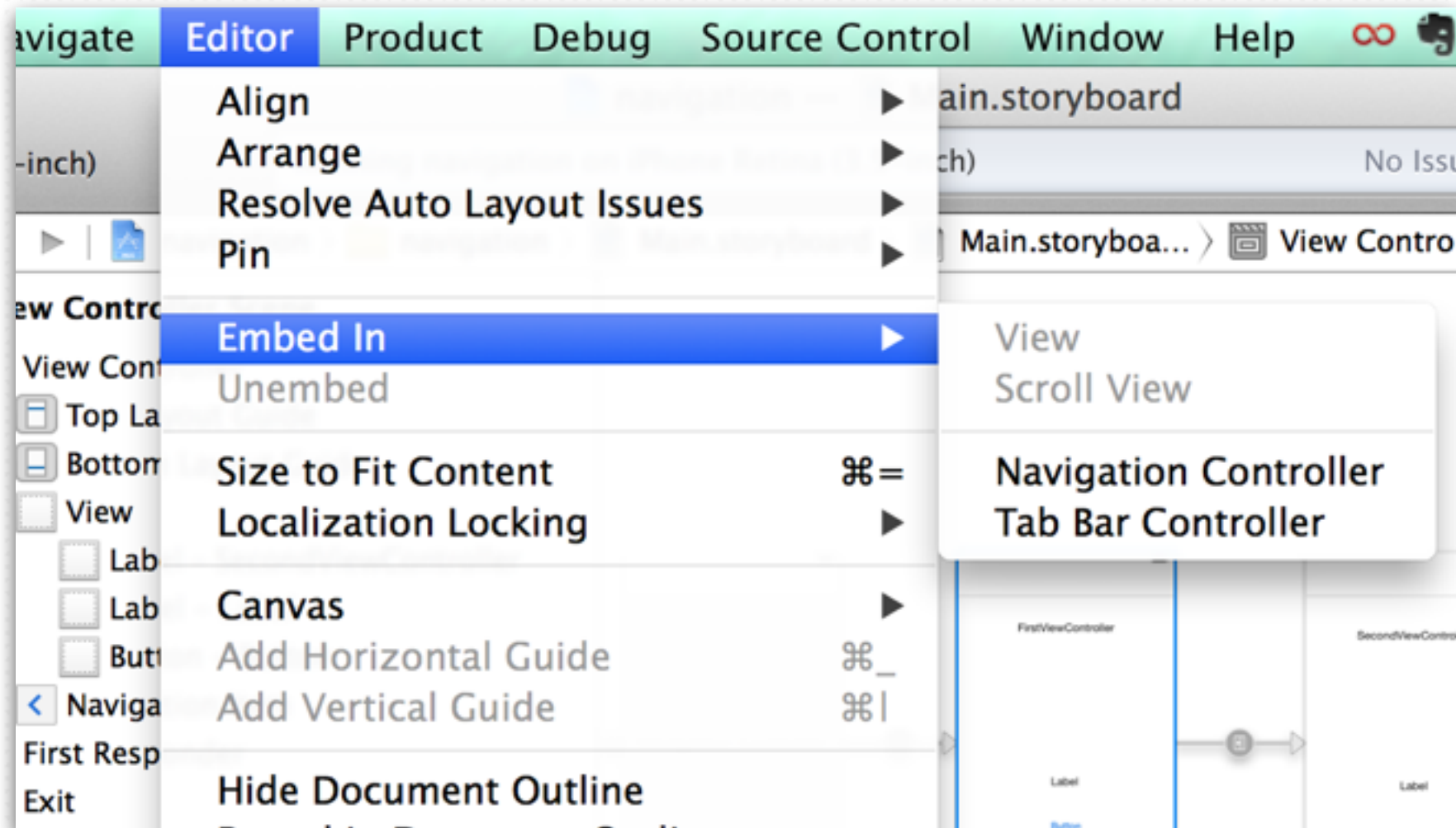
# Navigation Controller



Action: **Pop**

Transit view controller 2 to view controller 1

# Navigation Controller

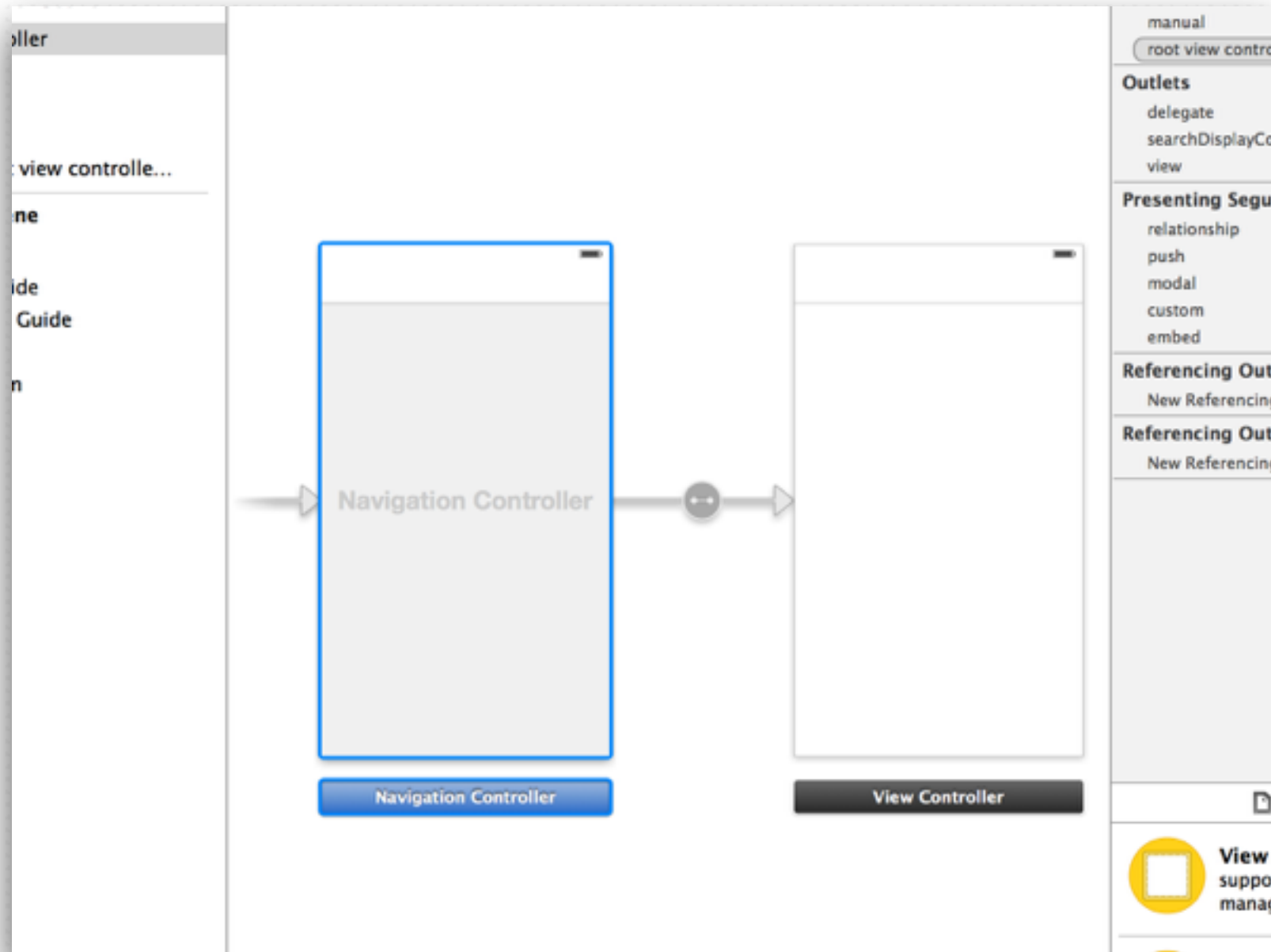


Embed a navigation Controller in storyboard

✓select View Controller

✓Editor -> Embed in -> Navigation Controller

# Navigation Controller



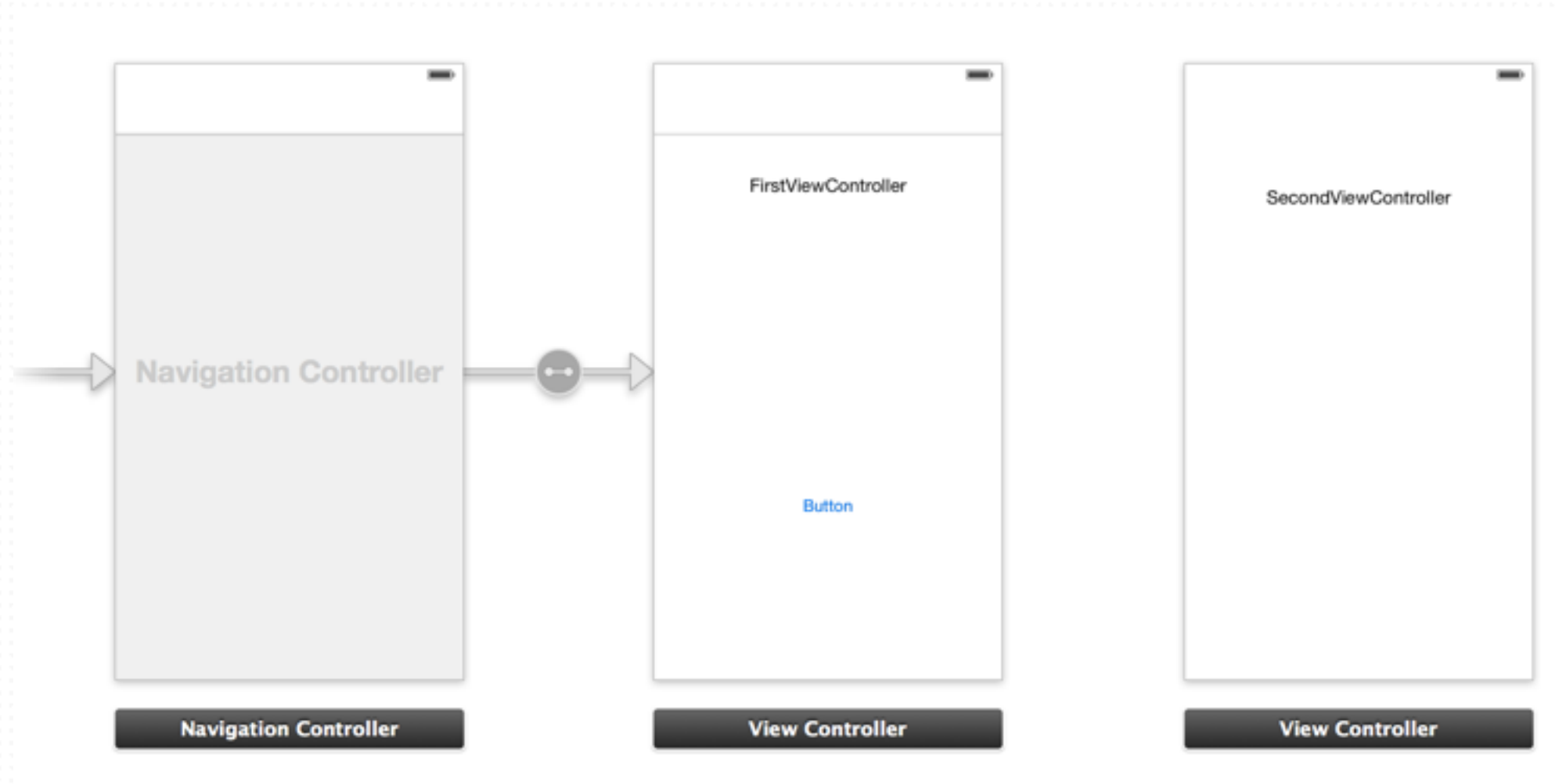
Navigation Controller is put in front of View Controller by default



# Navigation Controller

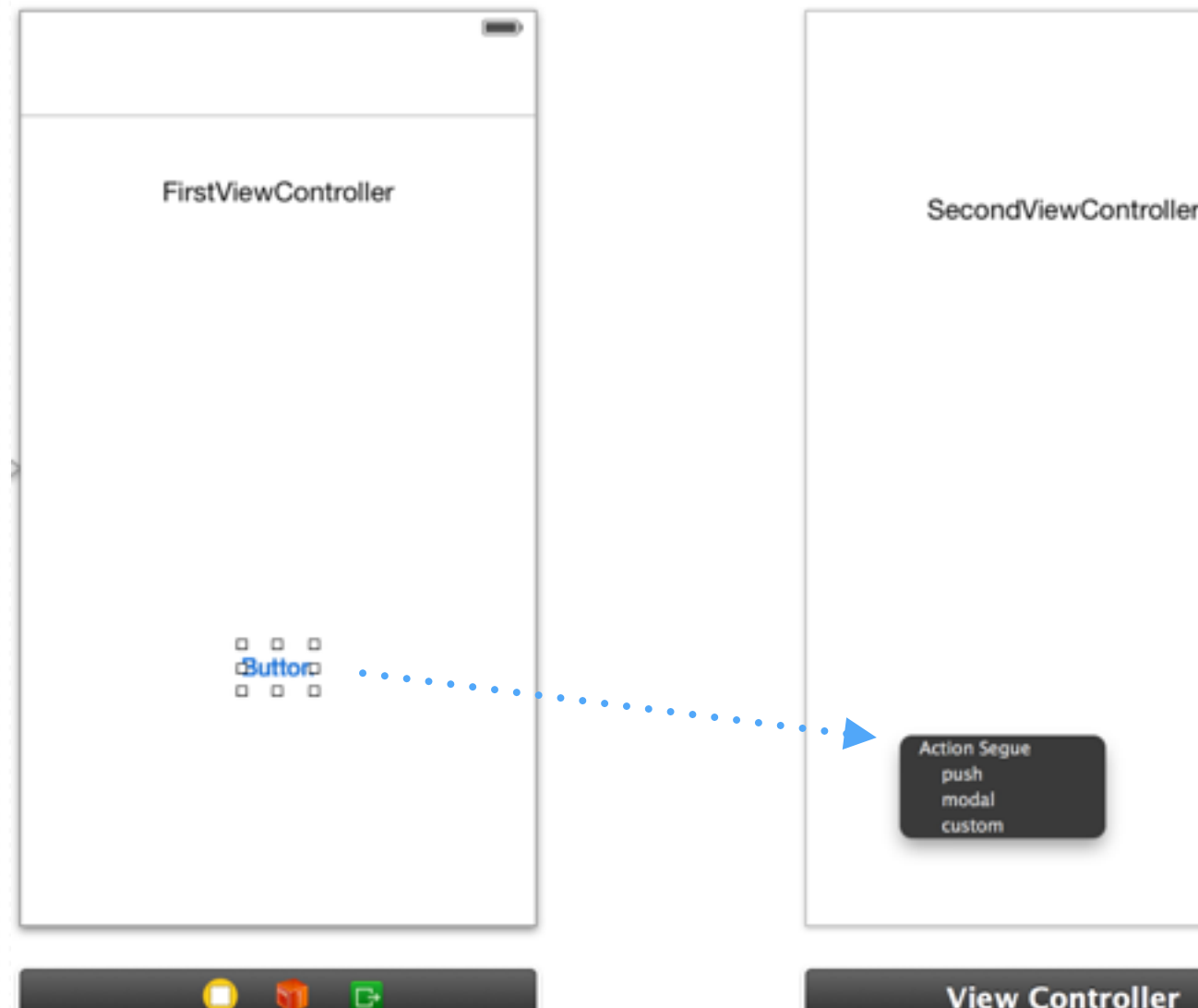
- First View Controller (View Controller) transit to Second View Controller(View Controller)
  - ✓ Create a button
  - ✓ Create a new View Controller (Give a label name Second View Controller)

# Navigation Controller



Create a new view controller

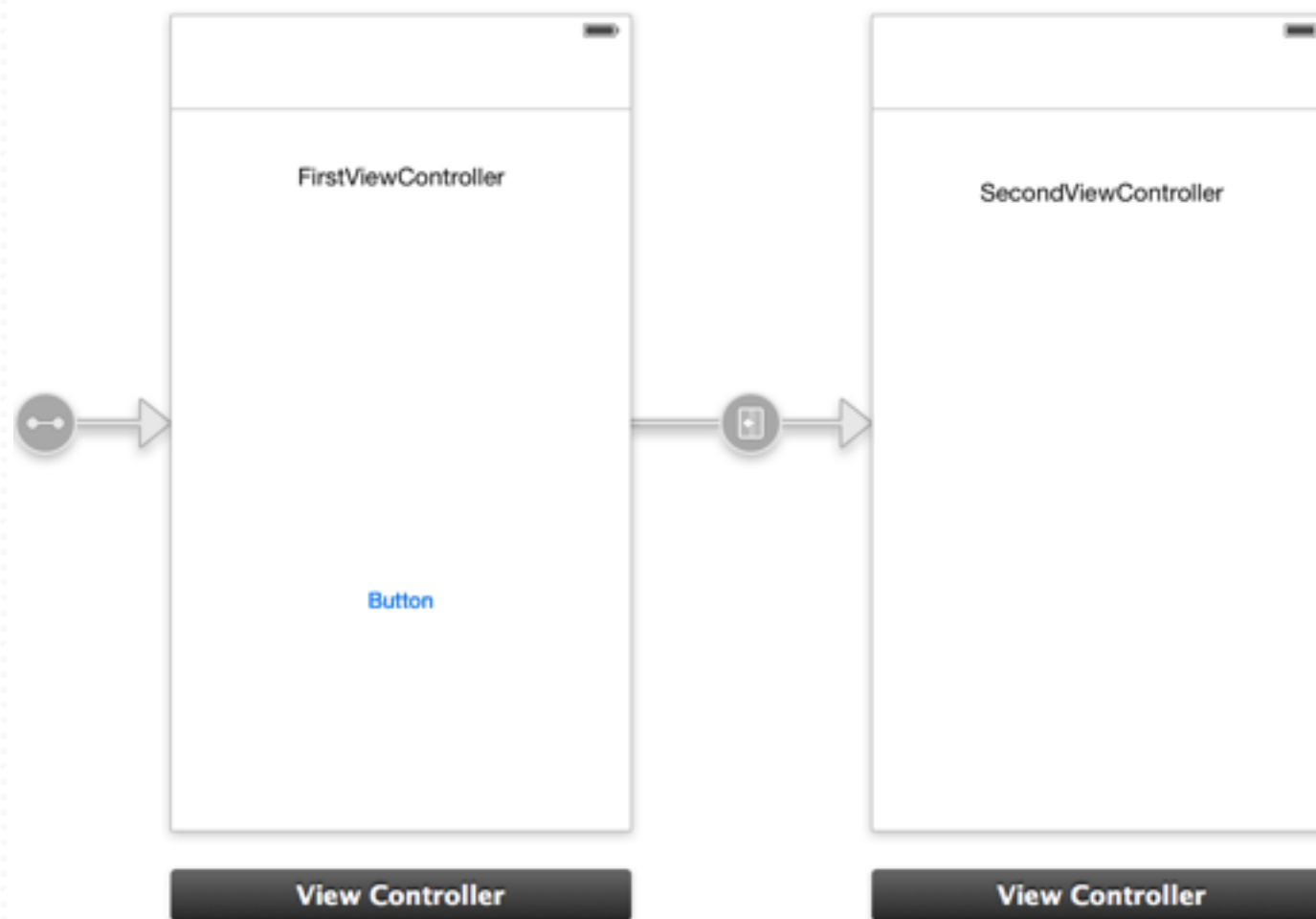
# Navigation Controller



Drag (press control + click on button + drag) a button to Second View Controller

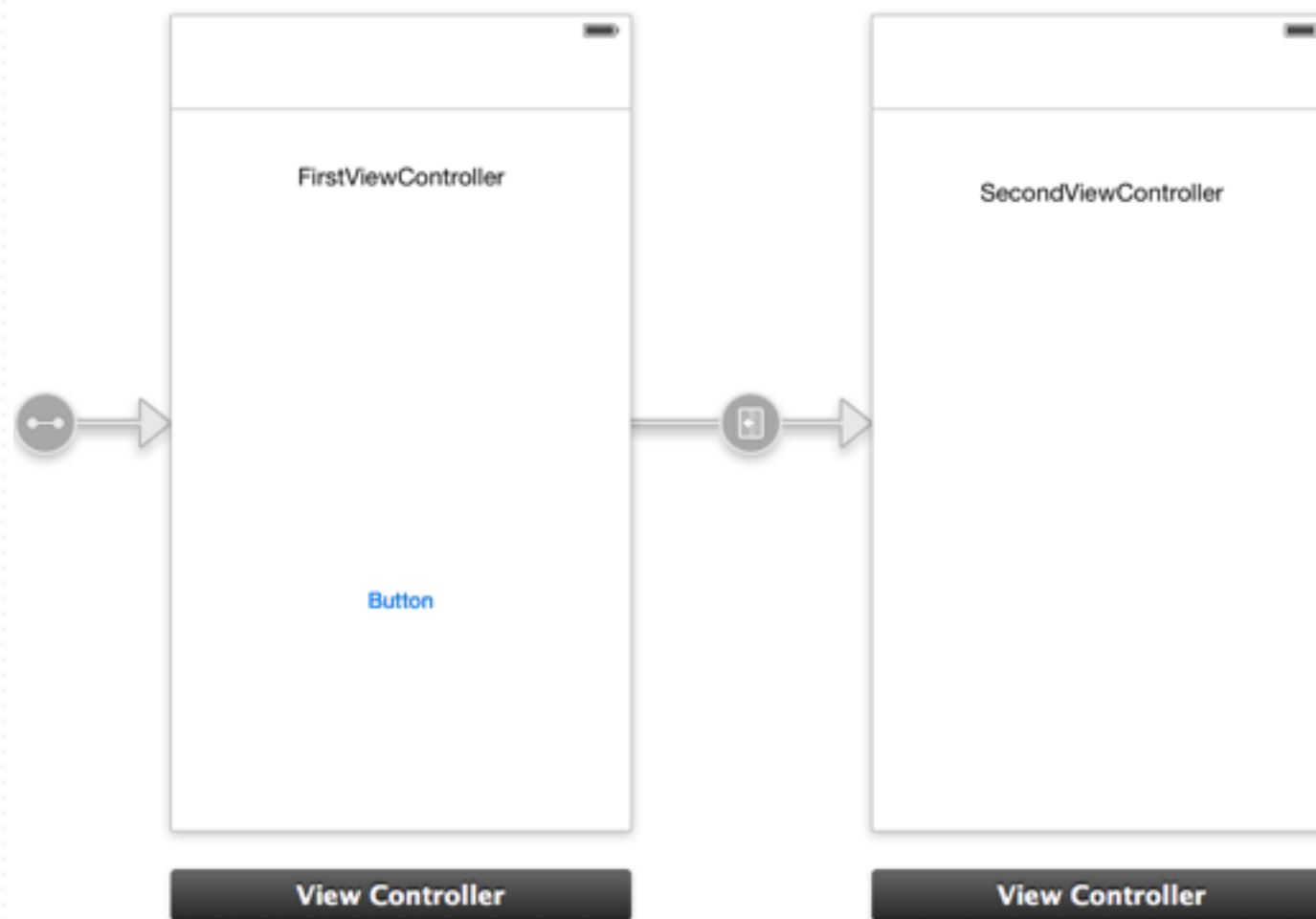


# Navigation Controller



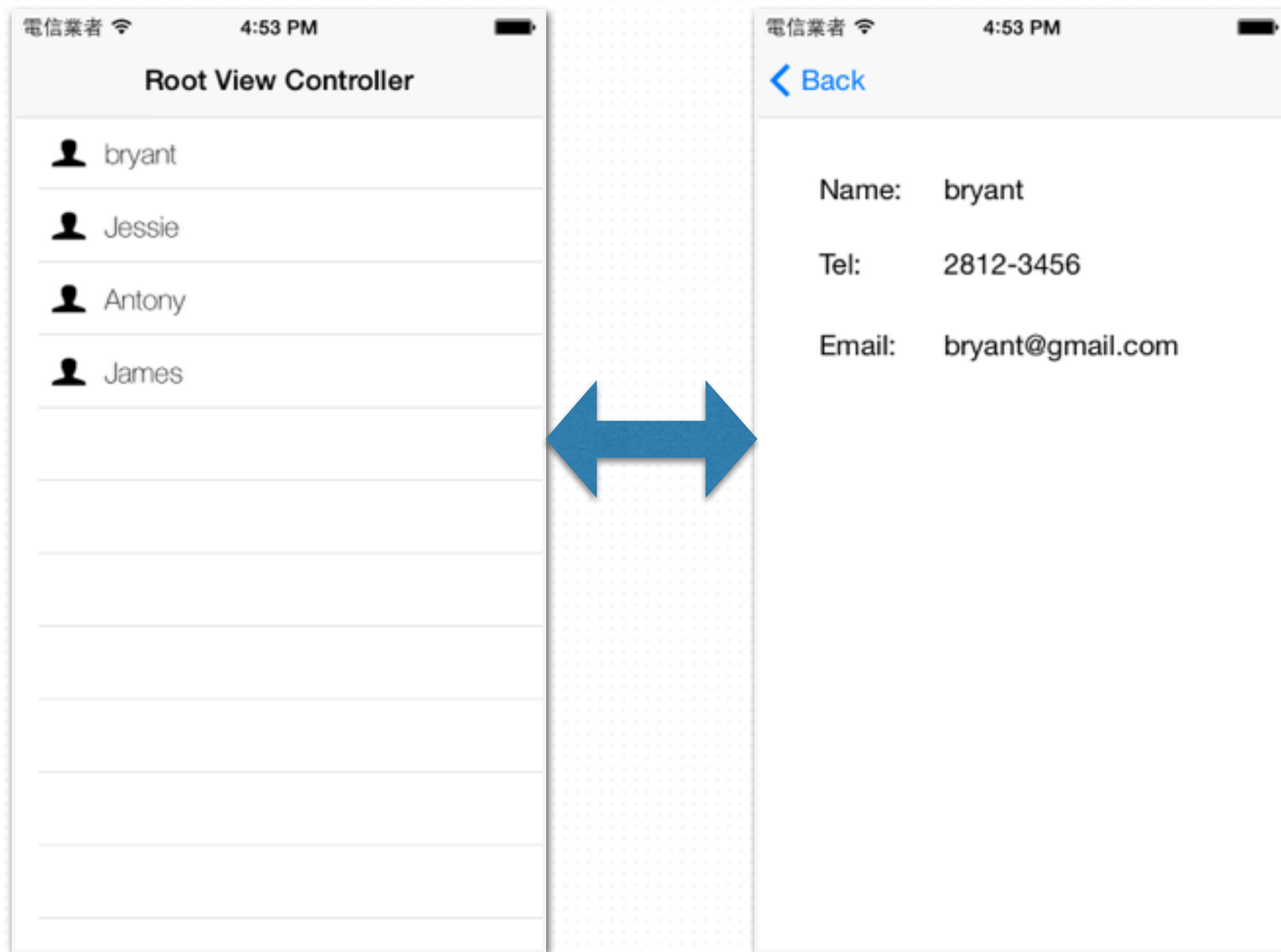
create a transition relationship between First View Controller and  
Second View Controller

# Navigation Controller



create a transition relationship between First View Controller and  
Second View Controller

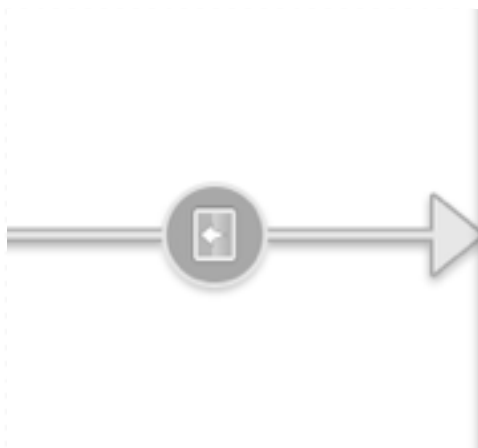
# Navigation Controller



Cooperates with table view controller

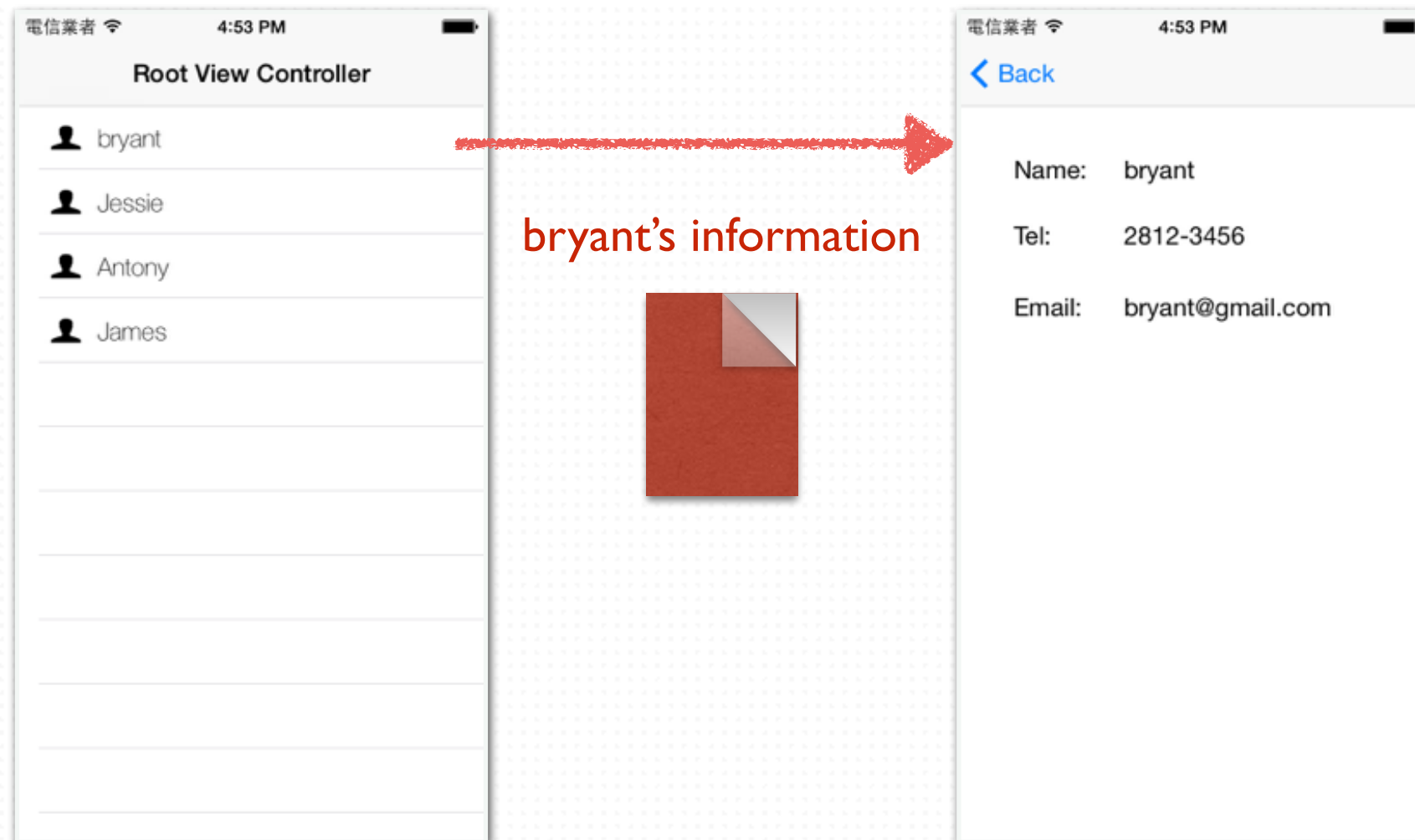
# Navigation Controller

- Connection between to view controller: **Segue**
  - ✓ Push
  - ✓ Modal
  - ✓ Custom

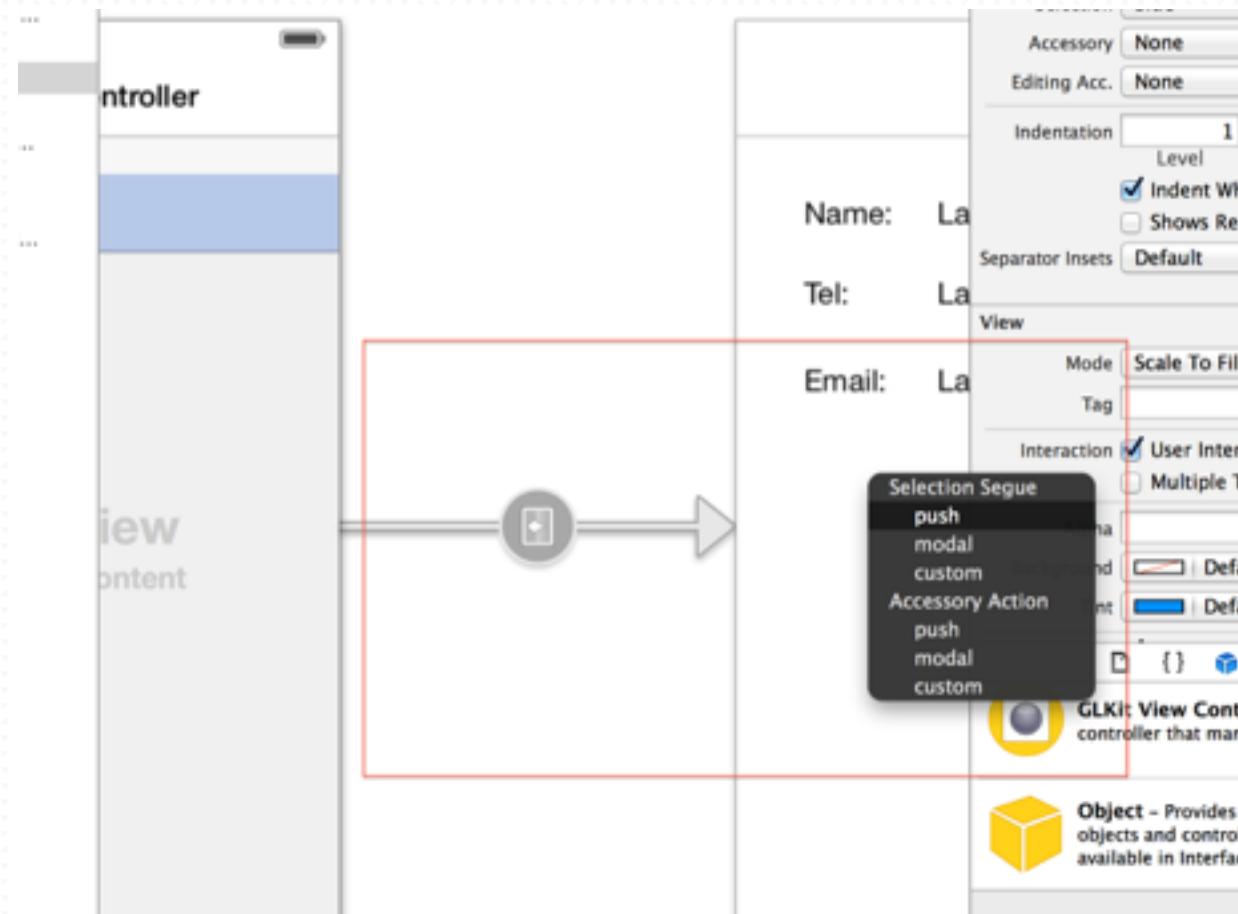


# Navigation Controller

- Passing data from first view controller to second view controller by using segue

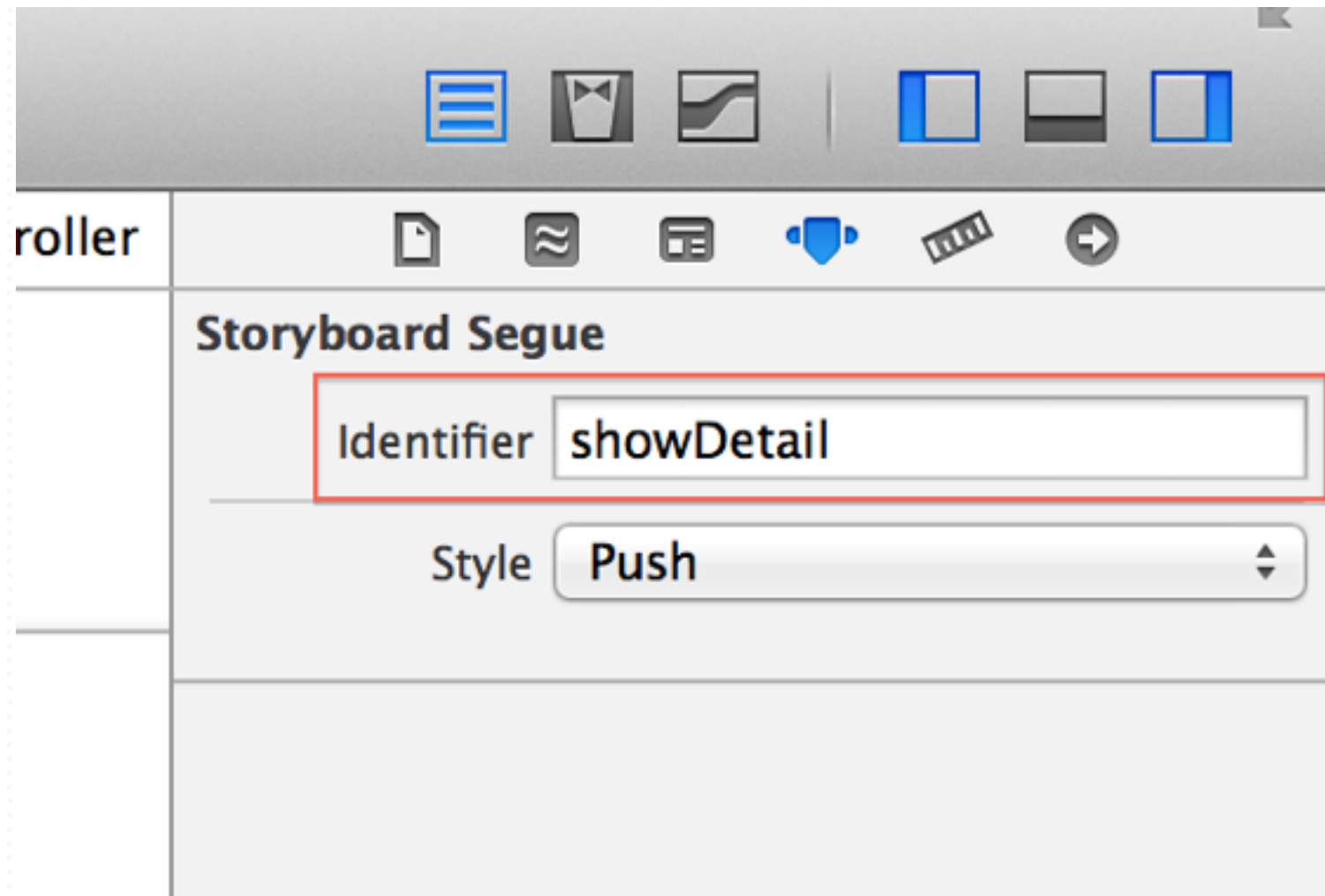


# Navigation Controller



- Construct connection between two view controller

# Navigation Controller



- To control segue you have to assign an id to segue identifier (unique)

# Navigation Controller

```
-(void)prepareForSegue:(UIStoryboardSegue *)segue sender:(id)sender {  
    if ([segue.identifier isEqualToString:@"showDetail"]) {  
        UIViewController *destViewController = segue.destinationViewController;  
        destViewController.property = value;  
    }  
}
```

- Tell segue to transmit data to second view controller



# View Lifecycle

# View Lifecycle

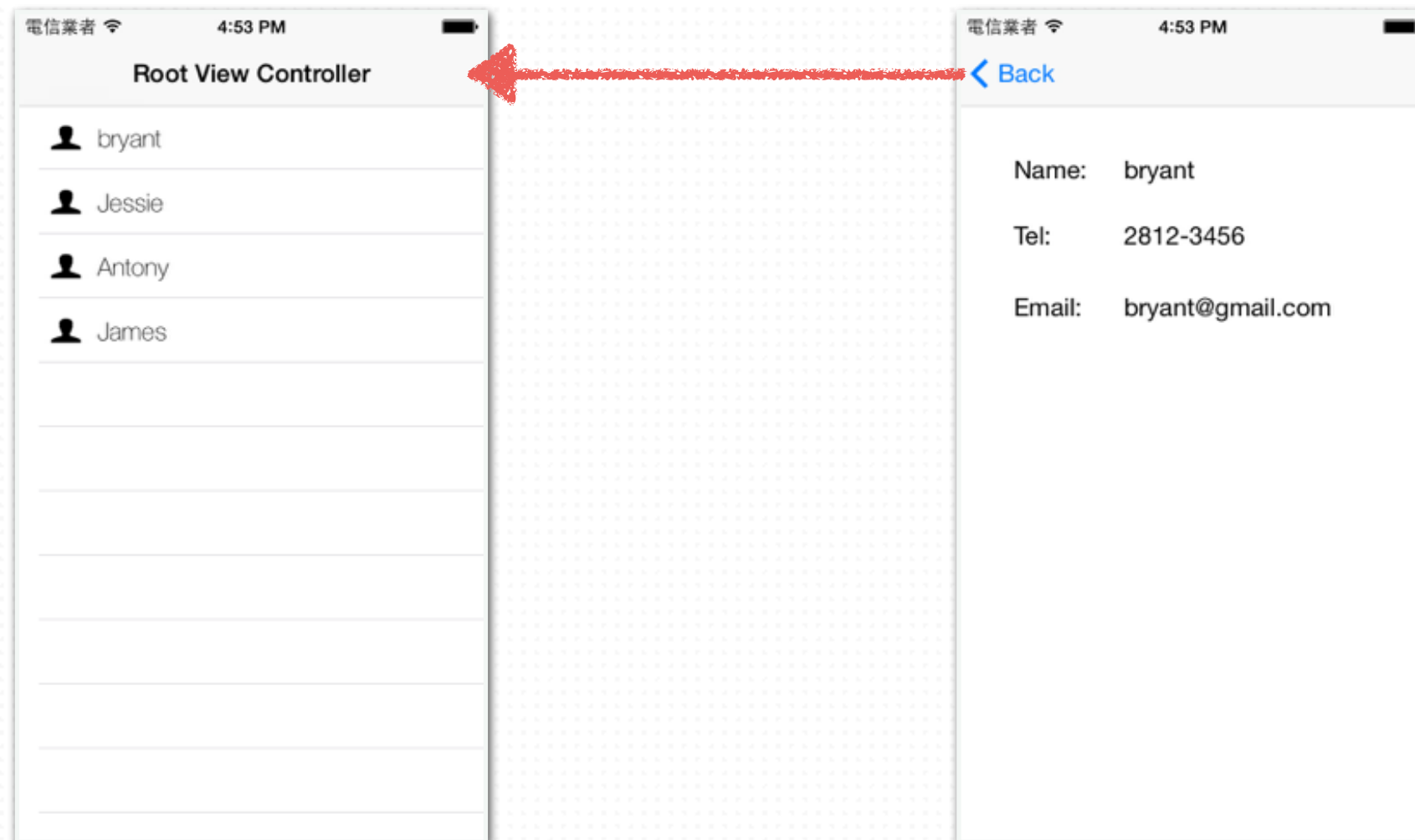
- viewDidLoad
- viewDidUnload
- viewWillAppear:
- viewWillDisappear:



Handle by **ViewController**

# Example

- What view cycle would process after pop from children view?

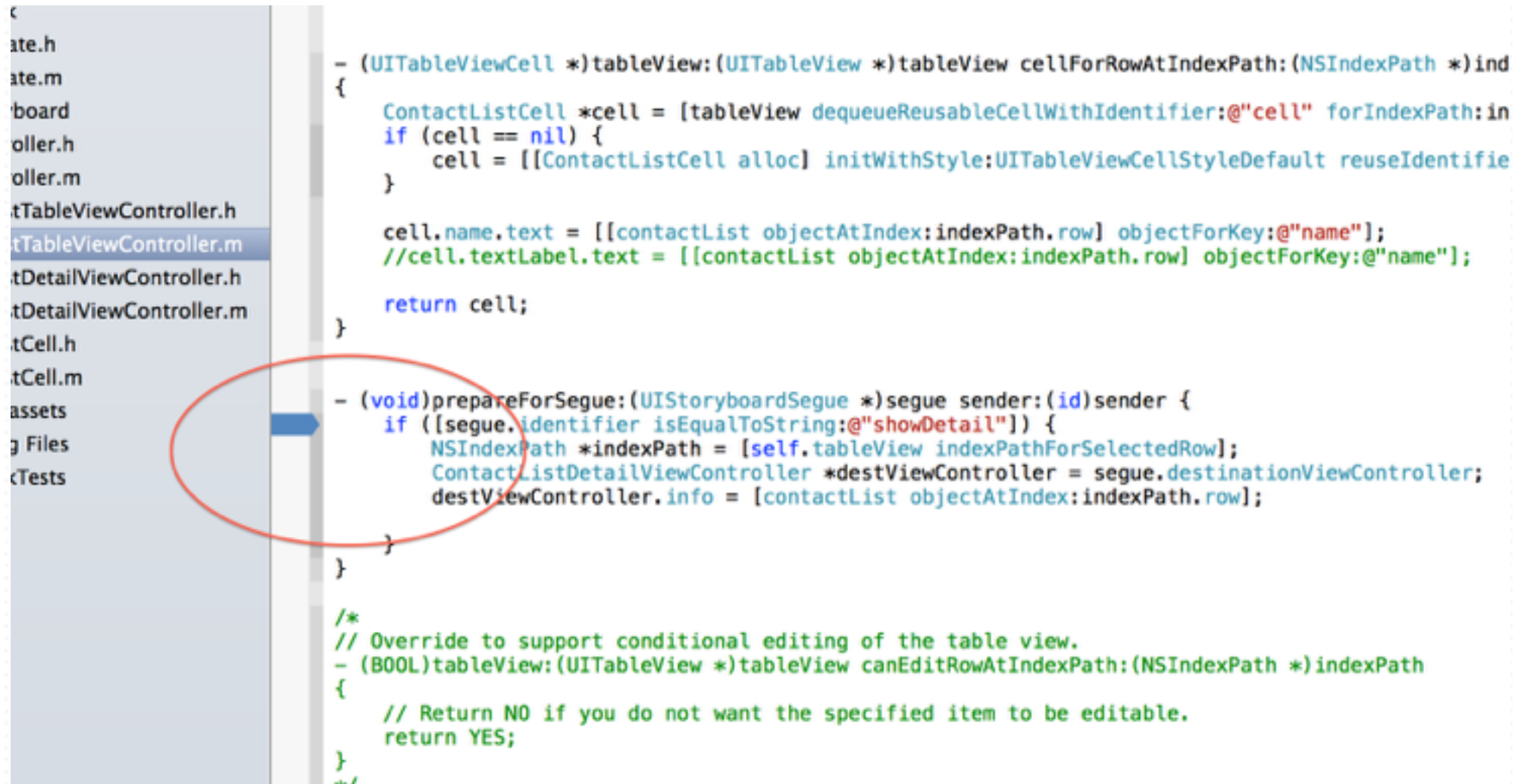


Debug mode

# Debug mode

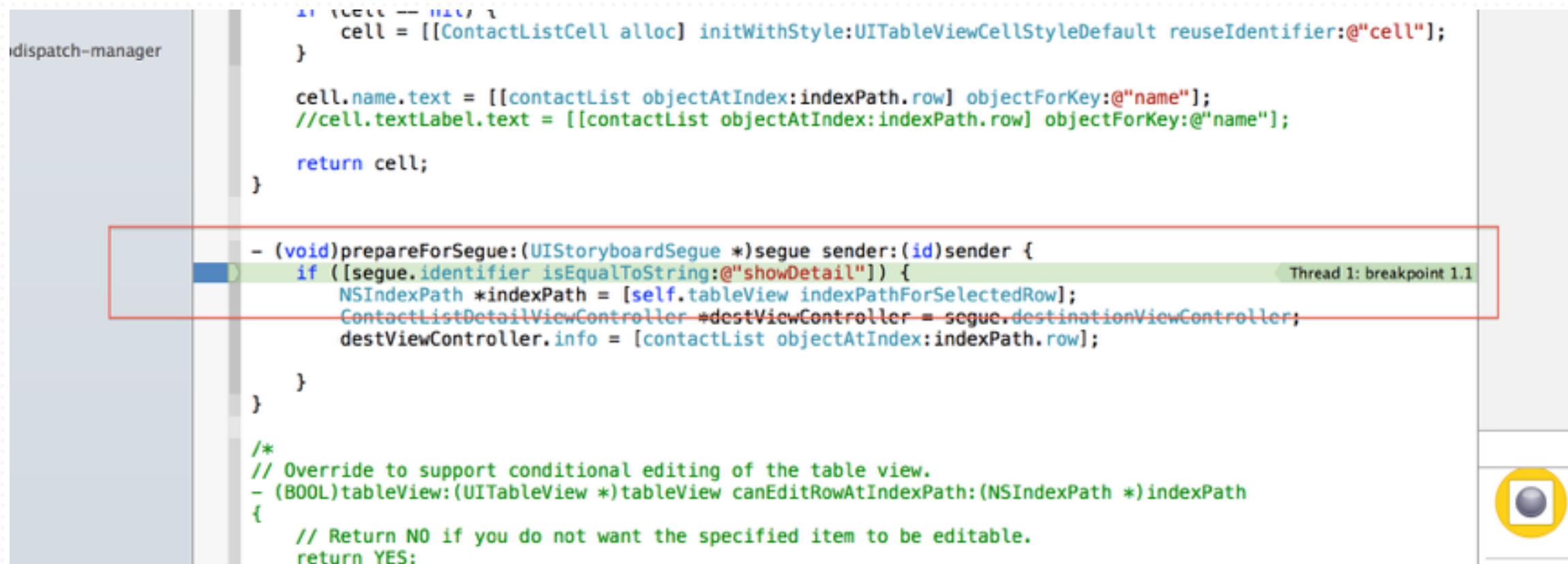
- The way to find the bug more effectively
  - ✓ Process check
  - ✓ context check
  - ✓ logic check

# Debug mode



Enable debug mode: click the space on the left of code line

# Debug mode



The screenshot shows a Swift code editor with a breakpoint set on the line `if ([segue.identifier isEqualToString:@"showDetail"])` within the `prepareForSegue` method. A red box highlights the entire `prepareForSegue` method. The code is as follows:

```
dispatch-manager

- (UITableViewCell *)tableView:(UITableView *)tableView cellForRowAtIndexPath:(NSIndexPath *)indexPath {
    UITableViewCell *cell = [[UITableViewCell alloc] initWithStyle:UITableViewCellStyleDefault reuseIdentifier:@"cell"];

    cell.textLabel.text = [[contactList objectAtIndex:indexPath.row] objectForKey:@"name"];
    //cell.textLabel.text = [[contactList objectAtIndex:indexPath.row] objectForKey:@"name"];

    return cell;
}

- (void)prepareForSegue:(UIStoryboardSegue *)segue sender:(id)sender {
    if ([segue.identifier isEqualToString:@"showDetail"]) {
        NSIndexPath *indexPath = [self.tableView indexPathForSelectedRow];
        ContactListDetailViewController *destViewController = segue.destinationViewController;
        destViewController.info = [contactList objectAtIndex:indexPath.row];
    }
}

/*
// Override to support conditional editing of the table view.
- (BOOL)tableView:(UITableView *)tableView canEditRowAtIndexPath:(NSIndexPath *)indexPath
{
    // Return NO if you do not want the specified item to be editable.
    return YES;
}
*/
```

Thread 1: breakpoint 1.1

In debug mode



# Homework

- A Contact book with different cell style