Passing Data Between Views (Swift 4.0, iOS 11)
App #3: US Founding Fathers

PART 2. Use the Model-View-Controller architecture to complete your app.

<u>**MODEL**</u> (set up for data source)
Create a Foundation class to hold the president object.
File/New/New File/Cocoa Touch class
You should name your class, "President," which is a subclass of NSObject

Structure your President class according to a dictionary in your property list.
Example - see the *Park.swift* file of the *RushUSNParks_Plist_iOS11* project.

<u>**SETUP VIEWS**</u>
From the object library in the *main.storyboard* file, delete the default ViewController and add the following new view controllers.
A **TableViewController** for the list/table cells. Each prototype table cell must contain the following elements:
- Cell image (UIImage) — image of the president
- Cell title (UILabel) — name of the president
- Cell subtitle (UILabel) — years in office

Embed a **Navigation Controller** as the initial view controller, which is the root view controller to the TableViewController.

A **ViewController** for displaying details of a selected cell (i.e. president)
The view associated with this view controller must contain the following elements.
- Navigation bar item is the selected name of the president from the TableViewController.
- The image of the president.
- The title of the president.
- The political party of the president.
- The president's spouse name.
- An info light system button (place near the bottom right corner of the view) to link to the AboutViewController

A **ViewController** for displaying information about your app, which includes following elements.
- A textview to show the author name, description of the app, and the app's version number (Version 1.0 for this app).
- A button named, "About Author." Clicking this button takes the user to the AuthorViewController.

A **ViewController** to displaying your author view as you did in the previous assignments. This view associates with a web view that displays an internal webpage about the author.

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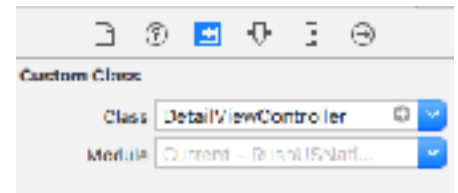## App #3: US Founding Fathers

SETUP CONTROLLERS

You will need to create several custom classes for the views that you setup.

Create Cocoa Touch custom classes for the appropriate views on the storyboard.
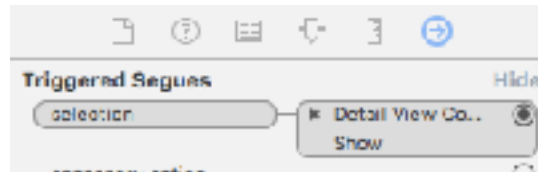File/New/New File

- A PresidentViewController class as a subclass of UITableViewController.
- A TableViewCell class as a subclass of UITableViewCell.
- A DetailViewController class as a subclass of UIViewController.
- An AboutAppViewController class as a subclass of UIViewController.
- An AboutAuthorViewController class as a subclass of UIViewController.

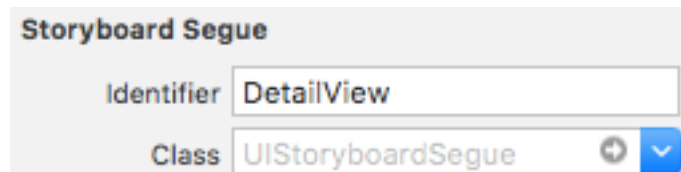In the main.storyboard, do the following:
Link each of these custom classes to its corresponding view controller — Identity Inspector (class). For example, review the *RushUSNParks_Plist_iOS11* project.

Connect the TableViewCell to the DetailViewController.

Assign a unique Storyboard segue identifier between the TableViewCell and the DetailViewController.

Connect necessary IBOutlets and IBActions to the appropriate view controller files.

Prepare the **DetailViewController.swift** to receive data from the TableViewController — See *RushUSNParks_Plist_iOS11* project for sample code.

Add code in the **TableViewController.swift** file to accomplish the following tasks:
- Locate and read your President plist and load each dictionary item in your plist into an object of the President class that you defined earlier.
- Indicate the number of sections in the table view (return 1) for this project.
- Indicate the number of rows (count of the number of objects in the President class.)
- Configure the tableview cell with the elements you defined.
- Prepare to send data to the detail view.

See sample code in the *RushUSNParks_Plist_iOS11* project.