the Master Course

{CODENATION}

Introduction to iOS development

{CODENATION}

{CODENATION}

Learning Objectives

To be able to set up the Xcode IDE for iOS development.

To be able to use the Interface Builder to design and create an app.

iOS

What is an iPhone?

A lovely system to work with.

{CODENATION}

iOS

Apple have an IDE to develop apps for its platform: XCode.

{CODENATION}

iOS

Xcode makes it super easy to design layouts for our apps.

{CODENATION}

iOS

Over this week, we are looking at:

- The interface builder to design an app.

- The Swift programming language, and how to connect the code files we write to our designs.

{CODENATION}

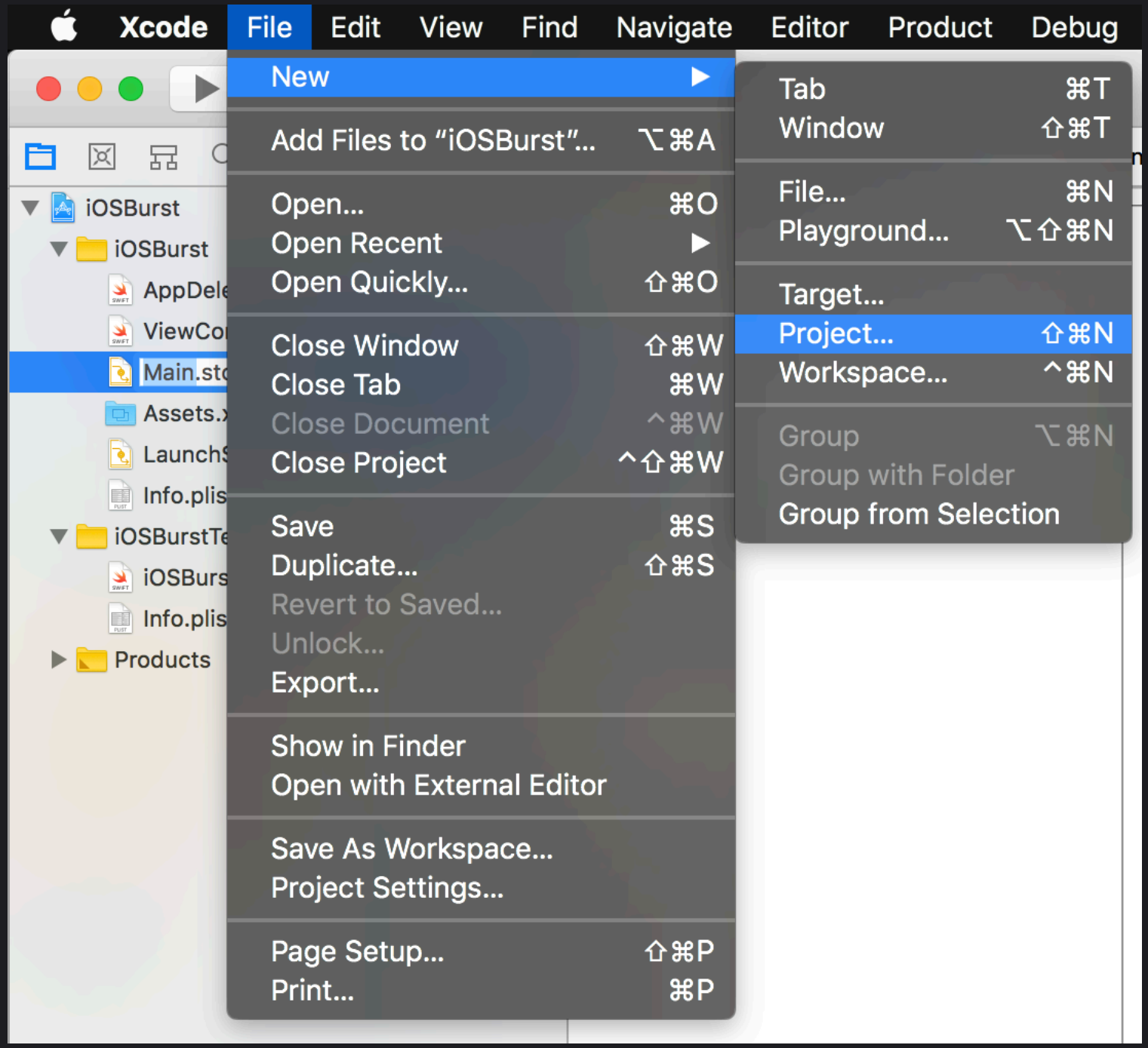
First lets have a tour of XCode!

Fire it up.

XCode has a really cool Interface Builder.

This allows you to storyboard your app and design each screen or 'view'

It has a library of different view types, let's have a look at some.



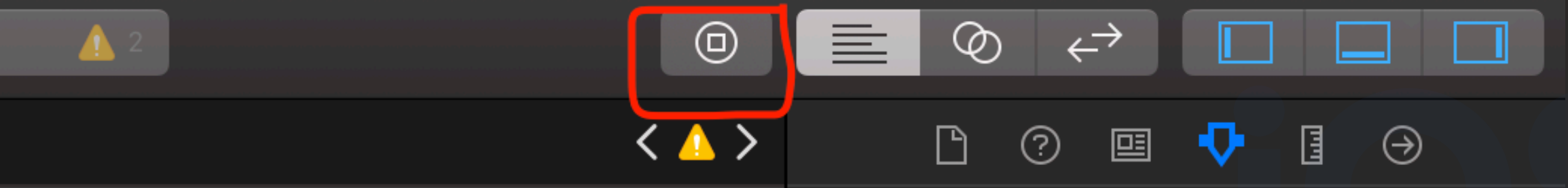
file > new > project

Select a single view app.

{CODENATION}

iOS

You'll start with a basic view controller with an arrow pointing at it. This arrow tells the iPhone to load this screen first (but we can change this at any time!)



Open up the Object library (top right).

Let's take a look at what we can drag on.

iOS

There are lots of different view controllers in the object library, as well as buttons, sliders, image views etc.

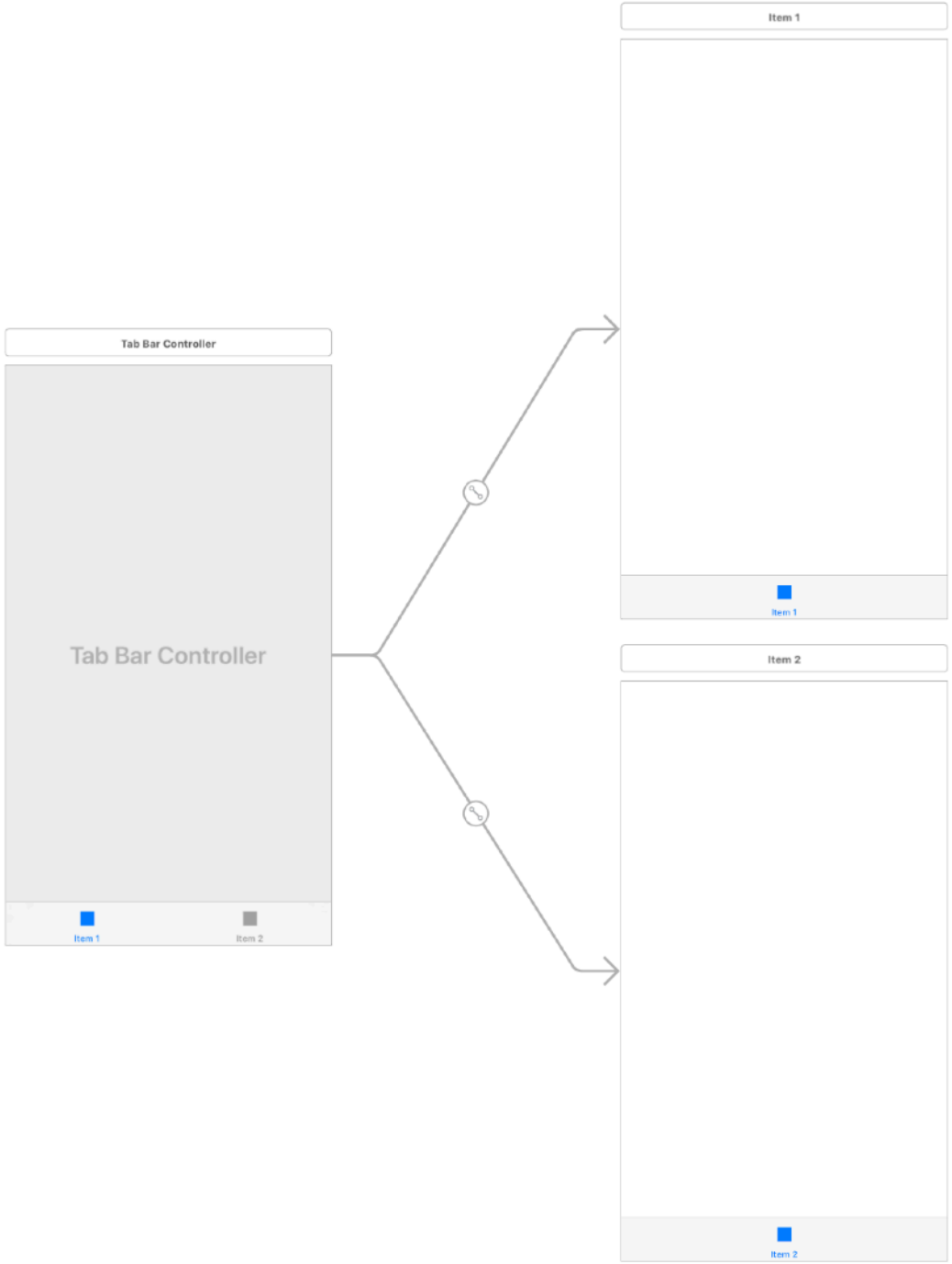
{CODENATION}

You can delete view controllers by simply clicking on them and hitting backspace.

At the moment we have a standard view controller. We can add buttons, images and other things to it (all found in the object library).

Tab bar controller

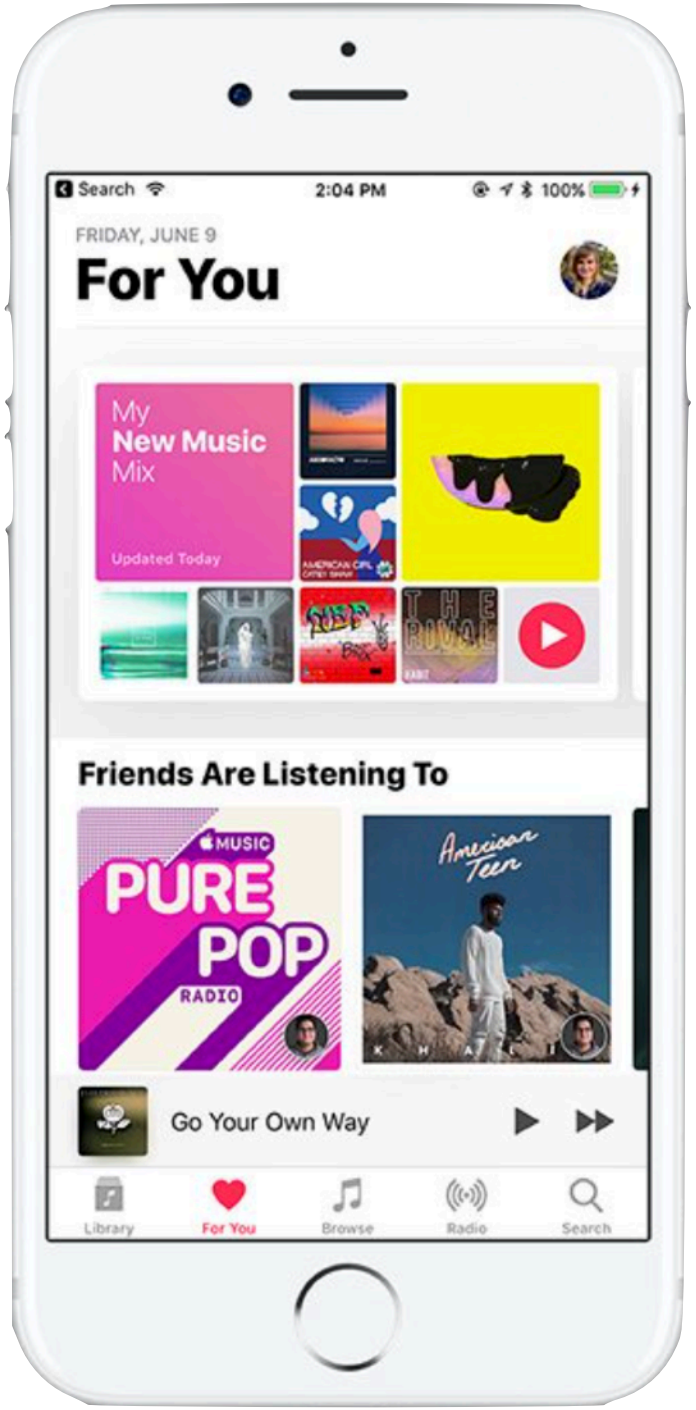
Delete the default view controller, search for a tab bar controller in the object library and drag it on.



iOS

Do you recognise this kind of view?

{CODENATION}



iOS

Do you recognise this kind of view?

{CODENATION}

Navigation controller

If you connect your views to a navigation controller, each of your views is given a nav bar. This automatically generates a back button for you.

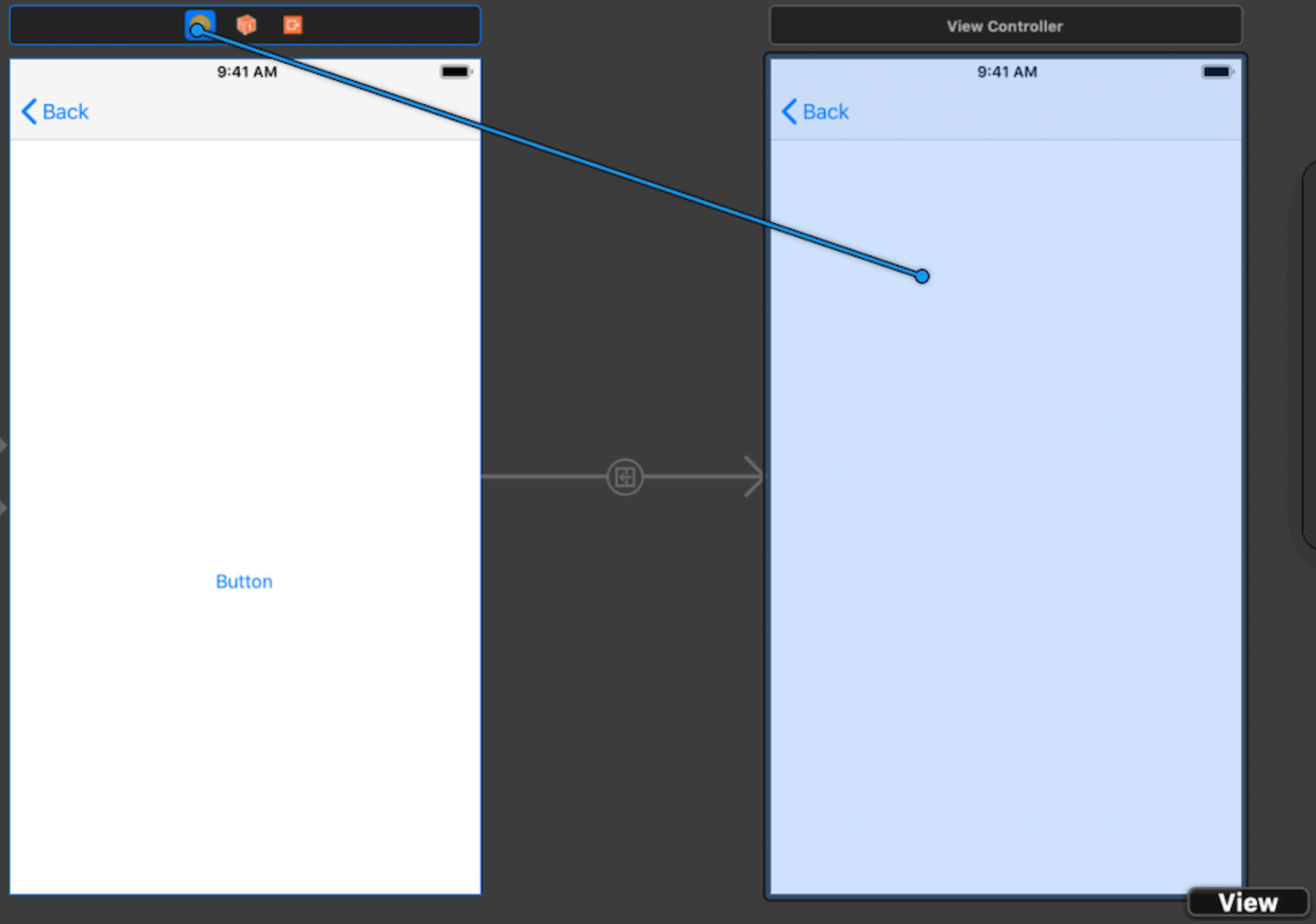
Task:

Delete your current views and tab bar controller. In the object library, select a navigation controller and drag it onto your storyboard.

Delete the table view controller that comes as default, and add two standard view controllers.

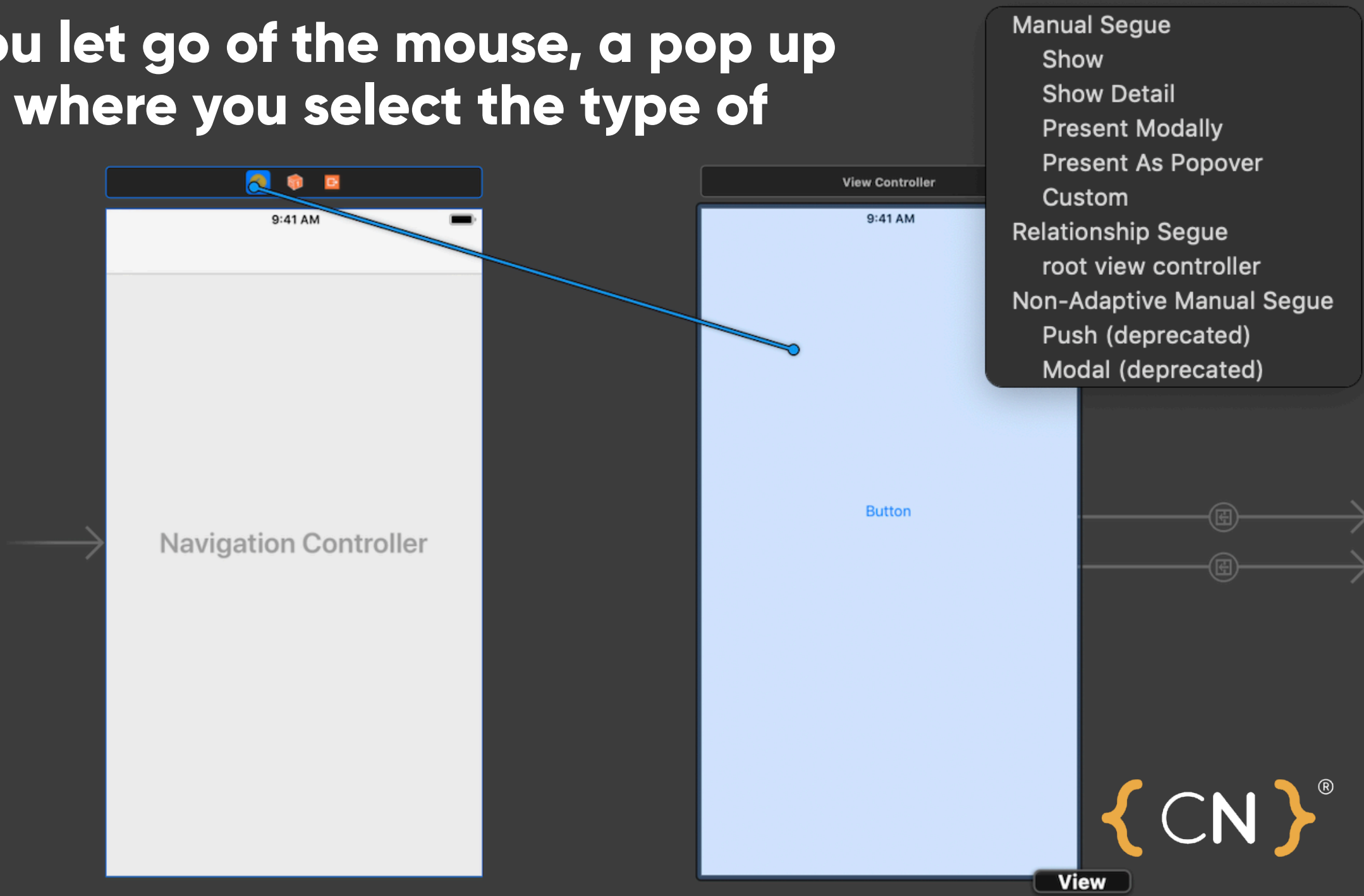
Connecting view controllers is dead easy.

Press control, click, and drag to the second view



- Manual Segue
  - Show
  - Show Detail
  - Present Modally
  - Present As Popover
  - Custom
- Non-Adaptive Manual Segue
  - Push (deprecated)
  - Modal (deprecated)

When you let go of the mouse, a pop up appears where you select the type of 'segue'.



For the first view controller after the navigation controller:
Select root view controller, because you want this one to be the first one shown.

If you are connecting second and third views, you can select how you want them to show. Just select show for now.

TASK:
Connect 3 view controllers to a navigation controller.

After connecting to the navigation controller, each view is part of the same navigation path. The navigation controller will automatically generate a back button.

But we still need a way to navigate forwards along our path.

TASK: Add a button to each of your view controllers. Connect them up in the same way you did before (Control + click + drag)

Run your app to see if it works.

Top Tip

Press the stop button once you've finished testing your app in the simulator.

Adding images to our apps

As there are lots of different sizes of iPhone, we need our images to cater for this.

In the navigation pane on the left hand side, open the Assets.xcassets folder.

This is where all your image assets will live! You can drag and drop them straight into here from your finder.

{CN}®

When you add an image there will be slots for a 2x and a 3x resolution image. So you should think of any images you add as image sets.

We can use a really cool website called appicon.co which will give us 3x our pictures for each screen size.

Task

Find an image and get the image set from appicon.co

Add them to Assets.xcassets

Back in Main.storyboard

Find the **ImageView** in the object library and drag it onto one of your views.

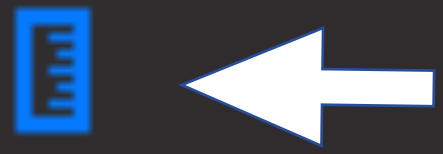
Click on the imageView and click on the attributes inspector in the utilities pane (right hand side).

In the image option, select your image.

In the **Content Mode** option, select **Aspect Fit**.

This will keep the image at the correct ratio.

You can resize and position your image using the mouse, or you can enter exact numbers in the size inspector.



Let's play.

iOS

Now is the time to mess around. Test things out. Have some fun with it!

Using what we've been through and the internet – design an app of your chosing.

{CODENATION}

Recap.

iOS

We took a tour of Xcode.

We looked at the different views available for our app and how we can use them in our designs.

We looked at adding and using images and how it's super easy to mock up an iPhone app.

{CODENATION}

Next...

We will dive into the Swift programming language.

{CN}®

Revisiting Learning Objectives

To be able to set up the Xcode IDE for iOS development.

To be able to use the Interface Builder to design and create an app.