

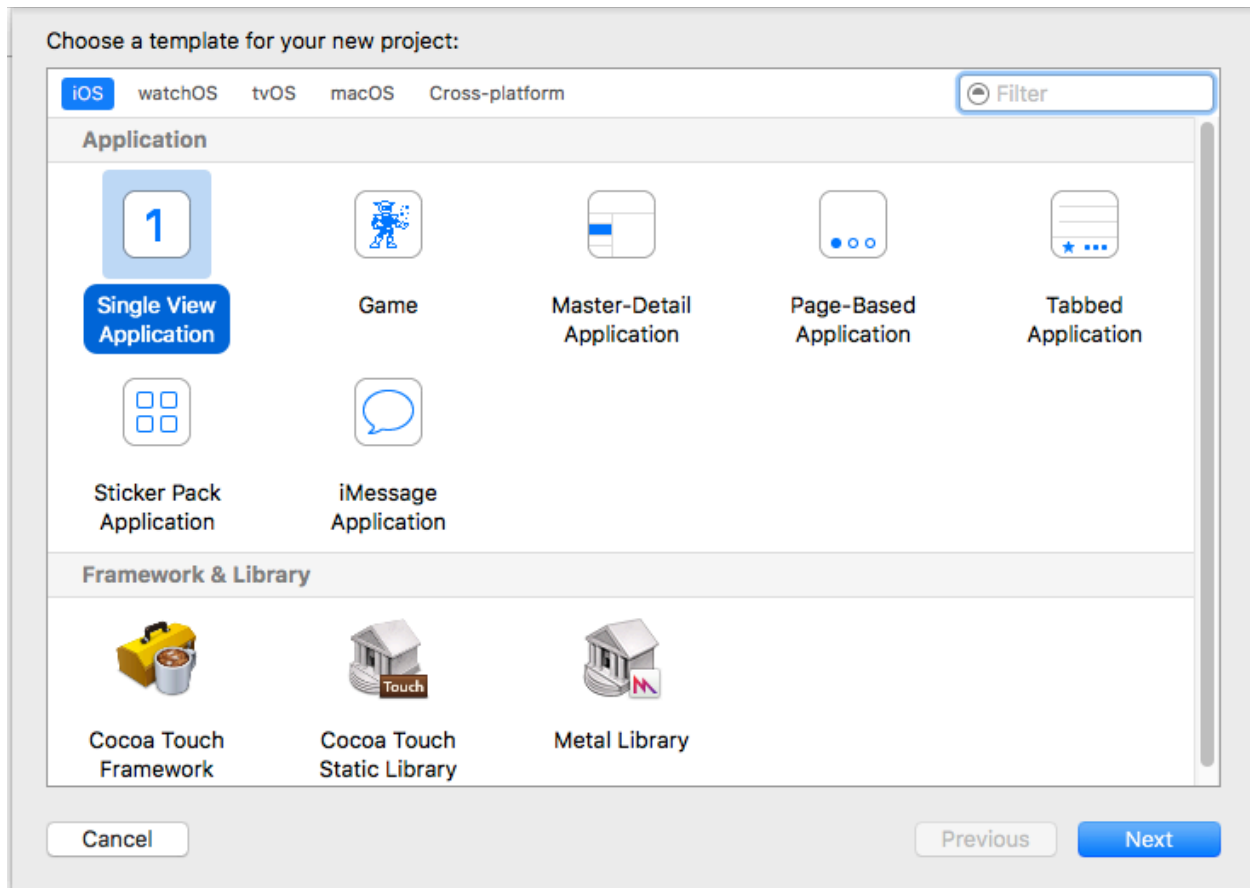
## Building “Hello World” — Your First iOS App

Hello World is a very simple program that displays a “Hello World” message on the screen. It is often the first program a programmer creates when learning a new language or a new system.

To build a “Hello World” iOS app, first launch Xcode. In the “Welcome to Xcode” window, choose "Create a new Xcode project" to start a new project.



Xcode shows various project templates for selection. Choose iOS > Single View Application and click Next.



In the “Choose options for your new project” window, fill in the options as shown in the screenshot, and then click “Next” to continue.

Choose options for your new project:

Product Name: HelloWorld

Team: None

Organization Name: Yanping Zhao

Organization Identifier: self.edu

Bundle Identifier: self.edu.HelloWorld

Language: Swift

Devices: iPhone

☐ Use Core Data

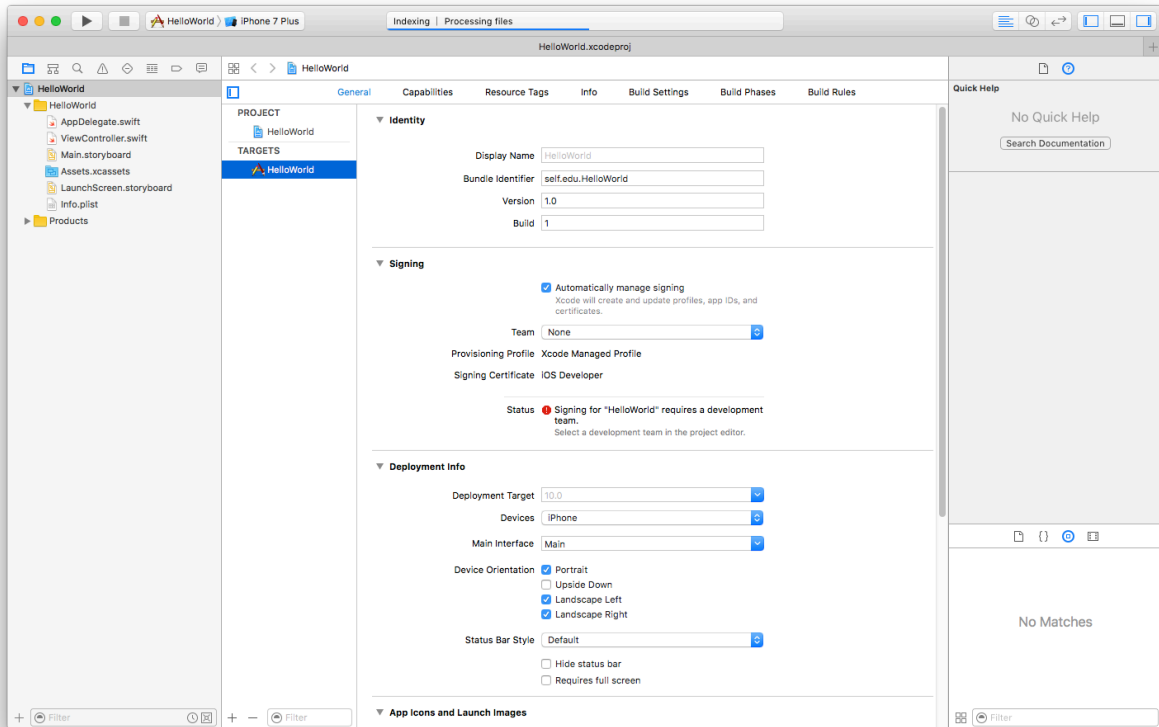
☐ Include Unit Tests

☐ Include UI Tests

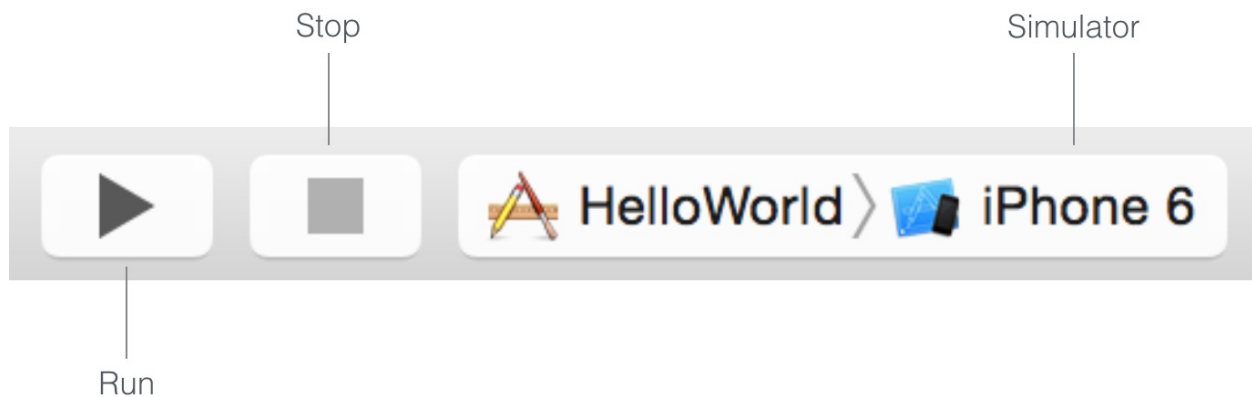
Cancel Previous Next

Xcode then asks you where to save the "HelloWorld" project. Pick any folder (e.g. Desktop) on your Mac. You may notice there is an option for source control. Just deselect it. Click "Create" to continue.

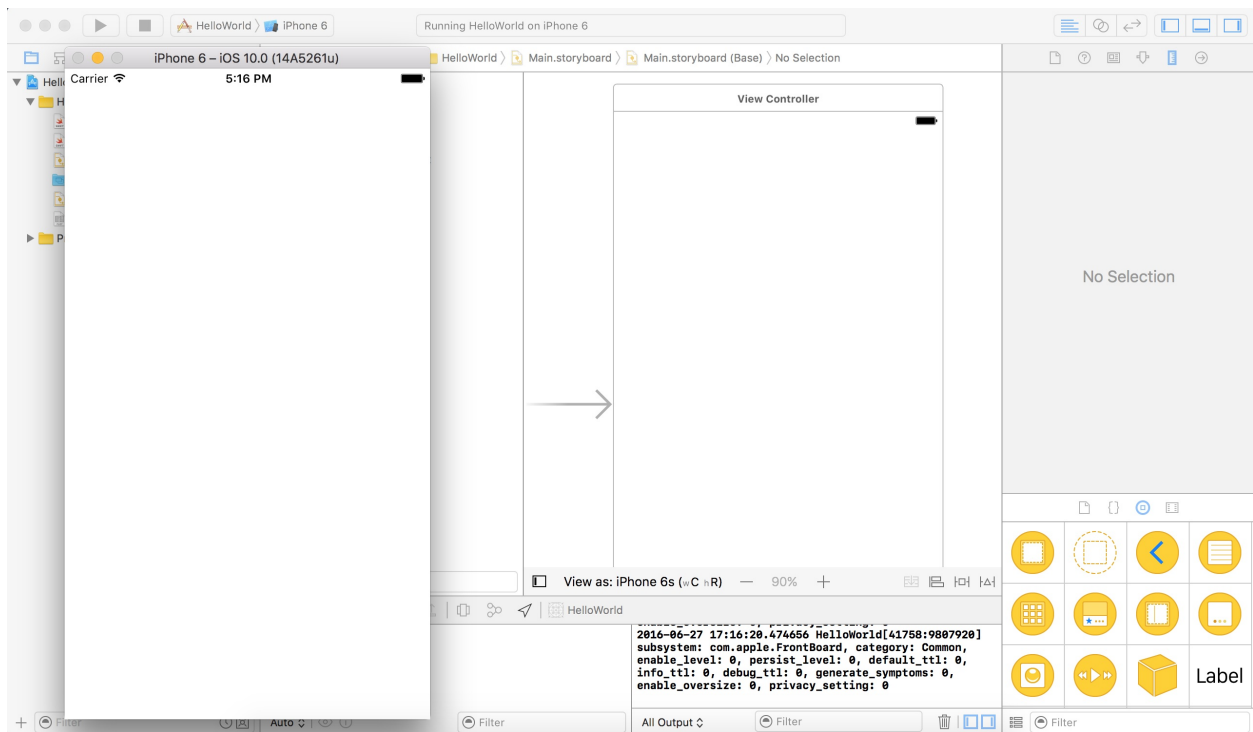
Xcode then automatically creates the "Hello World" project. Your screen should look like the screenshot shown below.



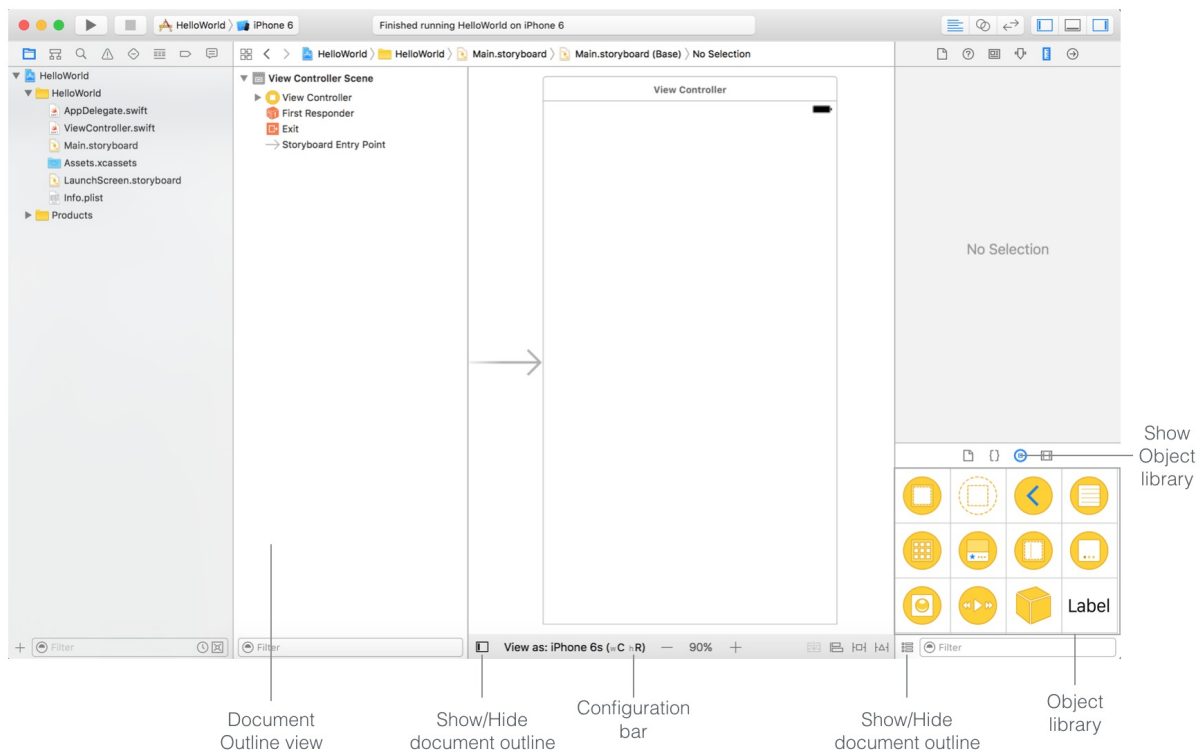
Even though you haven't written a single line of code, you can already run your app using the built-in simulator. In the toolbar at the top-left corner, choose the simulator to be "iPhone 6".



Click the Run button to load your app in the Simulator. The figure below shows the simulator of an iPhone 6. You should see a white screen.



Now, let's add a button to the screen. In the project navigator, select the Main.storyboard file. Xcode will bring up a visual editor for storyboards, known as Interface Builder.



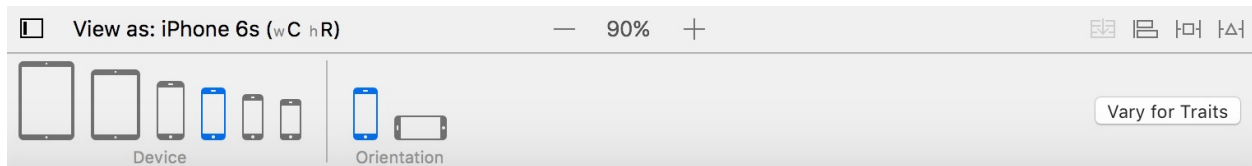
In the Interface Builder, the Object library at the lower right pane contains all the available UI objects such as button, label, image view for you to design your user interface.

You should see a view controller in the editor area. This view controller is where you design the app's user interface. Each screen of an app is usually represented by a view controller. Interface Builder allows you to add multiple view controllers to the storyboard and link them up.

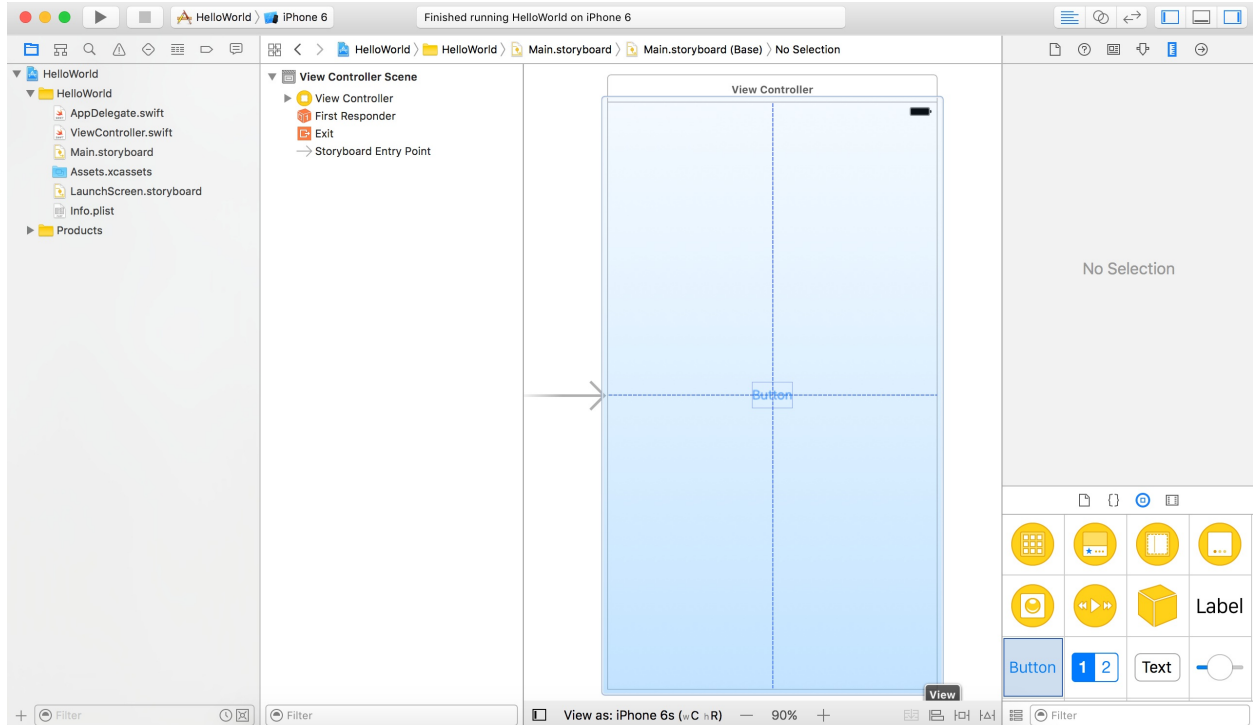
The Document Outline view of the Interface Builder editor shows you an overview of all scenes and the objects under a specific scene. The outline view is very useful when you want to select a particular object in the storyboard.

Lastly, there is a configuration bar in the Interface Builder. To reveal the bar, place the mouse cursor on View as: iPhone 6s , and then single-click on it. The configuration bar is a new feature in Xcode 8 that lets you live preview your app UI on different devices.

Furthermore, you can use the + and - buttons to zoom in/out the storyboard.



Now, drag a Button object from the Object library to the view. As you drag the button, you'll see a set of horizontal and vertical guides if the button is centered. Stop dragging, and release your button to place the Button object there.



Next, double-click the button and name it “Hello World”. After the change, you may need to center the button again.



Select the iPhone 6/6s simulator and hit the Run button to run the project, you should see a Hello World button in the simulator as shown below.

