



iOS Development with Swift2

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About the Tutorial

iOS (formerly iPhone OS) is a mobile operating system created and developed by Apple Inc. exclusively for its hardware. It is the operating system, which presently powers most of the mobile devices. The most popular ones include the iPhone, iPad and iPod Touch.

In this tutorial, we will be covering some basic to advance concepts of iOS, after which you will find yourself at an intermediate level in iOS development.

Audience

This tutorial is designed for programmers who want to understand the iOS Application development using the Objective Swift Programming Language. In this tutorial, we will be implementing and Learning at the same time.

This tutorial is intended to make you comfortable in getting started with iOS Development with Swift and its various functions.

Prerequisites

Before proceeding with this tutorial, you should have a basic understanding of Computer Programming terminologies. A basic understanding of any of the programming languages, especially Swift language, which will help you learn the concepts of iOS programming faster, (though not compulsory as we are going to cover every concept).

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1. iOS Development with Swift 2 – Xcode IDE

To develop iOS applications, you need to have an Apple device like MacBook Pro, Mac Mini, or any Apple device with OS X operating system, and the following:

- **Xcode:** It can be downloaded from – <https://developer.apple.com/downloads/>. You need an Apple developer account, which is free of cost.
- **Simulator:** This is your virtual iPhone/iPad (iOS Device), installed on your Computer, so you do not need to install this separately.

About Xcode

Xcode is the default IDE (Integrated Development Environment) provided by apple for iOS/OS X Application Development. It is an IDE that includes everything you need for developing iOS, OS X, Watch OS, TV OS Applications, etc.

To Run Xcode, you must have:

- A Mac Device Running OS X, i.e., Apple's official Operating System.
- Apple ID (Free of Cost): To download the IDE.

Installation

To install Xcode in your device, follow the subsequent steps. Skip if you have already installed.

- Go to the App Store, Login if you have not already, search for Xcode. Click on Get and Install.
- Once Downloaded, go to Applications or Launchpad and Run your application.
- On the First Run, it might ask for some additional Downloads, let it download everything, enter password if it asks for.

Once all this is done, the Welcome Screen will appear as shown below.



2. iOS Development with Swift 2 – First Application

In this tutorial, we will be learning some of the elementary concepts of our iOS development, which include –

- Making a New Project
- Features of our IDE
- Navigating through the IDE
- Adding a Label to your View
- Running the application
- Adjusting the simulator according to your comfort.

If you are a beginner, then this tutorial is going to be of immense help.

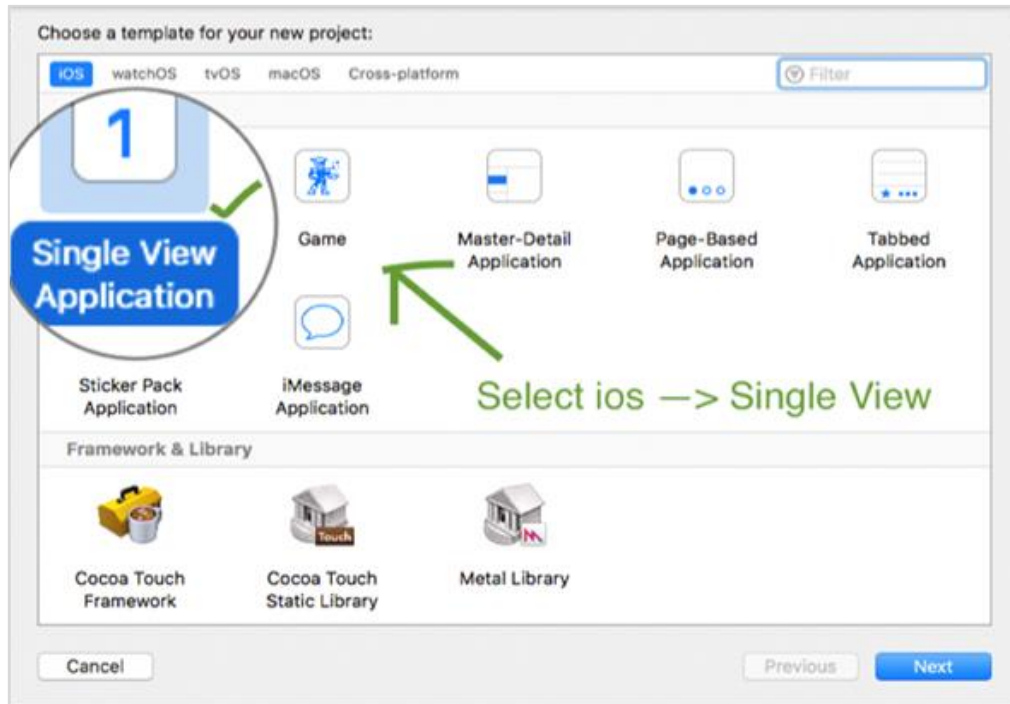
Creating a New Xcode Project

To create a new Xcode Project, we should follow the steps given below.

Step 1: Click on the Xcode icon in your Launchpad, then select **Create a new Xcode project**.



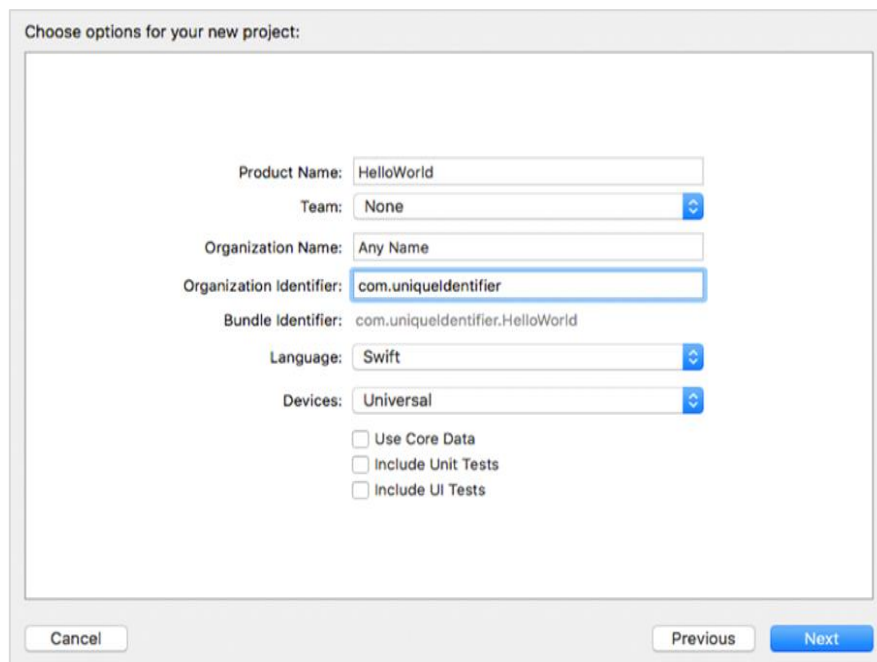
Step 2: Select iOS and then select Single View Application, click on Next.



Step 3: The subsequent screen that comes up will have a few fields to fill. The following points explain how to fill each of these fields.

- Enter the Project Name – it can be a name resembling your project.
- The Team Field can be left empty for now. It is used when we make an application in the team.
- The organization name is the name of your organization or if it is your personal project, you can name it anything. It does not matter until you want to publish your app on the app store.
- Identifier is generally a unique identifier for your application, which must not match any other app on the app store (only when you choose to upload your app on app store).
- Language will be Swift, device will be universal, and all other options will be unchecked for now.

Once all the details are filled, click the Next button.

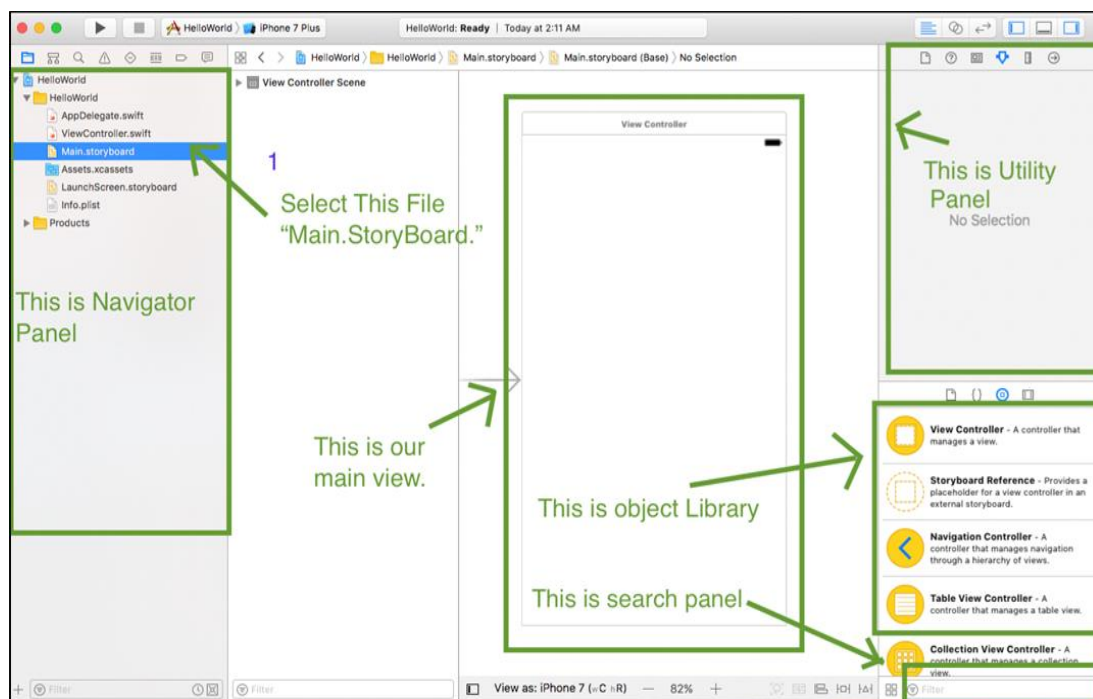


Step 4: Select the location where you want to store the project. Let “Create Git Repository” checkbox be unchecked for now, as we do not need it right now. Click on Create.

Congratulations! Your project has been created.

Navigation through Xcode Environment

Click on the **Main.storyboard** option inside your navigator panel. This will bring up the main view, which will appear when the application runs.

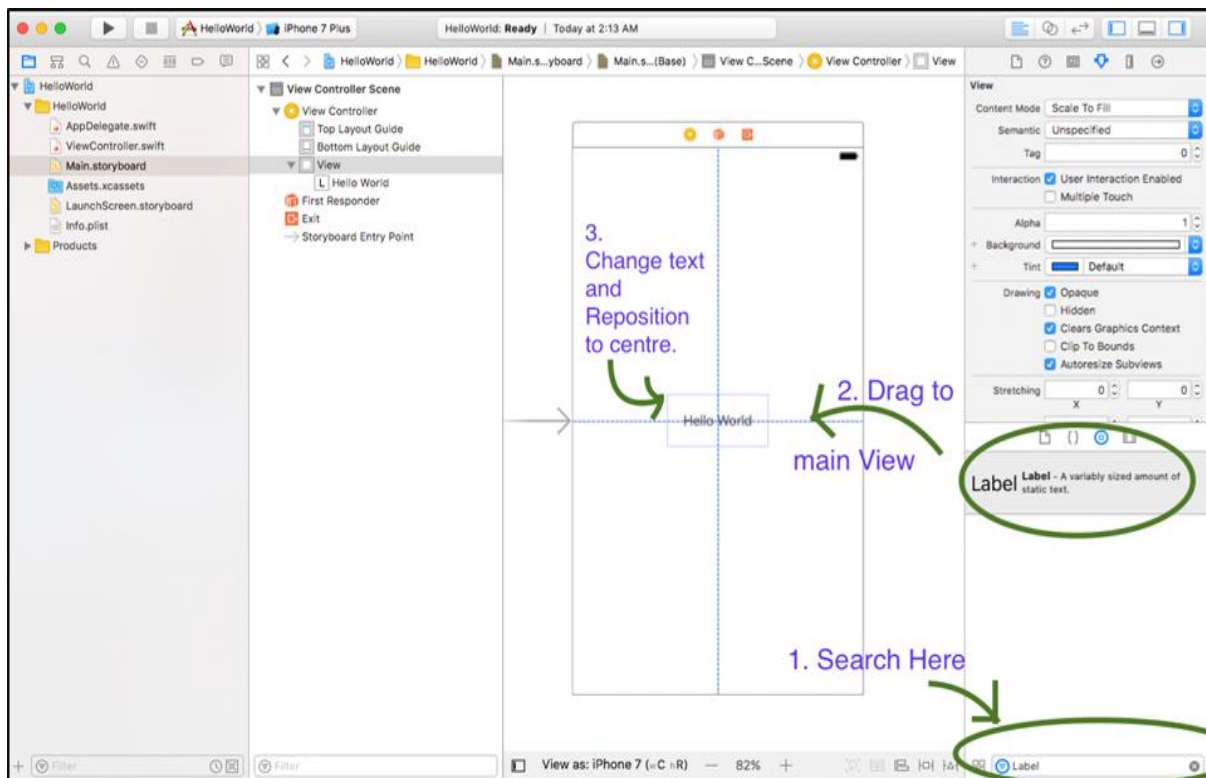


Adding Labels

In the right bottom corner of your screen there is a search bar. Type label in that search bar and press return.

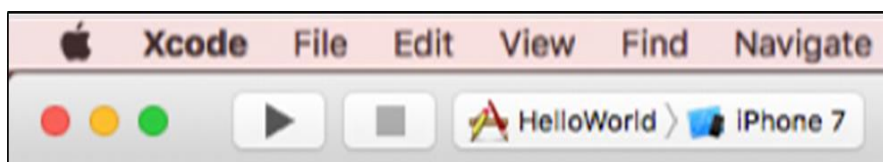
- After searching the Label drag and drop the Label to your main view. Double click on the label text and Type "Hello World".
- Drag the label to the center of the view, when the label is exactly in the center, two lines intersecting at the center will appear.

Now your view should look like the following screenshot.

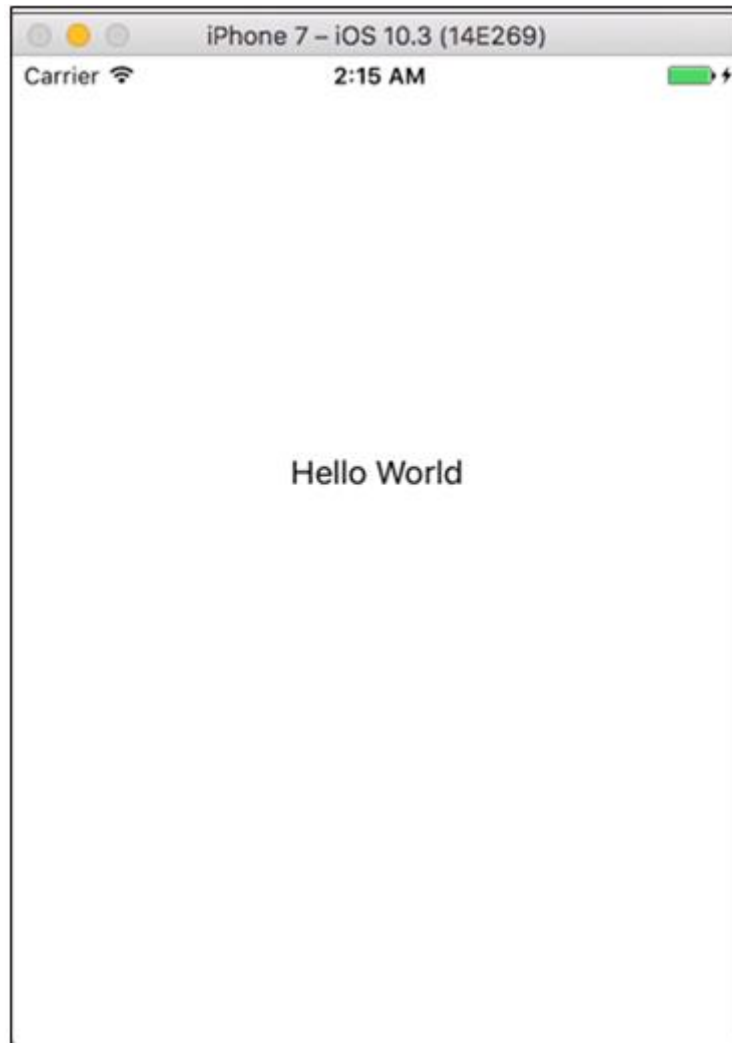


Running the Application

Select your device, click on the Play button at the top right corner.

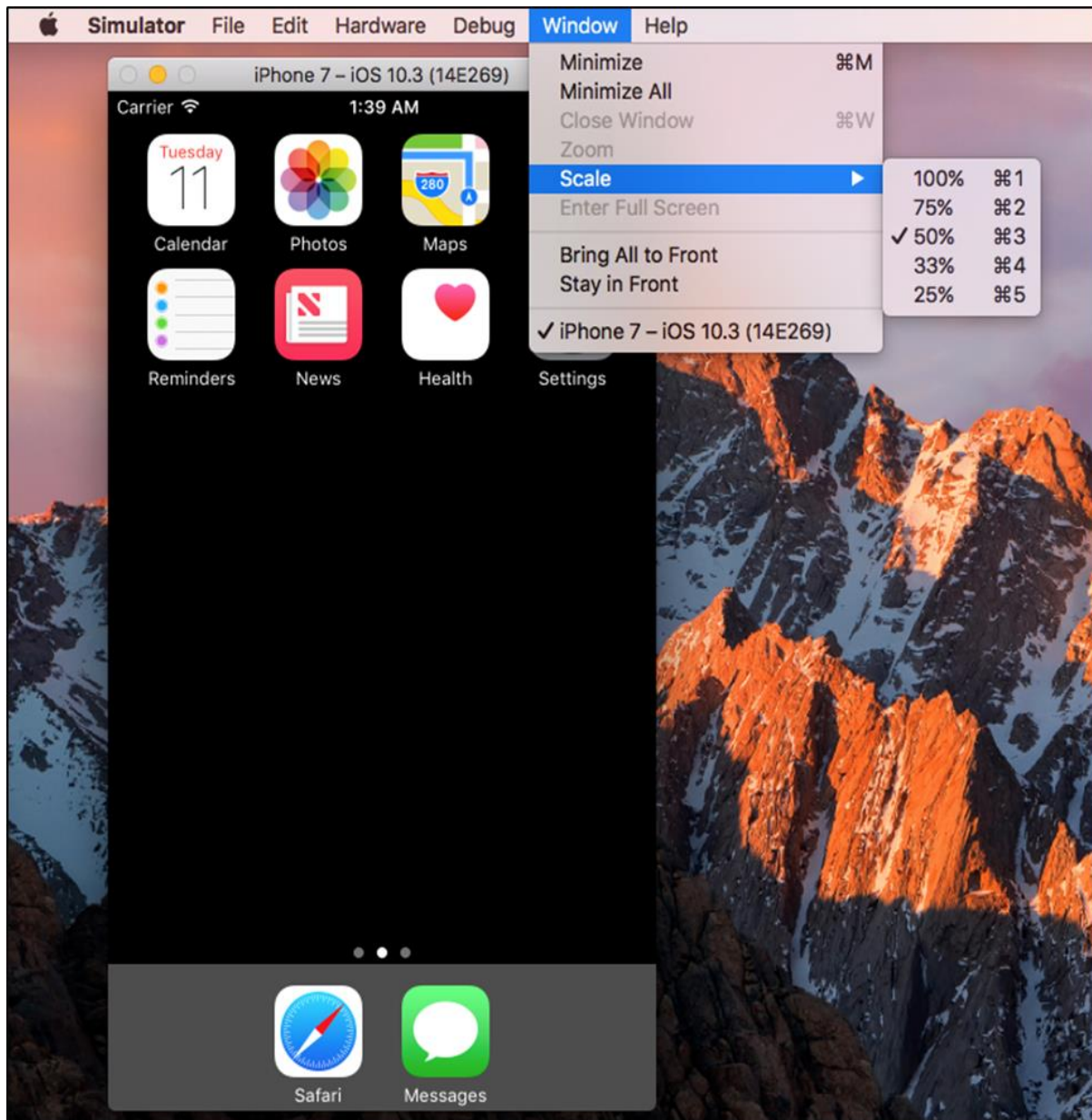


This is our final application, running on the iPhone 7 simulator.



Adjusting Simulator Properties

When we run our application for the first time, the screen of your simulator might not be fit for your desktop or laptop screen. So, while your simulator is running in the foreground, click on Window → Scale, and choose a Simulator Screen size percentage that will suit your display.



We will continue discussing about the simulator features, as and when we use them in this tutorial.

Well done, this was the First Application, which you completed successfully. Cheers!

End of ebook preview

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