

Introduction to iOS 11 SDK

Duration: 3 Days

Objectives

Learn how to build and run your first apps on iOS using the Swift programming language. Discover and learn common tools, technologies, interface elements, and design patterns used to build iOS apps. This 3-day, hands-on course is designed to teach you the skills you need to build iOS apps for iPhone and iPad. It includes detailed explanations of iOS technologies, hands-on use of Apple's development tools, and coding exercises in Swift that use common iOS frameworks. Upon completion of the Introduction to the iOS SDK, students will: Learn how to build native apps using the iOS SDK Learn how to use Xcode and the Simulator Learn how to use common navigation patterns and UI controls

Pre-requisites

Getting Started with iOS development videos: Learn about Apple's advanced mobile device hardware, the characteristics of modern apps, the iOS software development kit, Apple developer programs, and Apple's approach to security and distribution. Basic computer programming concepts: You should be comfortable with basic concepts of computer programming, including variables, strings, logic, and classes. You'll be expected to write code as part of the training. Introduction to Swift: From Playgrounds to Protocols, discover, explore, and demonstrate how to use the fundamental building blocks of the Swift programming language.

Course outline

Interface Builder Basics

- Learn how to navigate through Interface Builder, add elements onto the canvas, and interact with those elements in code

Displaying Data

- Use Interface Builder to create the beginnings of an app, adding labels and images

Controls in Action

- Use Interface Builder to add buttons, switches, and sliders to a scene. Create actions and outlets, write some basic code, and learn how these tools work together

Auto Layout and Stack Views

- Learn the fundamentals of Auto Layout for building precisely designed user interfaces

Segues and Navigation Controllers

- Learn how to use segues to transition from one view controller to another, how to define relationships between view controllers, and how navigation controllers can help you manage scenes that display related or hierarchical content

Tab Bar Controllers

- Learn how to use tab bar controllers to organize different kinds of information or different modes of operation

View Controller Life Cycle

- Learn more about the view controller life cycle so you can understand the potential of this important class

Building Simple Workflows

- Tie together the concepts you've learned so far to design simple workflows and familiar navigation hierarchies

App Anatomy and Life Cycle

- Learn more about the different life cycle states and the delegate hooks for executing logic as the app moves through each state

Model View Controller

- Learn how to organize files, structures, and classes into a design pattern called Model-View-Controller

Table Views

- Learn the basics of creating table views in an iOS app

Intermediate Table Views

- Learn how to customize your table views with custom cells, dynamically insert and remove cells, use static table views to present forms or other nonchanging lists, and allow the user to swipe to delete cells

Saving Data

- Learn how to persist data using NSCoding, a protocol for saving files to your app's Documents directory

System View Controllers

- Learn how to incorporate a variety of system view controllers for displaying alerts, sharing content, sending messages, and accessing the camera and photo library on an iOS device

Building Complex Input Screens

- Learn how to use a combination of static and dynamic table views. Also learn to use controls and views to build custom workflows that put an elegant face on any kind of business information

Working with the Web: HTTP and URLSession

- Learn the basics of how web data is sent and received, how URLs work, and how to fetch data for use in your app

Working with the Web: JSON Serialization

- Learn how to read and write basic JSON. Also learn how to convert JSON to and from Swift types and into your own custom model objects

Working with the Web: Concurrency

- Learn about the concurrency system in iOS and how to make sure code that updates the user interface is executed in the right place