

IOS Application Development Training with Swift

Duration: 5 Days

Description

Swift is an exciting new programming language for rapid development of iOS and OS X apps. By combining the best features of languages such as Python, Ruby and Java, it creates a very powerful and modern language that is great to work with.

During this training, participants learn about the Swift programming language, while learning how to focus on writing code and how to apply these codes in real life. You will improve your Swift knowledge step by step with practical labs that allow you to consolidate what you have learned after each step. When the training is completed, the participants become able to develop a simple iOS application by applying what they have learned about Swift.

What Will You Learn?

- You will be able to program having comprehensive knowledge of Swift language.
- You will have comprehensive knowledge of the details of the IOS programming world.
- You will be able to develop applications in a fully professional way.
- You will be able to turn all your ideas into mobile applications.
- You will be able to deliver your application to many people through platforms such as the App Store.

Outline

SWIFT Section

Section 1: Introduction to Swift

- Swift Login
- Installing Xcode
- Introducing the Work Environment and Running the First Program
- Opening a Project in Xcode

Section 2: Variables and Data Types

- Creating Variables
- Constant - Constants

- Type Conversion
- Tuples

Section 3: Standard Programming Structures

- If Structure
- Switch Working Structure
- For and While
- Break - Continue

Section 4: Optional

- Optional Input - Unwrapping
- Optional Binding - if let

Section 5: Collections

- Array Operations
- Set Work
- Dictionary Study

Section 6: Object Oriented Programming

- Login
- Lazy Feature
- Functions
- Overloading
- Initialization - Constructor
- Difference Between Class and Structure
- Import
- Static Variable and Methods
- Enumeration
- Composition
- Introduction to Inheritance
- Inheritance Constructor Relationship
- Inheritance (Override)
- Inheritance (Polymorphism)
- Objects Type Conversion
- Example (Polymorphism - Type Conversion - Type Check)
- Extension - Variable Usage
- Extension - Method Usage
- Using Protocol

Chapter 7: Advanced Swift

- Using Guard
- Do Try Catch
- Using Dispatch Queue (Thread)

IOS Section

Section 1: Introduction to IOS

- IOS Login
- Creating an Xcode Project
- Project Creation
- Creating and Using a Simulator
- Running the First Application

Section 2: IOS Design

- Design Introduction
- Auto Layout Introduction
- Design Space Review
- Attribute (Design Terms)
- Pin - Fixing
- Align - Alignment
- Issue - Design Issues
- Safe Area - Safe Area
- Auto Layout - Apply
- Auto Layout - Four Color Application
- Auto Layout - Nested Design
- Multiple Display Support
- Application: Recipe
- Multi Language Support
- App Icon Creation

Section 3: IOS Working Structure

- IOS Working Structure Introduction
- IOS Architecture
- ViewController Structure
- Creating a New Page
- Linking Visual Objects to the Swift Class
- Using Outlet - Action
- Transition Between Pages Introduction (Segue)
- Present Modally
- Show Segue

- Moving Data Between Pages
- Navigation Controller
- Tab Bar Controller
- Using Toolbar
- Lifecycle

Section 4: IOS Widgets

- Button - Label - Textfield
- Textview
- Switch - Segmented Control
- Slider - Stepper
- Activity Indicators
- UIImageView
- VideoView
- ScrollView

Section 5: User Interaction

- Simple Alert Use
- Using Customized Alert
- Using Action Sheet

Section 6: Listing Operations

- Login to My List
- Using Date Picker
- Using Time Picker
- TableView Working Structure
- Detailed TableView Cell Design
- Using CollectionView
- Detailed CollectionView Cell Design
- Using Search Bar

Section 7: IOS Storage Operations

- Using UserDefaults
- UserDefaults: Login Counter Application
- File Operations
- Introduction to Database
- SQL statements with DB Browser
- FOREIGN KEY queries with DB Browser
- Core Data Login and Installation

- Core Data - Data Logging and Reading Data
- Core Data - Data Deletion and Update
- Core Data - Sorting Data
- Core Data - Data Filtering
- People Application - Design
- People App - Core Data
- SQLite - Xcode Setup
- SQLite - Creating a Database and Adding to an Xcode Project
- SQLite - Copying the Database to the Device
- SQLite - Creating Swift Class Models for Database
- SQLite - Data Logging and Reading Data
- SQLite - Data Deletion and Update
- SQLite - Record Control
- SQLite - Search
- SQLite - Fetch Single Data
- SQLite - Reading Limited Data
- SQLite - Reading Random Data
- People App - SQLite

Section 8: Advanced IOS

- Using Notification Center
- Creating Notifications
- Creating Repetitive Notifications

Section 9: Internet-Based Operations

- Restful Architecture
- Mysql Database on the Internet
- Writing Web Services with PHP
- Host a PHP Web Service
- URLSession Login and INSERT Process
- URLSession - DELETE and UPDATE Process
- URLSession - SELECT Operations
- JSON Parse Operation
- JSON Parse Operation with Codable Class
- Alamofire Installation
- Alamofire - INSERT Process
- Alamofire - DELETE and UPDATE Operation
- Alamofire - SELECT Operations
- Firebase Realtime Database Login

- Firebase Realtime Database Installation
- Firebase Realtime Database Insert - Delete and Update Operations
- Firebase Realtime Database Query Operations
- Viewing Pictures on the Internet
- People App - URLSession
- Contacts App - Alamofire
- Contacts Application - Firebase Realtime Database

Section 10: Location Operations

- Using Core Location
- Using Map Kit
- Using Google Maps

Prerequisites

To have basic computer skills.

To have a computer with a Mac OS operating system or a computer that can run the Mac OS operating system on windows with a virtual machine.