

# iOS Dev.Certification Course

Course Duration : 90 Days

## Topics & Details

### Introduction to iOS Development:

#### ★ Overview of iOS Ecosystem

- Introduction to iOS platform and its evolution
- Understanding iOS versions and device compatibility

#### ★ Development Tools

- Introduction to Xcode IDE
- Setting up Xcode for iOS development
- Using Interface Builder and Storyboards

#### ★ Swift Programming Language Basics

- Variables, Constants, and Data Types
- Optionals and Type Safety
- Control Flow: Conditionals and Loops
- Functions and Closures

#### ★ UIKit Framework

- Understanding UIKit framework
- UIView and its subclasses
- UIViewController lifecycle
- Auto Layout and Constraints

#### ★ UI Components

- Working with UILabel, UITextField, UITextView
- Using UIButton and UIStackView
- Customizing UITableView and UICollectionView

#### ★ Navigation Controllers and Tab Bar Controllers

- Implementing UINavigationController
- Managing navigation stack
- Using UITabBarController for multi-view navigation

#### ★ Data Handling and Persistence

- Introduction to data persistence in iOS



- Working with UserDefaults for simple data storage
- Using Core Data for structured data management

### ★ **Networking and Web Services**

- Making HTTP requests using URLSession
- Parsing JSON data using Codable
- Handling asynchronous tasks and callbacks

### ★ **Multimedia and Location Services**

- Integrating multimedia (audio, video) into apps
- Accessing device camera and photo library
- Using Core Location for location-based services

### ★ **Concurrency and Multithreading**

- Understanding Grand Central Dispatch (GCD)
- Implementing background tasks and queues
- Using Operation and OperationQueue for task management

### ★ **Advanced UI Concepts**

- Animations and transitions
- Gesture recognizers and touch events
- Custom UI components and graphics rendering

### ★ **Debugging and Performance Optimization**

- Using Xcode debugging tools
- Memory management and performance optimization
- Profiling app performance and identifying bottlenecks

### ★ **App Signing and Distribution**

- Generating certificates and provisioning profiles
- App Sandbox and security considerations
- Deploying apps to TestFlight for beta testing

### ★ **App Store Submission**

- Understanding App Store Connect
- Preparing assets and metadata for submission
- Guidelines and best practices for app submission

### ★ **Capstone Project**

- Applying knowledge and skills acquired
- Developing a complete iOS application from scratch
- Implementing advanced features and integrating APIs



### ★ **Code Reviews and Feedback**

- Conducting code reviews and providing feedback
- Iterative development and improving code quality
- Collaborative project work and team dynamics

### ★ **Additional Topics (Optional)**

- Augmented Reality (ARKit)
- Introduction to ARKit framework
- Building AR experiences for iOS devices

