iOS Development Course Syllabus

Course Duration
6 Months

iOS Course Syllabus

Our iOS Course Curriculum is meticulously prepared by the industry experts according to the job requirements of global mobile app development companies. We cover fundamentals like language overview, Basic C, Basic Swift Programming; iOS project structure, UI application, and application creation along with advanced concepts such as frameworks, controllers, and publishing the application in the app store effectively. Our iOS Course Syllabus can be personalized as per the learning requirements of students to upgrade their career into mobile app development.

Introduction to Tools of the Course

- XCode
- iOS
- Swift

iOS Application Development Training Modules

The Following are the iOS Application Development Training Modules

- Xcode and Interface Builder
- Introduction to Platform Overview and Swift
- Cocoa Touch Foundation and Tools
- Models, Views, and View Controllers (MVC), and other architectures
- UIControls and ViewController Containers
- Memory Management
- Data Persistence
- Parsing JSON
- Integrating with Core services – Email, Contacts, Camera, Map kit etc
- Profiling and live device testing
- Quality Assurance

Training Course Description

- **Variables –** Variables Constants Data types Optionals Type inference
- **Conditional Statements & Operators –** The if statement, The else statement The else if statement,Comparison operators, Arithmetic operators Logical operators
- **Strings --** Literals, Mutable strings Comparing strings Concatenating strings
- **Functions –** Functions with parameters Functions with returned values
- **Optional Unwrapping –** Forced optional unwrapping Implicitly unwrapped optionals Optional binding
- **Loops –** For loops, While loops, For in loops Iterating over arrays
- **Creating a Class –** Object-oriented programming Objects & classes, Methods, Properties
- **Methods –** Methods with parameters Methods with return values
- **Structs –** Creating a struct Accessing a struct
- **Inheritance –** Creating a subclass Method overriding
- **Extensions –** Extending existing classes Using extensions
- **Protocol & Delegates –** Defining & implementing protocol Delegate design pattern Implementing

& using delegates
- **Closures –** Defining a closure, Closures with parameters Closures with returned values Closures as callbacks
- **ENUMS –** Creating & using enumerations
- **Type Casting –** Type checking Type casting Downcasting
- **Tuples –** Creating & using tuples
- **Type aliases –** Creating & using type aliases
- **ARC –** Strong & weak references Avoiding strong reference cycles
- **Auto Layout –** Stacks, Nested Stacks, Downcasting, Constraints, Content Hugging Priority Compression, Resistance Priority
- **Establishing an Apple Developer Account –** Creating an Apple Developer Account, Registering your device to run apps directly from Xcode
- **Lists: UI with Two View Controllers That Display Table Cells –** Creating files for a dual View Controller app, Adding a Navigation Controller to manage our two views Adding UI elements to the first View Controller , Constraining the UI objects on the first View Controller Copying the first View Controller to create the second
- **Lists: Refining & Beautifying the UI –** Adding images from the designer, Improving the UI design on our Storyboard screens Differentiating the two View Controllers, Setting View Controller & Table View Cell classes

1. Introduction to Objective C and Xcode

- Introduction to iPhone development and Xcode
- Introduction to Swift
- Making your first iPhone App

2. Cocoa Touch and MVC in iOS

- Properties, Protocols and Categories in Cocoa Touch
- Important Frameworks and creating Cocoa Touch classes
- Understanding different architecture

3. Controls in iOS

- Introduction to Controls
- Understanding views and view hierarchy

4. Controllers and Memory Management in iOS

- Understanding Various View Controllers in detail
- Working with Switch, Slider ,Buttons and Segment
- Understanding Pickers and Action Sheets
- Memory management in iOS

5. Introduction to Table View in iOS

- Understanding Navigation Controller in iPhone
- Working with Table view and mixed content
- Grouped, indexed and dynamic table view
- Other operations in Table view (Table Cell)

6. Persistence in iOS

- File handling in iPhone (Directory and file creations, saving and retrieval of data)
- Understanding of Core Data

7. Multimedia and internationalization in iOS

- Using camera in iPhone/ Photo library

8. Quality assurance in iOS Application

- Steps to Launching the App in the APP store
- Performance tuning of an Application
- Debugging in Xcode
- Unit Testing Applications