TechyEdz Solutions

Training | Consulting | Developement | Outsourcing



iOS App Development









iOS App Development

Course Overview:

Welcome to the world of Apple's mobile platform, you must be here to learn about the basics of iOS development. Here we will give you a guide to learn the process from the ground all the way to an experienced developer. With time and dedication, you can make it happen on your own, just make sure not to give it up before the finish line. iOS App Development Basics, the second course in the iOS App Development with Swift specialization, expands your programming skills and applies them to authentic app development projects. The topics covered in this course include Xcode basics, Core iOS and Cocoa Touch frameworks, simple user interface creation, MVC Architecture and much more. With a focus on using Apple's components to access sensors like camera, microphone and GPS, by the end of this course you will be able to create a basic App according to specified parameters and guidelines.

Course Outline:

Introduction

- > iPhone and iPad Device Anatomy
- iOS Architecture and SDK Frameworks
- > iOS and SDK Version Compatibility
- > Apple iOS Developer Program

Xcode 5

- > Tour of the IDE
- > Templates, Projects, and Workspaces
- > Creating a New Project
- LLVM and LLDB
- Debug Gauges
- > Asset Management
- XCTest Testing Framework
- Continuous Integration and Bots
- > Automatic Configuration

Objective-C for Experienced Programmers

- > Classes, Objects, and Methods
- > Declared Properties
- > Memory Management
- > Automatic Reference Counting (ARC)
- > Categories and Extensions
- > Formal and Informal Protocols
- ➤ Blocks

Application Patterns and Architecture

- Model View Controller (MVC)
- > IBOutlets and IBActions
- > Subclassing and Delegation

Views and Windows

- > The View Hierarchy
- Containers
- Controls
- > Text and Web Views
- Navigation View and Tab Bars
- Alert Views and Action Sheets
- > Controlling Rotation Behavior
- View Autosizing
- Autolayout

Storyboards

- > Adding Scenes
- Segues
- > Transitions
- > Using in a Tab Bar Application

Table Views

- > Static and Dynamic Table Views
- > Delegates and DataSources

- Table View Styles
- Custom Cells

Navigation Based Applications

- > Adding the Root View Controller
- > Creating the Navigation Controller
- Controlling the Stack Navigation Programmatically

UIPickerView and UIDatePicker

- > Designing the UI
- > Coding for the Data Picker
- > Hiding the Keyboard
- > Memory Management

Directories and Files

- NSFileManager, NSFileHandle, and NSData
- > Problems Solved by ADO.NET Entity Framework
- > Pathnames in Objective-C
- Working with Directories
- Working with Files
- > Reading and Writing from a File
- > iCloud
- Key-Value Data
- > Archiving

Working with Data

- > SQLite Integration
- Using SQLite Directly
- Overview of Core Data
- > Managed Objects
- > Persistent Store Coordinator
- Entity Descriptions
- Retrieving and Modifying Data

Multitouch, Taps, and Gestures

- > The Responder Chain
- > Touch Notification Methods
- > Enabling Multitouch on the View
- > Gesture Motions
- Gesture Recognizers

Drawing

- Core Graphics and Quartz 2D
- Lines,Paths,andShapes

Animation

- Core Animation Blocks
- > Animation Curves
- > Transformations

Multitasking

- > Application States
- Background Execution
- > Background App Refresh in iOS 7
- > State Restoration

Notifications

- LocalNotifications
- > Push Notifications

Core Location Framework

- Location Accuracy
- ➤ Obtaining Location Information
- Calculating Distances
- ➤ MapKit Framework and MKMapView

Concurrency

- > Grand Central Dispatch (GCD)
- > Serial and Concurrent Queues
- > Main Dispatch Queue
- > Completion Blocks
- > Operation Queues

Networking

- > Reachability
- > Synchronous Downloads
- > Asynchronous Downloads
- > Handling Timeouts
- > Sending HTTP GET and POST Requests
- > Parsing JSON
- > Parsing XML
- > AirDrop

Targeting Multiple Devices

- > iPhone vs. iPad
- Universal Apps
- Multiple SDK Support
- > Detecting Device Capabilities
- Supporting iOS 6 and iOS 7

Localization

- > Resources
- > Language and Region
- > NSLocale
- Text
- Dates
- > Numbers

Performance and Power Optimization

- Measuring Performance
- > Instruments
- > Responsiveness
- Memory Usage, Spikes, and Leaks
- Networking and Power

Prerequisites:

 This course assumes prior programming experience. Specifically, you should have a strong understanding of programming concepts like variables, if statements, loops, functions, and classes.

Who Can attend:

- Web developers interested in expanding their skillset to iOS app development
- Mobile developers who want to enrich their portfolio of apps using the Swift programming language
- Professionals and students who wish to learn iOS app development
- Entrepreneurs or soon-to-be entrepreneurs who want to build a working app prototype in iOS and validate their ideas
- Number of Hours: 50hrs
- Certification: Cloudera Certified Professional (CCP) Data Engineer

Key Features:

- One to One Training
- Online Training
- > Fastrack & Normal Track
- Resume Modification
- Mock Interviews

- Video Tutorials
- Materials
- Real Time Projects
- Virtual Live Experience
- Preparing for Certification

