3. Mobile App Development

3.2 IOS Objective C

Prerequisites:

1. OOPs Concept
2. Mac OS System

Duration: 60 Lectures

Course Content:

1. Introduction

1.1. The Mobile App Paradigm
1.2. Introduction to Xcode
1.3. Main characteristics of mobile apps
1.4. Differences between mobile apps and desktop apps
1.5. How iOS is tailored to a mobile platform
1.6. iOS main components and services

2. ModelView-Controller-Design Paradigm

2.1. The Mobile App Paradigm
2.2. Review of Intro to MVC
2.3. UIView and UIWindow classes
2.4. View Hierarchy
2.5. Transparency
2.6. Memory Management
2.7. Coordinate Space
2.8. Custom Views: Creating a subclass of UIView, Drawing with Core Graphics
2.9. Controllers: View Controller Initialization, View Life Cycle, Controllers of Controllers

3. Introduction to Objective-C

3.1. Coordinate Space
3.2. Obj-C vs C++ vs. C#
3.3. Objects

3.4. Dynamic Typing and Binding
3.5. Classes
3.6. Foundation Basics: collections, enumeration
3.7. Memory Management Basics

4. Advanced Objective-C

4.1. Protocols
4.2. Views (View Life Cycle)
4.3. Views
4.4. Custom Views Views

5. Controllers, Controllers of Controllers

5.1. Controllers
5.2. Controllers of Controllers
5.3. Handling Gestures
5.4. Recognizing and Handling Gestures: pinch, pan, zoom, swipe, and tap

6. Content Display

6.1. UIImageView
6.2. UIWebView
6.3. UIScrollView
6.4. UITableView
6.5. UI TableView Controller

7. Persistent Storage

7.1. Property Lists and their limitations
7.2. Archiving Objects
7.3. Storing on the filesystem
7.4. SQLite
7.5. Core Data Framework
7.6. Using @propertys to access information
7.7. Xcode Generated Code for at property access
7.8. Querying data
7.9. Displaying Core Data data in Table Views
7.10. Fetch Request
7.11. CoreDataTableViewController

8. Blocks and Multithreading

8.1. What is a block
8.2. Block Syntax
8.3. Context and Scope
8.4. Memory Management in Blocks
8.5. Declaring variables to hold blocks
8.6. Shorthand in block definitions
8.7. Usages of Blocks
8.8. Grand Central Dispatch API
8.9. Creating and Releasing Queues
8.10. Putting blocks in queues
8.11. Getting the current or main queue

9. Advanced Service

9.1. Textual content: UI Text View
9.2. Keyboard control
9.3. Alerts and Timers
9.4. Core Media: audio, still photos and video.
9.5. Core Motion: accelerometer and gyro in apps

10. Uploading to the App Store

11. Application architect of iOS Application

11.1. Talk about Single View Application
11.2. Talk about Multi Controller Applications
11.3. Type of multi controller applications
11.4. Implement some project with various Application Architech