



<http://www.multimediacentre.co.za>

Cape Town: 021 790 3684

Johannesburg: 011 083 8384

iPad App Development level 1 course content (5-day)

Course Description

The course reviews Objective-C basics, covers key concepts such as the Model-View-Controller pattern and delegation, and explores new features of the SDK, including Automatic Reference Counting (ARC) and Storyboards. The course also shows how to create and customize user interfaces and table views and develop apps with multiple view controllers, and explores the differences between iPhone and iPad development.

Pre-requisites

Mac OS Skills, Object Oriented Programming and Objective-C

Course Outline

Getting Started

- Requirements: installing the SDK
- Becoming a registered Apple Developer
- Joining the iOS Developer Program
- Creating a simple iOS application
- The four pillars of iOS application development

The Tools

- Using Xcode
- Using the iOS Simulator

Objective-C 2.0 Refresher

- Objective-C basics
- Objective-C structure
- Creating variables
- Using pointers
- Sending messages and calling methods
- Creating objects
- Understanding Automatic Reference Counting (ARC)
- Using existing classes
- Creating custom classes and methods
- Creating properties

Core iOS Project Skills

- Using the different iOS project types
- Using the Model-View-Controller (MVC) design pattern
- Creating basic interaction
- Creating quick connections
- Dismissing the keyboard
- Dismissing the keyboard with delegation
- Using delegation in iOS
- Creating alert messages
- Understanding the iOS application lifecycle
- Understanding multitasking

Supporting Multiple Screens

- Understanding screen size and density
- Providing alternate layouts

Troubleshooting

- Troubleshooting a basic application
- Creating breakpoints and using the Xcode debugger

Using UI Controls

- Creating user interfaces (UI)
- Using and customizing a picker control
- Using data sources
- Selecting items in user interface controls
- Using the Apple Human Interface Guidelines (HIG)

Using Table Views

- Introduction to table views
- Creating a table view
- Reusing table cells
- Customizing a table view
- Customizing table view cells

Creating Apps with Multiple View Controllers

- Introduction to multiple-view applications
- Deconstructing a utility app
- Understanding navigation controllers
- Creating a master-detail application
- Creating a tabbed application

Preferences and Data Storage

- Using shared preferences
- Creating a preferences activity
- Using the SQLite database
- Setting up network access
- Using Content Providers

Using Storyboards

- Introduction to storyboards Creating scenes and segues Passing data between scenes
- Step one: creating the storyboard
- Step two: creating the custom class
- Step three: creating the view controllers
- Step four: loading the data
- Step five: passing objects between scenes

Using Blocks and Grand Central

- Introduction to blocks
- Understanding Grand Central Dispatch
- Creating a multithreaded app

Saving Data

- Understanding the options for saving data on iOS
- Saving and loading data from property list files

iPad Development

- Understanding iPad development
- Using iPad-specific UI elements
- Creating iPad apps with popovers
- Creating iPad apps with split views

Finishing Touches

- Creating an application launch image
- Creating an application icon