

iOS Adv Development Using MonoTouch 5.2

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Meet the expert: Martin Bowling is a mobile developer at Digital Relativity. He has been building apps and lending a hand in the marketing arena for over 13 years. Martin has consulted for several Fortune 500 companies and some of the top educational institutions in America. Last summer, he co-authored a book that was published by Wrox: Professional entitled iPhone Programming with MonoTouch and .NET/C#.

Prerequisites: You should already be familiar working with MonoTouch and Xcode on a Mac.

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Course description: This course builds on the introduction to MonoTouch course. After learning the foundation of iOS programming with MonoTouch, you will explore some of the new features that Apple has added to iOS and how to utilize these features in MonoTouch. The course will be going through the fundamentals to working examples of these concepts and features.

Course outline:

Intro to MonoTouch.Dialog

- Introduction
- What is MonoTouch.Dialog
- Why MonoTouch.Dialog
- The Two Approaches In MT.D
- Getting To Know MT.D
- Meet DialogViewController
- Meet RootElement
- More About RootElement
- Meet Section
- Meet Elements
- Element Values
- Meet StringElement
- StringElement As A Button
- Demo: MonoTouch.Dialog
- Demo: StringElement
- Summary

MonoTouch.Dialog Elements

- Introduction
- Meet StyledStringElement
- More On StyledStringElement
- Demo: StyledStringElement
- Meet MultilineElement
- Demo: MultilineElement
- Meet StyledMultilineElement
- Demo: StyledMultilineElement
- Meet EntryElement
- More About EntryElement
- Demo: EntryElement
- Summary

MonoTouch.DialogDataElements

- Introduction

- Meet BooleanElement
- Meet BooleanImageElement
- Meet CheckBoxElement
- Demo: Code for Elements
- Meet RadioElement
- More About RadioElement
- Demo: RadioElement
- Meet BadgeElement
- More About BadgeElement
- Demo: BadgeElement
- Meet FloatElement
- Demo: FloatElement
- Meet ActivityElement
- Demo: ActivityElement
- Date and Time Elements
- More Date and Time Elements
- Demo: Date and Time Elements
- Summary

Advanced Elements

- Introduction
- Meet HTMLElement
- Demo: HTMLElement
- Meet MessageElement
- More About MessageElement
- Demo: MessageElement
- Meet LoadMoreElement
- Demo: LoadMoreElement
- Meet OwnerDrawnElement
- Demo: OwnerDrawnElement
- Meet UIViewElement

- Demo: UIViewElement
- Meet JSONElement
- Demo: JSONElement
- Meet Pull-to-Refresh
- Demo: Pull-to-Refresh
- Meet Search Support
- More About Search Support
- Demo: Search Support
- Meet Your Custom Elements
- Inheriting From ExistingElement
- Totally Custom Elements
- More On Custom Elements
- Summary

Expense Demo

- Introduction
- Demo: MonoTouchDialog
- Demo: doSaveExpense
- Demo: Low Level API
- Demo: Run in Simulator
- Summary

Twitter Integration

- Introduction
- Twitter Integration
- Granting Twitter Permissions
- But There is No Account
- Twitter Setup
- Be Nice to Your Users
- Two Ways To Tweet
-

TWTweetComposeViewControllerUsing UI Page View Controller

- What Does This Look Like
- Did They Send Or Cancel?
- Introduction
- UINavigationController
- Setting Up UINavigationController

- What If The Tweet Fails?
- Demo: TWTCViewController
- Demo: Emulator
- Summary

Twitter Authentication

- Introduction
- What About Authentication?
- ACAccountStore
- More ACAccountStore
- Demo: ACAccountStore
- Demo: Load Twitter Account
- Summary

TWRequest

- Introduction
- TWRequest
- TWRequestHandler
- Explore the Twitter API
- Demo: Send a Tweet
- Demo: Send Tweet Function
- Demo: Perform Request
- Demo: TWRequest Method
- Demo: Building UI
- Demo: TW ViewController
- Demo: Timeline Function
- Demo: Search with API
- Demo: doTwitterSearch
- Demo: Run in Simulator
- Summary

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- Spine Location
- Setting the View Controllers
- Next Page, Previous Page?
- Implementing the Delegates
- Demo: UINavigationController
- Demo: Custom View
- Demo: Photo Book
- Demo: Next and Previous
- Demo: Run in Simulator
- Summary

Data using Text Files

- Introduction
- What are Our Options
- Just Like on the Desktop
- Where do We Have Access
- We Have a Path Now What
- Want Binary Data Instead
- Our Documents Folder
- Demo: SimpleText Files
- Demo: Uneven Rows
- Demo: IO Functions
- Demo: Writing Data
- Demo: Run in Simulator
- Summary

Data Using Binary Formatter

- Introduction
- Storing Data
- What if You Need More
- Lets Serialize This Class
- How About Deserializing
- Demo: Binary Formatter
- Demo: Creating the UI
- Demo: Deserialize Data
- Demo: Run in Simulator
- Summary

Data Using Serialized XML

- Introduction
- Serialization With XML
- Lets Get Started
- XML Serializer
- More About Serialize Method
- Deserialize XML
- Demo: XML Serialization
- Demo: Data Model Class
- Demo: Helper Function
- Demo: Deserialize Data
- Demo: Read & Write Function
- Demo: Serialize Helper
- Demo: Deserialize Helper
- Demo: Run in Simulator
- Summary

Data with SQL Lite-Net

- Introduction

- What is SQLite-net
- More About SQLite-net
- How Does This Thing Work
- Creating Your Tables
- Tables in SQLite-net
- Queries in SQLite-net
- Insert in SQLite-net
- Demo: SQLite-net
- Demo: Add Instance of SQLite
- Demo: Create Database
- Demo: Call Create Table
- Demo: Static Class
- Demo: Expense ListView
- Demo: Create Data Section
- Demo: String Element
- Demo: UI Components
- Demo: Create Root Element
- Demo: Run in Simulator
- Summary

Introduction To Core Image

- Introduction
- What is CoreImage
- CoreImage Filters
- CoreImage Class Overview
- Basic Image Filtering
- Get Images Back From CGContext
- CoreImage Resources
- GPU vs CPU
- Demo: Image Filtering
- Demo: UI Work
- Demo: Create Image Preview
- Demo: Adjust Image Function
- Demo: Output from Controls
- Demo: Run in Simulator
- Summary

Core Image Face Detection

- Introduction
- Face Detection
- What if a Face is Detected
- Demo: Face Detection
- Demo: Image View
- Demo: Override Draw
- Demo: DialogViewController
- Demo: UI Creation
- Demo: FaceDetection Routine
- Demo: Run in Simulator
- Summary

Going Retro with Core Image

- Introduction
- Retro With CoreImage
- Apps Have in Common
- How Do They Do It

- Underneath The Hood
- More Underneath The Hood
- CoreImage Funhouse
- Demo: Retro Camera
- Demo: RetroEffectsView
- Demo: CreateImagePreview Func
- Demo: Effects
- Demo: Image Output
- Demo: Run in Simulator
- Summary

Introduction To Multitasking

- Introduction
- Multitasking In iOS
- We Now Have Multitasking But...
- Detecting Any Application State
- More on Application State
- Two Events?
- UIApplication
- Not Every Device
- Be Sure To Check For Support
- Demo: Multitasking
- Demo: Events in the Background
- Beyond UIApplication Delegate
- Demo: NSNotificationCenter
- Demo: ApplicationStateObservers
- Demo: Run in Simulator
- Summary

Code in the Background

- Introduction
- How To Use These Methods
- Running Code in Background
- Can We Prevent Being Suspended
- Starting A Background Task
- More On Background Tasks
- Things to Remember
- Demo: Running In The Background
- Demo: Background Observer
- Demo: Long Running Process
- Summary

Playing Background Audio

- Introduction
- Playing Audio In The Background
- More Audio in the Background
- AVAudioSession Categories
- Demo: Playing Background Audio
- Demo: Play Audio Function
- Summary

Network Connections

- Introduction
- Keeping Network Connection Alive
- SetKeepAliveTimeout
- Keep Alive Handler
- One More Thing...

- Demo: SetKeepAliveTimeout
- Summary

Binding Objective-C Types

- Introduction
- Binding Objective-C Libraries
- Binding C APIs
- How to Bind an API
- Producing the Binding
- API Definition File
- Combining The Files
- Building The Binding
- After Adding The Native Library
- More On API Definition
- Binding Methods
- More On Binding Methods
- Null Parameters
- Binding Properties
- Binding Constructors
- Binding Protocols
- Binding Class Extensions
- Objective-C Types to C#
- Memory Management Attributes
- Binding Fields
- Linking The Dependencies
- The Basics Of Binding
- Summary

Facebook

- Introduction
- Demo: Objective C Libraries
- Demo: Facebook Binding Enums
- Demo: Facebook User Likes
- Demo: Facebook Connect Functions
- Summary

Real World Binding Samples

- Introduction
- Demo: Flurry Analytics
- Demo: Flurry App Circles
- Demo: Atomic HUD
- Summary