Social Media Apps Programming

Developing iPhone / iPad Native Apps with Swift / Objective-C (XCode)

1031SMAP04
TLMXM1A (8687) (M2143) (Fall 2014)
(MIS MBA) (2 Credits, Elective) [Full English Course]
Thu 8,9 (15:10-17:00) V201

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Assistant Professor

Department of Information Management
Tamkang University

http://mail.tku.edu.tw/myday

2014-10-08
# Course Schedule (1/3)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Subject/Topics</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2014/09/17</td>
<td>Course Orientation and Introduction to Social Media and Mobile Apps Programming</td>
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<tr>
<td>2</td>
<td>2014/09/24</td>
<td>Introduction to Android / iOS Apps Programming</td>
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<tr>
<td>3</td>
<td>2014/10/01</td>
<td>Developing Android Native Apps with Java (Eclipse) (MIT App Inventor)</td>
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<td>4</td>
<td>2014/10/08</td>
<td>Developing iPhone / iPad Native Apps with Swift / Objective-C (XCode)</td>
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<tr>
<td>5</td>
<td>2014/10/15</td>
<td>Mobile Apps using HTML5/CSS3/JavaScript</td>
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<tr>
<td>6</td>
<td>2014/10/22</td>
<td>jQuery Mobile</td>
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<tr>
<td>Week</td>
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<td>7</td>
<td>2014/10/29</td>
<td>Create Hybrid Apps with Phonegap</td>
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<td>2014/11/12</td>
<td>jQuery Mobile/Phonegap</td>
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<tr>
<td>10</td>
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<td>Midterm Exam Week (Midterm Project Report)</td>
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<tr>
<td>11</td>
<td>2014/11/26</td>
<td>Case Study on Social Media Apps Programming and Marketing in Google Play and App Store</td>
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<tr>
<td>12</td>
<td>2014/12/03</td>
<td>Google Cloud Platform</td>
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# Course Schedule (3/3)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Subject/Topics</th>
</tr>
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<tbody>
<tr>
<td>13</td>
<td>2014/12/10</td>
<td>Google App Engine</td>
</tr>
<tr>
<td>14</td>
<td>2014/12/17</td>
<td>Google Map API</td>
</tr>
<tr>
<td>15</td>
<td>2014/12/24</td>
<td>Facebook API (Facebook JavaScript SDK)</td>
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<tr>
<td></td>
<td></td>
<td>(Integrate Facebook with iOS/Android Apps)</td>
</tr>
<tr>
<td>16</td>
<td>2014/01/31</td>
<td>Twitter API</td>
</tr>
<tr>
<td>17</td>
<td>2015/01/07</td>
<td>Final Project Presentation</td>
</tr>
<tr>
<td>18</td>
<td>2015/01/14</td>
<td>Final Exam Week (Final Project Report)</td>
</tr>
</tbody>
</table>
Outline

• Developing **iPhone / iPad Native Apps with Swift / Objective-C (Xcode)**
  – Mac OS X 10.8, 10.9, 10.10
  – Xcode 6
  – iOS 8

• **Building Your First iOS App with Xcode 6**
Building Your First iOS App with Xcode 6
Android /iOS Apps Programming

Native Apps

Hybrid Apps

Mobile Web Apps
iOS - Native App Development

Swift

Objective-C, C++, C

Software Source Code

Application Source Code

Resources (e.g. images)

SDK Tools

Compiler, Linker

Executable (Binary)

Packager

.Xcode

.Distributable Package

.App

.App Stores

Native App – Interaction with Mobile Device

See what’s new for developers.

Learn about all the new technologies and powerful capabilities available in iOS 8, OS X Yosemite, and the new programming language, Swift, available in Xcode 6.

Download the latest development tools and SDKs.

iOS Apps

Mac Apps

Xcode

Source: https://developer.apple.com/
developer.apple.com

Become a member.

Enroll in an Apple Developer Program and get everything you need to develop and distribute your apps.

Learn more ›

Source: https://developer.apple.com/
Xcode 6

The complete toolset for building great apps.

Source: https://developer.apple.com/xcode/
OS X Yosemite for Developers

iOS 8 for Developers

iOS 8 includes over 4,000 new APIs that let you add amazing new features and capabilities to your apps.

Source: https://developer.apple.com/ios8/
Xcode 6

Source: https://developer.apple.com/xcode/

[iPhone and iPad Apps for Absolute Beginners](http://www.apress.com/9781430263616)
Start Developing iOS Apps Today

Setting

Start Developing iOS Apps Today provides the perfect starting point for iOS development. On your Mac, you can create iOS apps that run on iPad, iPhone, and iPod touch. View this guide’s four short modules as a gentle introduction to building your first app—including the tools you need and the major concepts and best practices that will ease your path.

The first three modules each end with a tutorial, where you’ll implement what you’ve learned. At the end of the last tutorial, you’ll have created a simple to-do list app.

Start Developing iOS Apps Today

To develop iOS apps, you need:

• A **Mac computer** running OS X 10.8 or later
  – Mac OS X 10.8 (Mountain Lion)
  – Mac OS X 10.9 (Mavericks)
  – Mac OS X 10.10 (Yosemite)

• **Xcode**
  – Xcode 6

• **iOS SDK**

The notebook people love.

MacBook Air

Source: https://www.apple.com/mac/
MacBook Pro
with Retina display
More power behind every pixel.

Start with a base configuration and customize it with a faster processor, more flash storage, more memory, and other options — only at the Apple Online Store.

Free shipping. Free returns.
Free shipping on all orders over $50 or pick up in store.

Get education pricing.
College students and teachers can get discounts on a new Mac and more.

Source: http://store.apple.com/us/mac
Select your MacBook Pro

MacBook Pro

13-inch: 2.5GHz
- 2.5GHz dual-core Intel Core i5
- Turbo Boost up to 3.1GHz
- 4GB 1600MHz memory
- 500GB 5400-rpm hard drive
- Intel HD Graphics 4000
- Built-in battery (7 hours)

$1,099.00

13-inch MacBook Pro with Retina display
- 2.6GHz dual-core Intel Core i5
- Turbo Boost up to 3.1GHz
- 8GB 1600MHz memory
- 128GB PCIe-based flash storage
- Intel Iris Graphics
- Built-in battery (9 hours)

NEW $1,299.00

13-inch MacBook Pro with Retina display
- 2.6GHz dual-core Intel Core i5
- Turbo Boost up to 3.1GHz
- 8GB 1600MHz memory
- 256GB PCIe-based flash storage
- Intel Iris Graphics
- Built-in battery (9 hours)

NEW $1,499.00

13-inch MacBook Pro with Retina display
- 2.8GHz dual-core Intel Core i5
- Turbo Boost up to 3.3GHz
- 8GB 1600MHz memory
- 512GB PCIe-based flash storage
- Intel Iris Graphics
- Built-in battery (9 hours)

NEW $1,799.00

Source: http://store.apple.com/us/mac
## Select your Mac mini

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.5GHz Mac mini</strong></td>
<td>2.5GHz dual-core Intel Core i5&lt;br&gt;4GB memory&lt;br&gt;500GB hard drive&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;Intel HD Graphics 4000&lt;br&gt;OS X Mavericks</td>
<td><strong>$599.00</strong></td>
</tr>
<tr>
<td><strong>2.3GHz Mac mini</strong></td>
<td>2.3GHz quad-core Intel Core i7&lt;br&gt;4GB memory&lt;br&gt;1TB hard drive&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;Intel HD Graphics 4000&lt;br&gt;OS X Mavericks</td>
<td><strong>$799.00</strong></td>
</tr>
<tr>
<td><strong>Mac mini with OS X Server</strong></td>
<td>2.3GHz quad-core Intel Core i7&lt;br&gt;4GB memory&lt;br&gt;Two 1TB hard drives&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;Intel HD Graphics 4000&lt;br&gt;OS X Mavericks&lt;br&gt;OS X Server</td>
<td><strong>$999.00</strong></td>
</tr>
</tbody>
</table>

OS X Yosemite

Every bit as powerful as it looks.

An elegant design that feels entirely fresh, yet inherently familiar. The apps you use every day, enhanced with new features. And a completely new relationship between your Mac and iOS devices. OS X Yosemite will change how you see your Mac. And what you can do with it.

Source: https://www.apple.com/osx/preview/
Get the Tools

Mac App Store ➞ Xcode ✅ FREE ➞ Download

Xcode 6
Xcode 6

Source: Xcode 6 Documentation
Swift Language

• Swift is a new **object-oriented** programming language for iOS and OS X development.

• Swift is **modern, powerful, expressive, and easy to use.**

Source: [https://developer.apple.com/swift/](https://developer.apple.com/swift/)
Swift Language

• Unified
  A complete replacement for both the C and Objective-C languages.
  – Swift provides full object-oriented features, and includes low-level language primitives such as types, flow control, and operators.

• Fast
• Complete platform
• Safe by design
• Modern
• Interactive

Source: https://developer.apple.com/swift/
println("Hello, world!")
var s = "Hello" + " World"
var myVariable = 82
myVariable = 90
let myConstant = 82
let individualScores = [75, 43, 103, 87, 12]
var teamScore = 0
for score in individualScores {
    if score > 50 {
        teamScore += 3
    } else {
        teamScore += 1
    }
}
teamScore
iOS App Development Process

- Focus: Primary Target
- Think top down
- Consistent UI
- Gestures
- Orientation?
- Check target size
- Reduce settings

iOS App Development Process

• Defining the Concept
• Designing a User Interface
• Defining the Interaction
• Implementing the Behavior

Objects Communicate Through Messages

Current Execution Point

```objective-c
...[somePerson sayHello];
...
```

XYZPerson Implementation

```objective-c
@implementation XYZPerson
- (void)sayHello {
    NSLog(@"Hello, world!");
}
@end
```

Protocols Define Messaging Contracts

Designing a User Interface

Model → Controller → View

Use Storyboards to Lay Out Views

Defining the Interaction

View Controllers

Application controller layer

View layer

- Window
- View
- Image View
- Text View
- Button

Use Storyboards to Define Navigation

Segue

View Controller

View Controller

Incorporating the Data

Model

Controller

View

Using Design Patterns

Model-View-Controller (MVC)

Target-Action

Restore Defaults

UIKitEventTouchUpInside

aControl

action=restoreDefaults:
target=controller

Controller

Delegation

IBOutlet and IBAAction

• IBOutlet
  – Interface Builder Outlet

• IBAAction
  – Interface Builder Action
Demo:
Building Your First iOS App with Xcode 6 (Swift)
Your First iOS App
Building Your First iOS App with Xcode 6
Xcode 6 with Swift
Launchpad ➔ Xcode
Welcome to Xcode
Version 6.0.1 (6A317)

Get started with a playground
Explore new ideas quickly and easily.

Create a new Xcode project
Start building a new iPhone, iPad or Mac application.

Check out an existing project
Start working on something from an SCM repository

Show this window when Xcode launches
Choose a template for your new project:

**IOS**
- Application
  - Framework & Library
  - Other
- OS X
  - Application
  - Framework & Library
  - System Plug-in
  - Other

**Single View Application**
This template provides a starting point for an application that uses a single view. It provides a view controller to manage the view, and a storyboard or nib file that contains the view.

[Options]
- Cancel
- Previous
- Next
Choose options for your new project:

Product Name: HelloWorld
Organization Name: imtku
Organization Identifier: com.imtku
Bundle Identifier: com.imtku.HelloWorld
Language: Swift
Devices: iPhone
Use Core Data

Cancel  Previous  Next
Main.storyboard (UI)
ViewController.swift (Code)
Main.storyboard
Button - Intercepts touch events and sends an action message to a target object when it's tapped. You can set the title, image, and other appearance properties of a button. In addition, you can specify a different appearance for each button state.
Build and Run
Main.storyboard (UI)
ViewController.swift (Code)
import UIKit

class ViewController: UIViewController {

override func viewDidLoad() {
    super.viewDidLoad()
    // Do any additional setup after loading the view, typically from a nib.
}

override func didReceiveMemoryWarning() {
    super.didReceiveMemoryWarning()
    // Dispose of any resources that can be recreated.
}
}
IBOutlet and IBAAction

• IBOutlet
  – Interface Builder Outlet

• IBAAction
  – Interface Builder Action
class ViewController: UIViewController {
    // Do any additional setup after loading the view, typically from a nib.

    override func viewDidLoad() {
        super.viewDidLoad()
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
    }
}

import UIKit
Hello World

```swift
import UIKit

class ViewController: UIViewController {
    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading the view, typically from a nib.
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be re-created.
    }
}
```
import UIKit

class ViewController: UIViewController {

    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading the view, typically
        // from a nib.
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
    }

    // Dispose of any resources that can be recreated.
```swift
class ViewController: UIViewController {

    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading the view, typically from a nib.
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }
}
```
Hold on **control** drag and drop button to Assistant Editor
Hello World

override func viewDidLoad() {
    super.viewDidLoad()
    // Do any additional setup after loading the view, typically from a nib.
}

override func didReceiveMemoryWarning() {
    super.didReceiveMemoryWarning()
    // Dispose of any resources that can be recreated.
IBAction
(Interface Builder Action)
Hold on control drag and drop to Assistant Editor
class ViewController: UIViewController {

override func viewDidLoad() {
    super.viewDidLoad()
    // Do any additional setup after loading the view, typically from a nib.

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }

    @IBAction func btnHello(sender: AnyObject) {
}

// ViewController.swift
// HelloWorld
//
// Created by iMydo on 2014/10/8.
// Copyright (c) 2014年 iMydo. All rights reserved.
//
import UIKit

class ViewController: UIViewController {

override func viewDidLoad() {
    super.viewDidLoad()
    // Do any additional setup after loading the view, typically from a nib.

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }

    @IBAction func btnHello(sender: AnyObject) {
}
Hold on control drag and drop to Assistant Editor
import UIKit

class ViewController: UIViewController {

    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading the view, typically from a nib.
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }

    @IBOutlet var txtYourName: UITextField!

    @IBAction func btnHello(sender: AnyObject) {
        // Your code here
    }
}
import UIKit

class ViewController: UIViewController {

    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading the view, typically from a nib.
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }

    @IBOutlet var txtYourName: UITextField!

    @IBAction func btnHello(sender: AnyObject) {
    }
}
Hello World

Hello

@IBOutlet var txtYourName: UITextField!
@IBOutlet var myLabel: UILabel!

@IBAction func btnHello(sender: AnyObject) {
...
}
class ViewController: UIViewController {

override func viewDidLoad() {
    super.viewDidLoad()
    // Do any additional setup after loading the view, typically from a nib.
}

override func didReceiveMemoryWarning() {
    super.didReceiveMemoryWarningMemoryWarning()
    // Dispose of any resources that can be recreated.
}

@IBOutlet var txtYourName: UITextField!
@IBOutlet var myLabel: UILabel!

@IBAction func btnHello(sender: AnyObject) {
    myLabel.text = "Hello, " + txtYourName.text
}
import UIKit

class ViewController: UIViewController {

    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading the view, typically from a nib.
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }

    @IBOutlet var txtYourName: UITextField!
    @IBOutlet var myLabel: UILabel!

    @IBAction func btnHello(sender: AnyObject) {
        myLabel.text = "Hello, " + txtYourName.text
    }
}
import UIKit

class ViewController: UIViewController {
    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading the view, typically from a nib.
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }

    @IBOutlet var txtYourName: UITextField!
    @IBOutlet var myLabel: UILabel!

    @IBAction func btnHello(sender: AnyObject) {
        myLabel.text = "Hello, " + txtYourName.text
    }
}
class ViewController: UIViewController {

    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading the view, typically from a nib.
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }

    @IBOutlet weak var txtYourName: UITextField!
    @IBOutlet weak var myLabel: UILabel!

    @IBAction func btnHello(sender: UIButton) {
        myLabel.text = "Hello, " + txtYourName.text
    }

}
Hello World

Hello
Hello World

```swift
import UIKit

class ViewController: UIViewController {

    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be shared.
    }

    @IBOutlet var txtYourName: UITextField!
    @IBOutlet var myLabel: UILabel!

    @IBAction func btnHello(sender: AnyObject) {
        myLabel.text = "Hello, " + txtYourName.text
    }
}
```

Hello World
Building Your First iOS App with Xcode 6
import UIKit

class ViewController: UIViewController {

    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading the view, typically from a nib.
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }

    @IBOutlet var txtYourName: UITextField!
    @IBOutlet var myLabel: UILabel!

    @IBAction func btnHello(sender: AnyObject) {
        myLabel.text = "Hello, " + txtYourName.text
    }
}
@IBOutlet var txtYourName: UITextField!
@IBOutlet var myLabel: UILabel!
@IBAction func btnHello(sender: AnyObject) {
    myLabel.text = "Hello, " + txtYourName.text
}
Hello, Myday

Hello
Option:
Building Your First iOS App with Xcode 5 (Objective-C)
Working with Foundation

Array

Dictionary

String

Source: https://developer.apple.com/library/ios/referencelibrary/GettingStarted/RoadMapiOS/FoundationClasses.html
NSString

1 // Create the string "My String" plus carriage return.
2 NSString *myString = @"My String\n";
3 // Create the formatted string "1 String".
4 NSString *anotherString = [NSString stringWithFormat:@"%@ %@", 1, @"String"];  
5 // Create an Objective-C string from a C string.
6 NSString *fromCStringRef = [NSString stringWithFormat:"A C string"
                           encoding:NSUTF8StringEncoding];

Source: https://developer.apple.com/library/ios/referencelibrary/GettingStarted/RoadMapiOS/FoundationClasses.html
NSNumber

```objective-c
1 NSNumber *myIntValue = @32;
2 NSNumber *myDoubleValue = @3.22346432;

1 NSNumber *myBoolValue = @YES;
2 NSNumber *myCharValue = @'V';

1 NSNumber *myFloatValue = @3.2F
```

Arrays

Source: https://developer.apple.com/library/ios/referencelibrary/GettingStarted/RoadMapiOS/FoundationClasses.html
Dictionaries

Source: https://developer.apple.com/library/ios/referencelibrary/GettingStarted/RoadMapiOS/FoundationClasses.html
Welcome to Xcode

Version 5.0 (5A1413)

Create a new Xcode project
Start building a new iPhone, iPad or Mac application.

Check out an existing project
Start working on something from an SCM repository.
Choose a template for your new project

1. Single View Application

This template provides a starting point for an application that uses a single view. It provides a view controller to manage the view, and a storyboard or nib file that contains the view.
After you add the text field, label, and button UI elements and make the recommended layout changes, your project should look similar to this:

There are a few other changes you can make to the text field so that it behaves as users expect. First, because users will be entering their names, you can ensure that iOS suggests capitalization for each word they type. Second, you can make sure that the keyboard associated with the text field is configured for entering names (rather than numbers, for example), and that the keyboard displays a Done button.
@import <UIKit/UIKit.h>
@interface ViewController : UIViewController
@end
```objc
@interface ViewController : UIViewController
@end
```

```objc
#import <UIKit/UIKit.h>

@interface ViewController : UIViewController
@end
```
```objc
#import <UIKit/UIKit.h>

@interface ViewController : UIViewController
-(IBAction)btnHello:(id)sender;
@end
```
// ViewController.h
// HelloWorld
//
// Created by JMyday on 13/10/23.
// Copyright (c) 2013年 IMTXU. All rights reserved.

#import <UIKit/UIKit.h>

@interface ViewController : UIViewController
-(IBAction)btnHello:(id)sender;
@end
@property (strong, nonatomic) IBOutlet UITextField *txtYourName;
@property (strong, nonatomic) IBOutlet UITextField *txtYourName;
@property (strong, nonatomic) IBOutlet UILabel *MyLabel;
@property (strong, nonatomic) IBOutlet UILabel *MyLabel;
// ViewController.m
// HelloWorld
// Created by JMyday on 13/10/23.
// Copyright (c) 2013年 JMYU. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController

-(void)viewDidLoad
{    
   // Do any additional setup after loading the view, typically from a nib.
}

-(void)alertView:(UIAlertView *)alertView
@

@end

@interface ViewController : UIViewController
-
@end

@property (strong, nonatomic) IBOutlet UITextField *txtYourName;
@property (strong, nonatomic) IBOutlet UILabel *MyLabel;
@end
```c
// ViewController.m
// HelloWorld
// Created by jMyday on 13/10/23.
// Copyright (c) 2013年 IAMTU. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController
-
(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

-
(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

-(IBAction)btnHello:(id)sender {
    _MyLabel
}
@end
```
```swift
// ViewController.m
// HelloWorld
// Created by jMyday on 13/10/23.
// Copyright (c) 2013年 IMTKU. All rights reserved.

#import "ViewController.h"

@interface ViewController
@end

@implementation ViewController

-(void)viewDidLoad
{
    // Do any additional setup after loading the view, typically from a nib.
}

-(void)didReceiveMemoryWarning
{
    // Dispose of any resources that can be recreated.
}

-(IBAction)btnHello:(id)sender
{
    _MyLabel.text = @"Hello World";
}
@end
```
// ViewController.m
// HelloWorld
// Created by jMyday on 13/10/23.
// Copyright (c) 2013年 iMTKU. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController

-(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

-(void)didReceiveMemoryWarning
{
    super didReceiveMemoryWarning;
    // Dispose of any resources that can be recreated.
}

-(IBAction)btnHello:(id)sender {
    _MyLabel.text = @"string";
}

@end
- (IBAction)btnHello:(id)sender {
    _MyLabel.text = @"Hello World Myday";
}

// Copyright (c) 2013年 IMTXU. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController

- (void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

- (void) viewWillAppear:(BOOL)animated
{
    // (Optional) Called when the view appears in the interface.
}

- (void) viewDidAppear:(BOOL)animated
{
    // (Optional) Called when the view becomes visible.
}

- (void) viewWillDisappear:(BOOL)animated
{
    // (Optional) Called when the view disappears from the interface.
}

- (void) viewDidDisappear:(BOOL)animated
{
    // (Optional) Called when the view becomes invisible.
}

- (IBAction)btnHello:(id)sender
{
    _MyLabel.text = @"Hello World Myday";
}
@end

// ViewController.h
// HelloWorld

// Created by JMyday on 13/10/23.
// Copyright (c) 2013年 IMTXU. All rights reserved.

#import <UIKit/UIKit.h>
@interface ViewController : UIViewController
@property (strong, nonatomic) IBOutlet UITextField *txtYourName;
@property (strong, nonatomic) IBOutlet UILabel *MyLabel;
@end
// ViewController.m
// HelloWorld

// Created by Myday on 13/10/23.
// Copyright (c) 2013年 Myday. All rights reserved.

#import "ViewController.h"

@interface ViewController :
@end

@implementation ViewController
-(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

-(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

-(IBAction)btnHello:(id)sender {
    _MyLabel.text = @"Hello World Myday";
}
@end

// ViewController.h
// HelloWorld

// Created by Myday on 13/10/23.
// Copyright (c) 2013年 Myday. All rights reserved.

#import <UIKit/UIKit.h>

@interface ViewController : UIViewController
@property (strong, nonatomic) IBOutlet UITextField *txtYourName;
@property (strong, nonatomic) IBOutlet UILabel *MyLabel;
@end

Build Succeeded
// ViewController.m
// HelloWorld

// Created by MyDay on 12/13/23.
// Copyright (c) 2013 MyDay. All rights reserved.

#import "ViewController.h"

@interface ViewController :

@end

@implementation ViewController

-(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

-(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

-(IBAction)btnHello:(id)sender {
    _MyLabel.text = @"Hello World MyDay";
}
@end

Your Name

Label

Hello
// ViewController.m
// HelloWorld
// Created by Myday on 13/10/23.
// Copyright © 2013年 IMTKU. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController

-(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

-(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

-(IBAction)btnHello:(id)sender
{
    _myLabel.text = @"Hello World Myday";
}
@end
// ViewController.m
// HelloWorld

// Created by Myday on 13/10/23.
// Copyright (c) 2013年 Myday. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController

- (void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

- (void)alertView: (UIAlertView *)alertView clickedButtonAtIndex: (NSInteger)buttonIndex
{
    // Do something when alertview is clicked
}

- (IBAction)btnHello:(id)sender
{
    _myLabel.text = @"Hello World Myday";
}
@end
// ViewController.m
// HelloWorld
// Created by Myday on 13/10/23.
// Copyright (c) 2013年 IMTKU. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController

-(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

-(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

-(IBAction)btnHello:(id)sender {
    _myLabel.text = @"Hello World Myday";
}
@end
// ViewController.m
// HelloWorld

// Created by Myday on 13/10/23.
// Copyright (c) 2013年 MITKU. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController
-
(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}
-
(void) didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}
-
(void)btnHello:(id)sender
{
    _myLabel.text = @"Hello World Myday";
}
@end
// ViewController.h
// HelloWorld
//
// Created by jMyday on 13/10/23.
// Copyright (c) 2013年 MITM. All rights reserved.

#import <UIKit/UIKit.h>

@interface ViewController : UIViewController
-(IBAction)btnHello:(id)sender;
@property (strong, nonatomic) IBOutlet UITextField *txtYourName;
@property (strong, nonatomic) IBOutlet UILabel *MyLabel;
@end
@implementation ViewController

- (void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

- (void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

- (IBAction)btnHello:(id)sender
{
    _MyLabel.text = @"Hello World Myday";
}
@end

#import "ViewController.h"
```c
#import <UIKit/UIKit.h>

@interface AppDelegate : UIResponder <UIApplicationDelegate>
@property (strong, nonatomic) UIWindow *window;
@end
```
#import "AppDelegate.h"

@implementation AppDelegate

- (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
{
    // Override point for customization after application launch.
    return YES;
}

- (void)applicationWillResignActive:(UIApplication *)application
{
    // Sent when the application is about to move from active to inactive state. This can occur for certain types of
temporary interruptions (such as an incoming phone call or SMS message) or when the user quits the
application and it begins the transition to the background state.
    // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates. Games should
use this method to pause the game.
}

- (void)applicationDidEnterBackground:(UIApplication *)application
{
    // Use this method to release shared resources, save user data, invalidate timers, and store enough application
state information to restore your application to its current state in case it is terminated later.
    // If your application supports background execution, this method is called instead of applicationWillTerminate:
    // when the user quits.
}

- (void)applicationWillEnterForeground:(UIApplication *)application
{
    // Called as part of the transition from the background to the inactive state; here you can undo many of the
changes made on entering the background.
}

- (void)applicationDidBecomeActive:(UIApplication *)application
{
    // Restart any tasks that were paused (or not yet started) while the application was inactive. If the
application was previously in the background, optionally refresh the user interface.
}

- (void)applicationWillTerminate:(UIApplication *)application
{
    // Called when the application is about to terminate. Save data if appropriate. See also
applicationDidEnterBackground:
}
@end
// ViewController.h
// HelloWorld

#import <UIKit/UIKit.h>

@interface ViewController : UIViewController
- (IBAction)btnHello:(id)sender;
@property (strong, nonatomic) IBOutlet UITextField *txtYourName;
@property (strong, nonatomic) IBOutlet UILabel *MyLabel;
@end
/ ViewController.m
// HelloWorld

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController

- (void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

- (void) didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

- (IBAction)btnHello:(id)sender {
    _MyLabel.text = @"Hello World Myday";
}
@end
@property (copy, nonatomic) NSString *userName;
// ViewController.m
// HelloWorld
//
// Created by JMyday on 13/10/23.
// Copyright (c) 2013年 IMTKU. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController

- (void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

- (void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

- (IBAction)btnHello:(id)sender
{
    _MyLabel.text = @"Hello World Myday";
}
@end
ViewController.m

// ViewController.m
// HelloWorld
// Created by JMyday on 13/10/23.
// Copyright (c) 2013年 IMTKU. All rights reserved.

#import "ViewController.h"

@interface ViewController :

@end

@implementation ViewController

@synthesize userName = _userName;

-(void)viewDidLoad
{
    // Do any additional setup after loading the view, typically from a nib.
    [super viewDidLoad];
}

-(void) viewWillAppear:(UIStoryboard *)sender
{
    [super viewWillAppear:nil];
}

-(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
}

-(IBAction)btnHello:(id)sender
{
    _MyLabel.text = @"Hello World Myday";
}@end
// ViewController.m
// HelloWorld
//
// Created by JMyday on 13/10/23.
// Copyright (c) 2013年 IMTKU. All rights reserved.
//
#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController
@synthesize userName = _userName;

-(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

-(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

-(IBAction)btnHello:(id)sender {
    _MyLabel.text = @"Hello World Myday";
}
@end
```swift
// ViewController.m
// HelloWorld

// Created by JMyday on 13/10/23.
// Copyright (c) 2013年 IMTKU. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController
@synthesize userName = _userName;

-(void)viewDidLoad
{
    [super viewDidLoad];
}

-(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

-(IBAction)btnHello:(id)sender {
    self.userName = self.txtYourName.text;
    NSString *nameString = self.userName;
    if ([nameString length] == 0) {
        nameString = @"World";
    }
    NSString *greeting = [[NSString alloc] initWithFormat:@"Hello, %@", nameString];
    self.MyLabel.text = greeting;
}
@end
```
// ViewController.m
// HelloWorld
//
// Created by jMyday on 13/10/23.
// Copyright (c) 2013-2014 jMyday. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController
@synthesize userName = _userName;

-(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

-(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

-(BOOL)textFieldShouldReturn:(UITextField *)textFieldName
{
    if ([textFieldNameyleftYourName])
    {
        textFieldNameyleftYourName resignFirstResponder;
    }
    return YES;
}

-(IBAction)btnHello:(id)sender
{
    self.userName = self.textFieldYourName.text;
    NSString *nameString = self.userName;
    if ([nameString length] == 0) {
        NSString *greeting = 
        [NSString alloc] initWithFormat:@"Hello, %@!", nameString];
        self.myLabel.text = greeting;
    }
}@end
- (IBAction)btnHello:(id)sender {
    self.userName = self.txtYourName.text;
    NSString *nameString = self.userName;
    if ([nameString length] == 0) {
        nameString = @"World";
    }
    NSString *greeting = [[NSString alloc] initWithFormat:@"Hello, %@!", nameString];
    self.MyLabel.text = greeting;
}
- (BOOL)textFieldShouldReturn:(UITextField *)thetxtYourName {
    if (thetxtYourName == self.txtYourName) {
        [thetxtYourName resignFirstResponder];
    }
    return YES;
}
// ViewController.m
// HelloWorld

// Created by Myday on 13/10/23.
// Copyright (c) 2013年 DMTXU. All rights reserved.

#import "ViewController.h"

@interface ViewController ()
@end

@implementation ViewController
@synthesize userName = _userName;

-(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

-(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

- (BOOL)textFieldShouldReturn:(UITextField *)textField
{
    if ([textFieldYourName isEqualToString:@"\u6211\u6728\"])
    {
        textFieldYourName resignFirstResponder;
        return YES;
    }

    // Add your code here to handle text field return
}

- (IBAction)btnHello:(id)sender
{
    self.userName = textFieldYourName.text;
    NSString *nameString = self.userName;
    if ([nameStringLength isEqualToString:@"\u6211\u6728\"])
    {
        nameString = @"\u6609\u6211\u6269\u6587\";
        NSString *greeting = [[NSString alloc] initWithFormat:@"Hello, %@", nameString];
        self.textLabel.text = greeting;
    }
}
@end
Your Name

Label

Hello

Label - A variably sized amount of static text.

Button - Intercepts touch events and sends an action message to a target object when it's tapped.

Segmented Control - Displays multiple segments, each of which functions as a discrete button.

Text Field - Displays editable text and sends an action message to a target object when Return is tapped.

Slider - Displays a continuous range of values.
```c
// ViewController.h
// HelloWorld
//
// Created by jMyday on 13/19/23.
// Copyright (c) 2013年 JMYHU. All rights reserved.
//
#import <UIKit/UIKit.h>

@interface ViewController : UIViewController
- (IBAction)btnHello:(id)sender;
@property (strong, nonatomic) IBoutlet UITextField *txtYourName;
@property (strong, nonatomic) IBoutlet UILabel *myLabel;
@property (copy, nonatomic) NSString *userName;
@end
```
// ViewController.m
// HelloWorld

// Created by jMyday on 13/03/23.
// Copyright (c) 2013年 jMyday. All rights reserved.

#import "ViewController.h"

@interface ViewController :
@end

@implementation ViewController
@synthesize userName = _userName;

-(void)viewDidLoad
{
    [super viewDidLoad];
    // Do any additional setup after loading the view, typically from a nib.
}

-(void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
    // Dispose of any resources that can be recreated.
}

-(BOOL)textFieldShouldReturn:(UITextField *)theTextField 
{
    if ([theTextField text] == "self.txtYourName")
    {
        [theTextField resignFirstResponder];
    }
    return YES;
}

-(IBAction)btnHello:(id)sender
{
    self.userName = self.txtYourName.text;
    NSString *nameString = self.userName;
    if (![nameString length] == 0) {
        nameString = @"World";
    }
    NSString *greeting = [[NSString alloc] initWithFormat:@"Hello, %@!", nameString];
    self.textLabel.text = greeting;
}
@end
// AppDelegate.h
// HelloWorld
// Created by jMyday on 13/10/23.
// Copyright (c) 2013年 IMXU. All rights reserved.

#import <UIKit/UIKit.h>

@interface AppDelegate : UIResponder <UIResponder, UIApplicationDelegate>
@property (strong, nonatomic) UIWindow *window;
@end
// AppDelegate.m
// HelloWorld

#pragma mark - Application didStartDatelaunchingWithOptions:

- (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
{
    // Override point for customization after application launch.
    return YES;
}

- (void)applicationWillResignActive:(UIApplication *)application
{
    // Sent when the application is about to move from active to inactive state. This can occur for certain types of temporary interruptions (such as an incoming phone call or SMS message) or when the user quits the application and it begins the transition to the background state.
    // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates. Games should use this method to pause the game.
}

- (void)applicationDidEnterBackground:(UIApplication *)application
{
    // Use this method to release shared resources, save user data, invalidate timers, and store enough application state information to restore your application to its current state in case it is terminated later.
    // If your application supports background execution, this method is called instead of applicationWillTerminate when the user quits.
}

- (void)applicationWillEnterForeground:(UIApplication *)application
{
    // Called as part of the transition from the background to the inactive state; here you can undo many of the changes made on entering the background.
}

- (void)applicationDidBecomeActive:(UIApplication *)application
{
    // Restart any tasks that were paused (or not yet started) while the application was inactive. If the application was previously in the background, optionally refresh the user interface.
}

- (void)applicationWillTerminate:(UIApplication *)application
{
    // Called when the application is about to terminate. Save data if appropriate. See also applicationDidEnterBackground.
}
Your Name

Label

Hello, Myday!

Label - A variably sized amount of static text.

Segmented Control - Displays multiple segments, each of which functions as a discrete button.

Text Field - Displays editable text and sends an action message to a target object when Return is tapped.

Button - Intercepts touch events and sends an action message to a target object when it's tapped.
Summary

• Developing iPhone / iPad Native Apps with Swift / Objective-C (Xcode)
  – Mac OS X 10.8, 10.9, 10.10
  – Xcode 6
  – iOS 8

• Building Your First iOS App with Xcode 6
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– The Swift Programming Language,

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