

# Chapter 1

Introduction to iOS Development

# iOS

The world's most advanced mobile OS.  
In its most advanced form.

With an easy-to-use interface, amazing features, and security at its core, iOS 7 is the foundation of iPhone, iPad, and iPod touch. It's designed to look beautiful and work beautifully, so even the simplest tasks are more engaging. And because iOS 7 is engineered to take full advantage of the advanced technologies built into Apple hardware, your devices are always years ahead — from day one to day whenever.



# iOS & iDevices Brief History

- iPhone OS to iOS
- Multi-tasking & background
- Facetime
- Retina Display
- AirPrint
- Local Notification
- +1000 features
- Siri upgrade
- Facebook Integration
- Passbook
- Apple Map, 3d Flymode & Turn-By-Turn
- Collection View
- Auto Layout
- See the last session
- Swift, Extension, and more...



- Introduce iPhone
- Phone, iPod, Internet
- Accelerometer
- Pinch, Zoom, natural scrolling,
- maps
- Focus on Web App, no AppStore yet.

- Support VDO recoding
- Cut, copy, paste
- Spotlight
- Push notification
- +100 features
- iPad
- Core Data

- Siri
- iCloud
- Notification Center
- iMessage
- Newsstand
- No PC
- Bluetooth LE
- iAd
- Twitter Integration

- Redesign everything
- Control Center
- iTunes Radio
- PassKit
- TextKit
- 64 bit
- Multi-tasking Enhancement
- AirDrop
- Peer-2-Peer

# To Develop iOS App

- ⦿ Mac with Most Up-to-date.
- ⦿ Xcode
- ⦿ Objective-C, Swift
- ⦿ Apple ID

# Test App on Device

- ⦿ Mac with Most Up-to-date.
- ⦿ Xcode
- ⦿ Objective-C, Swift
- ⦿ Apple ID with Apple Developer Program
- ⦿ Real Device (iPhone, iPod Touch, iPad)

# Distribution in AppStore

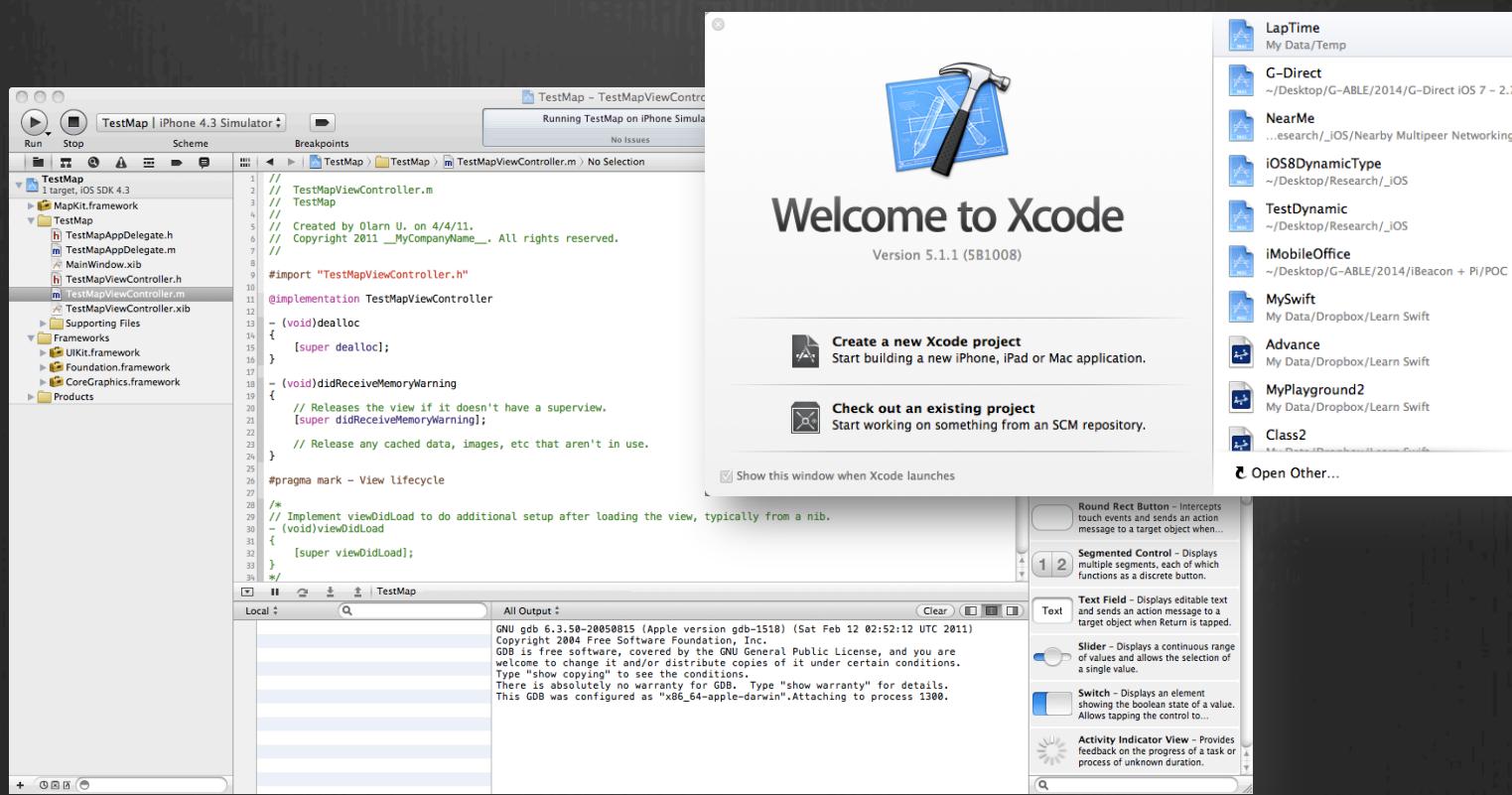
- ⦿ Mac with Most Up-to-date.
- ⦿ Xcode
- ⦿ Objective-C, Swift
- ⦿ Apple ID with Apple Developer Program
- ⦿ Real Device

# Distribution In-House / Enterprise

- ⦿ Mac with Most Up-to-date.
- ⦿ Xcode
- ⦿ Objective-C, Swift
- ⦿ Apple ID with Apple Developer Enterprise Program
- ⦿ Real Device

# Xcode

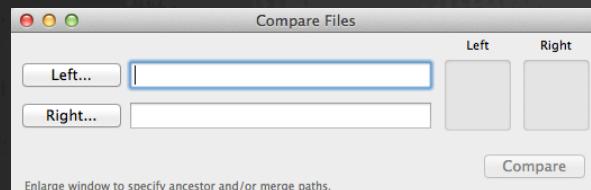
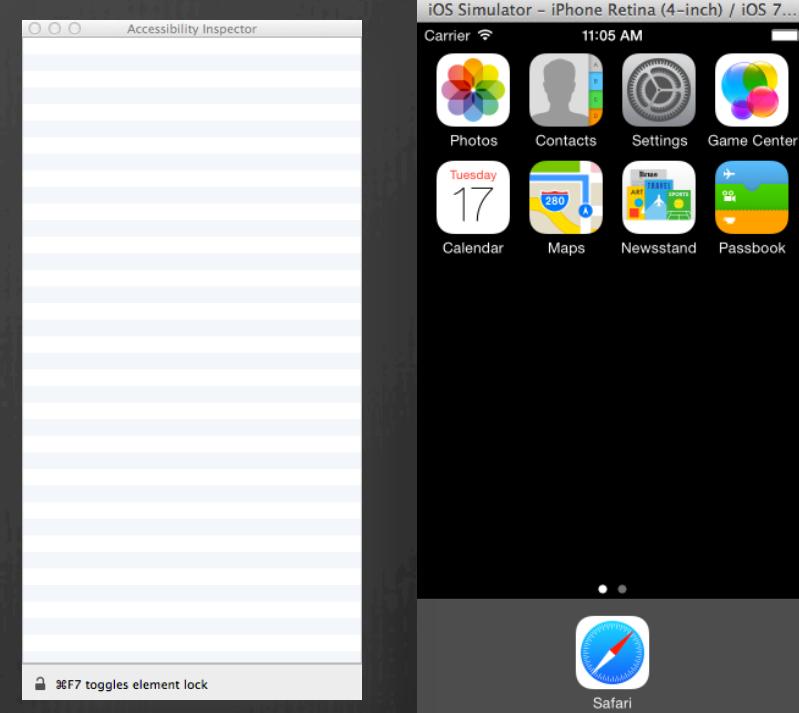
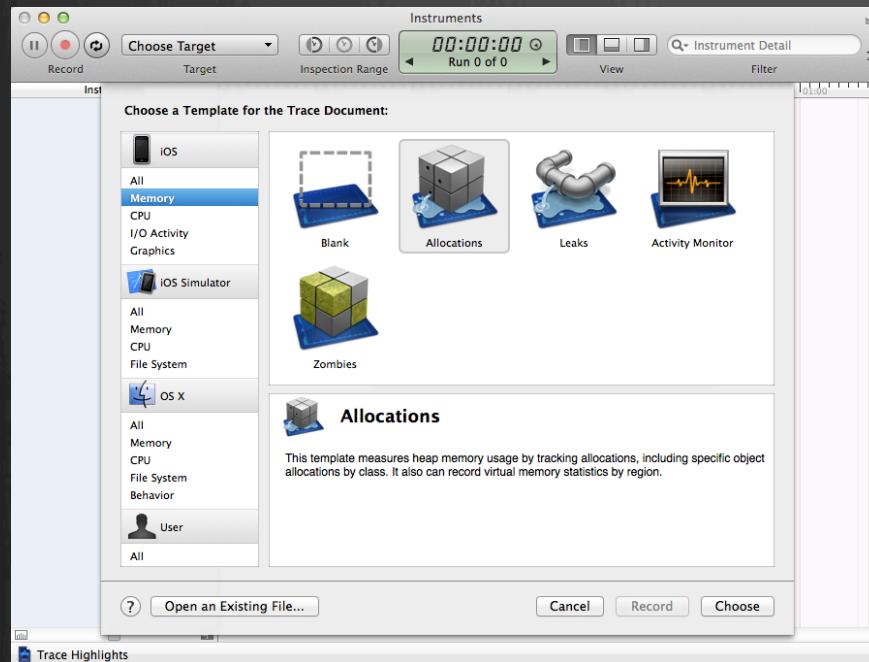
- Xcode เป็น IDE ที่ใช้พัฒนา application บน iOS และ OS X ทำงานบน OS X และรองรับการเขียนภาษา Objective-C, C, C++, Java, อื่นๆ และ Swift ใน Xcode 6
- Free ผ่าน Mac AppStore หรือ download จาก developer portal



# Xcode (2)

- ⦿ สร้าง project ใหม่และจัดการกับ project เช่น specifying platforms, target requirements, ผูก dependencies, และ build configurations.
- ⦿ เขียน code ใน code editor ซึ่งรองรับการแสดง syntax เป็นสีต่างๆ coloring และช่วยย่อหน้าหรือเติม code อัตโนมัติ
- ⦿ Navigate และ search ไปยัง components ต่างๆ ใน project, รวมไปถึง header files และเอกสารประกอบด้วย
- ⦿ Build project.
- ⦿ Debug project แบบ local ใน simulator, และ remote ไปยังอุปกรณ์ที่ใช้ test โปรแกรม ทั้งในรูปของ graphical และ debug ในระดับ source code.

# Development Tools



# Apple Developer Program

## ⦿ Developer Program

- ⦿ ลงทะเบียน Apple Developer (free)
- ⦿ ศึกษา, พัฒนา, ทดสอบกับ simulator บน Xcode (free ผ่าน Mac App Store)
- ⦿ App for consumer...
  - ⦿ You are individual developer or
  - ⦿ You are company developer
- ⦿ In-house App
  - ⦿ You are Enterprise developer

## ⦿ Deployment

- ⦿ iOS Developer (iTunes App Store)
- ⦿ Mac Developer (Mac OSX App Store)

## ⦿ Volume Licenses

## ⦿ Custom B2B Apps for Business

The screenshot shows the main Apple Developer website page. It features a banner with the text "Design. Code. Build. Innovate." and "Here's where it all happens for Apple developers." Below the banner are three main development centers: "iOS Dev Center", "Mac Dev Center", and "Safari Dev Center". To the right, there is a section titled "App Store Review Guidelines" with a link to "App Review Guidelines".

The screenshot shows the "Member Center" section of the Apple Developer website. It includes sections for "Developer Program Resources" (with links to Dev Centers, iOS Provisioning Portal, and Developer Certificate Utility), "App Store Distribution" (with links to App Store Resource Center and iTunes Connect), "Community and Support" (with links to Apple Developer Forums and Developer Support), and "News and Announcements" (with a link to ADC Premier and Select Members).

# Apple Developer Program

- ⦿ iOS Developer Program
- ⦿ Registration for Free
- ⦿ Free Xcode
- ⦿ \$99 / Year
  - ⦿ Test on iOS Device
  - ⦿ Distribute to AppStore
- ⦿ 1 developer account
- ⦿ 99 Test Devices
- ⦿ Early Access
- ⦿ iOS Enterprise Program
- ⦿ Free Xcode
- ⦿ \$299 / Year (8,990฿)
- ⦿ Requires D-U-N-E-S number
- ⦿ Unlimited developer accounts
- ⦿ 99 Test Devices
- ⦿ In-House Distribution
- ⦿ Cannot deploy to Apple AppStore

# Enroll in the Apple Developer Program (iOS & Mac Developer)

01 - 13



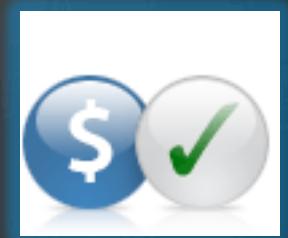
## 1. Register as an Apple Developer

If you have not already registered as an Apple Developer, we will walk you through the process so you can complete and submit your enrollment.



## 2. Select Your Programs

Once you have registered as an Apple Developer, you will select a Program (or Programs) based on the platform you wish to develop for.



## 3. Complete Your Purchase

After purchasing your Program, you will receive an activation email within 24 hours that provides information on how to access your Program resources.

<http://developer.apple.com/programs/start/standard/>



Apple ID



Personal Profile



Professional Profile



Terms and Conditions



Email Verification

# Enroll in the Apple Developer Enterprise Program

Before applying please ensure the following:

- ⦿ **You plan to only distribute your iOS apps within your company or organization**  
The Enterprise Program is intended for developers who wish to develop and distribute their iOS apps within their company or organization.
- ⦿ **Your company has a DUNS Number**  
You will be required to provide us with your Dun & Bradstreet Number during the enrollment process.
- ⦿ **You have authority to bind your company to the legal agreements**  
You will need to provide the legal contact who can verify that you have the authority to bind your company to the iOS Developer Program Enterprise License Agreement.



# iOS Developer Program Benefits

01 - 15

	<b>iOS Developer Program – Individual</b> <a href="#">Learn more ▾</a>	<b>iOS Developer Program – Company</b> <a href="#">Learn more ▾</a>	<b>iOS Developer Enterprise Program</b> <a href="#">Learn more ▾</a>	<b>iOS Developer University Program</b> <a href="#">Learn more ▾</a>	<b>Registered as an Apple Developer</b> <a href="#">Learn more ▾</a>
Dev Center Resources	✓	✓	✓	✓	✓
iOS SDK	✓	✓	✓	✓	✓
Select Pre-Release Software & Tools	✓	✓	✓		
Ability to Create Development Team		✓	✓	✓	✓
Apple Developer Forums	✓	✓	✓	✓	
Technical Support Incidents	2 per membership year	2 per membership year	2 per membership year		
Test on iPad, iPhone, and iPod touch	✓	✓	✓	✓	
Ad Hoc Distribution	✓	✓	✓		
In-House Distribution			✓		
App Store Distribution	✓	✓			
Price	\$99/year	\$99/year	\$299/year	Free	Free

# Apple Developer Portal

 **Developer** **Member Center**

Organization: G-ABLE COMPANY LIMITED | [Sign out](#)

---

### Developer Program Resources

#### Technical Resources and Tools

 **Dev Centers**  
Quickly access a range of technical resources.  
[iOS](#) | [Mac](#) | [Safari](#)

 **Certificates, Identifiers & Profiles**  
Manage your certificates, App IDs, devices, and provisioning profiles.

---

#### Community and Support

 **Apple Developer Forums**  
Discuss technical topics with other developers and Apple engineers.

 **Developer Support**  
Request technical or developer program support.  
[Technical](#) | [Program](#)

### Developer Program Overview

 Read about accessing the resources and benefits of your iOS Developer Program

---

#### News and Announcements

 Get app submission tips, learn about new features in iTunes Connect and receive guidance on developing and marketing your apps.  
[Learn more ▶](#)

# Apple Developer Portal

The screenshot shows the Apple Developer Portal homepage. At the top, there's a navigation bar with links for Technologies, Resources, Programs, Support, Member Center, and a search bar. Below the navigation is a main menu with iOS Dev Center, Mac Dev Center, and Safari Dev Center. On the right, there are links for My Profile and Sign out.

The main content area has tabs for iOS 7 SDK and iOS 8 beta. Under the iOS 7 SDK tab, there's a section for Resources for iOS 7 with links to Downloads, iOS Developer Library (containing Getting Started, Guides, Reference, Release Notes, Sample Code, Technical Notes, and Technical Q&As), Development Videos (with links to iOS Development and WWDC Videos), iAd JS Developer Library (with a note about technical documentation for developing with iAd JS), and Apple Developer Forums (with a note about discussing iOS development with other developers and Apple engineers).

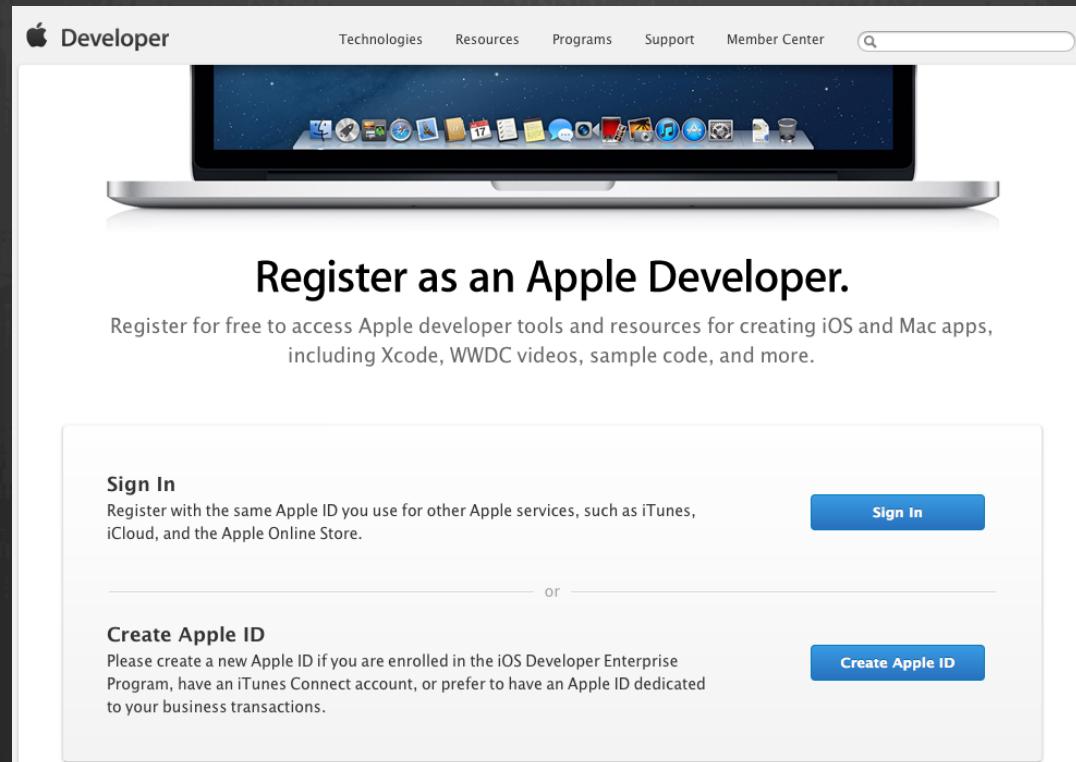
In the center, there's a Featured Content sidebar with links to Submit iOS 7 Apps Today, What's New in iOS, 64-Bit Transition Guide, App States and Multitasking, Designing Great Apps, Game Center, iAd, iCloud, In-App Purchase, Newsstand, Passbook, and Push Notifications.

On the right, there are several boxes for the iOS Developer Program:

- Certificates, Identifiers & Profiles
- Apple Developer Forums
- Developer Support Center
- App Store Resource Center
- Prepare for App Submission
- App Store Approval Process
- Managing Apps
- Marketing Resources
- News & Announcements (with a link to Single App Binary Supports 64-bit and 32-bit Apps from January 10, 2014)

# Enterprise Program for G-ABLE Developers

- Developer สมัคร Apple ID (ด้วย email ของบริษัท)
- Developer สมัคร Apple Developer ID



# Enterprise Program for G-ABLE Developers

- ⦿ Agent ส่ง Invitation ไปยัง developer, developer accept

The screenshot shows the Apple Developer Member Center interface. At the top, there's a navigation bar with the Apple logo, 'Developer', 'Member Center', and a sign-out link. Below the navigation, it displays the organization name 'G-ABLE COMPANY LIMITED'. On the left, a sidebar lists 'All People', 'iOS Developers', and 'Invitations', with 'Invitations' being the active tab. The main content area is titled 'Invite People to Your Team' and contains two sections: 'Invite a Person to Your Team' and 'Invite Multiple People to Your Team'. Each section includes a description of the invitation process and a corresponding 'Invite Person' or 'Bulk Invite' button.

Developer

Member Center

Organization: G-ABLE COMPANY LIMITED | Sign out

All People

iOS Developers

Invitations

Invite People to Your Team

Invite a Person to Your Team

Send an invitation to a colleague requesting they join your development team.

Invite Person

Invite Multiple People to Your Team

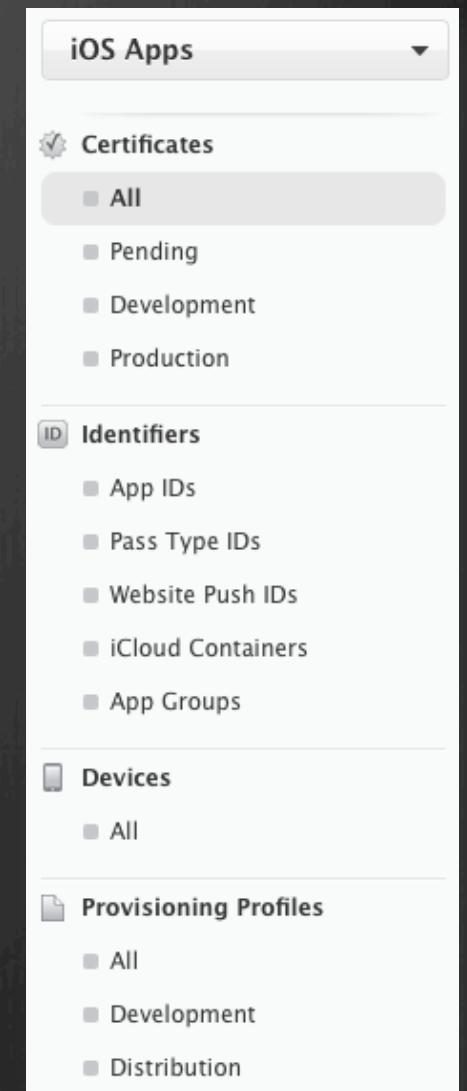
Send invitations to a list of colleagues requesting they join your development team.

Bulk Invite

Copyright © 2014 Apple Inc. All rights reserved. Terms of Use

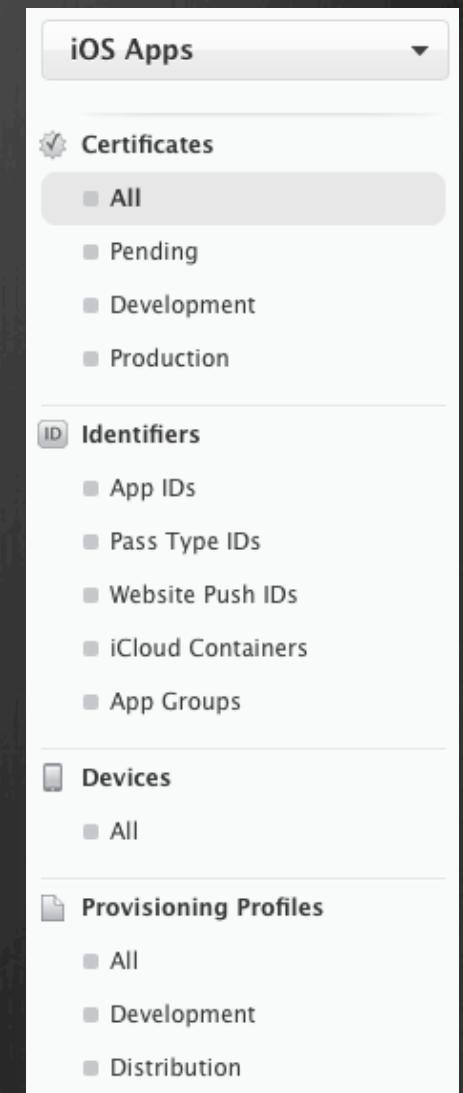
# Development Provisioning Profile

- ⦿ สร้าง development certificate
- ⦿ สร้าง App ID, Push Certificates
- ⦿ เพิ่ม Development Devices
- ⦿ สร้าง Development Provisioning Profile
  - ⦿ กำหนด member
  - ⦿ กำหนด App ID
  - ⦿ กำหนด devices
- ⦿ Download provisioning profile



# Distribution Provisioning Profile

- ⦿ สร้าง App ID (ใช้อันเดียวกับ development)
- ⦿ สร้าง Push Certificates สำหรับ production
- ⦿ สร้าง Development Provisioning Profile
  - ⦿ เลือก distribution certificate (ทั้ง account มีตัวเดียว)
  - ⦿ กำหนดว่าเป็น In-house
  - ⦿ กำหนด App ID
- ⦿ Download Provisioning Profile



# Resources

- ⦿ Apple Developer Portal  
<https://developer.apple.com>
- ⦿ WWDC Session videos  
<https://developer.apple.com/videos/>
- ⦿ Swift Language  
<https://developer.apple.com/swift/>
- ⦿ Enterprise & (some) Education Guideline  
<https://developer.apple.com/enterprise/>
- ⦿ Best practices for iOS App  
<http://www.objc.io>

# Before continue...

- ⦿ Do you ever use Mac?
- ⦿ No? Let's play Mac & OS X.
  - ⦿ Magic Mouse, Keyboard
  - ⦿ Finder, Folder Structure, Copy, Paste, Move
  - ⦿ Language Switcher (keyboard)
  - ⦿ Docking, Application Folder
  - ⦿ Spotlight, Launchpad, Mission Control, Full screen, Quick Look, Preview
  - ⦿ System Preferences (Control Panel)
  - ⦿ Network & Proxy
  - ⦿ Terminal
  - ⦿ Activity Monitor
  - ⦿ Shutdown, Restart