## iOS4 Introduction

Bess Ho @bess

iOS Instructor Cogswell Technical College Sunnyvale CA

#### Class Rules

No video and audio recording
 Questions after each session
 Course material not transferable
 Keep your mobile in silence mode
 Rotate to charge your laptop

# Time Keeper

Give me signal 10min before end of each session

Need a volunteer to track the time

#### Class

Never coded in Objective-C
 Never developed an iOS app
 Never published an iOS app in the App Store

#### Solutions

Relief pain most beginners suffered from getting started in iPhone

- Practical knowledge not mentioned in developer books
- Information not available in any Documentation

How to avoid beginner's mistakes

#### Course Requirements

Intel-based Mac OSX Snow Leopard
 Latest iTunes version
 Apple Developer Account
 iOS4 SDK

### Internet Access

Mi Fi

# Distribute Sample Codes

USB Keys or CDs

### Agenda

Hour 1 (10 min break)
Hour 2 (10 min break)
Hour 3 (15 min Q&A)

#### Market Size & Share



Arstechnica.com Jan 2010

#### What's new on iOS4

#### Paid Application Market Size Estimate<sup>(3)</sup>

	Estimated Number of Users	% Who Buy Paid Apps	Average \$/Month Spent on Paid Apps	Est. August 2009 Paid App Market Size
Android	зм	19%	\$8.63	\$5M
iPhone	26.4M	50%	\$9.49	\$125M
iPod touch	18.6M	40%	\$9.79	\$73M

AdMob Report in 2009

#### What's new on iOS4





Top 100 Top 10

Takes about 400 Sales per day to break into Top 100
Takes about 10,000 Sales per day to break into Top 10

#### Incentive

# **Top 100 App**

Revenue	Total		
\$3.18 X 1,000 app	\$3,180 / day		
\$3,180 x 30 days	\$95,400 / month		
\$95,400 x 12 months	\$1,160,700 / year		



# What's new on iOS4 iPhone4





#### What's new on iOS4

#### Game Center Multitasking







Tiberius

SnowAngel135

Auto-Match

Remove Plane

M Player



Create different nickname visible to friend and the gaming community

Assign several email addresses increase search visibility

Tap links to download games. Play game in the Game Center





# Game Center

#### Leaderboard

#### Achievements



# Multitasking

Switch between used apps without waiting for the app to reload

Listen to audio in the background

Receive Skype or VoIP calls while running on other app



9:41 AM

**Crosby St** 

Mercer St

Greene St

6

0:16 HRS 1:53 🕷

# Multitasking

**Keep GPS running in the** background to update your position and give spoken turn-by-turn direction while listening to music

**Receive push and local** noticiations

**Complete tasks in the** background

End

FaceTime
Retina Display
2 Cameras: Front-facing camera
Backside camera
2 Microphones: Main

Z Microphones: Main Microphone + 2nd Microphone

с доехать

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# Multitasking

40+ language-specific keyboard

built-in dictionaries support 40 languages and dialects

VoiceOver reads screens in 33 languages and VoiceControl supports 24 languages

#### Engineered Glass Two glossy panels of aluminosilicate glass

Same material used in the windshields of helicopters and high-speed trains.

20 times stiffer. 30 times harder than plastic

More scratch resistant & Recyclable



GVro **Built-in three-axis gyroscope** Gyro + Accelerometer => advanced motion sensing **User acceleration, full 3D** attitude, rotation rate **Support more motion gestures** and better precision for gaming experience





Camera + LED 5-megapixel photos HD video **Backside illumination sensor Captures image in low-light** settings **Built-in LED flash Built-in camera for FaceTime** calls & self-portraits

Mic + Speaker **Two Microphones** Main mic - located on the bottom 2nd mic - built into the top near headphone jack for FaceTime and regular calls **Dual-mic suppress noise** 



# Multi-Touch

Laminated glass senses touch using electrical fields Advanced geatures: two-finger tap

Tap, Drag, Swipe, Pinch, Flick, Twist

# Apple Developer Acct

http://developer.apple.com/programs/register/

#### Requirements

Intel-based Mac OSX Snow Leopard
 Latest iTune version
 Apple Developer Account
 iPhone SDK iOS4



About iTunes



iTunes 9

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MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and THOMSON multimedia.

CD, DVD, Blu-ray Disc, and music and video-related data from Gracenote, Inc., copyright © 2000 to present Gracenote. Gracenote Software, copyright © 2000 to present Gracenote. One or more patents owned by Gracenote apply to this



Processor 2.26 GHz Intel Core 2 Duo

Memory 4 GB 1067 MHz DDR3

Startup Disk Macintosh HD

More Info...

TM and © 1983-2010 Apple Inc. All Rights Reserved.

# Check your software 1. Mac OSX 2. iTunes

Everyone?

#### SDK 4







#### iPhone-Only iPad-Only Universal App

# Select matching simulator & device054.0053.2053.2053.2

#### Requirements

iPhone SDK iOS4  $\sim$  Download < 3GB After install > 6GB Require 9.0 GB free disk space Multiple SDK install such as beta SDK requires another > 6GB



Apple Store won't be able to add additional Hard Drive on mac

#### HD Management

#### Easier fill up 40 GB

After

Default Install Directory Custom Install Directory Custom Install Directory

After Install

Name

Library

System

Users

Platforms

Applications Developer

DeveloperSDK2.2 DeveloperSDK3.0

📜 User Guides And Information



# Macintosh HD > Developer

Name

About Xcode.app

Documentation

Applications

Platforms

SDKs

Tools

usr

About Xcode and iPhone SDK.pdf


Everyone?

# Apple Developer Acct

http://developer.apple.com/programs/register/

## iOS Developer

http://developer.apple.com/programs/iphone/

599/YR



Vibration Location Manager Mail Application Map Application Safari Application Device Orientation Accelerometer Audio Performance V Overall Performance

**iOS Developer Program** 

iOS Developer Program

599/YR

iOS Enterprise Program

5299/YR

## iOS Developer Enterprise



Proprietary in-house applications to authorized users.

Available to companies with 500+ employees and a Dun & Bradstreet Number.

# MFi Program



## MFi Program





## Without MFi





## Network Performance









Other Resources
iAd JS Reference Library

## iPhone Resources

iPhone Documentation \delta iPhone Dev Center Apple Developer Forum iTunes University Stack Overflow A Ringto Radio iPhone Application Programming A Purchase SPRING 2009 PLAYLIST Mailing List DESCRIPTION Meetup.com Group

 Music
 Music
 TV Shows
 App Store
 Audiobooks
 Tunes U
 Desscho@gemail.cd

 Stanford > Sclence and Technology > IPhone Application Programming (Spring 2009) - Trackst

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1	1. Introduction to Mac OS X and Cocoa Touch (April 1, 2009)	<b>₽</b> 0	1:04:45	Evan Doll	iPhone	Free GET M
2	2. Using Objective-C, Foundation Framework (April 6, 2009)	Q Q	1:09:00	Alan Cannistraro	iPhone	Free GET M
3	3. Custom Classes, Memory Management, and ObjC Properties (April 8, 2009)	<b>₽</b> 0	1:16:06	Evan Doll	iPhone	Free GET M
4	4. Interface Builder, Controls, Target-Action (April 13, 2009)	<b>₽</b> 0	53:54	Alan Cannistraro	iPhone	Free GET M
5	5. Views and Drawing, Animations (April 15, 2009)	φø	1:09:56	Alan Cannistraro	iPhone	Free GET M
6	6. View Controller Basics (April 20, 2009)	<b>₽</b> 0	1:12:52	Evan Doll	iPhone	Free GET M
7	7. Navigation Controllers (April 22, 2009)	00	1:13:28	Evan Doll	iPhone	Free ( GET M
6.000						



#### 320 pixel



#### 480 pixel

#### iPhone / iTouch Screen Size



#### 640 pixel



#### 960 pixel

#### iPhone 4 Screen Size



#### 768 pixel



#### **1024 pixel**

#### iPad Screen Size



5

0







#### iPhone

#### iPad

### **Universal App**

**Native App** 

## Design Rules





## App Icon

## App Icon



Most important critical investment
Simple & Clear
Details: gradients, highlights, reflections
Apple layout app store icon in a rainbow wall based on icon background color



## Background



# Use launch image as background to enhance user experience

#### Loading time can hurt user experience





#### Icon-72.png

#### lcon@2x.png



Icon-Small.png

#### **iTunesArtwork**



#### Icon-Small-50.png Icon-Small@2x.png









#### App Store & Home Screen Required





#### 114 x 114 pixel

#### Home screen for iPhone 4 High Resolution Optional but recommended





#### 72 x 72 pixel

#### Home screen for iPad compatibility Optional but recommended

#### Icon-Small.png



#### 29 x 29 pixel

#### Spotlight and Settings Optional but recommended

#### **iTunesArtwork**

# File is in PNG but name it without PNG extension



#### 512 x 512 pixel

#### Ad Hoc iTunes Optional but recommended

#### Spotlight for iPad compatibility Recommended for Settings Bundle

Icon-Small-50.png



#### Spotlight and Settings for iPhone 4 High Resolution Recommended for Settings Bundle

#### Icon-Small@2x.png





#### 57 x 57 pixel

#### Icon-72.png



#### lcon@2x.png



#### 114 x 114 pixel Icon-Small.png



# The second secon

**iTunesArtwork** 

# 72 x 72 pixel 29 x 29 pixel lcon-Small-50.png lcon-Small@2x.png

512 x 512 pixel



50 x 50 pixel



iTunesArtwork Icon.png Icon@2x.png Icon-72.png Icon-Small.png Icon-Small-50.png Icon-Small@2x.png

#### All icon files should go to Resources group

# Include in application bundle

Add files in this order



List icon files in Info.plist

#### Except for iTunesArtWork Icon

Icon.png Icon@2x.png Icon-72.png Icon-Small.png Icon-Small-50.png Icon-Small@2x.png

Icon files	\$ (6 items)	=
Item 0	lcon.png	
Item 1	lcon@2x.png	
Item 2	lcon-72.png	
Item 3	Icon-Small-50.png	
Item 4	Icon-Small.png	
Item 5	Icon-Small@2x.png	

#### **iTunesArtwork**



#### Icon-Small.png





#### Icon-Small-50.png



#### iPad Only App



#### lcon@2x.png



#### Icon-Small.png





#### Icon-Small-50.png Icon-Small@2x.png





#### **Universal App**

## .plist

#### Resources > <project name>-Info.plist

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Resources												
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Errors and Warnings		Bundle display name \${PRODUCT_NAME}										
V C Find Results		Executable file \${EXECUTABLE_NAME}										
▶ 🛄 Bookmarks		Icon fi	le									
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Project Symbols		InfoDi	ctionary versior	ı		6.0						
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## Add Icon files in Info.plist

Open Info.plist in Xcode Locate "Icon file" entry  $\sim$  Click on (+) button to add a new entry in "Icon file" key Enter "Icon files" in the key column Click on down disclosure triangle on Icon files" and add the entries for the icon files
# .plist

#### Resources > <project name>-Info.plist

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		Bundle creato Bundle versio	or OS Type code		7777 1.0					
		Application re Main nib file	equires iPhone en base name	viror	MainWind	ow				

## Add Icon files in Info.plist

6 Items for iPhone only app 3 Items for iPad only app 6 Items for Universal app

# info.plist

Everyone?

## Device-Specific Resources

Use bundle-loading routines to select device-specific resources

Instead of creating code paths to separate iPhone to iPad

<basename><device>.<filename\_extension>



# Device-Specific Resources

// Create image but using Bundle-loading routine handle
device images
UIImage\* myImage = [UIImage imageNamed:@"image.png"];

~ipad

~iphone

imagename

<basename><device>.<filename\_extension>

.png

## Device-Specific Resources

#### Include launch image

2

3

1

Update info.plist settings

Implement shouldAutorotateToInterfaceOrientation:
method

All launch image file names are case sensitive



Only one image
Must be PNG
320 x 480 pixels
Default.png

#### iPhone 4 Support

Must be PNG
640 x 960 pixels
Default@2x.png

**iPhone App** 



27

# Must be PNG 1004 x 768 pixels (landscape) 748 x 1024 pixels (portrait)

Default-PortraitUpsideDown.png
Default-LandscapeLeft.png
Default-LandscapeRight.png
Default-Portrait.png
Default-Landscape.png
Default.png

iPad App





iPhone SupportDefault.pngDefault@2x.png

iPad SupportDefault-Portrait.png

#### **Universal App**

#### Update info.plist

 UISupportedInterfaceOrientations key for the supported orientations
 UIInterfaceOrientation key for the initial launch orientation.

#### info.plist

27



#### Method

 In your UIViewController class, implement the -(BOOL)shouldAutorotateToInterfaceOrientation: (UIInterfaceOrientation) interfaceOrientation method to return the supported UIInterfaceOrientation constants. This method should return YES to support all orientations. shouldAutorotateToInterfaceOrientation:

# Major Releases SD[4\_1] Game Center SD/4.0 iPhone 4 SD(3.2 iPad SD(3.0) Major updates 51/20

# Not good for 2010





# SDK4.0

# SDK3.0

SJ[21]

# 2008 2009 2010 2011



# Major Upgrade Problems



Base SDK Missing
 Missing frameworks
 Build & Run Error
 Code Sign Error

Code Sign error: a valid provisioning profile matching the application's Identifier 'com.yourcompany.helloapp' could not be found



#### Select Project Action > Get Info

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#### 2 Select Build tab Architectures > Base SDK Select iSO Device 4.1

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	Current Mac OS
Configuration: Active (Debug)	Mac OS X SDKs
Show: All Settings	Mac OS X 10.4
Show. An Settings	Mac OS X 10.5
Setting	Mac OS X 10.6
▼Architectures	
Additional SDKs	iOS Device SDKs
Architectures	iOS Device 3.2 ‡
Base SDK	✓ iOS Device 4.0 (missing)
Build Active Architecture Only	iOS Device 4.1
Valid Architectures	
▼Build Locations	iOS Simulator SDKs
Build Products Path	iOS Simulator 3.2
Intermediate Build Files Path	iOS Simulator 4.0
Per-configuration Build Products	Path iOS Simulator 4.1
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Precompiled Headers Cache Path	Other
▼Build Options	
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Debug Information Format	\$
Enable OpenMP Support	
Generate Profiling Code	
Precompiled Header Uses Files F	rom Build Di 🗹
Run Static Analyzer	
Scan All Source Files for Includes	

# 3

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Device - 4.1

#### Select Simulator instead of Device

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<ul> <li>Foundation.framework</li> <li>CoreGraphics.framework</li> <li>Products</li> </ul>	▶ 🚋 NIB Files							

Select Project Action > Get Info

2

Select Build tab Architectures > Base SDK Select iSO Device 4.1

3 Select Simulator instead of Device

#### Base SDK Missing cause missing Frameworks

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Application Delegate		OuartzCore.framework	- 11						
Other Sources		OuickLook.framework	- 11						
Resources		QuickTime.framework	- 11						
audio		Ruby framework	- 11						
Finaide View with		RubyCocoa framework	- 11						
MainView with		ScreenSaver, framework	- 11						
MainWindow xib		Scripting framework	- 11						
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#### Switch Architectures > Base SDK cause Code Sign Error



Must select valid OS Device rather than OS Simulator esp OS 4.0 Device is missing in OS 4.1





Select OS Device 4.0 Select OS Device 4.1

Copy iPhoneOSX.X.X.sdk from previous iOS SDK version Macintosh HD > Developer > Platforms > iPhoneOS.platform > Developer > SDKs



Copy iPhoneSimulatorX.X.X.sdk from previous iOS SDK version Macintosh HD > Developer > Platforms > iPhoneSimulator.platform > Developer > SDKs



#### Default Install Directory: Developer Custom Install Directory: DeveloperSDKX.X



#### Default Install Directory



# Custom Install Directory Many



Default Install Directory

Refactoring Required

# Custom Install Directory **Deprecated APIS**



#### Default Install Directory Build Xcode Projects Refactoring that support older Required versions



Default compilation settings is
to the latest version of SDK
XCode > Project > Edit Project Settings

Project	Build	Run	Design	SCM	Window
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2 In the Build tab, select the "Base SDK" to target version

#### Build > Base SDK > iPhone Device X.X.X

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General	Current Mac OS			
Configuration: Active (Debug)	Mac OS X SDKs			
Show: All Settings	Mac OS X 10.4			
	Mac OS X 10.5			
Setting	Mac OS X 10.6			
▼Architectures				
Additional SDKs	iOS Device SDKs			
Architectures	iOS Device 3.2			
Base SDK	✓ iOS Device 4.0 (missing)			
Build Active Architecture Only	iOS Device 4.1			
Valid Architectures				
▼Build Locations	iOS Simulator SDKs			
Build Products Path	iOS Simulator 3.2			
Intermediate Build Files Path	iOS Simulator 4.0			
Per-configuration Build Products Path	iOS Simulator 4.1			
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Precompiled Headers Cache Path	Other			
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3 In the Build tab, select the "iPhone OS Deployment Target" to target version Build > iPhone OS Deployment Target > iPhone Device X.X.X

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Additional Strip Flags	
Alternate Install Group	bessho
Alternate Install Owner	bessho
Alternate Install Permissions	u+w,go-w,a+rX
Alternate Permissions Files	
Deployment Location	
Deployment Postprocessing	
Install Group	bessho
Install Owner	bessho
Install Permissions	u+w,go-w,a+rX
Installation Build Products Location	/tmp/hellowebview.dst
Installation Directory	
Mac OS X Deployment Target	Compiler Default \$
Skip Install	
Strip Debug Symbols During Copy	
Strip Linked Product	
Strip Style	All Symbols ‡
Targeted Device Family	iPhone ‡
Use Separate Strip	
iOS Deployment Target	iOS 3.0 ‡ 🗸

#### 4 Set Active SDK to target OS

#### Project > Set Active SDK > iPhone Device X.X.X


# Target Older SDK Version

### 5 Clean & Re-Build the project

Simulator - 4.1 | Debug | ... -

Breakpoints Build and Run

- ₩

Action



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# Target Older SDK Version

Default compilation settings is to the latest version of SDK 2 "Base SDK" to target version 3 "iPhone OS Deployment Target" to target version 4 Set Active SDK to target OS 5 Clean & Re-Build the project

## Build & Run Older Xcode

### Build & Run Older Xcode Projects

Custom Install Directory **Deprecated APIS** 



# Build & Run Older Xcode

# Log into ADC Program Custom Install Directory Downloads > Developer Tools Deprecated

#### http://connect.apple.com

#### 🗯 Developer

#### Downloads & ADC Program Assets

#### Welcome, BESS HO | Member Center | Log out

#### **Developer Tools**

**Warning:** Pre-release software is Apple confidential information. Your unauthorized distribution of pre-release software or disclosure of information relating to pre-release software (including the posting of screen shots) may subject you to both civil and criminal liability and result in immediate termination of your ADC Membership.

#### Software Licensing for UDIF

Mac OS X has the ability to display a multi-lingual software license agreement (SLA) before mounting a disk image. The image will not be mounted unless the user indicates agreement with the license. This document explains how to add license agreements to Mac OS X-native disk images.

Download Name	File Size	Date Posted
SLAs for UDIF 1.0 (Disk Image)	34 KB	26 Aug 2010

Kernel Debug Kit 10.6.4 build 10F569

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#### Downloads

- Applications
- Audio
- Developer Mailing
   Developer Tools
- Documentation
- ► FireWire
- Internationalization
- iPhone
- iTunes Producer

#### Xcode Tools v1.5

The Xcode Tools 1.5 release is a full update of the Xcode development tools suite. It requires Mac OS X v10.3.x and is able to upgrade previous installations of Xcode Tools 1.0.x, 1.1, and 1.2. See the Read Me document for more information.

APIS

Download Name	File Size	Date Posted
Xcode Tools 1.5 - CD Image (MacBinary)	372.4 MB	06 Aug 2004
Xcode Tools 1.5 Read Me-Updated (PDF)	52 KB	09 Sep 2004

#### Xcode Tools v1.2

The Xcode Tools 1.2 release is a full update of the Xcode development tools suite. It requires Mac OS X v10.3.x to install, and can be installed directly over an Xcode Tools 1.0.x and 1.1 installation. See the Read Me document for more information.

Download Name	File Size	Date Posted
Xcode Tools 1.2 CD (Disk Image)	613.10 MB	27 Oct 2004
Xcode Tools 1.2 READ ME (PDF)	69 KB	22 Apr 2004

#### Xcode Tools v1.0

Xcode Tools version 1.0 include gcc 3.3, Interface Builder 2.3.4, AppleScript Studio, updated documentation, performance tools. NOTE: Requires Mac OS X v 10.3 or later.

Download Name	File Size	Date Posted
Xcode Tools v1.0 CD (Disk Image)	584 MB	27 Oct 2004

# Submission & Approval

Prepare for application submission iPhone Provisioning Portal Submit an iPhone application How to handle rejections Increase your acceptance on approval and updates I5 min Q&A

# Assets & Materials

Everyone?

# Submission & Approval

Prepare for application submission iPhone Provisioning Portal Submit an iPhone application How to handle rejections Increase your acceptance on approval and updates

15 min Q&A

# Login

#### iPhone Provisioning Portal

# Everyone?



Mobile Orchard Screencasts Presents: iPhone Provisioning Running Development Code On Your Phone

Watch Video

Development Provision

iPhone Provisioning Portal

### 1. Add Device

000	Apple Developer Connection – iPhone Dev Center – Devices	CONTRACTOR OF	
+ _ http://dev	veloper.apple.com/iphone/manage/devices/index.action	C Q Google	
Geveloper Cor	nnection Dev Centers  ADC on iTune	es Support Q Search ADC	
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Go to "http://developer.apple.com	n/iphone/manage/devices/index.action*	<ul> <li>PROJECTS &amp; SOURCES</li> <li>DEVICES</li> <li>Phone </li> <li>Phone </li> <li>Crash Logs</li> <li>Provisioning Profiles</li> <li>Software Images</li> </ul>	Summary Crash Logs iPhone Name: iPhone Capacity: 14.64 GB Serial Number: 858286L01R4 Identifier: j8cd6e029e288d445c38a685ed362f8d6cdabc9ae Software Version: 3.0 (7A341) Use for Development
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### **Device Deployment**

#### 3. Create Developer Certificate Apple Developer Connection - iPhone Dev Center - Certificates C Q- Google Herein Herein and State (1998) And Antonio antonio antonio antonio antonio antonio antonio antonio antonio anto Developer Connection Dev Centers ADC on iTunes Support Q Search ADC 4. Add to Keychain iPhone Developer Program Welcome, Dan Grigsby Edit Profile Log out **Program Portal** Exit Program Portal Home Keychain Access File Edit View Window Help 000 Distribution History Development **Keychain Access** Team Certificates Q devel Click to lock the login keychain. Current Development Certificates Devices Keychains Apple Worldwide Developer Relations Certification Authority Your Certificate 💕 login App IDs ertifica Intermediate certificate authority Priva...tedDatak Provisioning Expires: Sunday, February 14, 2016 12:56:35 PM CT Provisioning Profiles Name System Expi This certificate is valid Distribution System Roots (1) You currently do not have a valid Kind Expires Keychain \*If you do not have the WWDR intermediate certificate in Apple Worldwide Developer Relations Certification certificate Feb 14, 2016 12:00:00 AM login iPhone Developer: Dan Grigsby (77HXBRZDCW) certificate Jul 23, 2010 12:00:00 AM login Category All Items Passwords Go to "http://developer.apple.com/certificationauthority/AppleWWDRCA.cer Certificates My Certificates P Keys Secure Notes + i 2 items

#### **Device Deployment**

### 5. Create Apple ID

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	Provisioning Distribution Profile Name Devel	opment
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	App ID Wild	icard
	Devices	hone 3G

### **Device Deployment**

### 7. Add Provisioning Profile to Xcode Organizer



#### **Device Deployment**

# Login

#### iTunes Connect

# Everyone?

# Add New Application

iTunes Connect

Everyone?

# Submission & Approval

Prepare for application submission iPhone Provisioning Portal Submit an iPhone application How to handle rejections Increase your acceptance on approval and updates

15 min Q&A

# Waiting Period

#### Lucky 1-2 Days

#### Normal 7-10 Days

#### Usual 2-3 Weeks

#### > 1 Month

#### >2 Months

#### > 3 Months

# Publish Your 1st App

Inexperience

#### Lucky 1-2 Days

#### Normal 7 10 Days

Usual 2-3 Weeks

> 1 Month

>2 Months

#### > 3 Months

# Technical Non-Technical Objections Objections

Slow

Easy & Fast

# Dating Rules



# Dating Rules

?

# Dating Rules

## Approval Process

95% apps are approved within 14 days of submission

Apple has 40 Full Time trained reviewers studying 8,500 new apps a week

20% "not approved as original submitted" but sent back to developer for tweaks & changes

> Based on filing to the US Federal Communication Commission (FCC) in 2009

## Controversial Apps

"established an App Store executive board that determines procedures and sets policy for the review process, as well as reviews applications that are escalated to the board because they raise new or complex issues."

The board meets once a week.

Based on filing to the US Federal Communication Commission (FCC) in 2009 Icon Design App Ideas UI & UXP Product Design Business Model Architecture Release Plan

# Technical Non-Technical Objections Objections



#### Do Not Copy. Do Your Homework

Technical Objections deprecated APIs undocumented APIs warnings Web<mark>s</mark>ite errors Forum Books Blog

Non-Technical Objections

> Content Audio UXP Video Image Icon

## Unwritten Rules

### undocumented APIs deprecated APIs

### Many Update(s)

### 1 Release



Release != Update(s)

# Errors & Warnings



No reason you can't eliminate errors and remove warnings

# Guidelines

DO NOT use license materials unless you have written documents to prove your ownership

- DO NOT use any Brand or Trademark names
- DO NOT use any images too similar to device system icons
- DO NOT treat Apple Review Team as your QA

# Debug, Test & Audit

Test your app in both Simulator & Device
Test your app in both iPhone & iPod Touch





50% users are on iTouch

## Bible Standards

Cocoa Fundamentals Guide
 iOS Application Programming Guide
 iPhone Human Interface Guidelines
 iPad Human Interface Guidelines
 iOS Development Guide

# Submission & Approval

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15 min Q&A

## Increase Your Acceptance

Good Manner Positive Attitude Response promptly Be Prepare & Presentable Take correctible actions Build strong reputation Be flexible to adjust any plans

## Increase Your Acceptance

- Find & consult with your Master Yoda
- Sometimes their Domain Expertise will save your life
- Just can't fight the darkness alone by yourself



MATTER YOUR LIGHTSABER SIZE

# Submission Approved





## Release Date



Here comes the wedding!

Release != Update(s)








# Top 10 Top 25 Top 50 Top 100



Top 10 Top 25 Top 50 Top 100

#### HANUS I AM

Genius

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APPS

Search

FREE >

\$6.99 >

165

Updates



# HAGELON



Games **11. Navigation** Entertainment **12. Healthcare & Fitness** Utilities 13. News Social Networking 14. Photography Music **15. Finance** Productivity **16. Business** Lifestyle **17. Education** Reference **18. Weather 19. Books** Travel **Sports 20. Medical** 

## New Rules



#### 1 Release



#### Many Update(s)



# Is Freemium Good Idea?

Law of Total Probability

Many Update(s)

### FREE 1 Release

# PREMIUM 1 Release Double P(E) Dual Channels

4



Release != Update(s)

## Return to Instructor

**USB** Keys

# 15 Min Q&A

## END of Class

Thank you Ask questions in Twitter, Quora or Linkedin