

iOS Application Development Introduction

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History of Mobile Devices

Before iPhone

After iPhone

1988

2007

2010

?



Motorola 4500x



iPhone



iPad



How's iPhone changed the mobile industry?



The face of smartphone will never be the same again



Before iPhone



After iPhone



iPhone changed apps distribution



develop



test



distribute

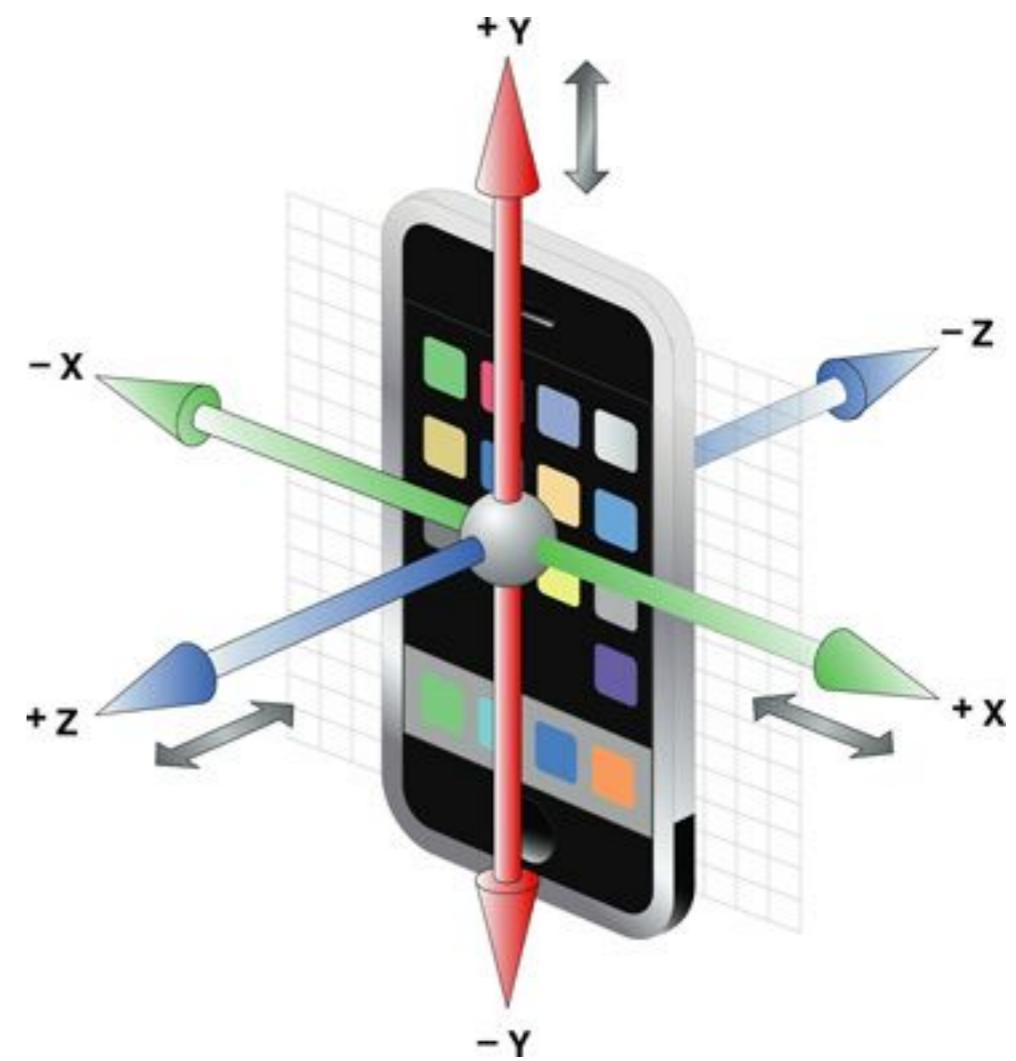
developer, developer, developer!



Multi-touch & gesture interface



iPhone kills physical keyboard & stylus



addiction to sensors

Full-screen apps

Launchpad

*Multi-touch
gesture*

Mac App Store



Back to the Mac.

Resume

Auto save

Mail

iPhone (iOS) changed Mac & (possibly) desktop computing

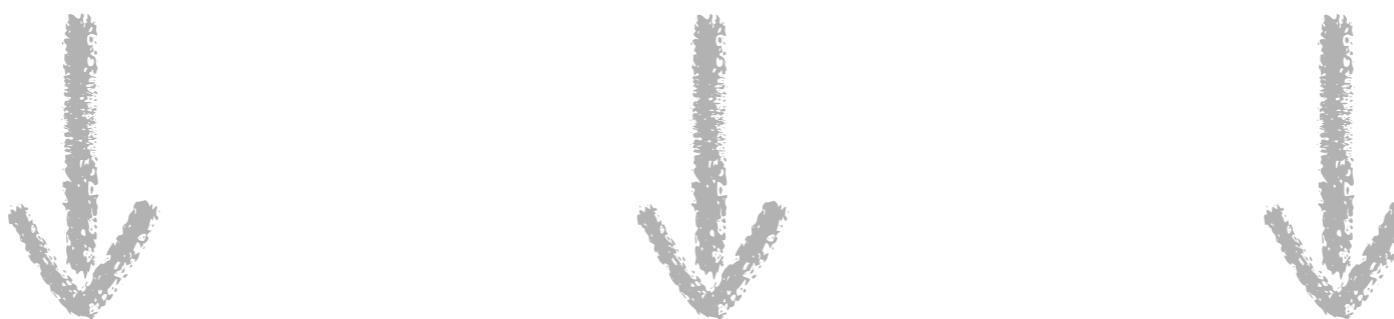
iOS Devices



iOS



<http://developer.apple.com/ios>



Xcode



iOS Simulator



iOS Developer Library

Required Stuffs



MoviePhreak - MovieButton.m

Running Movreak on iPhone Simulator
No issues

Editor View Organizer

MovieButton.m

```

if (!highlightedMoviePoster) {
    UIColor *borderColor = [UIColor colorWithRed:(85.0/255.0) green:(194.0/255.0) blue:(226.0/255.0) alpha:1.0];
    //NSAutoreleasePool * pool = [[NSAutoreleasePool alloc] init];
    int w = self.MoviePoster.size.width + 4;
    int h = self.MoviePoster.size.height + 4;
    CGRect imageRect = CGRectMake(2, 2, w-4, h-4);
    /* */

    CGColorSpaceRef colorSpace = CGColorSpaceCreateDeviceRGB();
    if (UIGraphicsBeginImageContextWithOptions != NULL) {
        UIGraphicsBeginImageContextWithOptions(CGSizeMake(w, h), NO, 0.0);
    } else {
        UIGraphicsBeginImageContext(CGSizeMake(w, h));
    }

    CGContextRef context = UIGraphicsGetCurrentContext();
    // Convert co-ordinate system to Cocoa's (origin in UL, not LL)
    CGContextTranslateCTM(context, 0, h);
    CGContextConcatCTM(context, CGAffineTransformMakeScale(1, -1));

    CGFloat components[4] = {(85.0/255.0), (194.0/255.0), (226.0/255.0), 1};
    CGColorRef shadowColor = CGColorCreate(colorSpace, components);
    CGContextSetShadowWithColor(context, CGSizeMake(0.0, 0.0), 5, shadowColor);
    CGColorRelease(shadowColor);

    CGContextDrawImage(context, imageRect, self.MoviePoster.CGImage);

    // Drawing lines with a black stroke color
    //CGContextSetRGBStrokeColor(context, 0.6, 0.6, 0.6, 1.0);
    CGContextSetStrokeColorWithColor(context, [borderColor CGColor]);
    // Draw them with a 2.0 stroke width
    CGContextSetLineWidth(context, 1.0);
    // Draw border
    CGContextBeginPath(context);
    CGContextAddRect(context, imageRect);
    CGContextStrokePath(context);

    CGColorSpaceRelease(colorSpace);
}

highlightedMoviePoster = [UIGraphicsGetImageFromCurrentImageContext()
    UIGraphicsEndImageContext()];
}

return highlightedMoviePoster;
}

///////////
// UIView
- (CGSize)sizeThatFits:(CGSize)size {
    //return self.frame.size;
    if (self.MoviePoster != nil) {
        return CGSizeMake(self.MoviePoster.size.width + 20, self.MoviePoster.size.height + 20);
    }
}

```

Carrier 12:25 AM

Now Playing Bandung, May 3

Now Playing User Reviews Theaters DyCode Guys

Latest iOS SDK

TKLoadingView.h
TKLoadingView.m
TKProgressBarView.h
TKProgressBarView.m
TKProgressAlertView.h
TKProgressAlertView.m
TKAlertCenter.h
TKAlertCenter.m
TKProgressCircleView.h
TKProgressCircleView.m
UIView+TKCategory.h
UIView+TKCategory.m
ShowTimeActionDialog.h
ShowTimeActionDialog.m
SocialStatusFormView.h
SocialStatusFormView.m
AnnouncementDialog.h
AnnouncementDialog.m

Model

AuthProviderType.h
GenericCellData.h
GenericCellData.m
Movie.h
Movie.m

Movreak

Optional Stuffs

Actual iOS devices



iOS Developer Program

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1. Develop

Develop your application with the iOS SDK and a wealth of technical resources in the iOS Dev Center. [Learn more ▶](#)



2. Test

Test and debug your code on iPad, iPhone and iPod touch to finalize your applications. [Learn more ▶](#)



3. Distribute

Distribute your apps on the App Store and reach millions of iPad, iPhone, and iPod touch users. [Learn more ▶](#)

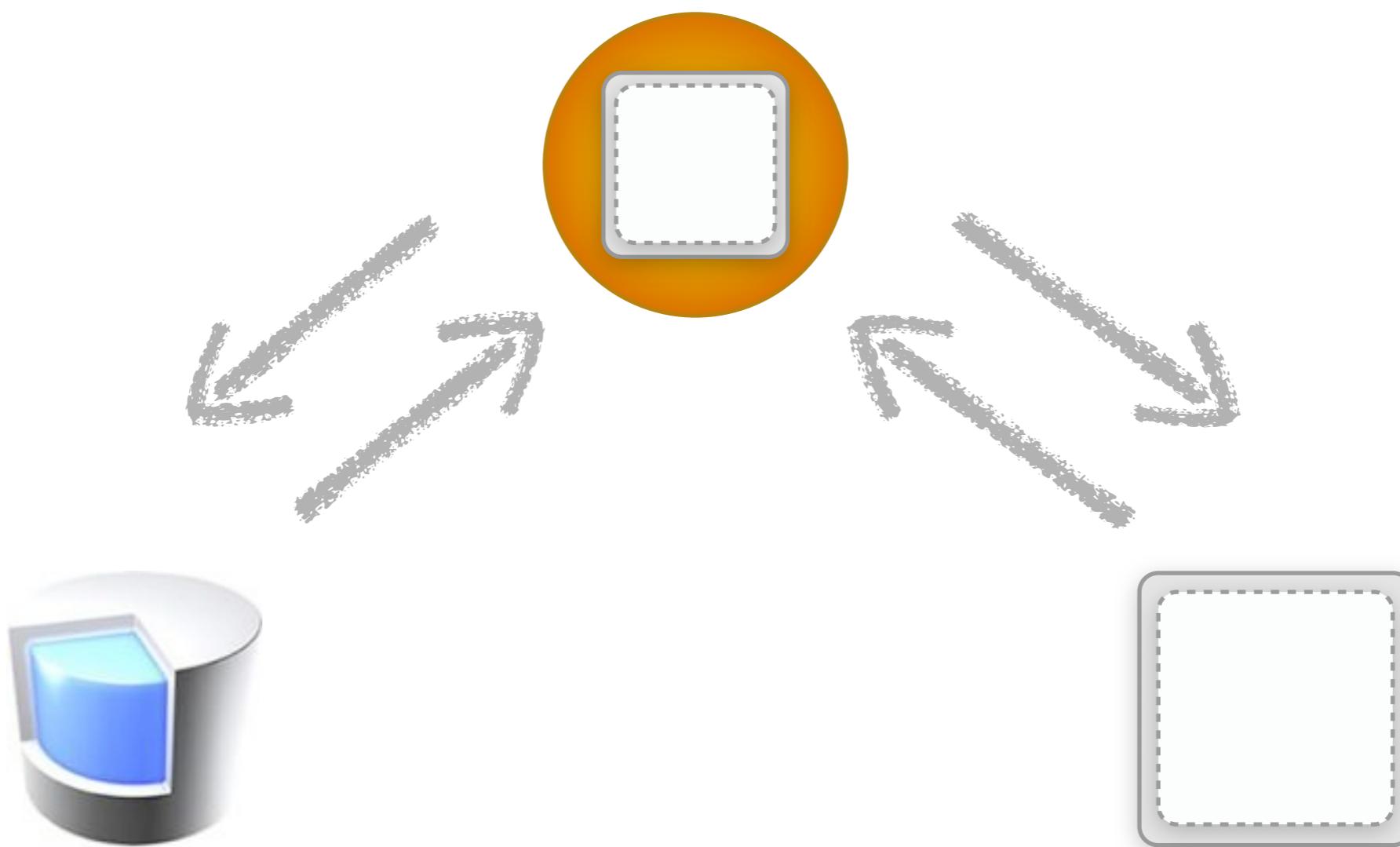
The iOS logo is displayed in its characteristic white, rounded, sans-serif font. It is centered on a dark blue background that features a subtle, faint grid pattern of small, multi-colored squares.

Some development stuffs



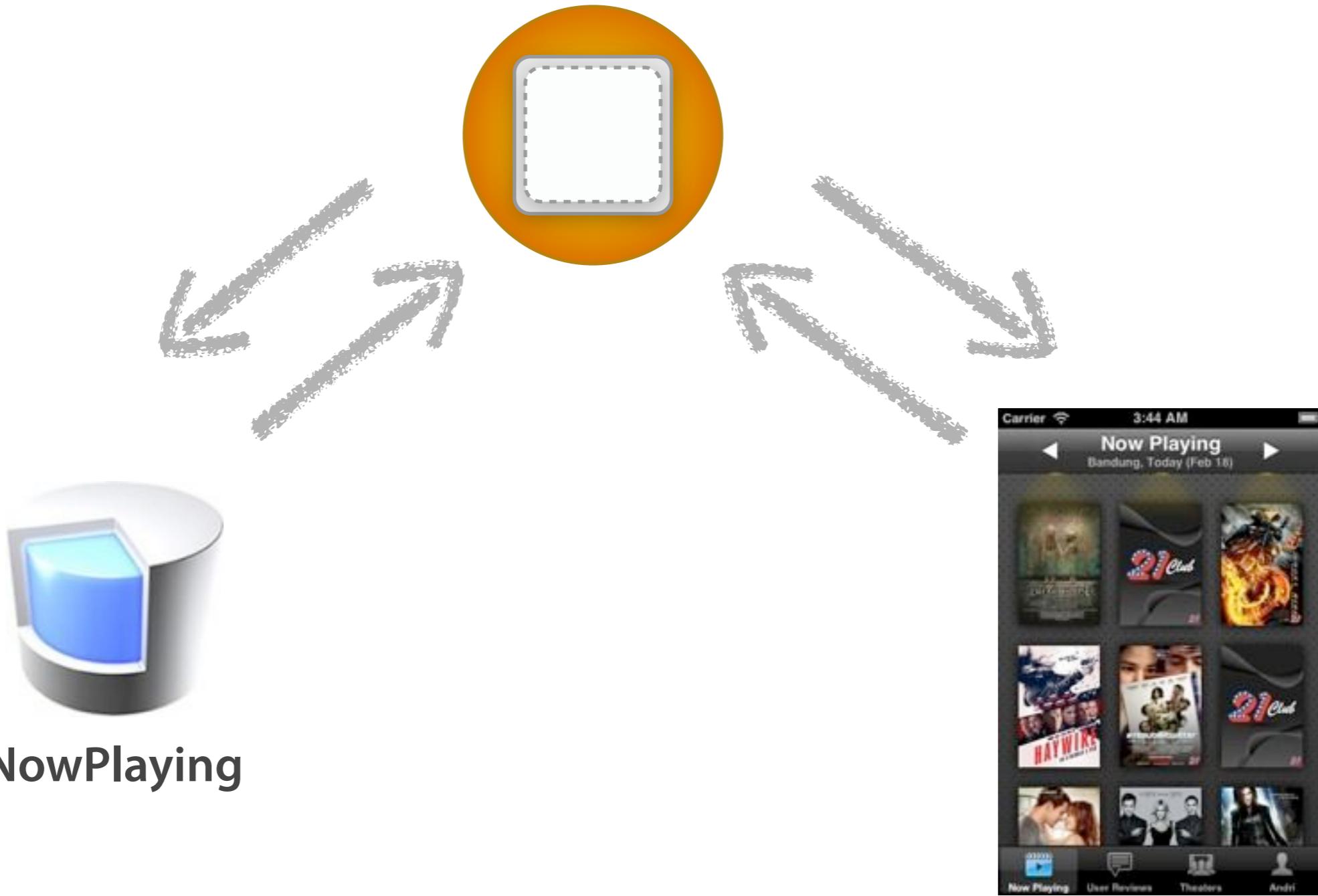
Objective-C

C + OOP ≠ C++

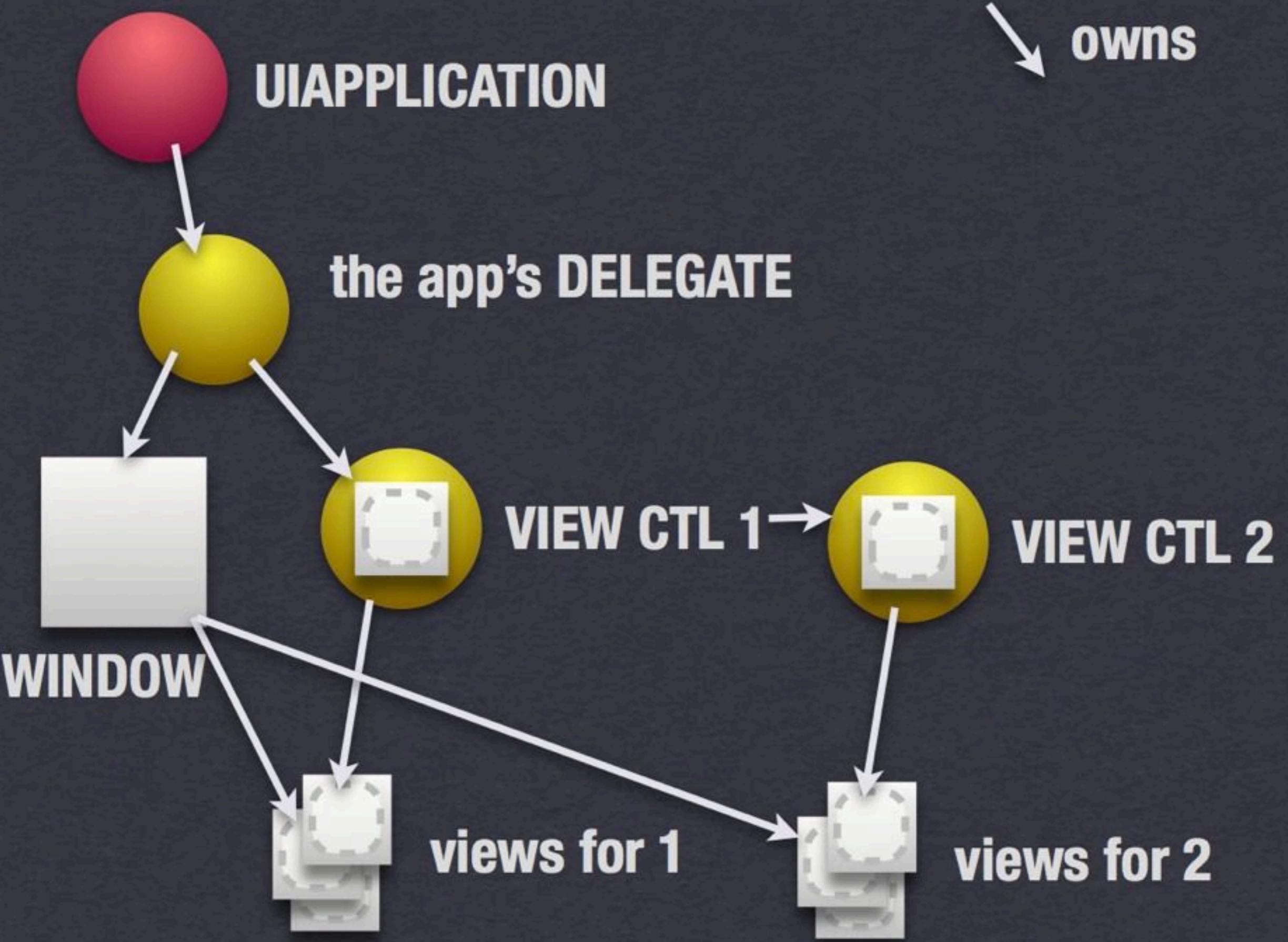


Model-View-Controller design pattern

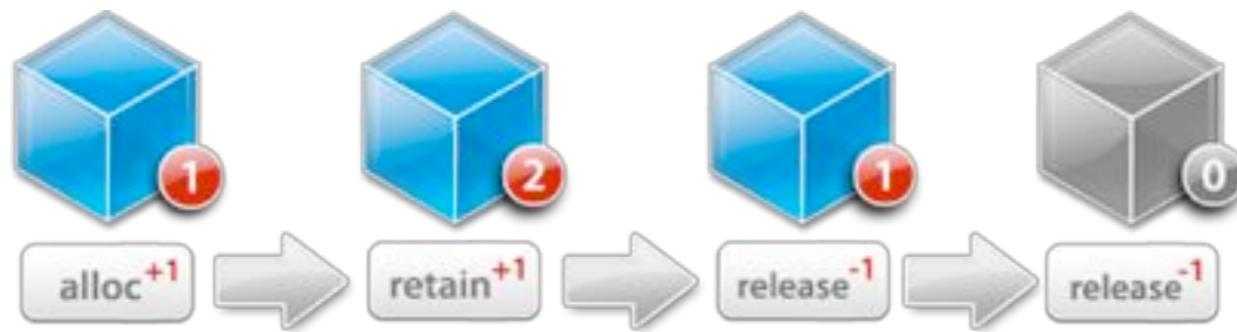
NowPlayingController



Model-View-Controller design pattern



Memory Management



Reference counting

No garbage collector support (yet)

Autorelease Pool





iCloud Storage

**Enable apps to store user documents
and key value data**

**Push changes to all user's computers
and devices**



Easily integrate Tweet Sheet

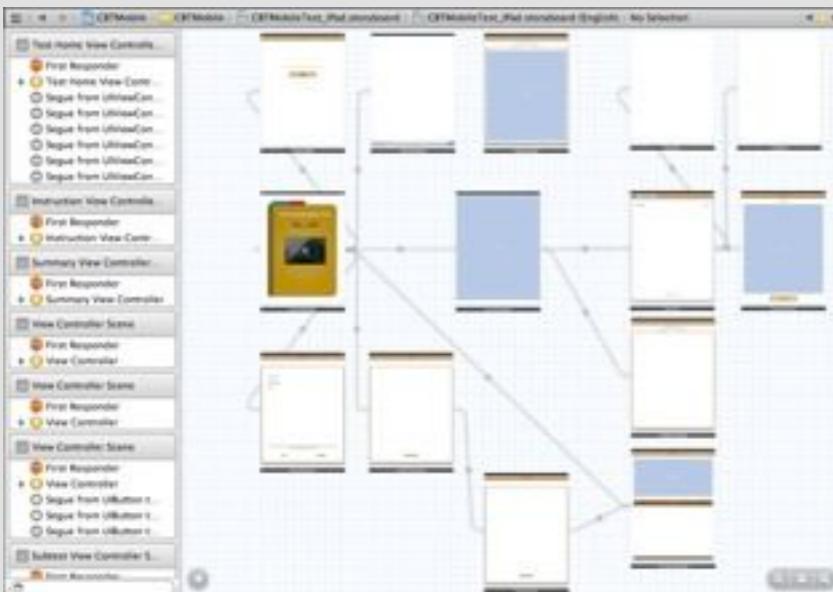
**Access system-wide Twitter account
from within app**

Wrap OAuth request & response



Automatic Reference Counting (ARC)

Memory management becomes compiler's job
No need to deal with retain & release by yourself
Manually enabled in Xcode
It's NOT a garbage collector!



Storyboard

Layout the app's workflow & design user interfaces

Specify transitions & segues between views

Can be loaded dynamically



CoreImage

Image processing framework finally comes to iOS

Provides built-in filters: color effect, distortions, transitions

Advanced features: red-eye reduction, face recognition



**Take advantage of the latest hardware
GLKit: new high-level framework
Apple-developed OpenGL ES extensions**



ios

Development Goodies



Cocoa Touch

Foundation, UIKit, Multi-Touch Gestures



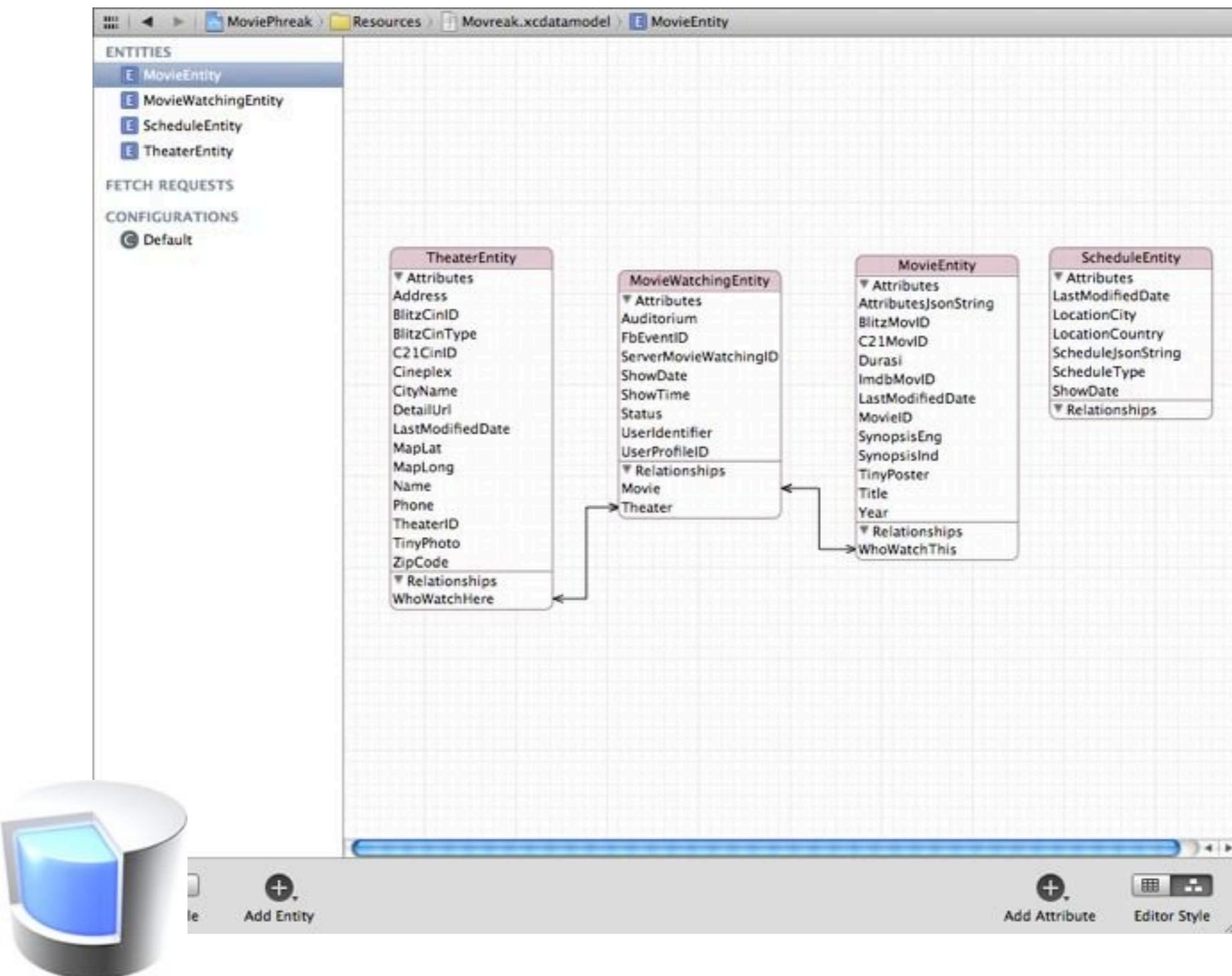
Graphics

Core Graphics, Core Animation, Core Image, Core Text, OpenGL ES



Audio & Video

Media player, Core Audio & OpenAL, iPod library, HTTP Live Streaming



CoreData

Database, Object-Relational Mapping, optimized for mobile -> 1 million objects store



Networking

Bonjour, Peer to peer, WebKit framework, BSD socket



Core Location & MapKit



Multitasking

New kind of multitasking

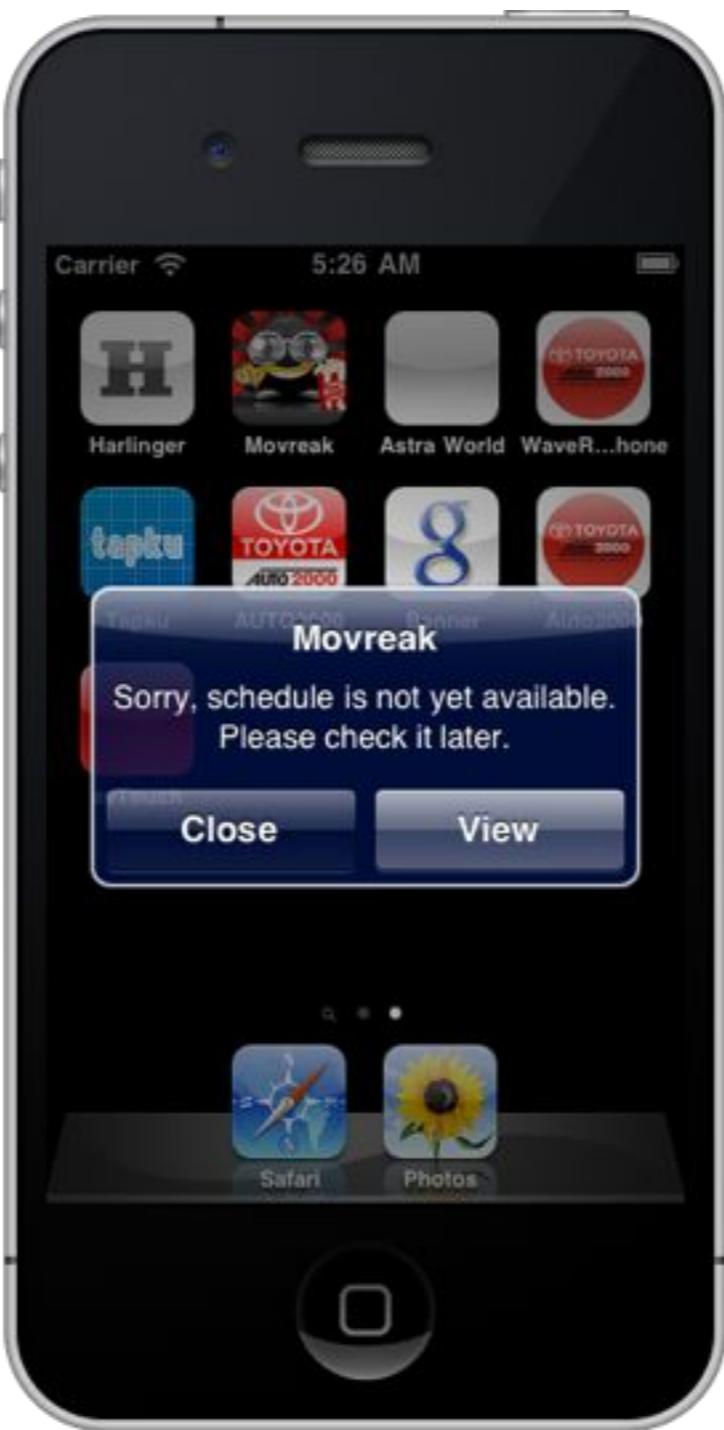
External display support





AirPrint

Wireless printing to AirPrint-enabled printers. Hack available



Push & Local Notification



Game Center

Social gaming platform



iAd
Integrated advertising platform



In-App Purchase

Payment inside applications



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Development Resources

Documentation and Videos



iOS Developer Library

- Articles
- Getting Started
- Guides
- Reference
- Release Notes
- Sample Code
- Technical Notes
- Technical Q&As



Development Videos

- iOS Development
- WWDC 2011

Downloads



Xcode 4

This complete developer toolset for creating Mac, iPhone, and iPad apps includes the Xcode IDE, performance analysis tools, iOS Simulator, and the latest Mac OS X and iOS SDKs.

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- iOS Development Guide
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iOS Developer Program

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Thank You