

# iPhone App Dev

IN146-07-2012-CM  
Lesson 1

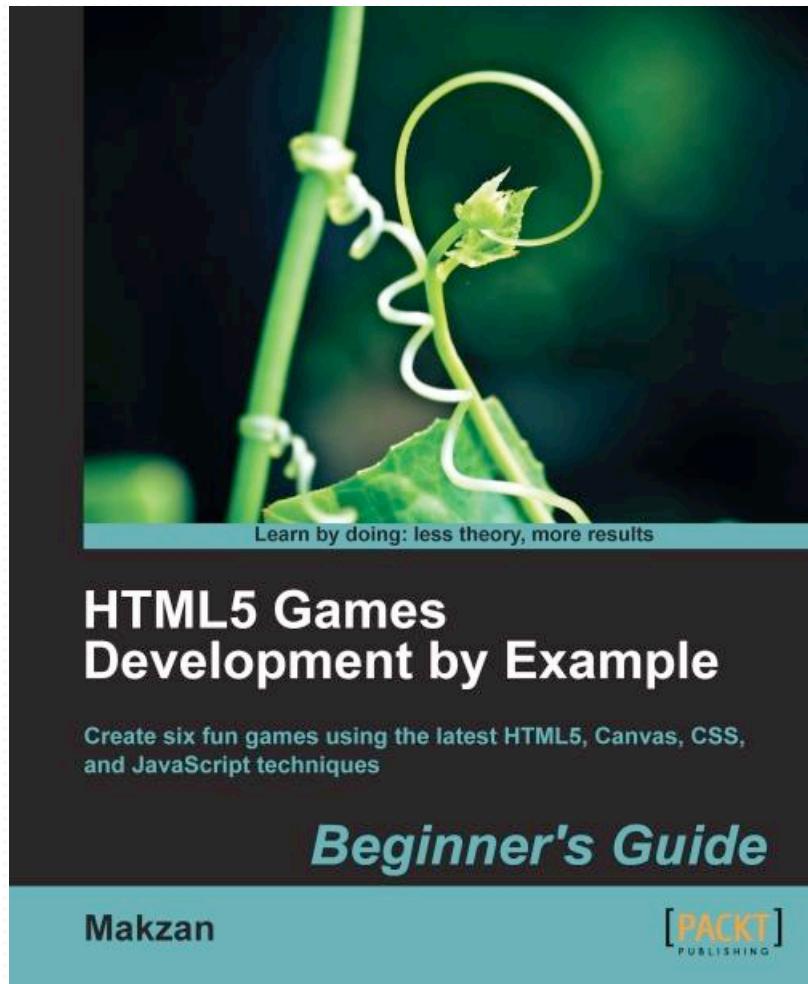
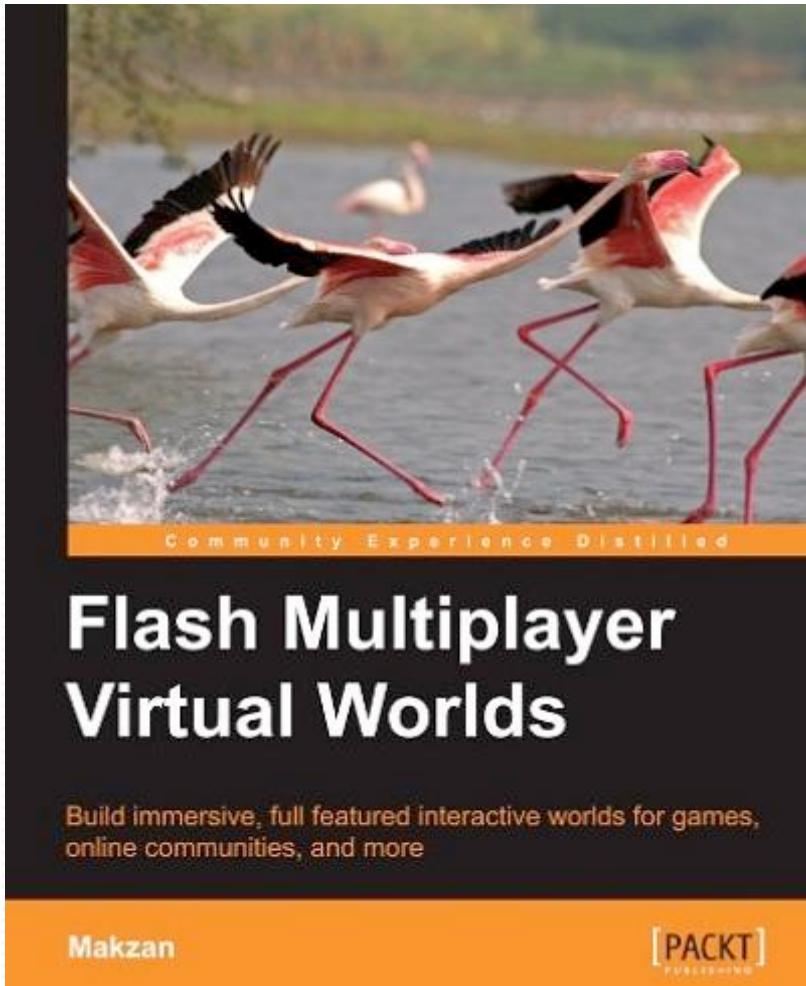
# Summary

- Introducing iOS app development
- Different types of iOS apps
- There is one purpose in every app
- Development environment

# Thomas Mak

makzan@42games.net

# Publications



# Selected iOS games



# iOS Ecosystem

# Development Environment

Software Configuration

Mac OS X 10.7

XCode 4.3

Mac OS X 10.6 & XCode 3 may be used in old mac environment.

# Course Expectation

- We are going to learn different user interface components in iOS.
- We are going to learn how iOS handle mobile constraints such as limited CPU and RAM.
- We are going to build apps that can be submitted to App Store.

# Benefits of iOS development

- Devices amount are limited
- Only 2 screen sizes
- Most users update their iOS systems
- Simple app distribution channel
- Review process acts as a quality guard
- The OS is designed to work very great in mobile.

# Weakness of iOS development

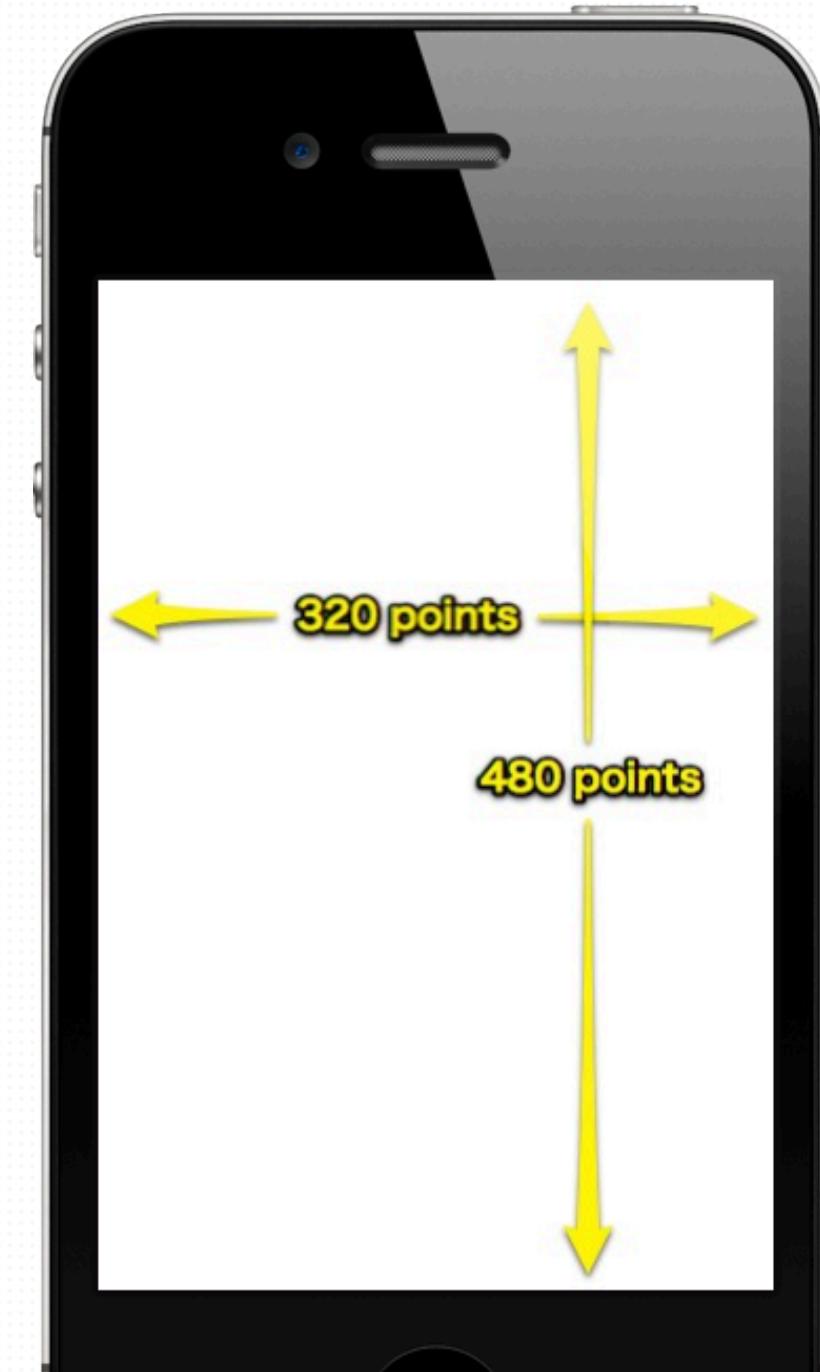
- Quite difficult to develop
- Reviewing process slows down updates
- Some apps will never appear on App Store

# iOS Screen Size

iPhone / iPod Touch  
320 x 480 points

Actual Resolution

320 x 480 pixels or  
640 x 960 pixels



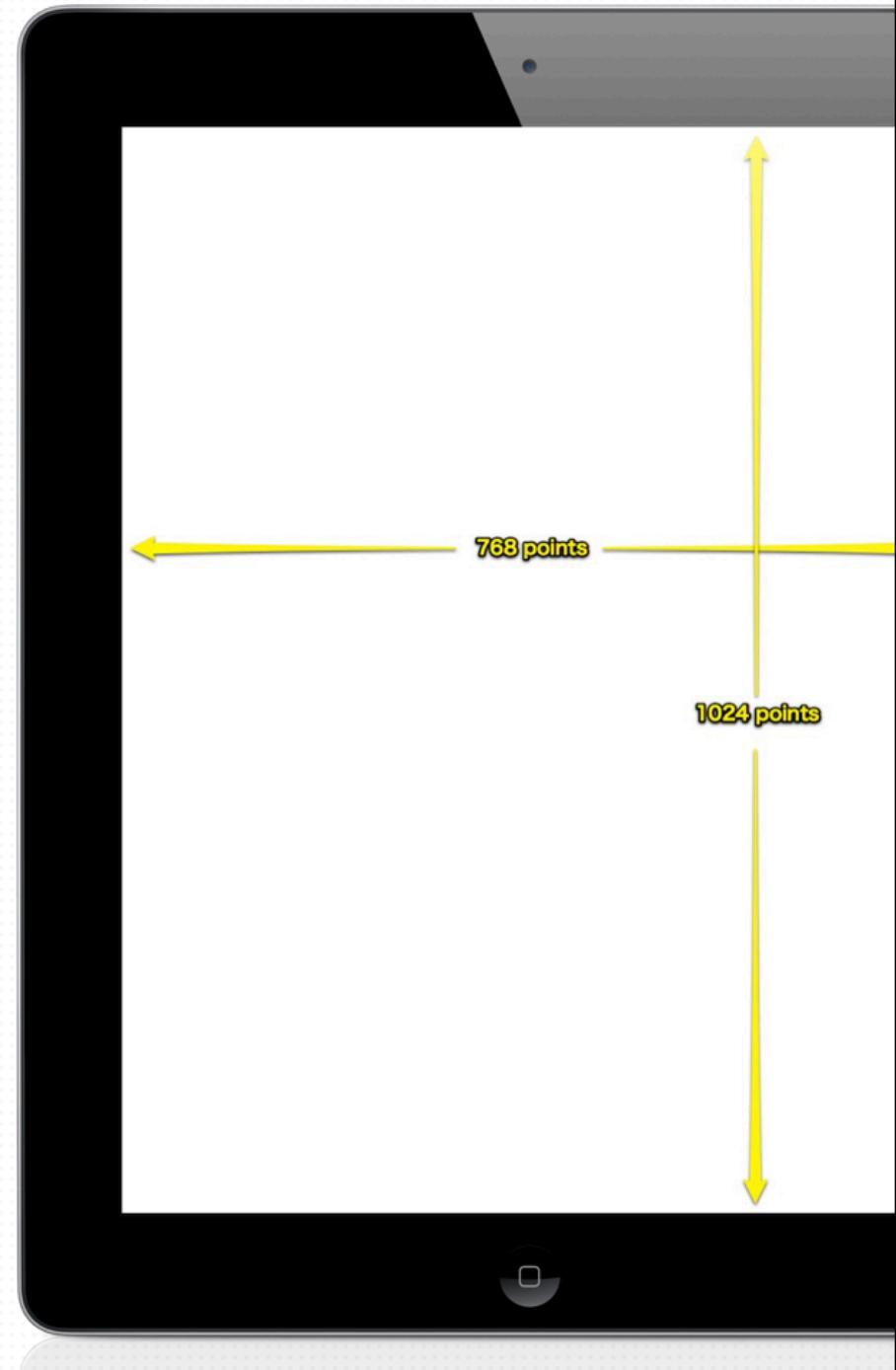
# iOS Screen Size

iPad

768 x 1024 points

Actual Resolution

768 x 1024 pixels or  
1536 x 2048 pixels



# App Classification

# Communication

- Main purpose of a phone
- Connect people
  - text
  - voice
  - image
  - location

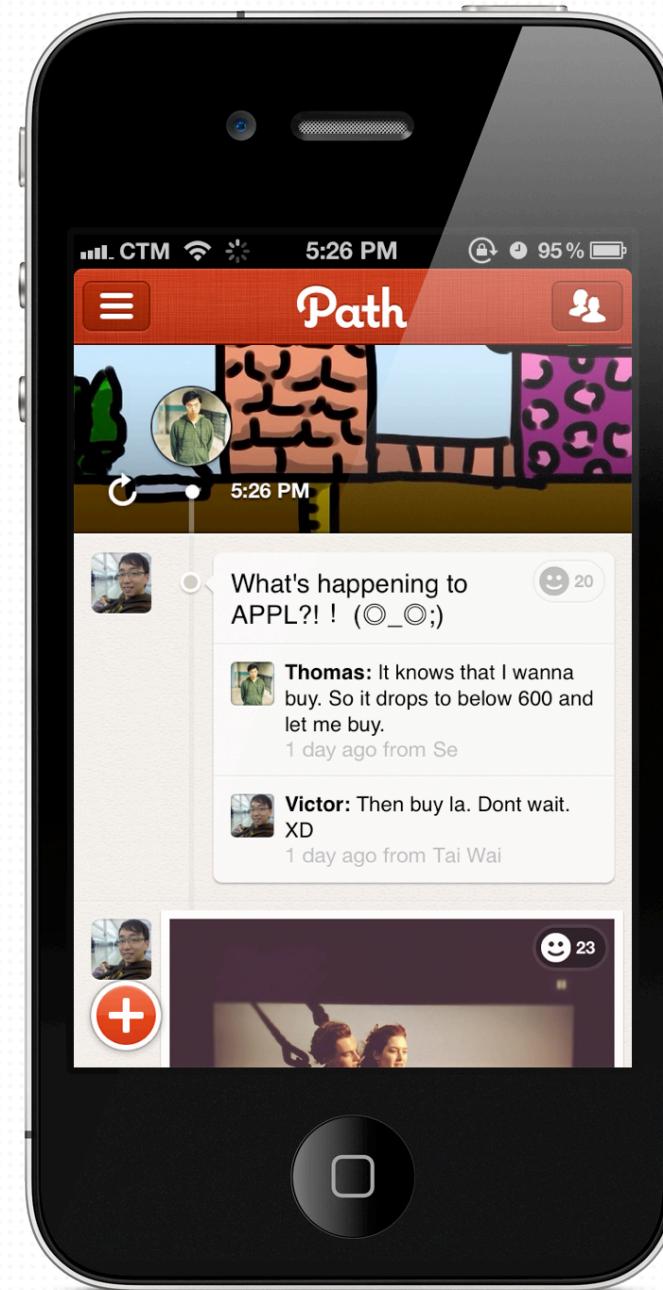


# Social Network



# Social Network

- You are not alone.
- Friendships in pocket.
  - Public or
  - Private



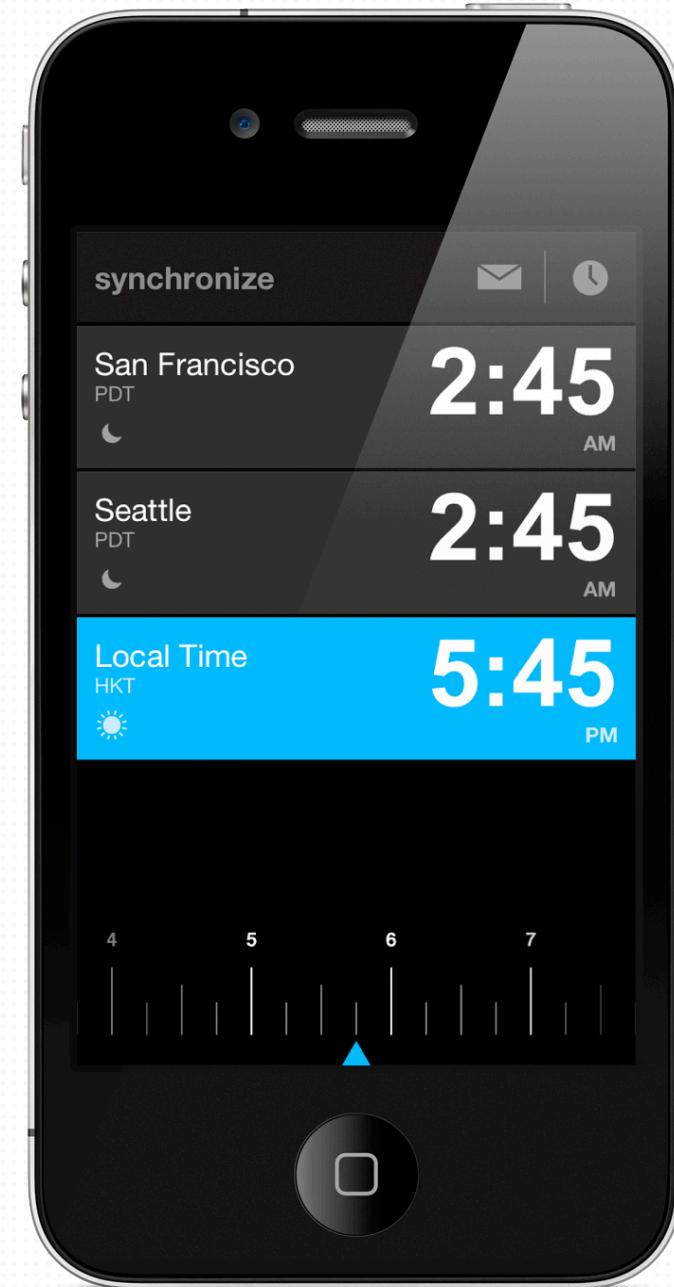
# Utilities

- Do one and only one thing
- Quick information
- Minimal interaction
- Large UI elements



# Utilities

- The device is the app.
- You are using a utility.
- You are not using phone.



# Utilities

- Gesture interaction
  - Swipe to show history



# Utilities

- Gesture interaction
  - Swipe to show history



# Utilities

- Gesture interaction
  - Swipe to show history



# Utilities

- Gesture interaction
  - Swipe to show history



# Utilities

- Gesture interaction
  - Swipe to show history



# Informative

- Sometimes we need more information.
- A lot more information.
- Think carefully when putting too much thing inside small screen.



# Informative



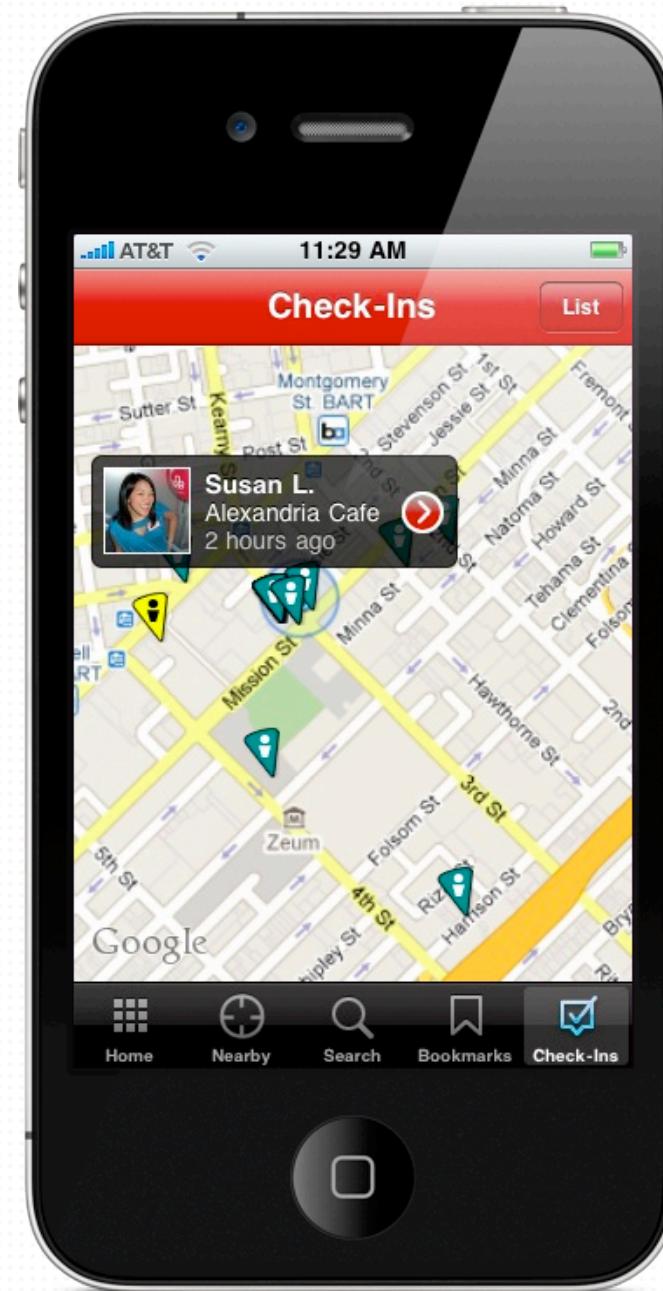


# Location



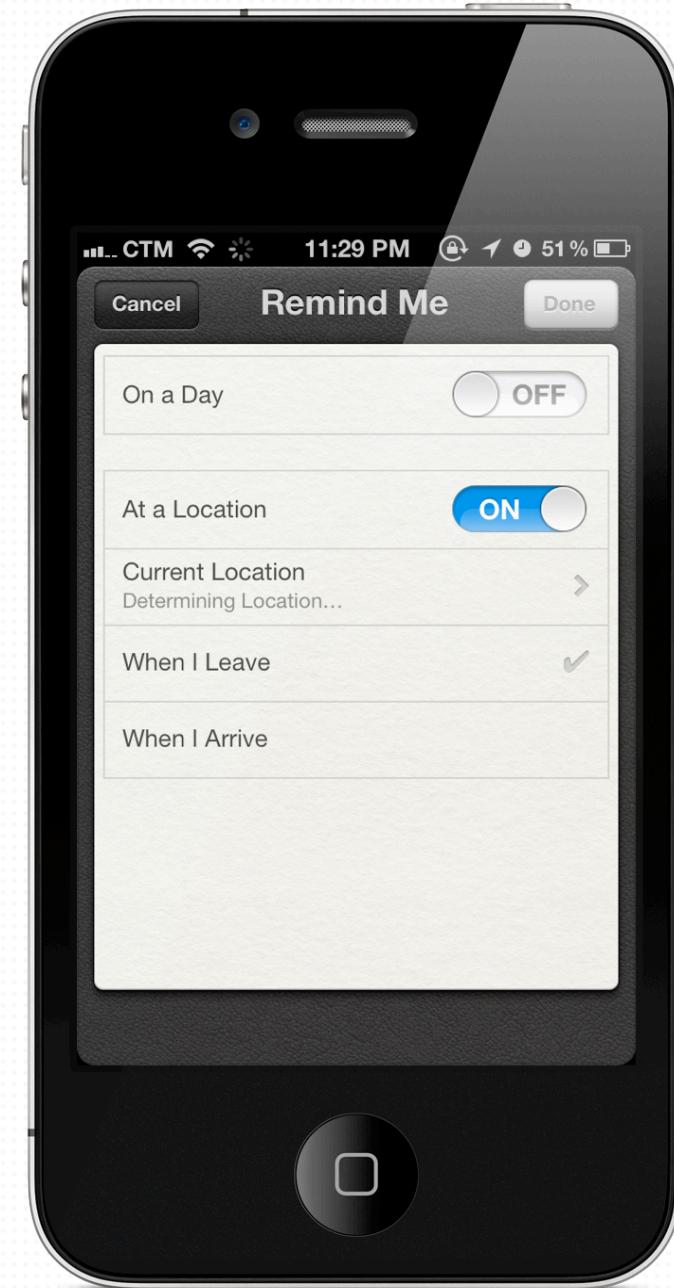
# Location

- Combining location and social network



# Location

- Combining location and utility
- This app remind you things when you enter home or leave home.

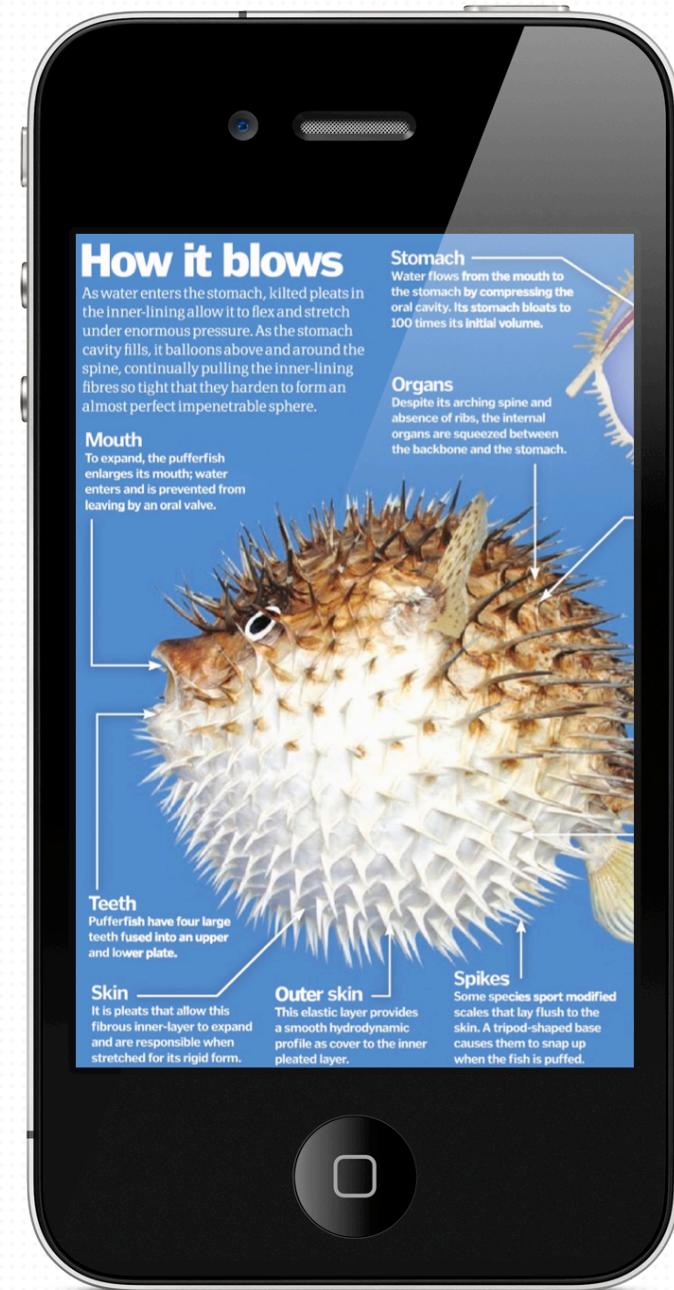


# Digital Media

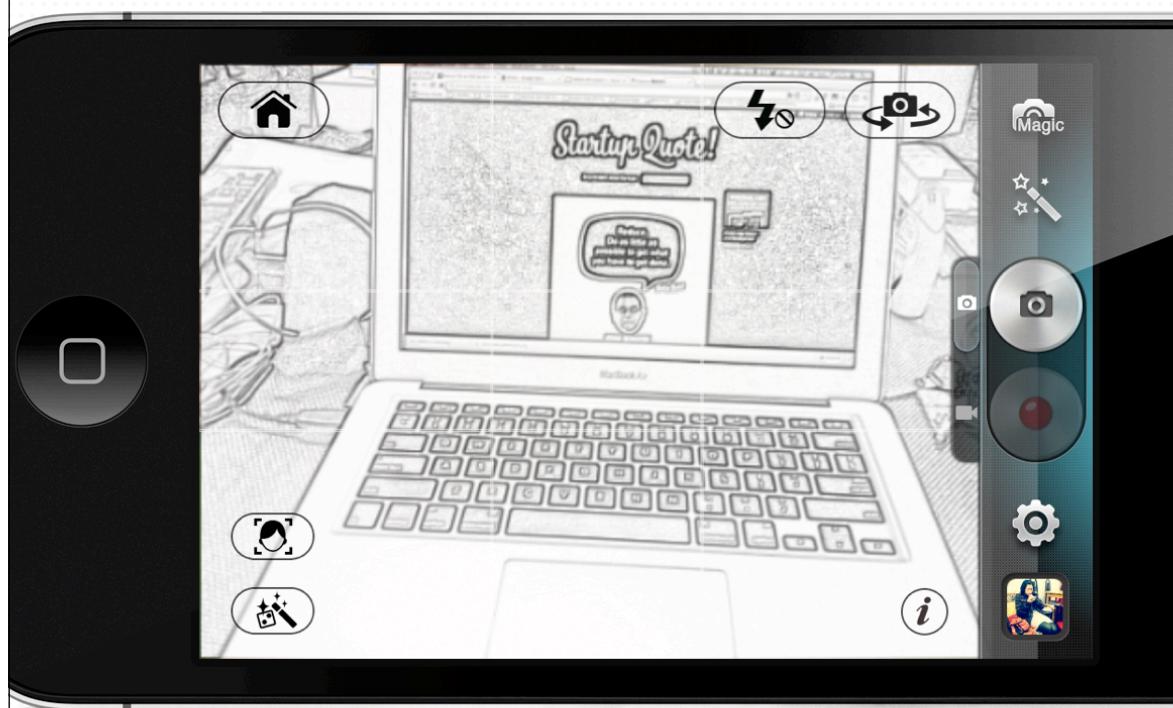


# Digital Media

- Another big market.
- When old media meets the new one.



# Photography



# Photography

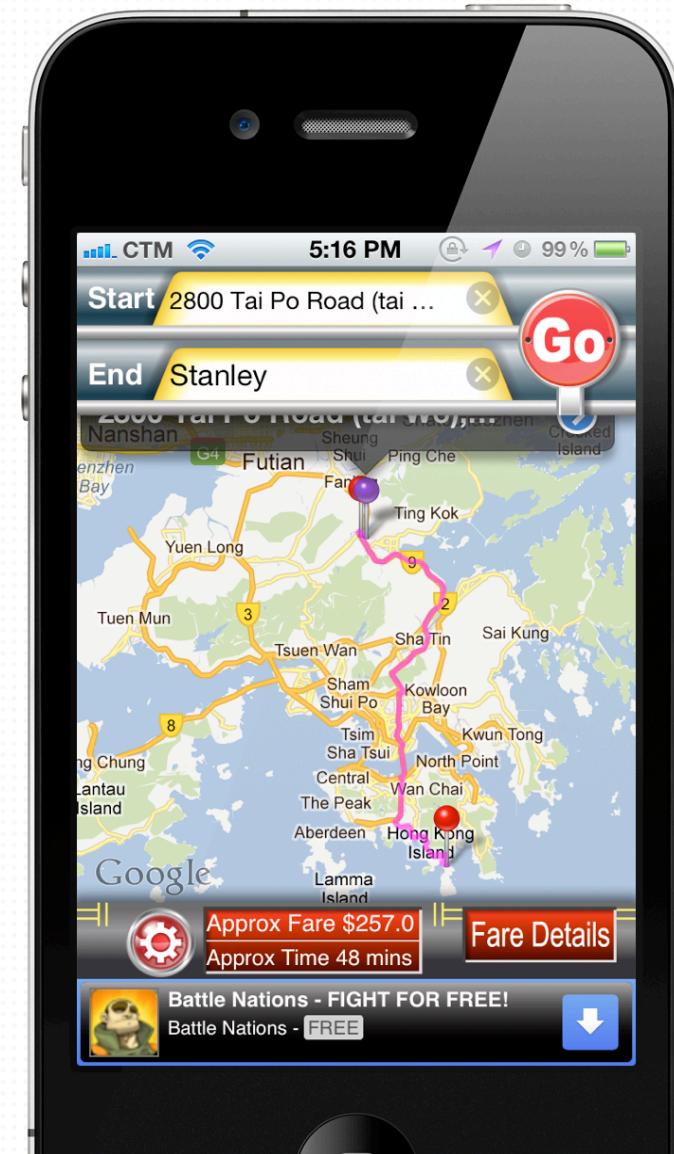
- Everyone get camera
- Record your life,  
in creative way
- Share your life,  
with social network



# Every App Solves a Problem

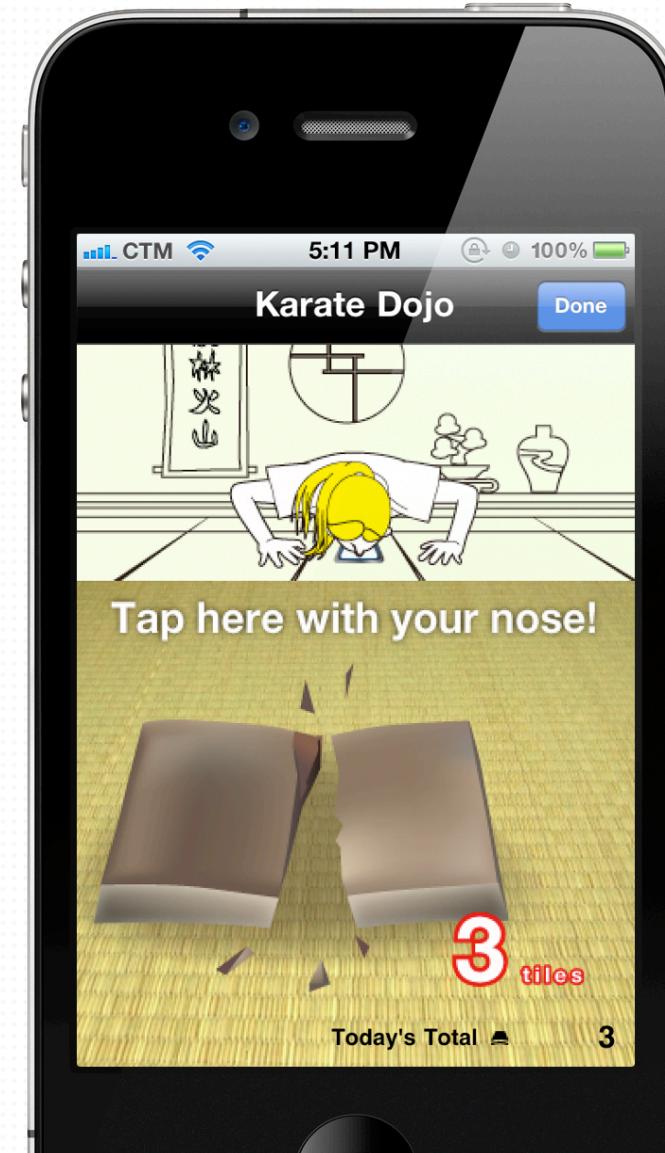
# Every app solves a problem

- Calculate the taxi fee before you take it.
- Choose the cheapest path.



# Every app solves a problem

- Encourage you to do exercise.
- Tap the monitor with your finger nose.



# Every app solves a problem

- How many times you need to choose the last photo?



# App Store

# App Store Rankings

## Ranking

- Top Paid
- Top Free
- Top Glossing



## New & Noteworthy

[See All >](#)


Solar Walk - 3D  
Solar System...  
Education



Burnout™ CRASH!  
Games



Booking.com  
Tonight  
Travel



Toca Kitchen  
Monsters  
Education



Shadow Move  
Games



MASS EFFECT™  
INFILTRATOR  
Games



Things  
Productivity



Crow  
Games



Flava™ - Save All  
Moments!  
Lifestyle



MARVEL  
AVENGERS  
ORIGINS:  
ASSEMBLE!  
Books



Big Win Hockey  
Games



Timegg  
Utilities

Welcome Seng Hin!

## iPhone

### APP STORE QUICK LINKS

- [All Categories](#)
- [Apple Apps](#)
- [Previous Apps of the Week](#)
- [Previous Games of the Week...](#)
- [App Store Essentials](#)
- [Game Center](#)
- [Great Free Apps](#)
- [@School](#)
- [iWork](#)
- [App Store on Facebook](#)
- [App Store on Twitter](#)
- [Purchased](#) NEW

### TOP CHARTS

#### Paid Apps

[See All >](#)


1. WhatsApp Messenger  
Social Networking
2. Angry Birds Space  
Games
3. 日本杂志大全  
Books
4. Where's My Water?

## App Store Essentials



# GET STUFF DONE

APPS FOR PRODUCTIVE PEOPLE



### Get Stuff Done

Sort By: [Featured](#) ▾



Evernote  
Productivity  
Updated 15 March 2012  
[+ DOWNLOAD](#)



Clear  
Productivity  
Updated 16 February 2012  
[DOWNLOAD](#)



Things  
Productivity  
Updated 28 March 2012  
[DOWNLOAD](#)



Due — super fast reminders, reu...  
Productivity  
Updated 11 April 2012  
[+ \\$4.99 BUY APP](#)



Wunderlist  
Productivity  
Updated 25 July 2011  
[DOWNLOAD](#)



OmniFocus for iPhone  
Productivity  
Updated 26 March 2012  
[\\$19.99 BUY APP](#)



Calvetica Calendar  
Productivity  
Updated 14 March 2012  
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Orchestra To-do  
Productivity  
Updated 05 March 2012  
[FREE APP](#)



PlainText - Dropbox text editing  
Productivity  
Updated 23 March 2012  
[+ DOWNLOAD](#)

# Become an iOS Developer

<http://developers.apple.com>

## iOS



### iOS Developer Program

#### Individual

\$99 / Year

For an individual developer who will be creating free and commercial iOS apps for distribution on the App Store.

### iOS Developer Program

#### Company

\$99 / Year

For a company with a development team who will be creating free and commercial iOS apps for distribution on the App Store.

### iOS Developer Enterprise Program

\$299 / Year

For a company who will be creating proprietary, in-house iOS apps.

**Note:** A Dun & Bradstreet Number is required.

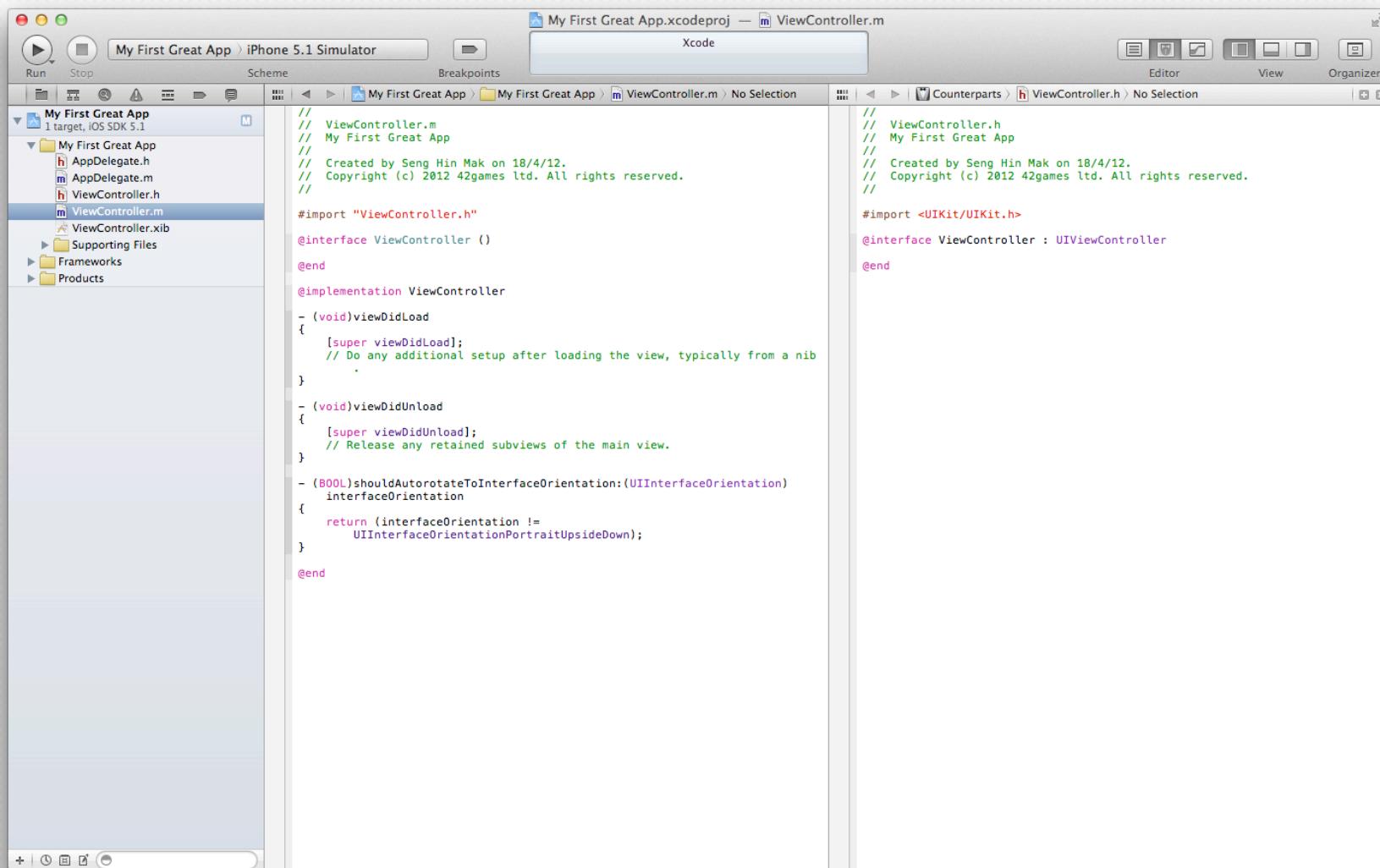
### iOS Developer University Program

Free

For higher education institutions looking to introduce iOS development into their curriculum.

# Getting Your Hand Dirty

# XCode



The screenshot shows the XCode interface with the following details:

- Project Navigator:** Shows the project structure for "My First Great App". The "ViewController.m" file is selected.
- Editor:** Displays the content of "ViewController.m". The code is as follows:

```
// ViewController.m
// My First Great App
//
// Created by Seng Hin Mak on 18/4/12.
// Copyright (c) 2012 42games ltd. All rights reserved.

#import "ViewController.h"

@interface ViewController : UIViewController

@end

@implementation ViewController

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

- (void)viewDidUnload
{
    [super viewDidUnload];
    // Release any retained subviews of the main view.
}

- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
}

@end
```

The "ViewController.h" file is also visible in the editor, showing its declaration:

```
// ViewController.h
// My First Great App
//
// Created by Seng Hin Mak on 18/4/12.
// Copyright (c) 2012 42games ltd. All rights reserved.

#import <UIKit/UIKit.h>

@interface ViewController : UIViewController
```

The screenshot shows the Xcode interface with two code editors open. The left editor displays the source file `ViewController.m`, and the right editor displays the header file `ViewController.h`. Both files belong to the project "My First Great App".

**ViewController.m:**

```
// ViewController.m
// My First Great App
//
// Created by Seng Hin Mak on 18/4/12.
// Copyright (c) 2012 42games ltd. All rights reserved.
//

#import "ViewController.h"

@interface ViewController : UIViewController

@end

@implementation ViewController

- (void)viewDidLoad
{
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}

- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    return (interfaceOrientation !=
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}

@end
```

**ViewController.h:**

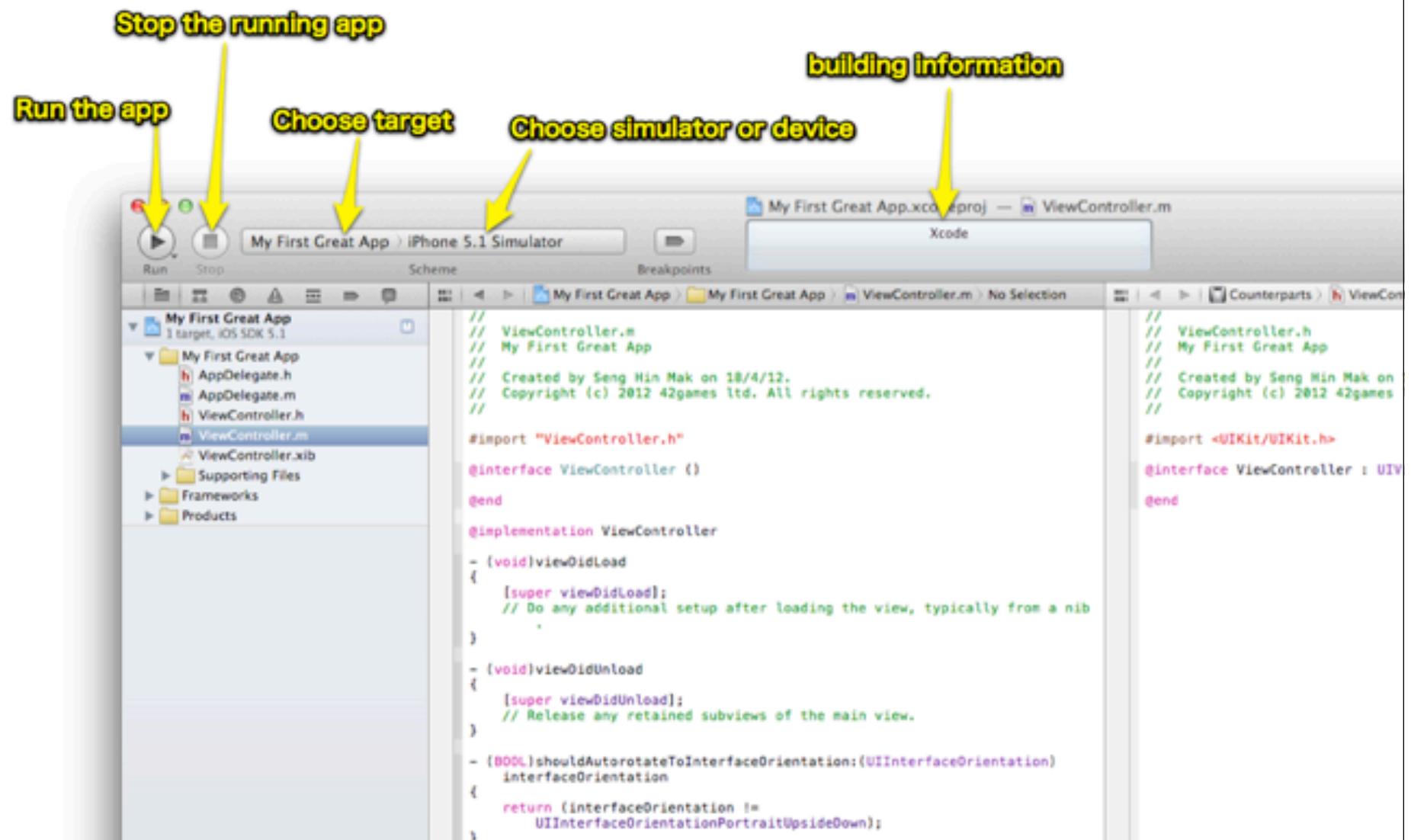
```
// ViewController.h
// My First Great App
//
// Created by Seng Hin Mak on 18/4/12.
// Copyright (c) 2012 42games ltd. All rights reserved.
//

#import <UIKit/UIKit.h>

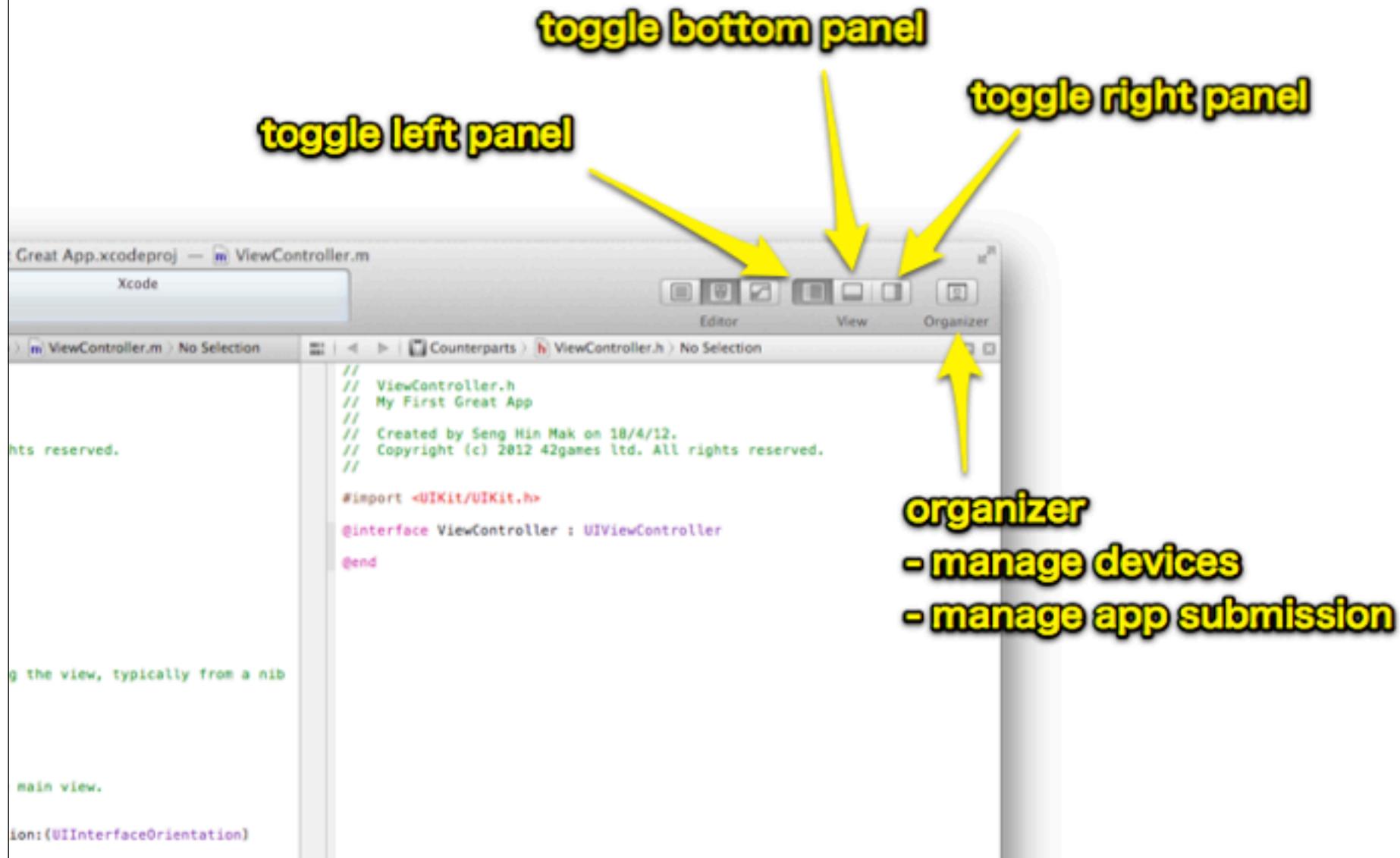
@interface ViewController : UIViewController

@end
```

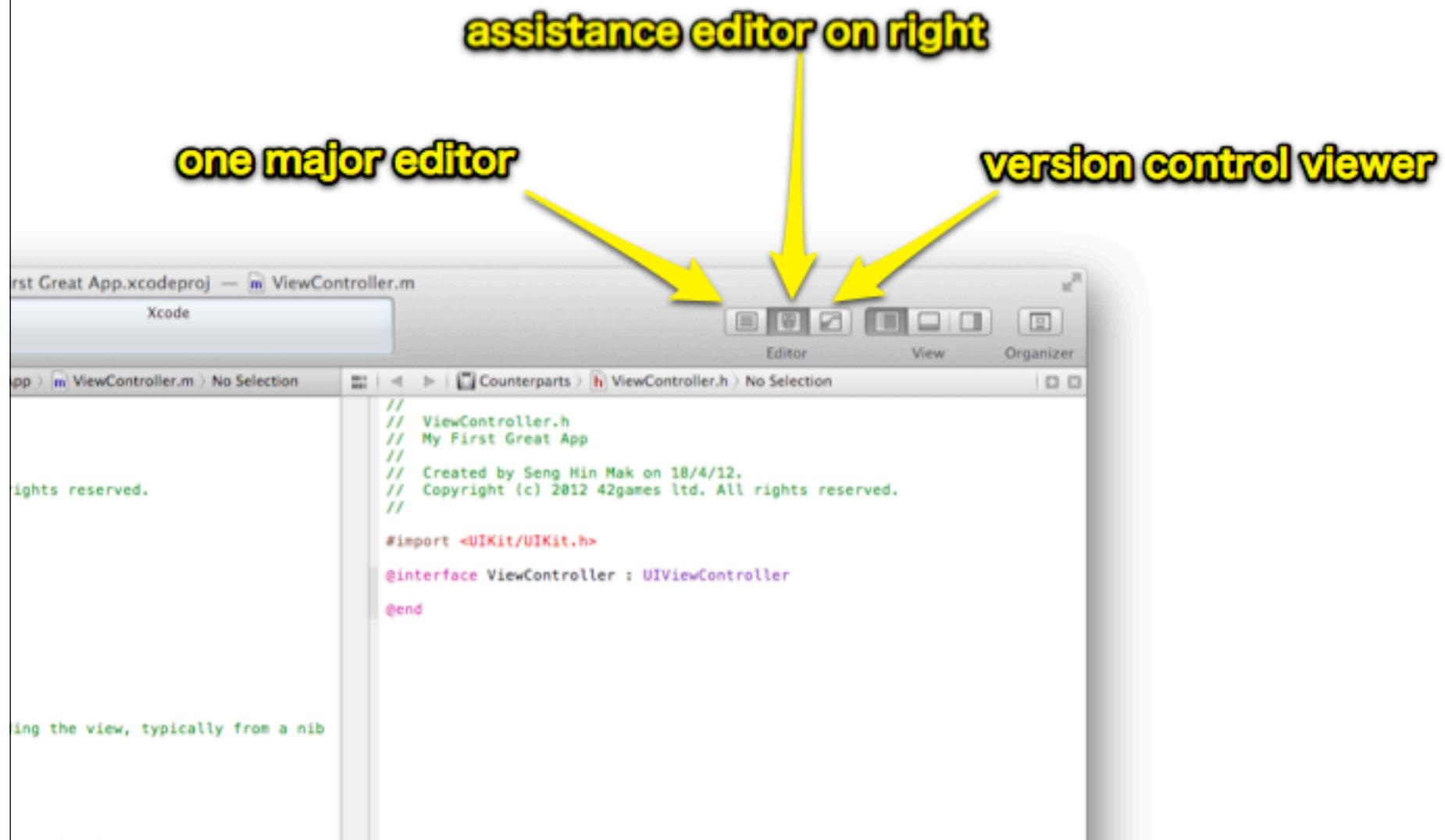
# Toolbar



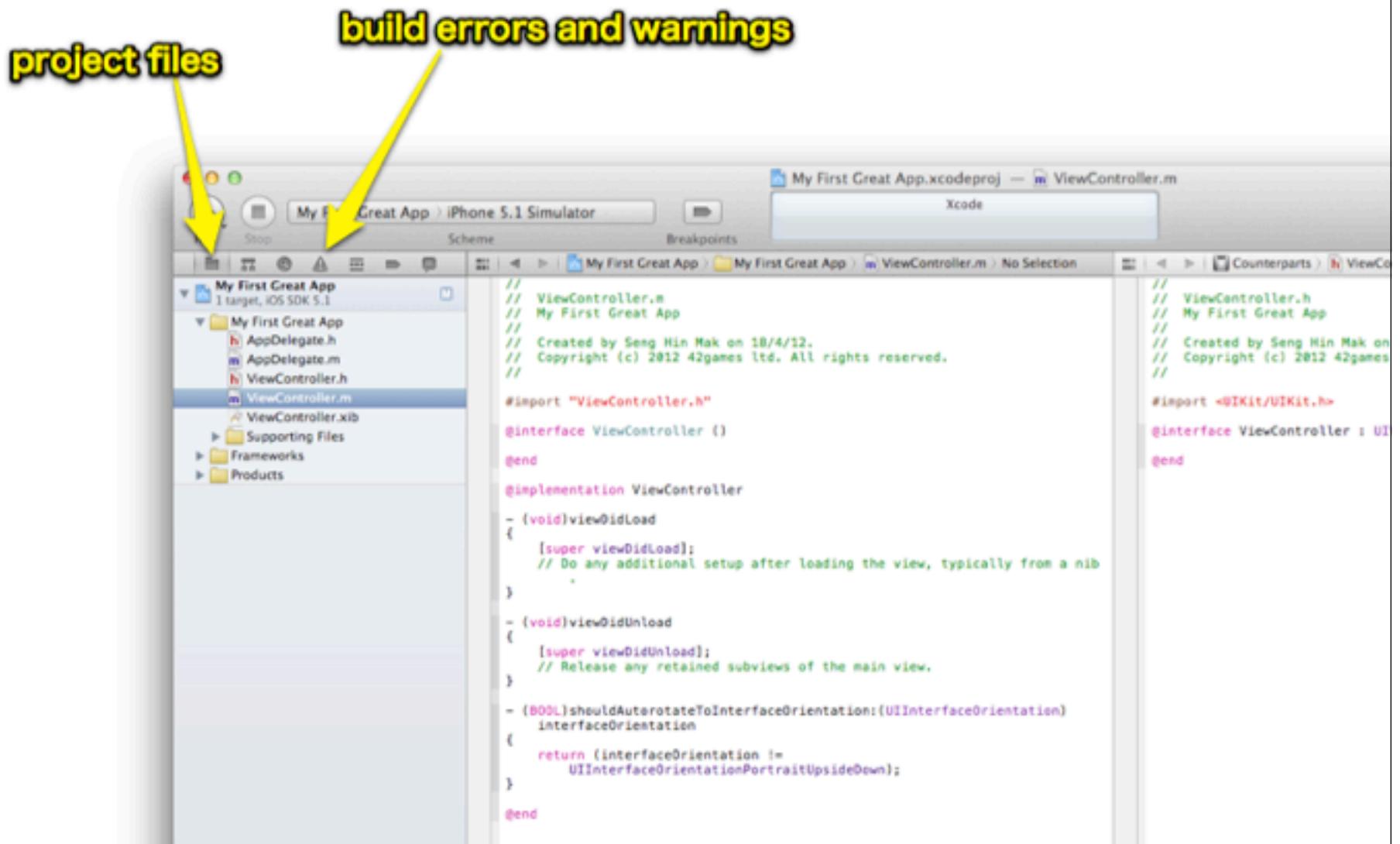
# Toolbar



# Toolbar



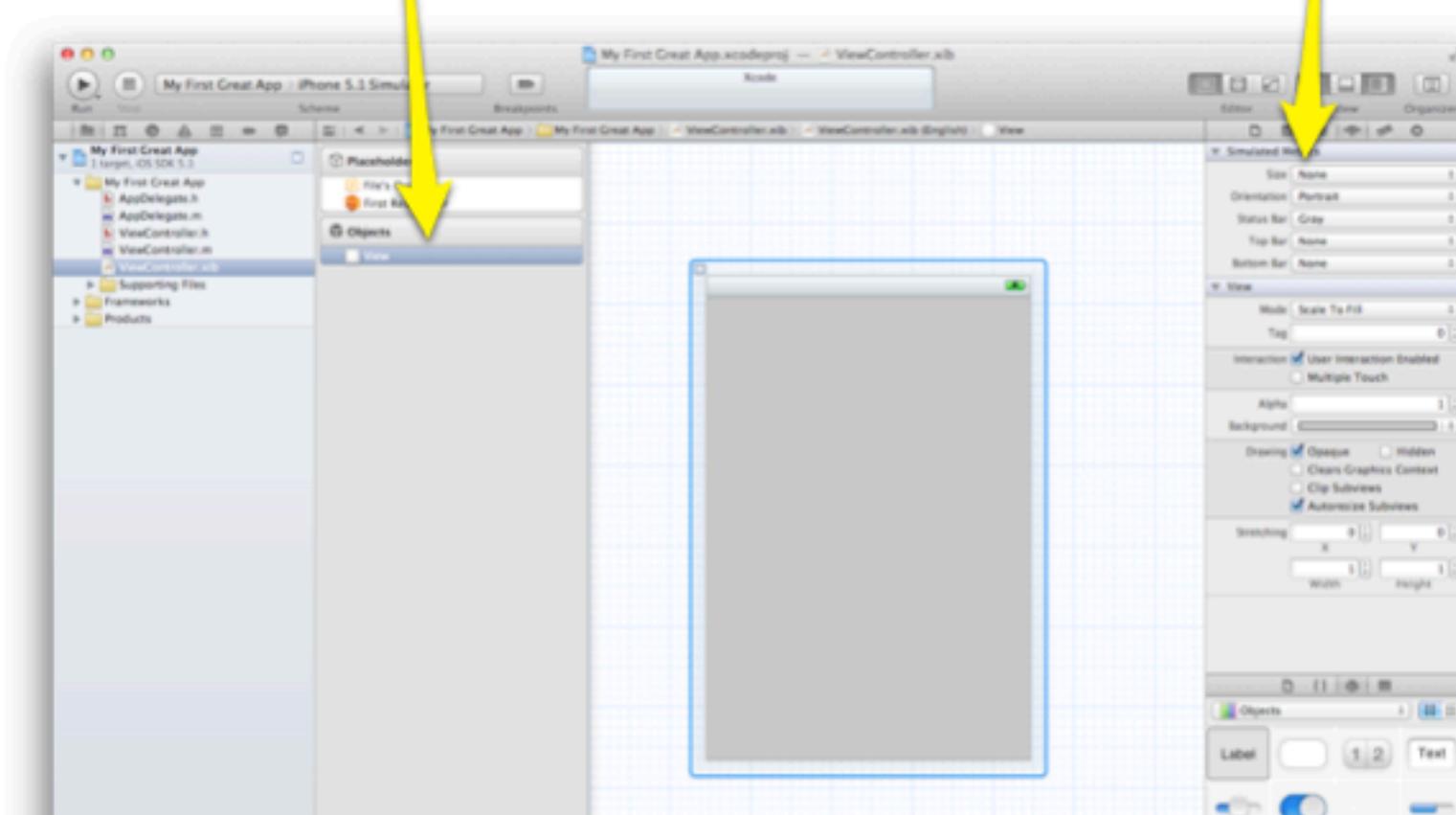
# Toolbar



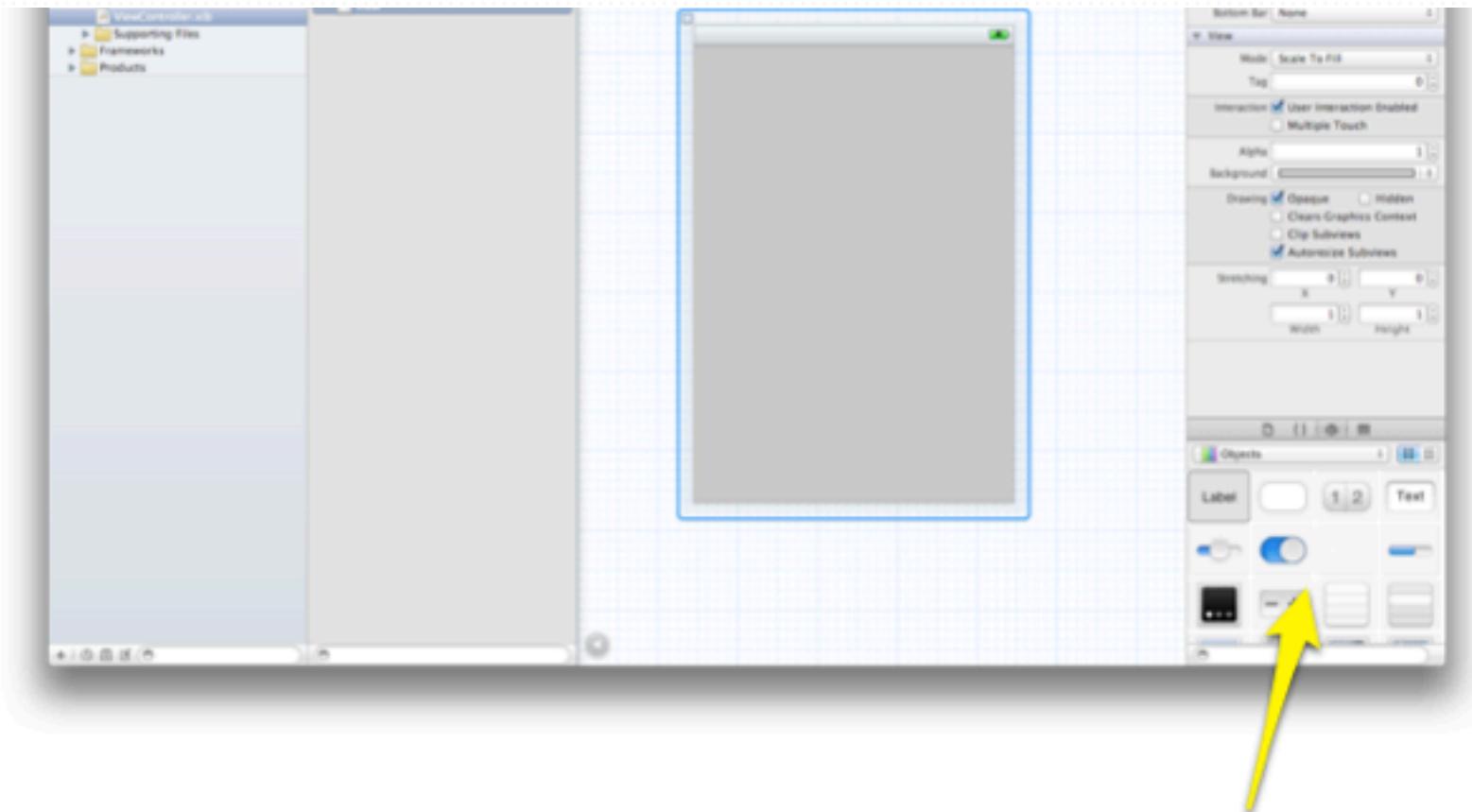
# Interface Builder

**view components list**

**UI component settings**



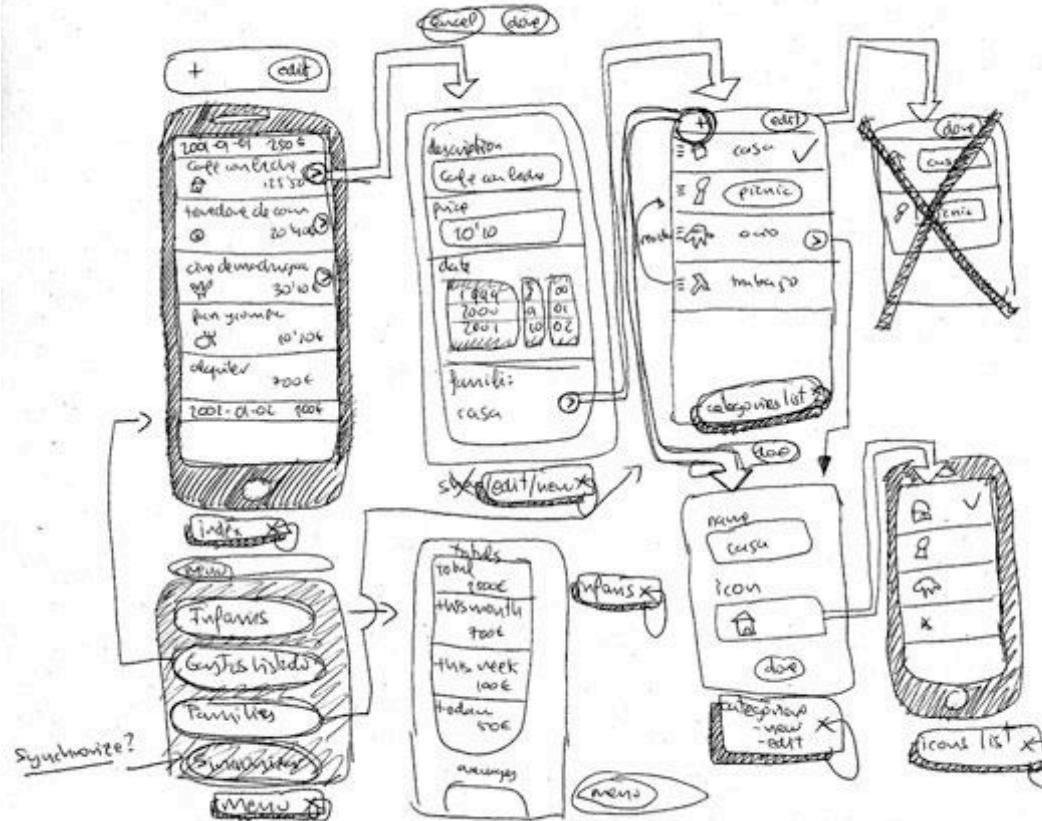
# Interface Builder



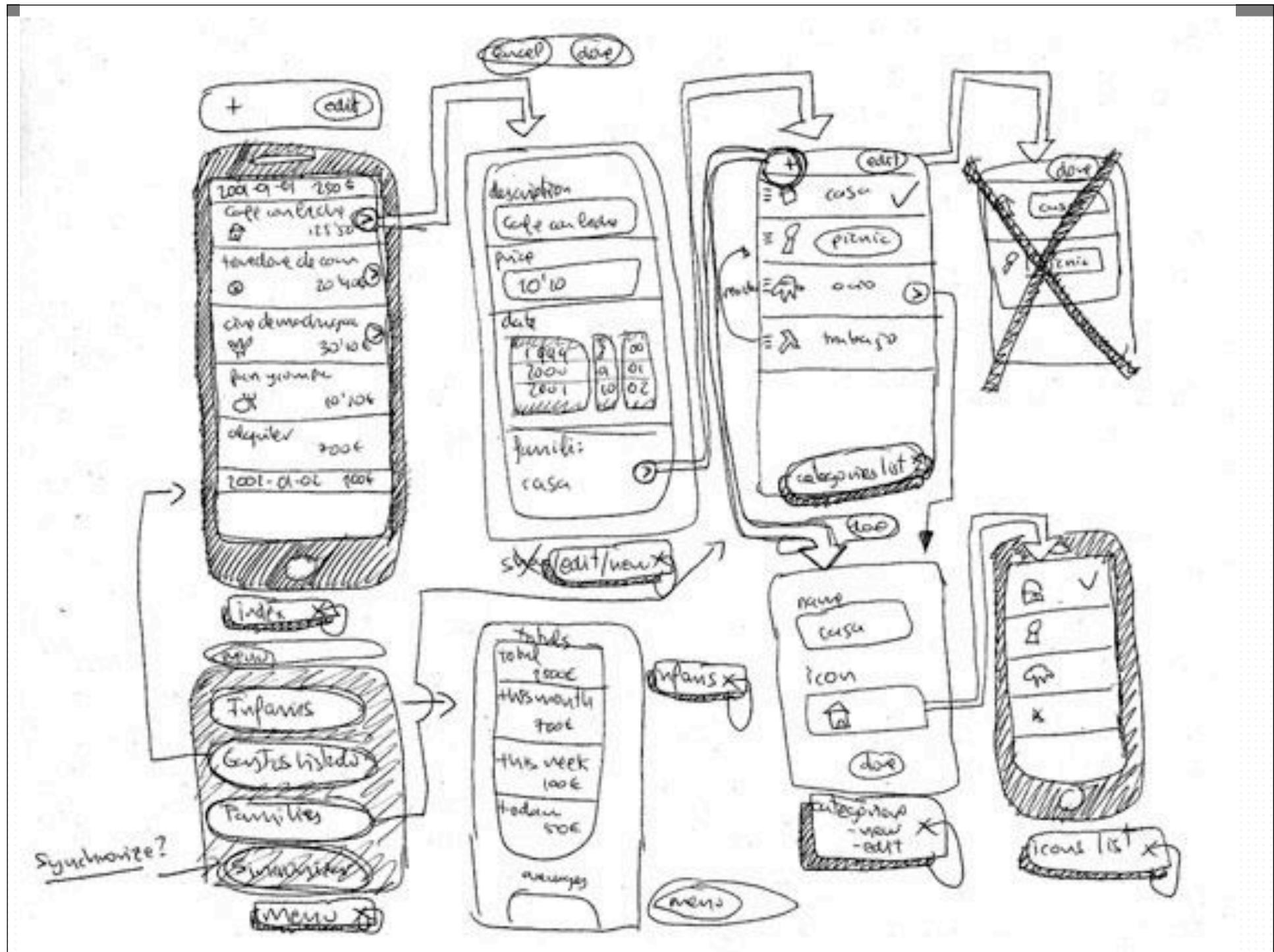
**user interface  
components**

# Creating Mockup

# iOS app wireframe



<http://sixrevisions.com/user-interface/website-wireframing/>  
<http://moobileframes.tumblr.com/>



# Practice

Browse the App Store. Find some apps that impress you. Discuss why they are good.

Do you have any problem that want to solve in a mobile phone? What app do you want to develop? Try draw some wireframes.