

iPhone App Dev

CM420-03-2013-C
Lesson 1

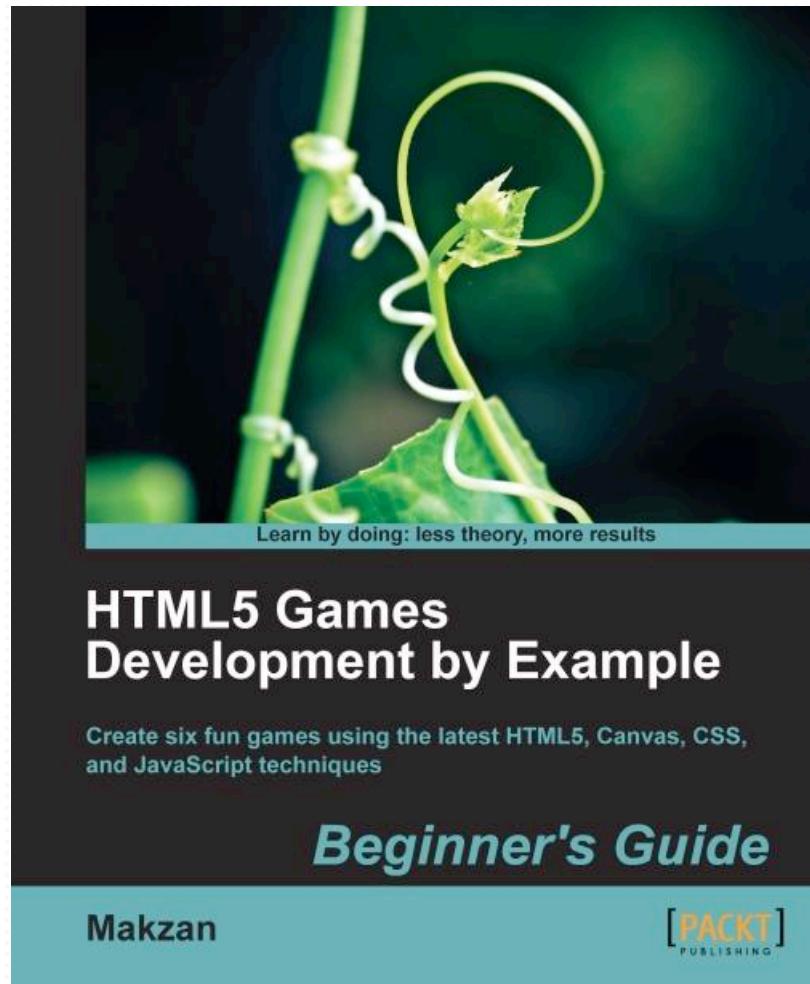
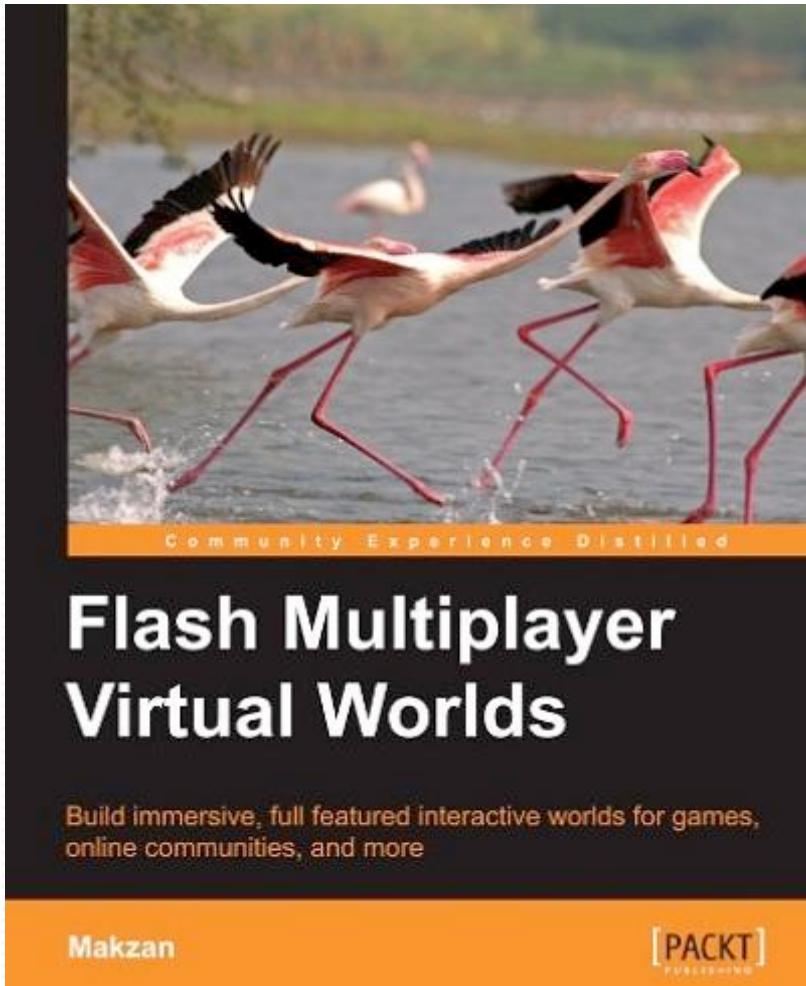
Summary

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

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Publications



Selected iOS games



iOS Ecosystem

Development Environment

Software Configuration

Mac OS X 10.8

XCode 4.5

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 3 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

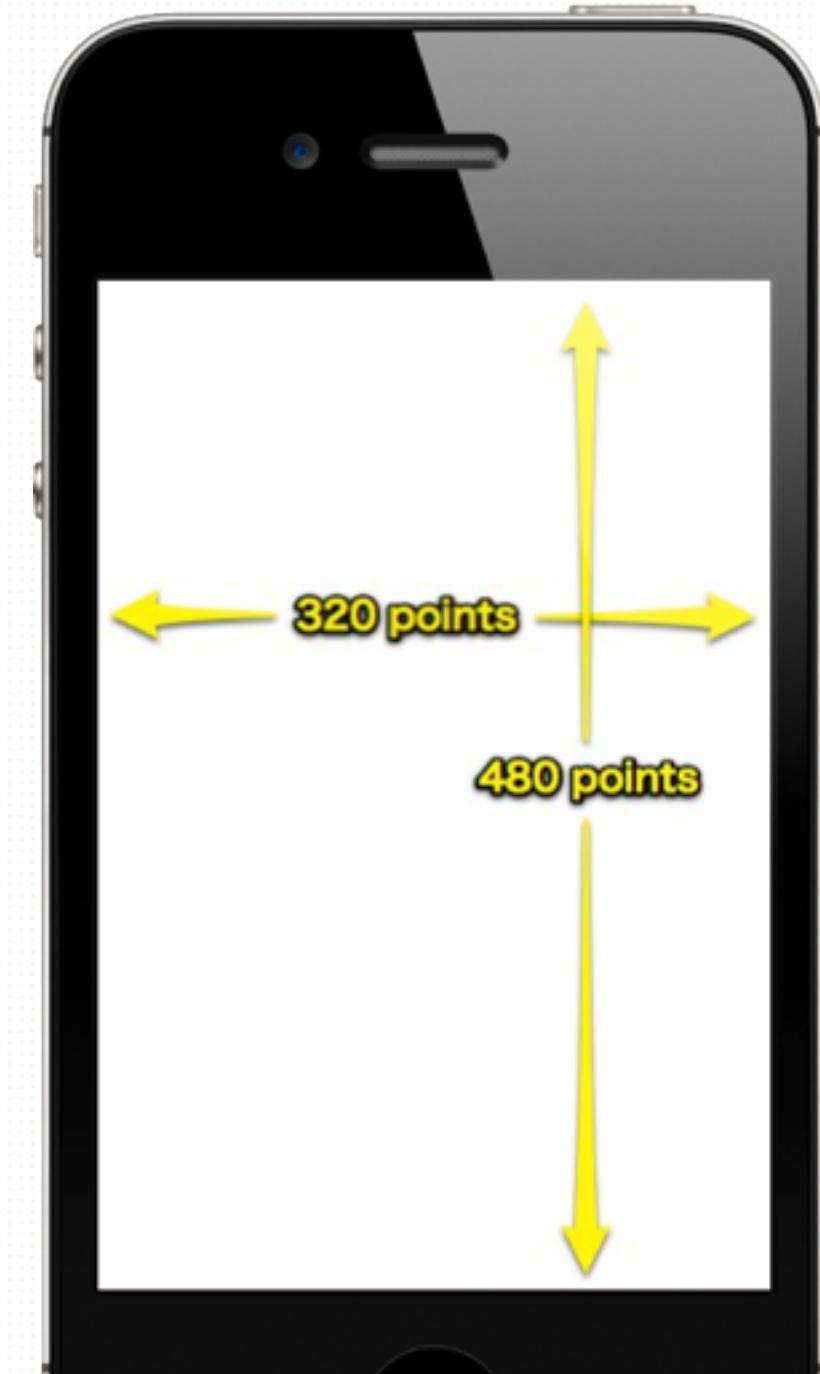
- Quite difficult to develop
- Reviewing process slows down updates
- Some apps will never appear on App Store

iOS Screen Size

iPhone / iPod Touch
320 x 480 points

Actual Resolution

320 x 480 pixels or
640 x 960 pixels



iOS Screen Size

4" iPod Touch / iPhone 5

320 x 568 points

Actual Resolution

320 x 568 pixels or

640 x 1136 pixels

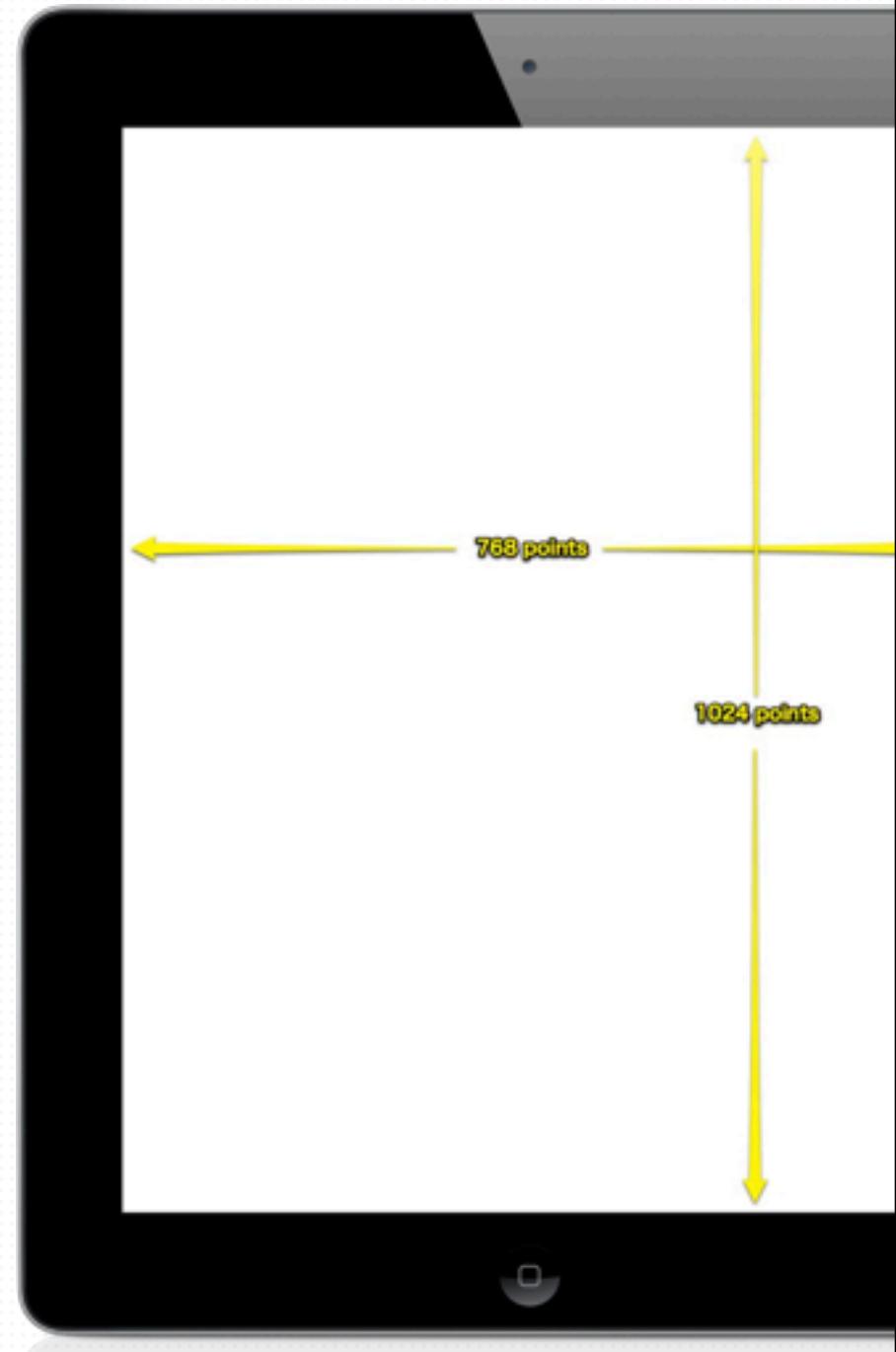
iOS Screen Size

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

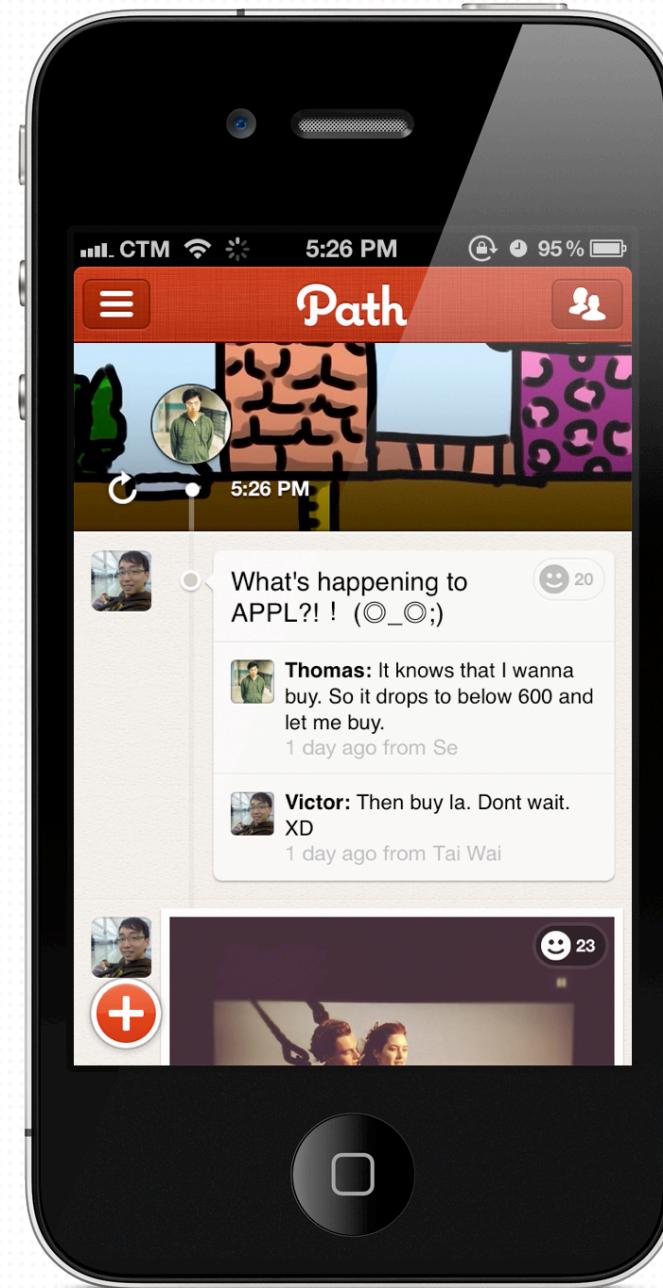


Social Network



Social Network

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



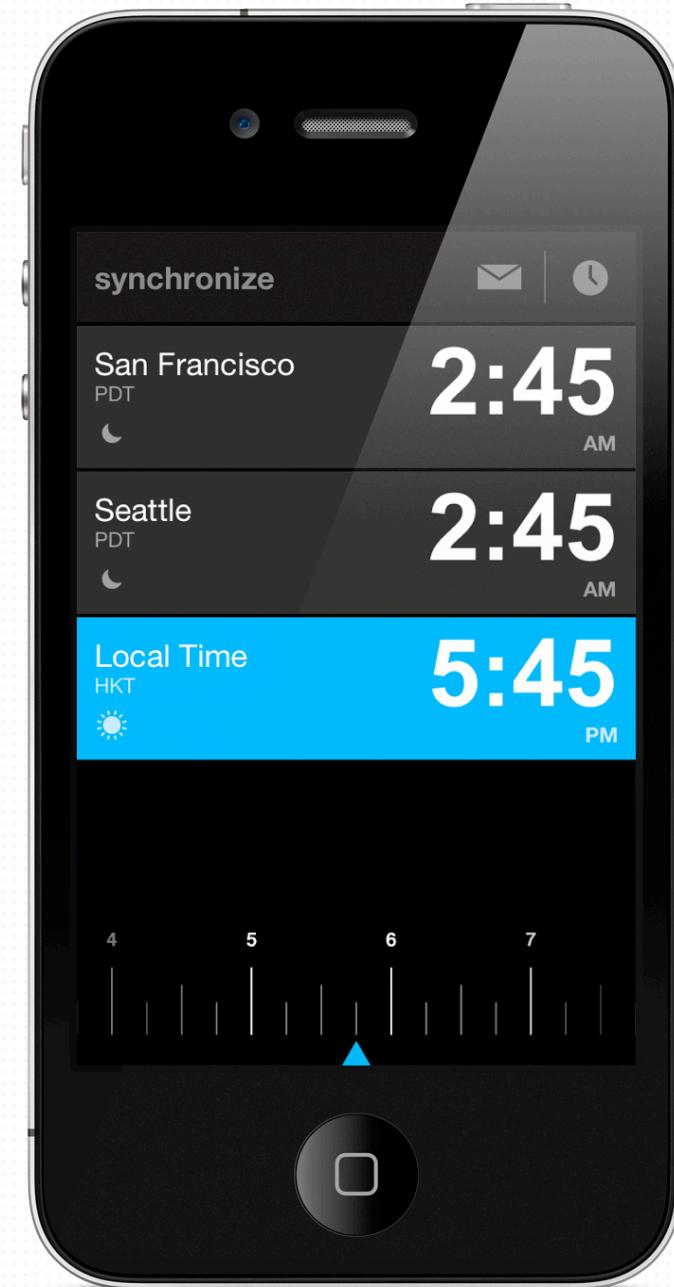
Utilities

- 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



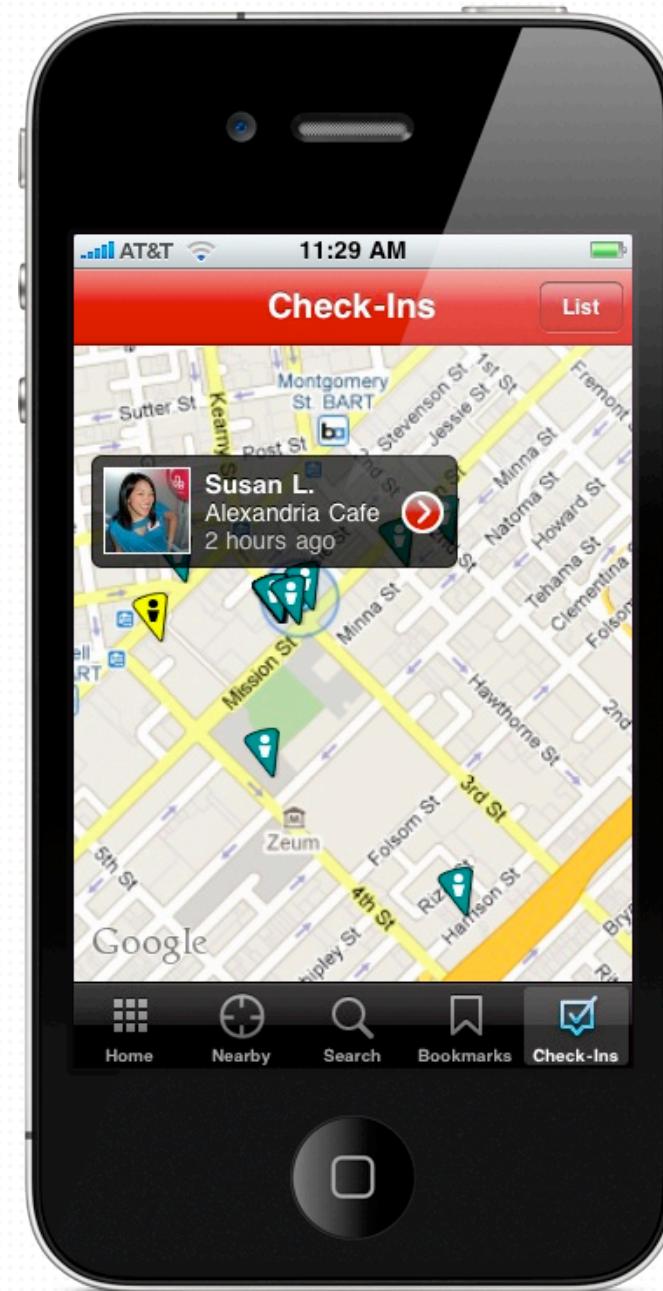


Location



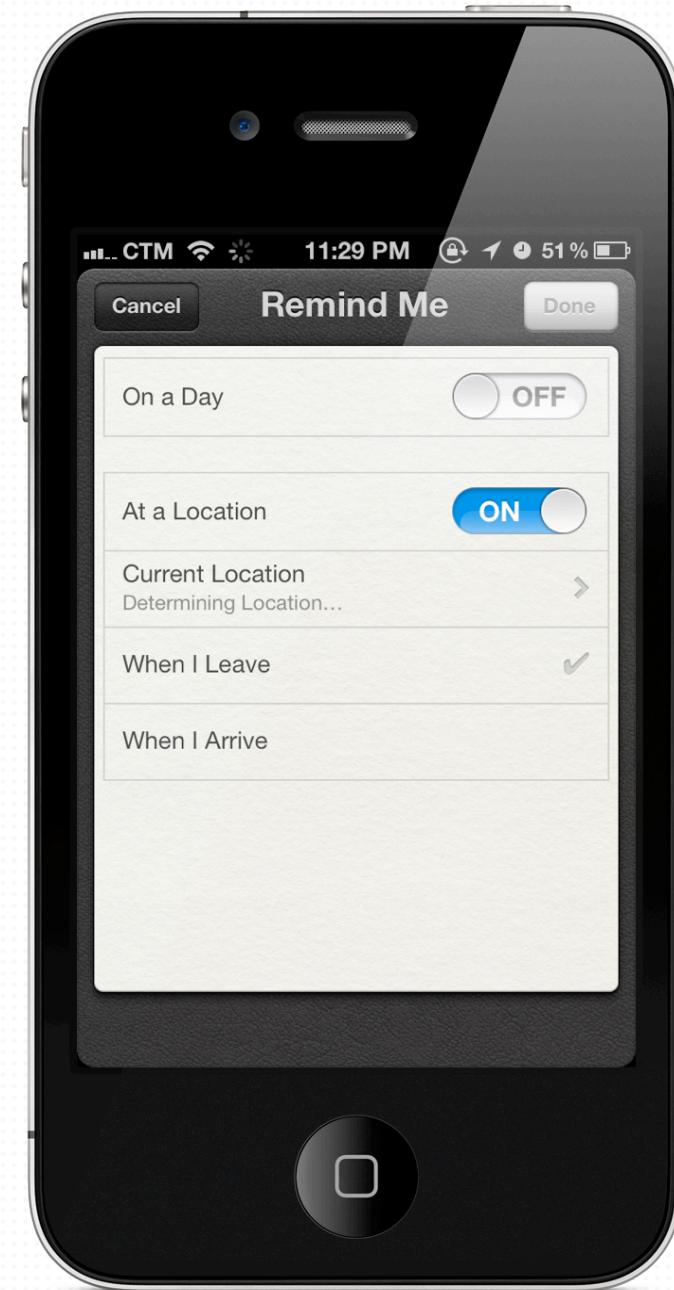
Location

- Combining location and social network



Location

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

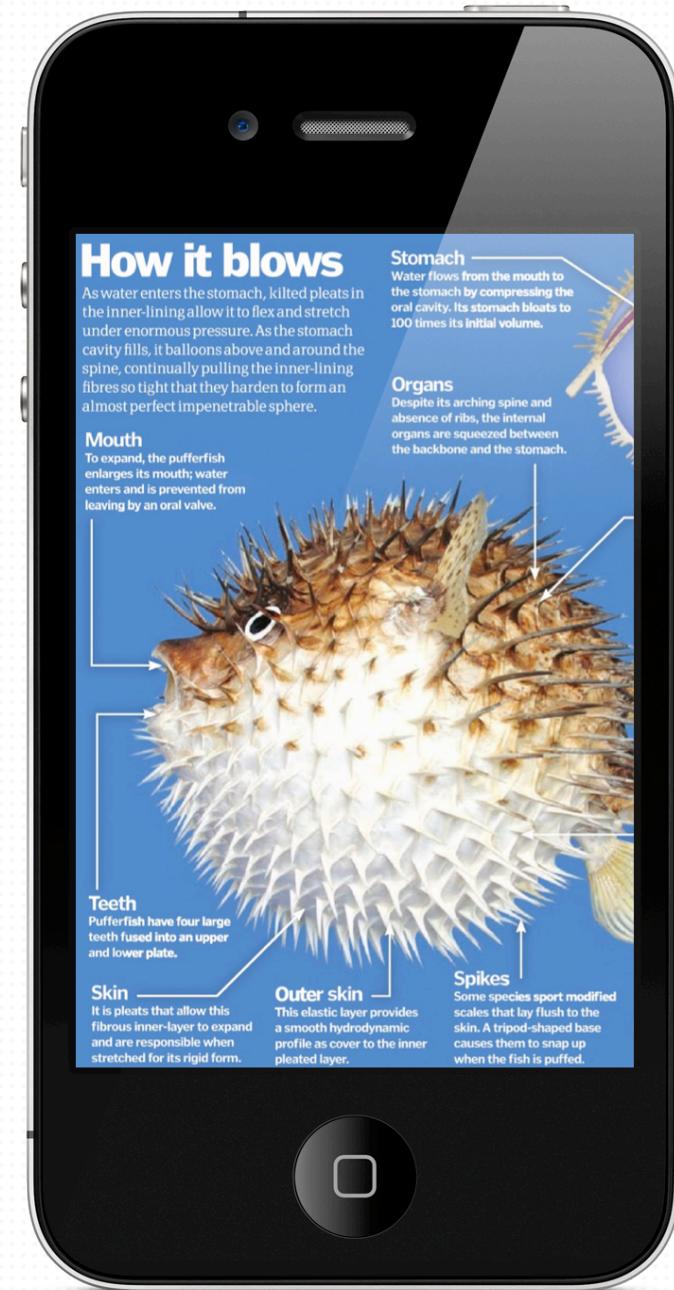


Digital Media

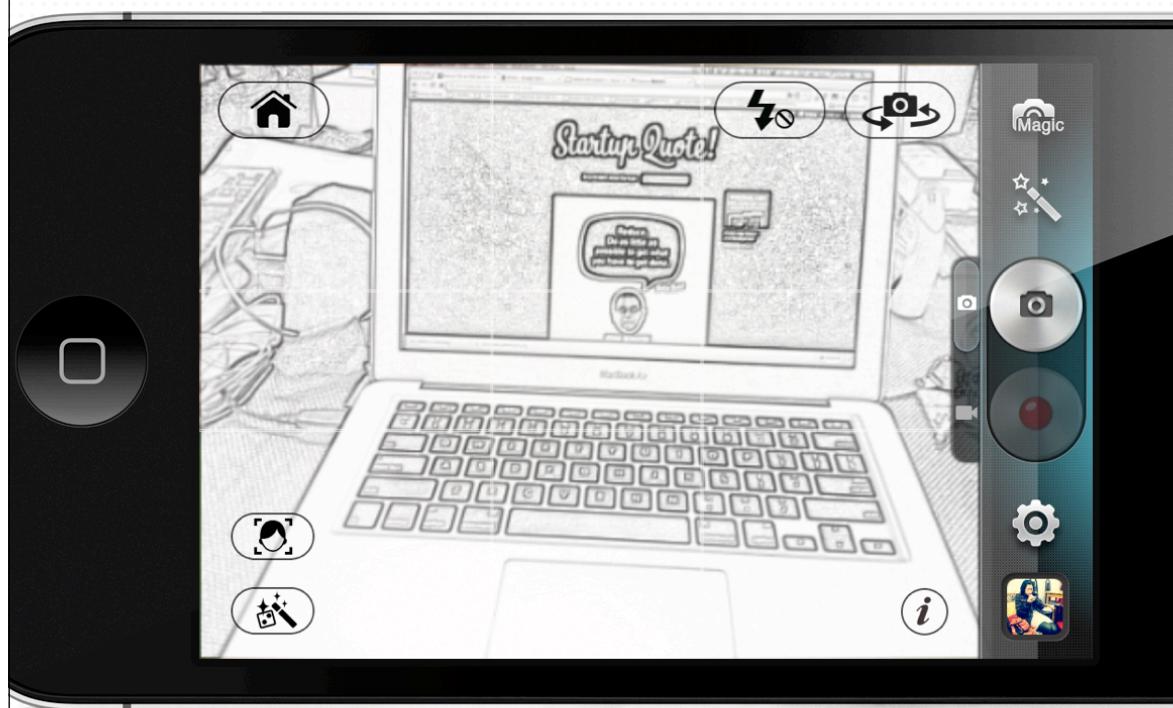


Digital Media

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



Photography



Photography

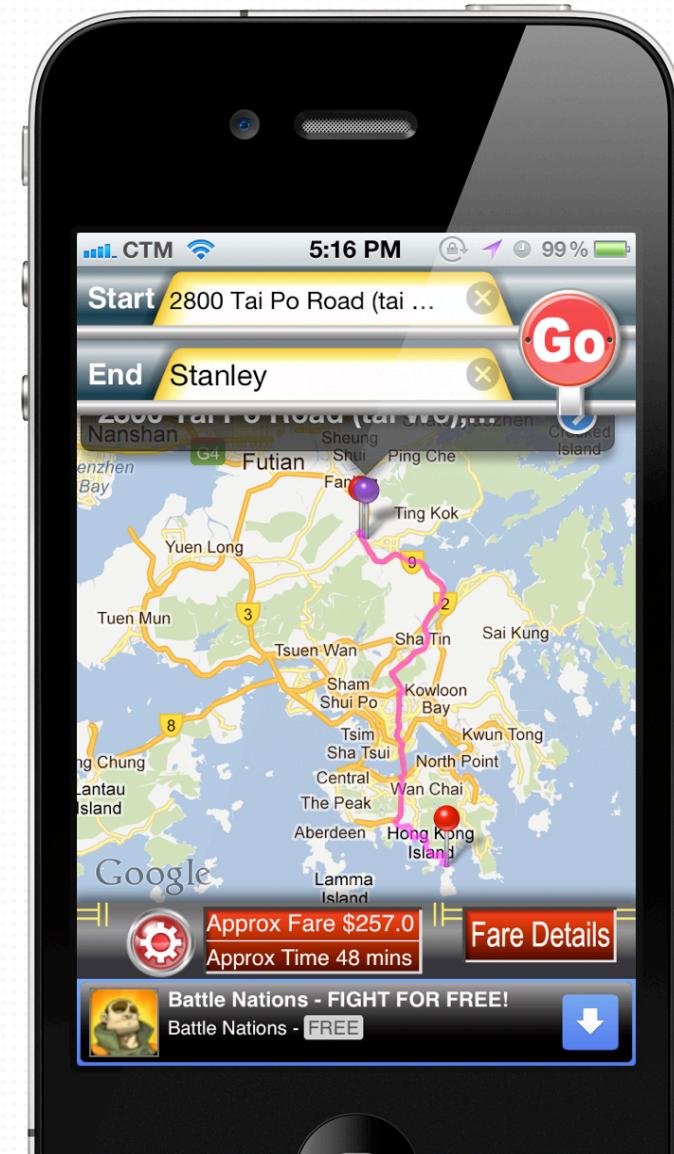
- Everyone get camera
- Record your life,
in creative way
- Share your life,
with social network



Every App Solves a Problem

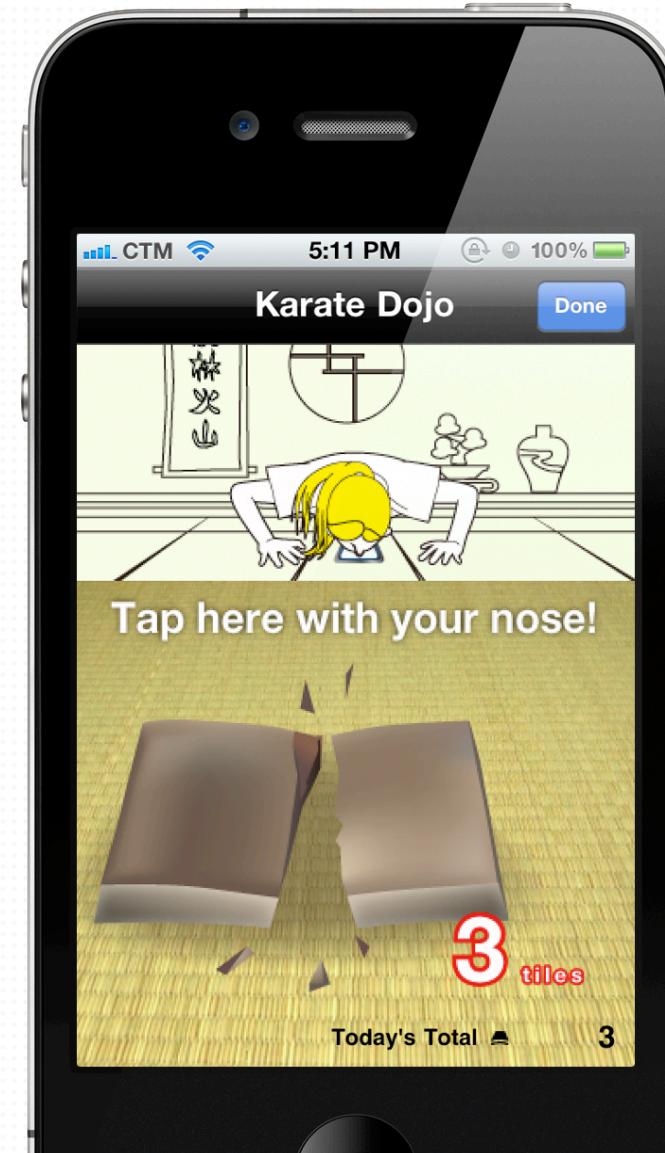
Every app solves a problem

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



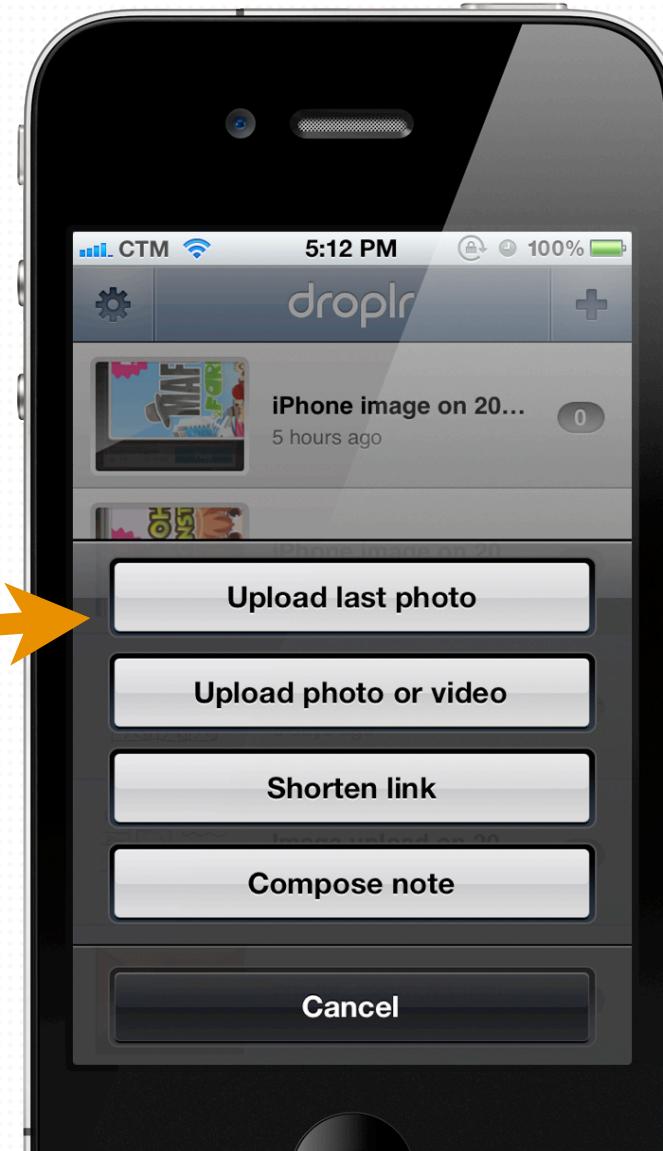
Every app solves a problem

- 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
+ \$2.99 BUY APP ▾



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.

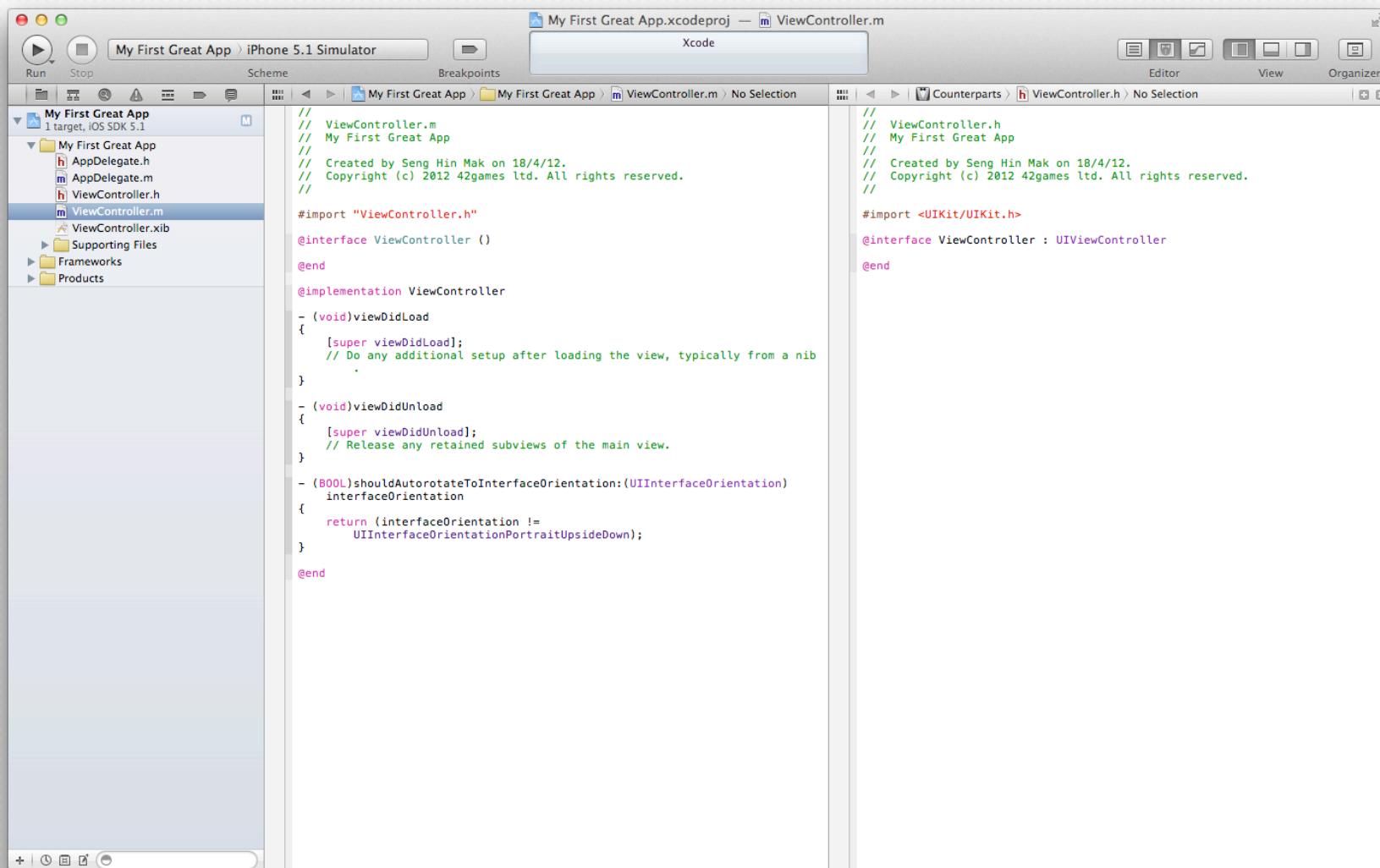
iOS Developer University Program

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 implementation 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 (Implementation File):

```
// 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 !=
        UIInterfaceOrientationPortraitUpsideDown);
}

@end
```

ViewController.h (Header File):

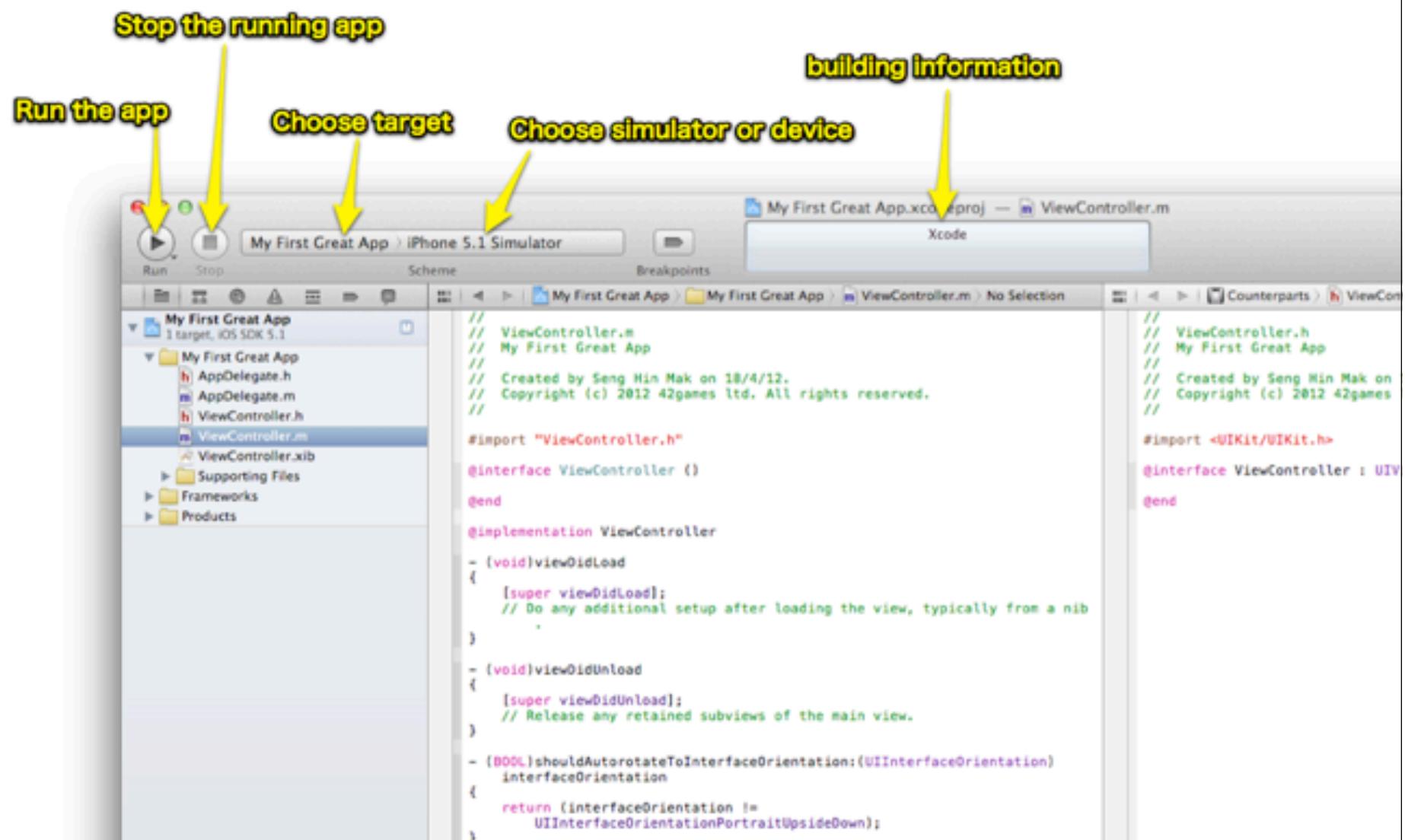
```
// ViewController.h
// My First Great App
//
// Created by Seng Hin Mak on 18/4/12.
// Copyright (c) 2012 42games ltd. All rights reserved.
//

#import <UIKit/UIKit.h>

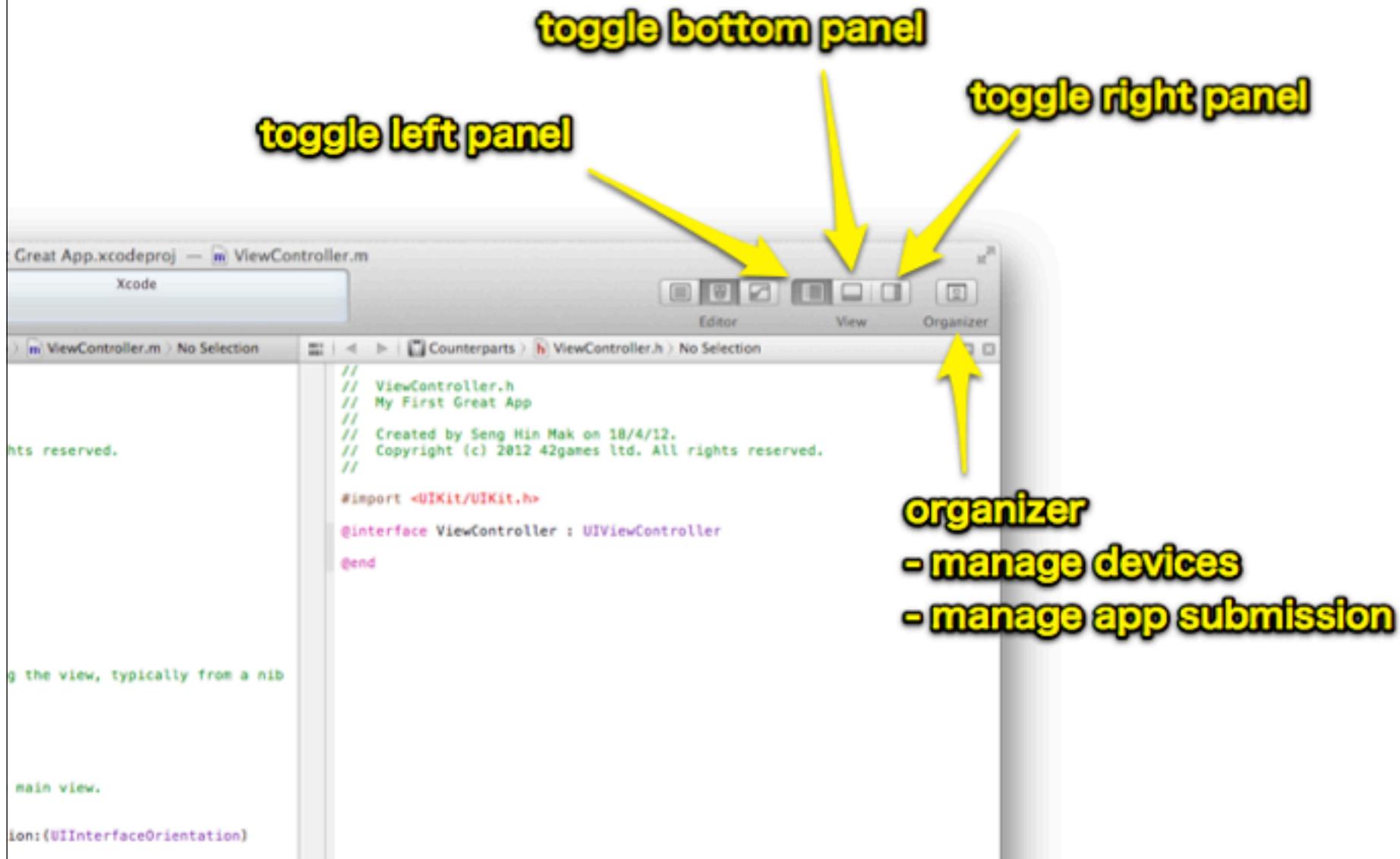
@interface ViewController : UIViewController

@end
```

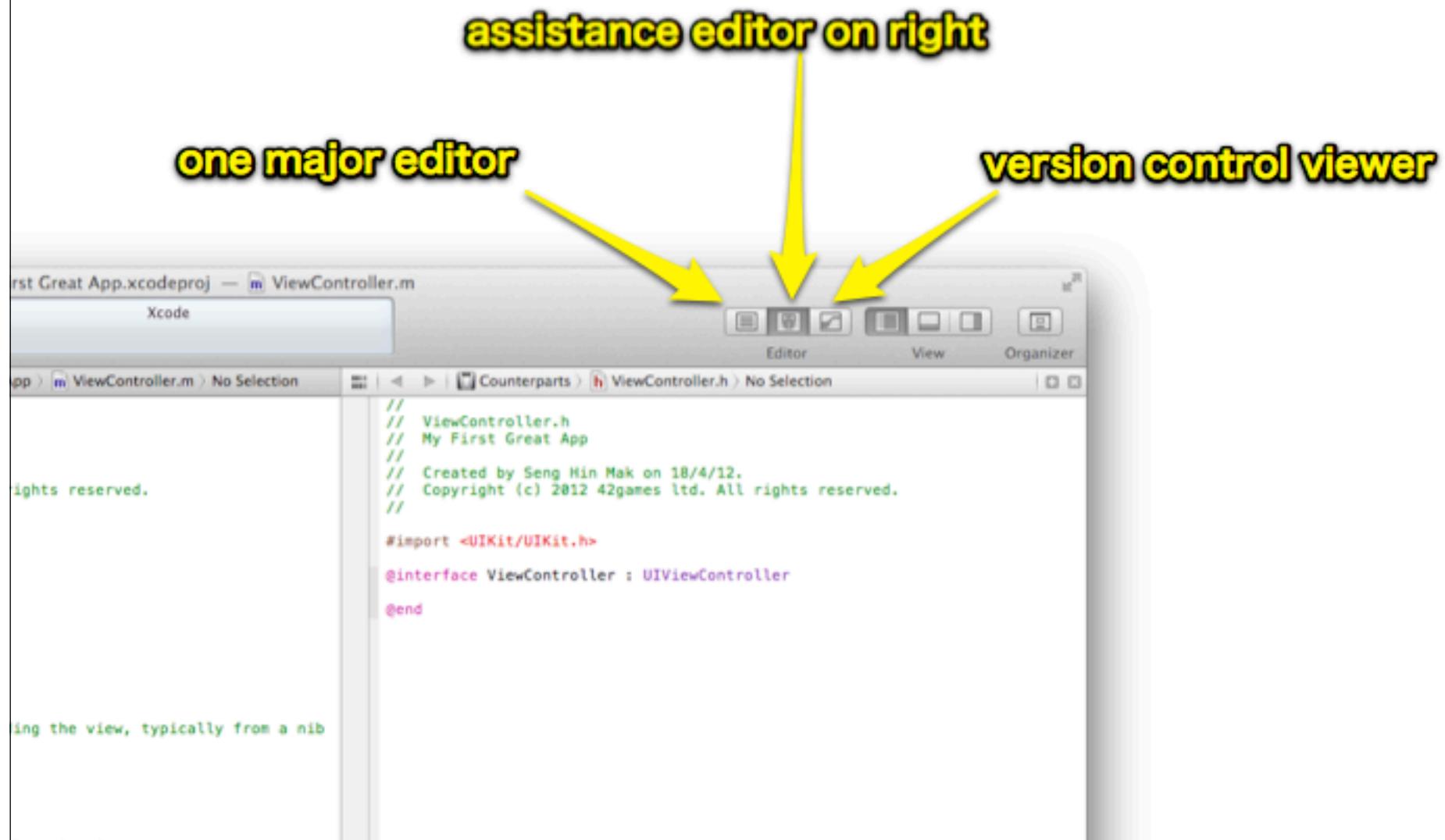
Toolbar



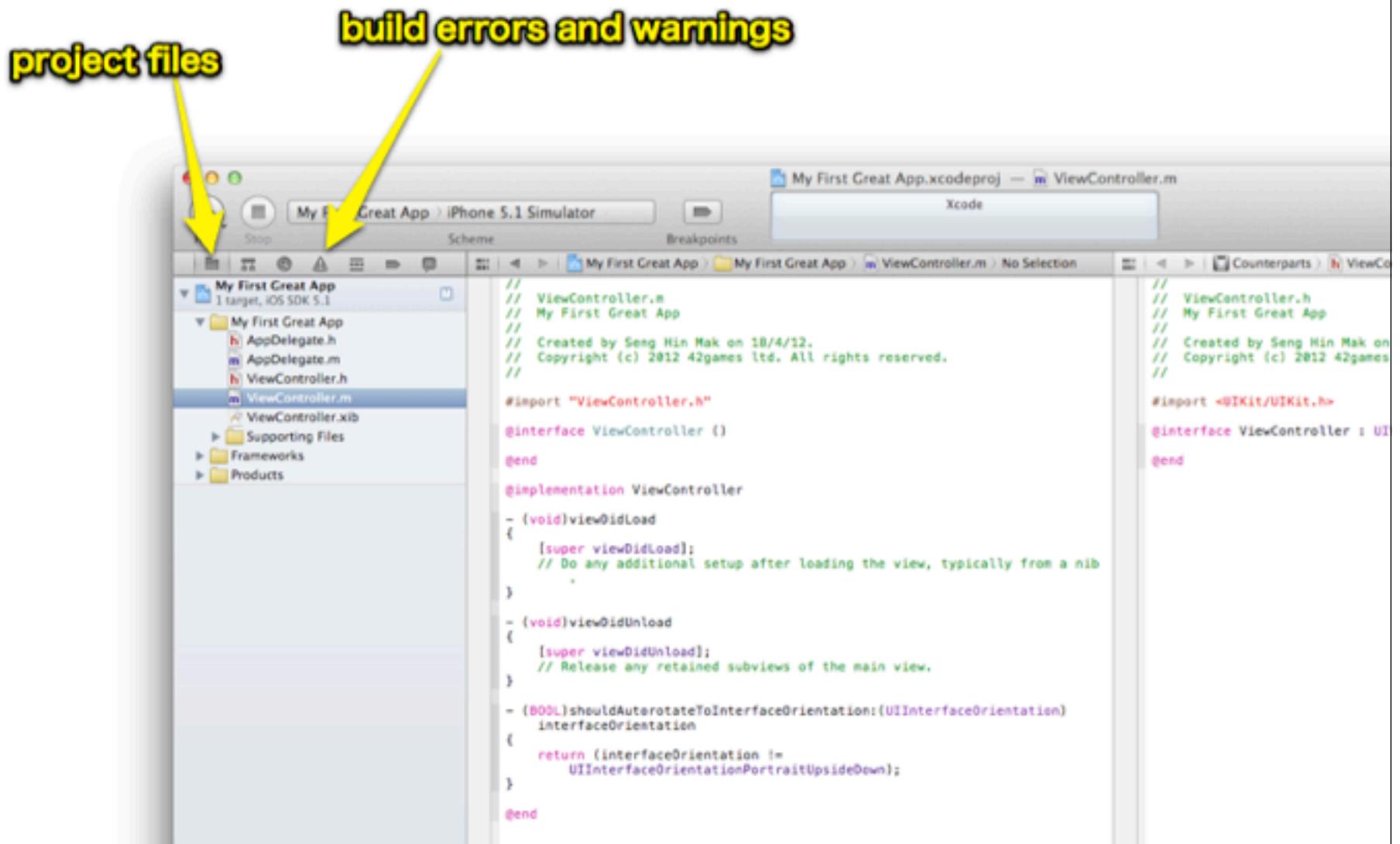
Toolbar



Toolbar



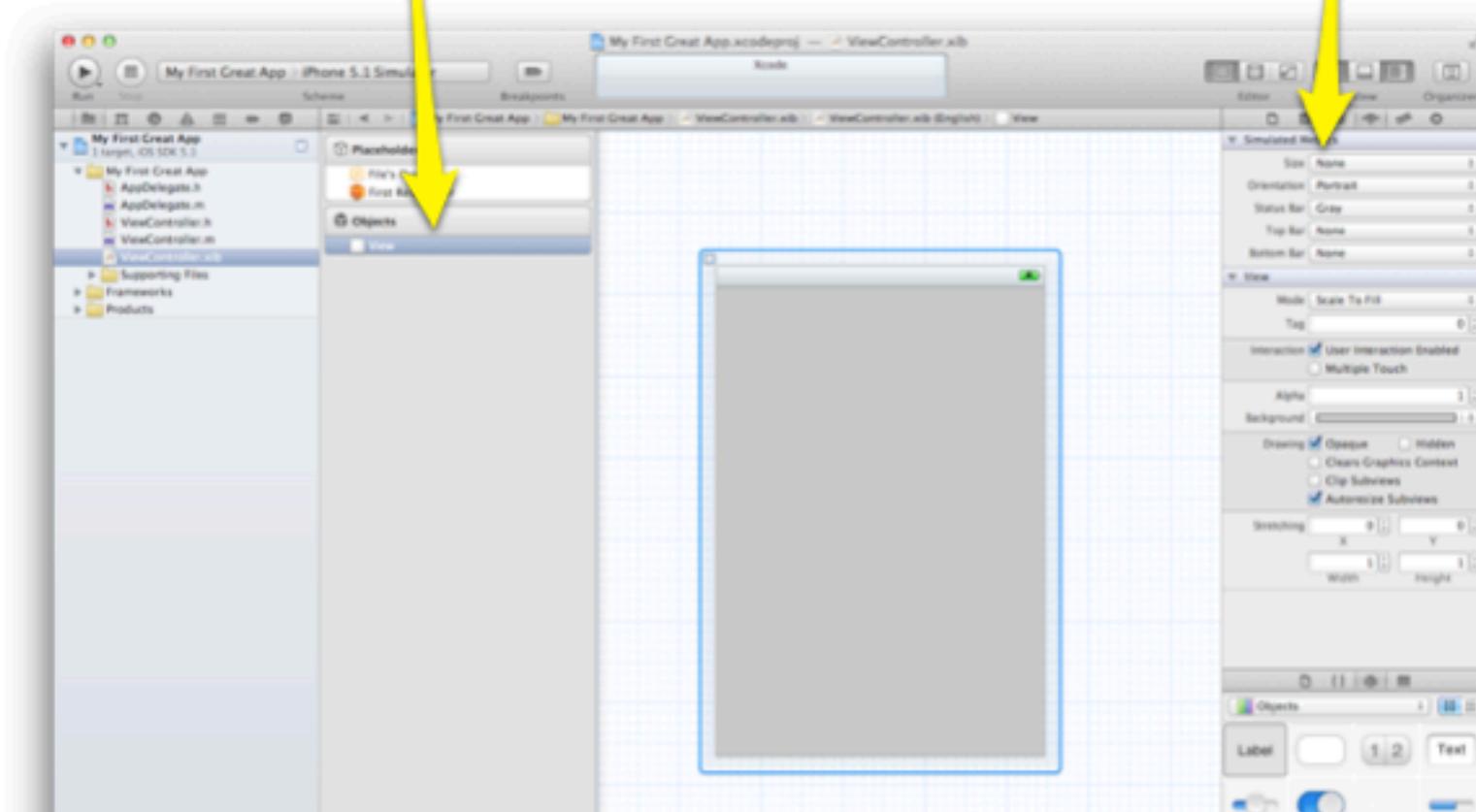
Toolbar



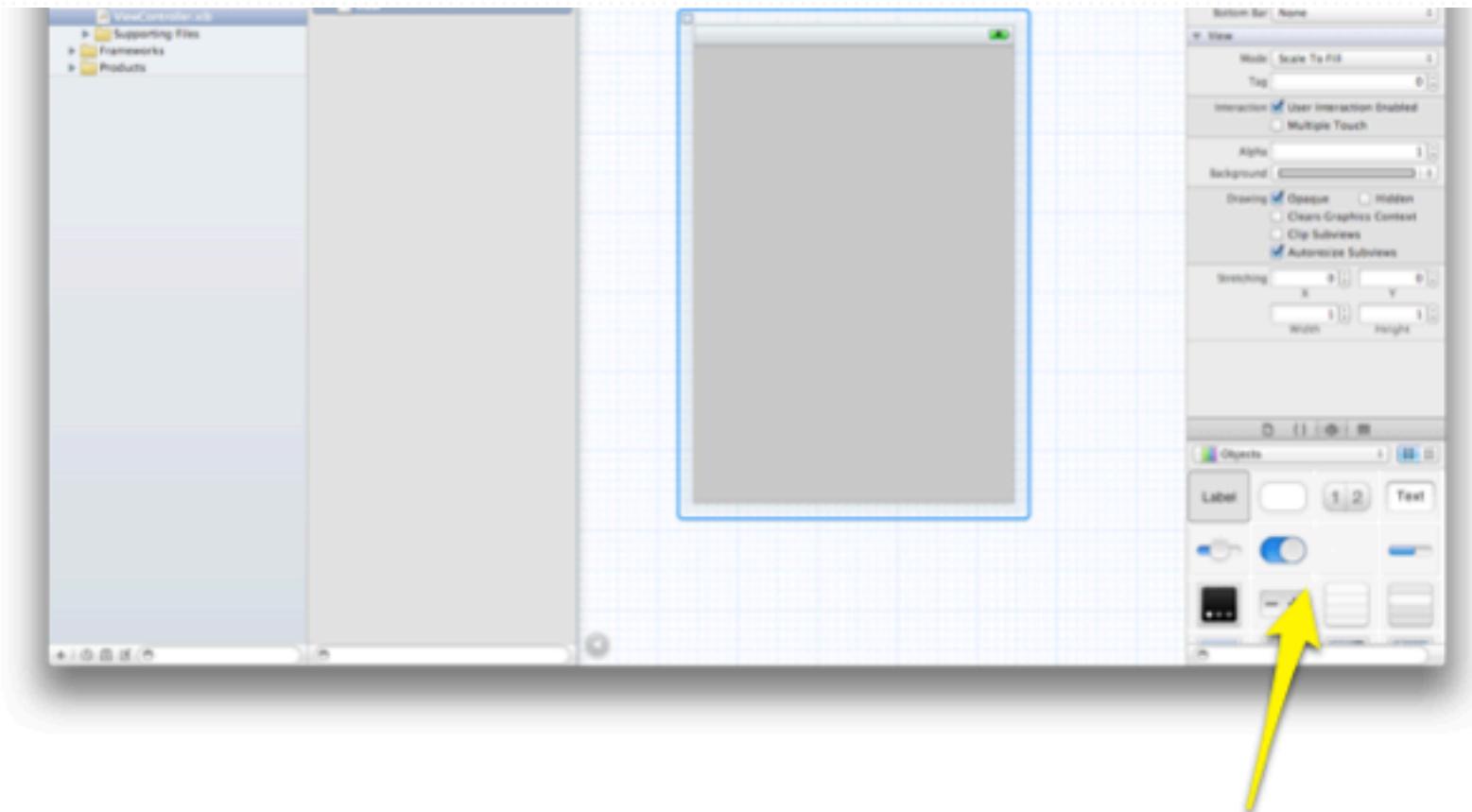
Interface Builder

view components list

UI component settings



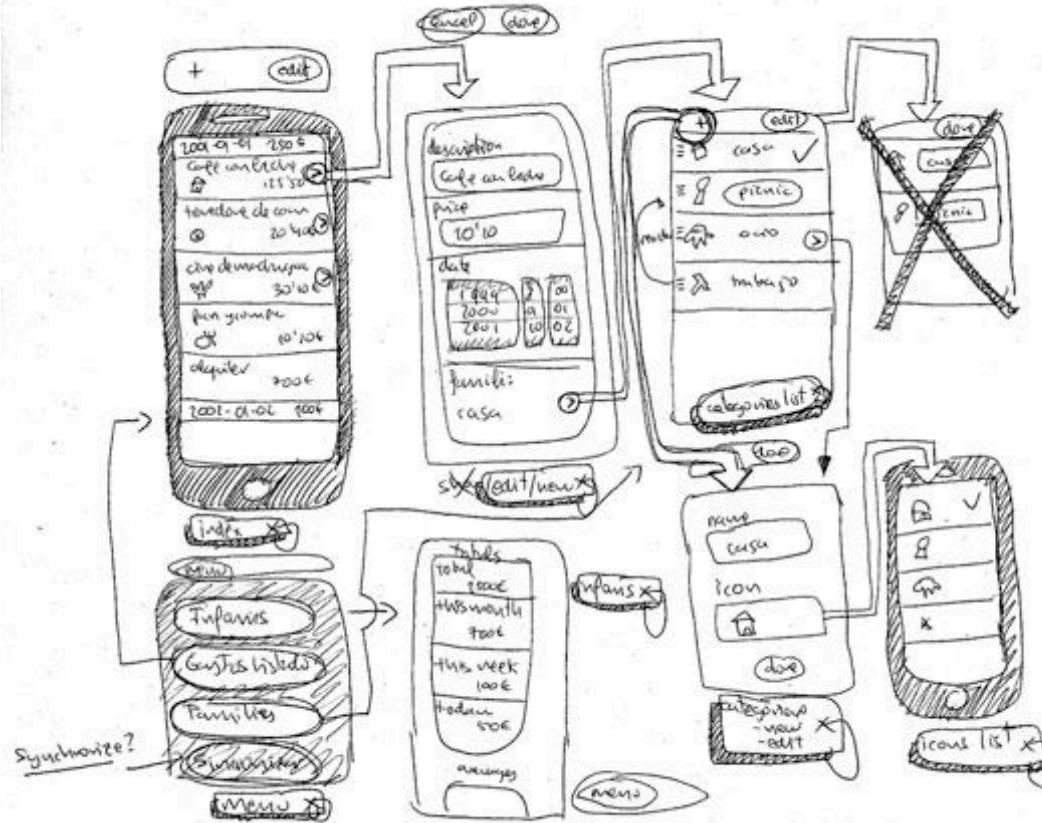
Interface Builder



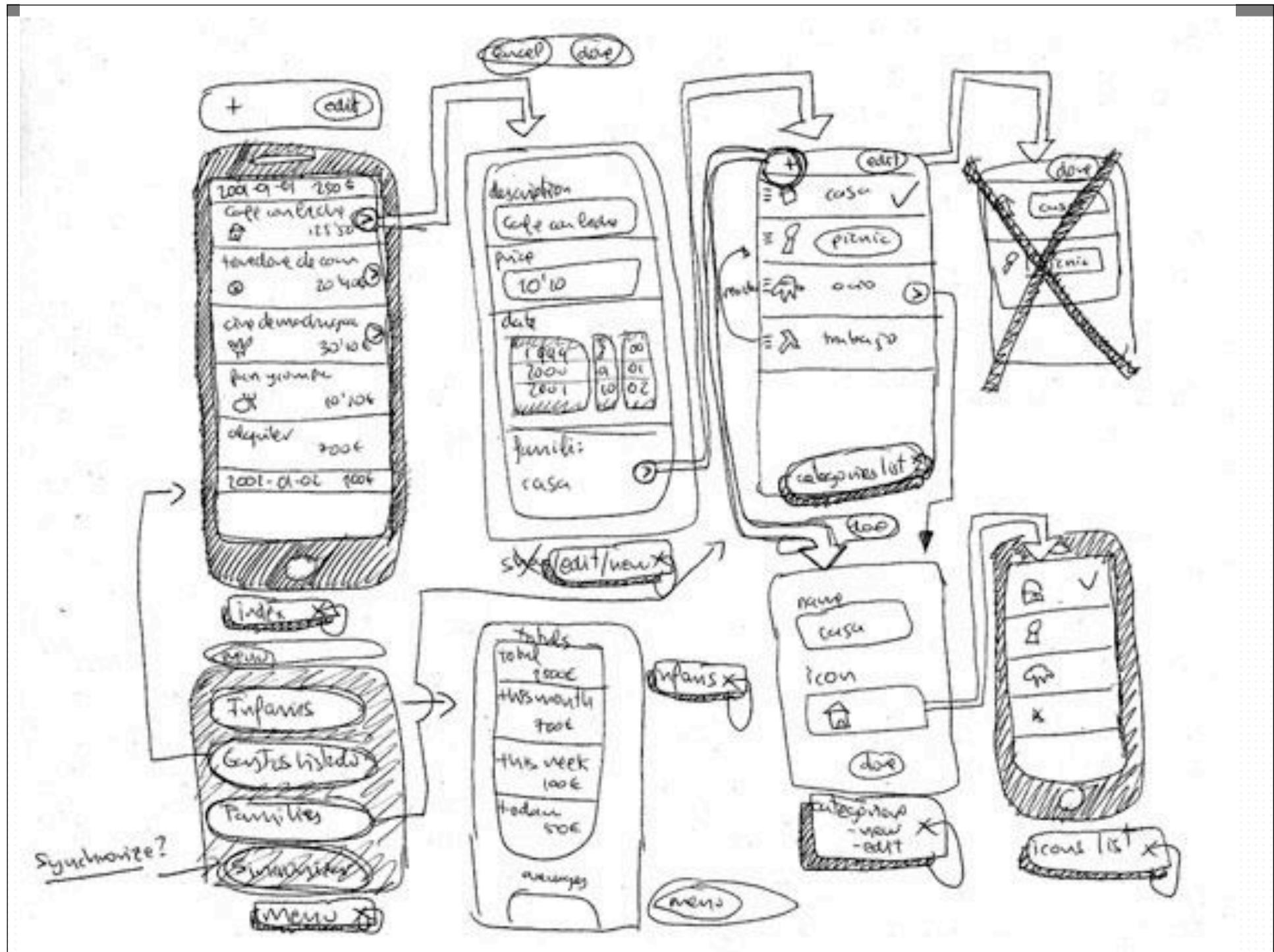
**user interface
components**

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.