

# iOS Development: Getting Started

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# Agenda

- ⦿ Introduction
- ⦿ Account, Software and Hardware
- ⦿ Learn iOS development
- ⦿ App Design
- ⦿ Discussion

# Introduction

## ◎ Cover

- What is needed to creating an iOS app

## ◎ Introduce yourself

- What do you do?
- What are your plans for iOS development?

# Development Cycle

- ⦿ Design
- ⦿ Develop
- ⦿ Localization
- ⦿ Beta Testing
- ⦿ Submit to App Store
- ⦿ Maintenance
  - Read reviews and handle tickets
  - Develop: fixes and new features

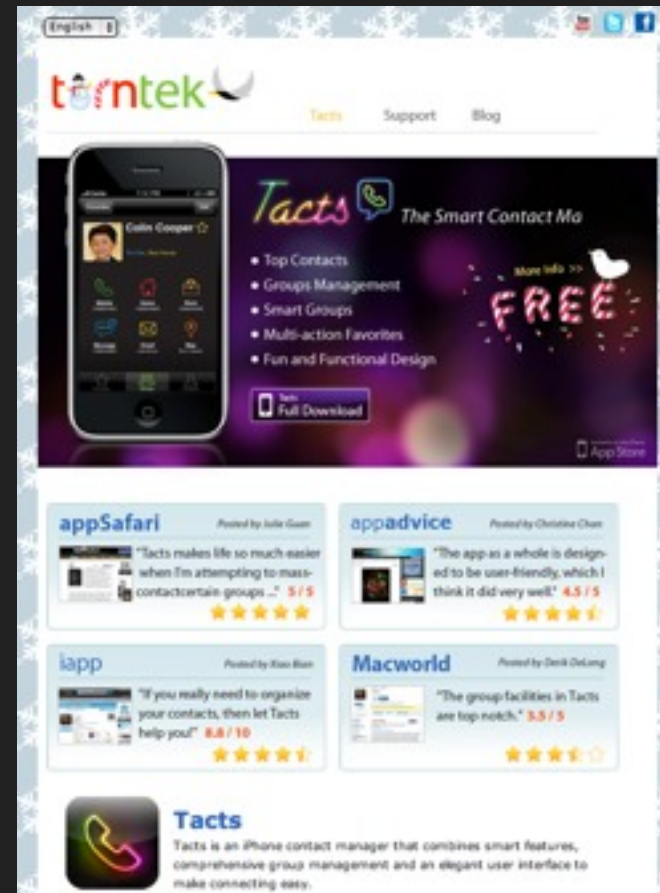
# Marketing and Support I

## ◎ Web page

- App introduction
- Support FAQ
- Blog
- Ticketing System

## ◎ iTunes

- Description
- Keywords
- Graphics



# Marketing and Support II

## ◎ Marketing

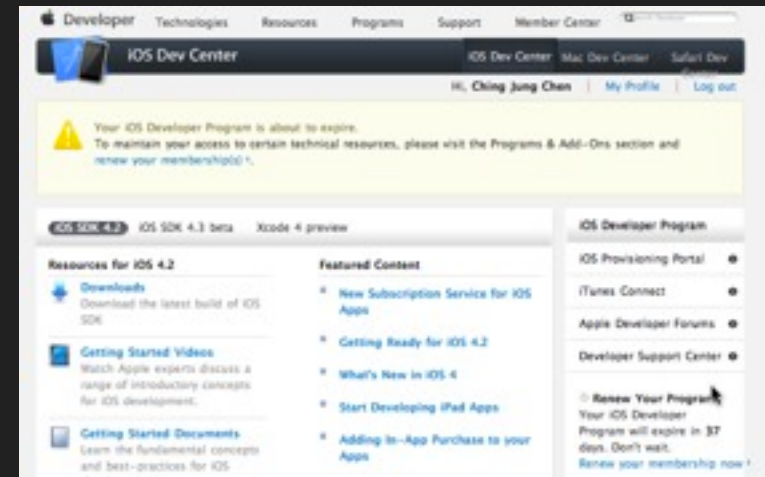
- Promotions and discounts
- Press release
- Collaborations
- Blog and inbound marketing
- Advertising



# Account, Software and Hardware

# iOS Developer Center Account

- ◎ Free
- ◎ iOS SDK
- ◎ Development Environment
- ◎ Documentation, Forum and Videos
- ◎ [developer.apple.com](http://developer.apple.com)





# Paid Account

- ◎ Standard account
  - \$99 USD each year
  - Multiple developers supported
  - Enterprise ~ for Enterprise IT support
- ◎ Provision Portal
  - Allows for testing on device
- ◎ iTunes Connect
  - Submit to App Store

# Software

## ◎ iTunes

- Installation testing

## ◎ XCode

- development environment
- simulator
- instruments for analysis (troubleshooting)

## ◎ Graphics Application

- generate PNG graphics

# Hardware

## ◎ Intel based Mac

- can run OSX Snow Leopard
- +4GB RAM
- CPU fast as possible
  - budget and time
- +250GB Hard Disk

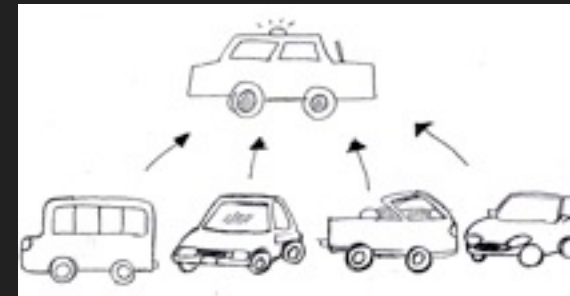
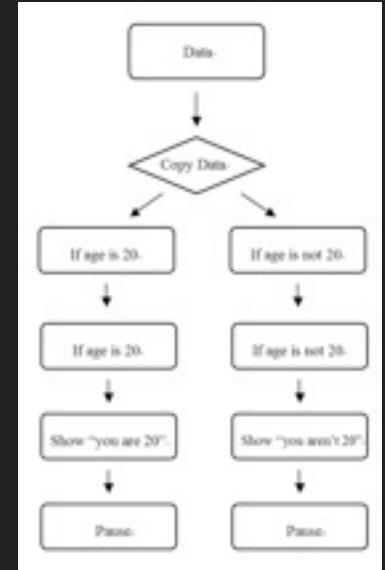
## ◎ iDevice

- newest to access all features: iP 4
- older to test performance & graphics: iP 3GS

# Learn iOS Development

# iOS Development Process

- ① Learn C programming Language
  - Procedural programming
- ② Learn Objective-C
  - C extended with Object Oriented capabilities
- ③ Learn iOS Development
  - Access high level building blocks in SDK



# C Programming Topics

- ◎ All basic C programming topics are good to know
- ◎ Can skip
  - Input and output
  - Unix system interface

# Objective-C: What stood out

- ◎ Runtime system
  - defer as many decisions to runtime
- ◎ Dynamic typing
  - `id` type for any class
  - introspection to determine which class
- ◎ Messaging
  - `[receiverObject message];`
- ◎ No garbage collection in iOS =(
  - you need to manage memory by ourself

# App Design



# How to Create Good Designs



# Product Definition Statement (PDS)

- ⦿ Implement solutions not features
- ⦿ Create a PDS (Goal Statement) that defines
  - Differentiator - what makes your app special
  - Solution - what problem are you solving
  - Audience - who you are intended audience

# Product Definition Statement II

- ⦿ Acts like a filter for design decisions
- ⦿ Implement minimum number of features to meet PDS goal
- ⦿ Focus on features used most frequently by most users
- ⦿ Reject any feature that hinders the PDS
- ⦿ iPhoto example:
  - Easy to use digital photo editing, organizing and sharing for casual photographers

# Personas

- ⦿ Imaginary users that represent most of your target customers
- ⦿ List characteristics that are relevant to the use of the app
- ⦿ Research
  - User interviews
  - Unless you build app for yourself
- ⦿ Also used to determine what the best design

# Constraints

- ⦿ Small screen
  - 320x480pts
- ⦿ Less precise touch input
  - 44pts
- ⦿ Typing is more difficult
  - generally apps oriented to consumption instead of production
- ⦿ Short bursts of usage

# Design Tips: Good Designs

## ◎ Is Natural

- Matches the users mental model

## ◎ Is Elegant

- Simplest complete solution, nothing more can be taken away
- Minimal views, controls and labels

# Minimize Work

- ◎ Cognitive, visual, memory, physical work
- ◎ Minimize configuration options - your job to pick best settings
- ◎ Be consistent

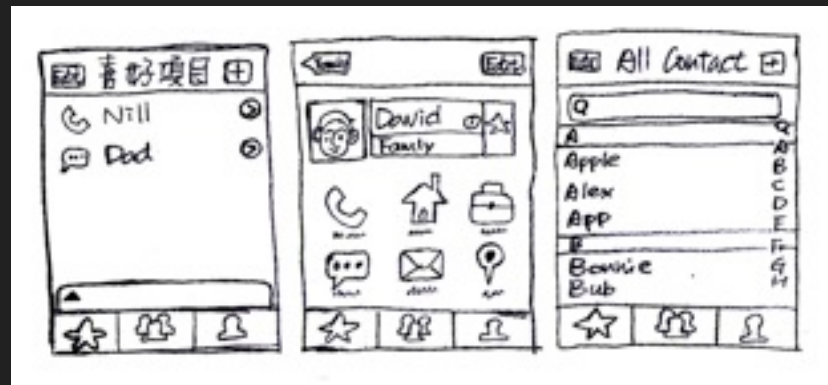
# Learn about iPhone Design

- ◎ [iOS Human Interface Guidelines](#)
- ◎ WWDC Design Videos



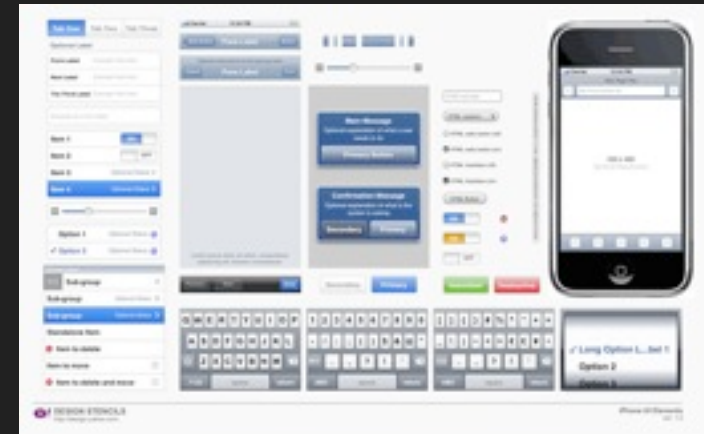
# Design Process

- ◎ Sketch
  - Explore many design
  - Single view per page
  - Have a reason for everything
- ◎ Iterate from user feedback
  - Throw things out that don't work



# Design Process II

- ① Design stencils for higher fidelity prototypes
- ② Usability tests
  - Ask users to perform tasks
  - Record time to complete
  - Ask testers to think out loud



# What to do Next?

- ① Create your Apple Developer Account
- ② Start your app design process
- ③ Start reading Objective-C

# Discussions

- ⦿ Was this helpful?
- ⦿ What would you like to learn?
- ⦿ What do you want to teach?
- ⦿ Any other ideas?