

COS 470 - MOBILE DEVELOPMENT

INTRODUCTION

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COS 470 MOBILE DEVELOPMENT

WHAT IS IOS

- ▶ Cocoa Touch
- ▶ Media
- ▶ Core Services
- ▶ Core OS



[iOS Technology Overview](#)

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CORE OS

- ▶ OS X Kernel (64 bit)
- ▶ BSD-UNIX based, Mach 3.0
- ▶ Sockets, Security, Certificates
- ▶ Power Management
- ▶ File System
- ▶ Bonjour

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CORE SERVICES

- ▶ Collections, Address Book
- ▶ Networking, Network Services, URL Utilities
- ▶ File Access, Preferences
- ▶ SQLite
- ▶ Core Location
- ▶ Threading

MEDIA

- ▶ Core Audio, OpenAL
- ▶ Video Capture & Playback
- ▶ JPEG, PNG, TIFF, PDF
- ▶ Quartz (2D), OpenGL ES (3D)
- ▶ Core Animation

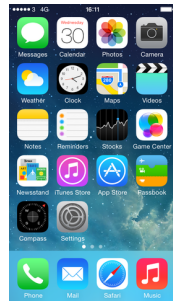
COCOA TOUCH

- ▶ Multi-touch
- ▶ Core Motion
- ▶ View Hierarchy, Alerts, Web View
- ▶ Controls
- ▶ Image Picker, Camera
- ▶ Localization



PLATFORM AND DEVELOPMENT

- ▶ Tools
- ▶ Languages
- ▶ Frameworks
- ▶ Design Strategy



DEVELOPMENT TOOLS



DEVELOPMENT LANGUAGE(S)



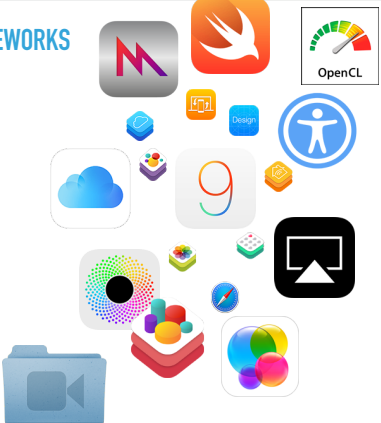
Swift. A powerful open language that lets everyone build amazing apps.

Swift is a robust and intuitive programming language created by Apple for building apps for iOS, Mac, Apple TV, and Apple Watch. It's designed to give developers more freedom than ever. Swift is easy to use and open source, so anyone with an idea can create something incredible.

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DEVELOPMENT FRAMEWORKS

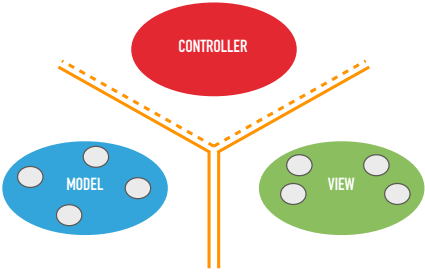
- ▶ Foundation
- ▶ UIKit
- ▶ Core Data
- ▶ Core Motion
- ▶ Map Kit
- ▶ Sprite Kit



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DESIGN STRATEGY - MODEL-VIEW-CONTROLLER (MVC)



```
graph TD; C([CONTROLLER]); M([MODEL]); V([VIEW]); C -.-> M; C -.-> V; M --- V;
```

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XCODE DEMO 1 - THE BASICS



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XCODE DEMO 1 - THE BASICS

- ▶ Task List Sample
 - ▶ Xcode 9 (latest)
 - ▶ Swift 4 (latest)
 - ▶ iOS Simulator (no phone needed)
 - ▶ Controller and View

NEXT...

- ▶ More Xcode demonstration
 - ▶ adding the **Model** to the **View** and **Controller**
- ▶ Model View Controller Design in-depth
