Social Media Apps Programming

Course Orientation and Introduction to Social Media and Mobile Apps Programming

1031SMAP01
TLMXM1A (8687) (M2143) (Fall 2014)
(MIS MBA) (2 Credits, Elective) [Full English Course]
Thu 8,9 (15:10-17:00) V201

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Tamkang University

http://mail.tku.edu.tw/myday

2014-09-17
Android /iOS Apps Programming

Native Apps

Hybrid Apps

Mobile Web Apps
Enterprise Apps in 2015

Gartner recommend **hybrid apps** over **native apps** development for businesses

Building Android Apps with HTML, CSS, and JavaScript: Making Native Apps with Standards-Based Web Tools, Jonathan Stark & Brian Jepson, O’reilly, 2012
Building iPhone Apps with HTML, CSS, and JavaScript: Making App Store Apps Without Objective-C or Cocoa, Jonathan Stark, O’Reilly, 2010

Source: http://www.amazon.com/Building-iPhone-Apps-HTML-JavaScript/dp/0596805780
App Development Comparison

Native Apps
- Device Access: Full
- Speed: Very Fast
- Development Cost: Expensive
- App Store: Available
- Approval Process: Mandatory

Hybrid Apps
- Device Access: Full
- Speed: Native Speed as Necessary
- Development Cost: Reasonable
- App Store: Available
- Approval Process: Low Overhead

Web Apps
- Device Access: Partial
- Speed: Fast
- Development Cost: Reasonable
- App Store: Not Available
- Approval Process: None

Course Syllabus
Tamkang University
Academic Year 103, 1st Semester (Fall, 2014)

• Course Title: Social Media Apps Programming
• Instructor: Min-Yuh Day
• Course Class: TLMXM1A (MIS MBA)
  – Master’s Program, Department of Information Management, 1A
• Details
  – Selective
  – One Semester
  – 2 Credits
• Time & Place: Wed 8,9 (15:10-17:00) V201
Department Teaching Objectives

• Devoting to the integration and research of information technology and business management knowledge

• Cultivating for society, middle and higher level managers with both information capabilities and modern management skills
Department Core Competences

1. Use of modern management knowledge
2. Logical thinking
3. Critical analysis
4. Integration of information technology and business management
5. Research and innovation
6. Theory and applications data analysis
7. Information and communication security management
8. Verbal and writing communication skills
Course Introduction

• This course introduces the fundamental concepts and practices of social media and mobile apps programming.

• Topics include
  – Introduction to Android / iOS apps programming,
  – Developing Android native apps with Java (Eclipse),
  – Developing iPhone / iPad apps native apps with Swift/Objective-C (XCode),
  – Mobile apps using HTML5/CSS3/JavaScript,
  – jQuery Mobile,
  – Create hybrid apps with Phonegap,
  – Google Cloud Platform,
  – Google app engine, Google map API,
  – Facebook API,
  – Twitter API,
  – Case study on social media apps programming and marketing in Google Play and App Store.
Teaching Objectives

Students will be able to understand and apply the fundamental concepts and practices of social media and mobile apps programming.
Teaching Methods

- Lecture
- Discussion
- Simulation
- Practicum
- Problem Solving
Assessment

• Practicum
• Report
• Participation
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<td>2014/09/24</td>
<td>Introduction to Android / iOS Apps Programming</td>
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<td>Developing Android Native Apps with Java (Eclipse) (MIT App Inventor)</td>
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<td>2014/10/08</td>
<td>Developing iPhone / iPad Native Apps with Swift / Objective-C (XCode)</td>
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<td>Create Hybrid Apps with Phonegap</td>
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<td>Case Study on Social Media Apps Programming and Marketing in Google Play and App Store</td>
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<td>Google App Engine</td>
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<td>Facebook API (Facebook JavaScript SDK) (Integrate Facebook with iOS/Android Apps)</td>
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Grading Policy

• Mark of Usual: 50%
• Final Apps Project: 50%
  – Midterm Project Report
  – Final Project Report
Textbooks and References

• Textbook: Slides
  – http://mail.tku.edu.tw/myday/teaching.htm#1031SMAP

• Jonathan Stark, Building iPhone Apps with HTML, CSS, and JavaScript: Making App Store Apps Without Objective-C or Cocoa, O’reilly, 2010.


• Jon Reid, jQuery Mobile, O’reilly, 2012.
References

- jQuery Mobil: [http://jquerymobile.com/](http://jquerymobile.com/)
- PhoneGap: [http://phonegap.com/](http://phonegap.com/)
- Facebook Developers: [https://developers.facebook.com/](https://developers.facebook.com/)
- Twitter Developers: [https://dev.twitter.com/](https://dev.twitter.com/)
- Google App Engine: [https://developers.google.com/appengine/](https://developers.google.com/appengine/)
- Gephi: Social Network Analysis and Visualization: [https://gephi.org/](https://gephi.org/)
- Netvizz: Facebook Netvizz app: [https://apps.facebook.com/netvizz/](https://apps.facebook.com/netvizz/)
Building iPhone Apps with HTML, CSS, and JavaScript: Making App Store Apps Without Objective-C or Cocoa, Jonathan Stark, O’reilly, 2010

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jQuery Mobil: [http://jquerymobile.com/](http://jquerymobile.com/)

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jQuery Mobile: Touch-Optimized Web Framework for Smartphones & Tablets

A unified, HTML5-based user interface system for all popular mobile device platforms, built on the rock-solid jQuery and jQuery UI foundation. Its lightweight code is built with progressive enhancement, and has a flexible, easily themeable design.

**Latest stable version** - 1.3.2
Legacy versions: 1.2.1 - 1.1.2 - 1.0.1

**Seriously cross-platform with HTML5**

jQuery mobile framework takes the "write less, do more" mantra to the next level: Instead of writing unique apps for each mobile device or OS, the jQuery mobile framework allows you to design a single highly-branded web site or application that will work on all popular smartphone, tablet, and desktop platforms. [Device support](http://jquerymobile.com/)

PhoneGap: [http://phonegap.com/](http://phonegap.com/)

Easily create apps using the web technologies you know and love: HTML, CSS, and JavaScript

PhoneGap is a free and open source framework that allows you to create mobile apps using standardized web APIs for the platforms you care about.

Install PhoneGap  
Getting Started Guides

Wrap your app with PhoneGap  
Deploy to mobile platforms!
MIT App Inventor: http://appinventor.mit.edu/
Apple Developer
https://developer.apple.com/

See what’s new for developers.

Learn about all the new technologies and powerful capabilities available in iOS 8, OS X Yosemite, and the new programming language, Swift, available in Xcode 6.
Introducing Swift

Swift is an innovative new programming language for Cocoa and Cocoa Touch. Writing code is interactive and fun, the syntax is concise yet expressive, and apps run lightning-fast. Swift is ready for your next iOS and OS X project — or for
Android Developer

http://developer.android.com/

L Developer Preview

The L Developer Preview lets you design and develop against the next major release of Android. Take the time to test and build your app before the platform officially launches.

Learn More

Get the SDK ➔  Browse Samples ➔  Watch Videos ➔  Manage Your Apps ➔
Integrate Facebook with your native iOS apps

https://developers.facebook.com/
Facebook SDK for iOS

Integrate with Facebook to help you build engaging social apps and get more installs.

Download the SDK

v3.11. See Change Log or Upgrade Guide.

Get Started on iOS
Walkthrough the basics for iOS

SDK Reference Docs
Comprehensive Reference Docs

What is in the iOS SDK?

https://developers.facebook.com/docs/ios/
Integrate Facebook with your native Android apps.

https://developers.facebook.com/
Facebook SDK for Android

Integrate with Facebook to help you build engaging social apps and get more installs.

Download the SDK


Get Started
Quick and basic guide for Android

SDK Reference Docs
Reference Docs and sample code
More downloads for your app with Twitter Cards

Twitter Cards offer a fast and easy way to grow your user base for mobile apps. Simply add some new markup to your pages: when users tweet links to your domain, Cards will let other users viewing those Tweets to download and launch your app across a number of mobile platforms.

Learn More

Recent posts from Twitter Developer Blog

Create applications that integrate Twitter

Get started with the platform
Google Cloud Platform

Tools for modern applications

Google Cloud Platform enables developers to build, test and deploy applications on Google's highly-scalable and reliable infrastructure. Choose from computing, storage and application services for your web, mobile and backend solutions.

Google Compute Engine now generally available

Google Compute Engine is now generally available with a 99.95% monthly SLA and 24x7 support. We've eliminated maintenance windows with live migration, cut prices by 10%, added support for Red Hat, SUSE, FreeBSD, or any Linux variant you want, and introduced new 16-core instances.

Learn More

https://cloud.google.com/
Google App Engine

Run your applications on a fully-managed platform with built-in services that make you more productive. Just download the SDK and start building immediately.

Try it now

Features

Popular languages and frameworks
Write applications in some of the most popular programming languages: Python, Java, PHP and Go. Use existing frameworks such as Django, Flask, Spring and webapp2. Develop locally with languagespecific SDKs. Pair your applications with Compute Engine to integrate other familiar technologies such as Node.js, C++, Scala, Hadoop, MongoDB, Redis

Focus on your code
Let Google worry about database administration, server configuration, sharding and load balancing. With Traffic Splitting, you can A/B test different live versions of your app. Multitenancy support lets you compartmentalize your application data.

Multiple storage options
Choose the storage option you need: a traditional MySQL database using Cloud SQL, a schemaless NoSQL datastore, or object storage using Cloud Storage.

https://cloud.google.com/products/app-engine/
Google Cloud Datastore

Cloud Datastore

Use a managed, NoSQL, schemaless database for storing non-relational data. Cloud Datastore automatically scales as you need it and supports transactions as well as robust, SQL-like queries.

Try it now

Features

Schemaless access, with SQL-like querying

No need to worry about data models and migration. Cloud Datastore is a schemaless storage service that allows you to be agile by removing the need to think about the underlying structure of the data.

Cloud Datastore provides a robust query engine that allows you to search for data across multiple properties and sort as needed.

Managed database

Cloud Datastore is fully managed. Google automatically handles sharding and replication in order to provide you with a highly available and consistent database.

Autoscale with your users

Cloud Datastore automatically scales depending on your needs. This allows you to focus on building your application and not on worrying about provisioning and load anticipation.

https://cloud.google.com/products/cloud-datastore/
Google Cloud Endpoints

https://developers.google.com/appengine/docs/java/endpoints/
Gephi: Social Network Analysis and Visualization: https://gephi.org/

The Open Graph Viz Platform

Gephi is an interactive visualization and exploration platform for all kinds of networks and complex systems, dynamic and hierarchical graphs.

Runs on Windows, Linux and Mac OS X. Gephi is open-source and free.

Support us! We are non-profit. Help us to innovate and empower the community by donating only 8€:

APPLICATIONS

✅ Exploratory Data Analysis: intuition-oriented analysis by networks manipulations in real-time.

✅ Link Analysis: revealing the underlying structures of associations between objects, in particular in scale-free networks.

Like Photoshop™ for graphs.

LATEST NEWS

© Gephi Community 2012
Summary

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