Social Media Apps Programming
Case Study on Social Media Apps Programming and Marketing in Google Play and App Store

1061SMAP09
TLMXM1A (8648) (M2143) (Fall 2017)
(MIS MBA) (2 Credits, Elective) [Full English Course]
Fri 8,9 (15:10-17:00) B206

Min-Yuh Day, Ph.D.
Assistant Professor
Department of Information Management
Tamkang University

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

2017-12-01
## Course Schedule (1/2)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Subject/Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2017/09/22</td>
<td>Course Orientation and Introduction to Social Media and Mobile Apps Programming</td>
</tr>
<tr>
<td>2</td>
<td>2017/09/29</td>
<td>Introduction to Android / iOS Apps Programming</td>
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<tr>
<td>3</td>
<td>2017/10/06</td>
<td>Developing Android Native Apps with Java (Android Studio)</td>
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<td>4</td>
<td>2017/10/13</td>
<td>Developing iPhone / iPad Native Apps with Swift (XCode)</td>
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<td>5</td>
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<td>Mobile Apps using HTML5/CSS3/JavaScript</td>
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<td>jQuery Mobile</td>
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<td>7</td>
<td>2017/11/03</td>
<td>Create Hybrid Apps with Phonegap</td>
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<tr>
<td>8</td>
<td>2017/11/10</td>
<td>jQuery Mobile/Phonegap</td>
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<tr>
<td>9</td>
<td>2017/11/17</td>
<td>jQuery Mobile/Phonegap</td>
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<tr>
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</tr>
<tr>
<td>10</td>
<td>2017/11/24</td>
<td>Midterm Project Report</td>
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<td>11</td>
<td>2017/12/01</td>
<td>Case Study on Social Media Apps Programming and Marketing in Google Play and App Store</td>
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<tr>
<td>12</td>
<td>2017/12/08</td>
<td>Google Cloud Platform</td>
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<tr>
<td>13</td>
<td>2017/12/15</td>
<td>Google App Engine</td>
</tr>
<tr>
<td>14</td>
<td>2017/12/22</td>
<td>Google Map API</td>
</tr>
<tr>
<td>15</td>
<td>2017/12/29</td>
<td>Facebook API (Facebook JavaScript SDK) (Integrate Facebook with iOS/Android Apps)</td>
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<tr>
<td>16</td>
<td>2018/01/05</td>
<td>Twitter API</td>
</tr>
<tr>
<td>17</td>
<td>2018/01/12</td>
<td>Final Project Presentation</td>
</tr>
<tr>
<td>18</td>
<td>2018/01/19</td>
<td>Final Exam Week (Final Project Presentation)</td>
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Outline

• Case Study on Social Media Apps Programming and Marketing in Google Play and App Store
  – Business Model
  – Apps Development Life Cycle
  – Programming
  – Marketing
Android /iOS Apps Programming

Native Apps

Hybrid Apps

Mobile Web Apps
Business Model
Value
Business Model

1. Customer Segments
2. Value Proposition
3. Channels
4. Customer Relationships
5. Revenue Streams
6. Key Resources
7. Key Activities
8. Key Partners
9. Cost Structure

Business Model

Key Resources
Key Activities
Customer Segments
Customer Relationships
Channels
Revenue Streams
Cost Structure
Value Proposition
Who?
Why?
What?
How?
Key Partners

Value Proposition
Value Proposition Canvas

**Product**

**Benefits**
- Simple
- Easy syncing
- Fast to use
- Everything everywhere
- Never forget

**Features**
- Sync across devices
- External brain
- Remember everything
- Include images
- Rich meta data

**Experience**

**Customer**

**Wants**
- Fast to enter things
- Share notes with people

**Needs**
- Single system
- Remember things
- Write things down
- Save information

**Fears**
- Loosing things
- Locked into a system

**Substitutes**
- Email to yourself
- Text documents

Company: Evernote
Product: Online notes
Ideal customer: Mobile professionals

Based on the work of Steve Blank, Clayton Christensen, Seth Godin, Yves Pigneur and Alex Osterwalder. Released under creative commons license to encourage adoption and iteration. No rights asserted.

Source: http://www.peterjthomson.com/value-proposition-canva...example-evernote/
How Airbnb Works?

Insights into Business Model & Revenue Model

Source: http://nextjuggernaut.com/blog/airbnb-business-model-canvas-how-airbnb-works-revenue-insights/
Airbnb Business Model Canvas

Key Partners
- Hosts (People who rent their space)
- Guests (People who book spaces)
- Photographers (Freelance)
- Investors
- Payment Processors

Key Activities
- Product Development & Management
- Building Host network and Managing hosts
- Building travelers network and managing guests

Value Propositions
Hosts
- Hosts can earn money by renting their space.
- Airbnb offers insurance to house owners.
- Free photo shoots for property listings through photographers.

Guests
- Guests can book a homestay instead of hotel.
- Prices are often less as compared to hotels.

Customer Relationships
- Customer Service
- Social Media
- Promotional Offers
- Home Insurance

Customer Segments
Hosts
- People who own a house and want to earn extra money.
- People who want to meet new people.

Guests
- People who love to travel.
- People who want to stay comfortably at a cheap price.

Channels
- Website
- Mobile App for Android
- Mobile App for iOS

Cost Structure
- Technological Set up & running costs
- Salaries to permanent employees
- Payments to freelance photographers

Revenue Streams
- Commission from Hosts upon every booking
- Commission from Guests upon every booking

Source: http://nextjuggernaut.com/blog/airbnb-business-model-canvas-how-airbnb-works-revenue-insights/
How Uber Works?
Insights into Business Model & Revenue Model

Source: http://nextjuggernaut.com/blog/how-uber-works-business-model-revenue-uber-insights/
Uber Business Model Canvas

KEY PARTNERS:
- Drivers with their Cars
- Payment Processors
- Map API Providers
- Investors

KEY ACTIVITIES:
- Product Development & Management
- Marketing & Customer Acquisition
- Hiring Drivers
- Managing Driver Payouts
- Customer Support

KEY RESOURCES:
- Technological Platform
- Skilled Drivers

VALUE PROPOSITION:
- CUSTOMERS:
  - Minimum Waiting Time.
  - Prices Lesser than the Normal Taxi Fares.
  - Cashless Ride.
  - Can see The ETA and Track The Cab on Map.

  DRIVERS:
  - Additional Source of Income.
  - Flexible Working Schedules and can Work Part Time.
  - Easy Payment Procedure.
  - Drivers get Paid to be Online, even without can Requests.

CUSTOMER RELATIONSHIP:
- Social Media
- Customer Support
- Review Rating & Feedback System

CUSTOMER SEGMENTS:
- USERS:
  - Those who do not own a Car
  - Those who do not want to drive themselves to a Party or Function.
  - People who like to Travel in Style and want to be Treated as a VIP.
  - Those who want a Cost-Efficient Cab at their Doorstep.

  DRIVERS:
  - People who own a Car and want to Earn Money.
  - People who Love to Drive.
  - Those who Wish to be called Partners Instead of Drivers.

COST STRUCTURE:
- Technological Infrastructure
- Salaries to Permanent Employees
- Launch Events & Marketing Expenditure

REVENUE STREAMS:
- Car Rides on per Km/Mile basis.
- Surge Pricing
- UberX, Uber Taxi, Uber Black, Uber SUV etc.
- Uber Cargo, Uber Rideshare etc.

Tap the app, get a ride

Uber is the smartest way to get around. One tap and a car comes directly to you. Your driver knows exactly where to go.

MORE REASONS TO RIDE

https://www.uber.com/
Come up with Killer Startup Ideas

- **REDUCE**
  - Time to wait
  - Hassels of paying money
  - Insure fare & waiting time

- **CREATE**
  - Ease of use
  - Platform connecting customers & drivers
  - Extra Revenues for Drivers

- **RAISE**
  - Chances of getting taxis
  - Quality (ratings)
  - Assurance (Location tracking)

- **ELIMINATE**
  - Uncertainty of getting taxis
  - Waving hands to stop taxi

Structure of a **Business Model**

![Diagram of a business model structure]

1. **Who?**
   - Who is your target market?

2. **What?**
   - What do you offer to the customer?

3. **How?**
   - How is the value proposition created?

4. **Value?**
   - How is revenue created?

New Business Model

- Strategy
  - direction
- People
  - skills/mind-set
- Rewards
  - motivation
- Structure
  - power
- Process
  - information
Customer Value

Marketing
“Meeting needs profitably”

Value

the sum of the tangible and intangible benefits and costs

Value

Total customer benefit

Total customer cost

Customer perceived value

Customer Perceived Value

Customer perceived value is a concept in marketing that represents the value perceived by a customer relative to the cost of purchasing a product or service. It is composed of both benefits and costs.

**Benefits**
- Product benefit
- Services benefit
- Personnel benefit
- Image benefit

**Costs**
- Monetary cost
- Time cost
- Energy cost
- Psychological cost

The total customer benefit is the sum of all the benefits, while the total customer cost is the sum of all the costs. The difference between the total benefit and the total cost is the customer perceived value.

Mobile Apps Marketing

• Push Notifications
• Loyalty Cards
• Click to Call
• GPS Coupons and Deals
• QR Code Coupons
• GPS Directions
• Check-In Rewards
iOS App Development Process

- Focus: Primary Target
- Think top down
- Consistent UI
- Gestures
- Orientation?
- Check target size
- Reduce settings

Apps Development Life Cycle

Documentation

Interface

Test/Debug

Ship

Register

Develop

Language

Technologies

Source: https://developer.apple.com/library/ios/referencelibrary/GettingStarted/RoadMapiOS/WhereToGoFromHere.html
About App Distribution

This guide contains everything you need to know to distribute an app through the App Store or Mac App Store.

- Get step-by-step guidance for enrolling in an Apple Developer Program and building, testing, and submitting your app.
- Configure services that are available only to apps submitted to the App Store or Mac App Store.
- Test your app on multiple devices and system versions, or offer testers a preview of your next release.
- Upload metadata about your app so the store can present it to customers.
- Verify that you've prepared your app correctly, and submit it to the store.
- Learn how to release and maintain your app after submission.

You perform these tasks using Xcode features and several web tools available only to members of an Apple Developer Program. Before you use certain app services, such as iCloud and Game Center, you must join an Apple Developer Program. You should join a program even if you distribute an application outside of the store so that customers know your application comes from a known source.

Note: If you just want to use Xcode to run an app on a device or write code that uses a service, read App Distribution Quick Start first and then return to this document for additional tasks you’ll perform throughout the lifetime of your app.
App Distribution on App Store

App Store Marketing Guidelines

Thousands of developers around the world have helped make the App Store a success. We've created these guidelines so developers can benefit from the Apple identity and contribute to its strength. We believe that powerful marketing communications will help bring continued success for your apps.

Overview and Requirements

1. Download on the App Store Badge
2. Apple Product Images
3. Custom Photography and Video
4. Messaging and Writing Style
5. Apps with Accessories and Product Packaging
6. App Store Icon
7. Legal Requirements

https://developer.apple.com/app-store/marketing/guidelines/
App Marketing

https://developer.apple.com/app-store/marketing/guidelines/
Web Marketing

https://developer.apple.com/app-store/marketing/guidelines/
Pinterest App Design

https://www.pinterest.com/explore/app/
Pinterest App Design

Live Happier. Daily tools for stress and anxiety based on... Pacifica

RumbleRings Denmark Coin Rings

Kama - Mobile UI Kit
Kama - Mobile UI Kit by Creative Market

Sofia Daiponte Gráficos

Free Download : DO App UI Kit /130

3k

statt Karteikarten oben machen (mit Bildunterschriften) ...

https://www.pinterest.com/explore/app/
Pinterest App Icon Design

App Icon for iOS
App Icon for iOS ...
dribbble.com

K Icons
Hey guys, I’m working on fitness related app, and got stuck...
dribbble.com

Angélique Viedma
Logos / Pictos / Identité Gra...

Dingo App Icon ...
Camille Ferrari
Icônes application

Inspiration Mobile #15
: 30 icônes originales et finement...
Similar shape to the RI posted here recently.
BlogDuWebdesign

Anaïs E.
Blue

App Icon for Mac OS ...
UpLabs
iOS Icons

Bengees App Icon
Bengees App Icon... ...
dribbble.com

Aqeela DAT ASS I EAT Karriem
App Icons

https://www.pinterest.com/explore/app-icon/
Iconion Icon Generator

Iconion allows you to convert any icon font into fantastic-looking png icons by adding color, shadow, background, gradient, stroke and many other fancy elements.

FREE DOWNLOAD FOR WINDOWS AND MAC

Iconion Icon Generator

Icon fonts are an exciting method that gives web designers the scalability, flexibility, and performance to manipulate the icons. But what if you need to use these icons in a desktop or mobile application? Or create a website favicon or multi-colored icon? The only answer is old-fashioned image icons in png or ico format. Iconion converts your favorite icon fonts to modern, colorful image icons.

http://iconion.com/
Brand Guidelines

We encourage you to use the Android and Google Play brands with your Android app promotional materials. You can use the icons and other assets on this page provided that you follow the guidelines described below.

Android

The following are guidelines for the Android brand and related assets.

Android in text

- Android™ should have a trademark symbol the first time it appears in a creative.
- Android should always be capitalized and is never plural or possessive.
- “Android” cannot be used in names of applications or accessory products, including phones, tablets, TVs, speakers, headphones, watches, and other devices. Instead use “for Android”.
  - Incorrect: “Android MediaPlayer”
  - Correct: “MediaPlayer for Android”
- If used with your logo, “for Android” needs to be smaller in size than your logo. First instance of this use should be followed by a TM symbol, “for Android™”.
- Android may be used as a descriptor, as long as it is followed by a proper generic term.
  - Incorrect: “Android MediaPlayer” or “Android XYZ app”
  - Correct: “Android features” or “Android applications”

Any use of the Android name needs to include this attribution in your communication:

Android is a trademark of Google Inc.

Android robot

http://developer.android.com/distribute/googleplay/promote/brand.html
Case Study on Google Play

https://play.google.com/store
Description
iStanford brings campus life to your smartphone: Athletics (get Cardinal news, scores, and schedules), Courses (find courses), Directory (looking for someone? View the public directory), Library (search the library), Maps (explore our 8,000+ acre campus), News (read all about us!). Links to iTunesU and more!

Reviews
Would be a good app if the info were correct. It would be a great app if the information provided was correct. For
Joseph Churnside ★★★★★
The best is Stanford NO BODY CAN COMMENT UPON STANFORD
ISHAN DEB ★★★★★

What's New
Version 3.0 includes new updated map, fixed images module, and added Omlet app.

Additional information
Updated
December 6, 2013
Size
6.6M
Installs
10,000 - 50,000
Current Version
3.0
Requires Android
2.3 and up

Content Rating
Low Maturity
Contact Developer
Visit Developer's Website
**What's New**

Version 3.0 includes new updated map, fixed images module, and added Quill app.

**Additional information**

<table>
<thead>
<tr>
<th>Updated</th>
<th>Size</th>
<th>Installs</th>
<th>Current Version</th>
<th>Requires Android</th>
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<tr>
<td>December 6, 2013</td>
<td>6.6M</td>
<td>10,000 - 50,000</td>
<td>3.0</td>
<td>2.3 and up</td>
</tr>
</tbody>
</table>

**Content Rating**

Low Maturity

**Contact Developer**

Visit Developer's Website
Email Developer

**Similar**

- Stanford Continuing
  - GTxcel
  - FREE
- Stanford Business
  - GTxcel
  - FREE
- Campus Life @ UW
  - PulseTec Solutions
  - FREE
- Virt U: The Virtual U
  - Irynsoft
  - FREE
- HT Campus Calling
  - HT Mobile Solutions Llc
Description

淡江生活專為淡江大學的學生及教職員設計的App，目前的功能有:
1.淡江Wi-Fi：自動登入iku無線網路。
2.我是學生：有效的課表、考試小卡和期中期末成績查詢。
3.我是老師：有效的授課表和課時學生(可察看學生資料的PDF檔)。
4.即時影像：即時查看各公車或商館三樓電梯的電梯及運動場的使用情況，還有郵局、五虎崗停車場實況等等。
5.圖書館資訊：借閱相關資料查詢和提醒、開放時間及電子資源新訊。
6.淡江時報：最新一期(中、英文版)、活動看板、活動看板及近期活動。
7.公車動態：查看淡江大學附近公車到站情形。
8.實習機位：即時查詢學校電腦實習室的空位。
9.淡水天氣：查詢淡水即時溫度、天氣狀況及一週天氣預報。
10.本日訊息：本日要結束及首發的校園公告和報名活動之資訊。
11.近期消息：本校近期公告消息之資訊。
12.近期活動：本校近期報名活動之資訊。
13.行事曆：查詢本學年度的行事曆。
14.校園分發：查詢校園各單位的分機號碼。
15.我有話說：想對此App開發團隊說的話。
16.節次對照表：簡單查詢節次的時間。

Reviews

4.5

Allison Wang ★★★★★

Great App I'm an international student of computer engineering and even with my bag Chinese speaking this

Vernon Frederick ★★★★★
What's New

1. 支援「淡江時報」中、英文新聞一欄之內容可用雙指縮放。
2. 修正「我是老師」和「我是學生」登入錯誤的問題。
3. 改善淡江Wi-Fi常會登入不成功之問題。
4. 支援「訪客工具」之語音功能。
5. 持續改善系統穩定性及效能等等。
（在輔助校園使用淡江Wi-Fi功能時，請更新至1.7.2以上版本）

Additional information

Updated
November 27, 2013

Size
1.3M

Installs
10,000 - 50,000

Current Version
1.7.4

Requires Android
2.2 and up

Content Rating
Low Maturity

Contact Developer
Email Developer

Similar

TKU Wi-Fi
Sparks Lab

大學城吃甚麼?
GI Lab

桌面小儀表
skystar

GPS Parking Locator
LKE TECH

Statistics Portable
行政院主計總處
Description

iMyday Mobile App for Prof. Min-Yuh Day, Department of Information Management, Tamkang University.
* Research
* Teaching
* People

Reviews

What's New

2013/12/12 iMyday 1.0 Myday Mobile App for Android

Additional information

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<th>Current Version</th>
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<td>4.4M</td>
<td>1.0.0</td>
<td>2.1 and up</td>
<td>Everyone</td>
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</tbody>
</table>
PhoneGap
iOS: App Store
Android: Google Play

• provide the correct certificates
• signing keys to allow distribution

https://build.phonegap.com/faq
iOS App Distribution on App Store

About App Distribution

Note: This guide describes Xcode 5. If you're using Xcode 4, read App Distribution Guide for Xcode 4 in the Retired Documents Library.

This guide contains everything you need to know to distribute an app through the App Store or Mac App Store.

- Get step-by-step guidance for enrolling in an Apple Developer Program and building, testing, and submitting your app.
- Configure technologies that are available only to apps submitted to the App Store or Mac App Store.
- Test your app on multiple devices and system versions, or offer testers a preview of your next release.
- Upload metadata about your app so the store can present it to customers.
- Verify that you've prepared your app correctly, and submit it to the store.
- Learn how to release and maintain your app after submission.
Submit and Release iOS App on App Store

App Metadata

• Upload metadata about your app so the store can present it to customers.
Submit App to App Store

- Verify that you’ve prepared your app correctly, and submit it to the store
Release App

- release and maintain your app after submission
Choosing an iOS Developer Program

iOS Developer Program ($99/year)
Select this program if you would like to distribute apps on the App Store as an individual, sole proprietor, company, organization, government entity or educational institution.
Learn more ›

iOS Developer Enterprise Program ($299/year)
Select this program if you would like to develop proprietary apps for internal distribution within your company, organization, government entity or educational institution.
Learn more ›

iOS Developer University Program (Free)
Select this program if you are a degree granting, higher education institution that would like to introduce iOS development into your curriculum.
Learn more ›
## Compare iOS Developer Programs

<table>
<thead>
<tr>
<th></th>
<th>iOS Developer</th>
<th>iOS Developer Enterprise</th>
<th>iOS Developer University</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>For individuals and organizations creating apps for distribution on the App Store. Learn more ›</td>
<td>For companies and organizations distributing proprietary apps for internal use. Learn more ›</td>
<td>For higher education institutions introducing iOS app development into their curriculum. Learn more ›</td>
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<tr>
<td><strong>iOS SDK</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td><strong>iOS SDK (Pre-release)</strong></td>
<td>✓</td>
<td>✓</td>
<td>N/A</td>
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<td><strong>Test apps on iOS devices</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<td><strong>Ad Hoc Distribution</strong></td>
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<td><strong>App Store Distribution</strong></td>
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<td><strong>iAd Network</strong></td>
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<td><strong>In-house Distribution</strong></td>
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<tr>
<td><strong>Cost</strong></td>
<td>$99 year</td>
<td>$299 year</td>
<td>Free</td>
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<tr>
<td><strong>Requirements</strong></td>
<td>If you're enrolling as an organization, a D–U–N–S Number registered to your legal entity is required.</td>
<td>A D–U–N–S Number registered to your legal entity is required.</td>
<td>The University Program is only available to qualified, degree granting, higher education institutions.</td>
</tr>
</tbody>
</table>

The development process for Android applications

Set up your development environment
- Install the Android SDK, Android Development Tools, and Android platforms.

Set up AVDs and devices for testing
- Create Android Virtual Devices and connect hardware devices that will be used for testing.

Create your application
- Create an Android project with your source code, resource files, and Android manifest file.

Build and run your application
- Build and run your application in debug mode.

Debug your application
- Debug your application using the Android debugging and logging tools.

Test your application
- Test your application using the Android testing and instrumentation framework.

Prepare your application for release
- Configure, build, and test your application in release mode.

Release your application
- Publicize, sell, and distribute your application to users.

Publishing process for Android applications

Prepare your application for release

Configure, build, and test your application in release mode.

Release your application

Publicize, sell, and distribute your application to users.

Publishing is the last phase of the Android application development process

Distribute Your Apps on Google Play

Your Apps on Google Play

The most visited store in the world for Android apps. Cloud-connected and always synced, it's never been easier for users to find and download your apps.

Go to Developer Console »

Growth Engine
A billion downloads a month and growing. Get your apps in front of millions of users at Google's scale. Read More »

Build Your Business
Sell your app in over 130 countries. Flexible monetization options with in-app purchase, subscriptions, and more. Read More »

Distribution Control
Deliver your apps to the users you want, on the devices you want, on your schedule. Read More »

Upload apps, build your product pages, configure prices and distribution, and publish. You can manage all phases of publishing on Google Play through the Developer Console, from any web browser.

Get started >

Launch Checklist for publish your app on Google Play

1. Understand the publishing process
2. Understand Google Play policies
3. Test for core app quality
4. Determine your content rating
5. Determine country distribution
6. Confirm the app's overall size
7. Confirm app compatibility ranges

Launch Checklist

for publish your app on Google Play

8. Decide on free or priced
9. Consider In-app Billing
10. Set prices for your apps
11. Start localization early
12. Prepare promotional graphics
13. Build the release-ready APK
14. Plan a beta release

Launch Checklist

for publish your app on Google Play

15. Complete the product details
16. Use Google Play badges
17. Final checks and publishing
18. Support users after launch

**Nexus 5**
5" @ XXHDPI
1080x1920

**Nexus 7**
7" @ XHDPI
1200x1920
67% size output

**Nexus 10**
10" @ XHDPI
1600x2560
50% size output
Google Play Badges

Google Play badges allow you to promote your app with official branding in your online ads, promotional materials, or anywhere else you want a link to your app.

In the form below, input your app's package name or publisher name, choose the badge style, click *Build my badge*, then paste the HTML into your web content.

If you're creating a promotional web page for your app, you should also use the [Device Art Generator](http://developer.android.com/distribute/googleplay/promote/badges.html), which quickly wraps your screenshots in real device artwork.

For guidelines when using the Google Play badge and other brand assets, see the [Brand Guidelines](http://developer.android.com/distribute/googleplay/promote/badges.html).
Keytool

• Keytool
  – To generate a keystore and private key, used to sign your .apk file.
  – Keytool is part of the JDK.

• Jarsigner (or similar signing tool)
  – To sign your .apk file with a private key generated by Keytool.
  – Jarsigner is part of the JDK.

Signing Your Applications

The Android system requires that all installed applications be digitally signed with a certificate whose private key is held by the application's developer. The Android system uses the certificate as a means of identifying the author of an application and establishing trust relationships between applications. The certificate is not used to control which applications the user can install. The certificate does not need to be signed by a certificate authority: it is perfectly allowable, and typical, for Android applications to use self-signed certificates.

The important points to understand about signing Android applications are:

- All applications must be signed. The system will not install an application on an emulator or a device if it is not signed.
- To test and debug your application, the build tools sign your application with a special debug key that is created by the Android SDK build tools.
- When you are ready to release your application for end-users, you must sign it with a suitable private key. You cannot publish an application that is signed with the debug key generated by the SDK tools.
- You can use self-signed certificates to sign your applications. No certificate authority is needed.
- The system tests a signer certificate's expiration date only at install time. If an application's signer certificate expires after the application is installed, the application will continue to function normally.
- You can use standard tools — Keytool and Jarsigner — to generate keys and sign your application .apk files.
- After you sign your application for release, we recommend that you use the zipalign tool to optimize the final APK package.
Android: Signing in Release Mode

1. Obtain a suitable private key
2. Compile the application in release mode
3. Sign your application with your private key
4. Align the final APK package

$ keytool -genkey -v -keystore my-release-key.keystore
   -alias alias_name -keyalg RSA -keysize 2048 -validity 20000

Android: Signing in Release Mode

```
keytool -genkey -v -keystore my_release_key.keystore
   -alias my_android -keyalg RSA -validity 20000
```

```
keytool -genkey -v -keystore my-release-key.keystore
   -alias alias_name -keyalg RSA -keysize 2048 -validity 20000
```

keytool -genkey -v
-keystore my_release_key.keystore
-alias my_android
-keyalg RSA -validity 20000
my_release_key.keystore
Keytool

- Keytool OptionDescription
- -genkey Generate a key pair (public and private keys)
- -v Enable verbose output.
- -alias <alias_name> An alias for the key. Only the first 8 characters of the alias are used.
- -keyalg <alg> The encryption algorithm to use when generating the key. Both DSA and RSA are supported.
- -keysize <size> The size of each generated key (bits). 2048 bits or higher.
- -validity <valdays> The validity period for the key, in days. Note: A value of 10000 or greater is recommended.
- -keystore <keystore-name> A name for the keystore containing the private key.

<table>
<thead>
<tr>
<th>Keytool Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-genkey</td>
<td>Generate a key pair (public and private keys)</td>
</tr>
<tr>
<td>-v</td>
<td>Enable verbose output.</td>
</tr>
<tr>
<td>-alias &lt;alias_name&gt;</td>
<td>An alias for the key. Only the first 8 characters of the alias are used.</td>
</tr>
<tr>
<td>-keyalg &lt;alg&gt;</td>
<td>The encryption algorithm to use when generating the key. Both DSA and RSA are supported.</td>
</tr>
<tr>
<td>-keysize &lt;size&gt;</td>
<td>The size of each generated key (bits). If not supplied, Keytool uses a default key size of 1024 bits. In general, we recommend using a key size of 2048 bits or higher.</td>
</tr>
<tr>
<td>-dname &lt;name&gt;</td>
<td>A Distinguished Name that describes who created the key. The value is used as the issuer and subject fields in the self-signed certificate. Note that you do not need to specify this option in the command line. If not supplied, Jarsigner prompts you to enter each of the Distinguished Name fields (CN, OU, and so on).</td>
</tr>
<tr>
<td>-keypass &lt;password&gt;</td>
<td>The password for the key.</td>
</tr>
<tr>
<td></td>
<td>As a security precaution, do not include this option in your command line. If not supplied, Keytool prompts you to enter the password. In this way, your password is not stored in your shell history.</td>
</tr>
<tr>
<td>-validity &lt;valdays&gt;</td>
<td>The validity period for the key, in days.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> A value of 10000 or greater is recommended.</td>
</tr>
<tr>
<td>-storepass &lt;password&gt;</td>
<td>A password for the keystore.</td>
</tr>
<tr>
<td></td>
<td>As a security precaution, do not include this option in your command line. If not supplied, Keytool prompts you to enter the password. In this way, your password is not stored in your shell history.</td>
</tr>
</tbody>
</table>
Modify config.xml: icon.png
Modify config.xml: icon.png
Modify config.xml: screen.png

```xml
<config xmlns="http://schemas.android.com/apk/res-auto">
   <icon src="icon.png" />
   <icon gapdensity="ldpi" gapplatform="android" src="img/icon/android/1MyDay_36x36.png" />
   <icon gapdensity="mdp1" gapplatform="android" src="img/icon/android/1MyDay_48x48.png" />
   <icon gapdensity="hdpi" gapplatform="android" src="img/icon/android/1MyDay_72x72.png" />
   <icon gapplatform="ios" height="57" src="img/icon/ios/1MyDay_57x57.png" width="57" />
   <icon gapplatform="ios" height="72" src="img/icon/ios/1MyDay_72x72.png" width="72" />
   <icon gapplatform="ios" height="114" src="img/icon/ios/1MyDay_114x114.png" width="114" />
   <icon gapplatform="ios" height="144" src="img/icon/ios/1MyDay_144x144.png" width="144" />
   <icon gapplatform="blackberry" src="res/icon/blackberry/icon-80.png" />
   <icon gapplatform="blackberry" gapstate="hover" src="res/icon/blackberry/icon-80.png" />
   <icon gapplatform="webos" src="res/icon/webos/icon-64.png" />
   <icon gapplatform="winphone" src="res/icon/windows-phone/icon-48.png" />
   <icon gapplatform="winphone" gaprole="background" src="res/icon/windows-phone/icon-173.png" />
   <icon gapplatform="ios" gapdensity="mdpi" gapplatform="android" src="img/screen/android/1MyDay_320x320.png"/>
   <icon gapplatform="ios" gapdensity="hdpi" gapplatform="android" src="img/screen/android/1MyDay_480x480.png"/>
   <icon gapplatform="ios" gapdensity="hdpi" gapplatform="android" src="img/screen/android/1MyDay_720x720.png"/>
   <icon gapplatform="ios" height="480" src="img/screen/ios/1MyDay_320x320.png" width="320" />
   <icon gapplatform="ios" height="569" src="img/screen/ios/1MyDay_480x480.png" width="640" />
   <icon gapplatform="ios" height="1024" src="img/screen/ios/1MyDay_720x720.png" width="1024" />
   <icon gapplatform="ios" height="768" src="img/screen/ios/1MyDay_1024x768.png" width="1024" />
   <icon gapplatform="blackberry" src="res/screen/blackberry/screen-225.png"/>
   <icon gapplatform="winphone" src="res/screen/windows-phone/screen-portrait.jpg"/>
   <access origin="http://127.0.0.1:80" />
</config>
```
Refine index.css animation:fade

```css
.index.css

.blink {
  animation: fade 1000ms infinite;
  -webkit-animation: fade 1000ms infinite;
}
```

```css
.blink {
  animation: fade 3000ms infinite;
  -webkit-animation: fade 3000ms infinite;
}
```
body {
  -webkit-touch-callout: none; /* prevent callout to copy image, etc when tap to hold */
  -webkit-text-size-adjust: none; /* prevent webkit from resizing text to fit */
  -webkit-user-select: none; /* prevent copy paste, to allow, change 'none' to 'text' */
  background-color: #E4E4E4;
  background-image: linear-gradient(top, #A7A7A7 0%, #E4E4E4 51%);
  background-image: -webkit-linear-gradient(top, #A7A7A7 0%, #E4E4E4 51%);
  background-image: -ms-linear-gradient(top, #A7A7A7 0%, #E4E4E4 51%);
  background-image: -webkit-gradient(
    linear,
    left top,
    left bottom,
    color-stop(0, #A7A7A7),
    color-stop(0.51, #E4E4E4)
  );
  background-attachment: fixed;
  font-family: 'HelveticaNeue-Light', 'HelveticaNeue', Helvetica, Arial, sans-serif;
  font-size: 12px;
  height: 100%;
  margin: 0px;
  padding: 0px;
  text-transform: none;
  width: 100%;
}

/* Portrait layout (default) */
.app {
  background:url(../img/logo.png) no-repeat center top; /* 170px x 200px */
  position: absolute; /* position in the center of the screen */
  left: 50%;
  top: 50%;
  height: 50px; /* text area height */
  width: 225px; /* text area width */
  text-align: center;
  padding: 180px 0px 0px 0px; /* image height is 200px (bottom 20px are overlapped with text) */
  margin: -15px 0px 0px -112px; /* offset vertical: half of image height and text area height */
  /* offset horizontal: half of text area width */
}
Refine App Files and Update app.zip
Update code and Rebuild all on PhoneGap Build
Update code: Upload app.zip
Update code: Upload app.zip
Update code and Rebuild all on PhoneGap Build
Update code and Rebuild all on PhoneGap Build
No key selected: debug.apk
Download debug.apk for Testing
Download debug.apk for Testing
Add a key to Build release.apk for Google Play
Add a key to Build release.apk

No key selected: debug.apk
Add a key to Build release.apk
The image shows a screenshot of an application build process, specifically for the iMyday Mobile App. The interface is part of a web-based build tool, likely for PhoneGap or a similar framework, as indicated by the URL "https://build.phonegap.com/apps/573842/builds". The screenshot highlights a file selection dialog box, where the user is prompted to choose a file named "my_release_key.keystore" for signing the application.

The application's build status for both iOS and Android is visible, with options to rebuild and install the app. The build process appears to be paused or waiting for the key file to be selected.

Additional features include a language switcher set to English, and navigation options for different sections of the application.
Download MydayMobileApp-release.apk from PhoneGap Build

<table>
<thead>
<tr>
<th>Platform</th>
<th>App Name</th>
<th>Build Type</th>
<th>File Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>iOS</td>
<td>Myday Mobile App</td>
<td>Rebuild</td>
<td>ipa</td>
</tr>
<tr>
<td>Android</td>
<td>Myday Mobile App</td>
<td>Rebuild</td>
<td>apk</td>
</tr>
<tr>
<td>Windows</td>
<td>No key selected</td>
<td>Rebuild</td>
<td>xap</td>
</tr>
<tr>
<td>HP</td>
<td>No key selected</td>
<td>Rebuild</td>
<td>ipk</td>
</tr>
</tbody>
</table>

Language: English

Navigation

Apps

Plugins

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powered by Adobe® PhoneGap™

Find out more

https://build.phonegap.com/apps/573842/download/android
Download MydayMobileApp-release.apk from PhoneGap Build
Download MydayMobileApp-release.apk from PhoneGap Build

<table>
<thead>
<tr>
<th>Platform</th>
<th>Package Type</th>
<th>Rebuild</th>
<th>IP</th>
<th>Rebuild</th>
<th>Apk</th>
<th>No Key Selected</th>
<th>OTA Install</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>iOS</td>
<td>Myday Mobile App</td>
<td></td>
<td></td>
<td>Rebuild</td>
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<td></td>
<td>Rebuild</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP</td>
<td>Myday Mobile App</td>
<td></td>
<td></td>
<td>Rebuild</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
app.zip
MydayMobileApp-debug.apk
my_release_key.keystore
MydayMobileApp-release.apk
Demo: Publishing App on Google Play

Make sure you have your credit card handy to pay the $25 registration fee in the next step.
Google Developers

Inspiring developers everywhere

Google Compute Engine is now Generally Available. Run your large-scale computing workloads on Google's infrastructure.

Learn how to use WebGL on Android
Read “The Hobbit” Chrome Experiment case study.

Google Cloud Developer Challenge
Compete in the Google Cloud Developer Challenge.

Google Developers Live (View all)
Root Access: Dealing with acquisition offers, with Ryan Domico from Crocodoc
December 10, 2:00 a.m. - 2:30 a.m.

Google Developers Weekly
December 10, 3:00 a.m. - 4:00 a.m.

YouTube Developers Live
December 12, 2:00 a.m. - 2:30 a.m.

Upcoming events (View all)
GDG Budapest - December Meetup
1134 Budapest, Váci út 19, Hungary - December 10, 2013, 2:00 a.m.

GDG Campinas Next
Starbucks Dom Pedro Flores, Campinas - São Paulo - December 10, 2013, 3:30 a.m.

AppClinic Brasil #1
Google Brasil - Avenida Brigadeiro Faria

Google Developers News

Scalr and Google Compute Engine Google Cloud Platform Blog - December 9, 10:00 a.m.
Today’s guest post is from Sebastian Stadil, CEO of Scalr. The company provides a web-based control panel for cloud infrastructure that serves as an interface between end users and the multiple cloud providers.

Using Your Terminal From The Devtools HTML5Rocks - December 9, 8:00 a.m.
How to access a complete terminal from inside the Chrome Developer Tools.

Cloud9 IDE on Google Compute Engine Google Cloud Platform Blog - December 8, 5:00 a.m.
Today’s guest post comes from Ivar Pruijink, Product Manager at Cloud9 - a popular cloud-based IDE. In this post, Ivar discusses their work with Google Compute Engine. Cloud9 IDE moves your entire development environment to the cloud.

https://developers.google.com/
Publish App on Google Play
Signup Google Developer Account

https://play.google.com/apps/publish/signup/
Developer Distribution Agreement

Definitions

Google: Google Inc., a Delaware corporation with principal place of business at 1600 Amphitheatre Parkway, Mountain View, CA 94043, United States.

Device: Any device that can access the Market, as defined herein.

Products: Software, content and digital materials distributed via the Market.

Market: The marketplace Google has created and operates which allows registered Developers in certain countries to distribute Products directly to users of Devices.

Developer or You: Any person or company who is registered and approved by the Market to distribute Products in accordance with the terms of this Agreement.

Developer Account: A publishing account issued to Developers that enables the distribution of Products via the Market.

Payment Processor(s): Any party authorized by Google to provide payment processing services that enable Developers with optional Payment Accounts to charge Device users for Products distributed via the Market.

Payment Account: A financial account issued by a Payment Processor to a Developer that authorizes the Payment Processor to collect and remit payments on the Developer's behalf for Products sold via the Market. Developers must be approved by a Payment Processor for a Payment Account and maintain their account in good standing to charge for Products distributed in the Market.

Authorized Carrier: A mobile network operator who is authorized to receive a distribution fee for Products that are sold to users of Devices on its network.

1. Introduction

1.1 The Market is a publicly available site on which Android Developers can distribute Products for Devices. In order to distribute Products on the Market, you must acquire and maintain a valid Developer Account.

1.2 If you want to charge a fee for your Products, you must also acquire and maintain a valid Payment Account from an authorized Payment Processor.

2. Accepting this Agreement

2.1 This agreement ("Agreement") forms a legally binding contract between you and Google in relation to your use of the Market to distribute Products. In order to use the Market to distribute Products, you must first agree to this Agreement by clicking to accept where this option is made available to you. You may not distribute Products on the Market if you do not accept this Agreement.
14.1 Google may make changes to this Agreement at any time by sending the Developer notice by email describing the modifications made. Google will also post a notification on the Market site describing the modifications made. The changes will become effective, and will be deemed accepted by Developer, (a) immediately for those who become Developers after the notification is posted, or (b) for pre-existing Developers, the modified Agreement will become effective upon Developer's acceptance of the modified Agreement (except changes required by law which will be effective immediately). Pre-existing Developers will show their acceptance of the modified Agreement by going to the Market site and accepting the modified Agreement. In the event that Developer does not agree with the modifications to the Agreement within thirty (30) days after the date the email is sent, then Google will suspend the distribution of your Products until Developer agrees to the modified Agreement. In the event that You do not agree with the modifications within ninety (90) days after the date the email is sent, then You must terminate your use of the Market, which will be your sole and exclusive remedy.

15. General Legal Terms

15.1 This Agreement constitutes the whole legal agreement between you and Google and governs your use of the Market, and completely replaces any prior agreements between you and Google in relation to the Market.

15.2 You agree that if Google does not exercise or enforce any legal right or remedy which is contained in this Agreement (or which Google has the benefit of under any applicable law), this will not be taken to be a formal waiver of Google's rights and that those rights or remedies will still be available to Google.

15.3 If any court of law, having the jurisdiction to decide on this matter, rules that any provision of this Agreement is invalid, then that provision will be removed from this Agreement without affecting the rest of this Agreement. The remaining provisions of this Agreement will continue to be valid and enforceable.

15.4 You acknowledge and agree that each member of the group of companies of which Google is the parent shall be third party beneficiaries to this Agreement and that such other companies shall be entitled to directly enforce, and rely upon, any provision of this Agreement that confers a benefit on (or rights in favor of) them. Other than this, no other person or company shall be third party beneficiaries to this Agreement.

15.5 EXPORT RESTRICTIONS. PRODUCTS ON THE MARKET MAY BE SUBJECT TO UNITED STATES EXPORT LAWS AND REGULATIONS. YOU MUST COMPLY WITH ALL DOMESTIC AND INTERNATIONAL EXPORT LAWS AND REGULATIONS THAT APPLY TO YOUR DISTRIBUTION OR USE OF PRODUCTS. THESE LAWS INCLUDE RESTRICTIONS ON DESTINATIONS, USERS AND END USE.

15.6 The rights granted in this Agreement may not be assigned or transferred by either you or Google without the prior written approval of the other party. Neither you nor Google shall be permitted to delegate their responsibilities or obligations under this Agreement without the prior written approval of the other party.

15.7 This Agreement, and your relationship with Google under this Agreement, shall be governed by the laws of the State of California without regard to its conflict of laws provisions. You and Google agree to submit to the exclusive jurisdiction of the courts located within the county of Santa Clara, California to resolve any legal matter arising from this Agreement. Notwithstanding this, you agree that Google shall still be able to apply for injunctive remedies (or an equivalent type of urgent legal relief) in any jurisdiction.

15.8 The obligations in Sections 5, 6.2 (solely as necessary to permit Google to effectuate Section 3.6), 7, 11, 12, 13, and 15 will survive any expiration or termination of this Agreement.
Accept Developer Agreement

Read and agree to the Google Play Developer distribution agreement.

- I agree and I am willing to associate my account registration with the Google Play Developer distribution agreement.

Continue to payment

Google Play Developer Console

Sign-in with your Google account  Accept Developer Agreement  Pay Registration Fee  Complete your Account details

YOU ARE SIGNED IN AS...

Min-Yuh Day
imyday@gmail.com

This is the Google account that will be associated with your Developer Console.

If you would like to use a different account, you can choose from the following options below. If you are an organization, consider registering a new Google account rather than using a personal account.

Sign in with a different account  Create a new Google account

BEFORE YOU CONTINUE...

Review the distribution countries where you can distribute and sell applications.

If you are planning to sell apps or in-app products, check if you can have a merchant account in your country.

Make sure you have your credit card handy to pay the $25 registration fee in the next step.

USEFUL ANDROID RESOURCES

Android Developers

NEED HELP?

Help center
Set up Google Wallet

### NAME AND HOME LOCATION

- Taiwan (TW)
- Name
- Postal code

### PAYMENT METHOD

#### Credit or debit card

- Card number
- Expired date
- Security code

#### Billing address

- Billing address is the same as name and home location
- Send me Google Wallet special offers, invitations to provide product feedback, and newsletters.

I agree to the Google Wallet Terms of Service and Privacy Notice.
Set up Google Wallet

Name and Home Location

Taiwan (TW)

Min-Yuh Day

Payment Method

Credit or Debit Card

Expiration date

Security code

Billing Address

Billing address is the same as name and home location

Send me Google Wallet special offers, invitations to provide product feedback, and newsletters.

I agree to the Google Wallet Terms of Service and Privacy Notice.
Review your purchase

Pay to: Google
Pay with: Visa

Item: Google Play Developer Registration Fee
Price: $25.00 USD

Tax: $0.00 USD
Total: $25.00 USD

Currency fluctuations, bank fees, and applicable taxes may change your final amount.
Update billing information

For your security, please verify your billing address information below.

Taiwan (TW)

Min-Yuh Day

New Taipei City

Continue to payment

Cancel  Buy
Your Payment is Complete
Complete registration

Google Play Developer Console

Sign-in with your Google account
Accept Developer Agreement
Pay Registration Fee
Complete your Account details

YOU ARE ALMOST DONE...
Just complete the following details. You can change this information later in your account settings if you need to.

DEVELOPER PROFILE

Developer name *
IMyday
6 of 50 characters
The developer name will appear to users under the name of your application.

Email address *
imyday@gmail.com

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

Phone Number *
+8869332012
Include plus sign, country code and area code. For example, +1-800-555-0199.
Why do we ask for your phone number?

Email updates
I’d like to get occasional emails about development and Google Play opportunities.

Complete registration

USEFUL ANDROID RESOURCES
Android Developers

NEED HELP?
Help center

https://play.google.com/apps/publish/signup/#EnterDetailsPlace

Fields marked with * need to be filled before saving.
Publish an Android App on Google Play

If you need help with the details, have a look at the Getting started guide.

Use Google Play game services
Add social gaming features to your games on Android, iOS and the web. Learn more

Are you working in a team?
Invite co-workers to the Developer Console

If you are planning to create paid apps or in-app products, you’ll need to set up a merchant account.

USEFUL ANDROID RESOURCES
Android Developers

USEFUL TOOLS
Google Wallet Merchant Center

NEED HELP?
Help & Feedback
TERMS OF SERVICE

Google Play game services are provided through several Google APIs. You need to review and accept the terms and conditions for these APIs before you can continue.

Section 1: Account and Registration

Accepting the Terms. You may not use the APIs and may not accept the Terms if (a) you are not of legal age to form a binding contract with Google, or (b) you are a person barred from using or receiving the APIs under the applicable laws of the United States or other countries including the country in which you are resident or from which you use the APIs.

Your Google Account. You may need to create a Google account in order to use an API or a Google account may be assigned to you by an administrator, such as your employer or educational institution. If you are using a Google account assigned

I have read and agree to the Google APIs terms and conditions.

Next  Cancel
Google Play game services are provided through several Google APIs. You need to review and accept the terms and conditions for these APIs before you can continue.

The terms for such products and services also apply.

Section 1: Account and Registration

Accepting the Terms. You may not use the APIs and may not accept the Terms if (a) you are not of legal age to form a binding contract with Google, or (b) you are a person barred from using or receiving the APIs under the applicable laws of the United States or other countries including the country in which you are resident or from which you use the APIs.

Your Google Account. You may need to create a Google account in order to use an API or a Google account may be assigned to you by an administrator, such as your employer or educational institution. If you are using a Google account assigned...

I have read and agree to the Google APIs terms and conditions.

Next  Cancel
TERMS OF SERVICE

Google Play game services are provided through several Google APIs. You need to review and accept the terms and conditions for these APIs before you can continue.

Google Play App State

Terms of Service

By using this API, you consent to be bound by the Google APIs Terms of Service ("API ToS") at https://developers.google.com/terms.

I have read and agree to the Google Play App State terms and conditions.

Finish  Cancel
TERMS OF SERVICE

Google Play game services are provided through several Google APIs. You need to review and accept the terms and conditions for these APIs before you can continue.

Google Play App State

Terms of Service

By using this API, you consent to be bound by the Google APIs Terms of Service ("API ToS") at https://developers.google.com/terms.

I have read and agree to the Google Play App State terms and conditions.

Finish  Cancel
Publish an Android App on Google Play
Hello Min-Yuh Day,

Thanks for buying from Google using Google Wallet! Google will charge your order soon.

How do I check on this order?
Get up-to-date information about order #05912476870148976978.token.1434555839845198

Problems with this order?
Contact Google

<table>
<thead>
<tr>
<th>Qty</th>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Google Play - Developer Registration Fee</td>
<td>$25.00 USD</td>
</tr>
</tbody>
</table>

Tax Total: $0.00 USD

Total: $25.00 USD

Paid with: Visa-4709

Need help? Visit the Google Wallet help center. Please do not reply to this message.

©2013 Google
keytool -genkey -v
-keystore my_release_key.keystore
-alias my_android
-keyalg RSA -validity 20000
Add a key to Build release.apk
Add a key to Build release.apk
Download MydayMobileApp-release.apk from PhoneGap Build
Download MydayMobileApp-release.apk from PhoneGap Build
Publish an Android App on Google Play

- Publish an Android App on Google Play
  If you need help with the details, have a look at the Getting started guide.

- Use Google Play game services
  Add social gaming features to your games on Android, iOS and the web. Learn more

- Are you working in a team?
  Invite co-workers to the Developer Console.

- If you are planning to create paid apps or in-app products, you'll need to set up a merchant account.

USEFUL ANDROID RESOURCES
- Android Developer

USEFUL TOOLS
- Google Wallet Merchant Center

NEED HELP?
- Help center
Publish an Android App on Google Play
Publish an Android App on Google Play

ADD NEW APPLICATION

Default language *
- English (United States) - en-US

Title *
- Myday Mobile App

What would you like to start with?
- Upload APK
- Prepare Store Listing
- Cancel
Upload new APK to Production
Upload new APK to Production
MydayMobileApp-release.apk
Upload new APK to Production
Release APK Uploaded to Production
Brand Guidelines

We encourage you to use the Android and Google Play brands with your Android app promotional materials. You can use the icons and other assets on this page provided that you follow the guidelines described below.

Android

The following are guidelines for the Android brand and related assets.

Android in text

- Android™ should have a trademark symbol the first time it appears in a creative.
- Android should always be capitalized and is never plural or possessive.
- “Android” cannot be used in names of applications or accessory products, including phones, tablets, TVs, speakers, headphones, watches, and other devices. Instead use “for Android”.
  - Incorrect: “Android MediaPlayer”
  - Correct: “MediaPlayer for Android”

If used with your logo, “for Android” needs to be smaller in size than your logo. First instance of this use should be followed by a TM symbol, “for Android™”.

- Android may be used as a descriptor, as long as it is followed by a proper generic term.
  - Incorrect: “Android MediaPlayer” or “Android XYZ app”
  - Correct: “Android features” or “Android applications”

Any use of the Android name needs to include this attribution in your communication:

Android is a trademark of Google Inc.

Android robot
Store Listing: Product Details
Title, Description, Promo Text

MYDAY MOBILE APP

STORE LISTING

PRODUCT DETAILS

Title *
Myday Mobile App
16 of 30 characters

Description *
Myday Mobile App for Prof. Min-Yuh Day, Department of Information Management, Tamkang University.
• Research
• Teaching
• People

Promo text
Myday Mobile App for Prof. Min-Yuh Day, IMTKU, Tamkang University, Taiwan
Store Listing: Screenshots

Add at least one 7-inch screenshot here to help tablet users see how your app will look on their device.

Add at least one 10-inch screenshot here to help tablet users see how your app will look on their device.
Add at least one 10-inch screenshot here to help tablet users see how your app will look on their device.
Store Listing: Screenshots

Add at least one 10-inch screenshot here to help tablet users see how your app will look on their device.

High-res Icon
Default – English (United States) – en-US
512 x 512

Feature Graphic
Default – English (United States) – en-US
1024 w x 500 h

Promo Graphic
Default – English (United States) – en-US
180 w x 120 h
Store Listing:
Screenshots

STORE LISTING

GRAPHIC ASSETS
If you haven't added localized graphics for each language, graphics for your default language will be used.
Learn more about graphic assets.

Screenshots *
Default – English (United States) – en-US
JPEG or 24-bit PNG (no alpha). Min length for any side: 320px. Max length for any side: 3840px.
At least 2 screenshots are required overall. Max 8 screenshots per type. Drag to reorder or to move between types.

For your app to be showcased in the ‘Designed for tablets’ list in the Play Store, you need to upload at least one 7-inch and one 10-inch screenshot. If you previously uploaded screenshots, make sure to move them into the right area below.
Learn how tablet screenshots will be displayed in the store listing.
Store Listing: Screenshots
**Store Listing:**

High-res icon, Feature Graphic, Promo Graphic

### High-res icon
- Default: English (United States) – en-US
- 512 x 512
- 32-bit PNG (with alpha)

### Feature Graphic
- Default: English (United States) – en-US
- 1024 w x 500 h
- JPG or 24-bit PNG (no alpha)

### Promo Graphic
- Default: English (United States) – en-US
- 180 w x 120 h
- JPG or 24-bit PNG (no alpha)

---

### Categorization

**Application type**  
Select an application type

**Category**  
Select a category

**Content rating**  
Select a content rating

Learn more about content rating.
## STORE LISTING

### CATEGORIZATION

- **Application type**
  - Select an application type

- **Category**
  - Select a category

- **Content rating**
  - Select a content rating

### CONTACT DETAILS

Please provide either a website or an email address.

- **Website**
  - http://mail.tkud.edu.tw/myday

- **Email**
  - imyday@gmail.com

- **Phone**
  - 

### PRIVACY POLICY

If you wish to provide a privacy policy URL for this application, please enter it below.

- **Link to policy**
  - http://...

- **Not submitting a privacy policy URL at this time. Learn more**
Store Listing: Categorization

**Categorization**

- **Application type**: Applications
- **Category**: Education
- **Content rating**:
- **Contact details**
- **Privacy policy**

Not submitting a privacy policy URL at this time. Learn more
Store Listing: Categorization

CATEGORIZATION

Application type *
Applications

Category *
High Maturity
Medium Maturity
Low Maturity
Everyone

Content rating *
Select a content rating

CONTACT DETAILS

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

Email *
imyday@gmail.com

Phone

PRIVACY POLICY *

Link to policy
http://...

Not submitting a privacy policy URL at this time. Learn more
Store Listing: Categorization, Contact Details, Privacy Policy

CATEGORIZATION

Application type: Applications
Category: Education
Content rating: Everyone

CONTACT DETAILS

Website: http://mail.tku.edu.tw/myday
Email: imyday@gmail.com

PRIVACY POLICY

Link to policy: http://... Not submitting a privacy policy URL at this time. Learn more
Pricing & Distribution

To publish paid applications, you need to set up a merchant account. Set up a merchant account now or Learn more.

DISTRIBUTE IN THESE COUNTRIES

You have not selected any countries

- [ ] SELECT ALL COUNTRIES
- [ ] Albania
- [ ] Algeria
- [ ] Angola
- [ ] Antigua and Barbuda
- [ ] Argentina
- [ ] Armenia
- [ ] Aruba
- [ ] Australia
- [ ] Austria
- [ ] Azerbaijan
- [ ] Bahamas
- [ ] Bahrain

GOOGLE PLAY FOR EDUCATION
Pricing & Distribution

MYDAY MOBILE APP  - com.imtku.smap.mydaymobileapp

PRICING & DISTRIBUTION

This application is

- Paid
- Free

To publish paid applications, you need to set up a merchant account. Set up a merchant account now or Learn more

DISTRIBUTE IN THESE COUNTRIES

You have selected 139 countries + Rest of the world

- Albania
- Algeria
- Angola
- Antigua and Barbuda
- Argentina
- Armonia
- Aruba
- Australia

Save
Google play for Education

Please check the following key criteria for approval before providing some additional information and submitting your app for Google Play for Education.

- Your app should be written in English and appropriate for schools in the United States.
- Your app should be targeting grades Kindergarten to 12, either aligned with US curriculum standards or classroom educational tools.
  
  **Typical US curriculum standards include:**
  - English, Math, Science, Social Studies, World Languages
  
  **Typical classroom education tools include:**
  - Annotations, Communication tools, Graphing tools, Learning/content management systems, Organization, Presentation tools, Student assessment, Screen casting, Video editing
- Your app should NOT be intended for toddlers or preschool.
- Your app should NOT be intended for college or university.
- Your app should NOT require a school site subscription or be specific to a school site or location.

Any app submitted for inclusion in our Play for Education store will be reviewed for US K-12 school educational value. **Any app that is not appropriate for schools will not be approved.**
Google play for Education

Google Play for Education

**Pricing & Distribution**

**In-app Products**

**Services & APIs**

**Optimization Tips**

---

Google Play for Education

**Ads**

Does this application contain any ads?

Apps with ads will be labeled as such on Google Play for Education. [Learn more](#)

- [ ] Yes
- [x] No

**In-app purchases**

Does this application offer any form of in-app purchases?

Apps with in-app purchases will be labeled as such on Google Play for Education. Please note that Google or education institutions purchasing apps may disable end users from using in-app purchase functionality on their devices. [Learn more](#)

- [ ] Yes
- [x] No

Please ensure all apps submitted are appropriate for K-12 purposes and adhere to the Google Play for Education app requirements and guidelines. By including this app, you confirm that it complies with our content policies and accept the terms of the Google Play for Education Addendum. Please note that it can take 4-6 weeks for your application to be reviewed. We will notify you by e-mail (at the e-mail address associated with your developer account) after we've reviewed your application. You can also check the developer console for review status.

---

[Save](#)  [Back](#)  [Cancel](#)
Google play for Education

Pricing & Distribution

Sri Lanka
Sweden
Switzerland
Taiwan
Tajikistan
Tanzania
Thailand

Show options

Google Play for Education

Opt-in
Include this application in Google Play for Education.

Additional Information
Edit information for your application.

Approval Status
This application will be reviewed for approval when you publish it.

Consent

Marketing opt-out
Do not promote my application except in Google Play and in any Google-owned online or mobile properties. I understand that any changes to this preference may take sixty days to take effect.

Content guidelines *
This application meets Android Content Guidelines.
Please check out these tips on how to create policy compliant app descriptions to avoid some common reasons for app suspension.

US export laws *
I acknowledge that my software application may be subject to United States export laws, regardless of my location or nationality. I agree that I have complied with all such laws, including any requirements for software with encryption functions. I hereby certify that my application is not intended...
## Consent

### Pricing & Distribution

<table>
<thead>
<tr>
<th>Country</th>
<th>Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tajikistan</td>
<td>✔️</td>
</tr>
<tr>
<td>Tanzania</td>
<td>✔️</td>
</tr>
<tr>
<td>Thailand</td>
<td>✔️</td>
</tr>
</tbody>
</table>

### Google Play for Education

**Opt-in**
- Include this application in Google Play for Education.

**Additional Information**
- Edit information for your application.

**Approval Status**
- This application will be reviewed for approval when you publish it.

### Consent

**Marketing opt-out**
- Do not promote my application except in Google Play and in any Google-owned online or mobile properties. I understand that any changes to this preference may take sixty days to take effect.

**Content guidelines**
- This application meets Android Content Guidelines. Please check out these tips on how to create policy compliant app descriptions to avoid some common reasons for app suspension.

**US export laws**
- I acknowledge that my software application may be subject to United States export laws, regardless of my location or nationality. I agree that I have complied with all such laws, including any requirements for software with encryption functions. I hereby certify that my application is authorized for export from the United States under those laws. Learn more
Ready to publish
Ready to publish

Google play | Developer Console

MYDAY MOBILE APP – com.imtku.smap.mydaymobileapp

IN-APP PRODUCTS
Learn more about in-app billing and in-app products.

Your app doesn't have any in-app products yet.

To add in-app products, you need to add the BILLING permission to your APK.

Upload a new APK

To add in-app products, you need to set up a Google Wallet merchant account.

Set up a merchant account
Ready to publish

MYDAY MOBILE APP  com.imtku.smsp.mydaymobileapp

SERVICES & APIS

GOOGLE CLOUD MESSAGING (GCM)

Google Cloud Messaging (GCM) is a service that helps you to send data from your servers to your applications. Learn more

To access the GCM stats for your application, you need to link a GCM sender ID that you use for this application by providing an API key.

Once your app is published, you can access the GCM statistics for your application from the statistics page.

Link a sender ID

LICENSED & IN-APP BILLING

Licensing allows you to prevent unauthorized distribution of your app. It can also be used to verify in-app billing purchases. Learn more about licensing.

YOUR LICENSE KEY FOR THIS APPLICATION

Base64-encoded RSA public key to include in your binary. Please remove any spaces.

MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAi3bCO2SmqGrzQEeRTU2tmY4AAhL3RePEtq6V/x7cso1ycwoO7W+aEfao3R/865loY13HMpLoOzrB3i2w6BYV86tc6Zb4uCRx8z1+1CC06AeqxbESm0ja1jYTfF0yKLMqRs58NE6n8Nz+jm6o6B+igpI/7jnavp1u5ebFlu137m1HUSzn6FLQHpfaqj3jLX8px1Kc8bu91AZ0u0y9kGX/VX3A3YVndchFMCdIHBeAk8Rs1j9Zv711Y9Kh3o2E1PbD07CkF5D3xk6V1yU0y21mM2V27aebYcCpmj2711NvUG+YnY8PuN5oFGkylT5yMNTjce04loZLrFqT5bQIDAQAB

GOOGLE PLAY GAME SERVICES
Ready to publish
Published
Myday Mobile App Statistics

Google play | Developer Console

MYDAY MOBILE APP — com.imtku.smsp.mydaymobileapp

STATISTICS Current installs by device

The number of active devices on which the application is currently installed. Learn more

Sorry, no data for this metric.

GET MORE INSIGHTS WITH GOOGLE ANALYTICS FOR MOBILE APPS

Are you already using Google Analytics in your app?
Connect your Analytics account with the Developer Console to see user engagement data all in one convenient place.
Link Google Analytics and the Developer Console

Not using Google Analytics in your app?
Google Mobile App Analytics gives you the tools you need to collect and analyze data about your app at all stages of the user lifecycle: acquisition, engagement, and outcomes.
Learn how to get started using Google Analytics for your Android app.

Application statistics are updated daily.
Myday Mobile App Statistics

Google play | Developer Console

STATISTICS

Current installs by device
- Daily installs by device
- Daily uninstalls by device
- Daily upgrades by device
- Current installs by user
- Total installs by user
- Daily installs by user
- Daily uninstalls by user
- Daily average rating
- Cumulative average rating

Sorry, no data for this metric.

GET MORE INSIGHTS WITH GOOGLE ANALYTICS FOR MOBILE APPS

Are you already using Google Analytics in your app?
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- Link Google Analytics and the Developer Console

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Learn how to get started using Google Analytics for your Android app.

Application statistics are updated daily.
Myday Mobile App on Google play

Update Android App Screenshots

• Download Android App on Google play
  – Capture Screenshot from Android Device

• Install app-release.apk on Android Emulator
  – Android SDK platform tools: abd
    • abd install myapp-release.apk
  – Capture Screenshot from Android Emulator
adb install MydayMobileApp-release.apk

iMydaytekiMacBook-Pro:platform-tools imyday$ ./adb install MydayMobileApp-release.apk
2007 KB/s (4647578 bytes in 2.260s)
pkg: /data/local/tmp/MydayMobileApp-release.apk
Success
Capture Screenshot from Android Emulator
Capture Screenshot from Android Emulator
Device Screen Capture
Device Screen Capture
Device Screen Capture (screenshot.png)
Update Screenshots on Google Play Store Listing

For your app to be showcased in the ‘Designed for tablets’ list in the Play Store, you need to upload at least one 7-inch and one 10-inch screenshot. If you previously uploaded screenshots, make sure to move them into the right area below. Learn how tablet screenshots will be displayed in the store listing.
Search Tamkang on Google play

https://play.google.com/store/search?q=Tamkang&c=apps
Search **iMyday** on Google play

Myday Mobile App on Google Play

Google Play Badges

Google Play badges allow you to promote your app with official branding in your online ads, promotional materials, or anywhere else you want a link to your app.

In the form below, input your app’s package name or publisher name, choose the badge style, click Build my badge, then paste the HTML into your web content.

If you’re creating a promotional web page for your app, you should also use the Device Art Generator, which quickly wraps your screenshots in real device artwork.

For guidelines when using the Google Play badge and other brand assets, see the Brand Guidelines.

Language: English

Package name: com.imtku.smap.mydaymobileapp
Publisher name: Example, Inc.

Build my badge

Copy and paste this HTML into your web site:

```
  <img alt="Android app on Google Play"
       src="https://developer.android.com/images/brand/en_app_rgb_wo_60.png" />
</a>
```

Generate and Customize QR Code

http://www.qr hacker.com/
Summary

• Case Study on Social Media Apps Programming and Marketing in Google Play and App Store
  – Business Model
  – Apps Development Life Cycle
  – Programming
  – Marketing
References


• Learn HTML5 and JavaScript for iOS: Web Standards-based Apps for iPhone, iPad, and iPod touch, Scott Preston, Apress, 2012

• PhoneGap
  – http://phonegap.com/

• PhoneGap Build
  – https://build.phonegap.com/

• jQuery Mobile
  – http://jquerymobile.com/

• Introduction to PhoneGap Build