

# Android Market and App Business Issues

## 2



### Objectives

In this chapter you'll be introduced to:

- Characteristics of great Android apps.
- User interface guidelines for designing your apps.
- Registering for Android Market.
- Submitting your apps to Android Market.
- Pricing your apps and the benefits of free vs. paid apps.
- In-app billing.
- Launching Android Market from within an app.
- Marketing and monetizing your apps.
- Other Android app stores.
- Other popular mobile and Internet app platforms to which you can port your apps.
- Android humor.

### Self Review Exercises

2.1 Fill in the blanks in each of the following statements:

- a) The \_\_\_\_\_ is a reverse chronological history of all of the activities, allowing the user to navigate to the previous activity using the **Back** button.

ANS: activity stack.

- b) Selecting the **Context** menu from within a message in the **Messaging** app (by touching and holding—also called \_\_\_\_\_—within the message on a touchscreen) brings up a menu of options specific to that message, including **Select all**, **Select text**, **Cut all**, **Copy all**, **Paste** and **Input method**.

ANS: long pressing.

- c) To sell your apps on Android Market, you'll need a \_\_\_\_\_ merchant account.

ANS: Google Checkout

- d) Before uploading your app to a device, to Android Market or to other app marketplaces, you must digitally sign the .apk file (Android app package file) using a \_\_\_\_\_ that identifies you as the author of the app.

ANS: digital certificate.

- e) The Android Market \_\_\_\_\_ allows you to manage your account and your apps, check users' star ratings for your apps (0 to 5 stars), track the overall number of installs of each app and the number of active installs (installs minus uninstalls).

ANS: Developer Console.

2.2 State whether each of the following is *true* or *false*. If *false*, explain why.

- a) Android provides four generalized screen sizes (small, normal, large and extra large) and densities (low, medium, high and extra high), making it easier for you to design apps that work on multiple screens.

ANS: True.

- b) A splash screen usually resembles the app's user interface—often just an image of the background elements of the GUI.

ANS: True.

- c) When an app works perfectly using the emulator on your computer, it will run on your Android device.

ANS: False. Although the app might work perfectly using the emulator on your computer, problems could arise when running it on a particular Android device.

- d) You might use a licensing policy to limit how often the app checks in with the server, how many simultaneous device installs are allowed, and what happens when an unlicensed app is identified.

ANS: True.

- e) The title of your app as it will appear in Android Market must be unique among all Android apps.

ANS: False. The title of your app as it will appear in Android Market does *not* need to be unique among all Android apps.

- f) According to a study by app store analytics firm Distimo ([www.distimo.com/](http://www.distimo.com/)), the average price of paid Android apps is around \$36.20.

ANS: False. According to the study, the average price of paid Android apps is around \$3.62 (the median is \$2.72).

- g) According to Google, apps that use in-app billing earn profoundly more revenue than paid apps alone.

ANS: True.

- h) If you choose to sell your apps through other app marketplaces, several third-party mobile payment providers can enable you to build in-app purchase into your apps using APIs from mobile payment providers.

ANS: True.

## Exercises

**2.3** Fill in the blanks in each of the following statements:

- a) \_\_\_\_\_ are displays of timely information on the user's **Home** screen, such as the current weather, stock prices and news.

ANS: Widgets.

- b) \_\_\_\_\_ are reusable components used to build an app's user interface. They perform actions such as searching, viewing information and dialing a phone number. A separate one is often associated with each different screen of an app.

ANS: Activities.

- c) The \_\_\_\_\_ menu—accessed through the device's **Menu** button—provides actions and operations for the app's current screen.

ANS: Options.

- d) If your app takes a while to load, use a \_\_\_\_\_—an image that will be displayed when the icon is tapped on the screen so that the user sees an immediate response while waiting for the app to load.

ANS: splash screen.

- e) The \_\_\_\_\_ file, referred to as the manifest, provides information needed to run your app in Android and to filter it properly in Android Market.

ANS: `AndroidManifest.xml`.

- f) An \_\_\_\_\_ is an agreement through which you license your software to the user. It typically stipulates terms of use, limitations on redistribution and reverse engineering, product liability, compliance with applicable laws and more.

ANS: End User License Agreement (EULA).

- g) The \_\_\_\_\_, which is installed with the ADT Plugin for Eclipse, helps you debug your apps running on actual devices.

ANS: Dalvik Debug Monitor Service (DDMS).

- h) According to a recent study by AdMob, \_\_\_\_\_ is the number one reason why users purchase a paid app.

ANS: upgrading from the "lite" version.

**2.4** State whether each of the following is *true* or *false*. If *false*, explain why.

- a) You must design your app for every possible screen size and density.

ANS: False. You do not need (nor would you want to try) to design your app for every possible screen size and density.

- b) Use a `BroadcastReceiver` to easily share data from your app with other apps on the device.

ANS: False. Use a `ContentProvider` to easily share data from your app with other apps on the device.

- c) The functionality of these sensors—accelerometer, barometer, compass, light sensor and proximity sensor—is not available on the emulator.

ANS: True.

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d) You should “obfuscate” any apps you upload to Android Market to encourage reverse engineering of your code.

**ANS:** False. You should “obfuscate” any apps you upload to Android Market to prevent reverse engineering of your code and further protect your apps. The ProGuard tool—which runs when you build your app in release mode—shrinks the size of your .apk file and optimizes and obfuscates the code.

e) According to AdMob ([www.admob.com/](http://www.admob.com/)), Android users who purchase apps download an average of five apps per month.

**ANS:** True.

f) There are now more free apps for Android than iPhone.

**ANS:** True.

g) Approximately 90% of apps on Android Market are free, and they comprise the vast majority of downloads.

**ANS:** False. Approximately 57% of apps on Android Market are free, and they comprise the vast majority of downloads.

h) According to comScore, YouTube and Facebook each account for 10% of all time spent online worldwide.

**ANS:** False. According to comScore, YouTube accounts for 10% of all time spent online worldwide and Facebook accounts for a remarkable 17%.