The professional programmer’s Deitel™ guide to smartphone and tablet app development using Android 4.3 and 4.4, the Eclipse-based Android Development Tools and the new Android Studio.

Billions of apps have been downloaded from Google Play! This book gives you everything you’ll need to start developing great Android apps quickly and getting them published on Google Play™. The book uses an app-driven approach—each new technology is discussed in the context of seven fully tested Android apps, complete with syntax coloring, code highlighting, code walkthroughs and sample outputs. Apps you’ll develop include:

- Welcome App
- Tip Calculator
- Twitter® Searches
- Flag Quiz
- Cannon Game
- Doodle
- Address Book

Paul Deitel, Abbey Deitel and Harvey Deitel are from Deitel & Associates, Inc., the internationally recognized programming languages authoring and corporate-training organization. Millions of people worldwide have used Deitel books.

**COMMENTS FROM RECENT EDITIONS REVIEWERS**

“I really love what you’re doing with the book. It has the potential to become the best Android book on the market. It’s impressive to see so many well-explained useful examples of Android patterns.”
- Dan Gilpin, Android Advocate and author of Intro to Android Application Development

“I wish this book had been around when I started developing on Android. I haven’t seen any other books cover app publishing so well and the links provided throughout are an impressive collection. You have full applications that show multiple parts of the API working together.”
- Douglas Jones, Senior Software Engineer, FoldFueler Technologies

“By far, this is the quickest way to get comfortable writing applications for the #1 mobile operating system. I really enjoy the book. While the target of Android Development for Programmers is people with some development experience, even novices will find this book an interesting read and will spend their immersion into Android development. The book starts by describing the Android development environment. Then each chapter introduces a core aspect of the Android platform by briefly explaining the topic, then illustrating the capability with working code. The sample apps demonstrate the topic of each chapter, which easily can be applied to your own projects.”
- Eric J. Bowden, COO, Safe Driving Systems, LLC

“Teaches you the Android SDK through actual use. Shows you how to write an app in every chapter, explaining each aspect of the SDK as it’s encountered. Whether you’ve never touched Android or you have some apps under your belt already, this book is definitely worth picking up.”
- Ian G. Clifton, Independent Contractor and Android App Developer

“This is the updated second edition—and it’s excellent. The authors explored the right mix of Android enhancements and masterfully wove them into solid, practical apps. Great job!”
- Ossie Lusty, Northern Virginia Community College

“An excellent book for someone who has done Java development and wants to learn Android through examples—developers can quickly pick up Android development skills. The app-driven approach is unique—of the end of each chapter, you have a well-designed and functioning app! The technical depth is excellent.”
- Arif Sengor, Wright State University

“The Characteristics of Great Apps’ table is excellent. The authors present the goals of each app and provide an opportunity to test-drive it before describing its implementation.”
- Jesus Ubaldo Quevedo-Torrero, University of Wisconsin—Parkside

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The Deitel® Developer Series is designed for professional programmers. The series presents focused treatments on a growing list of emerging and mature technologies, including Android™ app development, iOS® app development, Java™, C# and .NET, C++, C, JavaScript®, Internet and web development and more. Each book in the series contains the same live-code teaching methodology used in the Deitel How TO PROGRAM SERIES college textbooks—most concepts are presented in the context of completely coded, working apps.

ABOUT THIS BOOK
The first-generation Android phones were released in October 2008. By October 2013, a Strategy Analytics report showed that Android had 81.3% of the global smartphone market share, compared to 13.4% for Apple, 4.1% for Microsoft and 1% for BlackBerry (bit.ly/1aqIZXf). Billions of apps have been downloaded from Google Play. There are now more than one billion activated Android devices worldwide and more than 1.5 million Android devices are being activated daily (venturebeat.com/2013/09/03/android-hits-1b-activations-and-will-be-called-kktkat-in-next-version). The opportunities for Android app developers are enormous.

This book presents leading-edge computing technologies for professional software developers. At the heart of the book is the Deitel “app-driven approach”—concepts are presented in the context of complete working Android apps, rather than using code snippets. The introduction and app test drives at the beginning of each chapter show one or more sample executions. The book’s source code is available at www.deitel.com/books/androidfp2.

This app in the book was carefully designed to introduce you to key Android features and APIs. You’ll quickly learn everything you need to start building Android apps—and beginning with a test-drive of the Doodlz app in Chapter 1, then building your first app in Chapter 2. By the time you reach Chapter 9, you’ll be ready to create your own apps for submission to Google Play and other app marketplaces. You’ll master the Google Play submission process, including uploading your app, deciding whether to sell your apps or offer them for free, and marketing them using in-app advertising, social media, Internet public relations and more.

Deitel & Associates, Inc. is an internationally recognized educational author and corporate training organization specializing in Android™ and iOS® app development, programming languages, object technology and Internet and web software technology. The company offers instructor-led courses delivered at client sites worldwide, offers programming languages and platforms, such as Android™ app development, iOS® app development, Java™, Objective-C, C#, Visual Basic®, Visual C++®, C++, C, XML, Python, Perl®, object technology, Internet and web programming, and a growing list of additional programming and software-development courses. The founders of Deitel & Associates, Inc. are Paul Deitel and Dr. Harvey Deitel. The company’s training clients include many of the world’s largest corporations, government agencies, branches of the military and academic institutions. To learn more about Deitel & Associates, Inc., its professional books, college textbooks, e-books and LiveLessons video training, and its worldwide Dive-Into® Series instructor-led, on-site training curriculum, visit www.deitel.com/training or send an email to deiteltraining@deitel.com. Join the Deitel social media communities on Facebook™ (www.deitel.com/DeitelFan), Twitter® (@deitel), Google+™ (www.google.com/+DeitelFan), LinkedIn® (bit.ly/DeitelLinkedIn) and YouTube™ (youtube.com/user/DeitelTV), and subscribe to the Deitel® Buzz Online newsletter (www.deitel.com/newsletter/subscribe.html).

 COMMENTS FROM RECENT EDITIONS REVIEWERS
(Continued From Back Cover)
"Addresses a compelling set of topics in an fun and instructive way. Create UI/lookwith a depth I’ve not seen elsewhere. The Flag Quiz app is enjoyable — View animation adds a professional touch; clear description of key UI elements. The Address Book chapter is a good introduction to CRUD-type apps." —Sebastian Nylapp, Chief Architect, Reader
"The Welcome app looks solid, great to see the integration of the layout editor. The Tip Calculator app is pretty cool, I love the deeper coverage of the lifecycle. The Favorite Twitter Searches app is a good way to demonstrate ScrollView. The Flag Quiz app is one of my favorites, covering delayed event, View animations and string arrays; I like the use of the AssetManager for the flags. The XML declaration and explanation of the tutorial flags choisir animation are really nice. Nice jobs all keeping the database queries out of the UI thread in the Address Book app." —Dan Gajda, Android Advocate and author of Intro to Android Application Development
"Great job illustrating the Visual Layout Editor, I liked the approach of creating a project then building visual components without code; this makes it easy to experiment with other properties to customize the look of the app. The line-by-line explanations of the code are extremely valuable, this is a solid introduction to Java Android apps. Favorite Twitter Searches taught me things I didn’t know. The Flag Quiz app is a great chapter. The “How To” app is a nice introduction to animation. The Doodlz app chapter uses great examples to illustrate the different concepts. The Address Book app is a good introduction to database access on the Android platform that presents the structures required for SQLite databases." —Rick J. Bowden, CIO, Safe Driving Systems, LLC
"The technologies overviews are particularly nice. The Intro chapter gives a solid overview of Android. The Welcome app chapter is a nice intro to layout, keeping it simple, while still using a common layout (RelativeLayout). Favorite Twitter Searches is a great chapter that introduces a lot of core concepts. App descriptions give a clear understanding of what’s being built, the code highlighting helpful. Doodlz is a great app — anyone can identify with it. The Address Book app is a great intro to listing other Activities and utilizing a SQLite database." —Ian O. Cilline, Independent Contractor and Android App Developer
"Chapter 1 is an easy intro, thanks to the link to one of the blogs, I found an alternate emulator. Welcome App shows layouts and some controls and prepares the way for resource internationalization. The Tip Calculator app UI highlights all the tricky cases of TableLayout and TableRow, which makes it a valuable demonstration. The Favorite Twitter Searches app does a good job of introducing a number of important UI skills, especially using the LayoutInflator and the ScrollView programmatically add UI elements. Flag Quiz uses a variety of tools, such as collections, AlertDialog Builder and animations. I like the configuration check for screen size to set the orientation of the Doodlz app. I haven’t seen any other books cover app publishing so well." —Douglas Jones, Senior Software Engineer, Fullpower Technologies
"Great intro to overall Android, Java and OOP concepts." —Ramon "Zero" Schwartz, CIO, Operations
"One of the best Android books. Does an excellent job explaining the Android platform; I love theRANDO affordable approach oriented learning. Tip Calculator does a good job showing how to create a GUI — I like using the Outline window. I’、“neve posted an app, but after seeing how easy it is, I have a couple that I’m considering publishing." —Tony Carroll, Georgia Northwestern Technical College
"The Flag Quiz is interesting, engaging and shows important concepts like fragments, animations and resource qualifiers. The Cannon Game is fun — a great way to demonstrate multiple objects on the screen." —Abu Juma, Wright State University
"By the end of each chapter the reader will have created a functional app while acquiring a working knowledge of the material. This is the most practical method to master app development. The Twitter Searches app is a great example to illustrate arrays, opening a website, creating tasty value pairs, taking the keyboard and interacting with the app." —Dave Wik, Southwestern Community College
"Apps are Android 4.1 Kitten features, like pricing and immersion mode. Covers the details a developer needs to be successful. The Welcome App chapter is very good, creating the project with no code is nice. I like that Twitter Searches uses the web to connect the user to Twitter. The Cannon Game brings the basic elements together for a game — animation, sound, etc." —Jim Hethaways, Application Developer, Kellogg Company
"I really like how accessibility is covered; this is generally an afterthought for most developers. Chapter 9 contains useful information that’s hard to find, particularly in respect to marketing — this is something that developers struggle to discover." —Michael Pardo, Minitab
"Nice discussion of intents and how these are needed to start activities. Cannon Games is challenging, but well implemented and explained. Chapter 9, Google Play and App Business Issues, is perfect — the information about market shares and tools to convert Android apps into iOS apps is very motivating." —Jesus Ubeda Dauve-Rios, University of Wisconsin-Parkside