Android™ Programming

Millions of people worldwide have learned programming with Deitel® textbooks, professional books, LiveLessons video training and online resource centers. Android™ How to Program, 2/e provides a clear and entertaining introduction to app development for both introductory- and intermediate-level courses. The book’s app-driven approach teaches each new technology in seven fully tested Android apps in the print book and more online, complete with code walkthroughs and sample outputs. Apps you’ll develop include Welcome App, Tip Calculator, Twitter® Searches, Flag Quiz, Cannon Game, Doodlz and Address Book. Features:

• Android 4.3 and 4.4.
• Eclipse-based Android Development Tools in the print book and Android Studio instructions online.
• Supporting various screen sizes and resolutions.
• Accessibility, internationalization, graphics.
• Activities, Fragments, Intents, Preferences.
• Guts, layouts, menus, resource files, lists, adapters, event handling, touch and gesture processing.
• Immersive mode, printing framework, PrintHelper.
• Assets (images, audio), View animation.
• Threading, collections, SQLite database.
• Social sharing via implicit intents.
• Google Play™, app publishing, pricing, monetization, marketing, in-app advertising, in-app billing.
• Java fundamentals, classes, objects, inheritance, polymorphism, interfaces, exception handling, collections, events, threads.
• Additional online app chapters (see Preface) cover: GPS and Google Maps™, video, property animation, speech processing, Google Play game services.

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Thank you for purchasing a new copy of Android™ How to Program, Second Edition. Your textbook includes 12 months of prepaid access to the book’s Companion Website. This prepaid subscription provides you with full access to the following student support areas:

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Additional Comments from Recent Editions Reviewers

“One of the best Android books. Chapter 1 does an excellent job explaining the Android platform; I love the car analogy to explain object-oriented terms. Tip Calculator does a good job showing how to create a GUI—I like using the Outline window. I’ve never published an app, but after seeing how easy it is, I have a couple that I’m considering publishing.” — Tony Costello, Georgia Northwestern Technical College

“The app-driven approach is unique—at the end of each chapter, you have at least 2–3 well-designed and functioning apps! The technical depth is excellent. The Flag Quiz app is interesting, engaging and shows important concepts like fragments, animations and resource qualifiers. The Cannon Game is fun—a great tool to demonstrate moving objects on the screen.” — Arjith Sengupta, Wright State University

“An excellent resource for learning how to create apps using the latest Android features. If you need more knowledge of Java, the book includes a 300-page introduction to Java programming. I like the variety and the range of difficulty of the programming exercises. You don’t need an excellent app developer explaining why you added the objects to the Tip Calculator layout and changed their properties as you did. The Twitter app is a great example to illustrate arrays, opening a website, creating key-value pairs, hiding the keyboard and interacting with the app. I appreciate the amount of documentation and resources.” — Dawn Wick, Southwestern Community College

“Each app chapter shows how to write an app, exploring aspects of the SDK as they’re encountered. The Technologies Overviews are particularly nice. The Address Book app is a good intro to using a SQLite database.” — Ian G. Clifton, Independent Contractor and Android App Developer

“Apps are Android 4.4 KitKat features, like printing and immersive 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 to Twitter. The Cannon Game brings the basic elements together for a game—animation, sounds, etc.” — Jim Hatheway, Application Developer, Kellings Company

“Chapter 1 is an excellent introduction to Android for novice programmers. I like how the authors present the goals of each app and provide an opportunity to test drive it before describing its implementation. Nice presentation of intents and how these are needed to start activities. Cannon Game app 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 connect Android apps into iOS apps is very motivating.” — Jesus Ubaldi Quevedo-Torres, U. of Wisconsin-Parkside

“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, Mobiata

“I really enjoy the book. The Welcome app does a great job illustrating the Visual Layout Editor, building visual components without code.” — Eric J. Bowden, CIO, Safe Driving Systems, LLC

“The Tip Calculator is a pretty cool and useful app. The Flag Quiz app is one of my favorites, covering delayed events, View animations and string arrays. I like the use of the AssetManager. The XML declaration and explanation of the tweend flag-shake animation are nicely done. It’s great how the [online] SpotOn Game chapter puts so much useful information in one place.” — Dan Golpin, Android Advocate and author of Intro to Android Application Development

“A compelling set of topics presented in fun and instructive packages. Creates UI/layouts with a depth of detail I’ve not seen elsewhere. Covers key features such as fragments and the action bar. The Flag Quiz app is easy to follow and enjoyable — View animation adds a professional touch.” — Sebastian Mykgs, Chief Architect, Reactor

“With this book I have been around when I started developing on Android. Welcome App covers a lot of ground showing layouts and some controls and preparing the way for resource internationalization. Flag Quiz app uses a variety of tools, such as collections, AlertDialog Builder and animations. Property animators save the [online] Splat! Game code straightforward. The [online] Slideshow app reinforces list handling and adapters. I haven’t seen any other books cover app publishing so well.” — Douglas Jones, Senior Software Engineer, Fullpower Technologies

“Provides progressive training for learning some of the most useful APIs from the Android SDK.” — Enrique Lopez-Manan, Lead Android Architect, Sixt, and Computer Science Teacher at the University of Alcalá in Madrid

“Testimonials on the Android How to Program, 9/e Content (in the Appendices)

“A great textbook with a myriad of examples — excellent for CSI courses.” — William E. Duncan, LSU

“Best introductory textbook I’ve encountered. Wish I had this when I was learning how to program.” — Lance Anderson, Oracle

“Practical approach to teaching programming basics. Demystifies inheritance and polymorphism, and illustrates their use in getting elegant, simple and maintainable code.” — Vinod Varma, Astro Infotech Private Limited

“Easy-to-fellow examples provide great teaching opportunity!” — Sue McFarland Metzger, Villanova University

“The polymorphism and collections material is excellent for new students.” — Peter Pilgrim, Java Champion, Consultant