Android Programming

“Gives new programmers the benefit of the wisdom derived from many years of software development experience!”
—Edward F. Gehring, North Carolina State University

“Good intro to Android, Java and OOP concepts.”—Roman “Zero” Schwarz, CIO, OpenIntensities

“I really love what you’re doing with the book. It could become the best Android book on the market. It’s impressive to see so many well explained useful examples of Android patterns. The coverage of Honeycomb APIs such as ViewPropertyAnimations and respectable AppWidgets makes this work especially current.”—Dan Golpin, Android Advocate, author of Intro to Android Application Development

“I really like that this is aiming to stay up-to-date with key Android features such as property animation, fragments, the Actionbar, tabbed navigation and more. I haven’t seen any other books cover this publishing so well. You get full apps that show the Android APIs working together. I wish this book had been around when I started developing on Android.”—Douglas Jones, Senior Software Engineer, Fullpower Technologies

More than a million people worldwide have learned programming with Deitel® books and videos. Android How to Program provides a clear and entertaining introduction to app development for both introductory- and intermediate-level courses. This unique book provides a rich, example-driven treatment of Android development along with an optional introduction to Java for those who need it.

The book’s app-driven approach teaches each new technology in 12 fully tested Android apps in the print book and more online, complete with syntax shading, code highlighting, code walkthroughs and sample outputs. Apps you’ll develop include SpotOn Game, Slideshow, Flag Quiz, Route Tracker, Favorite Twitter® Searches, Address Book, Tip Calculator, Doodlz, Weather Viewer, Cannon Game, Voice Recorder, Pizza Ordering and 3D Art. Features:

• Smartphone and tablet apps, ADT Plugin for Eclipse.
• Activities, intents, content providers.
• GUI components, menus, resource files, touch and gesture processing.
• Tablet apps, ActionBar, AppWidgets.
• Tweened animations, property animations.
• Camera, audio, video, graphics, OpenGL ES.
• Gallery and Media Library access.
• Shared Preferences, SQLite databases.
• Files, streams, object serialization.
• Handlers, multithreading, games.
• Google Maps, GPS, location services, sensors.
• Internet and web apps, telephony, Bluetooth®.
• Speech synthesis and recognition.
• Android Market, app pricing, monetization.
• Java fundamentals, classes, objects, inheritance, polymorphism, interfaces, exception handling, collections, events, threads.

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"This is the quickest way to get comfortable writing apps for the #1 smartphone operating system. Novices will find that this book speeds their immersion into Android development. Each chapter introduces a core aspect of the Android platform, illustrating it with working code. This is a solid introduction to how Android works. The sample apps can be applied to your projects. The Welcome app does a great job illustrating the Visual Layout Editor, building visual components without code. Nice introductions to animation in the Cannon Game app and the camera in the Enhanced Slideshow app. I really enjoy the book." — Eric J. Bowden, CCO, Safe Driving Systems, LLC

"A solid overview of Android. Shows how to write an app in every chapter, explaining each aspect of the SDK as it's encountered. Teaches the Android essentials from layouts to sensors and Honeycomb features such as property animation, tabbed navigation with the Actionbar, fragments and web services with JaxReader. Nice intro to layouts, keeping it simple. Favorite Twitter Searches is a great app that introduces core concepts. The app descriptions give a clear understanding of what is being built; the Technologies Overviews are particularly nice. The SpotOn Game app is a great intro to property animation and produces a fun game without a lot of code. The Address Book app is a good intro to launching other Activities and utilizing a SQLite database." — Ian G. Clifton, Independent Contractor and Android App Developer

"A compelling set of topics presented in packages that are fun and instructive. The walkthrough for running an app in the emulator is easy to follow. Creates UI/Layouts with a depth of detail I’ve not seen elsewhere. Covers key tablet-oriented features such as fragments, resizable App Widgets and the Action Bar. The Flag Quiz app is easy to follow and enjoyable; clear description of UI elements; good that the distinction between assets/ and res/ is presented; nice that View animation is included (adds a professional touch). The Address Book is a good intro to CRUD (create, read, update and delete) apps. The Enhanced Slideshow app is a straightforward demonstration on how to use the camera and display videos." — Sebastian Mykopp, Chief Architect, Reaktor

"The Tip Calculator is a pretty cool and useful app; I love the deeper coverage of the lifecycle. The Flag Quiz app is one of my favorites, covering polymorphic events, View animations and string arrays; I like the use of the AssetManager. The XAML declaration and explanation of the tweened flag-shake animation are nicely done. The SpotOn Game app does an excellent job in covering the new Honeycomb+ property animations, and uses them in a creative way to build a fun game. It’s great how the Route Tracker app chapter puts so much useful MapView information in one place." — Dan Galpin, Android Advocate and author of Intro to Android Application Development

"One of the most comprehensive intro chapters I’ve read, especially the number and variety of links. I like how the Welcome app gets the reader into Eclipse. The Favorite Twitter Searches app introduces important UI skills, especially using the ListAdapter and the ScrollView to programmatically add UI elements. The Flag Quiz app uses a variety of tools, such as collections, DialogBuilder options and animations. Those property animators sure make the SpotOn Game app code straightforward; well done. The Slideshow app reinforces list handling and adapters. I like the intro to serialization is in the Enhanced Slideshow app." — Douglas Jones, Senior Software Engineer, Fullpower Technologies

Testimonials on the Java How to Program, 9/e Content

"A great textbook with a myriad of examples from various application domains — excellent for CS1 courses." — William E. Duncan, LSU

"The best introductory textbook I’ve encountered. I wish I had this when I was learning how to program!" — Lance Andersen, Oracle

"Reflects the state of the art in Java technologies; its deep and crystal clear explanations make it indispensable. Excellent coverage of exception handling." — José Antonio González Seco, Parliament of Andalucia

"An excellent starting point for developing high-quality robust Java applications." — Simon Ritter, Oracle Corporation

"Great code examples propel readers to become proficient in Java." — Patty Kraft, San Diego State University

"The polymorphism and exception-handling discussions are the best I’ve seen." — Ric Heishman, George Mason University

"Practical approach to teaching programming basics. De-mystifies inheritance and polymorphism, and illustrates their use in getting elegant, simple and maintainable code." — Vinod Varma, Astre Infotech Private Limited

"Easy-to-follow examples provide great teaching opportunities! Great examples of polymorphism and interfaces." — Shyam Mitra, UT Austin

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

"Suitable for new programmers and intermediate-level programmers who want to hone their skills. Event handling is well explained." — Jano Pilgrim, Rochester Institute of Technology

"The discussion on inheritance and polymorphism is especially good." — Susan Rodger, Duke University