The professional programmer’s Deitel® guide to iPhone®, iPad® and iPod® app development using iOS® 8, Swift™, Xcode® 6, and Cocoa Touch™

Billions of apps have been downloaded from Apple’s App Store. This book gives you everything you’ll need to start developing great iOS 8 apps—quickly using Swift®, Apple’s programming language of the future. You’ll also learn what makes a great app and how to publish your apps in the App Store. The book uses an app-driven approach—each new technology is discussed in the context of seven fully tested iOS 8 apps, complete with syntax shading, code highlighting, code walkthroughs and sample outputs. Apps you’ll develop include:

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

Paul Deitel, Harvey Deitel and Abbey Deitel are from Deitel & Associates, Inc., the internationally recognized programming languages authoring and corporate-training organization. Millions of people worldwide have used Deitel books, LiveLessons video training and online resource centers to master iOS app development, Swift™, Java™, C++, Android™ app development, C#, .NET, Visual C++®, C, Internet and web programming, JavaScript®, XML, Perl®, Python, PHP and more.

COMMENTS FROM THE REVIEWERS

“Excellent writing style which when combined with fantastic real world examples provides for a wonderful learning experience. The use of proper app-quality code examples designed to reflect the new style of Swift coding makes this very detailed book a joy to read. The iOS development book for the serious Swift developer. Provides solid, real-world apps, which are ready for the App Store. The book’s excellent writing style takes the skilled user on a line-by-line analysis of the complexities of iOS 8 programming, dealing with such subjects as UI/UX, SpriteKit, Core Data and internationalization. Easily the best tutorial I’ve ever read. This text will never be far from the professional programmer’s side and provides so much more than a regurgitation of existing reference documentation or basic “cookbook” examples. One of the best books on the subject and a must-have for any developer’s bookcase. Now completely updated to cover Swift and iOS 8, this series really has turned into the definitive iOS developers guide.”

— Bill Watson, Technical Team Lead, HP Enterprise Services

“A comprehensive companion for those new to iOS development as well as experienced Objective-C developers looking to learn Swift, Apple’s newest language. You’ll build seriously complex projects, including a common game and a paint app. But you’ll quickly realize, that with the Deitels’ writing and app-driven approach, and with the iOS frameworks, building these apps is a piece of cake. The Common Game App is an interesting and engaging introduction to iOS game development with SpriteKit. You’ll learn basics of game design, including how to blend physics, sound, and animation. You can even use the sample code in your own app since it’s under a Creative Commons License.”

— Saint Bousas, Thrillist Media Group

“The Deitels have written a guide book that will give developers new to iOS or the Swift programming language a solid ground stone from which to build their own apps. Each chapter is based on an app, many of which could rightly be in the App Store, and they take you through that app step by step. In no time at all you’ll feel confident about stepping out on your own developing apps targeting Apple’s latest mobile OS, iOS 8, using Xcode 6 and Apple’s new programming language Swift. You will touch on storing data between runs using NSUserDefaults and synchronizing data using iCloud. And you will take advantage of executing tasks in parallel with Grand Dispatch, write a game with SpriteKit using physics, learn the magic of Auto Layout and much more.”

— Scott Bossak, Thrillist Media Group

— Robert McKeown, India Developer

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Sales of iOS devices and app downloads have been explosive. The first-generation iPhone sold 6.1 million units in its initial five quarters of availability (bit.ly/iPhoneGen1). The iPhone 6 and iPhone 6 Plus, released in September 2014, sold over 10 million combined in their first weekend of availability (bit.ly/FirstiPhone6weekend). iPad sales are equally impressive. The first generation iPad, launched in April 2010, sold 3 million units in its first 80 days of availability (bit.ly/iPadGen1). In just the first quarter of 2014, Apple sold a record 26 million iPads (bit.ly/iPad2014Q1). At the time of this writing, there were over 1.2 million apps in the App Store (bit.ly/105Apps2014) and more than 75 billion apps have been downloaded!

This book presents leading-edge computing technologies for professional software developers. At the heart of the book is the Deitel® app-driven approach—a variant of Deitel’s live-code approach—concepts are presented in the context of complete working iOS 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/iOS8FP1

You’ll quickly learn everything you need to start building iOS 8 apps—beginning with a test-drive of the Tip Calculator app in Chapter 1, then building your first apps in Chapter 2 with visual programming and in Chapter 3 with Swift. By the time you reach Chapter 9, you’ll be ready to create your own apps for submission to the App Store. We’ll overview the submission process, including uploading your apps, deciding whether to sell your apps or offer them for free, and marketing them using in-app advertising, social media, Internet and web public relations and more.

Deitel & Associates, Inc.—an internationally recognized authoring and corporate training organization specializing in programming languages, object technology, Internet and web software technology, iOS® and Android™ app development, and Apple’s new Swift language. The company offers instructor-led courses at client sites worldwide. 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 companies, government agencies, branches of the military and academic institutions. You can reach the authors at deitel@deitel.com.

FULLY UPDATED FOR,XCODE 6 AND APPLE’S NEW PROGRAMMING LANGUAGE SWIFT

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iOS 8 for programmers is a great book to get you up and running with iOS programming. Each chapter will teach you how to build an app from scratch. From the simple Tip Calculator app, all the way through to a fun game which will have you learning about SpriteKit. This book explains everything through the use of real world examples. The writing is easy to read, giving step-by-step guidance alongside screenshots. This makes understanding complicated topics such as Auto Layout a breeze. I was particularly impressed by the fact that this book gives a good overview of localization and accessibility. Both are things which all iOS developers will need to use at some point. The book also covers the business of apps—something that I’ve not seen other books do. Overall, this book is going to suit you well if you’re new to iOS programming with Swift and want to dive straight in.
— Matt Galloway, iOS Developer and author of Effective Objective-C 2.0

In the Introduction, the history of the sales numbers of all the different versions serves as motivation. I liked the Twitter Searches app—you did a good job stepping through the process to get the storyboard setup. I liked the Flag Quiz project. I liked your design for handling the various screen sizes in the Cannon Game app. Lots of good information in the App Store and App Business Issues chapter.” — Michael Haberman, Software Engineer, Instructor at University of Illinois

I honestly feel that the Welcome app is pretty much perfect. It is a solid introduction to Xcode’s UI—one of the best I’ve read. The coverage of localization and accessibility is also a good start and it’s nice that you introduce these ideas at the beginning of the book. The Tip Calculator app is a really solid build—I think the reader will get a real sense of achievement by the time they get to the end of it, particularly having an app that looks like it fits in with the OS. I like getting the data from the filenames in the Flag Quiz app—it’s a handy trick. The Cannon Game app chapter lays a solid foundation for the book. Cannon Game app— the coverage of physics is good—it alludes to the power available without being overwhelming. Doodlz app is an excellent chapter—it takes a seemingly daunting app to attempt (and something you might see in the App Store) and makes it look easy; the descriptions are clear and to the point. I really like the sections on monetizing and marketing your app; there’s a lot of useful content there and the links are invaluable.” — Robert McGovern, Indie Developer

The Cannon Game app is an excellent example with great code— I couldn’t find anything to criticize. The Doodlz app is an excellent chapter.” — Rick Watson, Technical Team Lead for HP Enterprise Services (Applications Services)

“I have reviewed a lot of chapters for many publishers—Twitter Searches is the first time I have managed to go through without any substantive comments—great job.” — Charles Brown, Independent Contractor Affiliated with Apple and Adobe

COMMENTS FROM THE EARLY IPHONE EDITION REVIEWERS

“I wish I’d had this book when I started developing on the iPhone. What took me a lot of time and many mistakes to learn, is beautifully explained in a clear, concise style that will take you from zero to publishing your first app in no time. By the end of Chapter 1, Introduction to iPhone App Development, I’ve already seen a custom app run in the iPhone simulator—this is crucial, and very well done. I can see the app on my Mac—superb. I now have a good picture of what I’m about to embark on. The Tip Calculator app is great; it includes several basic but critical operations (converting between data types, displaying data and accepting input, formatting things and handling events).” — Marcantonio Mangarosa, Research & Development on Mobile Platforms, Ogily Interactive

“Covers a wide variety of iPhone programming topics. It provides needed advice on how to use Xcode, how to submit your app to the App Store, how to set your price, and how to deal with other non-programming issues in iPhone development. Gives a quick start to iPhone programming, showing how to build complete iPhone apps. Briefly describes the purpose of each app, the coding technologies used to build it, and a detailed line-by-line walkthrough of the code. All of the code and project files are on a CD so you can compile and test-drive each of the apps. I like the way you introduce the completed app up front, providing a framework for discussing how to build it. The chapter on iPhone App Store and App Business Issues provides a great overview of non-programming issues involved in selling iOS apps. The detailed information on how to set up the DRM certificate and profiles will enable you to have an app that is ready to go. A very easy introduction to using Interface Builder to lay out the interface of the Welcome app. The Flag Quiz Game app is quite fun! The Favorite Twitter® Searches app source code is very relevant, and easy to follow. I like the Cannon Game app. The Painter app (now Doodlz) is very well polished and very organized—I had fun painting pictures.” — Zach Saul, Founder, Retrowares, and co-creator of Recorder— one of the top-selling iPhone apps for 2008

“I liked the Welcome app without code to show the power of Xcode and Interface Builder. The Tip Calculator app chapter is the best introductory chapter on iOS—most books I’ve read. Twitter® Searches app nailed it as it is barely out of Hells World" territory at this point, but here we are writing genuinely useful apps. How the Flag Quiz Game app is implemented is riveting stuff. The best introduction to tables I’ve read.” — Rick Watson, Senior Software Engineer, Lockheed Martin