

Head First Android Development

A Brain-Friendly Guide



Put fragments under the microscope



Avoid embarrassing activities

Learn how Constraint Layouts can change your life



Find your way with Android's Location Services Create out-of-this-world services

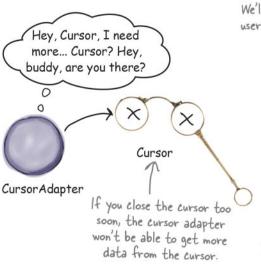


Fool around in the Design Support Library

Android Development

What will you learn from this book?

If you have an idea for a killer Android app, this fully revised and updated edition will help you build your first working application in a jiffy. You'll learn hands-on how to structure your app, design flexible and interactive interfaces, run services in the background, make your app work on various smartphones and tablets, and much more. It's like having an experienced Android developer sitting right next to you! All you need to get started is some Java know-how.



We'll get the toolbar to scroll when the user scrolls the content in TopFragment.



We'll add this scrollable content to TopFragment.

Why does this book look so different?

Based on the latest research in cognitive science and learning theory, *Head First Android Development* uses a visually rich format to engage your mind, rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multi-sensory learning experience is designed for the way your brain really works.

"If you're starting out in mobile development, this is the book for you. It's quite simply the best book on Android development out there."

> —Andy Parker Lead Software Developer at Next plc

"This is, without a doubt, the best available book for learning Android development.

If you can get only one, make it this one."

—Kenneth Kousen President, Kousen IT Inc., and JavaOne Rock Star

"Become an able Android developer applying upto-date patterns and create that next killer app. Head First Android Development will be your friendly, accurate, and fun-to-be-with master craftsman on that path."

—Ingo Krotzky Android Learner

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Head First Android Development

Wouldn't it be dreamy if there
were a book on developing Android
apps that was easier to understand
than the space shuttle flight manual? I
guess it's just a fantasy...



Dawn Griffiths
David Griffiths



Head First Android Development

by Dawn Griffiths and David Griffiths

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No kittens were harmed in the making of this book, but several pizzas were eaten.

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To our friends and family. Thank you so much for all your love and support.

Authors of Head First Android Development



Dawn Griffiths started life as a mathematician at a top UK university, where she was awarded a first-class honors degree in mathematics. She went on to pursue a career in software development and has over 20 years' experience working in the IT industry.

Before writing *Head First Android Development*, Dawn wrote three other Head First books (*Head First Statistics*, *Head First 2D Geometry*, and *Head First C*). She also created the video course *The Agile Sketchpad* with her husband, David, to teach key concepts and techniques in a way that keeps your brain active and engaged.

When Dawn's not working on Head First books or creating videos, you'll find her honing her Tai Chi skills, reading, running, making bobbin lace, or cooking. She particularly enjoys spending time with her wonderful husband, David.

David Griffiths began programming at age 12, when he saw a documentary on the work of Seymour Papert. At age 15, he wrote an implementation of Papert's computer language LOGO. After studying pure mathematics at university, he began writing code for computers and magazine articles for humans. He's worked as an Agile coach, a developer, and a garage attendant, but not in that order. He can write code in over 10 languages and prose in just one, and when not writing, coding, or coaching, he spends much of his spare time traveling with his lovely wife—and coauthor—Dawn.

Before writing *Head First Android Development*, David wrote three other Head First books—*Head First Rails*, *Head First Programming*, and *Head First C*—and created *The Agile Sketchpad* video course with Dawn.

You can follow us on Twitter at https://twitter.com/ HeadFirstDroid and visit the book's website at https:// tinyurl.com/HeadFirstAndroid.

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Table of Contents (the real thing)

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Your brain on Android. Here *you* are trying to *learn* something, while here your *brain* is, doing you a favor by making sure the learning doesn't *stick*. Your brain's thinking, "Better leave room for more important things, like which wild animals to avoid and whether naked snowboarding is a bad idea." So how *do* you trick your brain into thinking that your life depends on knowing how to develop Android apps?

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I wonder how
I can trick my brain
into remembering
this stuff...



getting started

Diving In

Android has taken the world by storm.

Everybody wants a smartphone or tablet, and Android devices are hugely popular. In this book, we'll teach you how to **develop your own apps**, and we'll start by getting you to build a basic app and run it on an Android Virtual Device. Along the way, you'll meet some of the basic components of all Android apps, such as **activities** and **layouts**. **All you need is a little Java know-how...**



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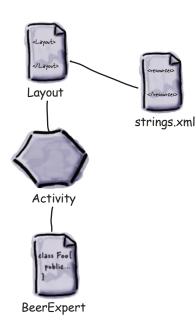
building interactive apps

Apps That Do Something

2

Most apps need to respond to the user in some way.

In this chapter, you'll see how you can make your apps a bit more interactive. You'll learn how to get your app to *do* something in response to the user, and how to get your activity and layout talking to each other like best buddies. Along the way, we'll take you a bit deeper into how Android actually works by introducing you to R, the hidden gem that glues everything together.



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