A Brain-Friendly Guide

Head First Android Development

Learn what matters, when it matters

Load important concepts directly into your brain

Bend your mind around dozens of puzzles and exercises

Master out-of-this-world concepts

Avoid embarrassing mistakes

O'REILLY®

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Your First App

So you're thinking: "What makes Android so special?"

Android is a **free and open operating system** from ***Google*** that runs on all kinds of devices from **phones,** to **tablets** and even **televisions**. That's a ton of different devices you can target with *just one platform*! (And the market share is gaining too!) Google provides all of the stuff you need to get started building Android apps **for free**. You can build your Android apps on Macs, Windows, or Unix and publish your apps for next to nothing (with no need for anyone's approval). Ready to get started? Great! You're going to start building your first Android app, but first there are a few things to set up...

long-running processes

4 **When things take time**

It would be great if everything happened instantly. Unfortunately, some things just take time. This is especially true on mobile devices, where network latency and the occasionally slow processors in phones can cause things to take a ***bit*** longer. You can make your apps faster with optimizations, but some things just take time. But you ***can*** learn how to **manage long-running processes better**. In this chapter, you'll learn how to show active and passive status to your users. You'll also learn how to perform expensive operations off the UI thread to guarantee your app is always responsive.

multiple-device support

5 **Run your app everywhere**

There are a lot of different sized Android devices out there. You've got big screens, little screens, and everything in between. And it's your job to support them all! Sounds crazy, right? You're probably thinking right now "***How can I possibly support all of these different devices***?" But with the right strategies, you'll be able to target all of these devices ***in no time*** and with **confidence**. In this chapter, you'll learn how Android classifies all of these different devices into groups based on **screen size** as well as **screen density**. Using these groups, you'll be able to make your app look great on all of these different devices, and all with a **manageable** amount of work!

optimizing for tablets

6 **Tablets are not just big phones**

Android tablets are coming onto the scene. These new larger-format Android devices give you an entirely new hardware format to present new and cool apps to your users. **But they are not just big phones!** In this chapter, you'll learn hot to get your app up and running on a tablet. You'll learn about the new screen size groupings and also how to use Fragments to combine multiple Activities on a single screen. So more importantly then just running on tablets in this chapter, you'll learn about how to ***make your app work better*** on them.