

Android Studio Koala Essentials



Kotlin Edition

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Android Studio Koala Essentials – Kotlin Edition

ISBN: 978-1-951442-95-8

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Rev: 1.0



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1. Introduction

This book, fully updated for Android Studio Koala Feature Drop (2024.1.2) and the new UI, teaches you how to develop Android-based applications using the Kotlin programming language.

This book begins with the basics and outlines how to set up an Android development and testing environment, followed by an introduction to programming in Kotlin, including data types, control flow, functions, lambdas, and object-oriented programming. Asynchronous programming using Kotlin coroutines and flow is also covered in detail.

Chapters also cover the Android Architecture Components, including view models, lifecycle management, Room database access, content providers, the Database Inspector, app navigation, live data, and data binding.

More advanced topics such as intents are also covered, as are touch screen handling, gesture recognition, and the recording and playback of audio. This book edition also covers printing, transitions, and foldable device support.

The concepts of material design are also covered in detail, including the use of floating action buttons, Snackbars, tabbed interfaces, card views, navigation drawers, and collapsing toolbars.

Other key features of Android Studio and Android are also covered in detail, including the Layout Editor, the `ConstraintLayout` and `ConstraintSet` classes, MotionLayout Editor, view binding, constraint chains, barriers, and direct reply notifications.

Chapters also cover advanced features of Android Studio, such as App Links, Gradle build configuration, in-app billing, and submitting apps to the Google Play Developer Console.

Assuming you already have some programming experience, are ready to download Android Studio and the Android SDK, have access to a Windows, Mac, or Linux system, and have ideas for some apps to develop, you are ready to get started.

1.1 Downloading the Code Samples

The source code and Android Studio project files for the examples contained in this book are available for download at:

<https://www.payloadbooks.com/product/koala-kotlin-prag/>

The steps to load a project from the code samples into Android Studio are as follows:

1. From the Welcome to Android Studio dialog, click on the Open button option.
2. In the project selection dialog, navigate to and select the folder containing the project to be imported and click on OK.

1.2 Feedback

We want you to be satisfied with your purchase of this book. If you find any errors in the book, or have any comments, questions or concerns please contact us at info@payloadbooks.com.

1.3 Errata

While we make every effort to ensure the accuracy of the content of this book, it is inevitable that a book covering a subject area of this size and complexity may include some errors and oversights. Any known issues with the book will be outlined, together with solutions, at the following URL:

<https://www.payloadbooks.com/koalakotlin>

If you find an error not listed in the errata, please let us know by emailing our technical support team at *info@payloadbooks.com*. They are there to help you and will work to resolve any problems you may encounter.