

Codelabs for Android Developer Fundamentals

This page lists the practical codelabs that are included in the Android Developer Fundamentals course. For links to the concept chapters, slides, and apps that accompany these codelabs, see the [course overview](#) (/courses/fundamentals-training/overview-v2).

Unit 1: Get started

Lesson 1: Build your first app

- [1.1: Android Studio and Hello World](https://codelabs.developers.google.com/codelabs/android-training-hello-world/index.html?index=..%2F..%2Fandroid-training#0)
(https://codelabs.developers.google.com/codelabs/android-training-hello-world/index.html?index=..%2F..%2Fandroid-training#0)
- [1.2 Part A: Your first interactive UI](https://codelabs.developers.google.com/codelabs/android-training-layout-editor-part-a/index.html?index=..%2F..%2Fandroid-training#0)
(https://codelabs.developers.google.com/codelabs/android-training-layout-editor-part-a/index.html?index=..%2F..%2Fandroid-training#0)
- [1.2 Part B: The layout editor](https://codelabs.developers.google.com/codelabs/android-training-layout-editor-part-b/index.html?index=..%2F..%2Fandroid-training#0)
(https://codelabs.developers.google.com/codelabs/android-training-layout-editor-part-b/index.html?index=..%2F..%2Fandroid-training#0)
- [1.3: Text and scrolling views](https://codelabs.developers.google.com/codelabs/android-training-text-and-scrolling-views/index.html?index=..%2F..%2Fandroid-training#0)
(https://codelabs.developers.google.com/codelabs/android-training-text-and-scrolling-views/index.html?index=..%2F..%2Fandroid-training#0)
- [1.4: Learn to help yourself](https://codelabs.developers.google.com/codelabs/android-training-available-resources/index.html?index=..%2F..%2Fandroid-training#0)
(https://codelabs.developers.google.com/codelabs/android-training-available-resources/index.html?index=..%2F..%2Fandroid-training#0)

Lesson 2: Activities and intents

- [2.1: Activities and intents](https://codelabs.developers.google.com/codelabs/android-training-create-an-activity/index.html?index=..%2F..%2Fandroid-training#0)
(https://codelabs.developers.google.com/codelabs/android-training-create-an-activity/index.html?index=..%2F..%2Fandroid-training#0)
- [2.2: Activity lifecycle and state](https://codelabs.developers.google.com/codelabs/android-training-activity-lifecycle-and-state/index.html?index=..%2F..%2Fandroid-training#0)
(https://codelabs.developers.google.com/codelabs/android-training-activity-lifecycle-and-state/index.html?index=..%2F..%2Fandroid-training#0)

- 2.3: Implicit intents
(<https://codelabs.developers.google.com/codelabs/android-training-activity-with-implicit-intent/index.html?index=..%2F..%2Fandroid-training#0>)

Lesson 3: Testing, debugging, and using support libraries

- 3.1: The debugger
(<https://codelabs.developers.google.com/codelabs/android-training-using-debugger/index.html?index=..%2F..%2Fandroid-training#0>)
- 3.2: Unit tests
(<https://codelabs.developers.google.com/codelabs/android-training-unit-tests/index.html?index=..%2F..%2Fandroid-training#0>)
- 3.3: Support libraries
(<https://codelabs.developers.google.com/codelabs/android-training-support-libraries/index.html?index=..%2F..%2Fandroid-training#0>)

Unit 2: User experience

Lesson 4: User interaction

- 4.1: Clickable images
(<https://codelabs.developers.google.com/codelabs/android-training-clickable-images/index.html?index=..%2F..%2Fandroid-training#0>)
- 4.2: Input controls
(<https://codelabs.developers.google.com/codelabs/android-training-input-controls/index.html?index=..%2F..%2Fandroid-training#0>)
- 4.3: Menus and pickers
(<https://codelabs.developers.google.com/codelabs/android-training-menus-and-pickers/index.html?index=..%2F..%2Fandroid-training#0>)
- 4.4: User navigation
(<https://codelabs.developers.google.com/codelabs/android-training-provide-user-navigation/index.html?index=..%2F..%2Fandroid-training#0>)
- 4.5: RecyclerView
(<https://codelabs.developers.google.com/codelabs/android-training-create-recycler-view/index.html?index=..%2F..%2Fandroid-training#0>)

Lesson 5: Delightful user experience

- 5.1: Drawables, styles, and themes
(<https://codelabs.developers.google.com/codelabs/android-training-drawables-styles-and-themes/index.html?index=..%2F..%2Fandroid-training#0>)

- 5.2: Cards and colors
(<https://codelabs.developers.google.com/codelabs/android-training-cards-and-colors/index.html?index=..%2F..%2Fandroid-training#0>)
- 5.3: Adaptive layouts
(<https://codelabs.developers.google.com/codelabs/android-training-adaptive-layouts/index.html?index=..%2F..%2Fandroid-training#0>)

Lesson 6: Testing your UI

- 6.1: Espresso for UI testing
(<https://codelabs.developers.google.com/codelabs/android-training-espresso-for-ui-testing/index.html?index=..%2F..%2Fandroid-training#0>)

Unit 3: Working in the background

Lesson 7: Background tasks

- 7.1: AsyncTask
(<https://codelabs.developers.google.com/codelabs/android-training-create-async-task/index.html?index=..%2F..%2Fandroid-training#0>)
- 7.2: AsyncTask and AsyncTaskLoader
(<https://codelabs.developers.google.com/codelabs/android-training-async-task-async-task-loader/index.html?index=..%2F..%2Fandroid-training#0>)
- 7.3: Broadcast receivers
(<https://codelabs.developers.google.com/codelabs/android-training-broadcast-receivers/index.html?index=..%2F..%2Fandroid-training#0>)

Lesson 8: Alarms and schedulers

- 8.1: Notifications
(<https://codelabs.developers.google.com/codelabs/android-training-notifications/index.html?index=..%2F..%2Fandroid-training#0>)
- 8.2: The alarm manager
(<https://codelabs.developers.google.com/codelabs/android-training-alarm-manager/index.html?index=..%2F..%2Fandroid-training#0>)
- 8.3: JobScheduler
(<https://codelabs.developers.google.com/codelabs/android-training-job-scheduler/index.html?index=..%2F..%2Fandroid-training#0>)

Unit 4: Saving user data

Lesson 9: Preferences and settings

- 9.1: Shared preferences

(<https://codelabs.developers.google.com/codelabs/android-training-shared-preferences/index.html?index=..%2F..%2Fandroid-training#0>)

- 9.2: App settings

(<https://codelabs.developers.google.com/codelabs/android-training-adding-settings-to-app/index.html?index=..%2F..%2Fandroid-training#0>)

Lesson 10: Storing data with Room

- 10.1 Part A: Room, LiveData, and ViewModel

(<https://codelabs.developers.google.com/codelabs/android-training-livedata-viewmodel/index.html?index=..%2F..%2Fandroid-training#0>)

- 10.1 Part B: Deleting data from a Room database

(<https://codelabs.developers.google.com/codelabs/android-training-room-delete-data/index.html?index=..%2F..%2Fandroid-training#0>)

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