Codelabs

Contents

The Flutter codelabs provide a guided, hands–on coding experience. Some codelabs run in DartPad—no downloads required!

Write your first Flutter app, part 1

Create a simple mobile app that generates proposed names for a startup company. In part one, you'll use a package that returns pairs of words at random and inserts them into an infinite scrolling list. You can also find this [codelab on flutter.dev](#).

Write your first Flutter app, part 2

Create a simple mobile app that generates proposed names for a startup company. In part two, you'll extend the example from part 1 to allow the user to select favorite word pairs, and add a second "Saved Favorites" page where users can view the selected names. Finally, you'll change the app's theme color.

Write your first Flutter app on the web

Implement a simple web app in DartPad (no downloads required!) that displays a sign–in screen containing three text fields. As the user fills out the fields, a progress bar animates along the top of the sign–in area. This codelab is written specifically for the web, but if you have downloaded and configured Android and iOS tooling, the completed app works on Android and iOS devices, as well.

Basic Flutter layout concepts

Use DartPad in a browser (no downloads required!) to learn the basics of creating a Flutter layout.

Building beautiful UIs with Flutter

A deeper "first dive" than "Write your first Flutter app." In this codelab you'll create a chat app that includes a simple animation, and customizes the UI for iOS and Android.

Implicit animations

Use DartPad (no downloads required!) to learn how to use implicit animations to add motion and create visual effects for the widgets in your UI.

Adding Google Maps to a Flutter app

Display a Google map in an app, retrieve data from a web service, and display the data as markers on the map.

Build a photo sharing app with Google Photos and Flutter

Build a field trip app that allows you and other members of the trip to share photos.

Building a Cupertino app with Flutter

Build a version of the Shrine shopping app (used in the Material Design codelabs) using the Cupertino package to create an iOS style look and feel. Create multiple tabs and navigate between them. Use the provider package to manage state between screens.

Firebase for Flutter

Connect a Flutter app to a Firebase database, and use a transaction to update shared information.

MDC 101 Flutter: Material Components (MDC) Basics

Learn the basics of using Material Components by building a simple app with core components. The four MDC codelabs guide you through building an e−commerce app called Shrine. You'll start by building a login page using several of MDC Flutter's components.

MDC 102 Flutter: Material Structure and Layout

Learn how to use Material for structure and layout in Flutter. Continue building the e−commerce app, introduced in MDC−101, by adding navigation, structure, and data.

MDC 103 Flutter: Material Theming with Color, Shape, Elevation, and Type

Discover how Material Components for Flutter make it easy to differentiate your product, and express your brand through design. Continue building your e−commerce app by adding a home screen that displays products.

MDC 104 Flutter: Material Advanced Components

Improve your design and learn to use our advanced component backdrop menu. Finish your e–commerce app by adding a backdrop with a menu that filters products by the selected category.

For Dart–specific codelabs, see the [codelabs](#) page on the [Dart site](#).

Other resources

- [The Complete Flutter Development Bootcamp Using Dart](#)

> **Note:** If you have trouble viewing any of the codelabs on `codelabs.google.developer.com`, try [this mirror of the Flutter codelabs](#).