

Start building Flutter web apps on macOS

[Get started](#) > [Install](#) > [macOS](#) > Make web apps

Contents

- [Verify system requirements](#)
 - [Hardware requirements](#)
 - [Software requirements](#)
- [Install the Flutter SDK](#)
- [Check your development setup](#)
 - [Run Flutter doctor](#)
 - [Troubleshoot Flutter doctor issues](#)
- [Start developing web on macOS apps with Flutter](#)
- [Manage your Flutter SDK](#)

Verify system requirements

To install and run Flutter, your macOS environment must meet the following hardware and software requirements.

Hardware requirements

Your macOS Flutter development environment must meet the following minimal hardware requirements.

Requirement	Minimum	Recommended
CPU Cores	4	8
Memory in GB	8	16
Display resolution in pixels	WXGA (1366 x 768)	FHD (1920 x 1080)
Free disk space in GB	2.5	2.5

Software requirements

To write and compile Flutter code for web, install the following packages.

 **Tip**

You do not need to install Dart separately as the Flutter SDK includes the full Dart SDK.

Operating system

Flutter supports developing on macOS 11 (Big Sur) or later. This guide presumes your Mac runs the `zsh` as your default shell.

► **To verify your shell configuration, expand this section**

Some Flutter components require the [Rosetta 2 translation process](#) on Macs running [Apple silicon](#). To run all Flutter components on Apple silicon, install [Rosetta 2](#).

```
$ sudo softwareupdate --install-rosetta --agree-to-license
```

Development tools

Download and install the following packages.

- [Google Chrome](#) to debug JavaScript code for web apps.
- [Git](#) 2.27 or later to manage source code.To check if you have `git` installed, type `git version` in your Terminal. If you need to install `git`, type `brew install git`.

The developers of the preceding software provide support for those products. To troubleshoot installation issues, consult that product's documentation.

When you run the current version of `flutter doctor`, it might list a different version of one of these packages. If it does, install the version it recommends.

Text editor or integrated development environment

You can build apps with Flutter using any text editor or integrated development environment (IDE) combined with Flutter's command-line tools.

Using an IDE with a Flutter extension or plugin provides code completion, syntax highlighting, widget editing assists, debugging, and other features.

Popular options include:

- [Visual Studio Code](#) 1.77 or later with the [Flutter extension for VS Code](#).
- [Android Studio](#) 2023.3.1 (Jellyfish) or later with the [Flutter plugin for IntelliJ](#).
- [IntelliJ IDEA](#) 2023.3 or later with both the [Flutter plugin for IntelliJ](#) and the [Android plugin for IntelliJ](#).

Recommended

The Flutter team recommends installing [Visual Studio Code](#) 1.77 or later and the [Flutter extension for VS Code](#). This combination simplifies installing the Flutter SDK.

Install the Flutter SDK

To install the Flutter SDK, you can use the VS Code Flutter extension or download and install the Flutter bundle yourself.

[Use VS Code to install](#) [Download and install](#)

Download then install Flutter

To install Flutter, download the Flutter SDK bundle from its archive, move the bundle to where you want it stored, then extract the SDK.

1. Download the following installation bundle to get the latest stable release of the Flutter SDK.

Intel Processor

Apple Silicon

flutter_macos_3.27.2-stable.zip	flutter_macos_arm64_3.27.2-stable.zip
-------------------------------------------------	-------------------------------------------------------

For other release channels, and older builds, check out the [SDK archive](#).

The Flutter SDK should download to the macOS default download directory: `~/Downloads/`.

2. Create a folder where you can install Flutter.

Consider creating a directory at `~/development/`.

3. Extract the file into the directory you want to store the Flutter SDK.

```
$ unzip ~/Downloads/flutter_macos_arm64_3.27.2-stable.zip \
    -d ~/development/
```

When finished, the Flutter SDK should be in the `~/development/flutter` directory.

Add Flutter to your PATH

To run Flutter commands in the Terminal, add Flutter to the PATH environment variable. This guide presumes your [Mac runs the latest default shell](#), zsh. Zsh uses the `.zshenv` file for [environment variables](#).

1. Launch your preferred text editor.
2. If it exists, open the Zsh environmental variable file `~/.zshenv` in your text editor. If it doesn't, create `~/.zshenv`.
3. Copy the following line and paste it at the end of your `~/.zshenv` file.

```
export PATH=$HOME/development/flutter/bin:$PATH
```

bash

4. Save your `~/.zshenv` file.
5. To apply this change, restart all open terminal sessions.

If you use another shell, check out [this tutorial on setting your PATH](#).

Check your development setup

[? Help](#)

Run Flutter doctor

The `flutter doctor` command validates that all components of a complete Flutter development environment for macOS.

1. Open your Terminal.
2. To verify your installation of all the components, run the following command.

```
$ flutter doctor
```

As you chose to develop for web, you do not need *all* components. If you followed this guide, the result of your command should resemble:

```
Running flutter doctor...
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.27.0, on macOS 14.4.0 23E214 darwin-arm64, locale en)
[!] Android toolchain - develop for Android devices
[✓] Chrome - develop for the web
[!] Xcode - develop for iOS and macOS (Xcode not installed)
[!] Android Studio (not installed)
[✓] VS Code (version 1.95)
[✓] Connected device (1 available)
[✓] Network resources

! Doctor found issues in 3 categories.
```

Troubleshoot Flutter doctor issues

When the `flutter doctor` command returns an error, it could be for Flutter, VS Code, , the connected device, or network resources.

If the `flutter doctor` command returns an error for any of these components, run it again with the verbose flag.

```
$ flutter doctor -v
```

Check the output for other software you might need to install or further tasks to perform.

If you change the configuration of your Flutter SDK or its related components, run `flutter doctor` *again* to verify the installation.

Start developing web on macOS apps with Flutter

Congratulations. Having installed all prerequisites and the Flutter SDK, you can start developing Flutter apps for web on macOS.

To continue on your learning journey, consult the following guides:

- [Learn how to write your first Flutter app](#)
- [Flutter fundamentals docs](#)

Manage your Flutter SDK

To learn more about managing your Flutter SDK install, consult the following resources.

- [Upgrade Flutter](#)
- [Add Android compilation tools](#)
- [Add iOS simulator or device](#)
- [Add macOS compilation tools](#)
- [Uninstall Flutter](#)

[Create your first app](#) ›