Ionic

Ionic Framework is an open source UI toolkit for building performant, high-quality mobile and desktop apps using web technologies (HTML, CSS, and JavaScript).

Ionic Framework is focused on the frontend user experience, or UI interaction of an app (controls, interactions, gestures, animations). It’s easy to learn, and integrates nicely with other libraries or frameworks, such as Angular, or can be used standalone without a frontend framework using a simple script include.

Currently, Ionic Framework has official integration with [Angular](https://angular.io/" \t "https://ionicframework.com/docs/_blank), but support for **Vue** and **React** are in development. If you’d like to learn more about Ionic Framework before diving in, we [created a video](https://youtu.be/p3AN3igqiRc" \t "https://ionicframework.com/docs/_blank) to walk you through the basics.

## [Goals](https://ionicframework.com/docs/intro" \l "goals)

### [Cross-platform](https://ionicframework.com/docs/intro" \l "cross-platform)

Build and deploy apps that work across multiple platforms, such as native iOS, Android, desktop, and the web as a Progressive Web App - all with one code base. Write once, run anywhere.

### [Web Standards-based](https://ionicframework.com/docs/intro" \l "web-standards-based)

Ionic Framework is built on top of reliable, [standardized web technologies](https://ionicframework.com/docs/faq/glossary" \l "web-standards): HTML, CSS, and JavaScript, using modern Web APIs such as Custom Elements and Shadow DOM. Because of this, Ionic components have a stable API, and aren't at the whim of a single platform vendor.

### [Beautiful Design](https://ionicframework.com/docs/intro" \l "beautiful-design)

Clean, simple, and functional. Ionic Framework is designed to work and display beautifully out-of-the-box across all platforms. Start with pre-designed components, typography, interactive paradigms, and a gorgeous (yet extensible) base theme.

### [Simplicity](https://ionicframework.com/docs/intro" \l "simplicity)

Ionic Framework is built with simplicity in mind, so that creating Ionic apps is enjoyable, easy to learn, and accessible to just about anyone with web development skills.

## For those completely new to Ionic app development, it can be helpful to get a high-level understanding of the core philosophy, concepts, and tools behind the project. Before diving into complex topics, we'll cover the basics of what Ionic Framework is, and how it works.

## [UI Components](https://ionicframework.com/docs/intro/concepts" \l "ui-components)

Ionic Framework is a library of UI Components, which are reusable elements that serve as the building blocks for an application. Ionic Components are built with [web standards](https://ionicframework.com/docs/faq/glossary" \l "web-standards) using HTML, CSS, and JavaScript. Though the components are pre-built, they're designed from the ground up to be highly customizable so apps can make each component their own, allowing each app to have its own look and feel. More specifically, Ionic components can be easily themed to globally change appearance across an entire app. For more information about customizing the look, please see [Theming](https://ionicframework.com/docs/theming/basics).

# Browser Support

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Ionic's earliest goal was to make it easy to develop mobile apps using web technologies like HTML, CSS, and JavaScript. Because of this foundation in web technologies, Ionic can run anywhere the web runs — iOS, Android, browsers, Electron, PWAs, and more.

## [Mobile](https://ionicframework.com/docs/intro/browser-support" \l "mobile)

In pursuit of [platform continuity](https://ionicframework.com/docs/intro/concepts" \l "platform-continuity), Ionic fully supports and is well tested on the mobile platforms listed below:

| **Platform** | **Supported Versions** |
| --- | --- |
| **Android** | 4.4+ |
| **iOS** | 10+ |

Check the [latest Android stats](https://developer.android.com/about/dashboards/) and the [latest iOS stats](https://developer.apple.com/support/app-store/) for up-to-date platform information.

## [Desktop](https://ionicframework.com/docs/intro/browser-support" \l "desktop)

Because Ionic is based on web technologies, it works just as well on desktop browsers as it does on mobile devices. For more information on desktop layouts, see [Cross Platform](https://ionicframework.com/docs/building/cross-platform" \l "desktop).

| **Browser** | **Supported** |
| --- | --- |
| **Chrome** | ✔ |
| **Safari** | ✔ |
| **Edge** | ✔ |
| **Firefox** | ✔ |
| **IE** | 11+ |

# Installing Ionic

Ionic apps are created and developed primarily through the Ionic [command-line](https://ionicframework.com/docs/faq/glossary" \l "cli) utility. The Ionic CLI is the preferred method of installation, as it offers a wide range of dev tools and help options along the way. It is also the main tool through which to run the app and connect it to other services, such as Ionic Appflow.

## [Install the Ionic CLI](https://ionicframework.com/docs/installation/cli" \l "install-the-ionic-cli)

Before proceeding, make sure the latest version of [Node.js](https://ionicframework.com/docs/faq/glossary" \l "node) and [npm](https://ionicframework.com/docs/faq/glossary" \l "npm) are installed. See [Environment Setup](https://ionicframework.com/docs/installation/environment) for details. Install the Ionic CLI globally with npm:

npm install -g ionic

The -g means it is a global install. For Window’s it's recommended to open an Admin command prompt. For Mac/Linux, run the command with sudo.

## [Start an App](https://ionicframework.com/docs/installation/cli" \l "start-an-app)

Create an Ionic app using one of the pre-made app templates, or a blank one to start fresh. The three most common starters are the blank starter, tabs starter, and sidemenu starter. Get started with the ionic start command:

ionic start myApp tabs

## [Run the App](https://ionicframework.com/docs/installation/cli" \l "run-the-app)

The majority of Ionic app development can be spent right in the browser using the ionic serve command:

cd myApp

ionic serve

# Environment Setup

To get started with Ionic Framework, the only requirement is a [Node & npm](https://ionicframework.com/docs/installation/environment" \l "node-amp-npm) environment.

Of course, you will also need an editor. We recommend [VS Code](https://code.visualstudio.com/), a free, batteries-included text editor made by Microsoft.

## [Node & npm](https://ionicframework.com/docs/installation/environment" \l "node-npm)

Almost all tooling for modern JavaScript projects is based in [Node.js](https://ionicframework.com/docs/faq/glossary" \l "node). The [download page](https://nodejs.org/en/download/) has prebuilt installation packages for all platforms. We recommend selecting the LTS version to ensure best compatibility.

Node is bundled with [npm](https://ionicframework.com/docs/faq/glossary" \l "npm), the package manager for JavaScript.

To verify the installation, open a new terminal window and run:

node --version

npm --version

## [Git](https://ionicframework.com/docs/installation/environment" \l "git)

Although not required, the version control system [Git](https://ionicframework.com/docs/faq/glossary" \l "git) is highly recommended. First, install the command-line utility from the [download page](https://git-scm.com/downloads). For a GUI client, we recommend [GitHub Desktop](https://desktop.github.com/).

To verify the installation, open a new terminal window and run:

git --version

# iOS Setup

To target iOS, some additional environment setup is required. Unfortunately, iOS apps can only be created on macOS.

## [Xcode](https://ionicframework.com/docs/installation/ios" \l "xcode)

[Xcode](https://developer.apple.com/xcode/" \t "https://ionicframework.com/docs/installation/_blank) is the IDE for creating native iOS apps. It includes the iOS SDK and Xcode command-line tools. Xcode can be [downloaded for free](https://developer.apple.com/download/" \t "https://ionicframework.com/docs/installation/_blank) with an Apple account. It can also be installed through the App Store.

We recommend using XCode 9. Xcode 10 support in Cordova is still a work-in-progress. See [this issue](https://github.com/apache/cordova-ios/issues/407" \t "https://ionicframework.com/docs/installation/_blank) for details.

### [Setting up a Development Team](https://ionicframework.com/docs/installation/ios" \l "setting-up-a-development-team)

All iOS apps must be code signed, even for development. Luckily, Xcode makes this easy with automatic code signing. The only prerequisite is an Apple ID.

Open Xcode and navigate to **Xcode** » **Preferences** » **Accounts**. Add an Apple ID if none are listed. Once logged in, a Personal Team will appear in the team list of the Apple ID.

### [Creating an iOS Simulator](https://ionicframework.com/docs/installation/ios" \l "creating-an-ios-simulator)

The iOS simulator emulates iOS devices on Macs. The following documentation is a quick way to get the iOS simulator set up. For more information, see [Apple's documentation](https://developer.apple.com/library/content/documentation/IDEs/Conceptual/simulator_help_topics/Chapter/Chapter.html" \t "https://ionicframework.com/docs/installation/_blank).

Open Xcode and navigate to **Window** » **Devices and Simulators**. Create an **iPhone X** simulator if one does not already exist.

## [ios-sim & ios-deploy](https://ionicframework.com/docs/installation/ios" \l "ios-sim-ios-deploy)

The [ios-sim](https://github.com/phonegap/ios-sim" \t "https://ionicframework.com/docs/installation/_blank) and [ios-deploy](https://github.com/phonegap/ios-deploy" \t "https://ionicframework.com/docs/installation/_blank) are utilities that deploy apps to the iOS simulator and iOS devices during development. They can be installed globally with [npm](https://ionicframework.com/docs/faq/glossary" \l "npm).

npm install -g ios-sim

npm install -g ios-deploy

**Ionic CRUD**

**ionic generate**

**Select pagePage**

**User**

**ng generate service services/storage**

**npm i @ionic/storage**