

React

What is React? Simply put, it is a front-end library created by Meta (formerly known as Facebook) that provides a way for you to create more robust web apps that have a better performance and allow for a better user experience. When talking about any form of library or framework for the front end (React, Svelte, Angular, etc.), we should first discuss the properties that make up a framework.

Frameworks

Frameworks provide a predefined structure or template for creating applications, so you're not entirely starting from scratch.

One way to think of this is building a house: you could pour the foundation and frame the house yourself, but if that were already done for you, it would save a lot of time and effort. This is basically what a framework does.

Some components of a framework:

- Includes an entire list of code to use
- Very strict about how to implement each piece of the application's technology
- Removes most guesswork but also reduces flexibility

Examples: Angular, Vue, Ember

Libraries

Libraries are collections of tools that you can choose to use, or not use, as needed.

Think of using a library like having a toolbox while building your house. The toolbox doesn't dictate how you should build your house or in what order things should be done. Instead, it provides you with tools that you can use whenever and however you need them.

We've already used at least one library: the Math library, which is built into JavaScript. This library contains a list of functions relating to math. For example, when you use `Math.random()`, you're going to the Math library and pulling out the random function so you can use it.

Some components of a library:

- Provides code you can utilize to add functionality to a page
- Limited number of things you can do right out of the box
- Usually requires additional libraries for extra functionality
- Not very strict when it comes to how to implement the code, unlike frameworks

Examples: React, Axios, jQuery

React is a Library

React is technically a library because it doesn't enforce strict guidelines on the architecture of the application, and it lets you choose which tools you do or don't want to use. However, some people refer to it as a

framework, since it is often used in a similar manner to actual frameworks like Angular or Ember. Honestly, nobody is going to care whether you call it a library or a framework - the distinction is miniscule, and people are going to know what you're talking about either way.

Why React?

Essentially, React has had the highest market share of any front-end framework. A few years ago it was Angular, so in a few years React may not be the most popular anymore, which is why you should keep your eye on other technologies like Vue or Svelte. Still, React is the most popular, which is why we teach it in this course instead of other technologies.

Some sites that use React: Facebook, Netflix, PayPal, Dropbox.

A lot of mobile applications are also made using React Native: Facebook (Meta) apps, a lot of Microsoft apps, Discord, Pinterest. [Source](#)