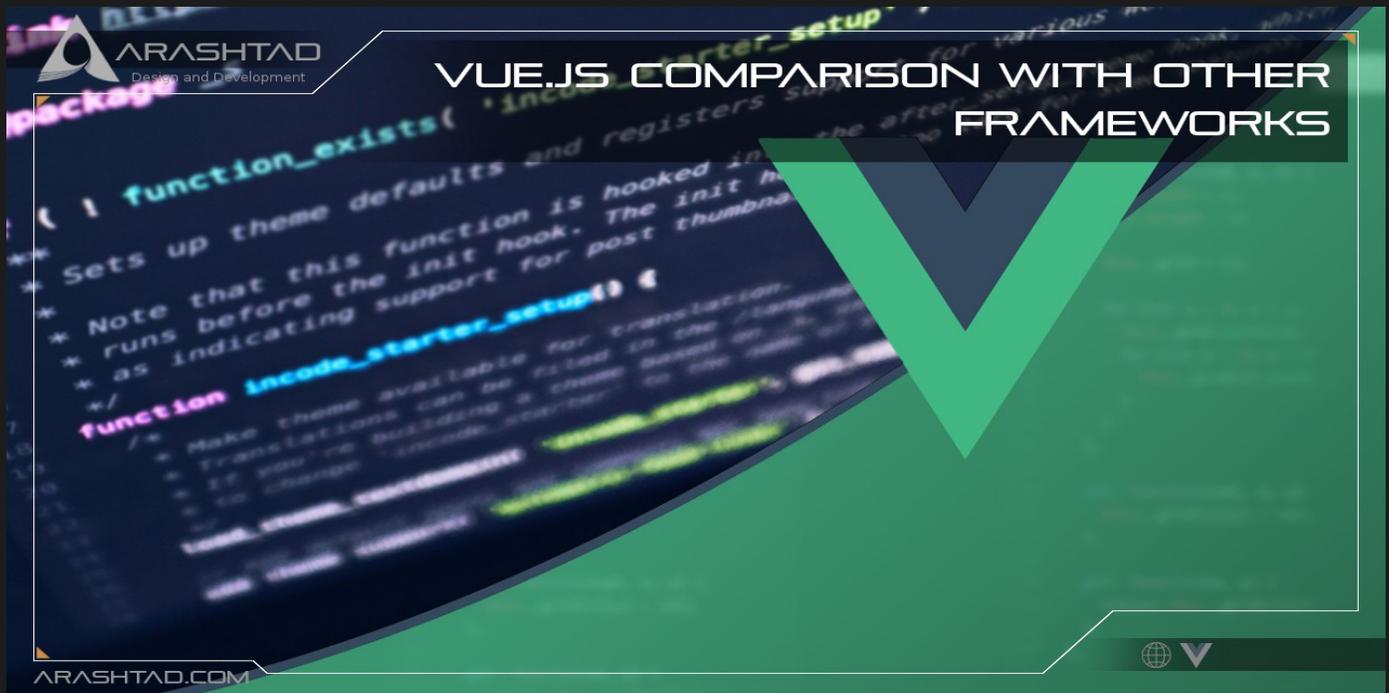




Title	VUE.JS COMPARISON WITH OTHER FRAMEWORKS
Description	Intro
Date	2022 31 Augus
Author	Arashtad
Author URI	<a href="https://Arashtad.com">https://Arashtad.com</a>



Every front-end developer knows about three frameworks for developing web applications: React, Angular, and Vue.js. React is a UI library, Angular is a front-end framework, and Vue.js is a progressive framework. They can be used almost interchangeably to build front-end applications, but they're not 100 percent the same, so it's important to compare them and understand their differences. All frameworks are component-based and allow the rapid creation of UI features. However, each has a different structure and architecture. In this article, we will compare the three front-end JavaScript frameworks and see the difference considering all the different aspects.

## WHAT IS VUE.JS?

Vue.js is a JavaScript progressive framework for building single-page applications. The main purpose of its creation was for scalability, incrementality, and easy integration with other view layer frameworks. In contrast to other monolithic frameworks, Vue is built from the ground up to be progressively adaptable. The core library focuses exclusively on the view layer, and it's easy to use and connect to other libraries or applications. Fast learning is almost a trademark of this framework. It is a flexible framework that can be used as a library or a full-featured framework for building large web applications. The Vue.js framework combines the useful components of the Angular and React frameworks into a stylish line. Web developers use Vue.js to build frontend user interfaces for hybrid mobile and web applications.

## PROS AND CONS OF VUE.JS

### Pros

1. It is flexible and simple.
2. It has concise documentation.
3. Comes with numerous useful tools and libraries such as Vue.js official CLI, Development Tools, Vue Loader, and Vue Router.
4. Compatible with adding numerous reactive components to the existing code.
5. You can use the Component-Based Architecture (CBA)

### Cons

1. It has a limited community compared to Angular and React.
2. It has fewer available plugins as a result of limited community.
3. More complicated than other frameworks.

## WHAT IS ANGULAR?

In 2009, Google released AngularJS. First, it was known as AngularJS. It is currently a JavaScript framework. All Google projects utilize AngularJS. A major disadvantage of Angular.js is that it uses a regular DOM, so the entire HTML tag tree is updated, which drastically increases loading times. Angular.js has Angular Ionic, a mobile app framework.

## PROS AND CONS OF ANGULAR COMPARED TO VUE

### Pros

1. Faster development, expansion, and generation of projects with the aid of Angular-CLI command-line tool.
2. Good maintainability.
3. Nice performance.
4. micro-frontend architecture management.
5. Allows MVC architecture.
6. The Angular framework allows developers to build and manage web applications without requiring additional libraries.
7. Easy unit and end-to-end testing.

### Cons

1. Additionally, JavaScript-based SPAs may not work with outdated or unfamiliar browsers if JavaScript is disabled in the browser.
2. Because of the given framework, Angular is relatively stiff and inflexible.
3. To work with Angular.js, you need a certain training period.
4. Reloads the complete HTML tags tree structure.
5. Slow loading time due to the Ionic app.

## WHAT IS REACT?

In March 2013, Facebook released React.js as a JavaScript library. React provides just one view, so building an MVC architecture with it is not feasible. You need to build the model and controller separately. Despite this, React is a great library with lots of advantages. There is one of the biggest benefits of using React.js. it uses a virtual DOM that loads only the parts of HTML code that have changed. this greatly enhances the loading time. but in a positive sense. React.js allows you to handle markup and logic in the same file, so variables can be output in a view component (JSX). React supplies React-Native solutions for mobile applications.

## PROS AND CONS OF REACT COMPARED TO VUE

### Pros

1. It is simple to learn. Engineers only need to recall HTML writing skills and that's it. No need to learn TypeScript in-depth like in Angular.
2. One file contains both markup and logic (JSX).
3. Enables the separation of data and presentation.
4. High level of flexibility and maximum responsiveness.
5. Even with complex underlying operations and database queries, the app runs smoothly.
6. Because the data processing on the user side can easily be represented on the server side at the same time, it is extremely lightweight.

### Cons

1. It is just a JavaScript library, not a framework.
2. The rapid development of ReactJS leaves no time for proper documentation, which is a bit chaotic now since developers contribute it individually without a systematic approach.
2. Developers sometimes have too many options with React because it is unopinionated.
3. React JS requires deep knowledge of how to integrate the user interface into MVC frameworks, so it takes a long time to master.

## COMPARISON OF THE THREE FRAMEWORK

It's easy to become confused when you're just getting started with front-end development because there are so many frameworks out there with so many strengths and weaknesses. While picking the best framework depends on your unique situation, Angular, React, and Vue.js are generally considered to be three of the best frameworks currently available. they continue to gain popularity as more developers discover them. Let's take a look at developer adoption, performance, and overall value of VueJS vs React vs Angular.

## EASE OF APP MIGRATION

You may want to start with Vue if you aren't already familiar with a framework. It is one of the easiest frameworks to learn compared to Angular & React. If you have an existing app you would like to migrate from AngularJS or Backbone.js, ease of migration is a major factor when choosing which framework to use. In this case, Vue is likely to be the best choice, as it shares the same syntax and structure as these other frameworks. Vue also uses components that are similar to React, making it easier for teams already familiar with React to migrate. this does not apply to Angular, which uses directives instead of components.



## HIGH-LEVEL PERFORMANCE

In the case of choosing between Vue, React, and Angular based on performance, we recommend Vue as it's mostly a syntactical sugar over jQuery or Zepto (if you're using jQuery or Zepto directly with Vue). If you want to integrate Bootstrap with your app, you should use it with Vue, as Bootstrap is officially supported with Vue. Avoid cases in which you need to use third-party libraries that may not be supported well by your framework. Third-party libraries will be more challenging to integrate with frameworks like Angular and React since these were designed for writing one-page applications. In some cases, these tools might not even support such integrations.

## MODEL

In Vue, all data is stored in a single model object. This makes it easier to keep everything consistent and to follow what's happening in your application. Using one-way or two-way binding, you can track changes to data and make sure they reflect elsewhere in your application. Furthermore, Vue provides an easy way to compute simple properties (like array filtering), which we will discuss later. React provides no specific model implementation out of the box, and developers decide which pattern works best for them.

## WRAPPING UP

In this article, you learned about the strength and weaknesses of three famous JavaScript front-end frameworks including Vue, React, and Angular. In summary, While Vue is not as popular as React (maintained by Facebook) and Angular (supported by Google), businesses prefer to use Vue when creating full-blown web applications. Vue is a simpler alternative to React & Angular and is easier to code.

