**Other Front-end JS Frameworks: Angular, Vue, Svelte, Qwik, …**

In this course we were able to cover only one front-end framework: **React**. There are many other front-end JS Frameworks that you can use. The most popular of these are **Angular** by Google (<https://angular.io/>), **Vue** (<https://vuejs.org/>), and **Svelte** (<https://svelte.dev/>). In this lecture, we will briefly look into these 3 frameworks and give you pointers on where you can find more information about these frameworks. For a comparison of 10 different front-end frameworks, watch the following video: <https://www.youtube.com/watch?v=cuHDQhDhvPE>. At the end of the video, the speaker says that “there is a new framework popping up every day, and this video will be outdated by the time you finish watching it ☺”, which is so true! As if to confirm the speaker, here is a new framework named **Qwik** that came out in Sep. 2022 and is very similar to React but claims to be much more performant (<https://qwik.builder.io/>).

**Angular (**[**https://angular.io/**](https://angular.io/)**)**

Angular is an application-design framework and development platform for creating efficient and sophisticated single-page apps. It is a development platform built on TypeScript, and includes:

* A component-based framework for building scalable web applications
* A collection of well-integrated libraries that cover a wide variety of features, including routing, forms management, client-server communication, and more
* A suite of developer tools to help you develop, build, test, and update your code

You can find more information on the official Web site: <https://angular.io/docs>

Net Ninja’s Angular Tutorials:

<https://www.youtube.com/playlist?list=PL4cUxeGkcC9gsJS5QgFT2IvWIX78dV3_v>

<https://www.youtube.com/playlist?list=PL4cUxeGkcC9jqhk5RvBiEwHMKSUXPyng0>

Brad Traversy’s Angular Crash Course: <https://www.youtube.com/watch?v=3dHNOWTI7H8>

**Vue (**[**https://vuejs.org/**](https://vuejs.org/)**)**

Vue is a JavaScript framework for building user interfaces. It builds on top of standard HTML, CSS and JavaScript, and provides a declarative and component-based programming model that helps you efficiently develop user interfaces, be it simple or complex.

There are two component API styles in Vue (<https://vuejs.org/guide/introduction.html#api-styles>):

1. Options API (available in all Vue versions)
2. Composition API (introduced in Vue 3)

Here is a simple Vue app with a single App component in “Options API” style: 14-Angular-Vue-Svelte/01-Vue/index1.html

Here is an extension of this example showing conditional rendering with v-if/v-else: 14-Angular-Vue-Svelte/01-Vue/index2.html

Here is the same app using the Composition API: 14-Angular-Vue-Svelte/02-Vue-CompositionAPI

Here is an example that shows how to render lists of items using **v-for**, attribute-data & class data binding using **v-bind**, and computed properties: 14-Angular-Vue-Svelte/01-Vue/index3.html

Here is an example that shows 2-way binding using v-model between a component data variable and a form input field: 14-Angular-Vue-Svelte/01-Vue/index4.html

Here is an example that shows how to use the vue-router (<https://router.vuejs.org/>): 14-Angular-Vue-Svelte/01-Vue/index5.html

Here is a re-implementation of our Item List app using Vue: 14-Angular-Vue-Svelte/01-Vue/index6.html

Here is an example that uses Pinia (<https://pinia.vuejs.org/>) to store the App state: 14-Angular-Vue-Svelte/01-Vue/index7.html

Here is a re-implementation of the previous code that is cleaner: 14-Angular-Vue-Svelte/01-Vue/index8.html

Here is a re-implementation of the Item List app that uses Pinia as the app store: 14-Angular-Vue-Svelte/01-Vue/index9.html

Here is Net Ninja’s Nina Jobs app using Vue 3: 14-Angular-Vue-Svelte/03-Vue-NinjaJobs. To run this code, make sure that you start a json-server at the default port 3000 using the given db.json file.

Net Ninja Vue JS 3 Tutorial: <https://www.youtube.com/playlist?list=PL4cUxeGkcC9hYYGbV60Vq3IXYNfDk8At1>

Net Ninja Pinia Tutorial: <https://www.youtube.com/playlist?list=PL4cUxeGkcC9hp28dYyYBy3xoOdoeNw-hD>

Brad Traversy’s Vue JS 3 Crash Course: <https://www.youtube.com/watch?v=qZXt1Aom3Cs>

Brad Traversy’s Vuex (Vue State Manager) Crash Course: <https://www.youtube.com/watch?v=5lVQgZzLMHc>

**React vs Vue Comparison**

Here is an article that compares Vue and React on a simple ToDo app.

<https://medium.com/javascript-in-plain-english/i-created-the-exact-same-app-in-react-and-vue-here-are-the-differences-e9a1ae8077fd>

Here is the newer version of this article:

<https://medium.com/javascript-in-plain-english/i-created-the-exact-same-app-in-react-and-vue-here-are-the-differences-2019-edition-42ba2cab9e56>

**Svelte (**[**https://svelte.dev/**](https://svelte.dev/)**)**

Svelte is a compiler for creating reactive SPAs. It compiles your code for production at build time into a single, vanilla JS bundle. No extra scripts or libraries are shipped to production. This often results in a faster running website.

Here is our ItemList app, where the app data is stored in the App component and passed to the children components using props: 14-Angular-Vue-Svelte/04-Svelte-item-list1

Here is the same ItemList app that uses the central store for the app data similar to the Context API in React: 14-Angular-Vue-Svelte/05-Svelte-item-list2

Here is Net Ninja’s Pools App using Svelte: 14-Angular-Vue-Svelte/06-Svelte-NinjaPolls

Net Ninja’s Svelte Tutorials: <https://www.youtube.com/playlist?list=PL4cUxeGkcC9hlbrVO_2QFVqVPhlZmz7tO>

Brad Traversy’s Svelte Crash Course: <https://www.youtube.com/watch?v=3TVy6GdtNuQ>

**Qwik (**[**https://qwik.builder.io/**](https://qwik.builder.io/)**)**

Qwik is a new kind of web framework that can deliver instant loading web applications at any size or complexity. Your sites and apps can boot with about 1kb of JS (regardless of application complexity), and achieve consistent performance at scale.

Here is an example Counter app using Qwik: 14-Angular-Vue-Svelte/07-Qwik