

Explore Best React Framework for WordPress Development | IndSoft Systems Tips

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Maharashtra, Mumbai, Feb 24, 2021 ([Issuewire.com](https://www.issuewire.com)) - When you are thinking of designing a website, there's no shortage of frameworks that help you create a beautiful front end. And among so many options picking the most suitable structure isn't always straightforward. One of the most attractive front-end frameworks for creating your website is React. React will provide you with many options if you want to use it in your WordPress project.

And it is normal if you feel confused or bewildered by so many features offered on the React platforms. Today we will explore Four React Frameworks you can work on to build your WordPress website or project.

What Is a REST API?

An Application Programming Interface (API) is a group of programming directions and standards for accessing different web-based apps and tools. APIs can be utilized to interact with other websites, services, and applications, which involves requesting data from third parties.

Many organizations have published their APIs as products that third parties can utilize in performing different tasks. For instance, Google has an extensive range of APIs that allow access to their services. Representational State Transfer, also known as REST APIs, is different from other APIs. To qualify as RESTful, an API needs to follow particular guidelines.

These guidelines further assure that the resulting API is lightweight, harmless, flexible, and secure. And the guidelines cover:

- A division in the client and the server.
- The use of cacheable data wherever available.
- A comprehensive User Interface (UI).

WordPress owns its REST API, and this API was initially created as a separate plugin. However, components of the REST API were added to the core platform of WordPress 4.4. The API was connected entirely with the WordPress version of 4.7, which indicates that all new versions of WordPress will have its fully-functional REST API.

WordPress's REST API presents JSON data, which means that every WordPress website has JSON data. Unless the site owner has limited access, it is easy to examine your website's JSON output. You can enter the following URL to get the JSON data of your website: <http://example.com/wp-json/wp/v2/posts>

After typing this URL in your browser, you should be able to examine a set of JSON data linked to recent posts on your website. Not everyone can understand this data, but it's compatible with a vast number of web assets.

What Does the REST API Mean for WordPress?

Earlier, WordPress used to generate HTML with a theme that is based on PHP template files. But, the establishment of the REST API reduced this dependence on the PHP rendering engine. This unfolded several opportunities for WordPress developers.

The REST API makes it simpler for WordPress to communicate with different web apps and websites. This API enables you to perform many WordPress content activities, like posts, pages, and also custom post types. It provides developers a straightforward approach to launch and extract data from WordPress. WordPress's REST API can also interact and transfer data with external applications irrespective of the language used.

Features like this have made the WordPress platform far more resilient and robust, as you're not limited to any particular web app or technologies. The REST API makes it simpler for developers to present a website's content in a multisite structure. It is further possible to display and edit content from separate WordPress websites. Today, the WordPress REST API is regularly used to segregate content from the front end, covering developers' way to utilize WordPress as a Content Management System (CMS).

How React and WordPress Can Help You Develop a High-Performing App

The React structure is a collection of JavaScript code, and programmers can utilize this collection to develop UIs for Single Page Applications (SPAs) within the web and mobile ecosystems. The significant purpose of developing React was to enhance JavaScript's UI development. React was incipiently started to use with Facebook, but now it is used at an exceptional rate across various applications. It is also growing in popularity with the WordPress community, especially with developers who desire to set up a headless WordPress website.

React-based structures can use the WordPress REST API as an interface to obtain your site's information from the WordPress core. This proposes it's possible to build a Single Page Application using React, then control the content using the simple WordPress back-end. React helps you execute your ideas faster by removing the need to loading every time you make a change. Rather than re-loading every post or page, a SPA dynamically loads all the content. This means the original code of a site is loaded just once, and if you modify any component, then React will re-render the essential elements only.

React has a vast and engaging developer community. Large online organizations such as Facebook, Airbnb, Dropbox, Netflix, and Reddit use React to create multiple apps.

What You Should Look for in a React Framework

While using any web technology, it's essential to pick the appropriate structure. Every framework has its different individual selection of specialties, strengths, and vulnerabilities.

Some systems are also better fitted to a distinct set of projects.

Today, we are sharing the four React frameworks that have lots to offer to the developers of WordPress. But, the most suitable framework will vary according to the type of project.

With this in mind, here are some things to notice when determining whether a particular React framework is right for you or not:

- **The setup method.** A lot of frameworks are more straightforward or user-friendly to set up than the others. In particular, you should evaluate whether the structure you want to choose is pre-configured to function with WordPress. It's also an excellent idea to check if the framework has any additional tools required to develop your project.
- **The learning curve.** Understanding a new platform always requires time and energy to use correctly, but some frameworks have a steep learning curve than others. So, it is advised if you individually examined any other technologies you'll need to learn before using the platform that you want to choose for your project.
- **Compatibility:** All the frameworks that we have mentioned today function great with WordPress. But, some may require additional optimization to produce the best possible experience. Frameworks that are optimized for WordPress shouldn't need any significant extra configuration.
- **Compliance:** Having many options is a great thing, but all the different unique settings can be complicated. When searching for any new technologies, it's smart to opt for a framework that is friendly for amateurs. It's a good idea to evaluate how you want to use that structure in the future.

You have to make another critical decision when picking the right framework between Server-Side

Rendering (SSR) and Client-Side Rendering (CSR).

Client-Side Rendering or Server-Side Rendering?

There are mainly two methods for rendering content, Client-Side Rendering (CSR) and Server-Side Rendering (SSR). Both have their own advantages and disadvantages.

CSR is where content is delivered and rendered in the browser. Instead of getting all the content from an HTML document, the browser receives a compressed HTML text with a JavaScript file. The remainder of the content will then render in the web browser. With CSR, the opening page load is usually slower, but the next page loads are going to load quicker. A CSR core can renew the UI by re-rendering just the simulated DOM component. You don't have to reload the complete UI following each call to the server.

This indicates that CSR is well-suited to websites that give smart user interactions or feature lots of useful content. The reverse of the client-side is server-side. When a user initiates a request with SSR, the server develops an HTML package for that specific user. The server transmits this information to the user's device, and the browser then produces the content and displays the webpage.

Retrieving Data, performing the HTML package, and carrying it to the browser happens very quickly. This indicates that the initial time to load the page is faster, which results in a more satisfying user experience. SSR is also suitable for SEO, as it doesn't require search engine bots to render JavaScript. By increasing page load speeds, SSR can also implement a Search Engine Optimization (SEO) boost.

Best React Frameworks for WordPress Development

- **Frontity**

Frontity is an open-source framework that combines with React. Unlike any complex React frameworks that are competent with WordPress, Frontity was explicitly designed for WordPress.org and WordPress.com. That means that the Frontity web application is already configured to offer WordPress users the best possible experience. As a server-side framework, Frontity keeps all your HTML content and then acknowledges the questions with a completely populated and well-formed HTML page that's instantly available. This decreases your site's original load time. The HTML file is then accepted to the search engine crawlers. To help with your SEO, the Frontity team has created a plugin that adds meta tags in Wordpress's head.

Frontity is designed to be simple and straightforward to use. This framework has its own manager and manages Emotion for the CSS, so you don't have to study the complexities of technologies such as Redux. This makes Frontity the right choice for React beginners or anyone looking to start a project immediately without necessarily having to master different technologies.

- **Gatsby**

According to Critical Case research, a one-second increase in page load time can result in 11 percent fewer page views. If you're worried about your site's performance, Gatsby is a static site generator that focuses firmly on speed. Gatsby develops your project into static HTML folders optimized for performance and loads only the necessary files from different programming languages. After your website is loaded, Gatsby puts in additional resources that it needs, which results in quicker page loading speeds.

But Gatsby has a steep foundation course compared to some other recommendations. If you want to visualize large amounts of dynamic content, Gatsby may not be the best framework for your project. For newbies, the Gatsby company has provided a valuable starter default outline. This project involves code associated with your website's front end, including a site header and page template. It also automatically installs all the modules with code on which your project is dependent. This can save you a significant amount of time if you are getting started. If you choose Gatsby as y, we'd recommend using the starter default project wherever possible.

- **Next.js**

Next.js is another React framework on our list, and it is a minimalistic React framework that renders apps on the client-side, but Next.js also maintains SSR's. This can help protect your SEO while further enhancing your project's performance. Next.js can give an extra performance boost, thanks to its intuitive automated server rendering and code splitting. The Next.js is designed to be simple to use – as long as you grasp the direction assigned for you. If you stray from this program, an easy-to-use framework can quickly become full less user-friendly. Before selecting Next.js as your framework, it's a brilliant approach to examine how you might improve your project in the future. You can then browse through the Next.js documentation to determine whether this framework fits your project's roadmap or not.

4. Create React App (CRA)

The Create React App (CRA) is created to take your React project up and running as soon as possible. This tool offers a new build set up with zero configuration. You require to run a single command, and CRA will set up all the tools you need to start progressing for your project. When you develop a Create React App project, it installs the newest variant of React and React-DOM.

It also connects the latest version of react-scripts, a developing dependency that controls the extra dependencies concerned in starting, testing, and improving your application. CRA makes only the data required to build your React project. You won't have access to configuration data such as Webpack and Babel. This is excellent for anyone who desires to do a project without having to understand other additional technologies. Since CRA manages much of the configuration and setup for you, you're free to focus on what matters while developing your project.

However, you may want to complete more complicated tasks that need access to these configuration data at some point. Although CRA doesn't give these records by default, it does have an *eject* command that copies all the configuration data and transitive dependencies into your design. However, this is a one-way process that supplements a meaningful amount of complexity to your design. The CRA isn't fit for growing highly-interactive websites or projects that emphasize dynamic content because their projects are rendered only on the client-side. CRA is designed with ease-of-use in mind. If you choose CRA as your React framework, you can build a new CRA project employing only a few commands.

IndSoft Systems (<https://indsoft.net>) IndSoft systems is a leading customer-focused hosting provider. We specialize in providing services for WordPress, NodeJS, and Windows platforms.



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