

# Description

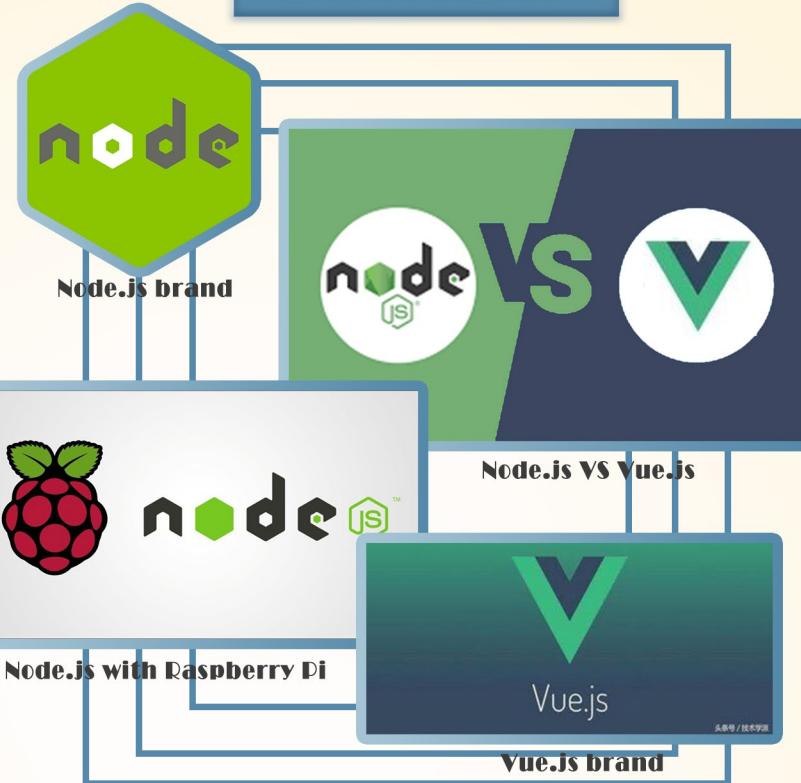
Vue.js features an incrementally adaptable architecture that focuses on declarative rendering and component composition. Advanced features required for complex applications such as routing, state management and build tooling are offered via officially maintained supporting libraries and packages, with Nuxt.js as one of the most popular solutions.

Feature	Explanation
Extend	Vue components extend basic HTML elements to encapsulate reusable code. At a high level, components are custom elements to which the Vue's compiler attaches behavior.
Templates	Vue uses an HTML-based template syntax that allows binding the rendered DOM to the underlying Vue instance's data.
Reactivity	Vue features a reactivity system that uses plain JavaScript objects and optimized re-rendering. Each component keeps track of its reactive dependencies during its render, so the system knows precisely when to re-render, and which components to re-render.
Routing	Vue provides an interface to change what is displayed on the page based on the current URL path -- regardless of how it was changed (whether by emailed link, refresh, or in-page links).

Node.js is a platform built on Chrome's JavaScript runtime for easily building fast and scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Features	Explanation
Asynchronous and Event Driven	All APIs of Node.js library are asynchronous, that is, non-blocking. It essentially means a Node.js based server never waits for an API to return data. The server moves to the next API after calling it and a notification mechanism of Events of Node.js helps the server to get a response from the previous API call.
Very Fast	Being built on Google Chrome's V8 JavaScript Engine, Node.js library is very fast in code execution.
Single Threaded but Highly Scalable	Node.js uses a single threaded model with event looping. Event mechanism helps the server to respond in a non-blocking way and makes the server highly scalable as opposed to traditional servers which create limited threads to handle requests. Node.js uses a single threaded program and the same program can provide service to a much larger number of requests than traditional servers like Apache HTTP Server.
No Buffering	Node.js applications never buffer any data. These applications simply output the data in chunks.

# Pictures



# Conclusion

Node is a developer platform for JavaScript to run on the server side. Vue is a progressive framework for building user interfaces. Node.js offer rich NPM plug-in for you, if you need to use vue vue scaffolding structures, cli, so use node.js can quickly create vue - cli scaffolding, vue - cli scaffolding initialization code should be node.js grammar structure, and then you can use the node.js environment, start your vue - cli scaffolding, make its can be as the server access; The combination of the two makes your programming easier.

# Group

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# Comparison

After comparing node.js and vue.js, our group found that they are not related, but they can be used together. If you want to develop a larger vue framework, you will generally use node.js.

There are three main differences between node.js and vue.js. The biggest difference is that node.js is a front-end framework, vue.js is a server-side language. Node.js is the runtime environment of Javascript. No matter what operating system you are, as long as the corresponding version of node.js is installed, you can use Javascript to develop background programs. Vue.js is a progressive framework for building data-driven web interfaces. The second difference is the operating environment. Vue.js uses HTML-based template syntax, allowing internal developers to declaratively bind the DOM to the data of the underlying Vue instance. The core of Vue.js is a system that allows you to use declarative template syntax to declaratively render data into the DOM. The third difference is the usage data. Node.js uses an event-driven, non-blocking I / O model, making it lightweight and efficient. Vue.js has a route called vue-route, and vue.js also has a data request called vue-resource. Vue.js can be referenced in HTML, and the introduction of npm is convenient for package management.

# References

- 1 : [https://www.tutorialspoint.com/nodejs/nodejs\\_introduction.html](https://www.tutorialspoint.com/nodejs/nodejs_introduction.html)
- 2 : <https://vuejs.org/v2/guide/syntax.html>
- 3 : <https://zh.wikipedia.org/wiki/Vue.js>