



# Compare of React.js and Vue.js



Group: Team Wang

## Brief Introduction

### What is React.js

React.js (also known as React) is a JavaScript library for building user interfaces. It focuses on the functionality of individual components.

### What is Vue.js

Vue.js (commonly referred to as Vue) is an open-source MVVM JavaScript framework for building user interfaces and single-page applications. The core Vue libraries focus only on the view layer.

## Advantages and Disadvantages

### Vue.js

advantages:

- (1) two-way data binding
- (2) componentization development
- (3) Virtual DOM
- (4) light weight and high efficiency
- (5) animation system

### React.js

advantages:

- (1) React quickly
  - (2) Cross-browser compatibility
  - (3) Everything is component
  - (4) One-way data flow
- disadvantages:
- (1) It is not suitable to make a complete frame alone
  - (2) Most of the holes don't show up

## Application scenarios & Prevalence

### Vue:

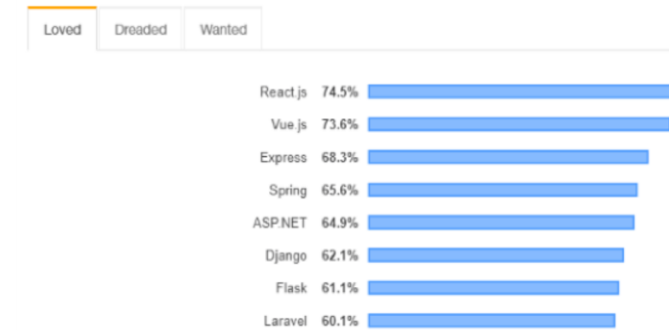
Vue is suitable for mobile UI frameworks. Vue is a light-weight, high-performance, componentized MVVM library with a concise API that is easy to use.

### React:

It is a powerful UI library that can be used to build projects suitable for small and medium-sized organizations, even large organizations.

## Figure: survey

Most Loved, Dreaded, and Wanted Web Frameworks



## one sample example in two ways

In React, you need to use the method `setState()` to update the state.

```

addToOrder(key){
//Make a copy of this.state
const orders=({...this.state.orders});
//update or add
orders[key]=orders[key]+1 || 1;
this.setState({orders});
}

```

In Vue, the state object is not necessary, and the data is managed by the data attribute in the Vue object.

```

export default {
  name: 'app',
  data() {
    return {
      samplePasta: samplePasta,
      orders: {}
    };
  },
  methods: {
    handleOrder: function(key) {
      if (!this.orders.hasOwnProperty(key)) {
        this.$set(this.orders, key, {count: 0});
      }
      this.orders[key].count += 1;
    }
  }
}

```

## Table: compare in detail.

Characteristics	React.js	Vue.js
Model	Virtual DOM(Document Object Model)	Virtual DOM HTML-based templates
Reusability	Only CSS	Maximum reusability
Function	Can be used as a base in the development of single-page or mobile applications	Web application framework capable of powering advanced single-page applications
Data binding	One way data flow	Two way binding
Data update	When an element is created, you cannot change its contents or properties	Direct data modification, responsive.

## summary

Whether you choose React.js or Vue.js, there is no considerable difference between the two frameworks. This decision is very subjective according to your requirements. If you want to integrate the front-end JavaScript framework into an existing application, Vue.js is a better choice. If you need to work on complex projects with large scale and multi-person collaboration, React is definitely your choice.

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## References

1. En.wikipedia.org. 2020. React (Web Framework). [online] Available at: [https://en.wikipedia.org/wiki/React\\_\(web\\_framework\)](https://en.wikipedia.org/wiki/React_(web_framework)) [Accessed 21 May 2020].
2. [online] Available at: <http://www.fly63.com/article/detail/4768> [Accessed 21 May 2020].
5. [online] Available at: <https://www.zhihu.com/question/31585377> [Accessed 21 May 2020]. (See the wiki page for more reference information)
1. Caibaojian.com. 2020. Vue与react两个框架的区别和优势对比-前端开发博客. [online] Available at: <http://caibaojian.com/vue-vs-react.html> [Accessed 22 May 2020].
2. Blog.csdn.net. 2020. 对vue, React, Js等的优缺点简单整理\_Javascript\_Qq\_37887131的博客-CSDN博客. [online] Available at: [https://blog.csdn.net/qq\\_37887131/article/details/89404880](https://blog.csdn.net/qq_37887131/article/details/89404880) [Accessed 22 May 2020].