1.1
Understand the purpose and benefits of React

Why React?

What is it about React that makes it worth learning?

Why React?

React is an open-source, front-end JavaScript library.

Why React?

React uses modular components to increase code reuse.

Why React?

React applications are written in JavaScript.

Why React?

React has been around long enough to be stable and has an active ecosystem.

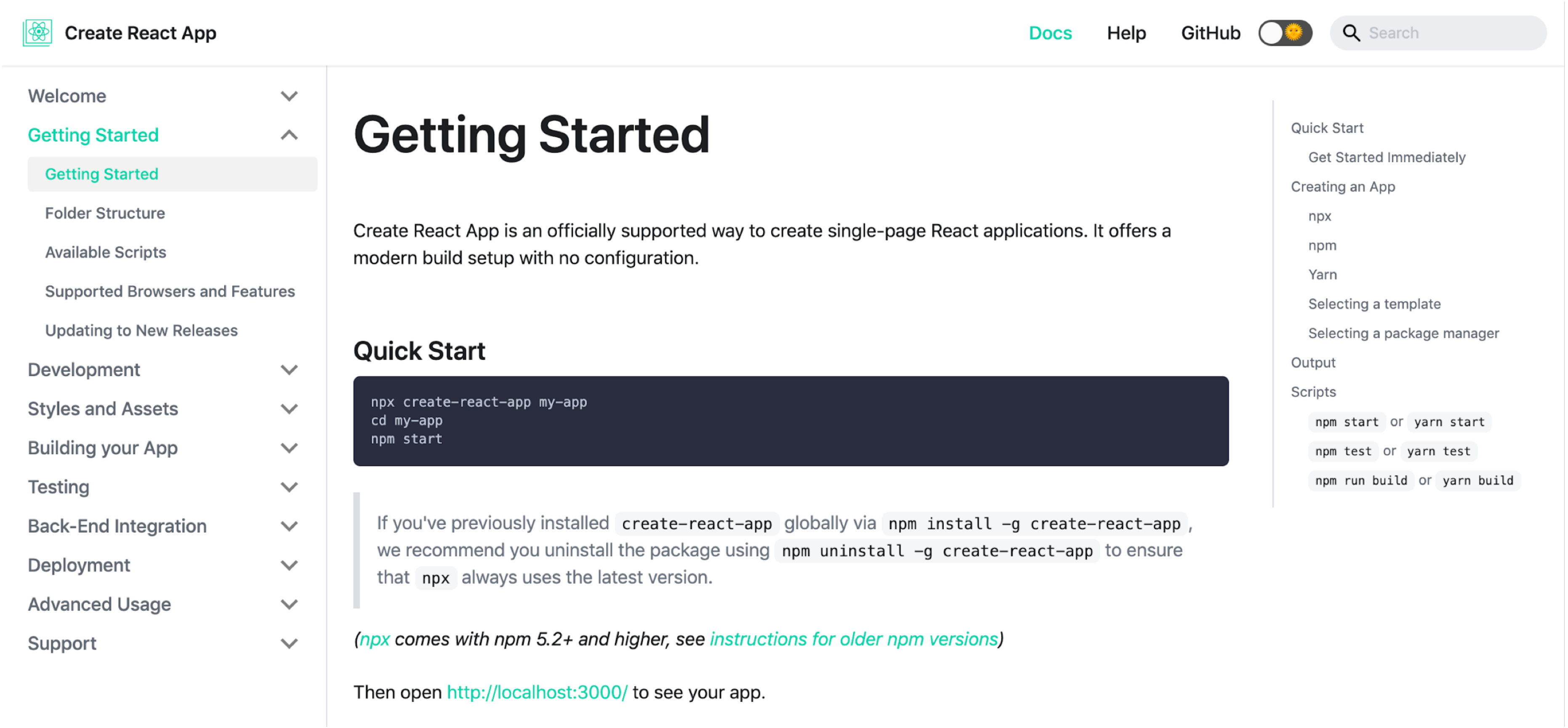
Keep in Mind...

React has recently undergone some important changes.

1.2
Create and run a React app

React Boilerplate Generators

Setting up a React app from scratch takes time, so we generally run a script that sets it all up for us.



Getting Started

Create React App is an officially supported way to create single-page React applications. It offers a modern build setup with no configuration.

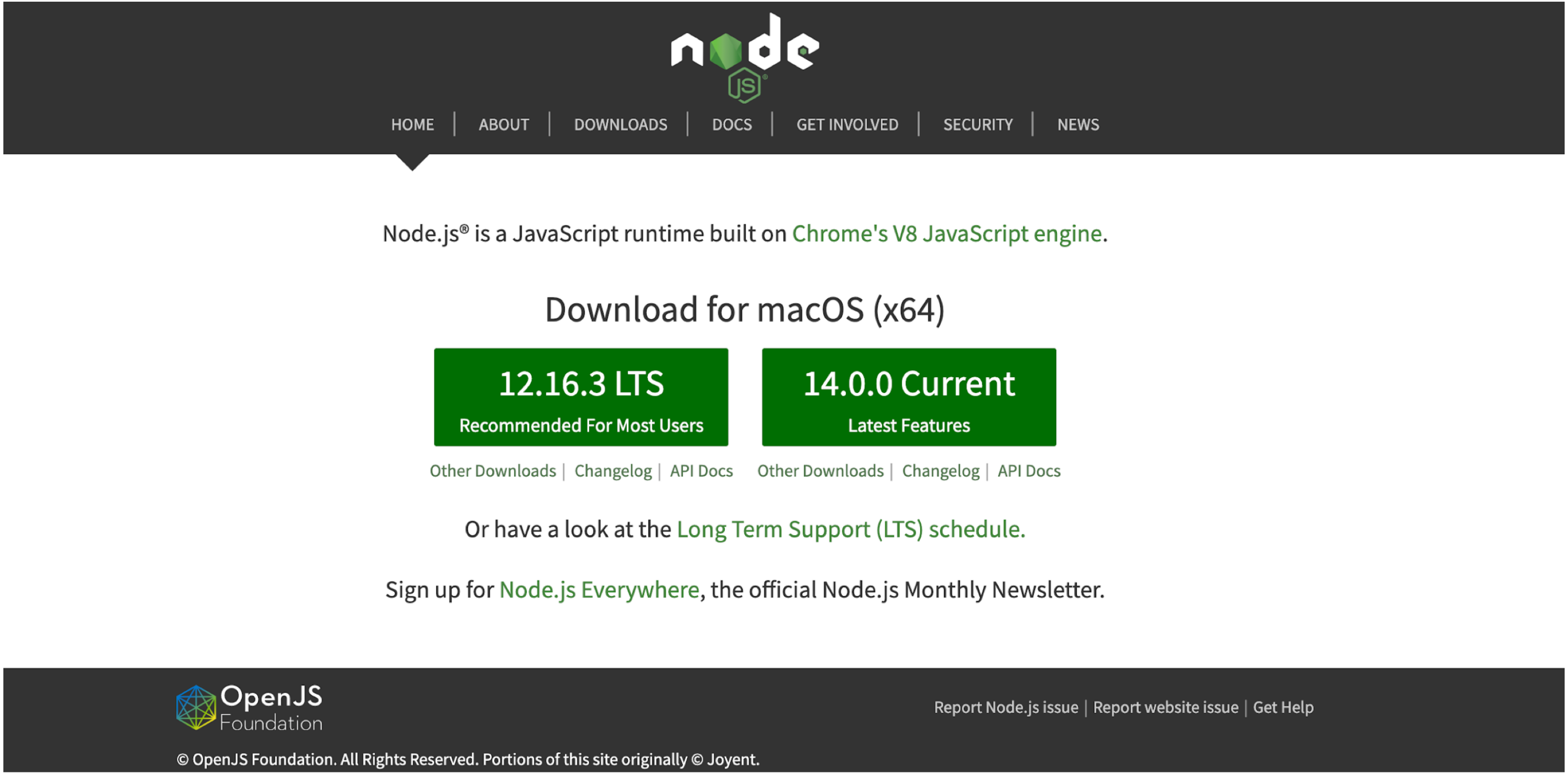
Quick Start

```
npx create-react-app my-app
cd my-app
npm start
```

> If you've previously installed `create-react-app` globally via `npm install -g create-react-app`, we recommend you uninstall the package using `npm uninstall -g create-react-app` to ensure that `npx` always uses the latest version.

(npx comes with npm 5.2+ and higher, see instructions for older npm versions)

Then open http://localhost:3000/ to see your app.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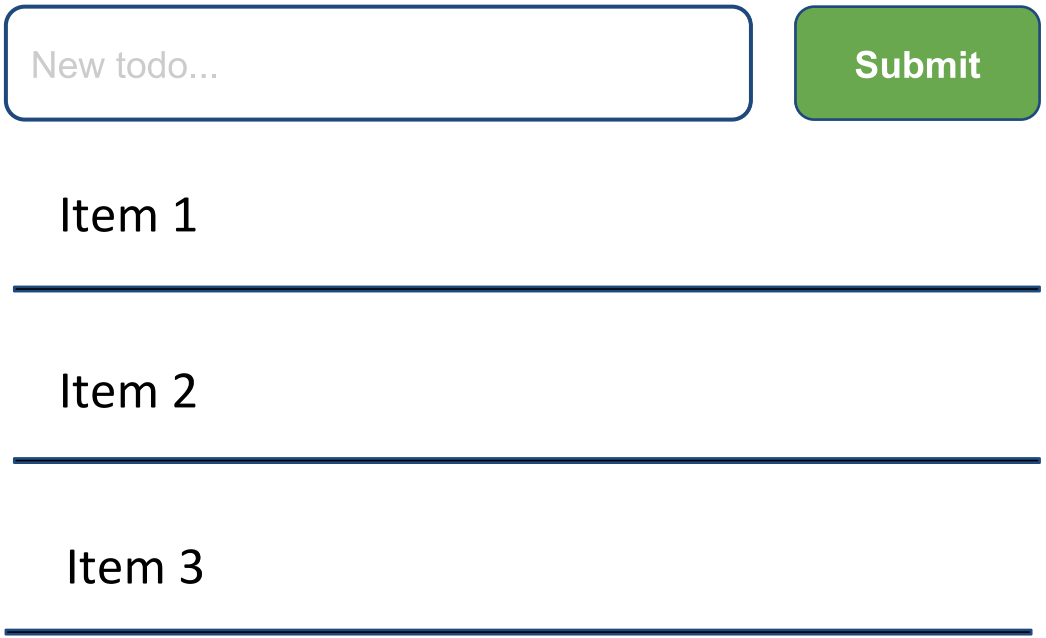
1.4
Create React components

React Components

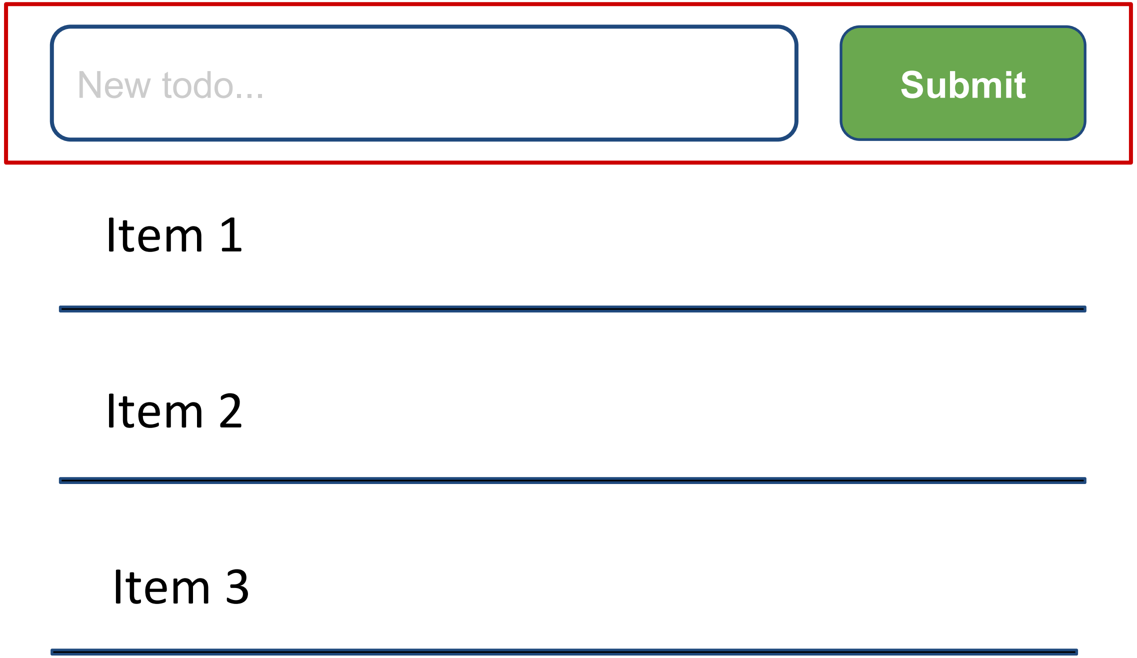
Components are React’s main units of organization.

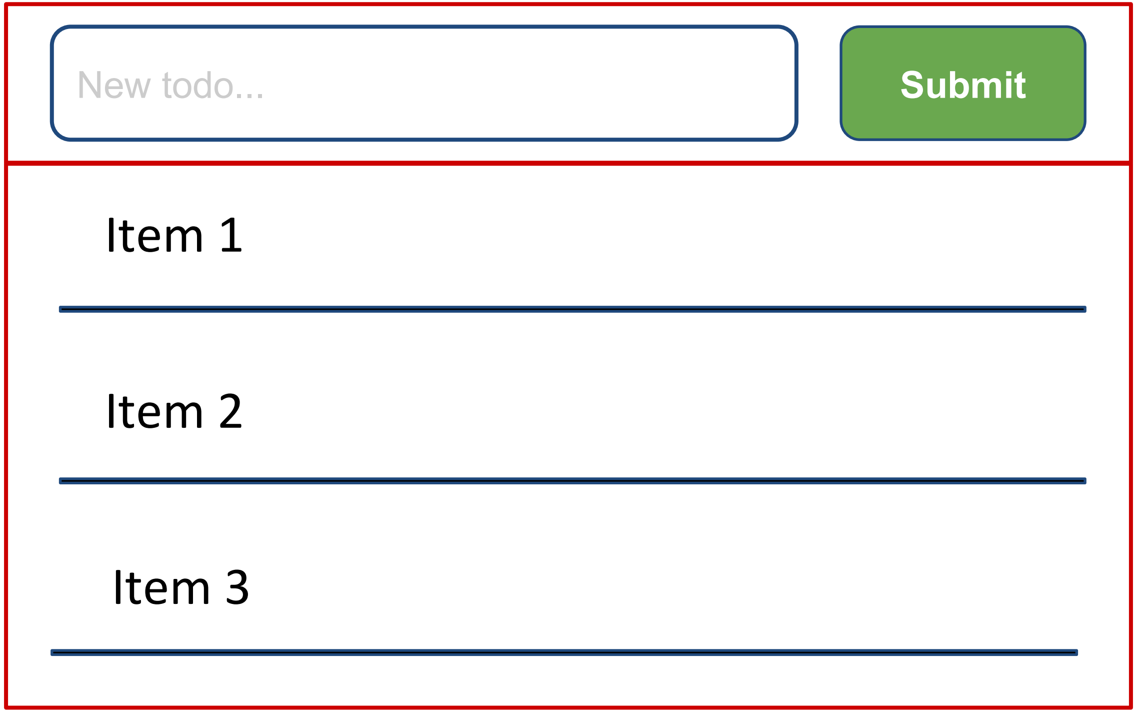


Item 1

Item 2

Item 3


New todo...
Submit
Item 1
Item 2
Item 3


New todo...
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Item 1
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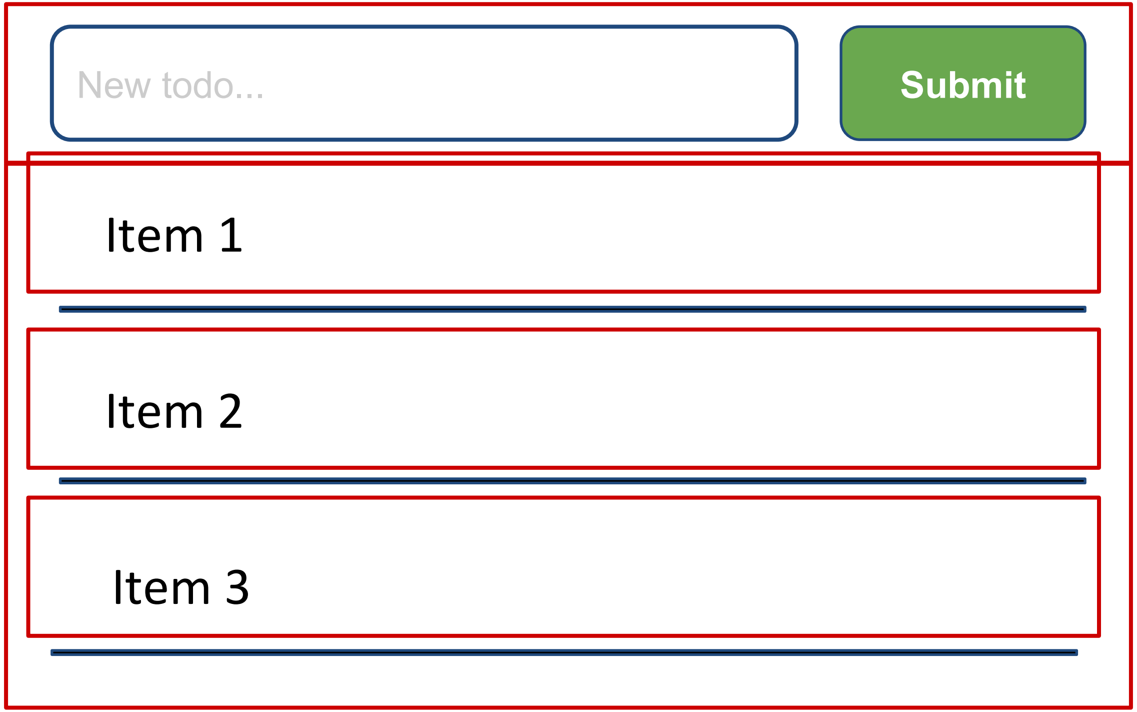

New todo...
Submit
Item 1
Item 2
Item 3

3.2
Use URL parameters and query parameters

URL and Query Parameters

URL and query parameters are extra information about the page, contained in the URL.

URL Parameters

URL parameters are found as segments of the URL path.

URL Parameters

```
https://www.linkedin.com/in/shaun-wassell/
```

Query Parameters

Query parameters are like URL parameters, but in a different part of the URL.

Query Parameters

```
www.google.com/search?q=tallest+building+in+the+world
```

Query Parameters

```
www.amazon.com/search?q=hats&price_max=20&color=green
```

4.1
Create and manage forms in React

Forms in React

Forms are an integral part of many React applications.

Two Main Form Methodologies

Controlled vs. Uncontrolled

Controlled Forms

The state of our form
is explicitly tracked.

Uncontrolled Forms

We let the DOM handle all the form’s functionality.

4.3 Load data and make requests in React

Loading Data & Making Requests

You can choose whichever request library you’re most comfortable with.

“Fetch” API

```
const response = await fetch(‘...’);
```

“Fetch” API

```
const response = await fetch(‘...’);

const data = await response.json();
```

5.1 Differentiate between functional and class-based components

Class-Based Components

React components used to look a lot different.

Disclaimer

Class-based components are
no longer recommended,
they have been replaced
by functional components.

Disclaimer

Do not use class-based components.

5.3 Use Lifecycle Events in class-based components

Lifecycle Methods

Unlike functional components, class-based components provide several lifecycle methods.

Lifecycle Methods

Remember, don’t use
class-based components!

6.1 Understand the difference between inheritance and composition

Best practice

Use composition instead of inheritance

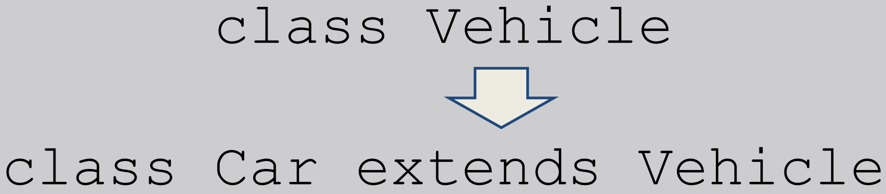
Inheritance

Inheritance is where we have a more general class, and create “subclasses” with more specific behavior

Inheritance

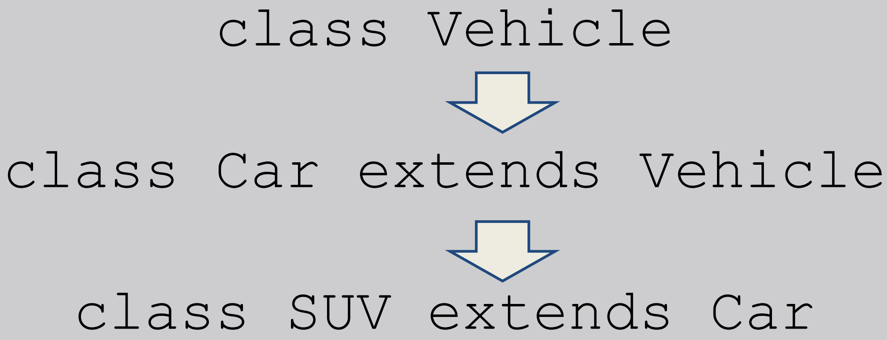
```
class Vehicle
```

Inheritance



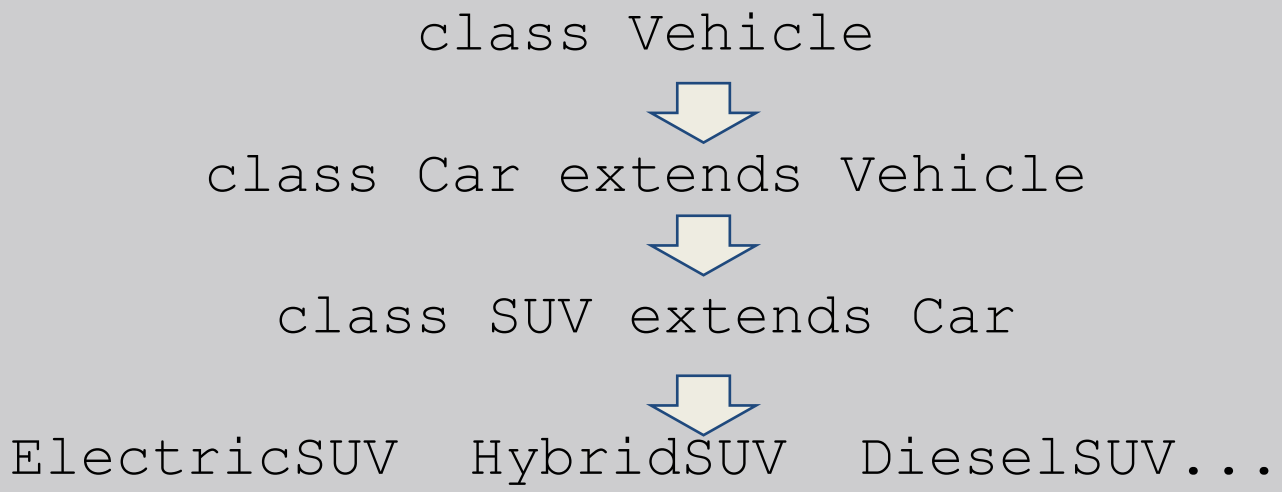
```
class Vehicle
class Car extends Vehicle
```

Inheritance



```
class Vehicle
class Car extends Vehicle
class SUV extends Car
```

Inheritance

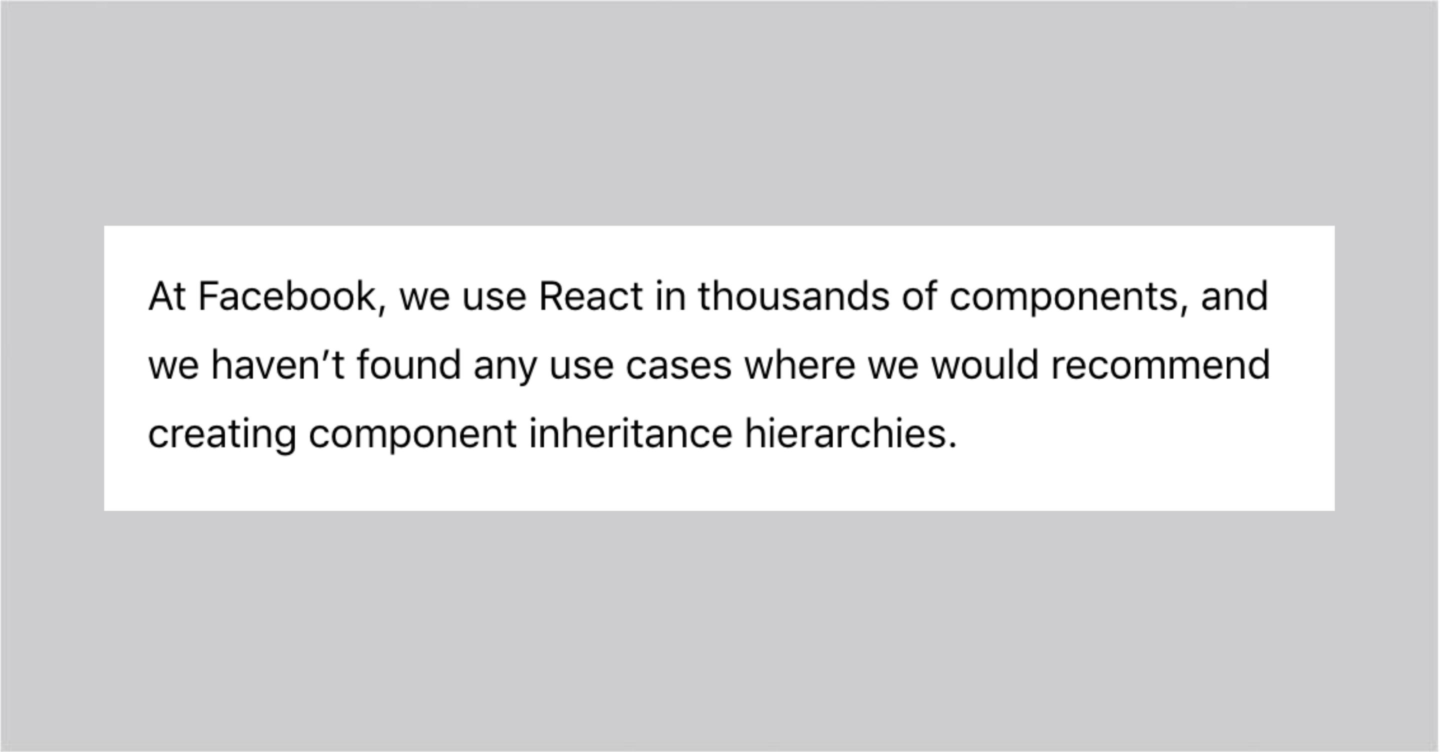


```
class Vehicle
class Car extends Vehicle
class SUV extends Car
ElectricSUV  HybridSUV  DieselSUV...
```

Inheritance

Don’t use inheritance with React components

Inheritance



At Facebook, we use React in thousands of components, and we haven’t found any use cases where we would recommend creating component inheritance hierarchies.

Composition

Instead of a component hierarchy, composition involves combining a number of smaller pieces in different ways

7.4 Learn About Other Boilerplate and Framework Options

Other Boilerplate and Frameworks

Create-React-App is the most common option, but there are many others