React

What is React?

React is a JavaScript library created for building fast and interactive user interfaces for web and mobile applications(using React Native).

It is an open-source, component-based, front-end library responsible only for the application's view layer.

React can be used as a base in the development of single-page-Application.

React was created by Jordan Walke, a software engineer at Facebook.

Initial release：May 29, 2013;

Stable release: 17.0.2 / March 22, 2021

What is SPA?

A single-page application is a web application or website (single html page) that dynamically loads different pages content using JavaScript.

What are Components?

Components are the building blocks for any React App.

There are two types of Components.

Functional Components

Class Components

What is JSX

JXS stands for javaScript XML.

JXS also known as javascript extension.

JSX is a combination of javascript and HTML.

Example:

```
const element = <h1>Hello, world!</h1>;
```

React uses babel to transform JSX code into normal backwards compatible JavaScript code so browser can understand that.

Functional Component

Functional Component is a simple JavaScript function that returns JSX code.

Example:

```
function Helloworld ( ) {
  return (
    <h1>Hello World </h1>
    )
    }
```

Class Component

Class Components are Extended class from React.Component and requires a render() method, this method returns JSX code.

Functional components behave pretty much the same way , but Class components have some additional functionalities.

Example:

```
class HelloWorld extends React.Component  {

render() {
    Return (
            <h1>Hello World<h1>
              )
          }

}
```
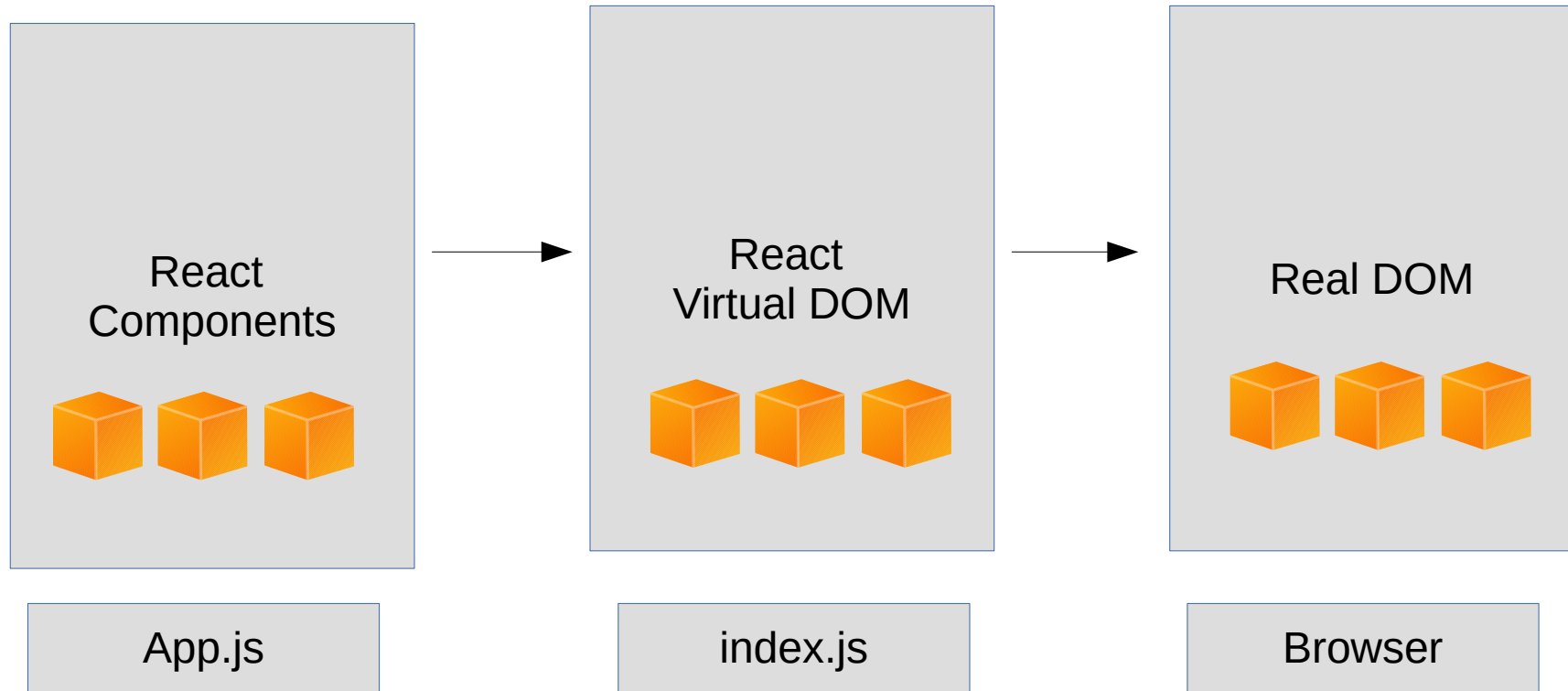
Why React

1. Reusable Components

2. Fast and Efficient

3. Open Source

4. Works in Browser

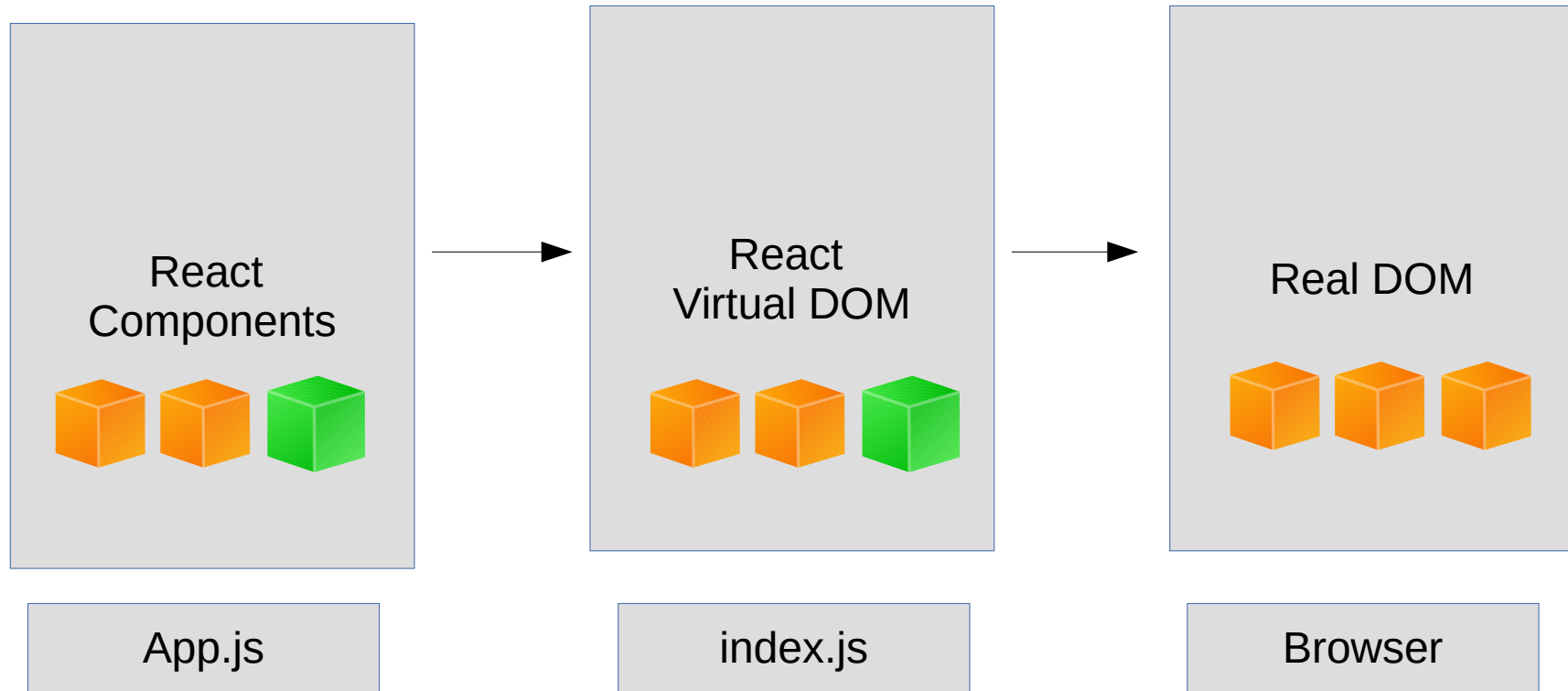5. Maintain by Facebook and Large Developers Community

6. Easy Learning Curve

How React Works

Update Component state

Updated Real DOM