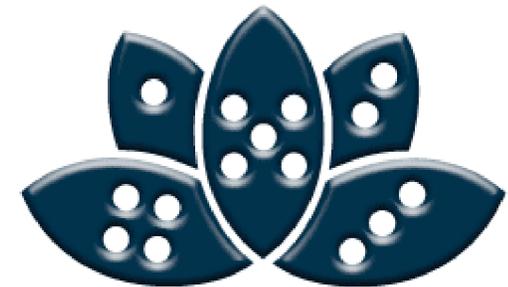
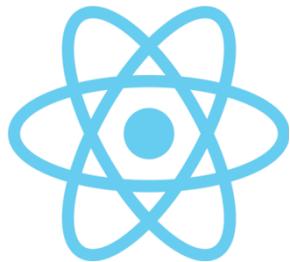


React Frontend-Entwicklung mit Domino-Backend

Knut Herrmann



NOTES & DOMINO
ENTWICKLERCAMP

Knut Herrmann

- Senior Software Architekt
Leonso GmbH
- Notes Domino Entwickler
seit Version 2
- Web-App-Entwickler
- aktiv auf StackOverflow

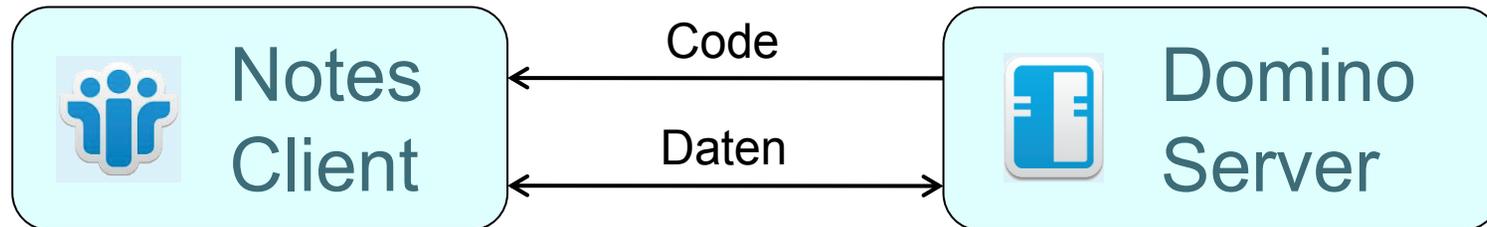


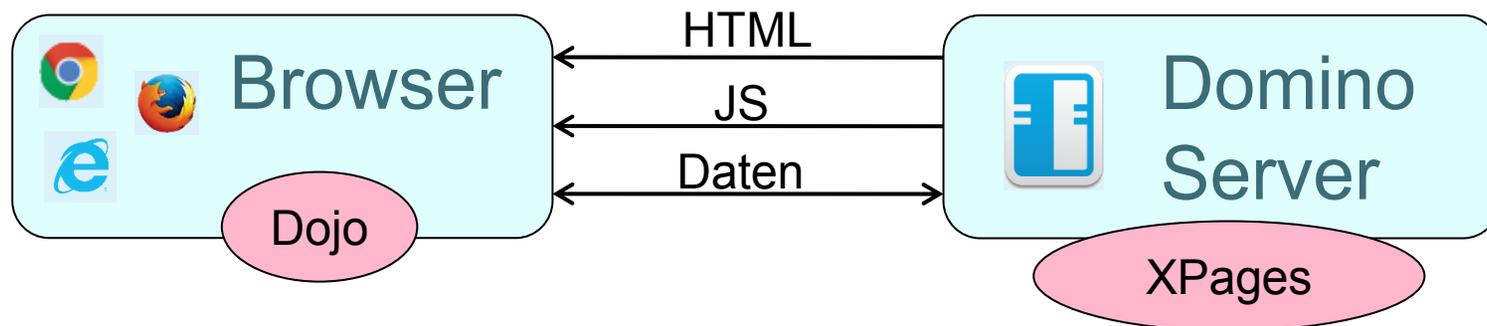
E-Mail: knut.herrmann@leonso.de

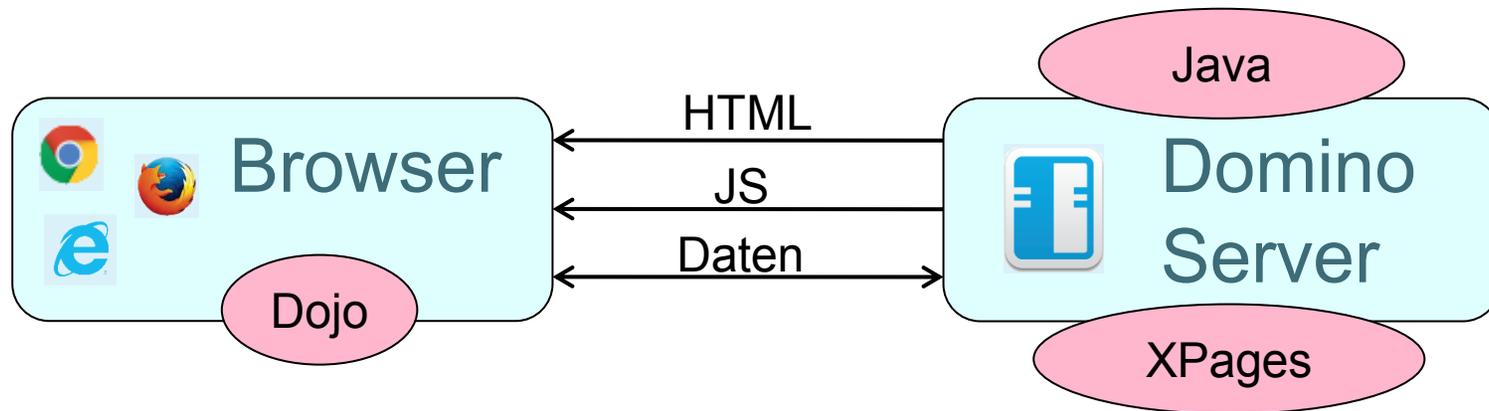
Twitter: @KnutHerrmann

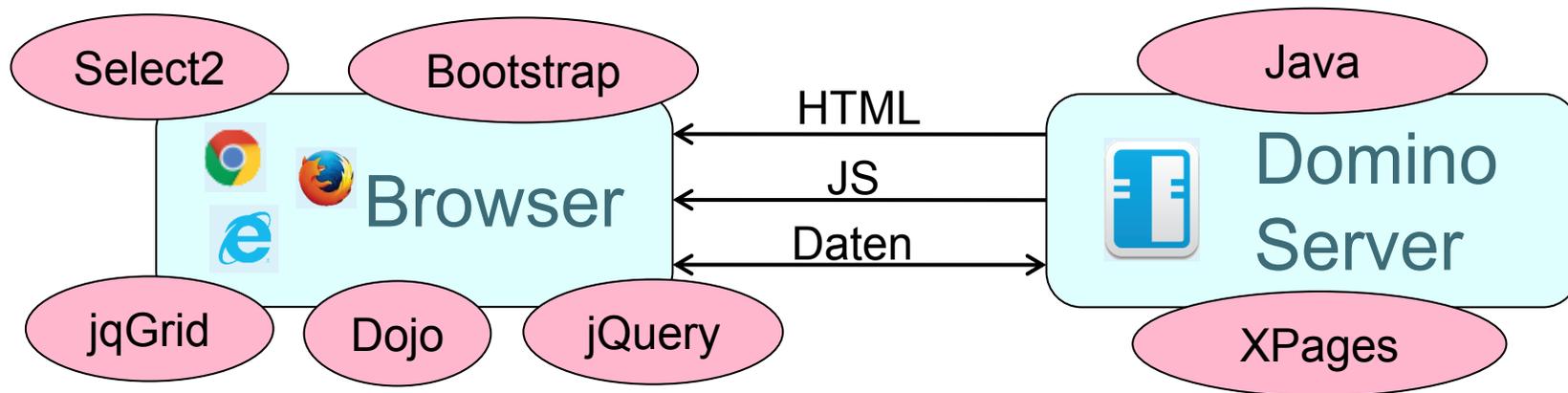
Skype: knut.herrmann

Warum React?

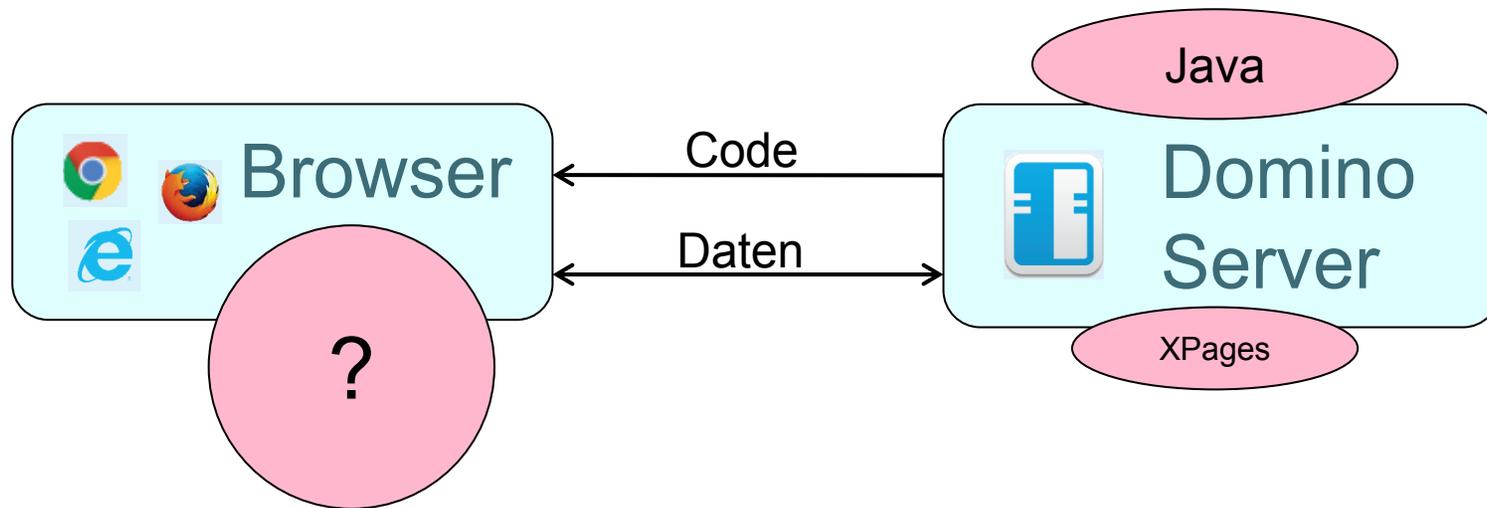








Gesucht:



UI

← JSON →

Datenbank

Angular ?

React !

React

-  hohe Performance
-  wiederverwendbare Komponenten
-  deklarativer gut lesbarer Code
-  entwickelt von Facebook

GitHub Star Ranking

Rank	Owner	Repository	Language	Stars
1	 freeCodeCamp	freeCodeCamp	JavaScript	245981
2	 twbs	bootstrap	JavaScript	107997
3	 vhf	free-programming-books		80100
4	 facebook	react	JavaScript	62192
5	 d3	d3	JavaScript	61708
6	 angular	angular.js	JavaScript	55097
7	 sindresorhus	awesome		54818

2017 4. Platz
 2016 6. Platz
 2014 33. Platz
 2013 neu

Instagram

 **airbnb**

 **WORDPRESS**

 **stackoverflow**
TALENT

 WhatsApp

 **Expedia** viewfinder

arte

Webseiten, die React nutzen

NETFLIX

 **otel.com** by MetGlobal

 **NHL.COM**

YAHOO!

 **docker**

 **Dropbox**

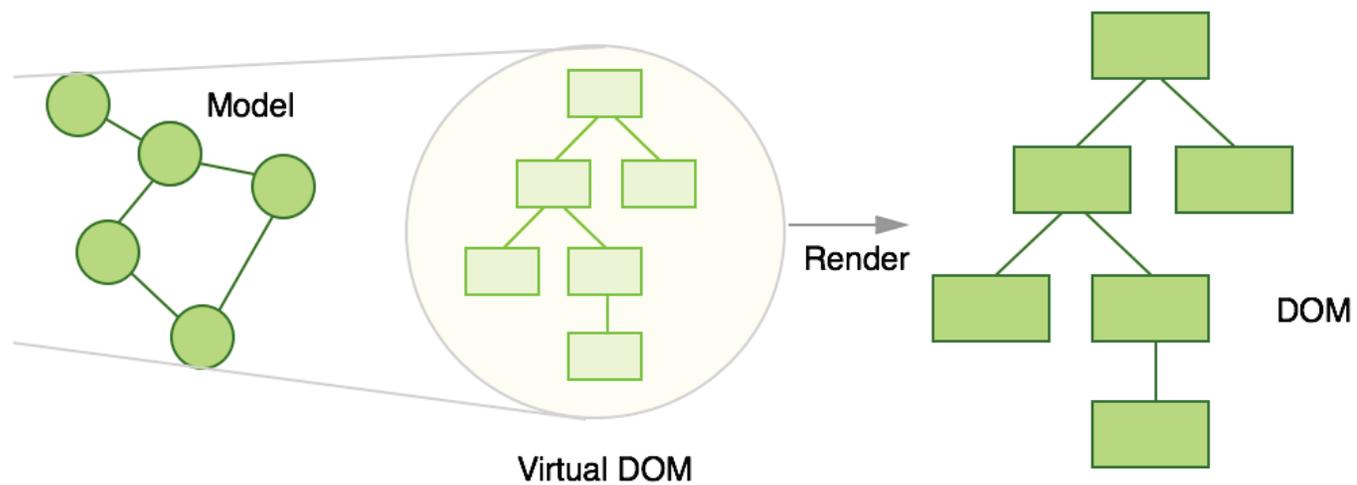
 **ROCKEFELLER CENTER**

Was ist React?

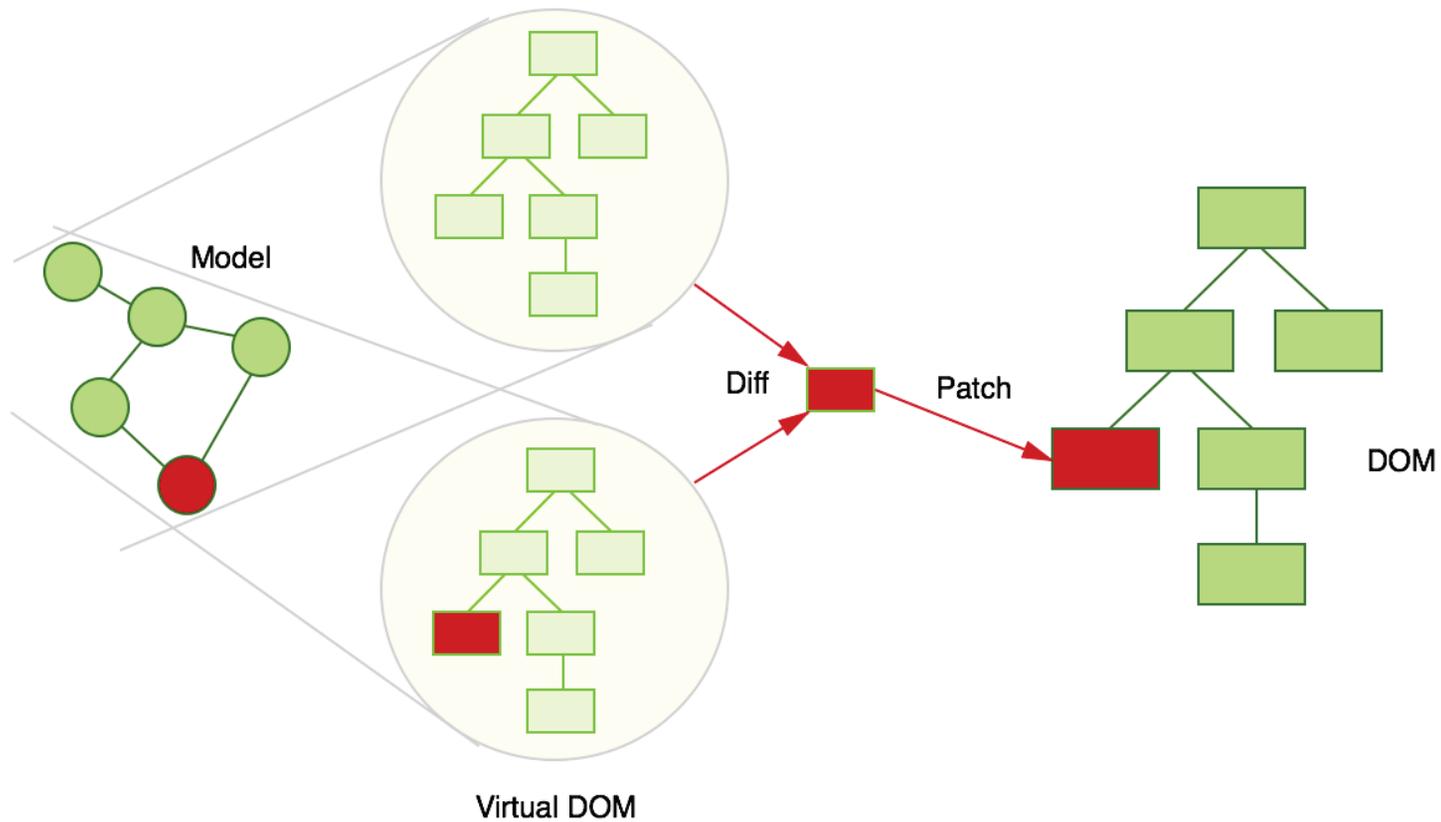
React

-  JavaScript Bibliothek – kein Framework
-  rendert HTML/CSS auf Clientseite
-  virtueller DOM
-  einseitig gerichteter Datenfluss

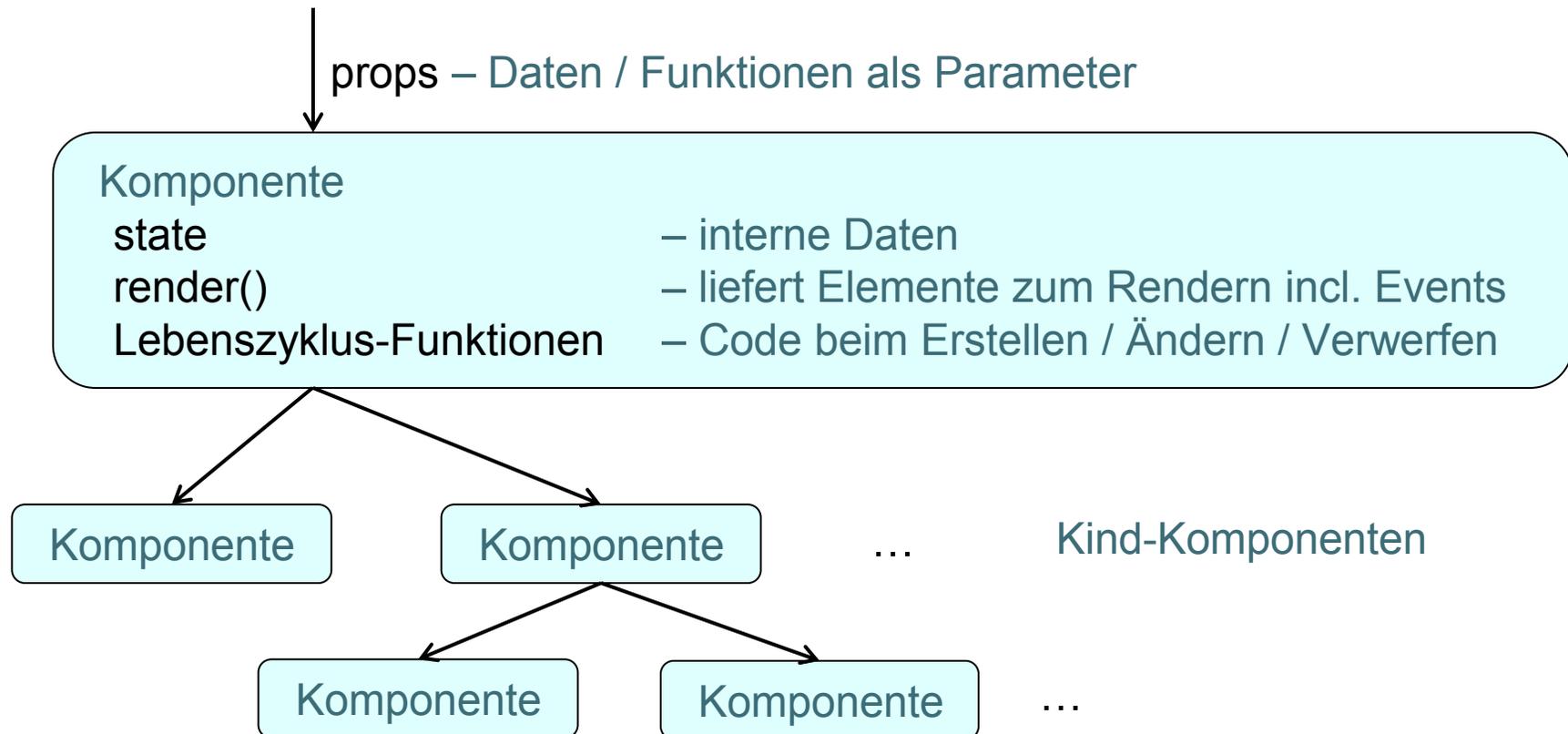
virtueller DOM



virtueller DOM



Komponente



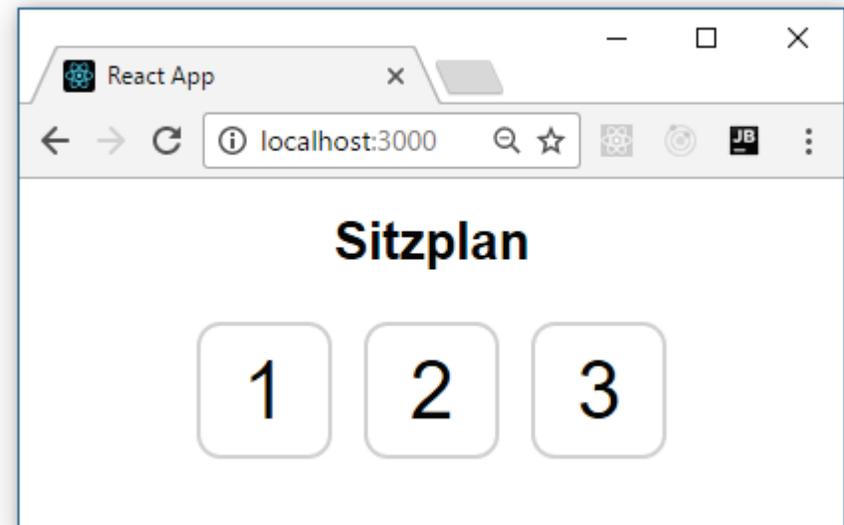
Beispiel

```
import React, {Component} from 'react';
import ReactDOM from 'react-dom';

class App extends Component {
  render () {
    return (
      <div className="app">
        <h1>{this.props.headline}</h1>
        <Seat seatId="1"/>
        <Seat seatId="2"/>
        <Seat seatId="3"/>
      </div>
    )
  }
}

ReactDOM.render(
  <App headline="Sitzplan"/>,
  document.getElementById('root')
);
```

```
class Seat extends Component {
  render () {
    return (
      <div className="seat">
        {this.props.seatId}
      </div>
    )
  }
}
```



Beispiel

```
class App extends Component {
  render() {
    return (
      <div className="app">
        <h1>Sitzplan</h1>
        <Seat seatId="1"/>
        <Seat seatId="2"/>
        <Seat seatId="3"/>
      </div>
    );
  }
}
```

JSX

```
ReactDOM.render (
  <App headline="Sitzplan"/>,
  document.getElementById('root')
);
```

Beispiel

```
import React, {Component} from 'react';  
import ReactDOM from 'react-dom';
```

```
class App extends Component {  
  render() {  
    return (  
      <div className="app">  
        <h1>{this.props.headline}</h1>  
        <Seat seatId="1"/>  
        <Seat seatId="2"/>  
        <Seat seatId="3"/>  
      </div>  
    )  
  }  
}
```

ES6 (ECMAScript2015)

Babel

- konvertiert **JSX** in normales JavaScript

aus `<App headline="Sitzplan"/>`

wird `React.createElement(App, {headline:"Sitzplan"});`

- konvertiert **ES6** in eine JavaScript-Version, die aktuelle Browser beherrschen
 - man programmiert in einer zukünftigen Sprachversion 😊

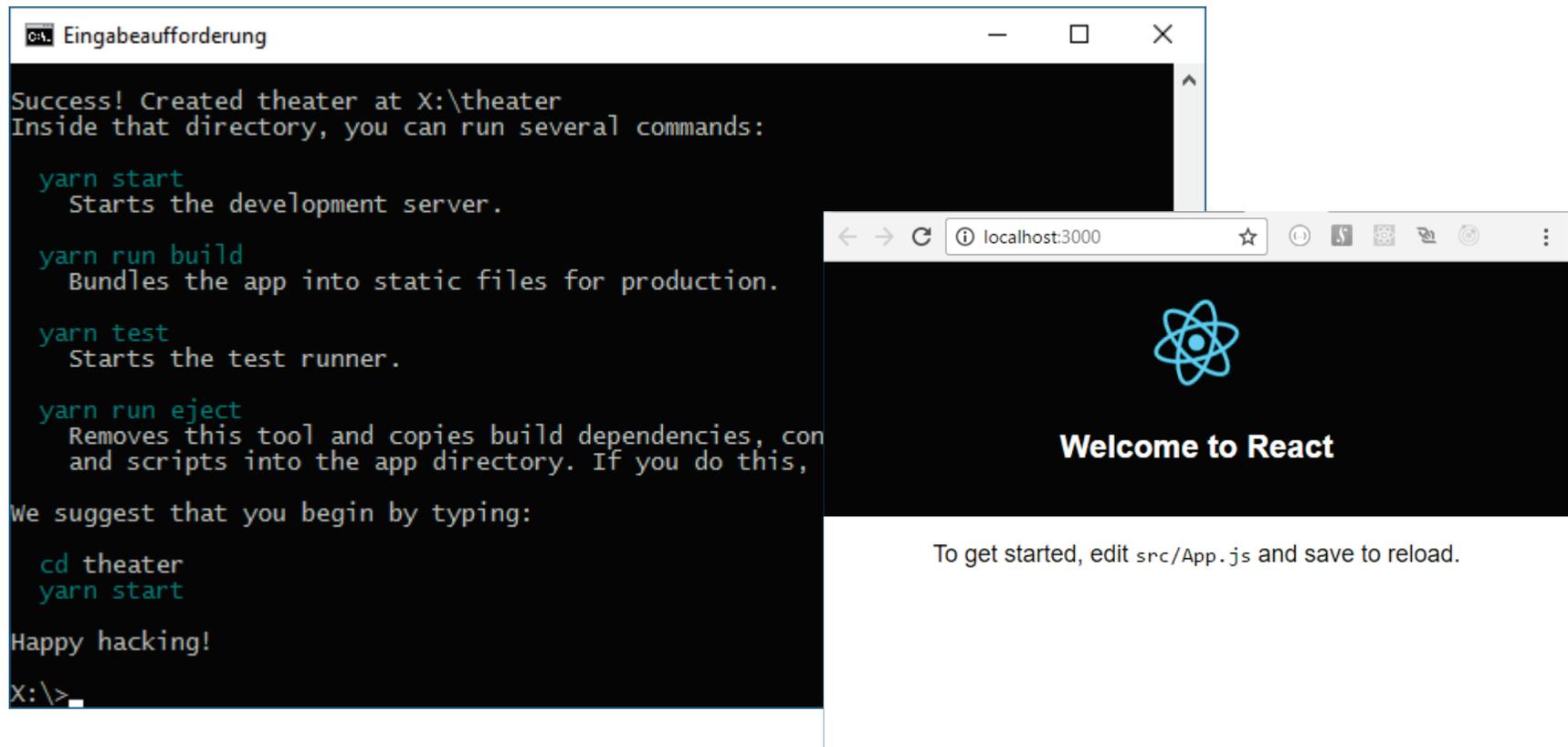
Erste Schritte

- [node.js](#) installieren
 - LTS-Version ("Long-Term Support")
 - Standardeinstellungen
 - (30 MB)

Erste Schritte

- "Create React App" installieren
 - vorkonfigurierte Umgebung = Starten ohne Stress
 - <https://github.com/facebookincubator/create-react-app>
 - in Eingabeaufforderung starten:
 - `npm install -g create-react-app`
 - `create-react-app theater`
 - `cd theater`
 - `yarn start`

Erste Schritte



The image shows a terminal window on the left and a web browser on the right. The terminal window, titled "Eingabeaufforderung", displays the following text:

```
Success! Created theater at X:\theater
Inside that directory, you can run several commands:

yarn start
  Starts the development server.

yarn run build
  Bundles the app into static files for production.

yarn test
  Starts the test runner.

yarn run eject
  Removes this tool and copies build dependencies, con
  and scripts into the app directory. If you do this,

We suggest that you begin by typing:

  cd theater
  yarn start

Happy hacking!
X:\>
```

The web browser window shows the URL `localhost:3000` and displays the React logo and the text "Welcome to React". Below the logo, it says "To get started, edit `src/App.js` and save to reload."

Entwicklertools

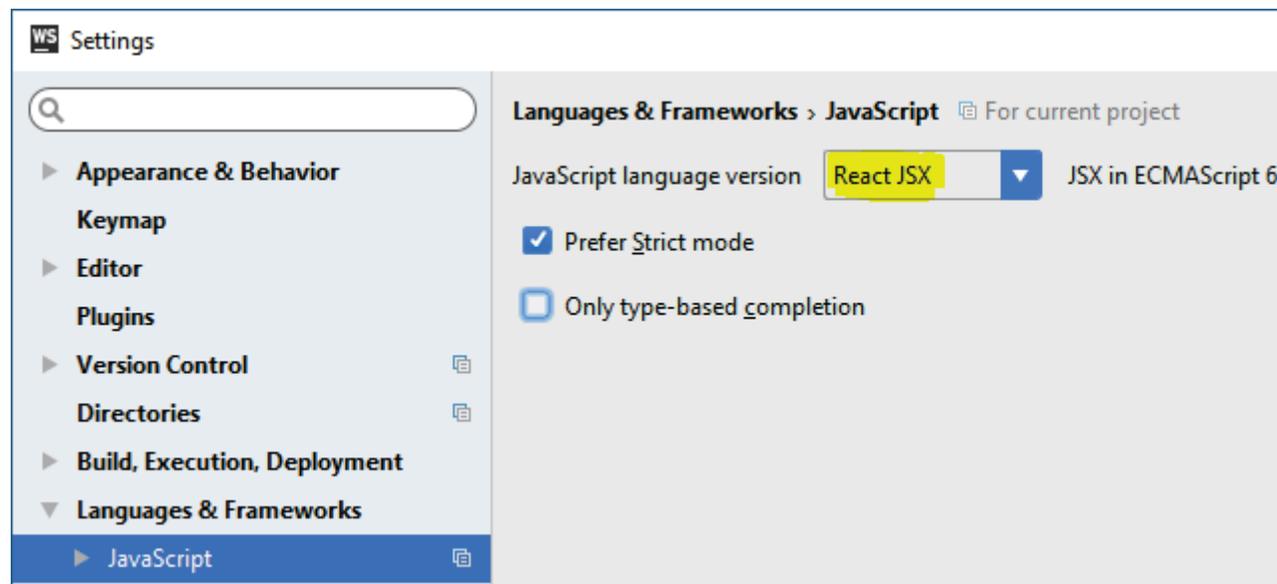
- Node.js
 - JavaScript Runtime
- npm / yarn
 - Package Manager
- webpack
 - bündelt Code/CSS/Ressourcen in eine Datei "bundle.js"

Entwicklertools

- IDE
 - Atom (frei)
 - WebStorm (meine Empfehlung)
 - Sublime Text
 - Visual Studio Code (frei)
- ESLint
 - Syntaxprüfung, Programmierregeln
- Babel

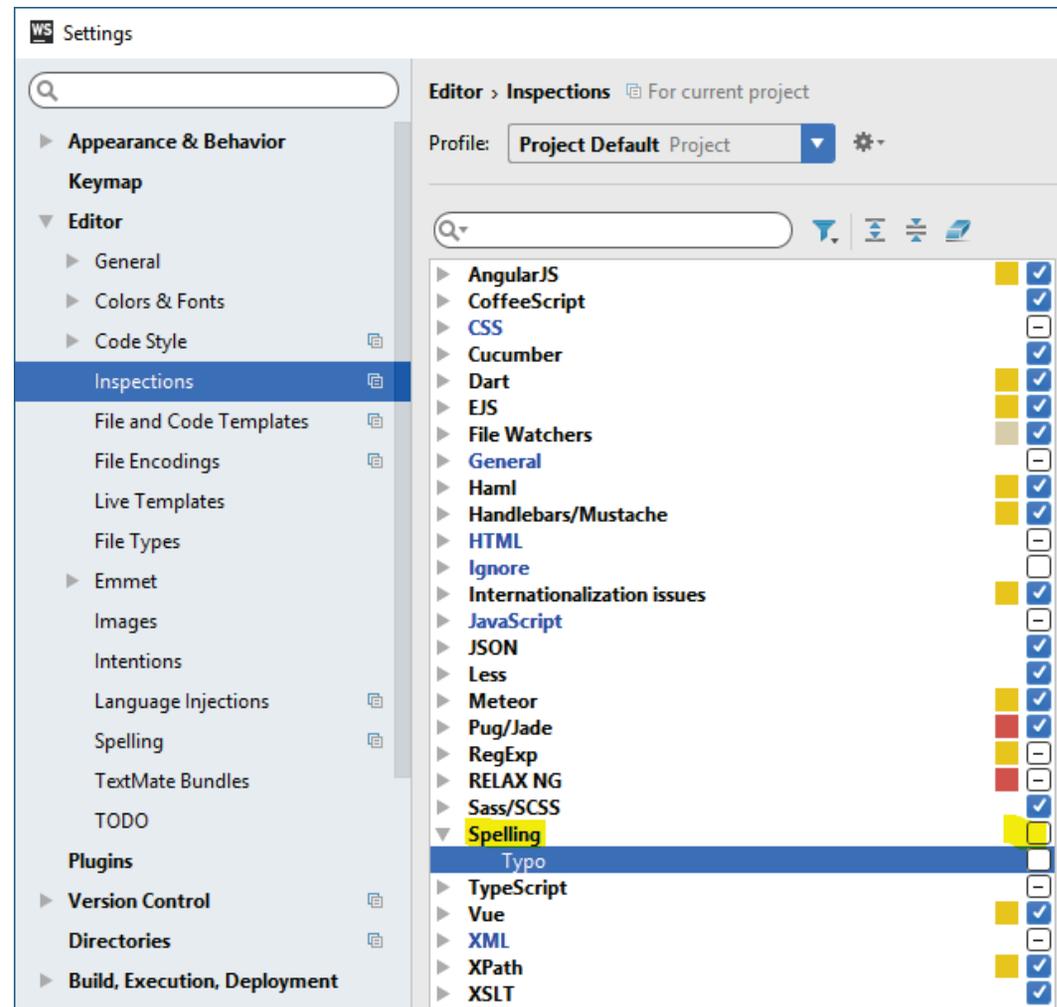
IDE WebStorm einrichten

- JavaScript-Version



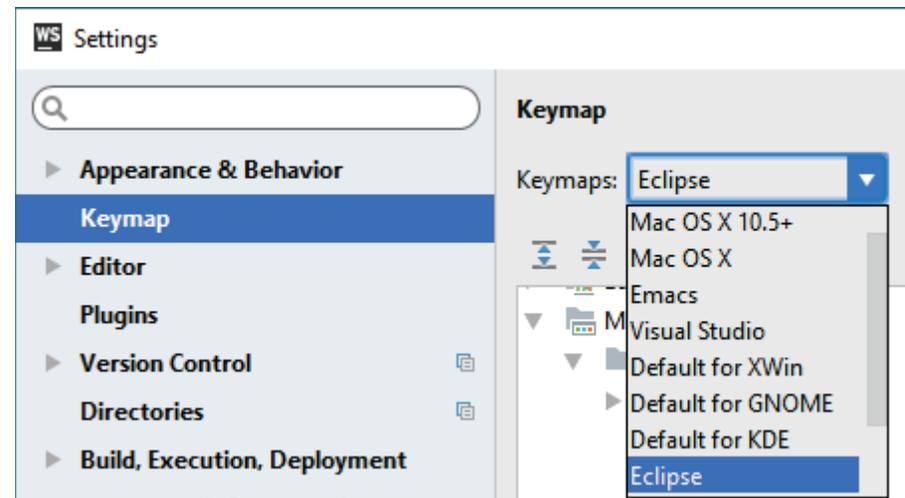
IDE WebStorm einrichten

- Code-Prüfung anpassen
- z.B. Rechtschreibprüfung ausschalten



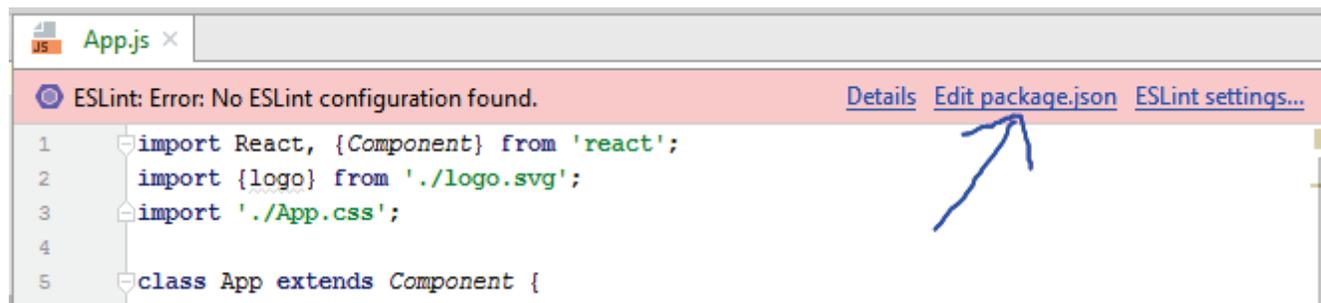
IDE WebStorm einrichten

- **Kurztasten-Belegung "wie in Eclipse"**



- **Mit Strg+S Code formatieren und alle Dateien speichern**
 - siehe <http://stackoverflow.com/a/35392842>

IDE WebStorm einrichten



- ESLint-Konfiguration in package.json bekanntgeben

```
},
"eslintConfig": {
  "extends": "react-app"
}
}
```

Demo...