Dip your toe in React Programming!

Code Motion Berlin • 12./13. Oct. 17 • Kristin Baumann

React everywhere!

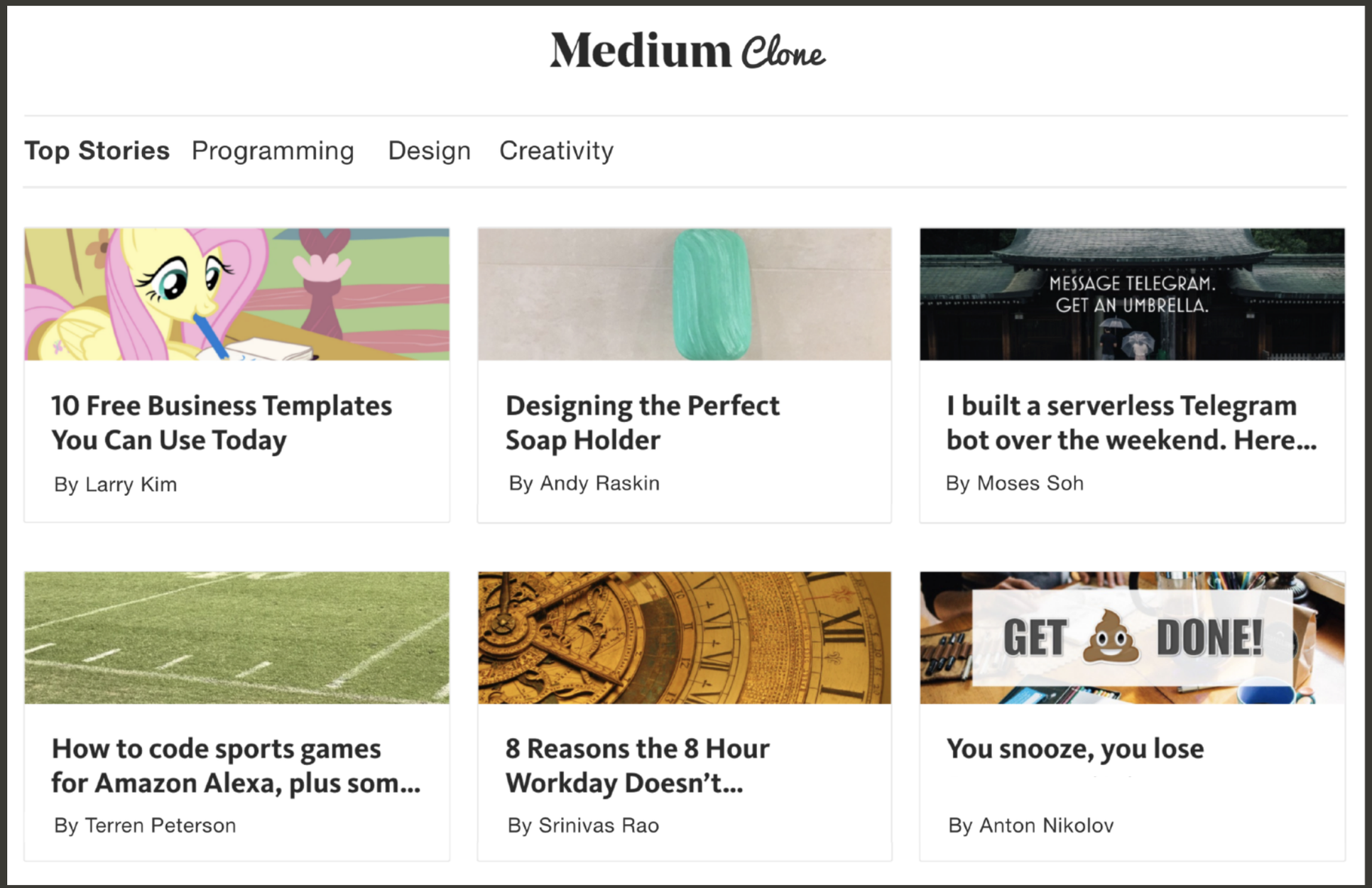
What is React JS?

JavaScript library
for building interactive user interfaces

Principle I:

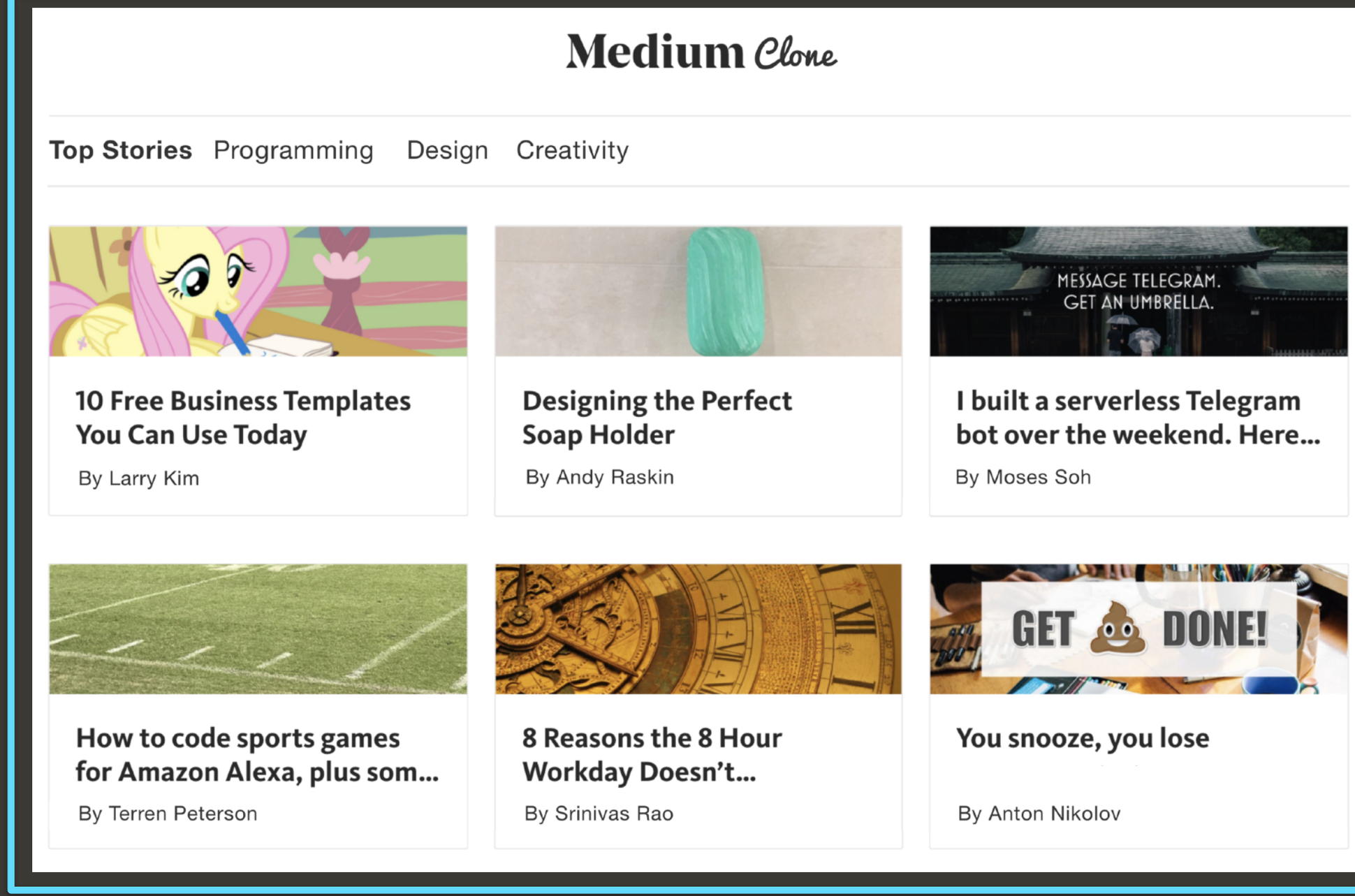
Divide the UI in Components

Components


Medium Clone
Top Stories
Programming
Design
Creativity
10 Free Business Templates You Can Use Today
By Larry Kim
Designing the Perfect Soap Holder
By Andy Raskin
MESSAGE TELEGRAM.
GET AN UMBRELLA.
I built a serverless Telegram bot over the weekend. Here...
By Moses Soh
How to code sports games for Amazon Alexa, plus som...
By Terren Peterson
8 Reasons the 8 Hour Workday Doesn't...
By Srinivas Rao
GET DONE!
You snooze, you lose
By Anton Nikolov

Components

App



Components

App

Medium Clone

Top Stories Programming Design Creativity

10 Free Business Templates You Can Use Today

By Larry Kim

Designing the Perfect Soap Holder

By Andy Raskin

I built a serverless Telegram bot over the weekend. Here...

By Moses Soh

How to code sports games for Amazon Alexa, plus som...

By Terren Peterson

8 Reasons the 8 Hour Workday Doesn't...

By Srinivas Rao

You snooze, you lose

By Anton Nikolov

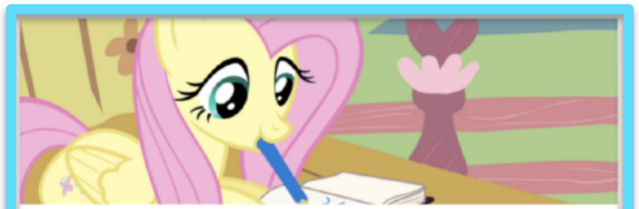
Section

Components

App

Medium Clone

Top Stories Programming Design Creativity

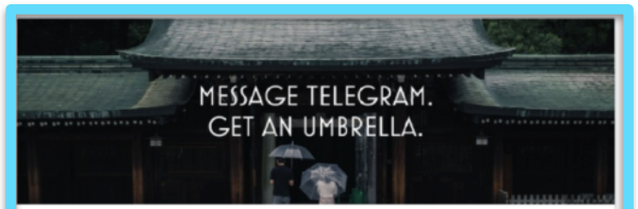


10 Free Business Templates You Can Use Today

By Larry Kim

Designing the Perfect Soap Holder

By Andy Raskin



I built a serverless Telegram bot over the weekend. Here...

By Moses Soh

How to code sports games for Amazon Alexa, plus som...

By Terren Peterson

8 Reasons the 8 Hour Workday Doesn't...

By Srinivas Rao

You snooze, you lose

By Anton Nikolov

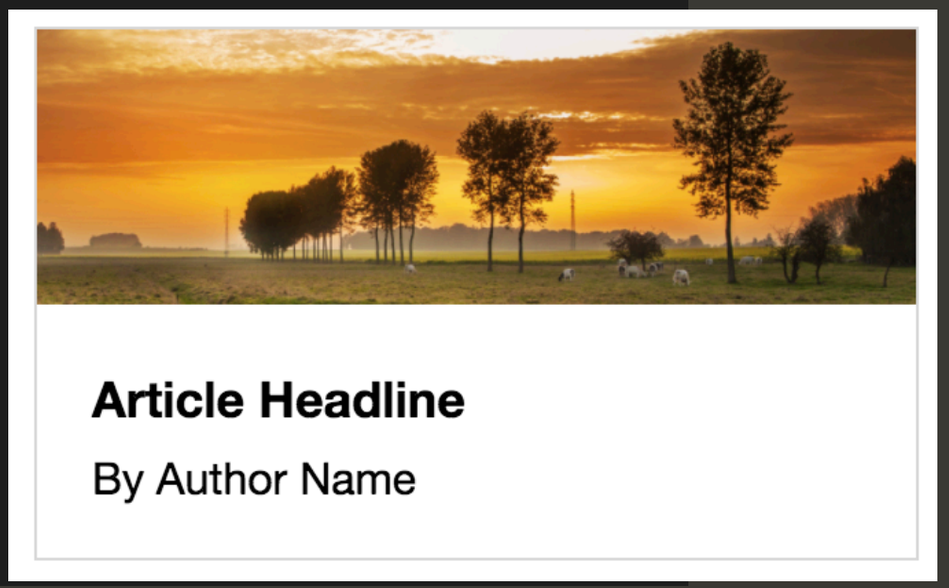
Section

6x ArticleThumb

Principle II:

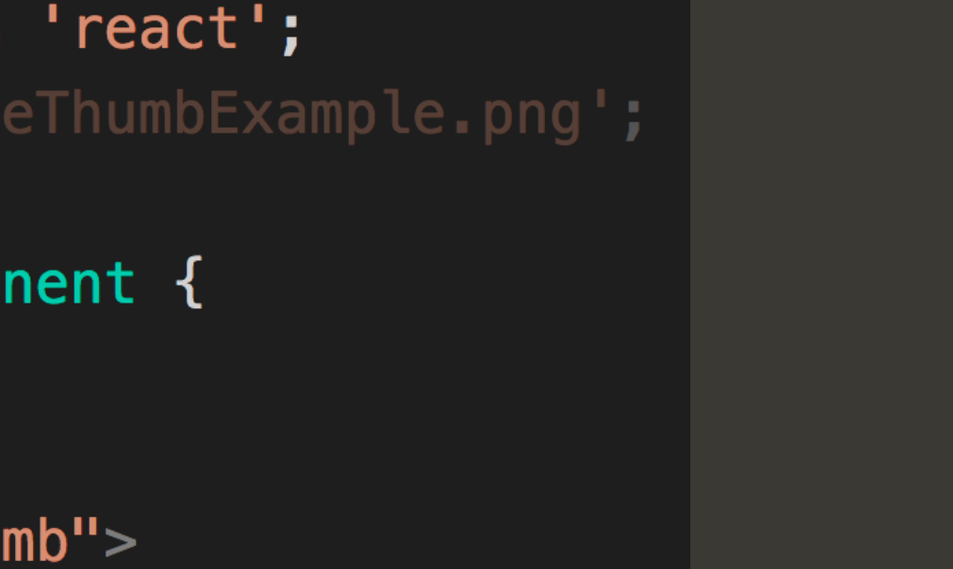
Write ES6 and JSX

```jsx
import React, { Component } from 'react';
import image from '../img/articleThumbExample.png';

class ArticleThumb extends Component {
  render() {
    return (
      <div className="articleThumb">
        <img src={image} />
        <div>
          <h2>Article Headline</h2>
          <h3>By Author Name</h3>
        </div>
      </div>
    );
  }
}

export default ArticleThumb;
```



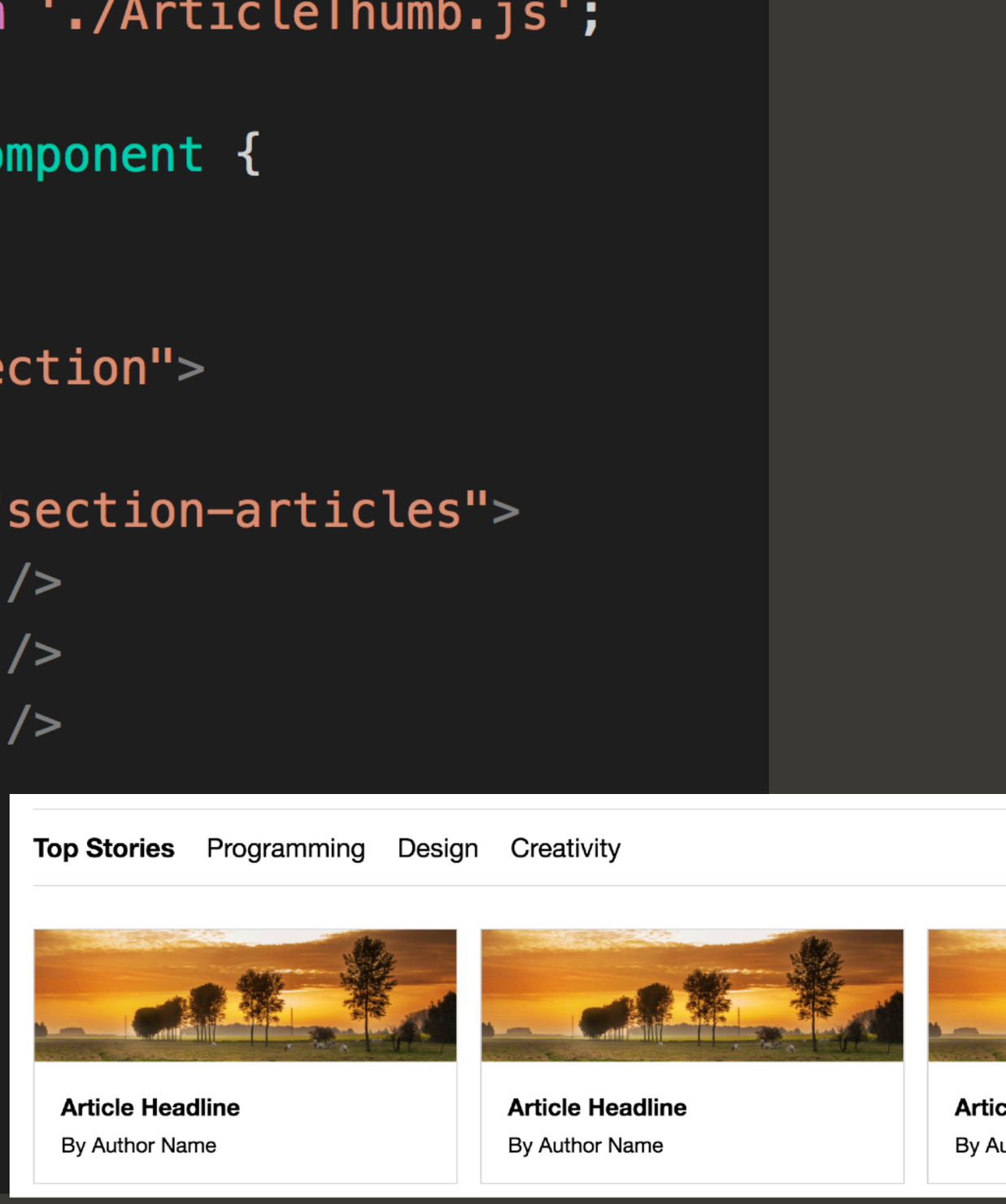
ArticleThumb.js

```jsx
import React, { Component } from 'react';
import image from '../img/articleThumbExample.png';

class ArticleThumb extends Component {
  render() {
    return (
      <div className="articleThumb">
        <img src={image} />
        <div>
          <h2>Article Headline</h2>
          <h3>By Author Name</h3>
        </div>
      </div>
    );
  }
}

export default ArticleThumb;
```



ArticleThumb.js

```jsx
import React, { Component } from 'react';
import ArticleThumb from './ArticleThumb.js';

class Section extends Component {
  render() {
    return (
      <div className="section">
        /* navigation */
        <div className="section-articles">
          <ArticleThumb />
          <ArticleThumb />
        </div>
      </div>
    );
  }
}
export default Section;
```



Section.js

Connect React app with DOM

```
1    <!doctype html>
2    <html lang="en">
3
4    <!-- head -->
5    <body>
6        <div id="root"></div>
7        <!-- more html elements -->
8    </body>
9
10   </html>
```

index.html

Connect React app with DOM

```html
<!doctype html>
<html lang="en">

<!-- head -->
<body>
    <div id="root"></div>
    <!-- more html elements -->
</body>

</html>
```

index.html

<App />

```jsx
import React from 'react';
import ReactDOM from 'react-dom';
import App from './components/App.js';
import './style.css';

ReactDOM.render(
    <App />,
    document.getElementById('root')
);

```

index.js

Connect React app with DOM

Demo: www.kristin-baumann.com/react-medium-v1

Code: https://github.com/kristinbaumann/react-medium-clone-v1

```html
<!doctype html>
<html lang="en">

<!-- head -->

<body>
    <div id="root"></div>
    <!-- more html elements -->
</body>

</html>
```

<App />

index.html

```js
import React from 'react';
import ReactDOM from 'react-dom';
import App from './components/App.js';
import './style.css';

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

index.js

Principle III:

Control components with State and Props

Properties (Props)

```
<div className="section-articles">
    <ArticleThumb title="Let There Be Peace on CSS" author="Cristiano Rastelli" />
    <ArticleThumb title="Design for iPhone X" author="Niels" />
    <ArticleThumb title="You snooze, you lose" author="Anton Nikolov" />
</div>
```

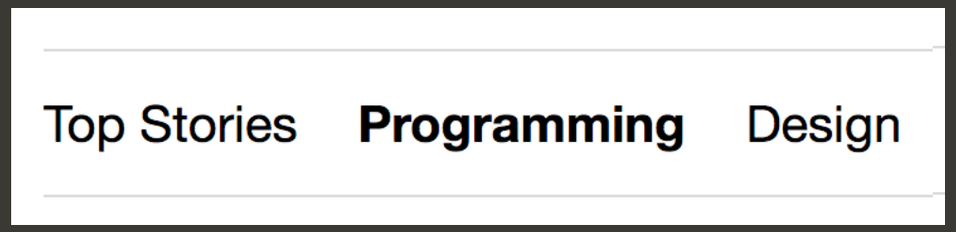
Section.js

```
class ArticleThumb extends Component {
  render() {
    return (
      <div className="articleThumb">
        <img src={image} />
        <div>
          <h2>{this.props.title}</h2>
          <h3>By {this.props.author}</h3>
        </div>
      </div>
    );
  }
}
```

ArticleThumb.js

- Parameters passed down from parent to child component
- Used for configuration
- Not changeable in child component

State




```
5   class Section extends Component {
6     constructor(props){
7       super(props);
8       this.state = { category: 'top-stories' }
9     }
10    render() {
11      return (
12        <div className="section">
13          <ul>
14            <li
15              className={this.state.category === 'top-stories' ? `active`: ``}
16              onClick={() => this.setState({category: 'top-stories'})}>Top Stories</li>
17            <li
18              className={this.state.category === 'programming' ? `active`: ``}
19              onClick={() => this.setState({category: 'programming'})}>Programming</li>
20          </ul>
21          {/* articles filtered by category*/}
22        </div>
23      );
24    }
25  }
```

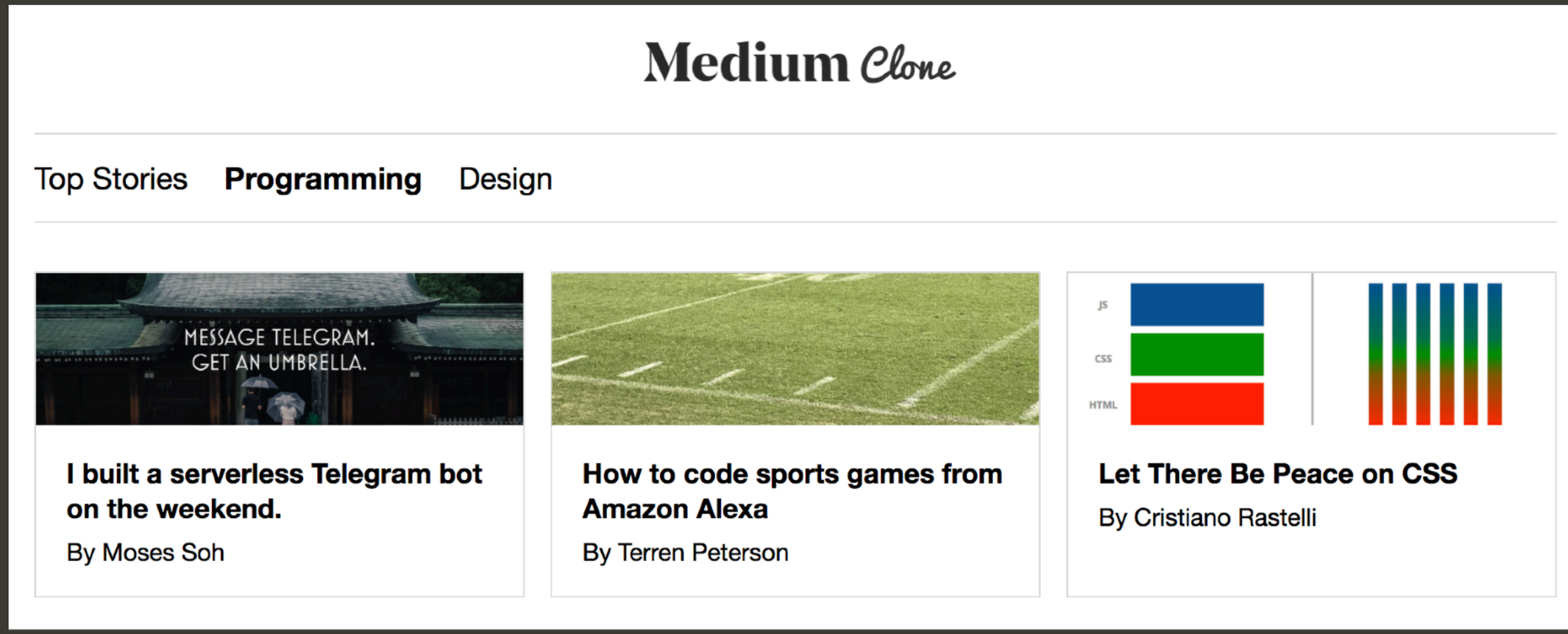
Initialisation

Render depending on state

Update on event

Section.js

State & Props & Lifecycle



Demo: www.kristin-baumann.com/react-medium-v2

Code: https://github.com/kristinbaumann/react-medium-clone-v2

5 reasons to start using React

- **Fast** applications (rendering with Virtual DOM)

- Enables **confident development** with proper testing

- Open source software, **well maintained** by Facebook

- Allows **clientside and serverside** rendering

- Composable with **existing applications**

Questions?

@kristin_baumann

@kristinbaumann

mail@kristin-baumann.com

www.kristin-baumann.com