

react
with
regret

How To JavaScript Hipster

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A pair of dark sunglasses with tortoiseshell frames is positioned horizontally across the center of the frame. The lenses are dark and reflective, mirroring the background. The frames are made of a dark, textured material with a distinct tortoiseshell pattern. The sunglasses are resting on a dark, polished surface that reflects their shape.

BACKGROUND

classes

```
1 var myClass = function(options){  
2     var self = this;  
3  
4     self.variable = 'hello ' + options.name;  
5  
6     _private = 'something private';  
7  
8     self.method = function(params) {  
9         console.log(self.variable);  
10    }  
11  
12    return self;  
13};
```

```
1 ~  class myClass {  
2     #private = 'something private';  
3  
4 ~  constructor(options) {  
5     this.variable = `hello ${options.name}`;  
6 }  
7  
8 ~  get getter(){  
9     return #private;  
10 }  
11  
12 ~  method(params) {  
13     console.log(this.variable);  
14 }  
15 }
```

Arrays

```
1 ~  ['a', 'b', 'c'].forEach(function(item) {  
2     console.log(item);  
3 }) ;
```

Modules

```
1  // math.js
2  function add(a,b) {
3      return a+b;
4  }
5
6  let const PI = 3.14159;
7
8  export {add, PI};
9
10 // app.js
11 import {add, PI as ApplePI} from 'math';
12
13 console.log(add(1,1));
14 console.log(PI);
```

```
1 // logging.js
2 export default function(massage) {
3     console.log(massage);
4 }
5
6 export function error(message){
7     console.error(message);
8 }
9
10 // app.js
11 import log, {error} from 'logging';
12
13 log('just a message');
14
15 error('an error message');
```

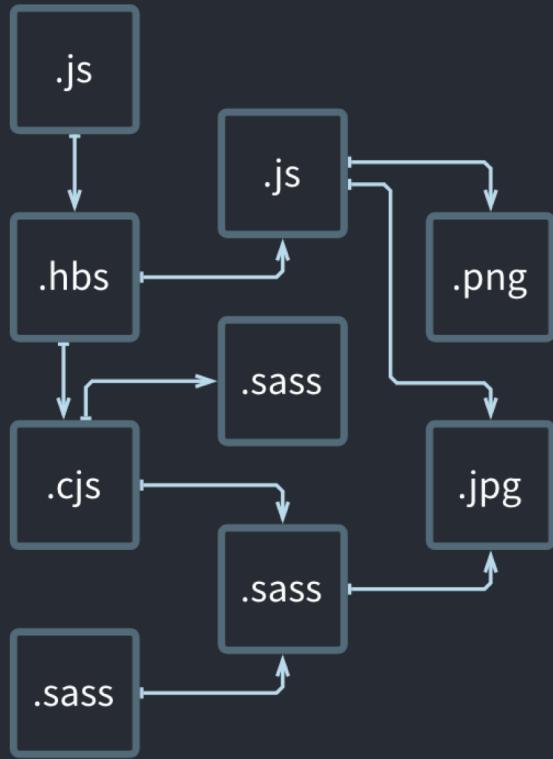


https://commons.wikimedia.org/wiki/File:Internet_Explorer_10%2B11_logo.svg

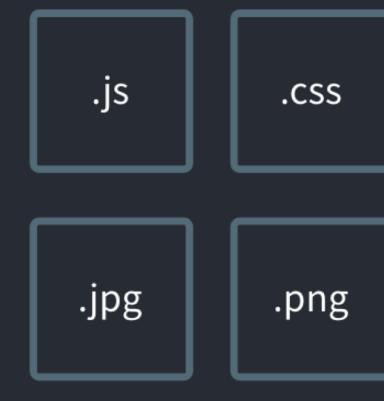
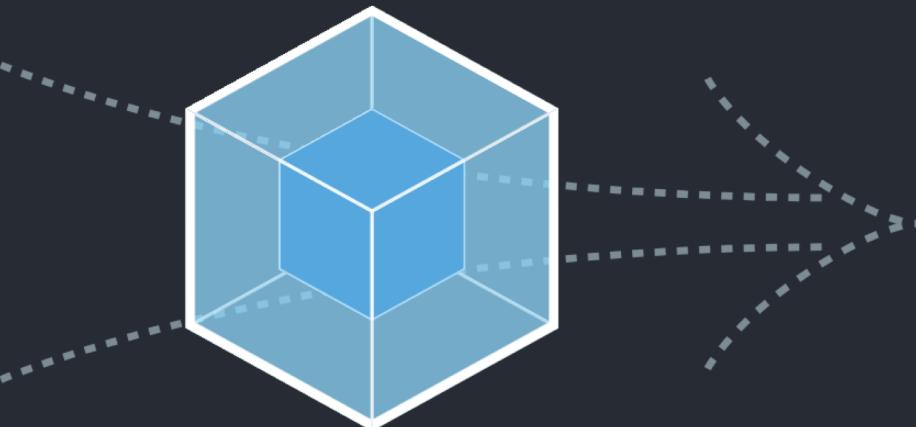
Babel

```
1  'use strict';
2
3  var _logging = require('logging');
4
5  var _logging2 = _interopRequireDefault(_logging);
6
7  function _interopRequireDefault(obj) {
8      return obj && obj.__esModule ? obj : { default: obj }; }
9
10 (0, _logging2.default)('just a message');
11
12 (0, _logging.error)('an error message');
```


webpack



MODULES WITH DEPENDENCIES



STATIC ASSETS

LAB

Person Class

- First Name
- Last Name
- Full Name

Contract Class

- Start Date
- Name
- Contact

“App”

- List of Contracts
- List of Active Contracts
- Contracts by Contact

A red and yellow plaid button-down shirt is centered against a solid dark grey background. The shirt has a visible collar and four buttons down the front. It is displayed from the chest up.

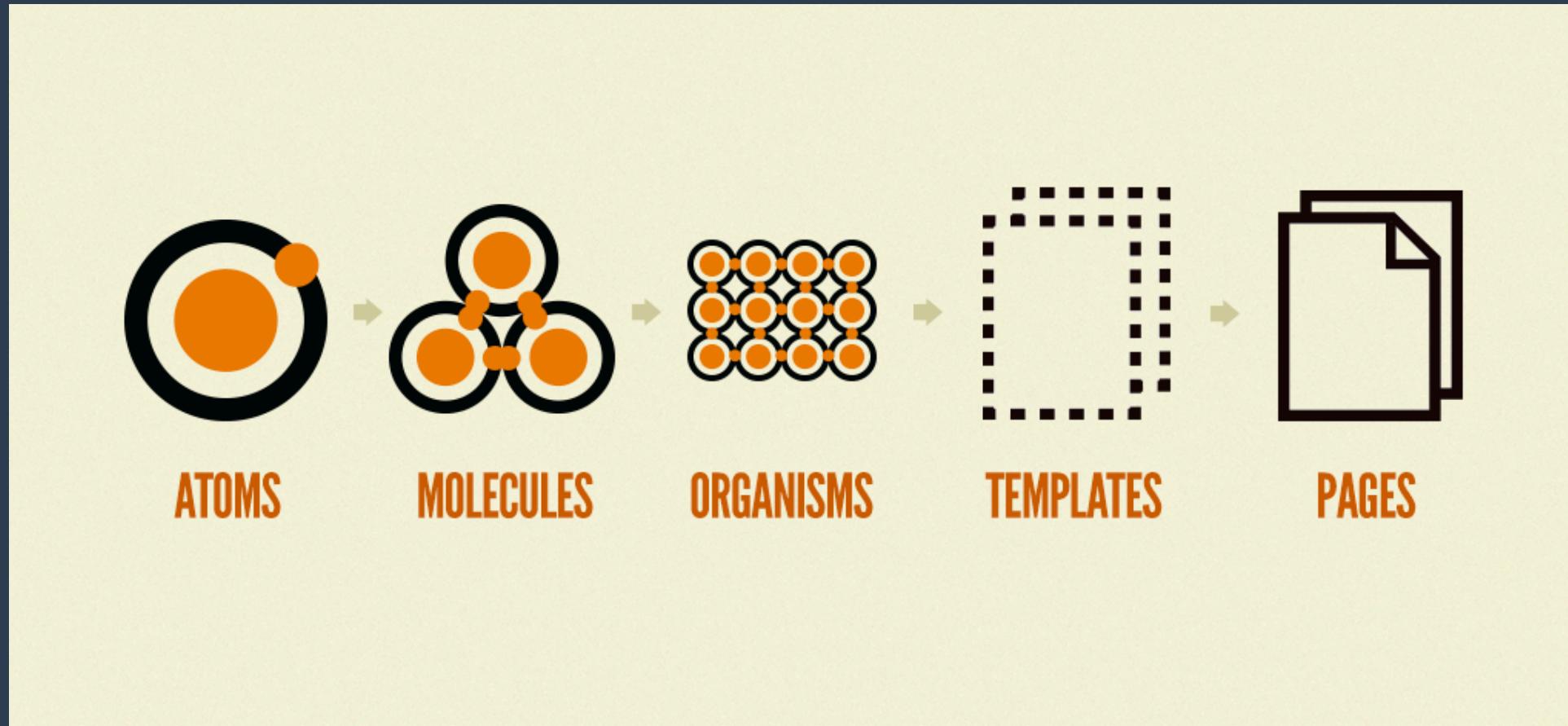
React

Components

Atomic Design

“...is methodology for creating design systems. There are five distinct levels in atomic design”

- Brad Frost



State Machines

```
1 import React from 'react';
2
3 const HelloWorld = React.createClass({
4     render: function() {
5         return (
6             <div>Hello World!</div>
7         )
8     }
9 }) ;
```

```
1 import React, {Component} from 'react';
2
3 class HelloWorld extends Component {
4     render(){
5         return (
6             <div>Hello, World!</div>
7         )
8     }
9 }
```

Virtual DOM

JSX

```
1 import React, {Component} from 'react';
2
3 class HelloWorld extends Component {
4     render(){
5         return (
6             <div>Hello, World!</div>
7         )
8     }
9 }
```

```
1 import React, {Component} from 'react';
2
3 class HelloWorld extends Component {
4   render(){
5     return (
6       React.createElement('div', null, 'Hello, World!');
7     )
8   }
9 }
```

```
1 import React, {Component} from 'react';
2
3 class HelloWorld extends Component {
4     render(){
5         return (
6             <div className='myClass'>Hello, World!</div>
7         )
8     }
9 }
```

```
1 class HelloMessage extends React.Component {  
2     render() {  
3         return (  
4             <div> Hello, {this.props.name}!</div>  
5         );  
6     }  
7 }  
8  
9 ReactDOM.render(  
10     <HelloMessage name="Conga" />,  
11     document.querySelector('body')  
12 );
```

Props

```
1 import React from 'react';
2 import {render} from 'react-dom';
3 import PropTypes from 'prop-types';
4
5 class HelloMessage extends React.Component {
6     render() {
7         return (
8             <div> Hello, {this.props.name}!</div>
9         );
10    }
11 }
12
13 HelloMessage.propTypes = {
14     name: PropTypes.string.isRequired
15 };
```

```
1 import React from 'react';
2 import {render} from 'react-dom';
3 import PropTypes from 'prop-types';
4
5 class HelloMessage extends React.Component {
6     propTypes = {
7         name: PropTypes.string.isRequired
8     }
9
10    render() {
11        return (
12            <div> Hello, {this.props.name}!</div>
13        );
14    }
15}
```

```
1 import React from 'react';
2 import {render} from 'react-dom';
3 import PropTypes from 'prop-types';
4
5 class HelloMessage extends React.Component {
6     static defaultProps = {
7         name: 'stranger'
8     }
9
10    propTypes = {
11        name: PropTypes.string
12    }
13
14    render() {
15        return (
16            <div> Hello, {this.props.name}!</div>
17        );
18    }
19}
```

LAB

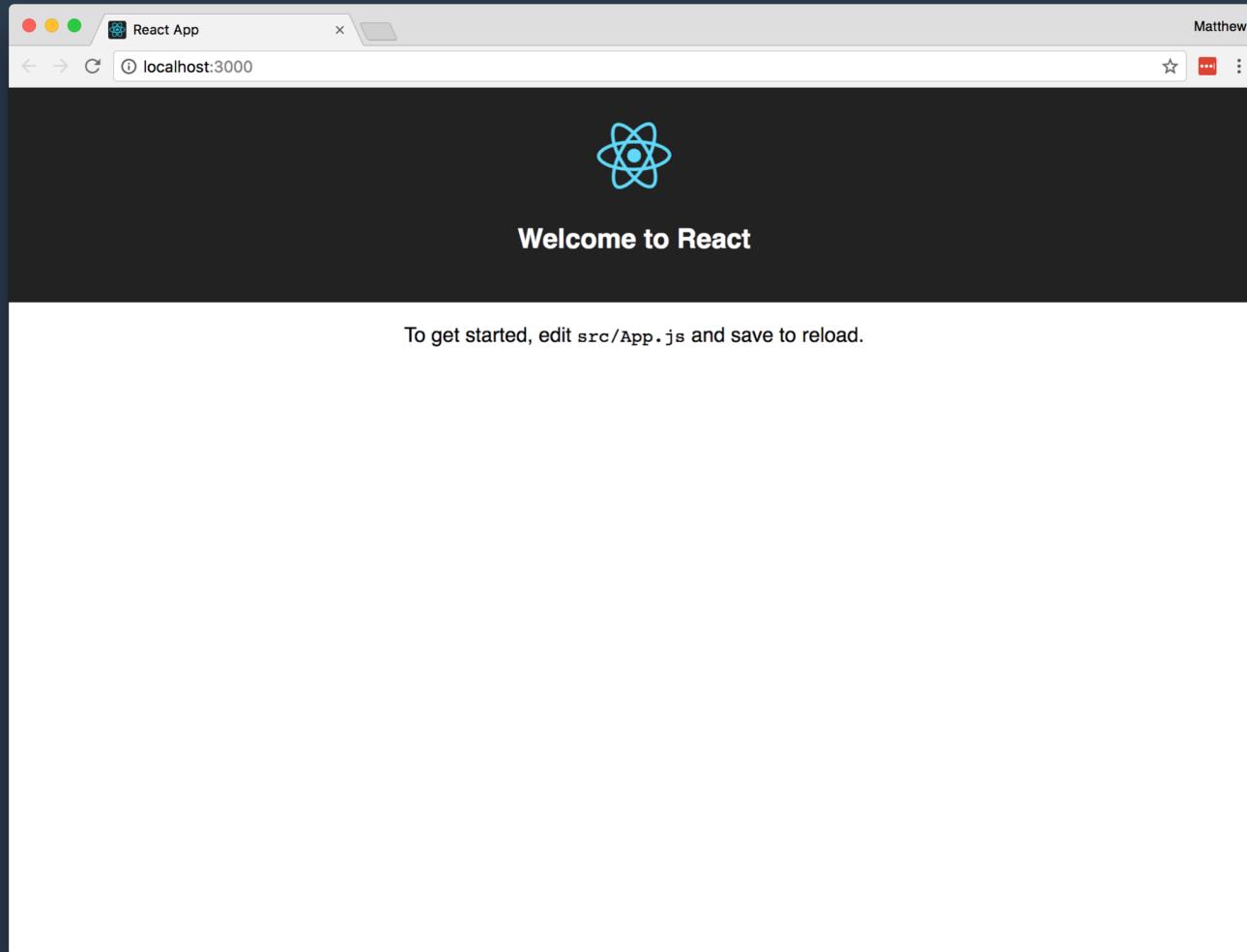
But First...



```
λ npx create-react-app my-a
```



```
1   my-app
2   ├── README.md
3   ├── node_modules
4   ├── package.json
5   ├── .gitignore
6   ├── public
7   │   └── favicon.ico
8   │   └── index.html
9   │   └── manifest.json
10  └── src
11      └── App.css
12      └── App.js
13      └── App.test.js
14      └── index.css
15      └── index.js
16      └── logo.svg
17      └── registerServiceWorker.js
```



- Use objects from lab 1
- Display a list of contracts
 - Show the contact
 - Show Start Date



Next Steps

State

```
1 import React from 'react';
2 import {render} from 'react-dom';
3
4 class Counter extends React.Component {
5     constructor() {
6         super();
7         this.state = { count: 0 };
8     }
9
10    render() {
11        return (
12            <div>count: {this.state.count}</div>
13        );
14    }
15}
```

```
1 import React from 'react';
2 import {render} from 'react-dom';
3
4 class Counter extends React.Component {
5     constructor() {
6         super();
7         this.state = { count: 0 };
8     }
9
10    handleClick() {
11        this.setState({
12            count: this.state.count + 1
13        });
14    }
15
16    render() {
17        return (
18            <div>count: {this.state.count}</div>
19            <button onClick={this.handleClick}>Click Me!</button>
20        );
21    }
22}
```

Events

```
16 render() {  
17   return (  
18     <div>count: {this.state.count}</div>  
19     <button onClick={this.handleClick.bind(this)}>Click Me!</button>  
20   );  
21 }
```

```
4 class Counter extends React.Component {  
5   constructor() {  
6     super();  
7     this.state = { count: 0 };  
8     this.handleClick = this.handleClick.bind(this);  
9   }  
  }
```


Functional Components

```
1 import ReactDOM from 'react-dom';
2
3 const HelloMessage = (props) => {
4     return <div>Hello, {props.name}!</div>;
5 }
6
7 ReactDOM.render(
8     <HelloMessage name="Conga" />,
9     document.querySelector('body')
10 );
```

Lifecycle

ComponentDidMount

ComponentDidMount

ComponentDidUpdate

ComponentDidMount

ComponentDidUpdate

ShouldComponentUpdate

ComponentDidMount

ComponentDidUpdate

ShouldComponentUpdate

ComponentWillReceiveProps

ComponentDidMount

ComponentDidUpdate

ShouldComponentUpdate

ComponentWillReceiveProps

ComponentWillUnmount

LAB

- Performance tweaks
- Search list of Contracts

Next level



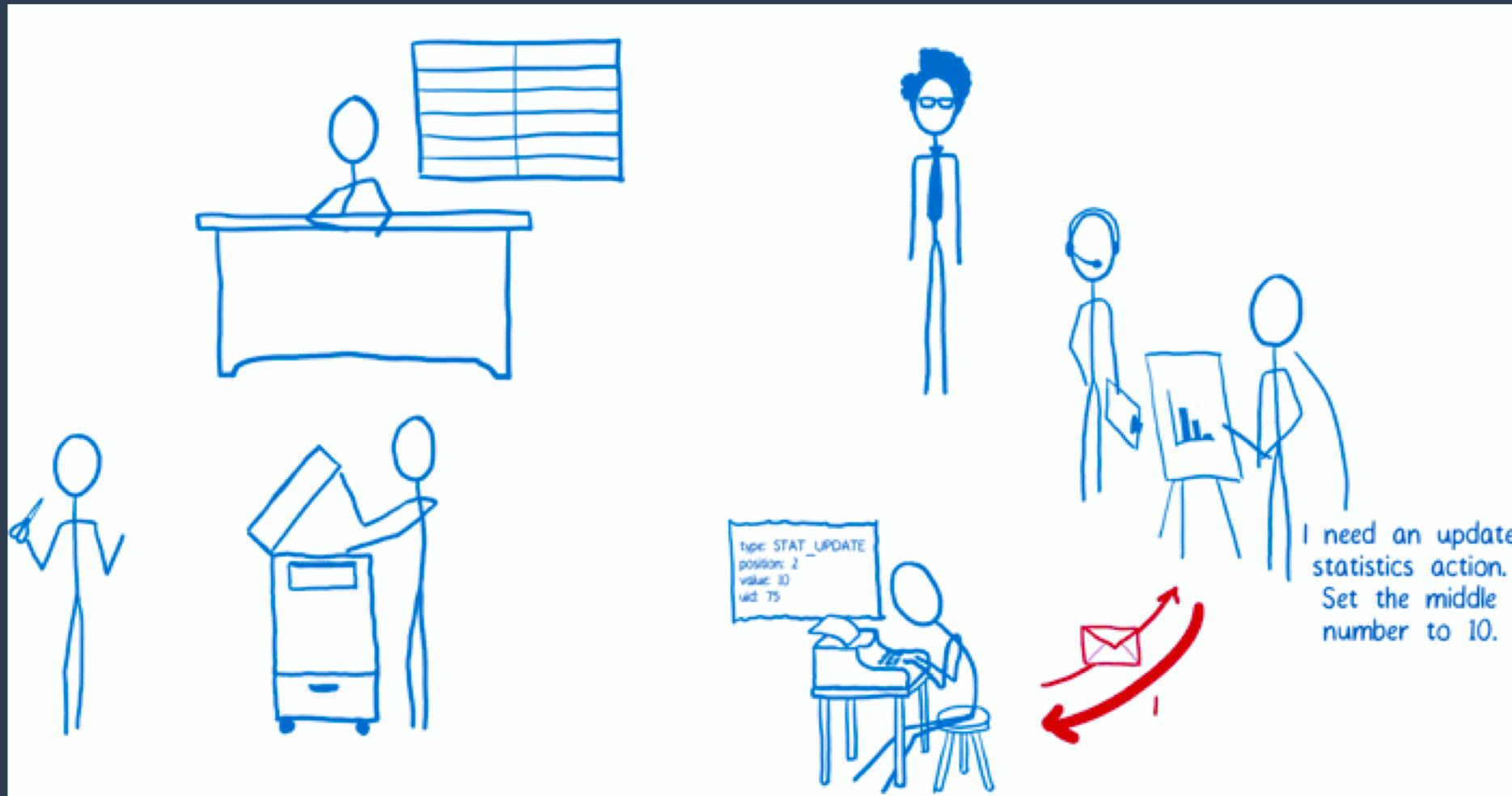
Portals

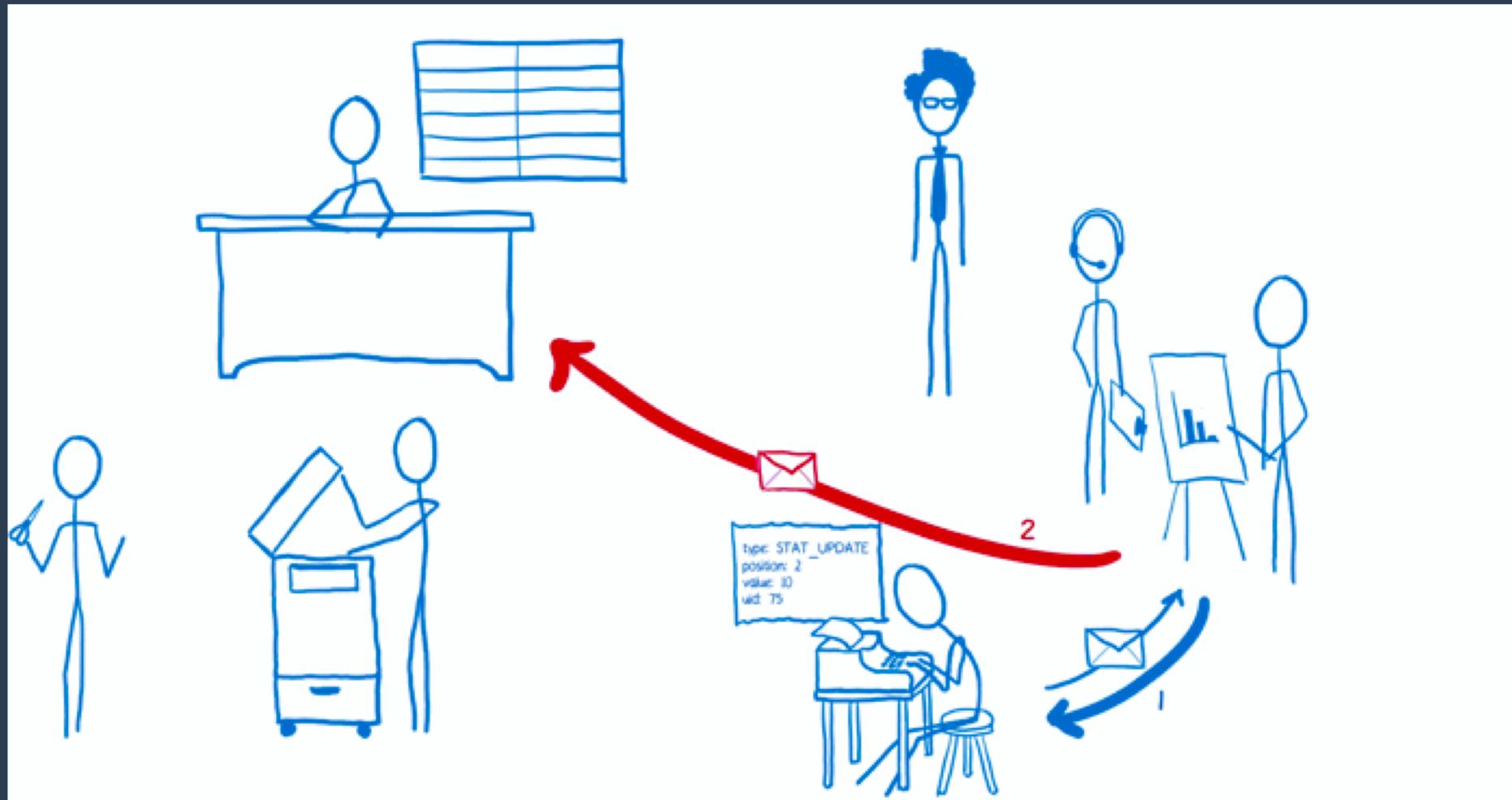
```
1  render() {
2    return ReactDOM.createPortal(
3      this.props.children,
4      domNode,
5    );
6  }
```

React-Router

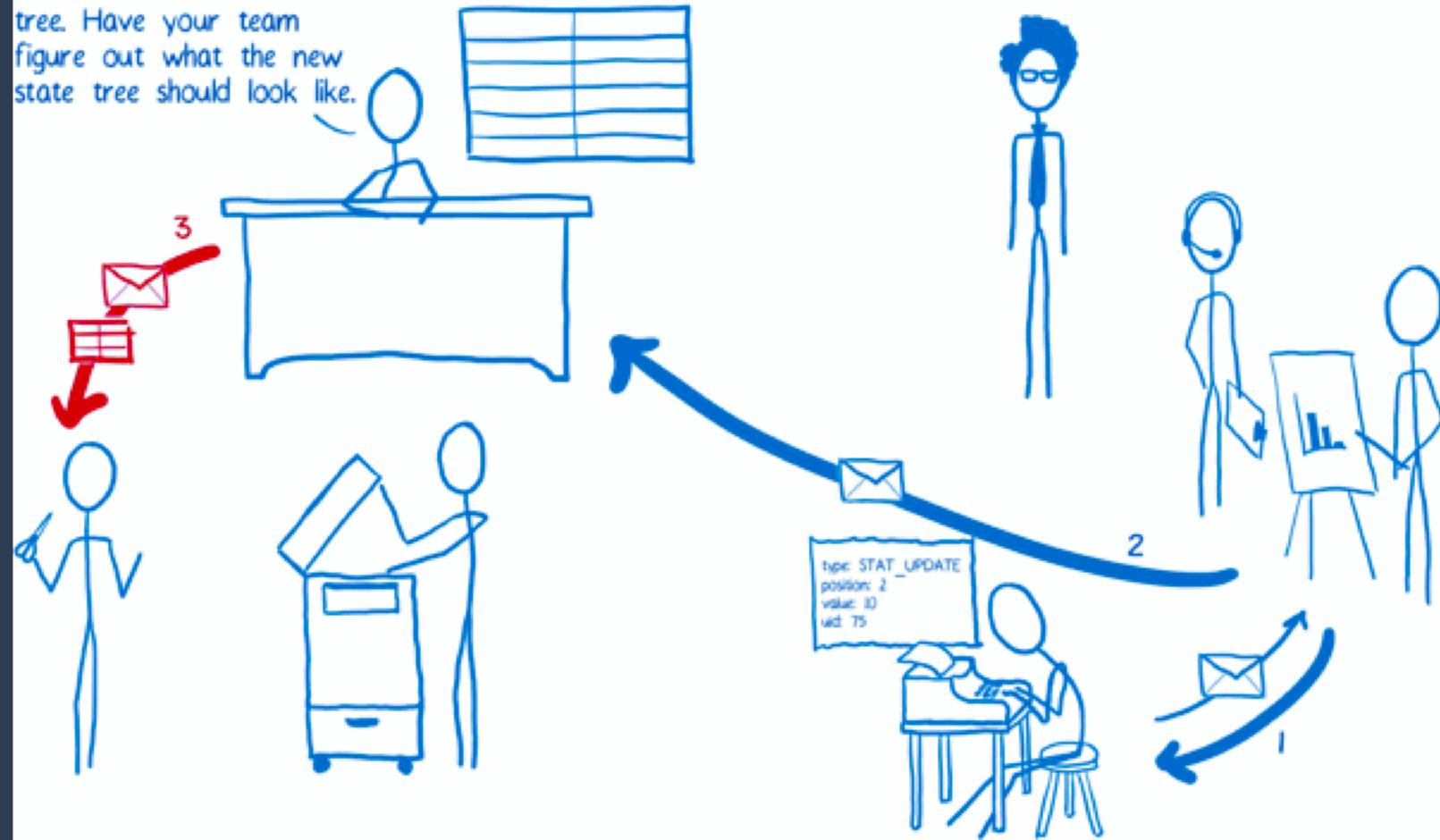
```
1 import React from "react";
2 import { BrowserRouter as Router, Route, Link } from "react-router-dom";
3
4 const Page = () => (
5   <Router>
6     <div>
7       <ul>
8         <li><Link to="/">Home</Link></li>
9         <li><Link to="/about">About</Link></li>
10      </ul>
11
12      <Route exact path="/" component={Home} />
13      <Route path="/hello/:name" component={Hello} />
14    </div>
15  </Router>
16);
17
18 const Home = () => (
19   <h2>Home</h2>
20 );
21
22 const Hello = ({ match }) => (
23   <h2>Hello, {match.params.name}!</h2>
24 );
```

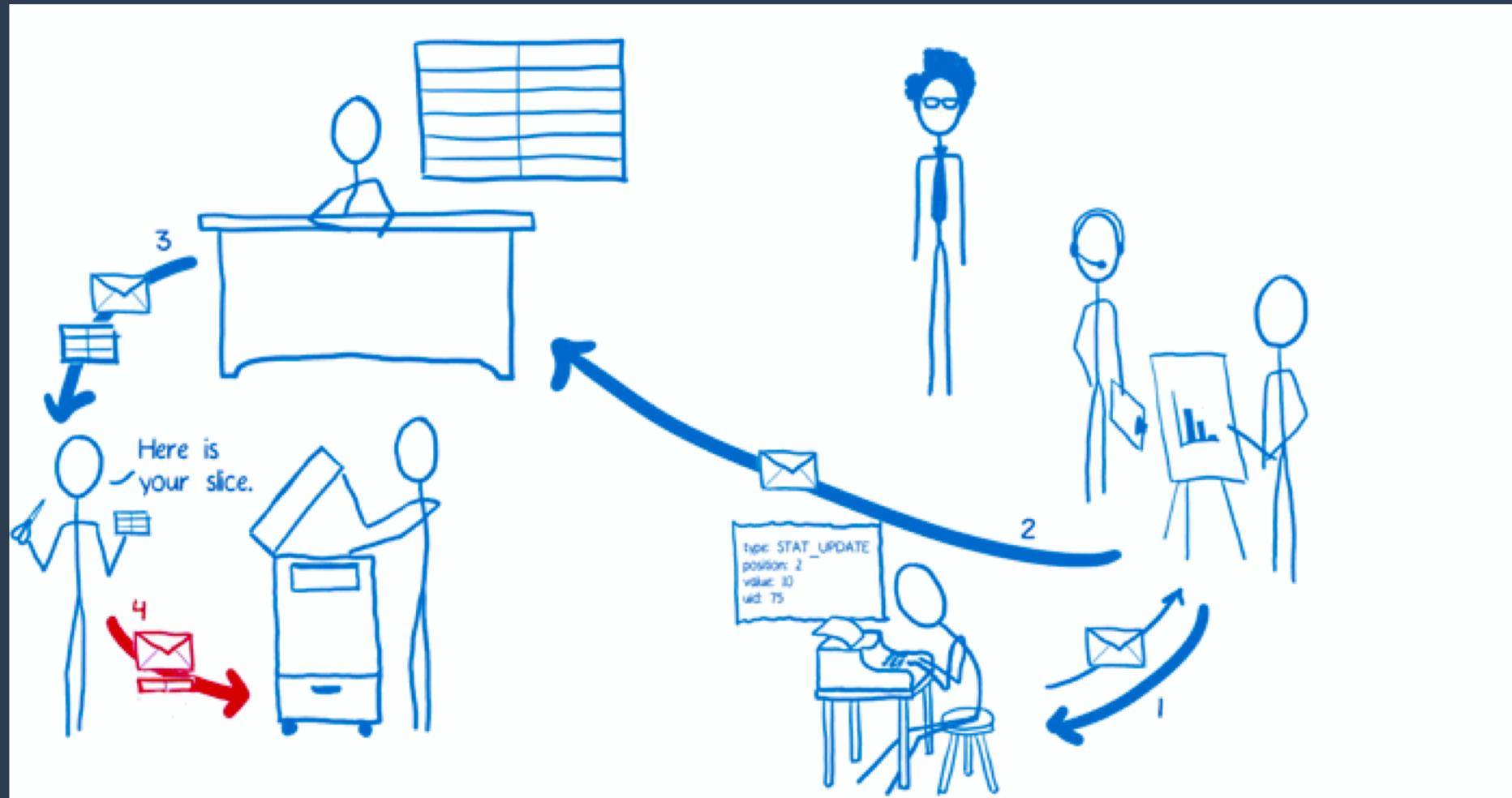
Flux / Redux

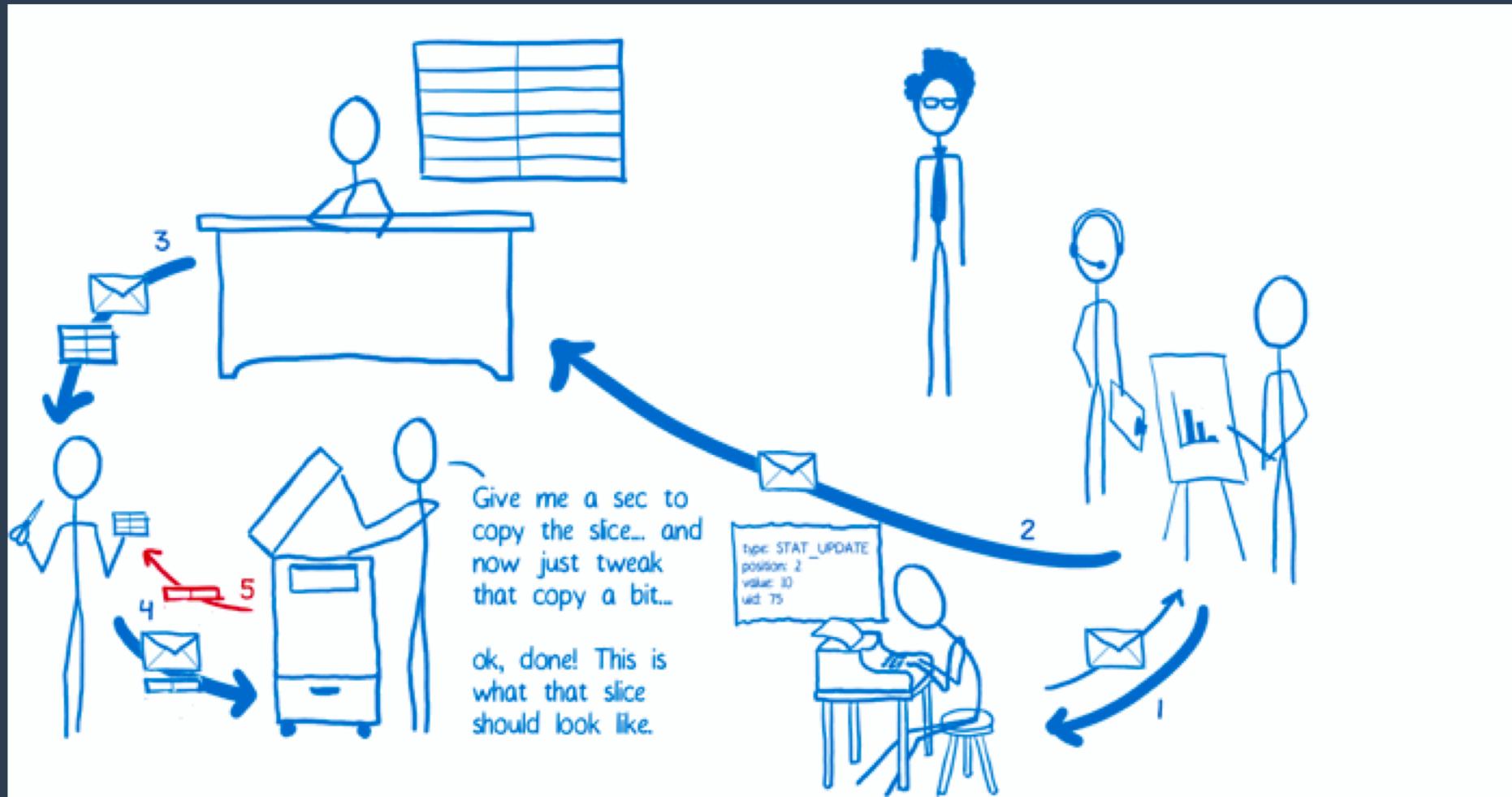


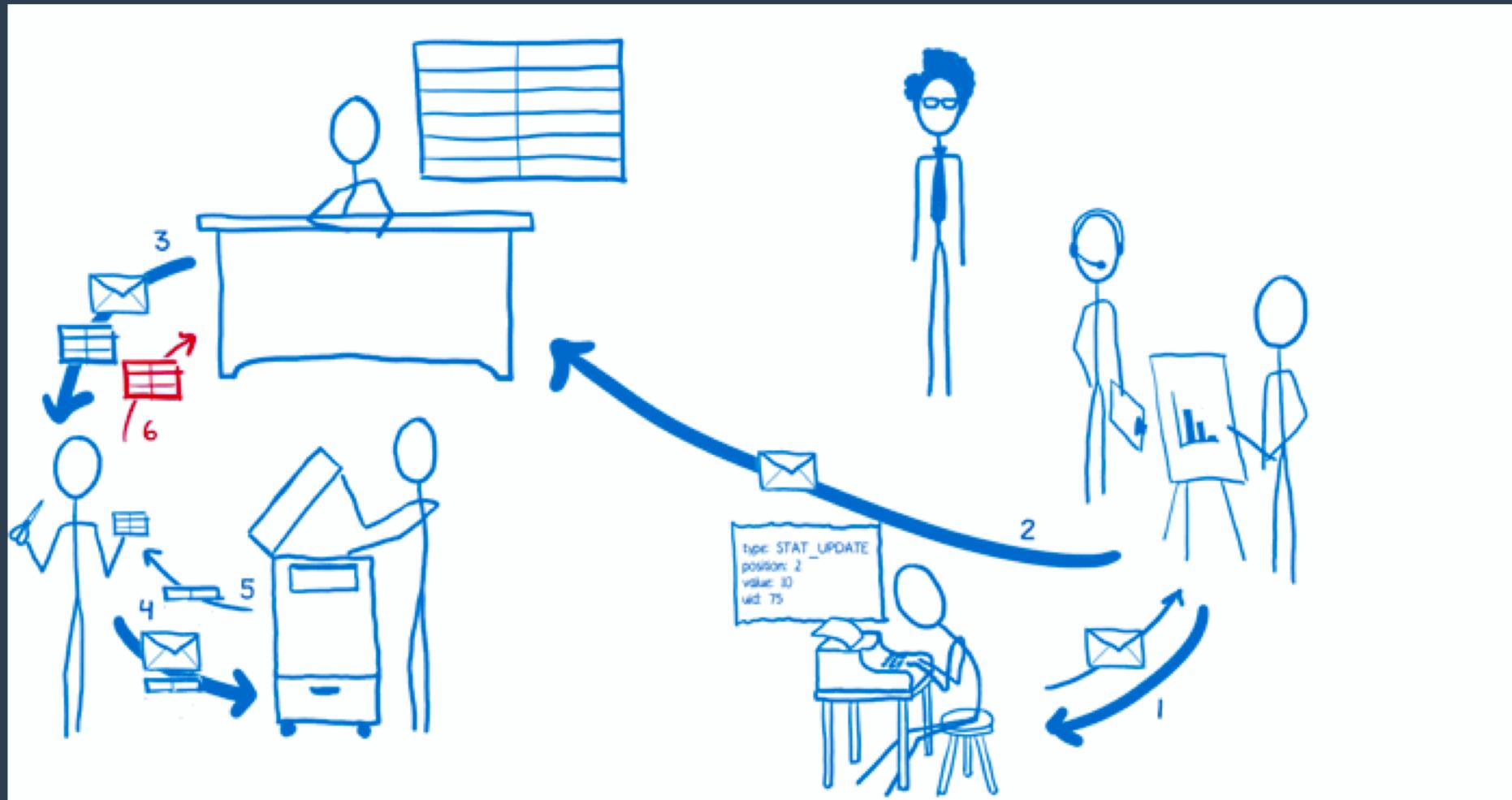


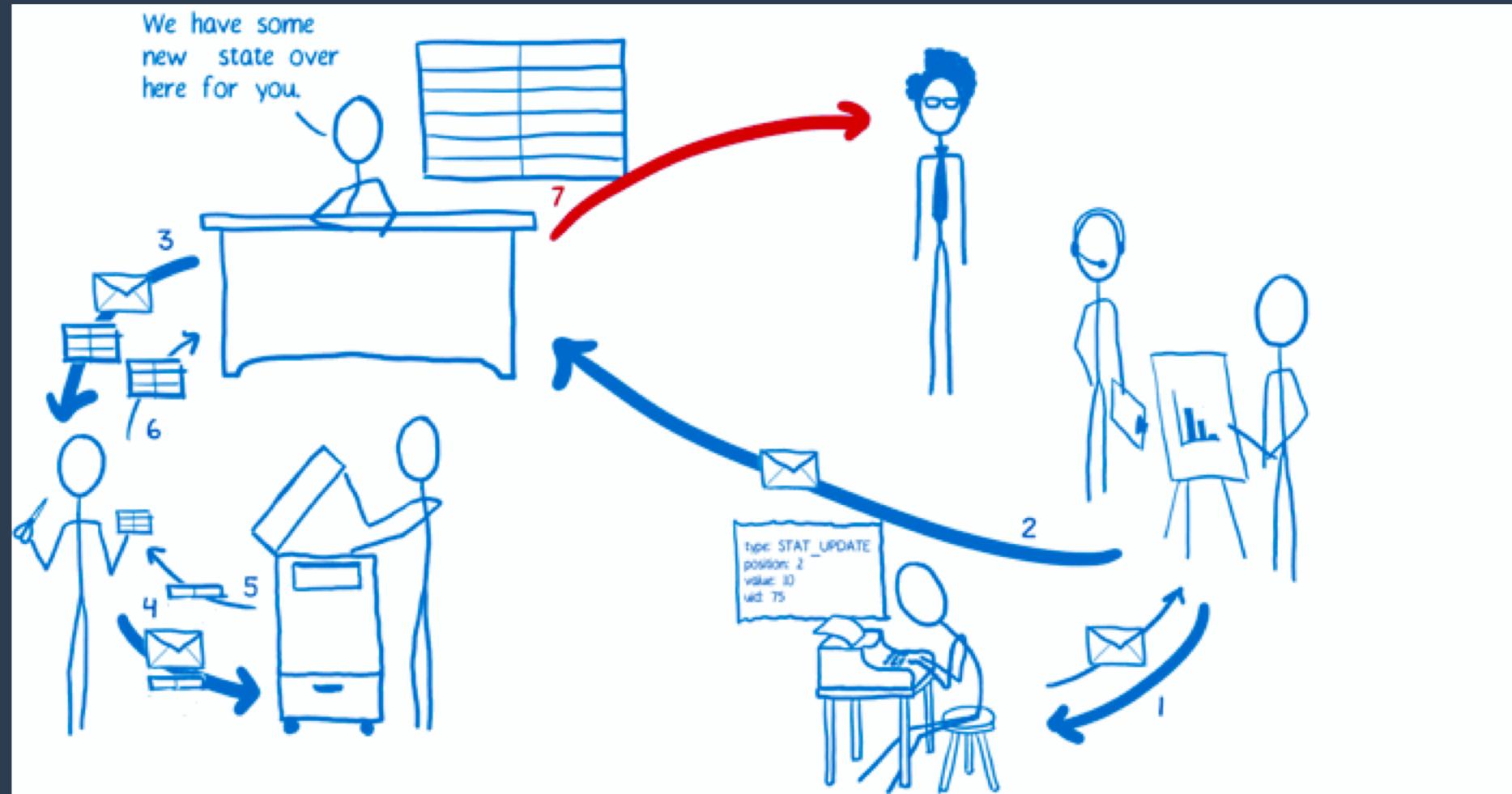
Here is the current state tree. Have your team figure out what the new state tree should look like.

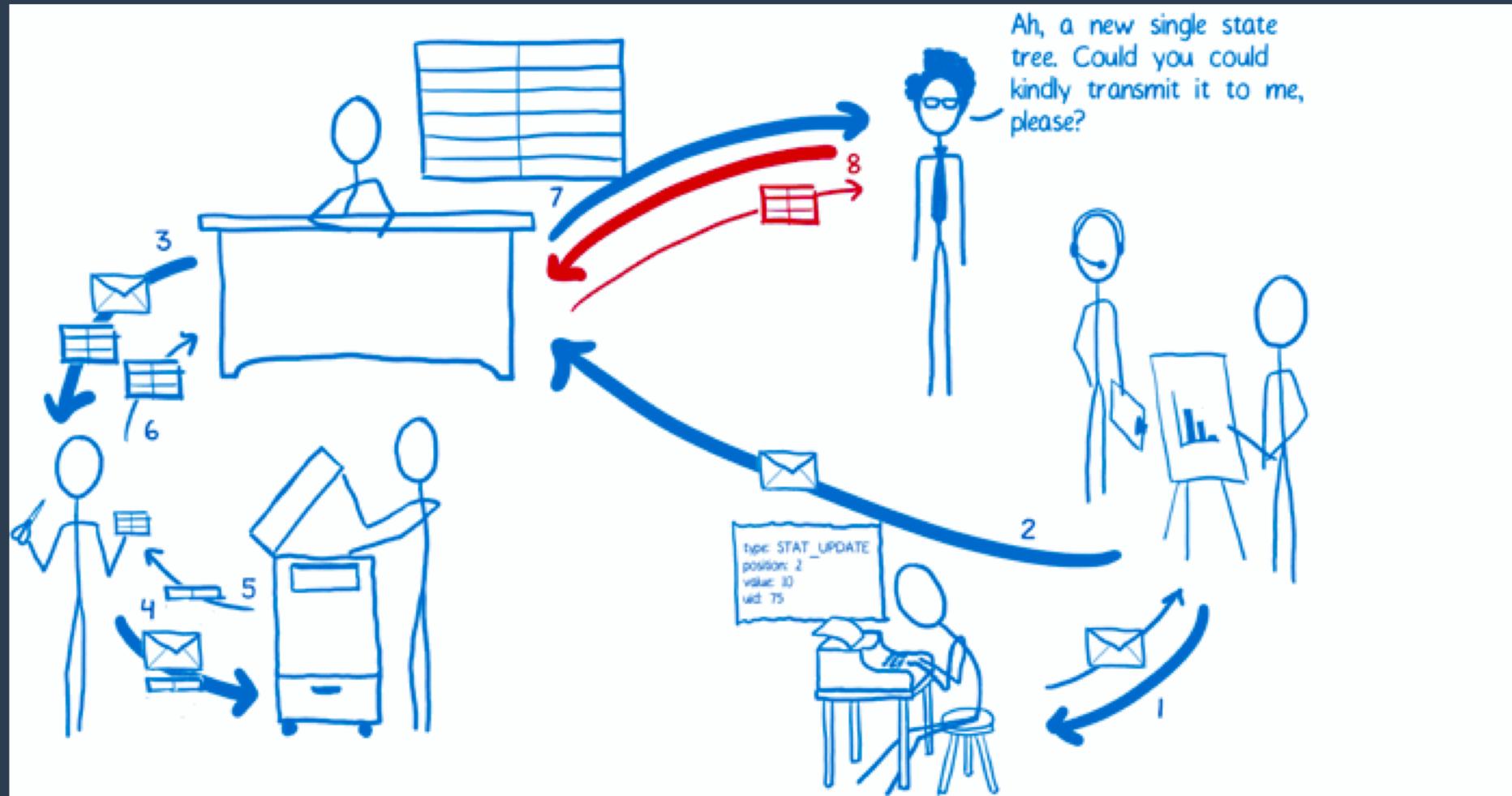


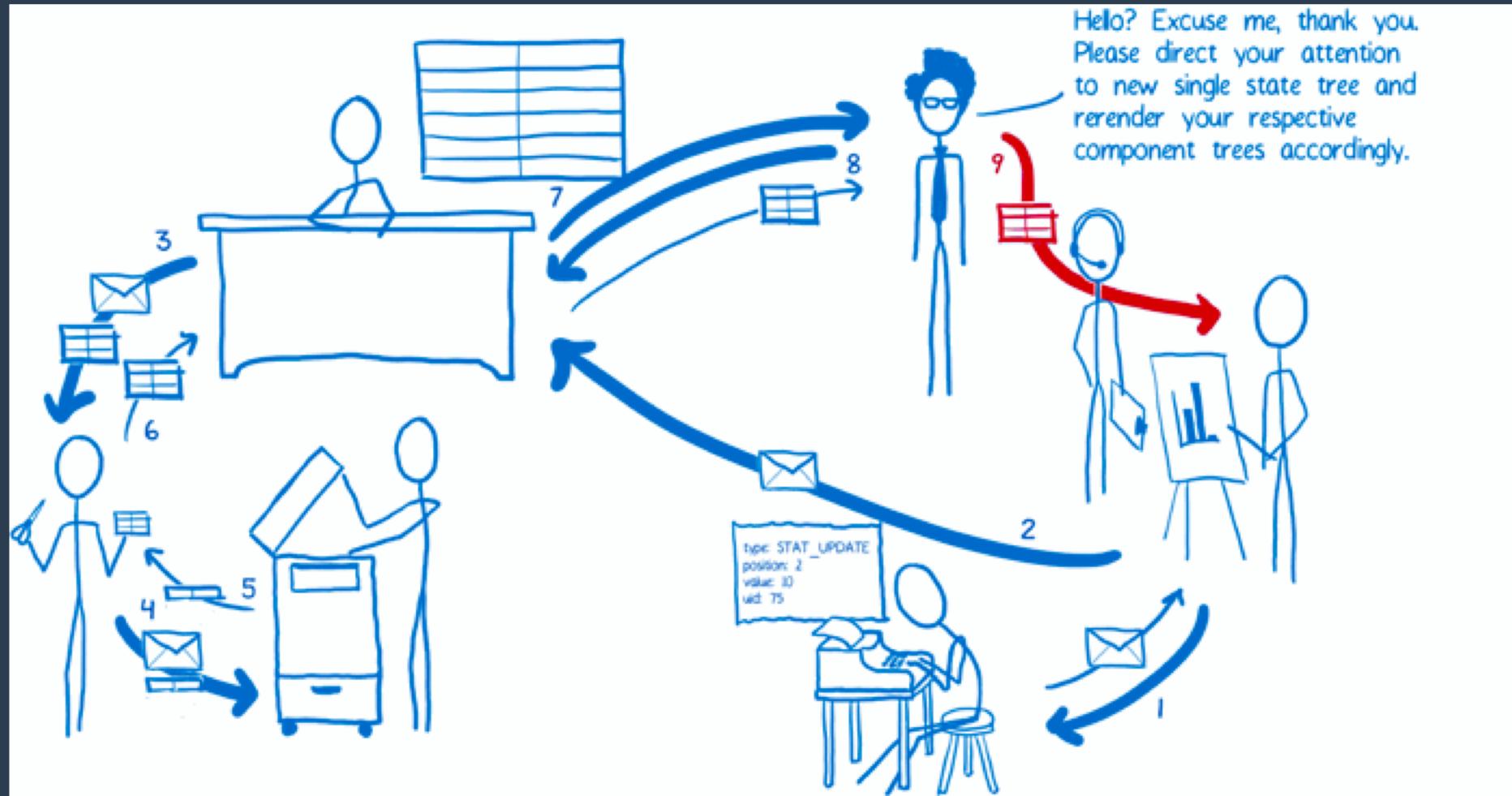












LAB

C.R.U.D

A dark blue, curved pipe or hose is positioned diagonally across the frame. It starts from the top left, curves down towards the center, and then loops back up towards the top right. The pipe has a slightly ribbed texture and a smooth, rounded end.

Related Info

GrpahQL

“GraphQL is a query language for APIs and a runtime for fulfilling those queries with your existing data ... gives clients the power to ask for exactly what they need and nothing more...”

SO LONG AND...



Thanks for all the fish!