

# React JS

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## Components and Routing

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# Recap

- React is more V and some sort of C in MVC
- JSX: 'HTML' in JS
- Virtual DOM: High performance

# Today's Plan

- State and Props
- Lifecycle hooks
- Demo 1
- React Router
- Demo 2

# State & Props

## State

- Component's own property
- Holds mutable state
- `this.state.username`

## Props

- Component's inherited property
- Immutable
- `this.props.username`

# Component Lifecycle

- `componentWillMount`
- `componentDidMount`
- `componentWillReceiveProps`
- `shouldComponentUpdate`
- `componentWillUpdate`
- `componentDidUpdate`
- `componentWillUnmount`

# componentWillMount

- Before render
- Good spot to set initial state

# componentDidMount

- After render
- By the time this function gets called component DOM exists
- Good point to call API or external DB calls

# componentWillReceiveProps

- Not called on initial render
- Good point to set a state before render



# shouldComponentUpdate

- Before render when new state or props come
- Point to restrict the re-rendering

# componentWillUnmount

- Before exiting the component
- Clean-up

# React Router

- React needs external module for routing
- Facebook team maintain **react-router**
- Easy to plug-in

# Links

- To allow users to navigate around your application
- `import {Link} from react-router`
- `<Link to='/dashboard' value="Login">Login</Link>`

Time for Demo!