

# React Lifecycle



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# Here's the Plan

- Props
- State
- Dynamic child components
- Lifecycle functions
- Demo time!
  - Mock API
  - Dynamic components

# Props and State

Props – Look like HTML attributes, but immutable

`this.props.username`

State – Holds mutable state

`this.state.username`

# Initial State

- `getInitialState`

# Default Prop Values

- `getDefaultProps`

# Lifecycle Methods

`componentWillMount`

`componentDidMount`

`componentWillReceiveProps`

`shouldComponentUpdate`

`componentWillUpdate`

`componentDidUpdate`

`componentWillUnmount`

# componentWillMount

When

Before initial render, both client and server

Why

Good spot to set initial state

# componentDidMount

When

After render

Why

Access DOM, integrate with frameworks, set timers, AJAX requests



# componentWillReceiveProps

When

When receiving new props. Not called on initial render.

Why

Set state before a render.

# shouldComponentUpdate

## When

Before render when new props or state are being received.  
Not called on initial render.

## Why

Performance. Return false to void unnecessary re-renders.

# componentWillUpdate

## When

Immediately before rendering when new props or state are being received.  
Not called on initial render.

## Why

Prepare for an update

# componentDidUpdate

## When

After component's updates are flushed to the DOM.  
Not called for the initial render.

## Why

Work with the DOM after an update

# componentWillUnmount

When

Immediately before component is removed from the DOM

Why

Cleanup

# Keys for Dynamic Children

Add a key to dynamic child elements

```
<tr key={author.id}>
```

# Summary

|           |   |
|-----------|---|
| Props     | Pass data to child components                     |
| State     | Data in controller view                           |
| Lifecycle | Handle bootstrapping and third party integrations |