

INTRODUCTION TO

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**REACTJS**

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# SETTING UP REACTJS

- ▶ Assuming you have install node [v14](#)
- ▶ \$ npx create-react-app my-app
- ▶ \$ cd my-app
- ▶ \$ npm start

```
> node_modules
└─ public
  ├── ★ favicon.ico
  ├── <> index.html
  ├── 🖼 logo192.png
  ├── 🖼 logo512.png
  ├── {} manifest.json
  └── ≡ robots.txt
└─ src
  ├── > components
  ├── # App.css M
  ├── JS App.js M
  ├── JS App.test.js
  ├── # index.css
  ├── JS index.js
  ├── 🖼 logo.svg
  ├── JS reportWebVitals.js
  ├── JS setupTests.js
  ├── 📄 .gitignore
  ├── {} package-lock.json
  ├── {} package.json
  └── ⓘ README.md
```

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# REACT COMPONENT

```
import React, {Component} from 'react';

class HelloWorld extends Component {
  render() {
    return (
      <div>
        Hello World!
      </div>
    );
  }
}

export default HelloWorld;
```



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# REACT COMPONENT USING CREATE ELEMENT

```
import React, {Component} from 'react';

class HelloWorldReactElement extends Component {
  render() {
    // Dont use this style
    return React.createElement('div', null, 'Hello World!');
  }
}

export default HelloWorldReactElement;
```



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# REACT FUNCTION COMPONENT

```
import React from 'react';

const HelloWorldFunction = props => {

  // Use this for simple stateless components
  return (
    <div>
      Hello World!
    </div>
  );
};

export default HelloWorldFunction;
```



# REACT STATE

```
import React, {Component} from 'react';

class HelloWorldWithState extends Component {
  state = {
    name: "React"
  }

  handleOnNameChange = (e) => {
    this.setState({name: e.target.value})
  }

  render() {
    return (
      <>
        <div>
          Hello World from <b>{this.state.name}</b>
        </div>
        <div>
          <input type="text" onChange={this.handleOnNameChange} placeholder="From name" value={this.state.name}/>
        </div>
      </>
    );
  }
}

export default HelloWorldWithState;
```



# REACT PROPS

```
import './App.css';
import HelloWorldWithProps from
"./components/HelloWorldWithProps";

function App() {
  return (
    <HelloWorldWithProps name="React"/>
  );
}

export default App;
```

```
import React, {Component} from 'react';

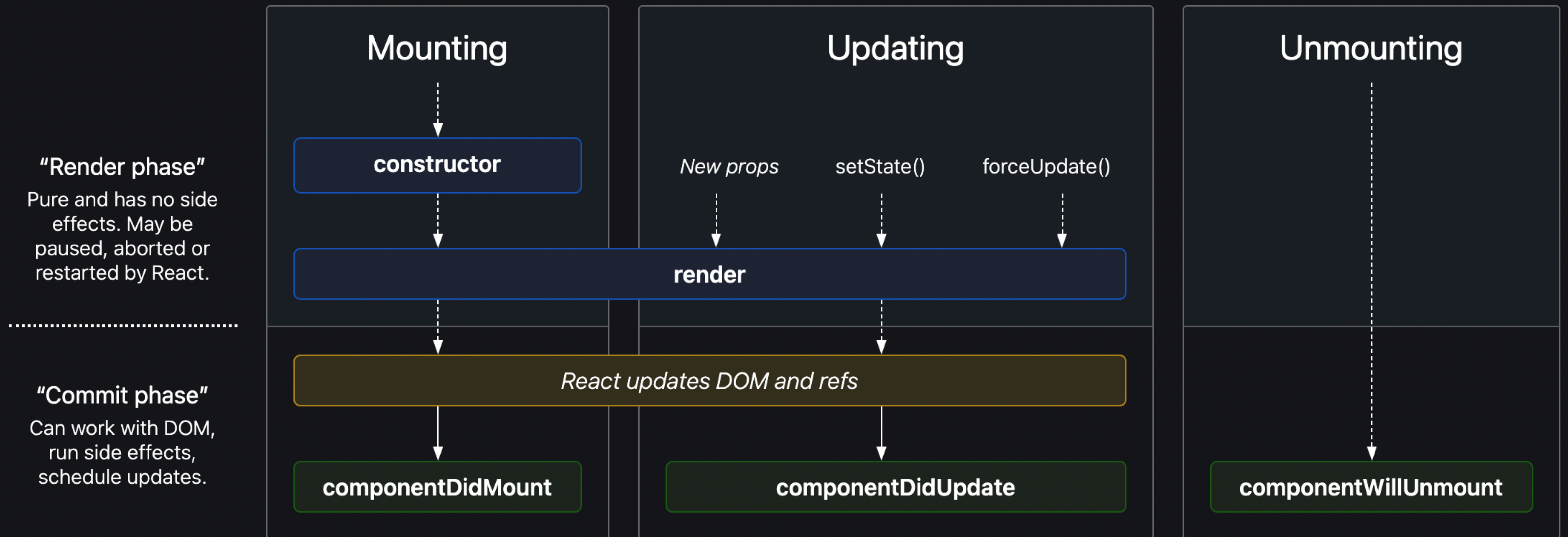
class HelloWorldWithProps extends Component {

  render() {
    return (
      <div>
        Hello World from <b>{this.props.name}</b>
      </div>
    );
  }
}

export default HelloWorldWithProps;
```

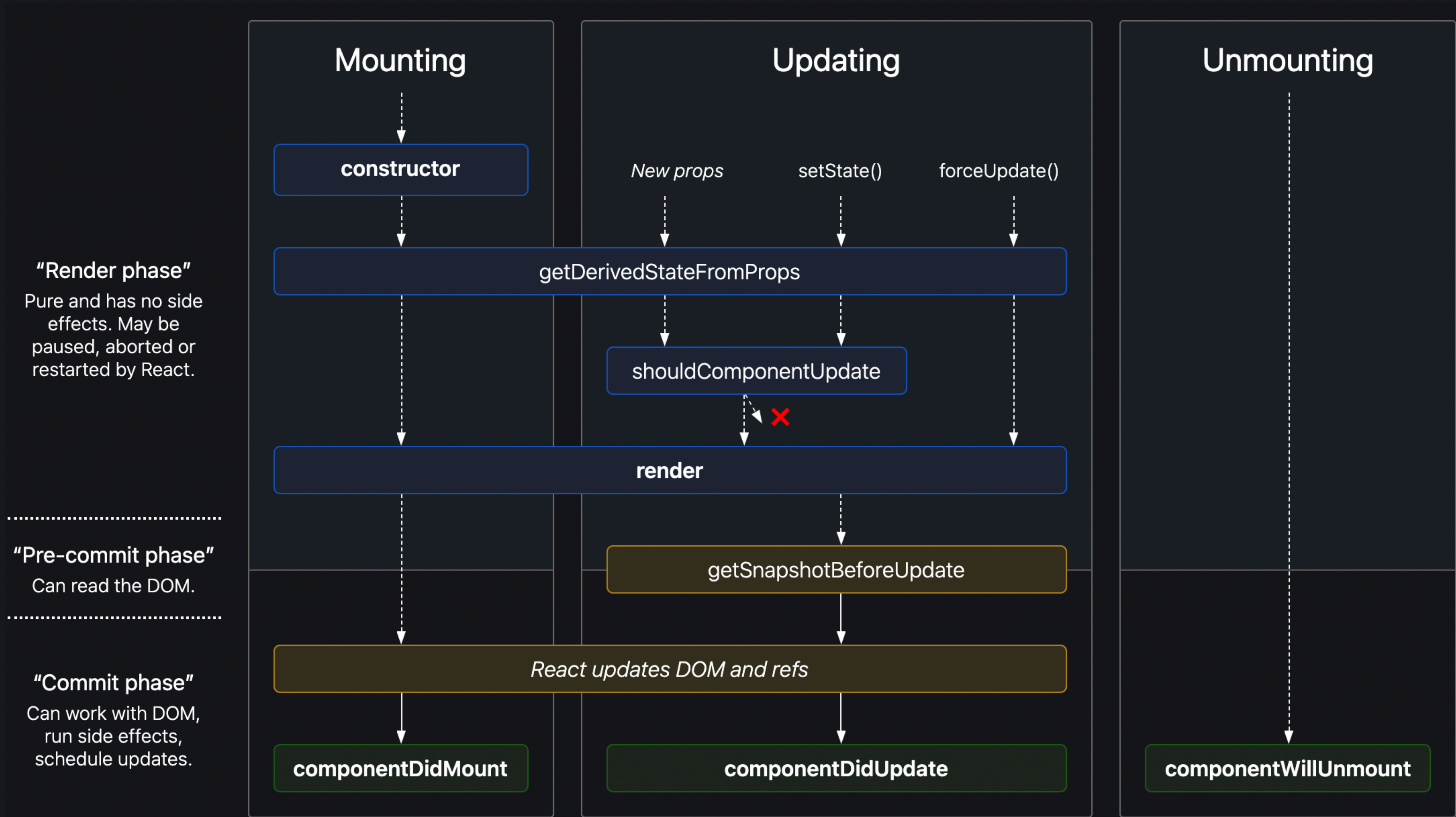


# REACT COMPONENT LIFECYCLE





# LESS COMMONLY USED LIFECYCLE





# API CALLS USING COMPONENTDIDMOUNT

```
import React, {Component} from 'react';

class HelloWorldApi extends Component {

  state = {
    jsFrameworks: []
  }

  constructor(props) {
    super(props);
  }

  async componentDidMount() {
    const r = await fetch("./jsFrameworks.json");
    const jsFrameworks = await r.json();
    this.setState({jsFrameworks});
  }

  render() {
    return (
      <>
        <div>
          {this.state.jsFrameworks.length === 0
            && 'No frameworks to show'}
        </div>
        <div>
          {this.state.jsFrameworks.map(f => {
            return <div>
              <a href={f.url}>{f.name}</a>
            </div>
          })}
        </div>
      </>
    );
  }
}
```



# TICKER USING COMPONENTWILLUNMOUNT

```
import React, {Component} from 'react';

class Ticker extends Component {

  state = {
    cancelInterval: null,
    tick: 0
  }

  componentDidMount() {
    const cancelInterval = setInterval(() => {
      this.setState(({tick}) => ({tick: tick + 1}));
    }, 1000);
    this.setState({cancelInterval});
  }

  componentWillUnmount() {
    window.alert('Clearing interval');
    clearInterval(this.state.cancelInterval);
  }

  render() {
    return (
      <h1>
        {this.state.tick}
      </h1>
    );
  }
}
```