

UI Engineering Studio. Day 12

Bootcamp: React

React

is a declarative, efficient, and flexible JavaScript library for building user interfaces. It lets you compose complex UIs from small and isolated pieces of code called “components”

- <https://reactjs.org>

State and Props

LifeCycle

Exercises: Thinking in
React

UI Boot Camp: React

State and Props: Props

A Property is:

- Attribute
- Quality
- Characteristic

In React we called them props and we can access to them using `this.props`

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State and Props: Props

We have two useful objects:

- defaultProps
- propTypes

The component props can be defined by itself or can be passed by its parent

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State and Props: Props

<https://codepen.io/anon/pen/WKzpzK>

<https://codepen.io/anon/pen/bjvWWJ>

<https://codepen.io/anon/pen/JBLNpr>

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State and Props: State

For data that is going to change, we have to use state (dynamic data!)

→ Is it passed in from a parent via props?

If so, it probably isn't state

→ Does it remain unchanged over time

If so, it probably isn't state

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State and Props: State

Some useful things here:

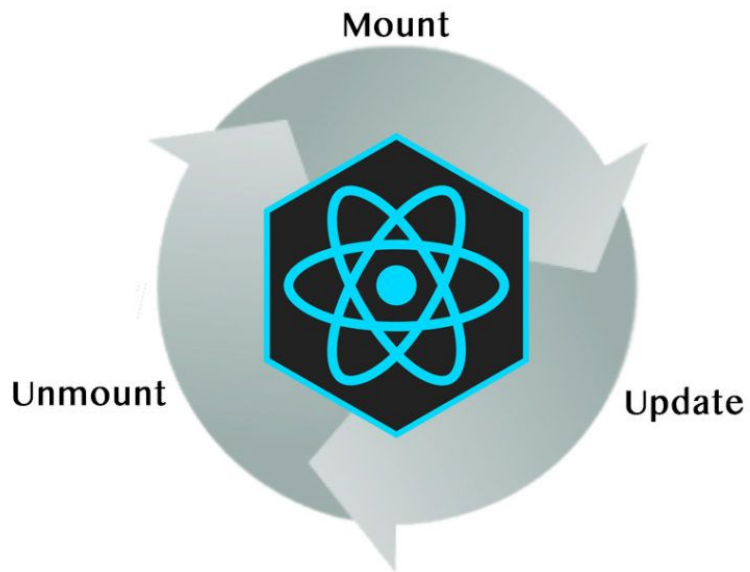
- `getInitialState`
- `setState(data, callback)`
- User inputs
- Event handlers

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State and Props: State

<https://codepen.io/anon/pen/pZLwye?editors=1010>

UI Boot Camp: React LifeCycle



UI Boot Camp: React

LifeCycle - Mounting

✓	Initial
✓	GetDefaultProps
✓	GetInitialState
✓	ComponentWillMount
✓	Render
✓	ComponentDidMount

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LifeCycle - Updating: State

✓ Updating State

✓ ShouldComponentUpdate

✓ ComponentWillUpdate

✓ Render

✓ ComponentDidUpdate

UI Boot Camp: React

LifeCycle - Updating: Props

✓ Updating Props
✓ ComponentWillRecieveProps
✓ ShouldComponentUpdate
✓ ComponentWillUpdate
✓ Render
✓ ComponentDidUpdate

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LifeCycle - Unmounting

✓ Unmounting

✓ componentWillUnmount

UI Boot Camp: React

LifeCycle

https://codepen.io/sebas_alarcon/pen/yEEgQm

UI Boot Camp: React

Exercises: Thinking in React - States of water



UI Boot Camp: React

Exercises: Thinking in React - States of water



Ice



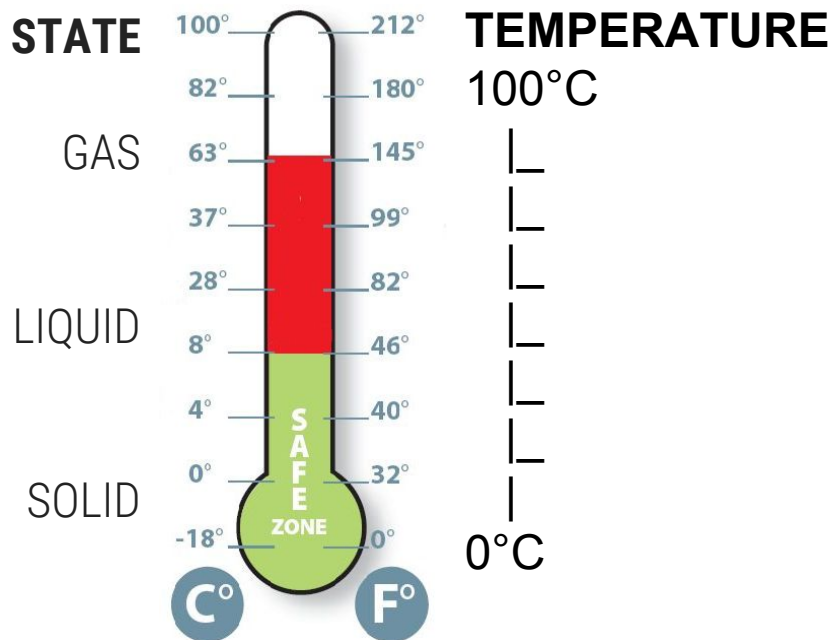
Water



Steam

UI Boot Camp: React

Exercises: Thinking in React - States of water



UI Boot Camp: React

Exercises: Thinking in React - States of water

<https://codepen.io/luribeto/pen/JKjVPE>

UI Boot Camp: React

Exercises: Thinking in React - Identifying Components

☐ Only show products in stock

Name	Price
Sporting Goods	
Football	\$49.99
Baseball	\$9.99
Basketball	\$29.99
Electronics	
iPod Touch	\$99.99
iPhone 5	\$399.99
Nexus 7	\$199.99

UI Boot Camp: React

Exercises: Thinking in React - Identifying Components

```
[  
  {category: "Sporting Goods", price: "$49.99", stocked: true, name: "Football"},  
  {category: "Sporting Goods", price: "$9.99", stocked: true, name: "Baseball"},  
  {category: "Sporting Goods", price: "$29.99", stocked: false, name: "Basketball"},  
  {category: "Electronics", price: "$99.99", stocked: true, name: "iPod Touch"},  
  {category: "Electronics", price: "$399.99", stocked: false, name: "iPhone 5"},  
  {category: "Electronics", price: "$199.99", stocked: true, name: "Nexus 7"}  
];
```

UI Boot Camp: React

Exercises: Thinking in React - Identifying Components

Search...

☐ Only show products in stock

Name	Price
Sporting Goods	
Football	\$49.99
Baseball	\$9.99
Basketball	\$29.99
Electronics	
iPod Touch	\$99.99
iPhone 5	\$399.99
Nexus 7	\$199.99

1. **FilterableProductTable** (orange): contains the entirety of the example
2. **SearchBar** (blue): receives all user input
3. **ProductTable** (green): displays and filters the data collection based on user input
4. **ProductCategoryRow** (turquoise): displays a heading for each category
5. **ProductRow** (red): displays a row for each product

- **FilterableProductTable**
 - **SearchBar**
 - **ProductTable**
 - **ProductCategoryRow**
 - **ProductRow**

UI Boot Camp: React Homework!

We're going to continue with the TODO list.

- Let's put some life to those components: Implement States, Props and LifeCycle



