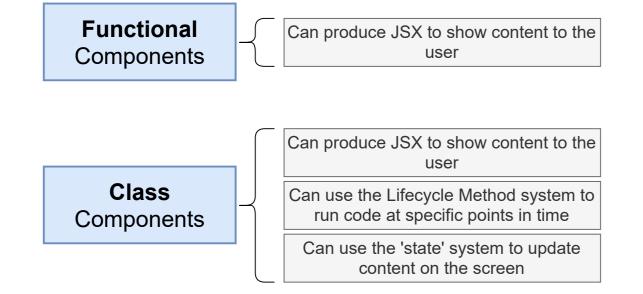
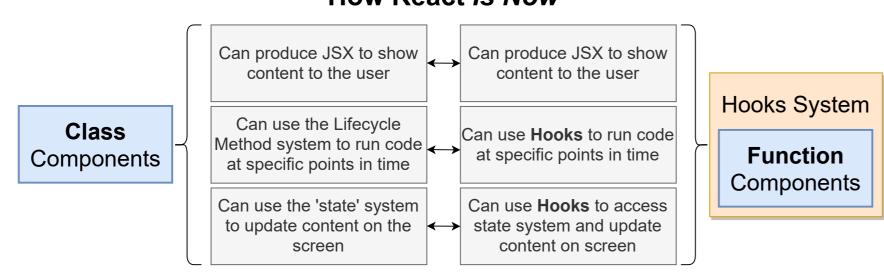


How React Used to Be



How React Is Now



ClassComponents

Function Components

Have the same capabilities

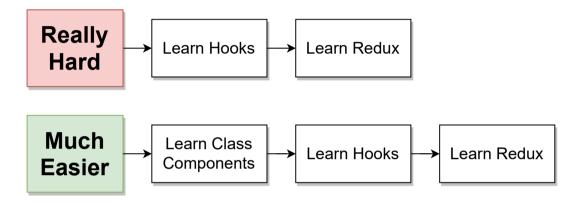
...So...which one should we use?

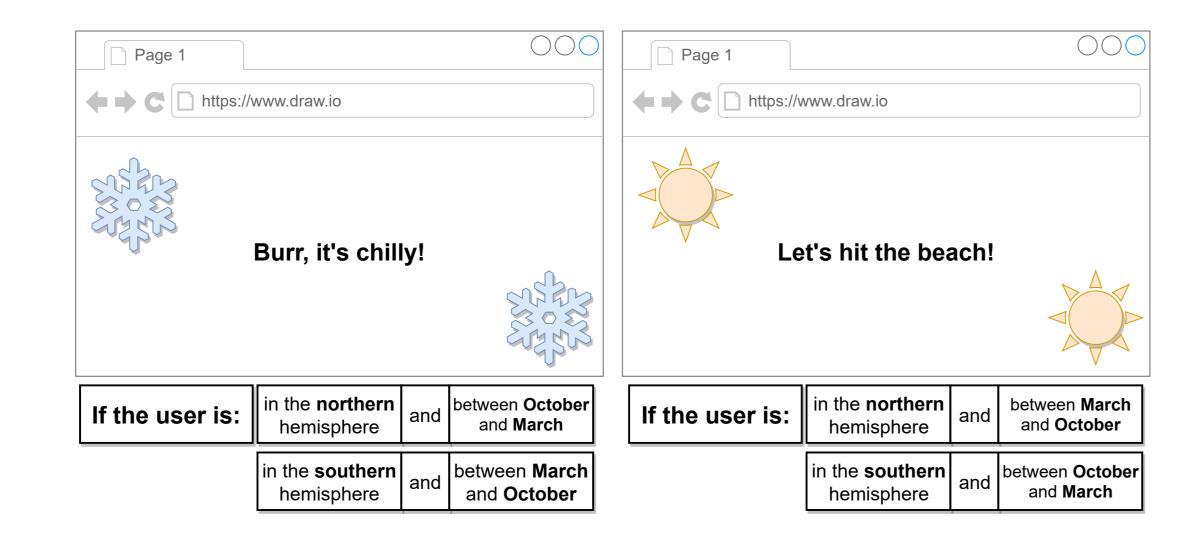
ClassComponents

Function Components

Companies with **established projects** are using Class-based components

Companies with *newer projects* may be using Class-based *or* Function-based components



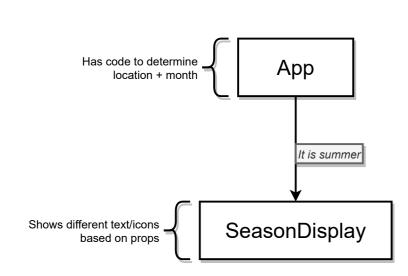


App Challenges

Need to get the users physical location

Need to determine the current month

Need to change text and styling based on location + month



Geolocation API

developer.mozilla.org/en-US/docs/Web/API/Geolocation_API

App component gets created

We call geolocation service

App returns JSX, gets rendered to page as HTML
...

We get result of geolocation!

App component gets created

We call geolocation service

App returns JSX, gets rendered to page as HTML

...

We get result of geolocation!

Tell the component to rerender itself with this new information

Time

JS file loaded by browser

Instance of App component is created

App components 'constructor' function gets called

State object is created and assigned to the 'this.state' property

We call geolocation service

React calls the components render method

App returns JSX, gets rendered to page as HTML

We get result of geolocation!

We update our state object with a call to 'this.setState'

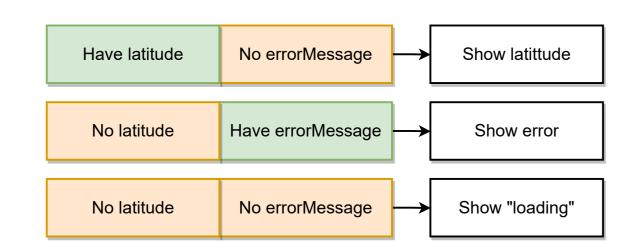
'this.setState'

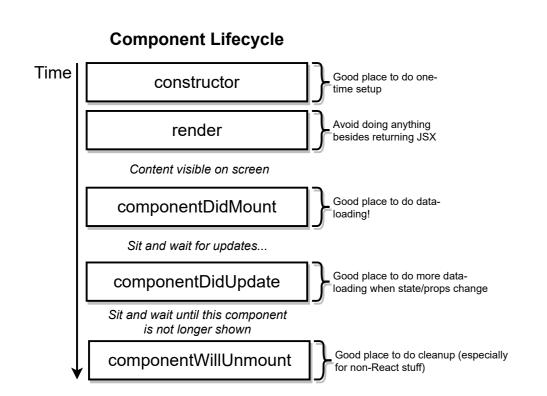
React sees that we updated the state of a

React calls our 'render' method a second time

Render method returns some (updated) JSX

React takes that JSX and updates content on the screen



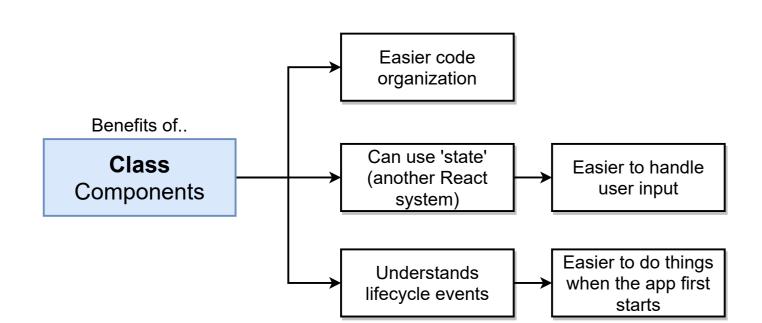


Northern Hemisphere

0	1	2	3	4	5	6	7	8	9	10	11
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

Southern Hemisphere

0	1	2	3	4	5	6	7	8	9	10	11
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec



Rules of Class
Components

Must be a Javascript Class

Must extend (subclass)
React.Component

Must define a 'render' method that returns some amount of JSX

Rules of State

Only usable with class components

Technically can be used with functional components using the 'hooks' system (thing to discuss later)

You will confuse props with state :(

'State' is a JS object that contains data relevant to a component

Updating 'state' on a component causes the component to (almost) instantly rerender

State must be initialized when a component is created

State can only be updated using the function 'setState'

Time constructor

render

Content visible on screen

componentDidMount

Sit and wait for updates...

componentDidUpdate

Sit and wait until this component is not longer shown

componentWillUnmount