A React Point of Vue

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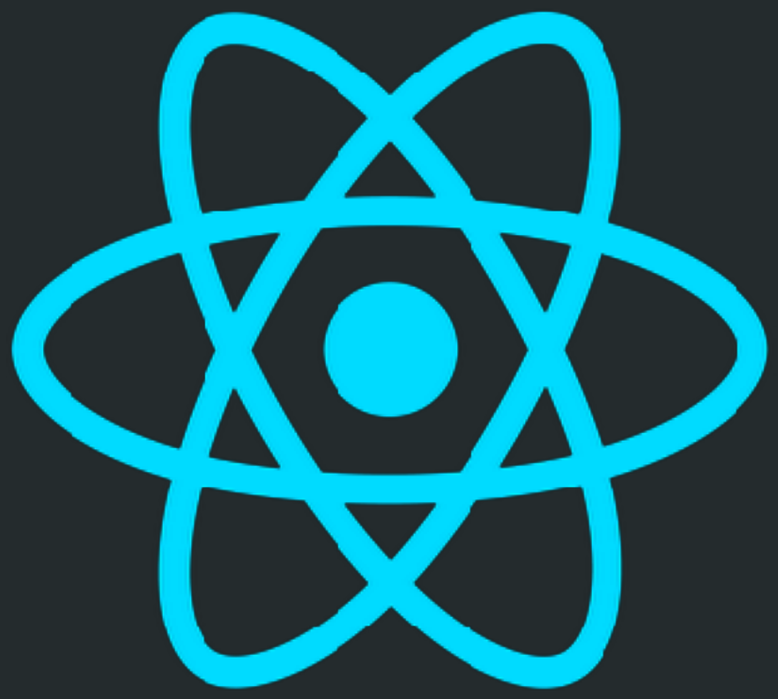
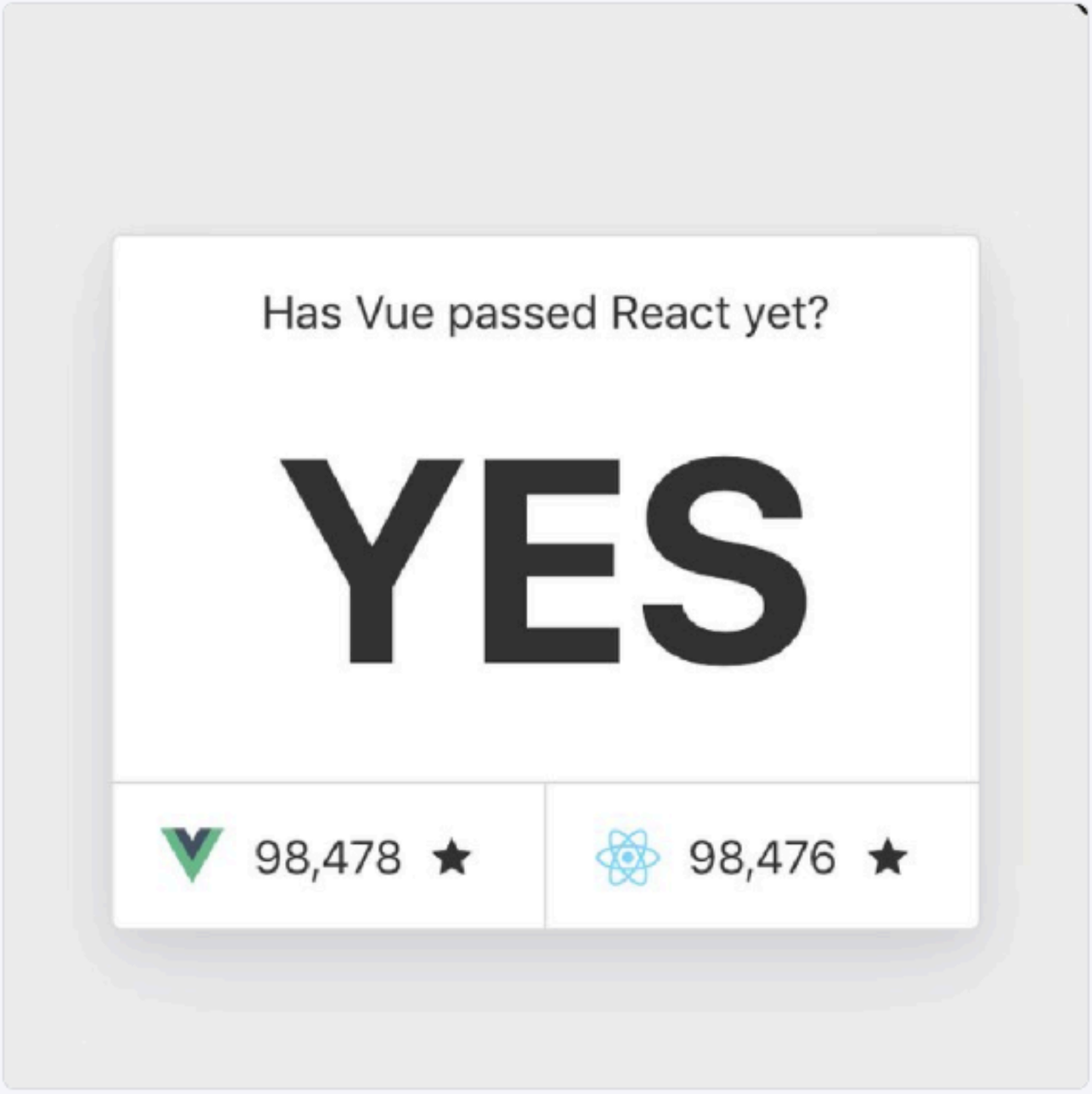
@shortdiv

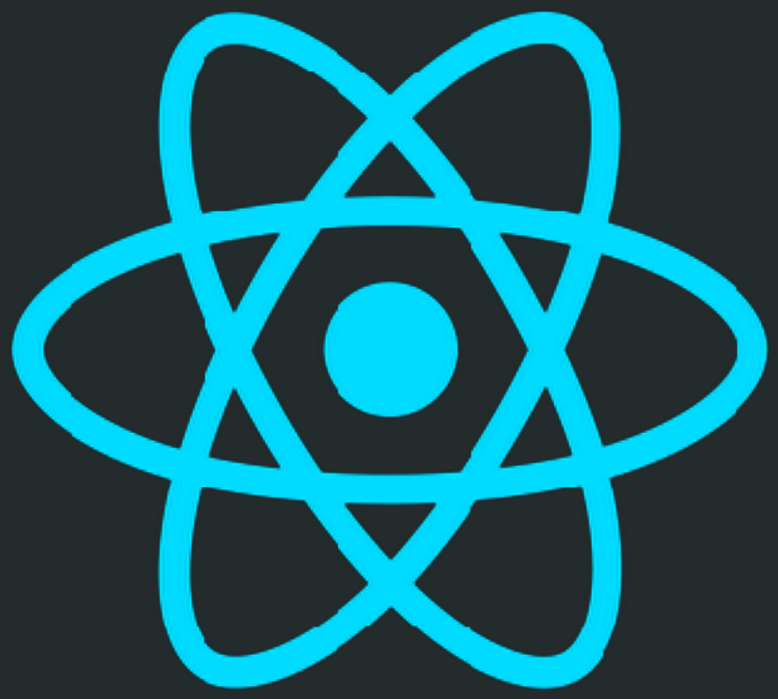


Dan Abramov @dan_abramov · Jun 14

Congratulations to @vuejs for surpassing React's star count on GitHub! Seems like I almost captured a historical moment by accident.



121 1.4K 4.3K




COMEDY

Overview

Render Components

Render Children

Render Props

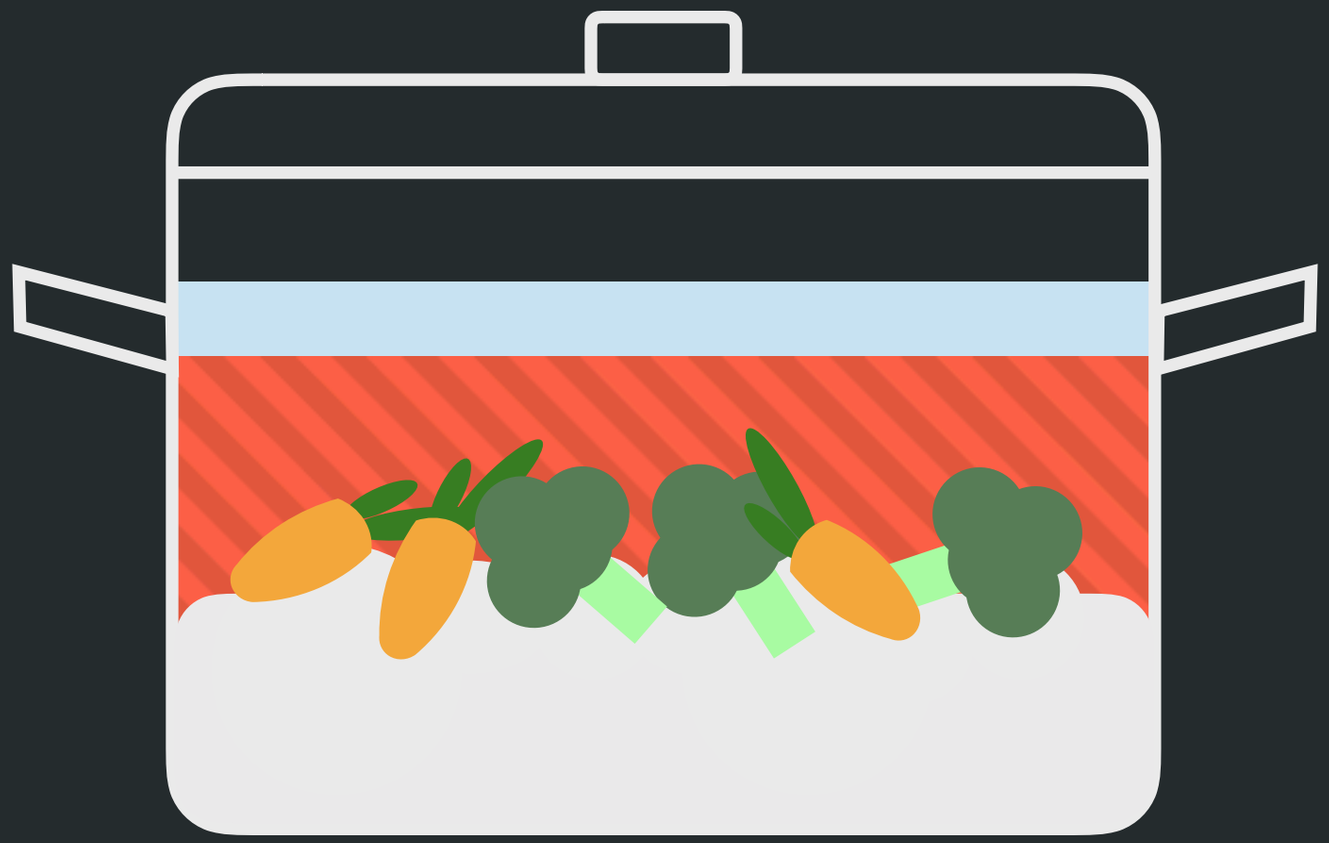
Renderless Components

Components

"*We're not designing pages, we're designing systems of components*"

– *Stephen Hay*

Author of Responsive Design Workflow



```
<Water />
<Stew />
<Veggies />
<Rice />
```

```
class Rice extends React.Component {
```

```
}
```

```
class Rice extends React.Component {
  constructor(props) {
    super(props)
  }
```

```
}
```

```
class Rice extends React.Component {
  constructor(props) {
    super(props)
  }
  render() {
```

```
  }
}
```

```
class Rice extends React.Component {
  constructor(props) {
    super(props)
  }
  render() {
    return (
      <div id="rice">
      </div>
    )
  }
}
```

```
<template>


</template>

<script>
  export default {
  }
</script>
```

```
<template>
  <div id="rice">
  </div>
</template>

<script>
  export default {
    name: "rice"
  }
</script>
```

```
class Pot extends React.Component {
  …
  render() {


    return (
     <div id=“pot">

          <Chili />
          <Water />
          <Stew />
          <Veggies />
          <Rice />
        </div>
    )
  }
}
```

```
class Pot extends React.Component {
  …
  render() {
    const chilis =
      Array.apply(null, Array(this.props.chilis))
    return (
     <div id="pot">
       { chilis.map((sugar, index) =>
         <Chili />
       )}
       <Water />
       <Stew />
       <Veggies />
       <Rice />
      </div>
    )
  }
}
```

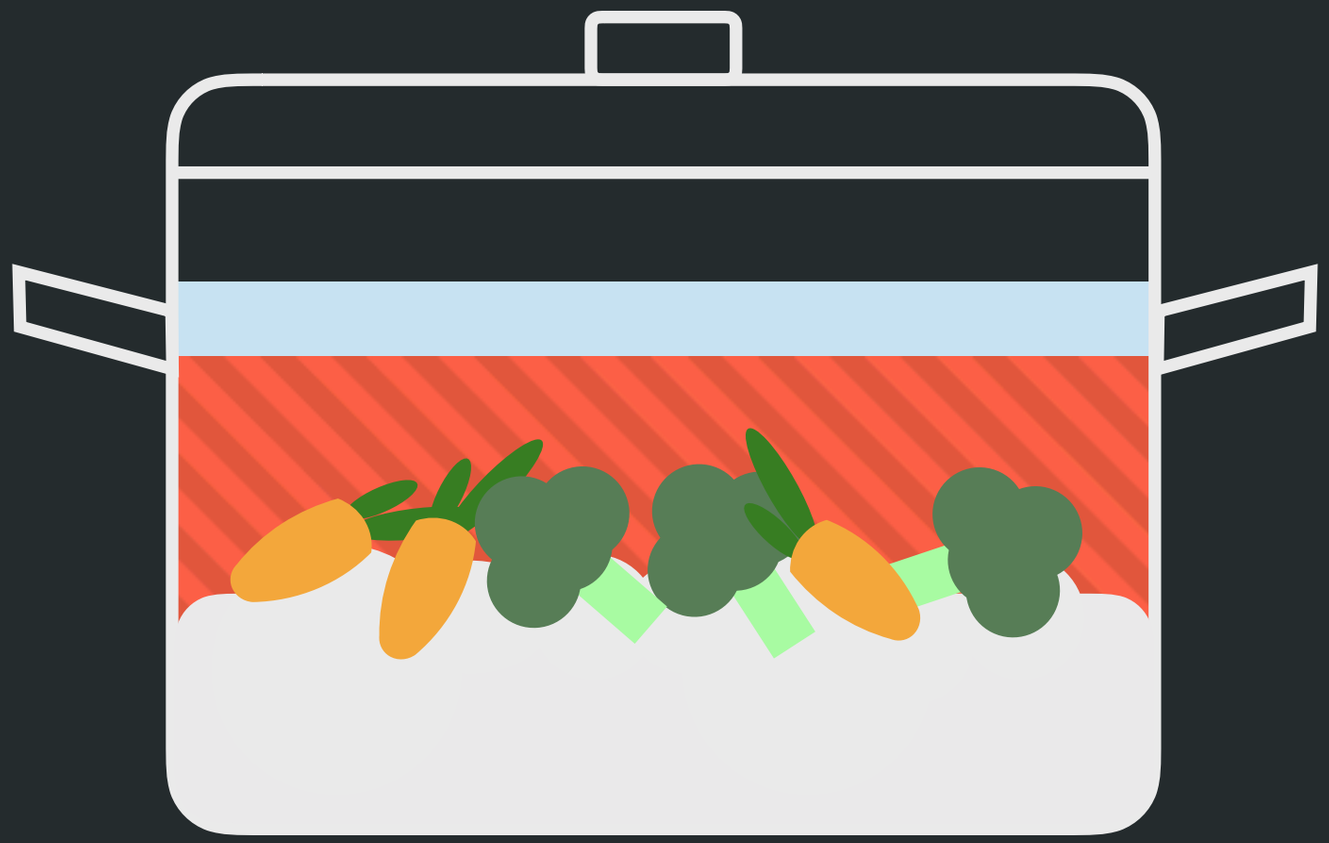
```
<template>
 <div id=“pot">
   <Chili />
   <Water />
   <Stew />
   <Veggies />
   <Rice />
 </div>
</template>
```

```
<script>
  export default {
    name: 'Pot'

  }
</script>
```

```
<template>
 <div id=“pot">
   <Chili v-for="(chili, index) in chilis” />
   <Water />
   <Stew />
   <Veggies />
   <Rice />
 </div>
</template>
```

```
<script>
  export default {
    name: 'Pot'
    props: { 'chilis': { type: Number } }
  }
</script>
```




OR

```
<Water />
<Stew />
<Veggies>
<Rice />
```

<Water />
<Stew />
~~<Veggies>~~<Meat>
<Rice />

```
class Pot extends React.Component {
  …
  render() {
    return (
      <div id="pot">
        <Water />
        <Stew />
        <Veggies>

        <Rice />
      </div>
    )
  }
}
```

```
class Pot extends React.Component {
  …
  render() {
    return (
      <div id="pot">
        <Water />
        <Stew />
        { this.props.vegetarian ?
          <Veggies> : </Meat>
        }
        <Rice />
      </div>
    )
  }
}
```

```
<template>
  <div>
    <Water />
    <Stew>
    <Veggies />

    <Rice />
  </div>
</template>

<script>
  export default {
    name: 'Pot'

  }
</script>
```

```
<template>
  <div>
    <Water />
    <Stew>
    <Veggies v-if="vegetarian" />
    <Meat v-else />
    <Rice />
  </div>
</template>

<script>
  export default {
    name: 'Pot'
    props: { vegetarian: { type: Boolean } }
  }
</script>
```

```
<template>
  <div>
    <Chili v-for="(chili, index) in chilis" />
    <Water />
    <Stew>
    <Veggies v-if="vegetarian" />
    <Meat v-else />
    <Rice />
  </div>
</template>

<script>
  export default {
    name: 'Pot'
    props: { vegetarian: {…}, chilis: {…} }
  }
</script>
```

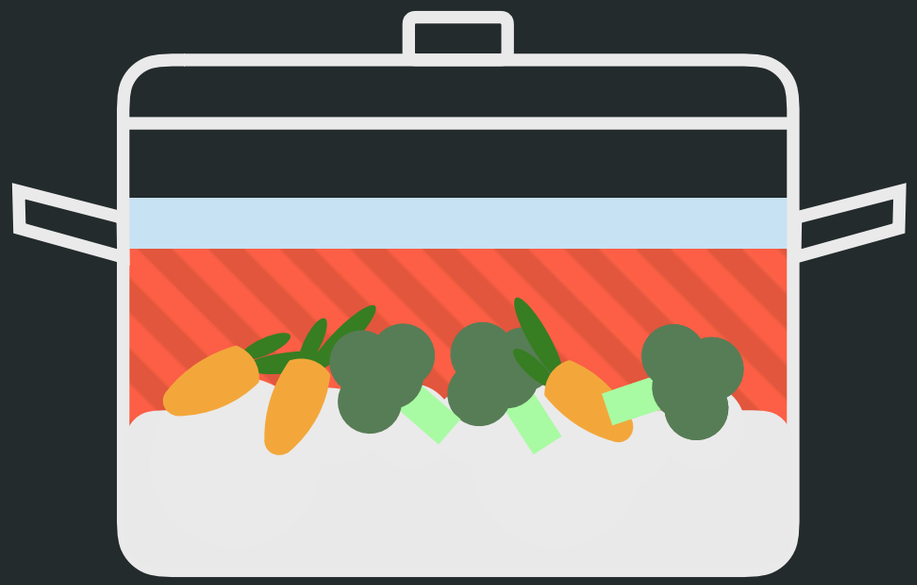
```
class Pot extends React.Component {
  …
  render() {
    const Chilis =
      Array.apply(null, Array(this.props.chilis))
    return (
     <div id="pot">
       { chilis.map((chili, index) =>
         <Chili key={index} />
       )}
       <Water />
       <Stew />
       { this.props.vegetarian ?
         <Veggies> : </Meat>
       }
       <Rice />
     </div>
    )
  }
}
```

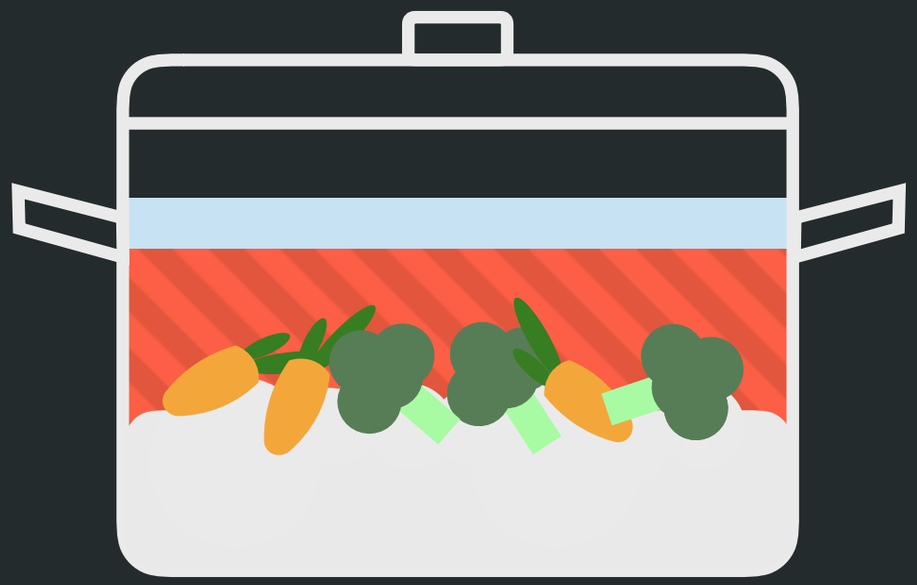
Demo

```
<div id="pot">
  <Water />
  <Stew />
  <Veggies />
  <Rice />
</div>
```

<Pot />

Render Children





White Rice

Brown Rice

https://what-jollofin-at.netlify.com/


Water
Stew
<— Rice —>

```
<Pot>
    <Water />
    <Stew />
    <Veggies />
    <Rice />
</Pot>
```

```
class Pot extends React.Component {
  render() {
    return (
      <div id="pot">
        <Water />
        <Stew />
        <Veggies />
        <Rice />
      </div>
    )
  }
}
```

```
class Pot extends React.Component {
   render() {
      return (
         <div id="pot">

            { this.props.children }

         </div>
      )
   }
}
```

```
class Pot extends React.Component {
  render() {
    return
      React.createElement(
      )
  }
}
```

```
class Pot extends React.Component {
  render() {
    return
      React.createElement(
        'div',
        { id: ‘pot' },
        this.props.children
        )
    }
}
```

```
<script>
  export default {
    name: ‘pot',
    render() {
    }
  }
</script>
```

```
<script>
  export default {
    name: ‘pot',
    render(createElement) {
      return createElement(
        )
    }
  }
</script>
```

```
<script>
  export default {
    name: 'pot',
    render(createElement) {
      return createElement(
        'div',
        { id: "pot" },
        [children]
      )
    }
  }
</script>
```

```
<script>
  export default {
    name: 'pot',
    render(createElement) {
      return createElement(
        'div',
        { id: "pot" },
        this.$options._renderChildren
      )
    }
  }
</script>
```

```
<script>
  export default {
    name: 'pot',
    render(createElement) {
      return createElement(
        'div',
        { id: "pot" },
        this.$slots.default
      )
    }
  }
</script>
```

```
<script>
  export default {
    name: 'pot',
    render(createElement) {
      return (
        <div class="pot">
          { this.$slots.default }
        </div>
      )
    }
  }
</script>
```

Demo

```
<script>
  export default {
    name: 'pot',
    render(createElement) {
      return (
        <div class="pot">
          { this.$slots.default }
        </div>
      )
    }
  }
</script>
```

```
<template>
  <div id="pot">
    <slot></slot>
  </div>
</template>

<script>
  export default {
    name: 'pot'
  }
</script>
```

```
<template>
 <div id="pot">
  <slot name="water"></slot>
  <slot name="stew"></slot>
  <slot name="veggies"></slot>
  <slot name="rice"></slot>
 </div>
</template>

<script>
  export default {
    name: 'pot'
    …
  }
</script>
```

```
<Pot>
  <Rice slot="rice"/>
  <Stew slot="stew" />
</Pot>
```

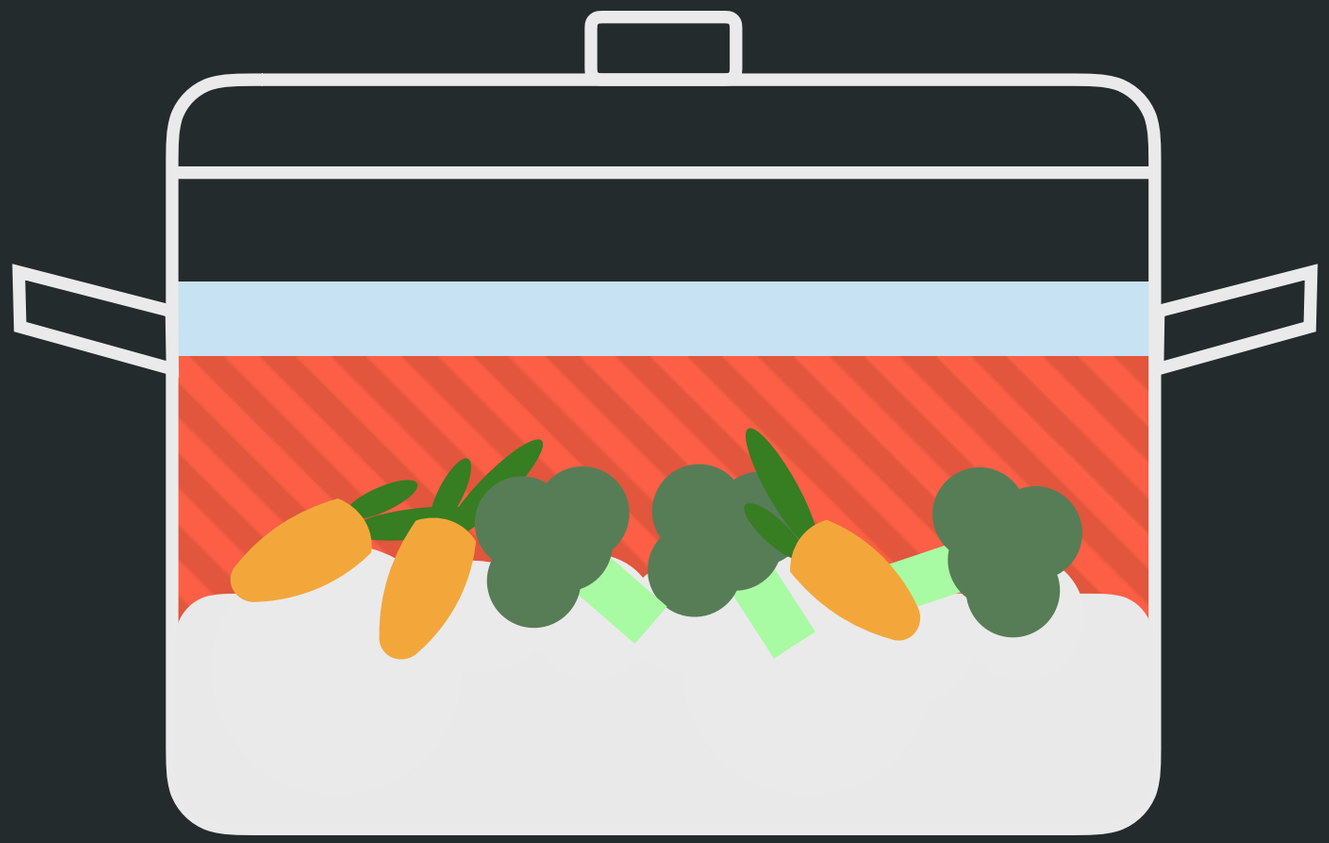
Render Props

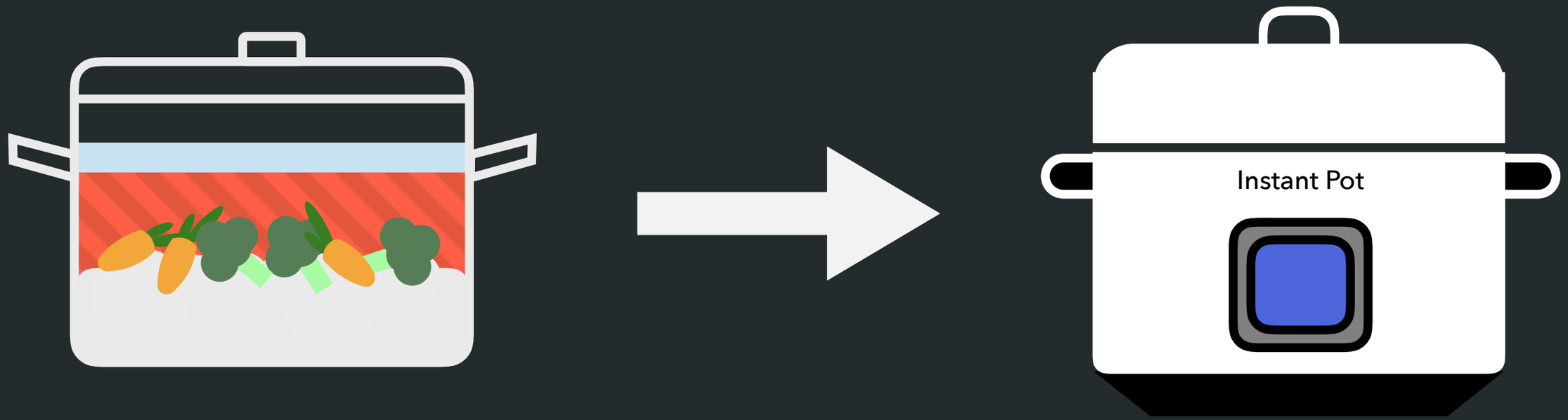
"

A render prop is a function that a component uses to know what to render

"

– Michael Jackson, React Training




Instant Pot

```
<Pot>
    <Water />
    <Stew />
    <Veggies />
    <Rice />
</Pot>
```

```
<InstantPot>
  <Water />
  <Stew />
  <Veggies />
  <Rice />
</InstantPot>
```

```
<Meal>
  ...
</Meal>
```

```
<template>
  <div id="meal">




  </div>
</template>
```

```
<script>


  export default {
    name: “Meal"

  }
</script>
```

```
<template>
  <div id="meal">
    <slot name="jollof">



    </slot>
  </div>
</template>
```

```
<script>


  export default {
    name: "Meal"

  }
</script>
```

```
<template>
  <div id="meal">
    <slot name="jollof">

      <Pot />
    </slot>
  </div>
</template>
```

```
<script>
  import Pot from './Pot'

  export default {
    name: "Meal"
    components: { Pot }
  }
</script>
```

```
<template>
  <div id="meal">
    <slot name="jollof"
      temperature="80">
      <Pot />
    </slot>
  </div>
</template>
```

```
<script>
  import Pot from './Pot'

  export default {
    name: "Meal"
    components: { Pot }
  }
</script>
```

```
<template>
 <div id="app">


 </div>
</template>

<script>


  export default {
    name: 'app'

  }
</script>
```

```
<template>
 <div id="app">
   <Meal>
   </Meal>
 </div>
</template>
```

```
<script>

  import Meal from './Meal'
  export default {
    name: ‘app'
    components: { Meal       }
  }
</script>
```

```
<template>
 <div id="app">
   <Meal>
     <template slot="jollof"
     slot-scope=“{ temperature }”>

     </template>
   </Meal>
 </div>
</template>
```

```
<script>

  import Meal from './Meal'
  export default {
    name: ‘app'
    components: { Meal       }
  }
</script>
```

```
<template>
 <div id="app">
   <Meal>
     <template slot="jollof"
     slot-scope="{ temperature }">
       <InstantPot :temperature="temperature">
     </template>
   </Meal>
 </div>
</template>
```

```
<script>
  import InstantPot from './InstantPot'
  import Meal from './Meal'
  export default {
    name: ‘app'
    components: { Meal, InstantPot }
  }
</script>
```

Demo

Renderless Components

<Canvas>

</Canvas>

Parks

Roads

Land Use

Image Base

```
mapboxgl.accessToken = "ACCESS_TOKEN";
const map = new mapboxgl.Map({
    …
});
```

```
mapboxgl.accessToken = "ACCESS_TOKEN";
const map = new mapboxgl.Map({
    …
});

map.on('load', () => {
    map.addSource()
    map.addLayer()
    map.on('mouseover', () => {})
    map.on('mouseleave', () => {})
})
```

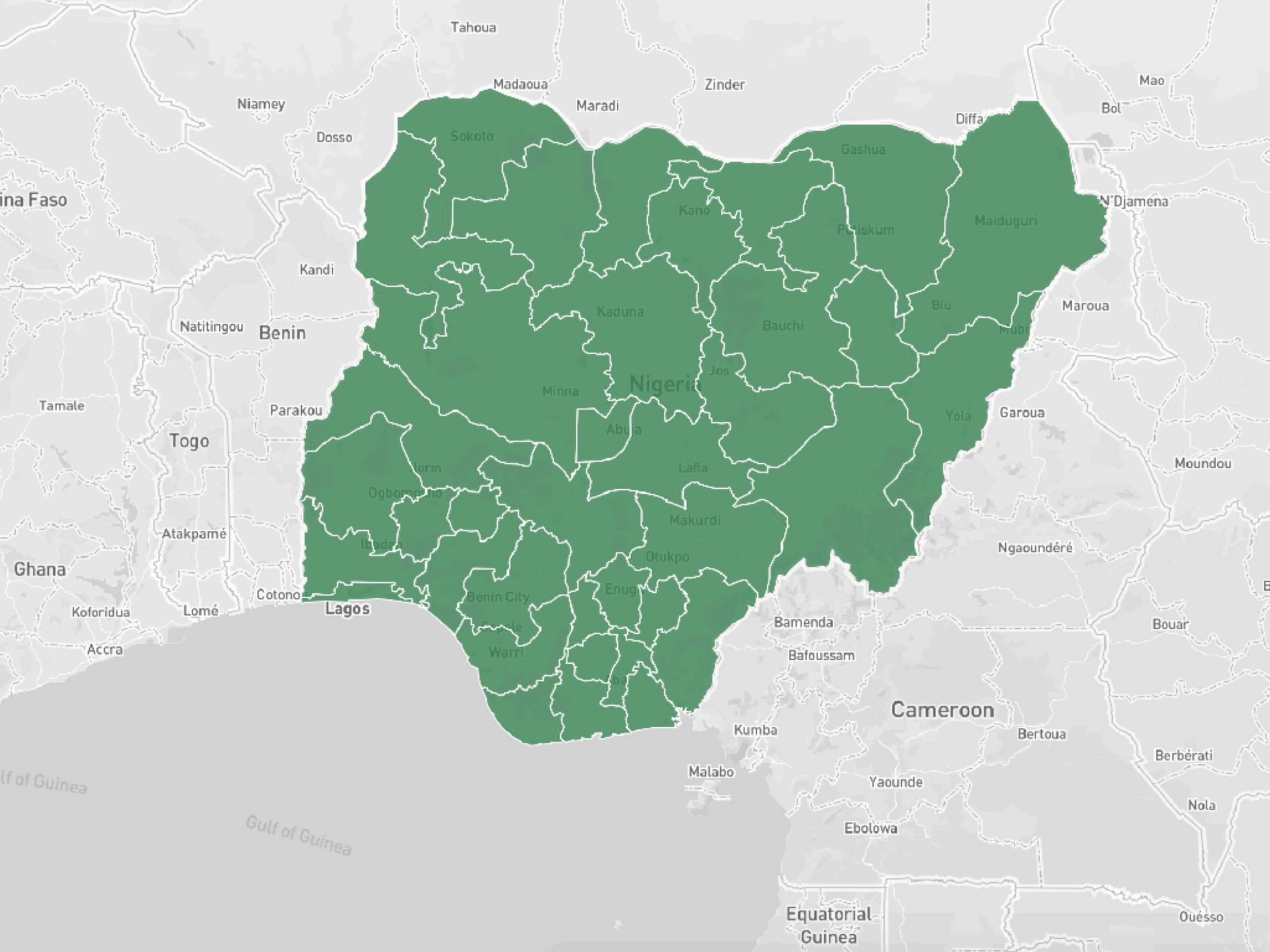
Demo

```
<template>
  <div id="base-map" ref="baseMap">
  </div>
</template>

<script>
  export default {
    name: 'BaseMap',
    mounted () {
      var map = new mapboxgl.Map({
        container: this.$refs.map
        …
      });
    }
  }
</script>
```

<BaseMap />

```
<BaseMap
    styles="…"
    mapId="…"
    …
/>
```


Tahoua
Madaoua
Zinder
Mao
Niamey
Maradi
Bol
Diffa
Dosso
Sokoto
Gashua
ina Faso
N'Djamena
Kano
Maiduguri
Kandi
Kaduna
Biu
Maroua
Natitingou
Benin
Bauchi
Jos
Nigeria
Minna
Tamale
Parakou
Yola
Garoua
Abuja
Togo
Ilorin
Lafia
Moundou
Makurdi
Atakpamé
Ngaoundéré
Ogbomosho
Otukpo
Ghana
Cotono
Benin City
Enugu
Koforidua
Lomé
Lagos
Bamenda
Bouar
Accra
Warri
Bafoussam
Cameroon
Kumba
Bertoua
Berbérati
Malabo
Yaounde
Nola
Ebolowa
Gulf of Guinea
Equatorial Guinea
Ouésso

```
<BaseMap>
    <FeatureLayer>
        <FeatureEvents />
    </FeatureLayer>
    ...
</BaseMap>
```

<BaseMap>
  <FeatureLayer>
  </FeatureLayer>
</BaseMap>

```
<template>
  <div id="base-map" ref="baseMap">
    <slot />
  </div>
</template>

<script>
  export default {
    name: 'BaseMap',
    mounted () {
      var map = new mapboxgl.Map({ … });
    }
  }
</script>
```

```
<script>
  export default {
    name: 'FeatureLayer',
    render() {
      return null
    },
  }
</script>
```

```
<script>
  export default {
    name: 'FeatureLayer',
    render() {
      return null
    },
    mounted () {
      map.addLayer({
        ...
      })
    }
  }
</script>
```

```
<script>
  export default {
    name: 'FeatureLayer',
    render() {
      return null
    },
    mounted () {
      map.addLayer({
        …
      })
    }
  }
</script>
```

```
<template>
  <div id="basemap" ref="mapCanvas">
    <slot :mapContext="map" />
  </div>
</template>

<script>
  export default {
    name: ‘BaseMap',
    data () { return { map: null } }
    mounted () {
      …
      var map = new mapboxgl.Map({ … });
      this.map = map
    }
  }
</script>
```

```
<template>
  <BaseMap>
    <template slot-scope="{mapContext}">
      <FeatureLayer :mapContext="mapContext"/>
    </template>
  </BaseMap>
</template>
```

```
<script>
  export default {
    name: ‘App',
    …
  }
</script>
```

```
<script>
  export default {
    name: ‘FeatureLayer',
    props: { mapContext: … }
    render() {
      return null
    },
    mounted () {
      mapContext.addLayer({
        …
      })
    }
  }
</script>
```

```
▶ [Vue warn]: Invalid prop: type check failed for prop                vue.runtime.esm.js?2b0e:587
"mapContext". Expected Object, got Null.

found in

---> <SourceLayer> at src/components/SourceLayer.vue
       <BaseMap> at src/components/BaseMap.vue
         <App>
           <Root>
```

```
<BaseMap>
  <FeatureLayer />
</BaseMap>
```

<BaseMap />

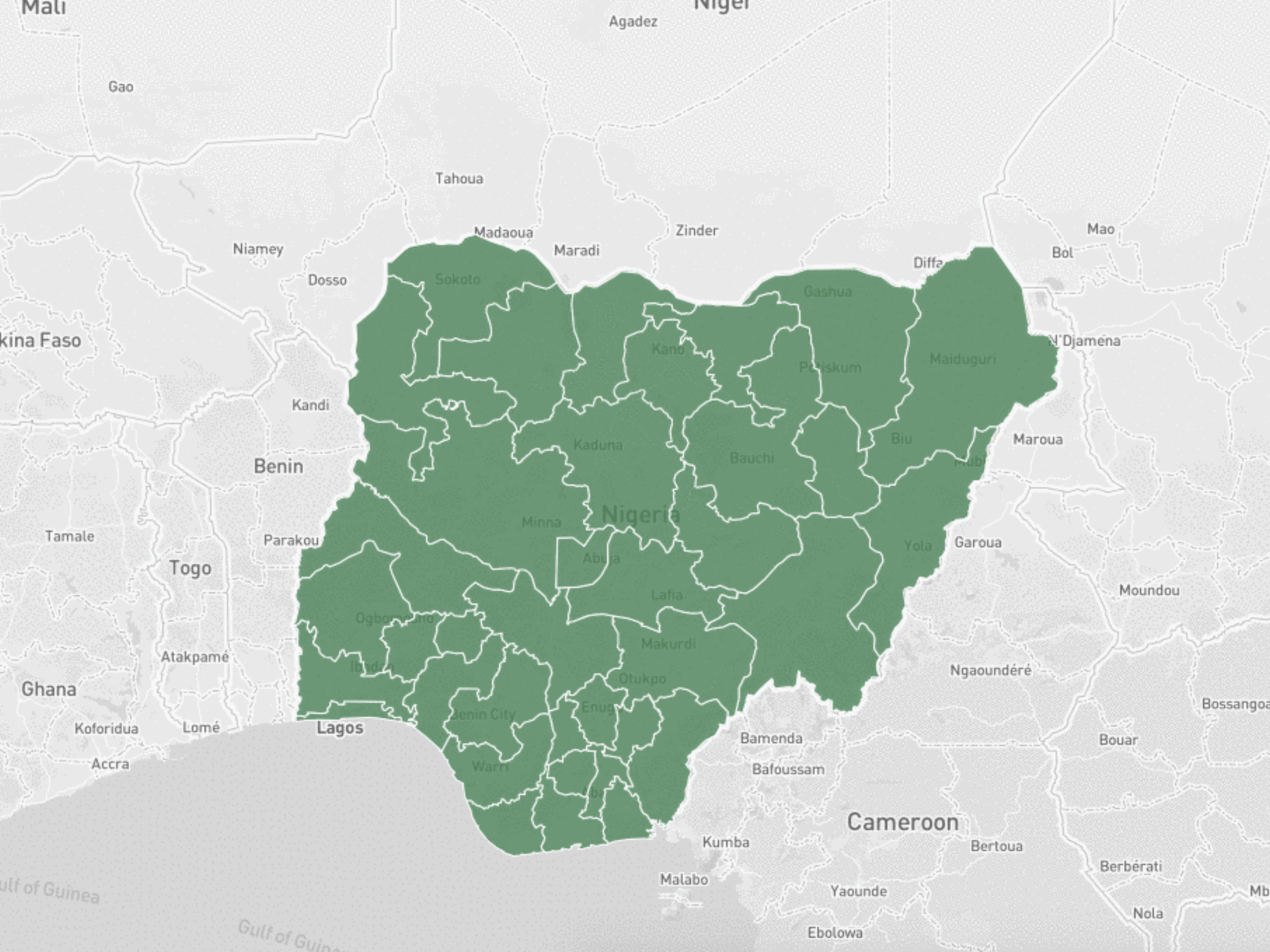
<FeatureLayer />

```
<template>
  <div id="basemap" ref="mapCanvas">
    <slot :mapContext="map" :loaded=“loaded" />
  </div>
</template>

<script>
  export default {
    name: ‘BaseMap',
    data () { return { mapContext: null, loaded: null } }
    mounted () {
      …
      var map = new mapboxgl.Map({ … });
      this.map = map
      map.on(‘load’, () => {
        this.loaded = true
      })
    }
  }
</script>
```

```
<template>
  <BaseMap>
    <template slot-scope=“{mapContext, loaded}”
      v-if="loaded"
    >
      <FeatureLayer
        :mapContext="mapContext" />
    </template>
  </BaseMap>
</template>

<script>
  export default {
    name: ‘App',
    …
  }
</script>
```


Mali
Agadez
Niger
Gao
Tahoua
Madaoua
Zinder
Mao
Niamey
Maradi
Bol
Dosso
Sokoto
Diffa
Gashua
Kano
N'Djamena
Maiduguri
Potiskum
kina Faso
Kandi
Kaduna
Biu
Maroua
Benin
Bauchi
Nigeria
Minna
Tamale
Parakou
Yola
Garoua
Togo
Abuja
Lafia
Moundou
Ogbomosho
Makurdi
Atakpamé
Ibadan
Otukpo
Ngaoundéré
Ghana
Benin City
Enugu
Bossangoa
Koforidua
Lomé
Lagos
Bamenda
Bouar
Warri
Accra
Bafoussam
Cameroon
Kumba
Bertoua
Malabo
Berbérati
Yaounde
Nola
Ebolowa
ulf of Guinea
Gulf of Guin

```
<BaseMap>
   <FeatureLayer>
      <FeatureEvent />
   <FeatureLayer />
</BaseMap>
```

```
<template>
  <BaseMap>
    <template slot-scope=“{mapContext, loaded}”
      v-if="loaded"
    >
      <FeatureLayer
       :mapContext=“mapContext”>
        <FeatureEvent />
      </FeatureLayer>
    </template>
  </BaseMap>
</template>

<script>
  export default {
    name: ‘App’,
    …
  }
</script>
```

```
<script>
  export default {
    name: 'FeatureLayer',
    render() {
      return null



    },
    mounted () {
      map.addLayer({
        …
      })
    }
  }
</script>
```

```
<script>
  export default {
    name: 'FeatureLayer',
    render() {
      return (
        <template>
          { this.$slots.default }
        </template>;
      )
    },
    mounted () {
      map.addLayer({
        …
      })
    }
  }
</script>
```

```
<script>
  export default {
    name: 'FeatureLayer',
    render() {
      return (
        <template>
          { this.$slots.default }
        </template>;
      )
    },
    provide() {
      return { mapContext: this.mapContext }
    },
    mounted () {
      map.addLayer({
        …
      })
    }
  }
</script>
```

```
<script>
  export default {
    name: ‘FeatureEvent’,
    inject: [‘mapContext’],
    prop: {
      onMouseEnter: { type: Function },
      onMouseLeave: { type: Function },
      …
    }
    mounted () {
      this.mapContext.on('mouseenter', () => {
        this.onMouseEnter()
      })
      this.mapContext.on('mouseleave', () => {
        this.onMouseLeave()
      })
      …
    }
  }
</script>
```

```
<script>
  export default {
    name: ‘FeatureEvent’,
    inject: [‘mapContext’],
    prop: {
      onMouseEnter: { type: Function },
      onMouseLeave: { type: Function },
      …
    }
    mounted () {
      this.mapContext.on('mouseenter', () => {
        this.onMouseEnter()
      })
      this.mapContext.on('mouseleave', () => {
        this.onMouseLeave()
      })
      …
    }
  }
</script>
```

Demo

Render Components

Render Children

Render Props -> Scoped Slots

Renderless Components


Yo, have a good day

Thanks!

@shortdiv

https://what-jollofin-at.netlify.com/

https://github.com/shortdiv/vueconf2018/