A React Point of Vue

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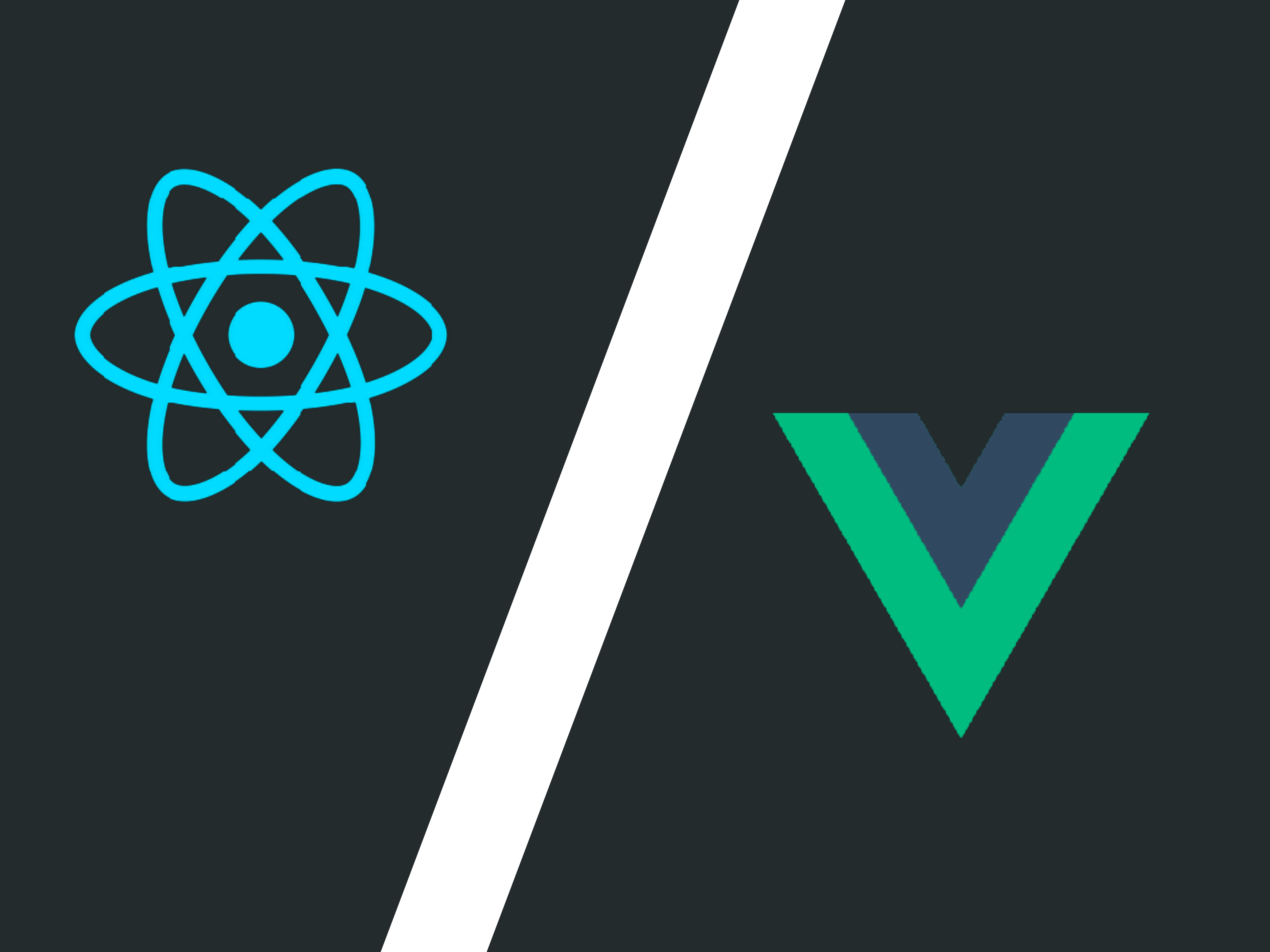
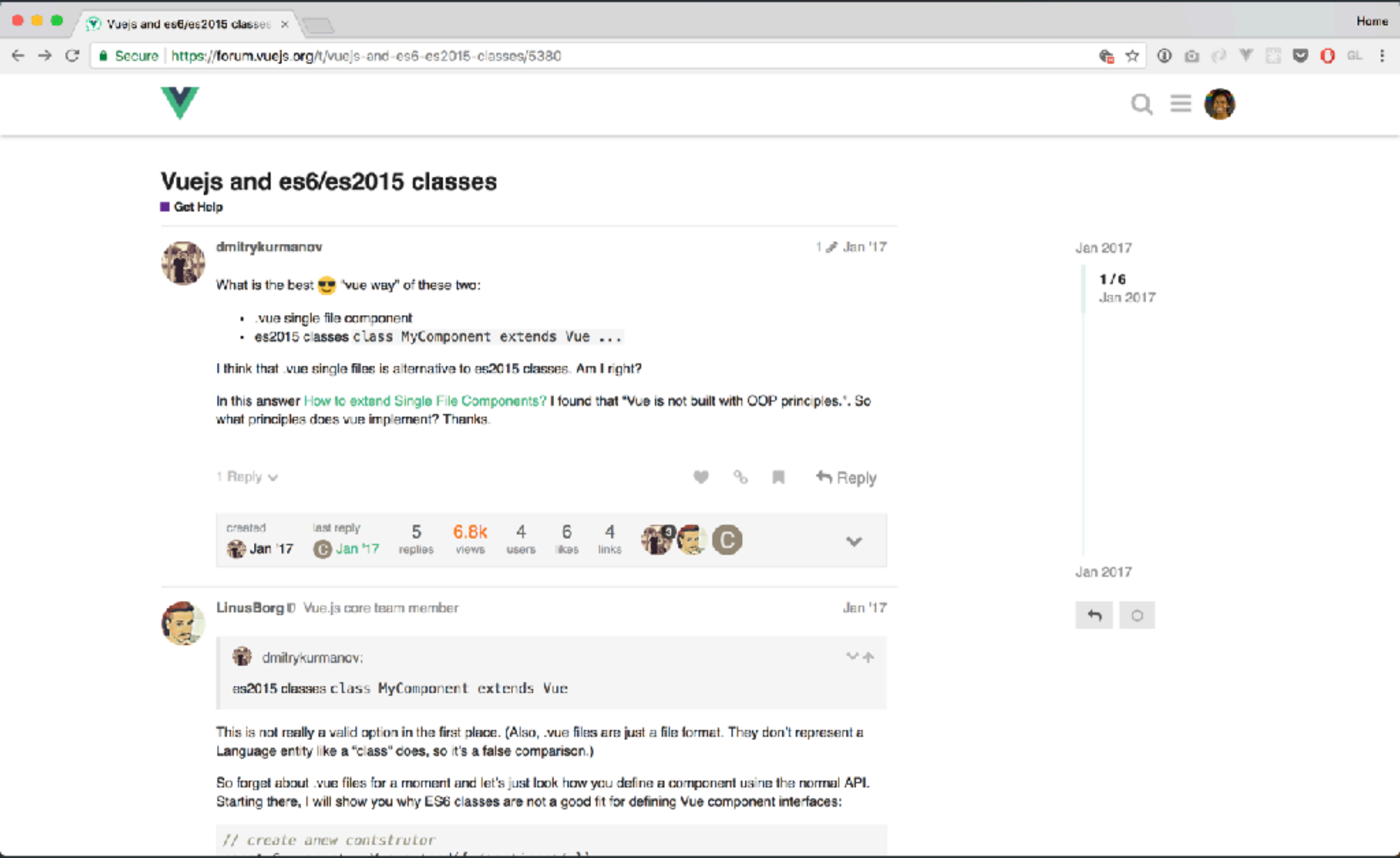
@shortdiv





Vuejs and es6/es2015 classes ×
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Vuejs and es6/es2015 classes

dmitrykurmanov 1 Jan '17

What is the best 😎 "vue way" of these two:

- .vue single file component
- es2015 classes `class MyComponent extends Vue ...`

I think that .vue single files is alternative to es2015 classes. Am I right?

In this answer How to extend Single File Components? I found that "Vue is not built with OOP principles.". So what principles does vue implement? Thanks.

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Jan '17	Jan '17	5	6.8k	4	6	4

LinusBorg Vue.js core team member Jan '17

> dmitrykurmanov:
>
> es2015 classes `class MyComponent extends Vue`

This is not really a valid option in the first place. (Also, .vue files are just a file format. They don't represent a Language entity like a "class" does, so it's a false comparison.)

So forget about .vue files for a moment and let's just look how you define a component using the normal API. Starting there, I will show you why ES6 classes are not a good fit for defining Vue component interfaces:

```
// create anew contstrutor
```

COMEDY

Overview

Render Components

Render Children

Render Props

Render Null

Components

> *" We're not designing pages, we're designing systems of components "*
>
> *– Stephen Hay*
>
> *Author of Responsive Design Workflow*

```
<Water />
<Milk />
<Tea />
```

```
class Tea extends React.Component {









}
```

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






}
```

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




  }
}
```

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

```
<template>


</template>

<script>
  export default {

  }
</script>
```

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

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

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


    return (
     <div id=“tea">

         <sugar />

      <Water />
      <Milk />
      <Tea />
     </div>
    )
  }
}
```

```
class Cup extends React.Component {
  …
  render() {
    const sugars =
      Array.apply(null, Array(this.props.sugars))
    return (
     <div id=“tea">
       { sugars.map((sugar, index) =>
         <sugar key={index} />
       )}
      <Water />
      <Milk />
      <Tea />
     </div>
    )
  }
}
```

```
<template>
 <div id="tea">
   <sugar />
   <Water />
   <Milk />
   <Tea />
 </div>
</template>

<script>
  export default {
    name: 'Cup'

  }
</script>
```

```
<template>
 <div id="tea">
   <sugar v-for="(sugar, index) in sugars” />
   <Water />
   <Milk />
   <Tea />
 </div>
</template>

<script>
  export default {
    name: 'Cup'
    props: { ‘sugars': { type: Boolean } }
  }
</script>
```

```
<Hot> || <Cold>
<Water />
<Milk />
<Tea />
```

```
class Cup extends React.Component {
  …
  render() {
    return (
      <div id="cup">



        <Water />
        <Milk />
        <Tea />
      </div>
    )
  }
}
```

```
class Cup extends React.Component {
  …
  render() {
    return (
      <div id="cup">
        { this.props.isIced ?
          <Cold /> : <Hot />
        }
        <Water />
        <Milk />
        <Tea />
      </div>
    )
  }
}
```

```
<template>
  <div>


    <Water />
    <Milk />
    <Tea />
  </div>
</template>

<script>
  export default {
    name: 'Cup'

  }
</script>
```

```
<template>
  <div>
    <Cold v-if=“isIced” />
    <Hot v-else />
    <Water />
    <Milk />
    <Tea />
  </div>
</template>

<script>
  export default {
    name: 'Cup'
    props: { isIced: { type: Boolean } }
  }
</script>
```

```
<template>
  <div>
    <Cold v-if=“isIced” />
    <Hot v-else />
    <sugar v-for="(sugar, index) in sugars” />
    <Water />
    <Milk />
    <Tea />
  </div>
</template>

<script>
  export default {
    name: 'Cup'
    props: { isIced: {…}, sugars: {…} }
  }
</script>
```

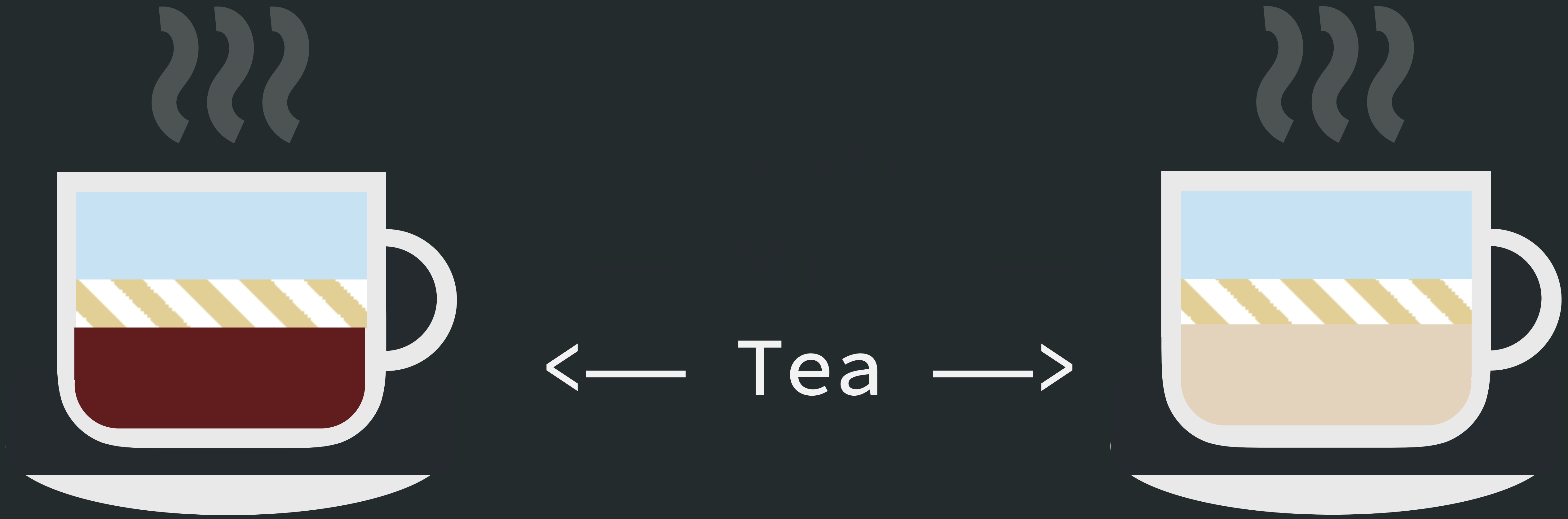
```
class Cup extends React.Component {
  …
  render() {
    const sugars = Array.apply(null, Array(this.props.sugars))
    return (
     <div id=“tea">
       { sugars.map((sugar, index) =>
         <sugar key={index} />
       )}
       { this.props.isIced ?
         <Cold> : </Hot>
        }
      <Water />
      <Milk />
      <Tea />
     </div>
    )
  }
}
```

Demo

```
<div id="cup">
  <Water />
  <Milk />
  <Tea />
</div>
```

```
<Cup />
```

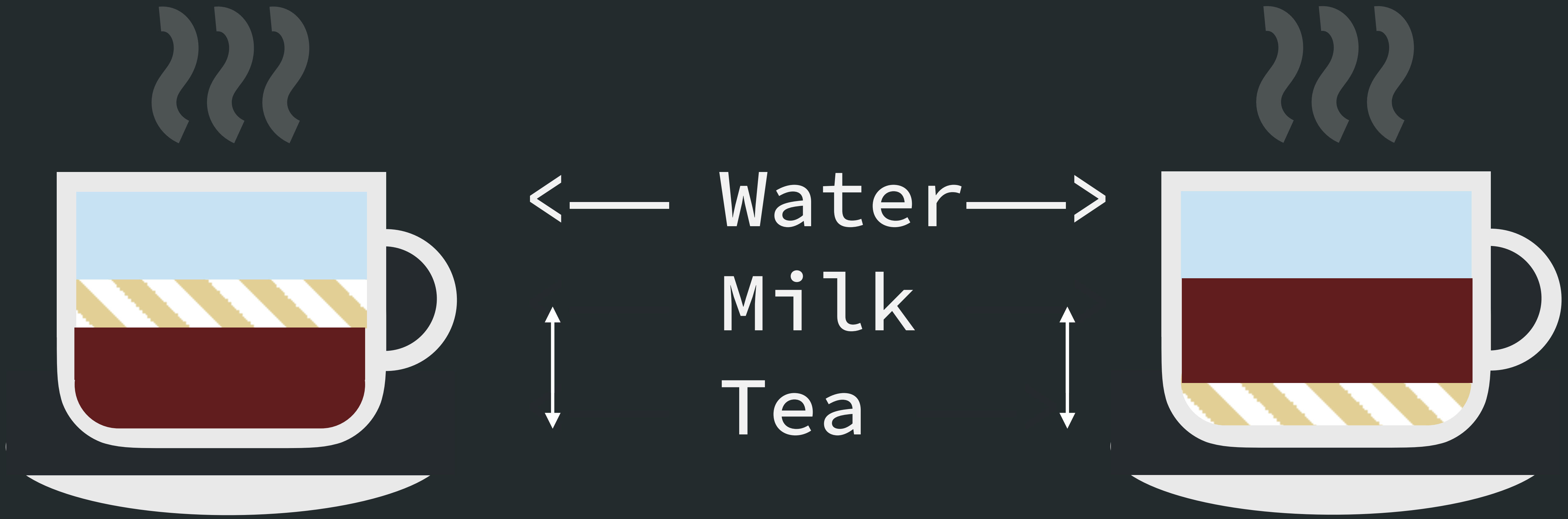
Render Children



<—— Tea ——>

Darjeeling

Earl Grey



Water

Milk

Tea

```
<Water />
<Milk />
<Tea />
```

* CHEERING *
HELLO, CHILDREN.

```
<Cup>
  <Water />
  <Milk />
  <Tea />
</Cup>
```

```
class Cup extends React.Component {
  render() {
    return (
      <div id="cup">
        <Water />
        <Milk />
        <Tea />
      </div>
    )
  }
}
```

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

        { this.props.children }

      </div>
    )
  }
}
```

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



      )
  }
}
```

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

```
<script>
  export default {
    name: 'cup',
    render() {





    }
  }
</script>
```

```
<script>
  export default {
    name: 'cup',
    render(createElement) {
      return createElement(



      )
    }
  }
</script>
```

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

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

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

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

Demo

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

⚠️⚠️⚠️⚠️

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

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

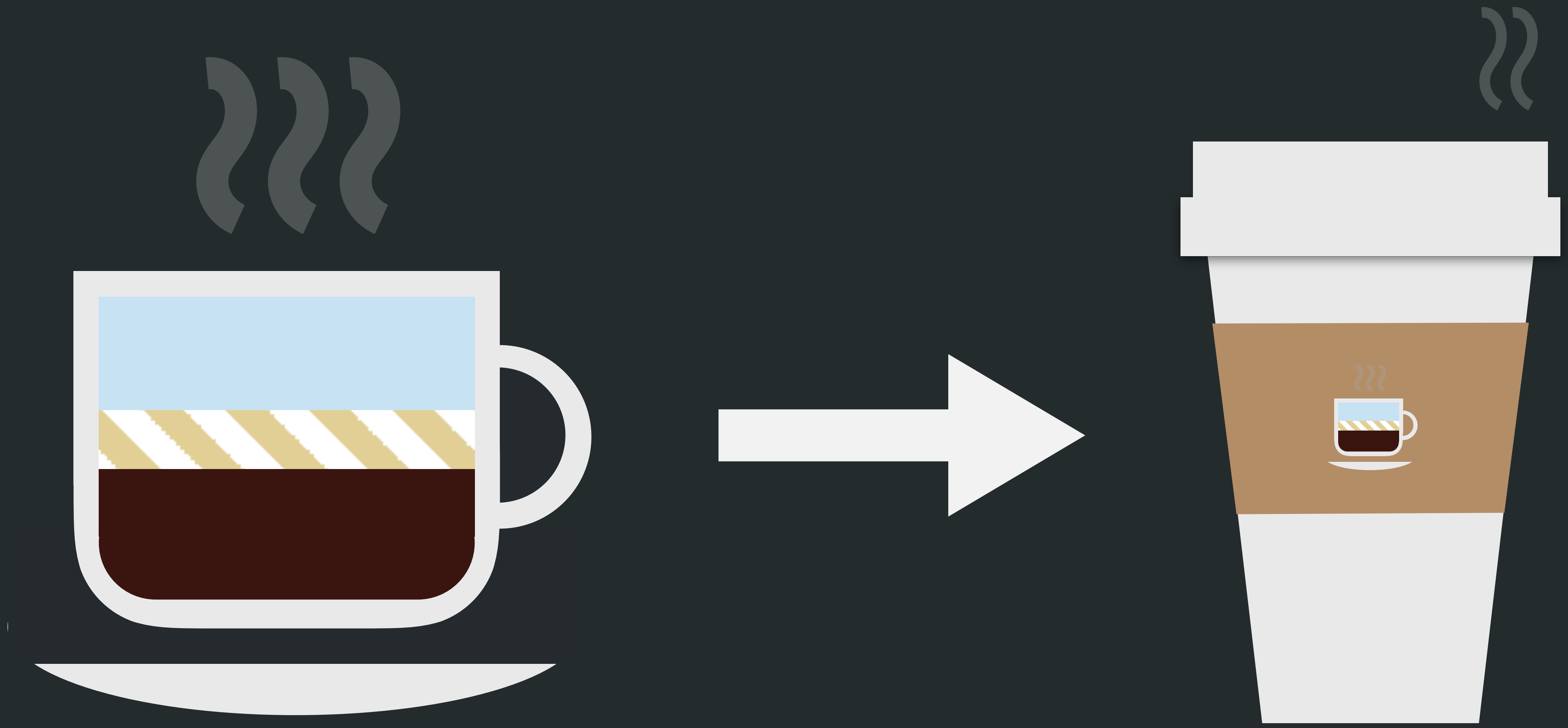
```
<template>
 <div id="cup">
   <slot name="water"></slot>
   <slot name="milk"></slot>
   <slot name="tea"></slot>
 </div>
</template>

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

```
<Cup>
 <Tea slot="tea"/>
 <Milk slot="milk" />
</Cup>
```

Render Props

> "The term “render prop” refers to a simple technique for sharing code between React components using a prop whose value is a function. "
>
> – React Docs



```
<Cup>
  <Water />
  <Milk />
  <Tea />
</Cup>
```

```
<ToGo>
  <Water />
  <Milk />
  <Tea />
</ToGo>
```

```
<ToGo
  :temperature=“temp”>
  <Water />
  <Milk />
  <Tea />
</ToGo>
```

```
<Order>
  ...
</Order>
```

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

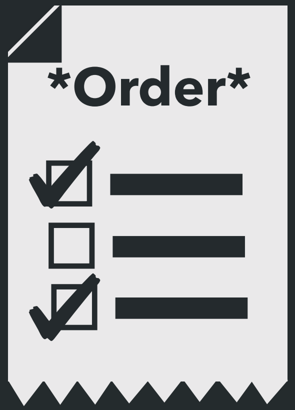



  </div>
</template>

<script>


  export default {
    name: "Order"

  }
</script>
```



```
<template>
  <div id="Order">
    <slot name="drink">



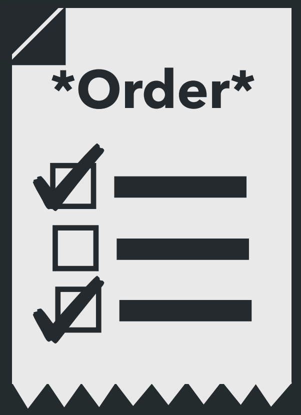
    </slot>
  </div>
</template>

<script>



  export default {
    name: "Order"

  }
</script>
```

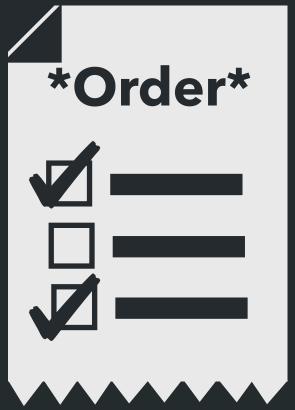


```
<template>
  <div id="Order">
    <slot name="drink">

      <Cup />
    </slot>
  </div>
</template>

<script>
  import Cup from './Cup'

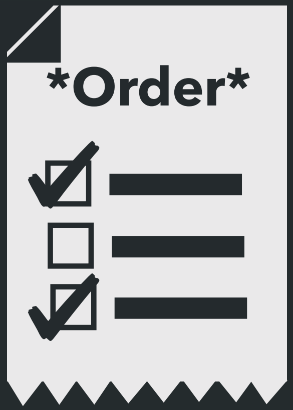
  export default {
    name: "Order"
    components: { Cup }
  }
</script>
```



```
<template>
  <div id="Order">
    <slot name="drink"
      temperature=“80">
      <Cup />
    </slot>
  </div>
</template>

<script>
  import Cup from './Cup'

  export default {
    name: "Order"
    components: { Cup }
  }
</script>
```



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






 </div>
</template>

<script>


  export default {
    name: 'app'

  }
</script>
```

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





   </order>
 </div>
</template>

<script>

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

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

     </template>
   </order>
 </div>
</template>

<script>

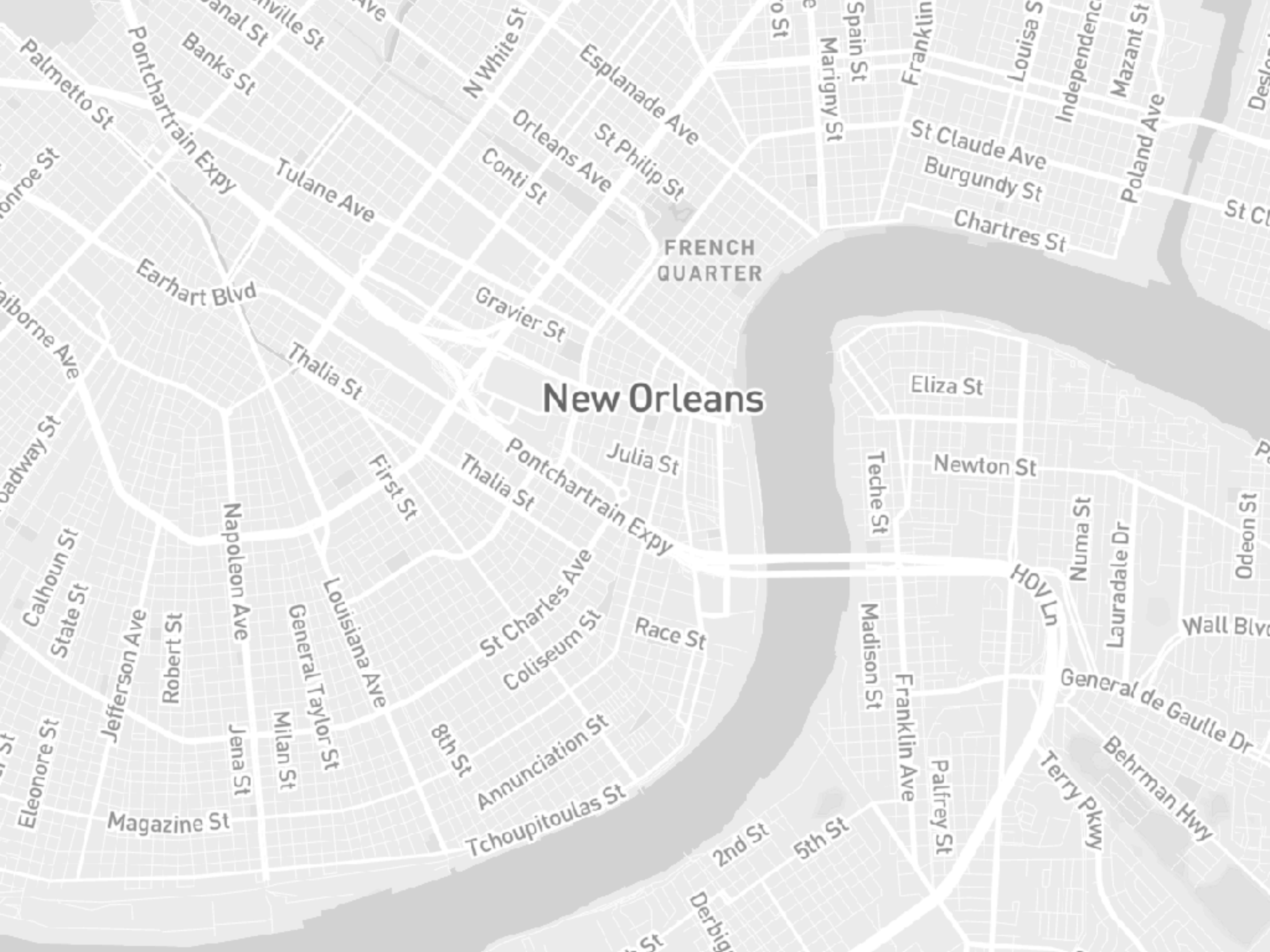
  import Order from ‘./Order'
  export default {
    name: ‘app'
    components: { Order       }
  }
</script>
```

```
<template>
 <div id="app">
   <order>
     <template slot=“drink”
     slot-scope=“{ temperature }”>
       <ToGo :temperature=“temperature”>
     </template>
   </order>
 </div>
</template>

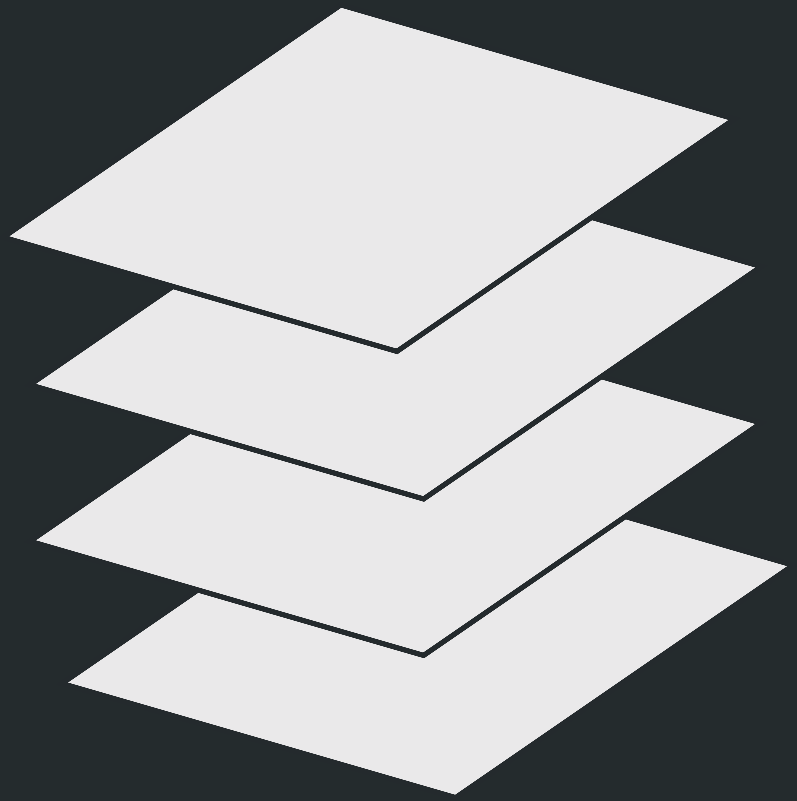
<script>
  import ToGo from ‘./ToGo'
  import Order from ‘./Order'
  export default {
    name: ‘app'
    components: { Order, ToGo }
  }
</script>
```

Demo

Render Null


anal St
nville St
Ave
Banks St
Palmetto St
Pontchartrain Expy
N White St
Esplanade Ave
o St
Marigny St
Spain St
Franklin
Louisa St
Independence
Mazant St
Desl
Orleans Ave
St Philip St
Conti St
Tulane Ave
onroe St
St Claude Ave
Burgundy St
Poland Ave
St Cl
Chartres St
FRENCH QUARTER
Earhart Blvd
aiborne Ave
Gravier St
Thalia St
New Orleans
Eliza St
oadway St
Julia St
Newton St
Teche St
First St
Thalia St
Pontchartrain Expy
Numa St
Lauradale Dr
Odeon St
Napoleon Ave
Calhoun St
State St
St Charles Ave
HOV Ln
Wall Blvd
Coliseum St
Race St
Madison St
Louisiana Ave
General Taylor St
Jefferson Ave
Robert St
General de Gaulle Dr
Jena St
Milan St
8th St
Annunciation St
Franklin Ave
Behrman Hwy
Terry Pkwy
Palfrey St
Eleonore St
Magazine St
Tchoupitoulas St
2nd St
5th St
Derbig
St

```
<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

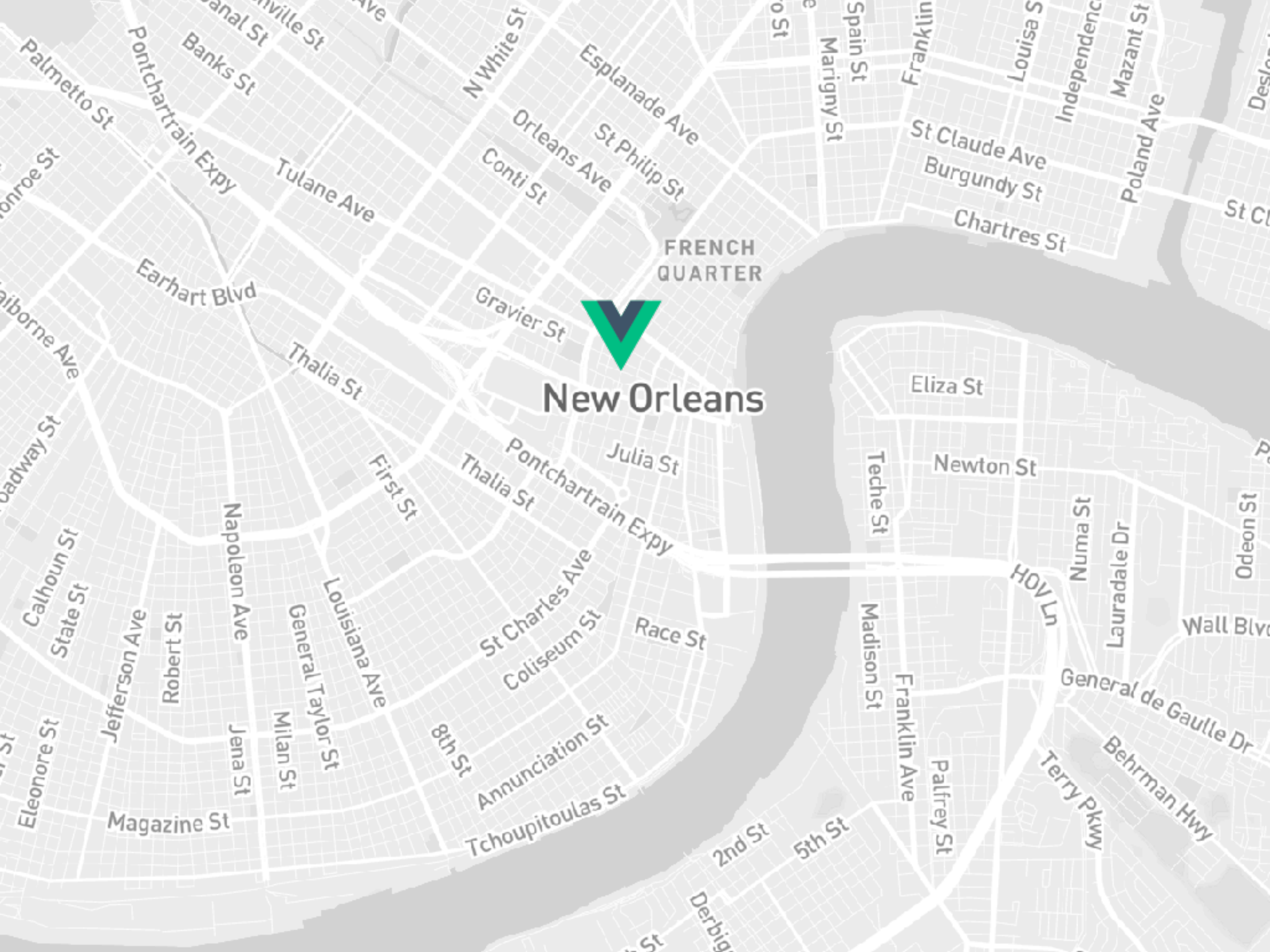
```
<template>
  <div id=“base-map” ref=“baseMap">
  </div>
</template>

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

```
<BaseMap />
```

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

```
<BaseMap>
  <SourceLayer />
  <FeatureLayer />
  <FeaturePopup />
</BaseMap>
```


New Orleans
FRENCH QUARTER
Canal St
Banks St
Palmetto St
Pontchartrain Expy
Tulane Ave
N White St
Esplanade Ave
Orleans Ave
St Philip St
Conti St
Earhart Blvd
Gravier St
Thalia St
Julia St
Pontchartrain Expy
Thalia St
First St
St Charles Ave
Coliseum St
Race St
Annunciation St
Tchoupitoulas St
8th St
Louisiana Ave
General Taylor St
Milan St
Jena St
Napoleon Ave
Robert St
Jefferson Ave
Magazine St
Eleonore St
State St
Calhoun St
Broadway St
Claiborne Ave
Monroe St
Marigny St
Spain St
Franklin
Louisa St
Independence
Mazant St
Poland Ave
St Claude Ave
Burgundy St
Chartres St
Eliza St
Newton St
Teche St
Numa St
Lauradale Dr
Odeon St
HOV Ln
Wall Blvd
General de Gaulle Dr
Madison St
Franklin Ave
Palfrey St
Terry Pkwy
Behrman Hwy
2nd St
5th St
Derbigny

```
<BaseMap>
  <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 { mapContext: null } }
    mounted () {
      …
      var map = new mapboxgl.Map({ … });
      map.on(‘load’, () => { this.map = map })
    }
  }
</script>
```

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

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

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

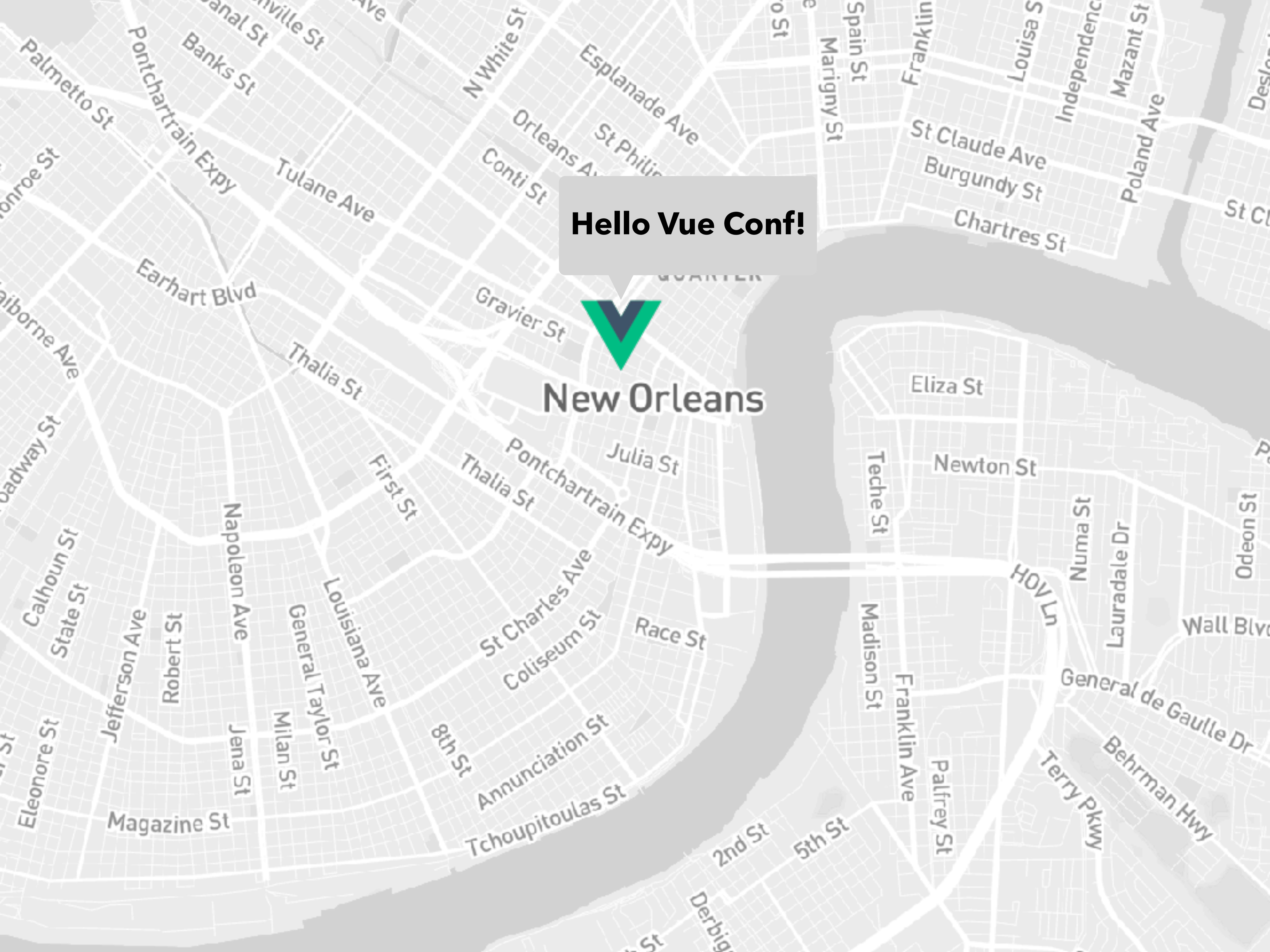
```
<BaseMap>
   …
</BaseMap>
```

```
<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({ … });
      map.on(‘load’, () => {
        this.loaded = true
        this.map = map
      })
    }
  }
</script>
```

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

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



Hello Vue Conf!

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

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

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

```
<script>
  export default {
    name: ‘FeaturePopup’,
    inject: [‘mapContext’],
    mounted () {
      mapContext.on(‘click’, layerId, e => {




      })
    }
  }
</script>
```

```
<script>
  export default {
    name: ‘FeaturePopup’,
    inject: [‘mapContext’],
    mounted () {
      mapContext.on(‘click’, layerId, e => {
        new mapboxgl.Popup()
        .setLngLat(e.features[0].geometry.coordinates)
        .setHTML([HTMLElement])
        .addTo(this.mapContext);
      })
    }
  }
</script>
```

```
<script>
  export default {
    name: ‘FeaturePopup’,
    inject: [‘mapContext’],
    methods: {
      createHTML () {






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

```
<script>
  export default {
    name: ‘FeaturePopup’,
    inject: [‘mapContext’],
    methods: {
      createHTML () {
        const popupContentVNode = this.$slots.default;







    },
    mounted () {
      …
    }
  }
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          render(h) {
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        }).$mount().$el.innerHTML;
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Demo

Thanks!

@shortdiv

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