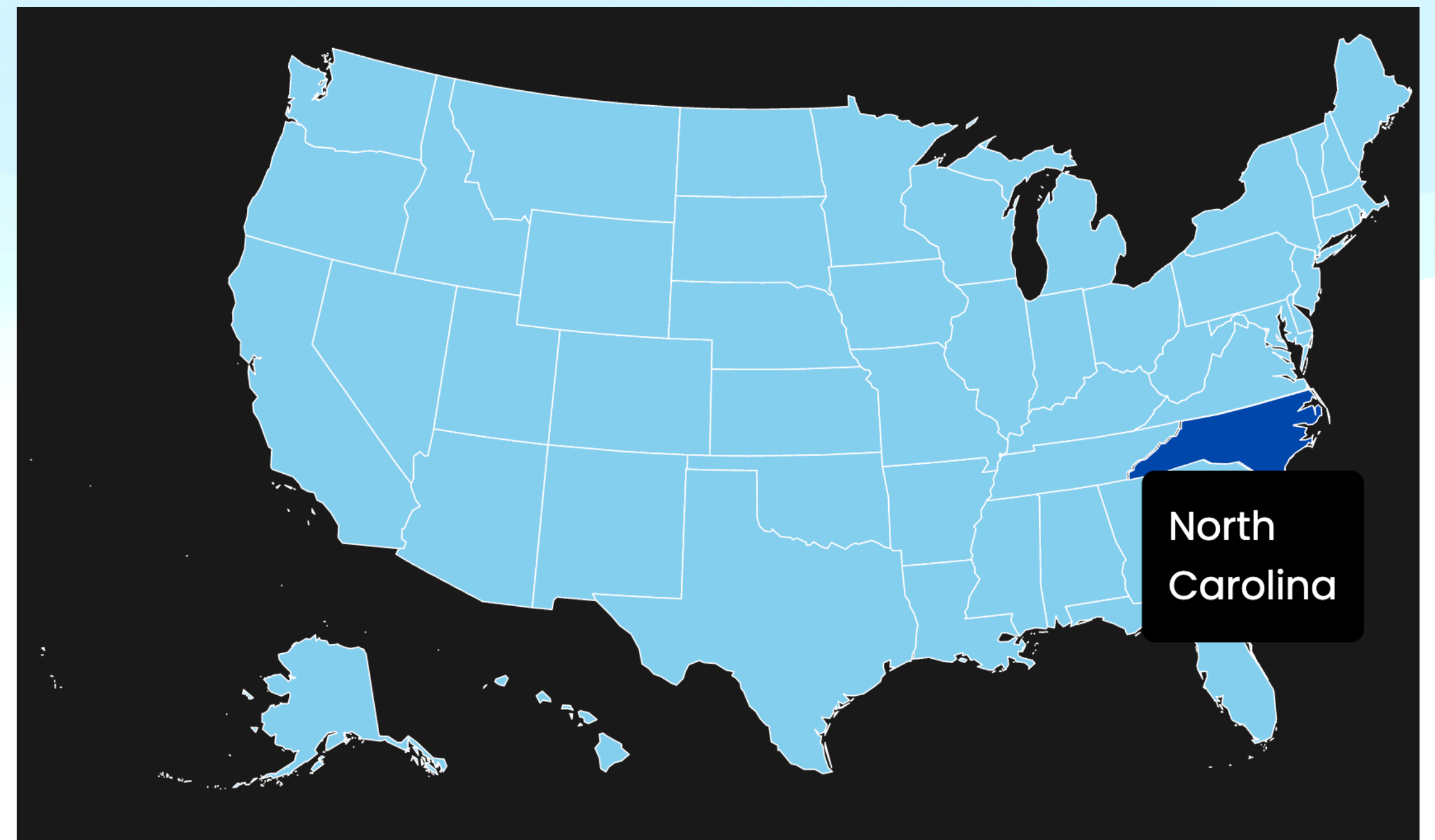


Interactive Map

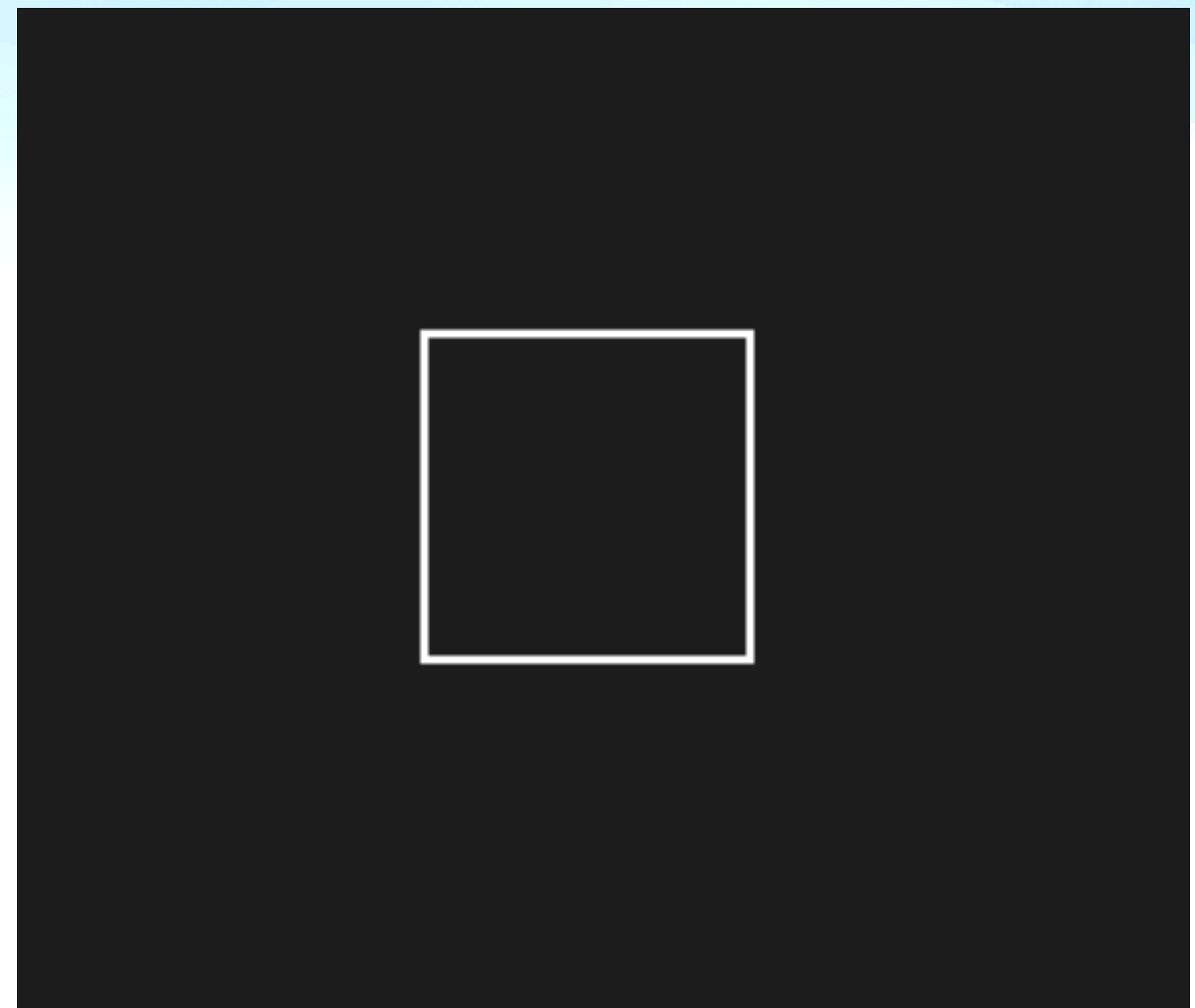
Zhixian Zhang



1. SVG

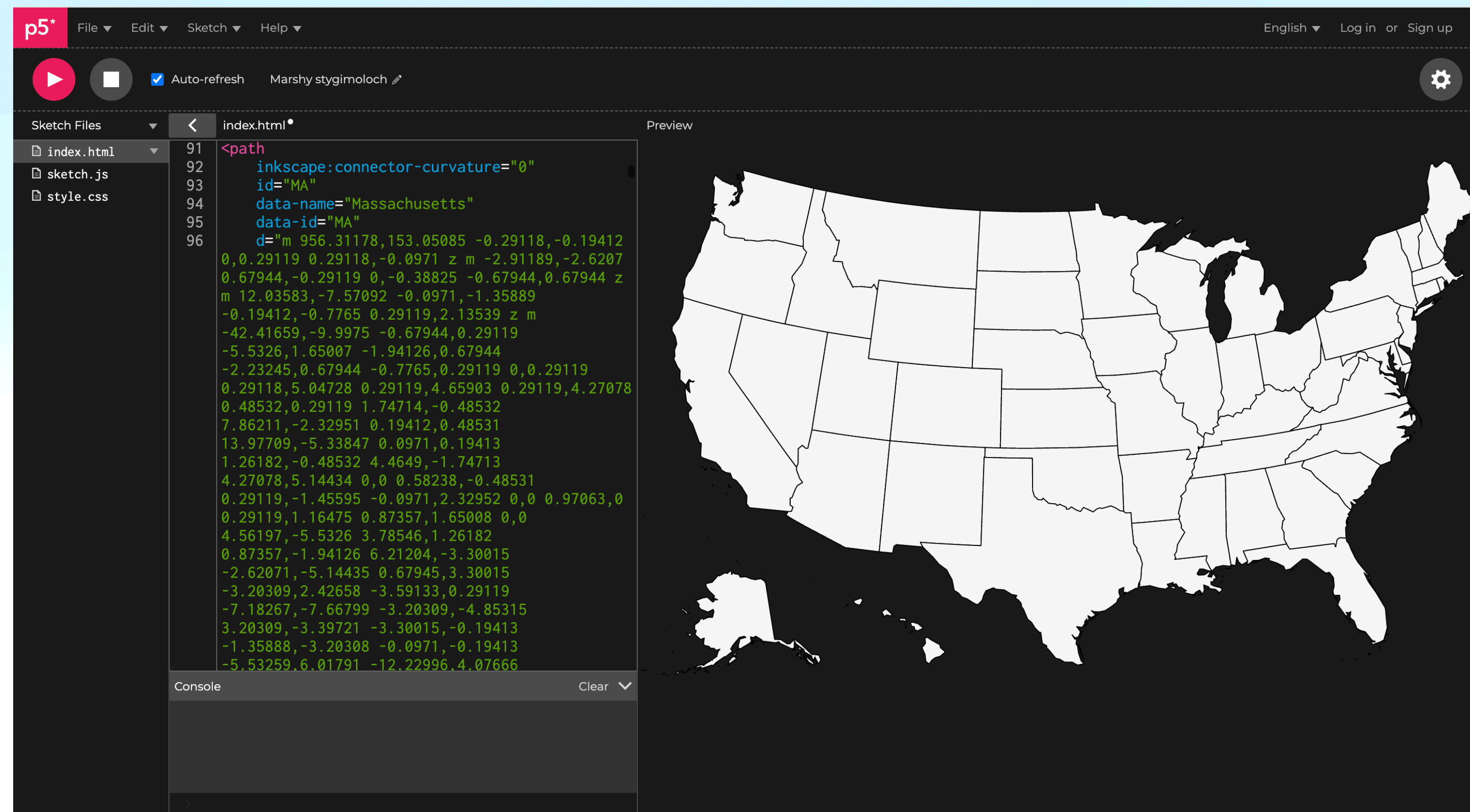
- What is SVG?
- Scalable Vector Graphics (SVG) are an XML-based markup language for describing two-dimensional based vector graphics
- Draw different shapes according to their types and attributes.
- `<path>` element: H, V and Z
- Easy to be referred by CSS and JavaScript

```
<svg width="100" height="100" xmlns="http://www.w3.org/2000/svg">  
  <path d="M 10 10 H 90 V 90 H 10 Z" fill="□transparent" stroke="□  
black"/>  
</svg>
```



2. Download SVG map

- In html
- Each element is a state.
- With “data-name” and “data-id”, give access to css and javascript



3. Edit color and hover by css

- Edit the color of <path> element
- Create hover effect, edit transition time and transition scale

```
path {  
  stroke: ■white;  
  fill: ■#89CFF0 !important;  
  
  transition: fill .4s ease;  
  transform-origin: center center;  
}  
  
path:hover {  
  fill: ■#0047AB !important;  
  cursor: pointer;  
  transform: scale(1.005, 1.005);  
}
```


4. Place the map in the center of the page

- Flex box

```
#map-container {  
  display: flex;  
  justify-content: center;  
  align-items: center;  
}  
  
#us-map {  
  display: block;  
  position: absolute;  
  top: 0;  
  left: 0;  
  width: 100%;  
  height: 100%;  
}
```

5. Add detail box

Javascript

```
var detailsBox =
document.getElementById('details-box');

document.addEventListener('mouseover', function
(e) {
  if (e.target.tagName == 'path') {
    var content = e.target.dataset.name;
    detailsBox.innerHTML = content;
    detailsBox.style.opacity = "100%";
  }
  else {
    detailsBox.style.opacity = "0%";
  }
});

window.onmousemove = function (e) {
  var x = e.clientX,
      y = e.clientY;
  detailsBox.style.top = (y + 20) + 'px';
  detailsBox.style.left = (x) + 'px';
};
```

CSS

```
#details-box {
  opacity: 0%;
  padding: 1rem;
  border-radius: 8px;
  font-size: 24px;
  position: fixed;
  color: white;
  font-family: "Poppins";
  background-color: black;
  width: fit-content;
  transform: translateX(-50%);
  transition: opacity .4s ease;
  z-index: 1;
}
```


Thank you

2022.11.16