

<html>

<head>

```
<meta name="viewport" content="width=device-width , initial-scale=1.2 , maximum-scale=1.0 ,
user-scalable=0">
<script src="Tone.js"></script>
<style>
  body {
    background-color: transparent;
    margin: 0;
    font-family: sans-serif;
    background-color: #EEEEEE;

  }

  .container {
    background-color: ;
    position: absolute;
    top: 200px;
    left: 120px;
    height: 260px;
    width: 1400px;

  }

  li {
    margin: 0;
    padding-top: 40px;
    list-style: none;
    position: relative;
    float: left;
    text-align: center;
    user-select: none;

  }

  .white {
    height: 16em;
    width: 4em;
    border-left: 1px solid #bbb;
    border-bottom: 1px solid #bbb;
    border-radius: 0 0 5px 5px;
    background-color: white;
    box-shadow: 14px 0px 18px 2px grey;
  }

  .white:active {
    border-top: 1px solid #777;
    border-left: 1px solid #999;
    border-bottom: 1px solid #999;
    box-shadow: 2px 0 3px rgba(0, 0, 0, 0.1) inset,
      -5px 5px 20px rgba(0, 0, 0, 0.2) inset,
      0 0 3px rgba(0, 0, 0, 0.2),
      inset 4px 4px 2px -10px #000000;
    background:
      linear-gradient(to bottom, white 75%, #E3E3E3 100%);
    z-index: -4;
  }

  .black {
    height: 8em;
    width: 2em;
    margin: 0 0 0 0;
    z-index: 2;
    border: 1px solid #000;
    border-radius: 0 0 3px 3px;
    box-shadow: -1px -1px 2px rgba(255, 255, 255, 0.2) inset, 0 -5px 2px 3px rgba(0, 0, 0, 0.6)
inset, 0 2px 4px rgba(0, 0, 0, 0.5);
```

```
background-color: black;
color: white;
}

.d,
.e,
.g,
.a,
.b {
margin: 0 0 0 -1.11em;
}

.cs,
.ds,
.fs,
.gs,
.as {
margin: 0 0 0 -1em;
}

.shape1 {
position: absolute;
background: linear-gradient(57deg, #9559F8, #00BBF6, #9559F8);
height: 600px;
width: 1400px;
clip-path: polygon(0% 0%, 35% 0%, 0% 25%, 0% 100%);
z-index: -25;
opacity: 1;
}

.shape2 {
position: absolute;
background-image: linear-gradient(to top, #9559F8, #F3506F);
height: 600px;
width: 1400px;
clip-path: polygon(0% 50%, 100% 0%, 100% 25%, 0% 100%);
z-index: -25;
opacity: 1;
}

.shape3 {
position: absolute;
background: linear-gradient(57deg, #9559F8, #00BBF6);
height: 600px;
width: 1400px;
clip-path: polygon(100% 100%, 100% 80%, 70% 100%, 0% 100%);
z-index: -25;
opacity: 1;
}

h1.head {
position: absolute;
left: 500px;
color: #424242;
}

.tab {
display: block;
position: relative;
left: 160px;
overflow: hidden;
border: 0px;
width: 975px;
height: 40px;
background-color: white;
}
```

```
.tabButton {
  border: none;
  outline: none;
  margin: 0;
  float: left;
  height: inherit;
  width: 100px;
  background-color: white;
  cursor: pointer;
  padding: 14px 16px;
}

.tabButton:active {
  background-color: #EDEDf0;
}

.tabButton:hover {
  background-color: rgba(199, 199, 201,0.1);
}

.tabPages {
  display: block;
  position: absolute;
  left: 160px;
  overflow: hidden;
  border: 0px;
  width: 975px;
  height: 170px;
  background-color: rgb(255, 255, 255);
  margin: 0;
  z-index: 1;
}

.synthChooser, .oscType{
  position: relative;
  height: 12em;
  width: 18em;
  display: inline-block;
  background-color: #e7e7e7; /* Green */
  border: none;
  transition-duration: 0.4s;
}

#defaultsynth:hover {
  background-color: #994CAF; /* Green */
  color: white;
}

#FMsynth:hover {
  background-color: #008CBA; /* Green */
  color: white;
}

#AMsynth:hover {
  background-color: #f44336; /* Green */
  color: white;
}

#polySynth:hover {
  background-color: #4CAF50; /* Green */
  color: white;
}

</style>
```

</head>

<body>

```

<h1 class="head"> </h1>
<div class="shape1"></div>
<div class="shape2"></div>
<div class="shape3"></div>

<div class="up">
  <div class="tab">
    <button class="tabButton" id="syn" onclick="openPage(event)">Synth</button>
    <button class="tabButton" id="env" onclick="openPage(event)">Envelope</button>
    <button class="tabButton" id="osc" onclick="openPage(event)">Oscillator</button>
  </div>
  <div class="tabPages">
    <div class="tabPage" id="synthTab">
      <button class="synthChooser" id="defaultsynth" onclick="switchSynth(event)"> Default
</button>
      <button class="synthChooser" id="FMsynth" onclick="switchSynth(event)"> FM
</button>
      <button class="synthChooser" id="AMsynth" onclick="switchSynth(event)"> AM
</button>
      <button class="synthChooser" id="polySynth" onclick="switchSynth(event)"> Poly
</button>
    </div>
    <div class="tabPage" id="envelope">
      <input type="range" id="attack" min="0.001" max="5" value="0" step="0.001" > <span
id="rangeShow"> </span> </input>
      <input type="range" id="decay" min="0.01" max="5" value="0" step="0.1" > <span
id="rangeShow"> </span> </input>
      <input type="range" id="sustain" min="0.01" max="5" value="0" step="0.1" > <span
id="rangeShow"> </span> </input>
      <input type="range" id="release" min="0.01" max="5" value="0" step="0.1" > <span
id="rangeShow"> </span> </input>
    </div>
    <div class="tabPage" id="oscTab">
      <button class="oscType" onclick="switchOSC(event)" id="sine" > Sine </button>
      <button class="oscType" onclick="switchOSC(event)" id="square" > Square </button>
      <button class="oscType" onclick="switchOSC(event)" id="triangle" > triangle
</button>
      <button class="oscType" onclick="switchOSC(event)" id="none" > none </button>
    </div>
  </div>

</div>

<div class="container" id="main">
  <ul class="keyList" id="zero">
    <li class="keys white c" id="C5" onmousedown="playIt(event)"> c </li>
    <li class="keys black cs" id="C#5" onmousedown="playIt(event)"> c# </li>
    <li class="keys white d" id="D5" onmousedown="playIt(event)"> D </li>
    <li class="keys black ds" id="D#5" onmousedown="playIt(event)"> D# </li>
    <li class="keys white e" id="E5" onmousedown="playIt(event)"> E </li>
    <li class="keys white f" id="F5" onmousedown="playIt(event)"> F </li>
    <li class="keys black fs" id="F#5" onmousedown="playIt(event)"> F# </li>
    <li class="keys white g" id="G5" onmousedown="playIt(event)"> G </li>
    <li class="keys black gs" id="G#5" onmousedown="playIt(event)"> G# </li>
    <li class="keys white a" id="A5" onmousedown="playIt(event)"> A </li>
    <li class="keys black as" id="A#5" onmousedown="playIt(event)"> A# </li>
    <li class="keys white b" id="B5" onmousedown="playIt(event)"> B </li>
    <li class="keys white c" id="C6" onmousedown="playIt(event)"> C </li>
    <li class="keys black cs" id="C#6" onmousedown="playIt(event)"> C# </li>
    <li class="keys white d" id="D6" onmousedown="playIt(event)"> D </li>
    <li class="keys black ds" id="D#6" onmousedown="playIt(event)"> D# </li>
    <li class="keys white e" id="E6" onmousedown="playIt(event)"> E </li>
    <li class="keys white f" id="F6" onmousedown="playIt(event)"> F </li>
    <li class="keys black fs" id="F#6" onmousedown="playIt(event)"> F# </li>
    <li class="keys white g" id="G6" onmousedown="playIt(event)"> G </li>
    <li class="keys black gs" id="G#6" onmousedown="playIt(event)"> G# </li>
    <li class="keys white a" id="A6" onmousedown="playIt(event)"> A </li>
    <li class="keys black as" id="A#6" onmousedown="playIt(event)"> A# </li>
    <li class="keys white b" id="B6" onmousedown="playIt(event)"> B </li>
  </ul>
</div>

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    <li class="keys white c" id="C7" onmousedown="playIt(event)"> C </li>
  </ul>

</div>
<script type="text/javascript">
  // for keyboard triggering
  var keyNote = {
    a:'c5',
    s:'d5',
    d:'e5',
    f:'f5',
    g:'g5',
    h:'a5',
    j:'b5',
    w:'c#5',
    e:'d#5',
    t:'f#5',
    y:'g#5',
    u:'a#5',

  }

  document.addEventListener('keydown', (e)=>{
    synth.triggerAttack(keyNote[e.key], "8n");
  });
  document.addEventListener('keyup', (e)=>{
    synth.triggerRelease();
  });
</script>
<script>

  synth = new Tone.Synth();
  synth.oscillator.type = "square";
  synth.toMaster();

  var Nsynth = new Tone.Synth({
    oscillator: {
      type: 'fmsquare',
      modulationType: 'sawtooth',
      modulationIndex: 3,
      harmonicity: 3.4
    },
    envelope: {
      attack: 0.001,
      decay: 0.1,
      sustain: 0.1,
      release: 0.1
    }
  }).toMaster();

  var Psynth = new Tone.PolySynth(6, Tone.Synth, {
    oscillator : {
      type : "square"
    }
  }).toMaster();
  Psynth.set("detune", -1200);
  // synth.triggerAttackRelease(["C4", "E4", "A4"], "4n");
  function switchOSC(e){
    synth.oscillator.type = event.target.id;
  }
  function switchSynth() {
    if (event.target.id == 'FMSynth') {
      synth = new Tone.FMSynth().toMaster();
    }
    else if (event.target.id == 'AMsynth') {
      synth = new Tone.AMSynth().toMaster();
    }
    else if(event.target.id == 'polySynth'){
      synth = Psynth;
    }
  }

```

```
    else {
        synth = new Tone.Synth().toMaster();
    }
}
var keys = document.querySelectorAll(".keys");

function playIt() {
    if(synth != Psynth){
        synth.triggerAttackRelease(event.target.id, "8n");
    }
    else{
        synth.triggerAttackRelease(["C4", "E4", "A4"], "4n");
    }
}

document.querySelector("#envelope").addEventListener("input", doit);
function doit(event) {
    synth.envelope[event.target.id] = event.target.value;
}
document.querySelector("#oscillator").addEventListener("input", doithat);
function dothat(event) {
    // synth.oscillator[event.target.id] = event.target.value;
}

</script>
<script>

var button = document.querySelectorAll(".tabButton");
var page = document.querySelectorAll(".tabPage");

for (let i = 0; i < page.length; i++) {
    page[i].style.display = "none";
}

document.querySelector(".tabButton").click();
function openPage(event) {
    for (let i = 0; i < page.length; i++) {
        if (event.target.id == button[i].id) {
            page[i].style.display = "block";
        }
        else {
            page[i].style.display = "none";
        }
    }
}
setTimeout( function(){
    document.getElementById("C5").click();
}, 1000);
</script>
</body>

</html>
```