CALCULATOR PROJECT

HTML

```
<html>
<head>
   <link rel="stylesheet" type="text/css" href="style.css">
   <link href="https://fonts.googleapis.com/css?family=Open+Sans:600,700" rel="stylesheet">
   <title>A simple calculator</title>
</head>
<body>
   <div id="container">
      <div id="calculator">
         <div id="result">
            <div id="output-text">
               <div id="history">
                  <p id="history-value"></p>
               </div>
               <div id="output">
                  <p id="output-value"></p>
               </div>
            </div>
            <div id="output-microphone">
               <span id="microphone">
               </span>
               <span class="tooltip">Operations are plus, minus, multiply, divide &amp;amp; reminder
                  The user input format is number + operation + number<br><br>
                  Eg: 2 multiply 5 will be 2 &times 5
               </span>
            </div>
         </div>
         <div id="keyboard">
            <button class="operator" id="clear">C</button>
           <button class="operator" id="backspace">CE</button>
```

```
            <button class="operator" id="%">%</button>
            <button class="operator" id="/">&#247;</button>
            <button class="number" id="7">7</button>
            <button class="number" id="8">8</button>
            <button class="number" id="9">9</button>
            <button class="operator" id="*">&times;</button>
            <button class="number" id="4">4</button>
            <button class="number" id="5">5</button>
            <button class="number" id="6">6</button>
            <button class="operator" id="-">-</button>
            <button class="number" id="1">1</button>
            <button class="number" id="2">2</button>
            <button class="number" id="3">3</button>
            <button class="operator" id="+">+</button>
            <button class="empty" id="empty"></button>
            <button class="number" id="0">0</button>
            <button class="empty" id="empty"></button>
            <button class="operator" id="=">=</button>
        </div>
    </div>
  </div>
  <script src="script.js"></script>
</body>
</html>
```

CSS

```
body {
  font-family: 'Open Sans', sans-serif;
  background-color: black;
}
#container {
  width: 1000px;
  height: 550px;
```

```
    background-image: linear-gradient(rgba(0, 0, 0, 0.3), rgba(0, 0, 0, 0.3)), url(bgImg.jpg);
    margin: 20px auto;
}
#calculator {
    width: 320px;
    height: 520px;
    background-color: #eaedef;
    margin: 0 auto;
    top: 20px;
    position: relative;
    border-radius: 5px;
    box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2), 0 6px 20px 0 rgba(0, 0, 0, 0.19);
}
#result {
    height: 120px;
}
#history {
    text-align: right;
    height: 20px;
    margin: 0 20px;
    padding-top: 20px;
    font-size: 15px;
    color: #919191;
}
#output {
    text-align: right;
    height: 60px;
    margin: 10px 20px;
    font-size: 30px;
}

#output-text {
    width: 250px;
    height: 120px;
```

```
    float: left;
}
#microphone {
    height: 30px;
    width: 30px;
    float: right;
    background-image: url(mic.png);
    background-size: 100% 100%;
    border-radius: 50%;
    margin: 20px;
    margin-top: 45px;
}
.record {
    animation: microphone-animation 1.5s infinite;
}
@Keyframes microphone-animation {
    0% {
        transform: scale(0.9);
    }
70% {
        transform: scale(1);
        box-shadow: 0 0 0 10px rgba(0, 148, 255, 0.4);
    }
100% {
        transform: scale(0.9);
        box-shadow: 0 0 0 0 rgba(0, 148, 255, 0);
    }
}
.tooltip {
    width: 200px;
    font-size: 9px;
    position: absolute;
    background-color: #dddddd;
    color: #636363;
```

```
    padding: 10px;
    top: 45px;
    transform: translateX(50px);
    border-radius: 5px;
    visibility: hidden;
}
.tooltip::before {
    content: '';
    position: absolute;
    border-width: 5px;
    border-style: solid;
    border-color: transparent #dddddd transparent transparent;
    left: 0;
    margin-left: -10px;
}
#output-microphone:hover .tooltip {
    visibility: visible;
}
#keyboard {
    height: 400px;
}
.operator,
.number,
.empty {
    width: 50px;
    height: 50px;
    margin: 15px;
    float: left;
    border-radius: 50%;
    border-width: 0;
    font-weight: bold;
    font-size: 15px;
}
.number,
```

```
.empty {
    background-color: #eaedef;
}
.number,
.operator {
    cursor: pointer;
}
.operator:active,
.number:active {
    font-size: 13px;
}
.operator:focus,
.number:focus,
.empty:focus {
    outline: 0;
}
button:nth-child(4) {
    font-size: 20px;
    background-color: #20b2aa;
}
button:nth-child(8) {
    font-size: 20px;
    background-color: #ffa500;
}
button:nth-child(12) {
    font-size: 20px;
    background-color: #f08080;
}
button:nth-child(16) {
    font-size: 20px;
    background-color: #7d93e0;
}
button:nth-child(20) {
    font-size: 20px;
```

```
    background-color: #9477af;
}
```

JAVASCRIPT

```
function getHistory() {
    return document.getElementById("history-value").innerText;
}

function printHistory(num) {
    document.getElementById("history-value").innerText = num;
}

function getOutput() {
    return document.getElementById("output-value").innerText;
}

function printOutput(num) {
    if (num == "") {
        document.getElementById("output-value").innerText = num;
    } else {
        document.getElementById("output-value").innerText = getFormattedNumber(num);
    }
}

function getFormattedNumber(num) {
    if (num == "-") {
        return "";
    }
    var n = Number(num);
    var value = n.toLocaleString("en");
    return value;
}

function reverseNumberFormat(num) {
    return Number(num.replace(/,/g, ''));
```

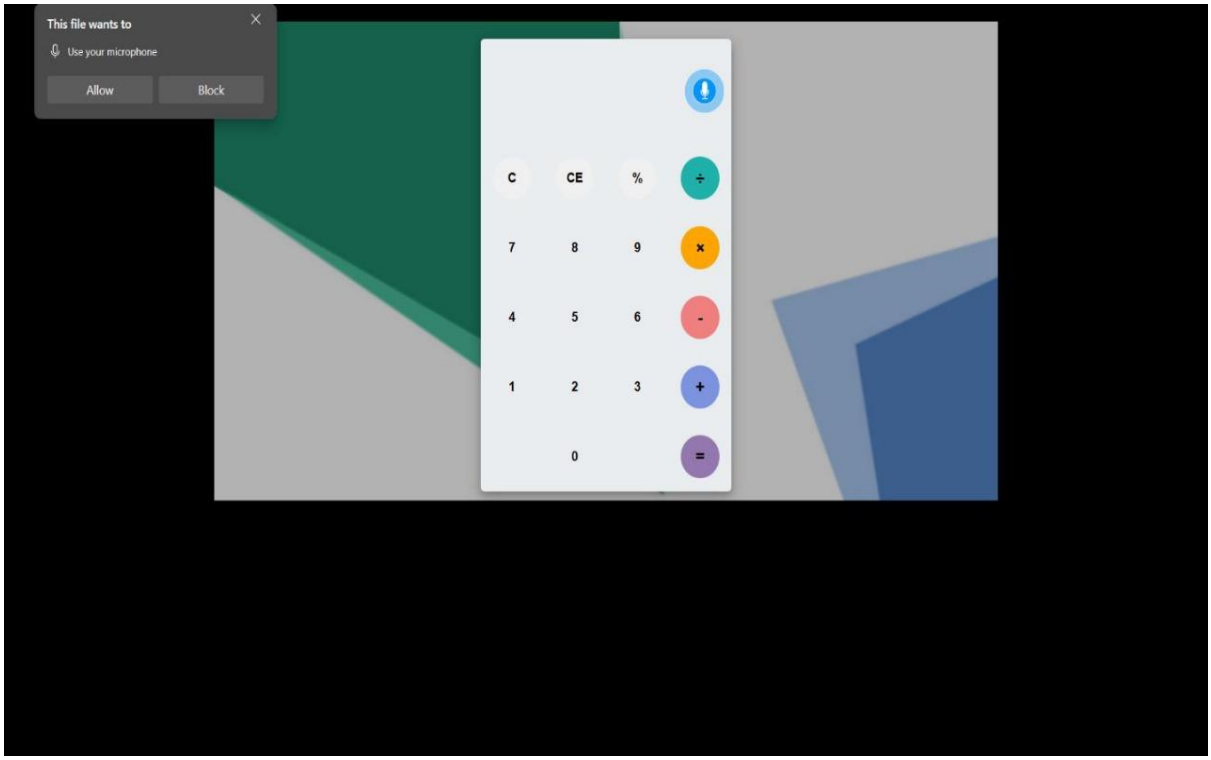
```
}
var operator = document.getElementsByClassName("operator");
for (var i = 0; i < operator.length; i++) {
    operator[i].addEventListener('click', function() {
        if (this.id == "clear") {
            printHistory("");
            printOutput("");
        } else if (this.id == "backspace") {
            var output = reverseNumberFormat(getOutput()).toString();
            if (output) { //if output has a value
                output = output.substr(0, output.length - 1);
                printOutput(output);
            }
        } else {
            var output = getOutput();
            var history = getHistory();
            if (output == "" && history != "") {
                if (isNaN(history[history.length - 1])) {
                    history = history.substr(0, history.length - 1);
                }
            }
            if (output != "" || history != "") {
                output = output == "" ? output : reverseNumberFormat(output);
                history = history + output;
                if (this.id == "=") {
                    var result = eval(history);
                    printOutput(result);
                    printHistory("");
                } else {
                    history = history + this.id;
                    printHistory(history);
                    printOutput("");
                }
            }
```

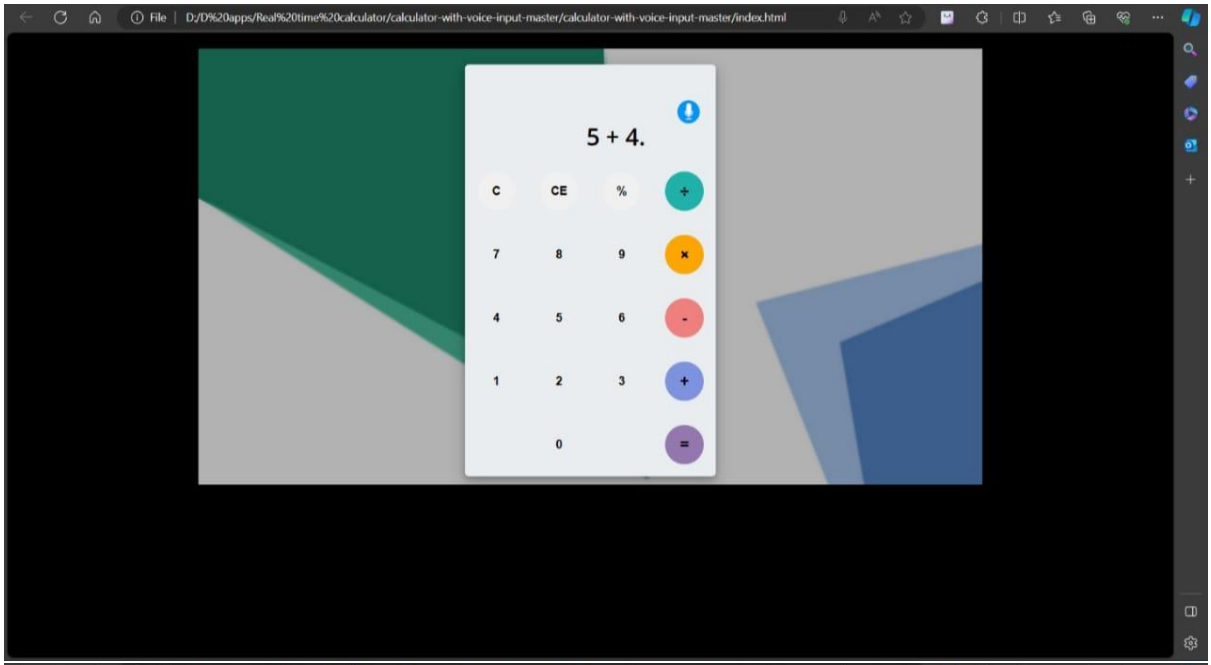
```
        }
    });
}
var number = document.getElementsByClassName("number");
for (var i = 0; i < number.length; i++) {
    number[i].addEventListener('click', function() {
        var output = reverseNumberFormat(getOutput());
        if (output != NaN) { //if output is a number
            output = output + this.id;
            printOutput(output);
        }
    });
}
var microphone = document.getElementById('microphone');
microphone.onclick = function() {
    microphone.classList.add("record");
    var recognition = new(window.SpeechRecognition || window.webkitSpeechRecognition ||
window.mozSpeechRecognition || window.msSpeechRecognition)();
    recognition.lang = 'en-US';
    recognition.start();
    operations = {
        "plus": "+",
        "minus": "-",
        "multiply": "*",
        "multiplied": "*",
        "divide": "/",
        "divided": "/",
        "reminder": "%"
    }
    recognition.onresult = function(event) {
        var input = event.results[0][0].transcript;
        for (property in operations) {
            input = input.replace(property, operations[property]);
        }
        document.getElementById("output-value").innerText = input;
```

```
        setTimeout(function() {
            evaluate(input);
        }, 2000);
        microphone.classList.remove("record");
    }
}

function evaluate(input) {
    try {
        var result = eval(input);
        document.getElementById("output-value").innerText = result;
    } catch (e) {
        console.log(e);
        document.getElementById("output-value").innerText = "";
    }
}
```

RESULT

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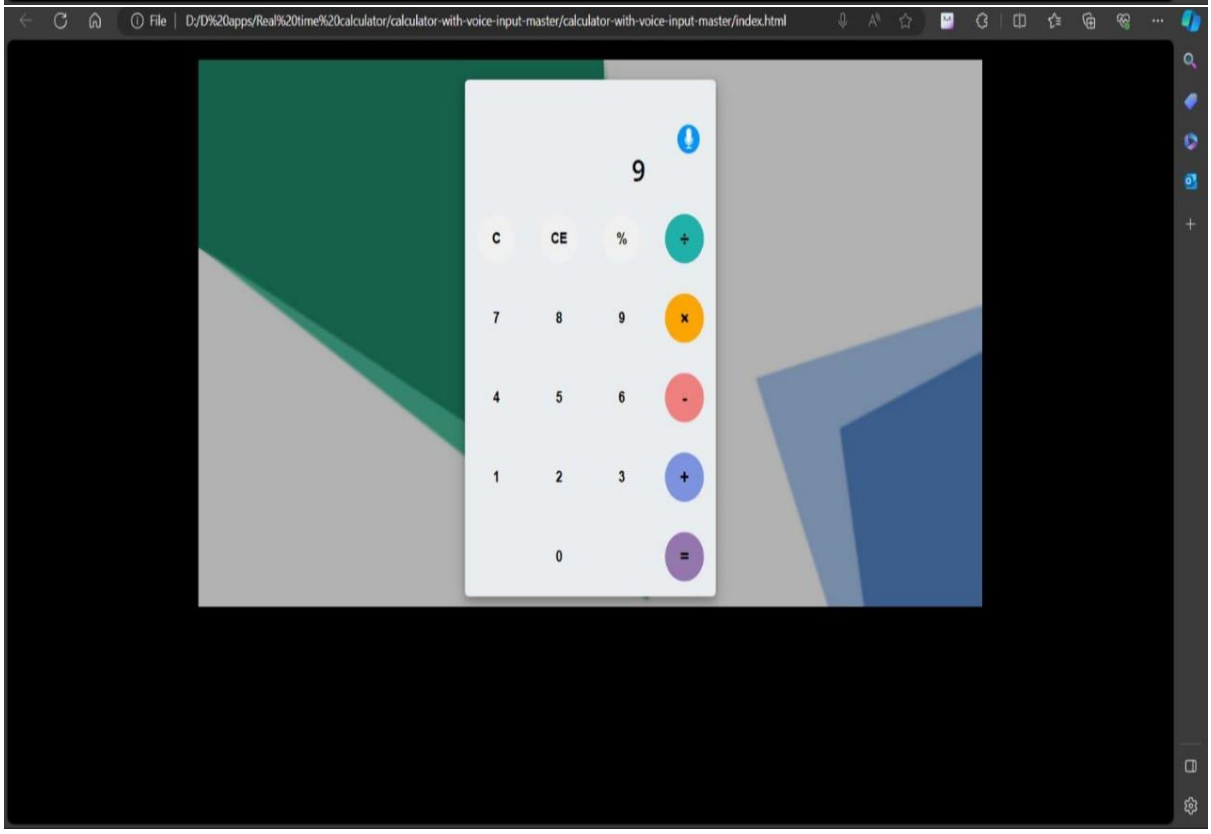
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