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DEPARTMENT OF COMPUTER STUDIES
ITEC 106 – IT ELECTIVE 2 (WEB SYSTEM AND TECHNOLOGIES 2)

Name: Janvier Erickson C. Araque	Section: BSIT 3C
Assignment No: 1	Submission Date: Mar. 16, 2024
Assignment Title: Calculator	

Code :

HTML FILE*(index.html)*

```html
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title >Rock Paper Scissors</title>
   <link rel="stylesheet" href="style.css">
</head>
<body>
    <div id="calculator">
      <input id="show">
      <div id="buttons">
        <button onclick="displayVal('+')" class="operation">+</button>
        <button onclick="displayVal('7')">7</button>
        <button onclick="displayVal('8')">8</button>
        <button onclick="displayVal('9')">9</button>
        <button onclick="displayVal('-')" class="operation">-</button>
        <button onclick="displayVal('4')">4</button>
        <button onclick="displayVal('5')">5</button>
        <button onclick="displayVal('6')">6</button>
        <button onclick="displayVal('*')" class="operation">*</button>
        <button onclick="displayVal('1')">1</button>
        <button onclick="displayVal('2')">2</button>
        <button onclick="displayVal('3')">3</button>
        <button onclick="displayVal('/')" class="operation">/</button>
        <button onclick="displayVal('0')">0</button>
        <button onclick="displayVal('.')">.</button>
```

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```html
            <button onclick="calculate()">=</button>
            <button onclick="clearCalculator()" class="operation">C</button>
        </div>
        <script src="index.js"></script>
</body>
</html>
```

JS FILE*(index.js)*

```js
const display = document.getElementById('show');

function calculate() {
    try {
        display.value = eval(display.value);
    } catch (error) {
        display.value = "Error, try again!";
    }
}

function displayVal(input) {
    display.value += input;
}

function clearCalculator() {
    display.value = "";
}
```

CSS FILE*(style.css)*

```css
*{
    margin: 0;
    padding: 0;
    font-family: 'Poppins';
}
:root{
    --Background--: hsl(0, 0%, 15%);
    --fontColor--: hsl(0, 0%, 96%);
    --gray--: hsl(0, 0% , 30%);
    --LightButtons--: hsl(47, 100%, 46%);
    --hoverLightButtons--: hsl(47, 100%, 50%);
    --activeLightButtons--: hsl(38, 100%, 50%);
```

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```css
    --hoverDark--: hsl(0, 1%, 23%);
    --activeButton--: hsl(0, 0%, 60%);
}
body{
    display: flex;
    justify-content: center;
    align-items: center;
    height: 100vh;
}


#show{
    width: 100%;
    background-color: var(--gray--);
    text-align: left;
    border: none;
    height: 100px;
    color: var(--fontColor--);
    font-size: 3rem;
    font-weight: bold;
    padding: 10px 0 10px 13px;
}
#calculator{
    background-color: var(--Background--);
    max-width: 400px;
    overflow: hidden;
    border-radius: 30px;
}

#buttons{
    display: grid;
    grid-template-columns: repeat(4, 1fr);
    gap: 5px;
    margin-top: 10px;
    padding: 10px;
}

button{
    background-color: var(--gray--);
```

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```css
    color: var(--fontColor--);
    font-size: 30px;
    cursor: pointer;
    border: none;
    border-radius: 50%;
    height: 80px;
    width: 80px;
    font-weight: bold;
    transition: background-color 0.3s;
}
button:hover{
    background-color: var(--hoverDark--);
}
button:active{
    background-color: var(--activeButton--);
}

.operation{
    background-color: var(--LightButtons--);
    transition: background-color 0.3s;
}
.operation:hover{
    background-color: var(--hoverLightButtons--);
}
.operation:active{
    background-color: var(--activeLightButtons--);
}
```

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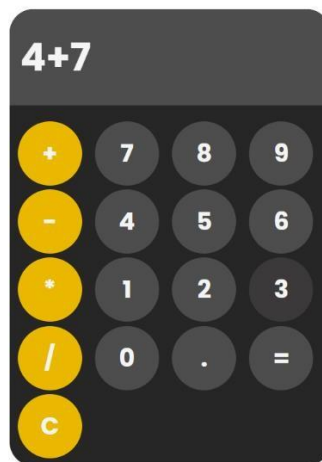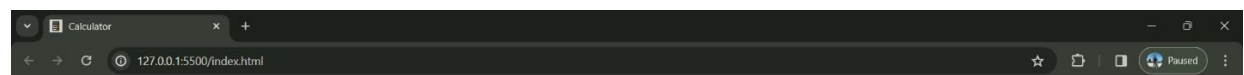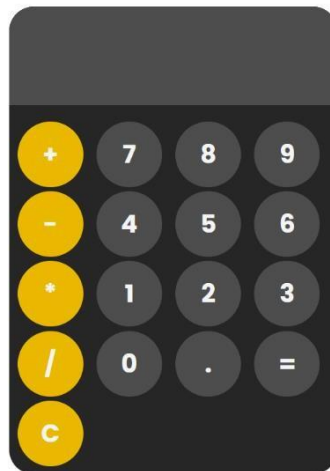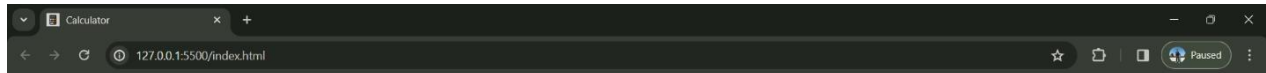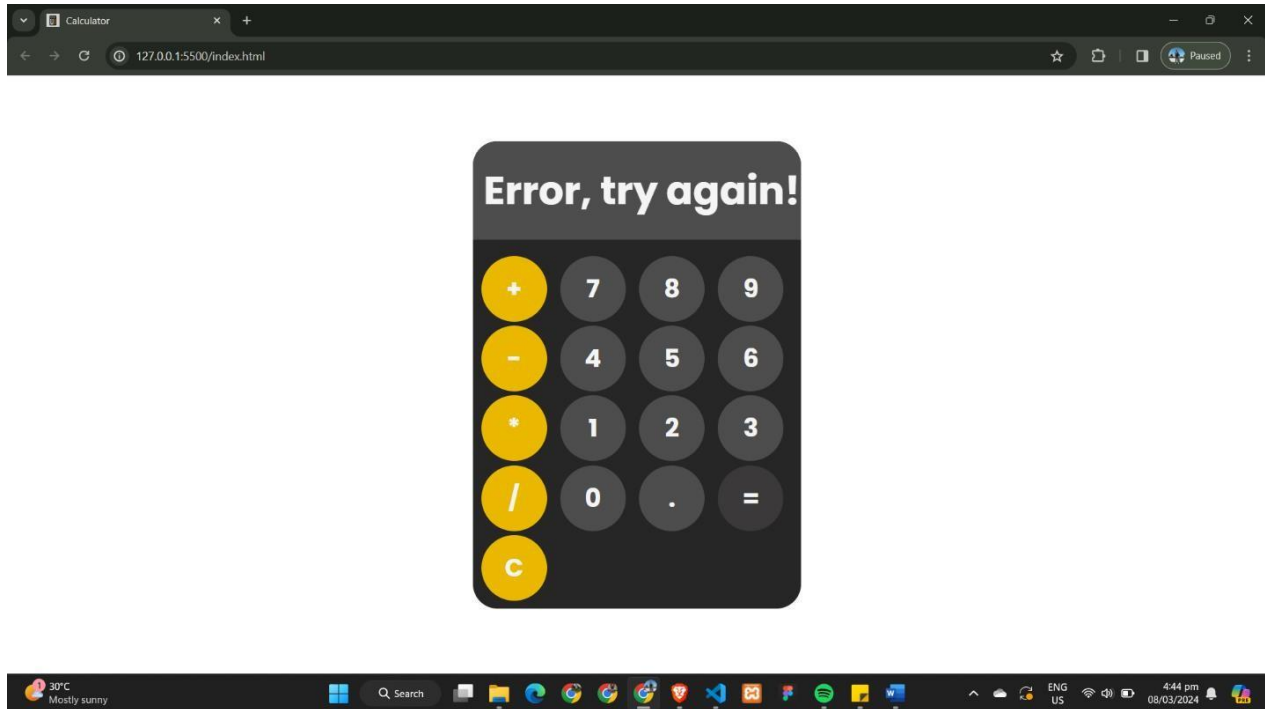(046) 471-66-07 / (046) 471-67-70 / (046) 686- 23-49
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SCREENSHOT

Dictionary:

eval - I used this function to evaluate the mathematical expression entered by the user and update the display with the result.
Syntax: display.value = eval(display.value);
Parameters: display.value: The current value entered by the user is evaluated as a JavaScript expression.

display.value = eval("2 + 3 * 4");
console.log(display.value);
Output: 14

try: - I used the **try** block to enclose code that might throw an exception. In this case, it's used to attempt the evaluation of the expression.
Syntax: try {
        display.value = eval(display.value);
    }

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Parameters: The block of code inside the try statement that may potentially throw an exception.

```
try {
        display.value = eval("2 / 0"); // Division by zero, potential exception
        console.log(display.value);
} catch (error) {
        display.value = "Error, try again!";
        console.error(error.message);
```

Output: Error, try again

catch(error) – I used the catch bck to handle exceptions thrown within the try block. In this case, it catches any errors that occur during the evaluation and displays an error message.

Syntax: ` catch (error) {
                display.value = "Error, try again!";
        }

Parameters: error: The variable that holds information about the exception.

```
try {
        display.value = eval("unknownFunction()"); // unknownFunction is not defined,
        potential exception
        console.log(display.value);
} catch (error) {
        display.value = "Error: " + error.message;
        console.error("Error: " + error.message);
}
```

Output: Error: unknownFunction is not defined

onclick= - I used this attribute in HTML to specify an action (calling the displayVal function with a parameter) when a button is clicked.

Syntax: <button onclick="displayVal('+')" class="operation">+</button>

Parameters: displayVal('+'): The specific action (calling displayVal with the parameter '+') to be executed when the button is clicked.

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const - I used this keyword to declare a constant variable display that references an HTML element with the id 'show'.

Syntax: const display = document.getElementById('show');

Parameters: display: The constant variable referencing the HTML element used to display calculator inputs and results.

```
const display = document.getElementById('show');

console.log(display);
```
Output: The constant variable referencing the HTML element with the id 'show'

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