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**ROLL NO.- 22CS3058**

**BRANCH - CSE**

**T1.)** Make a simple web page that contains an h2 with the word “Hello” a text input box, and a button. When the user types a word or phrase into the input box and presses the button, replace the old h2 with the word entered. Using animation, make the word spin.

**Answer**

**HTML code-**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Text Spinner</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <h2 id="helloText">Hello</h2>
  <input type="text" id="textInput" placeholder="Enter a word or phrase">
  <button onclick="changeText()">Change Text</button>

  <script src="script.js"></script>
</body>
</html>
```

**CSS code-**

```
body {
  font-family: Arial, sans-serif;
  text-align: center;
}

h2 {
  font-size: 24px;
}

input[type="text"] {
```

```
padding: 8px;
margin: 10px;
}

button {
padding: 10px 20px;
background-color: #007bff;
color: #fff;
border: none;
cursor: pointer;
transition: background-color 0.3s ease;
}

button:hover {
background-color: #0056b3;
}
```

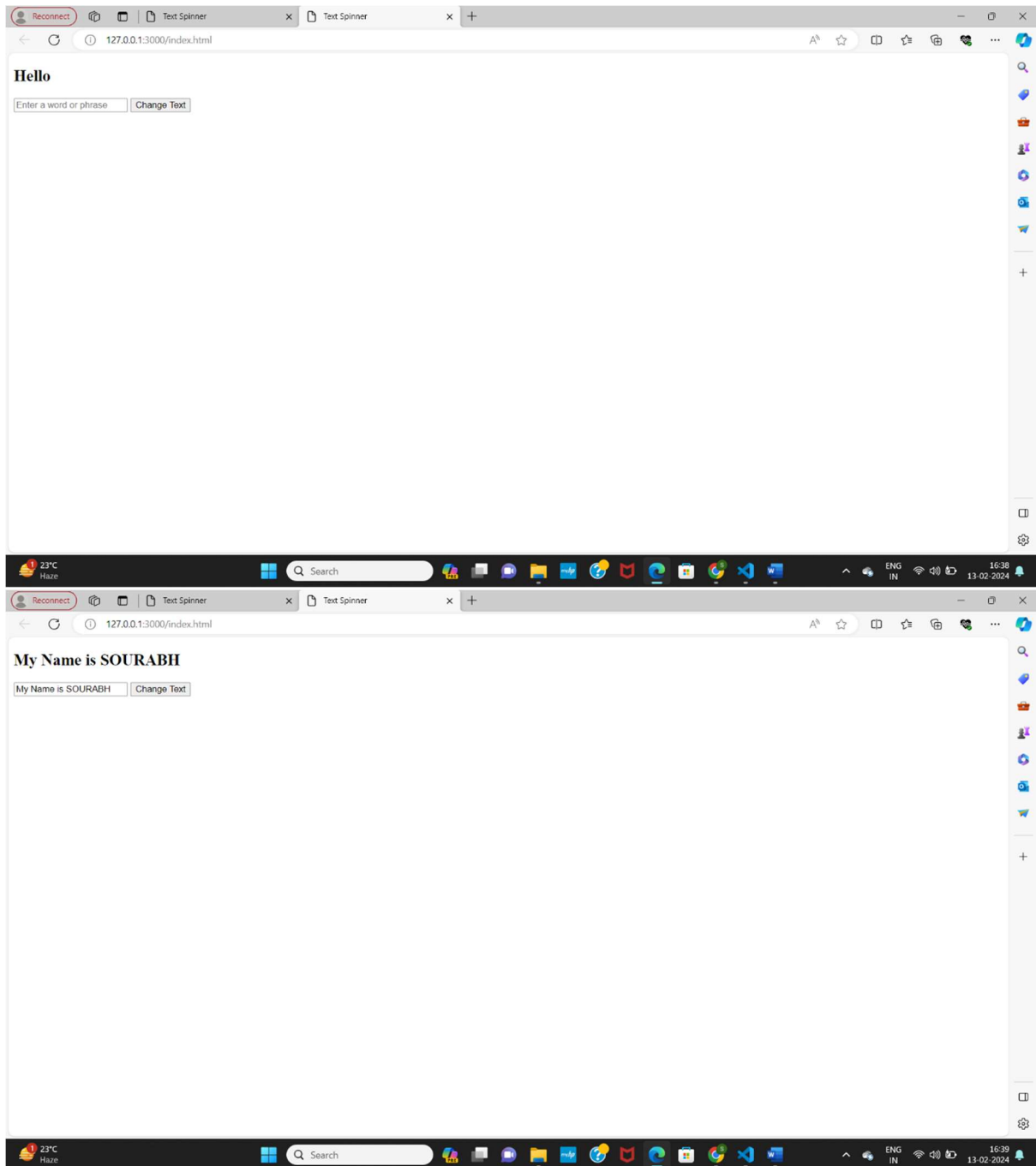
## Script.js code-

```
function changeText() {
    var inputText = document.getElementById("textInput").value;
    var helloText = document.getElementById("helloText");

    if (inputText.trim() !== "") {
        helloText.innerText = inputText;
        helloText.classList.add("spin-animation");

        helloText.addEventListener("animationend", function() {
            helloText.classList.remove("spin-animation");
        });
    }
}
```

## Output



**T2.)** Make a simple web page that contains a button and a paragraph with the id of count Whenever this button is pressed increment the count by 1 and update the paragraph text. Also update the font size so that as the number gets larger, so does the font.

**Answer**

```
<!DOCTYPE html>
```

```
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Counter</title>
</head>
<style>
  body {
    font-family: Arial, sans-serif;
    text-align: center;
  }

  button {
    padding: 10px 20px;
    background-color: #007bff;
    color: #fff;
    border: none;
    cursor: pointer;
    transition: background-color 0.3s ease;
  }

  button:hover {
    background-color: #0056b3;
  }

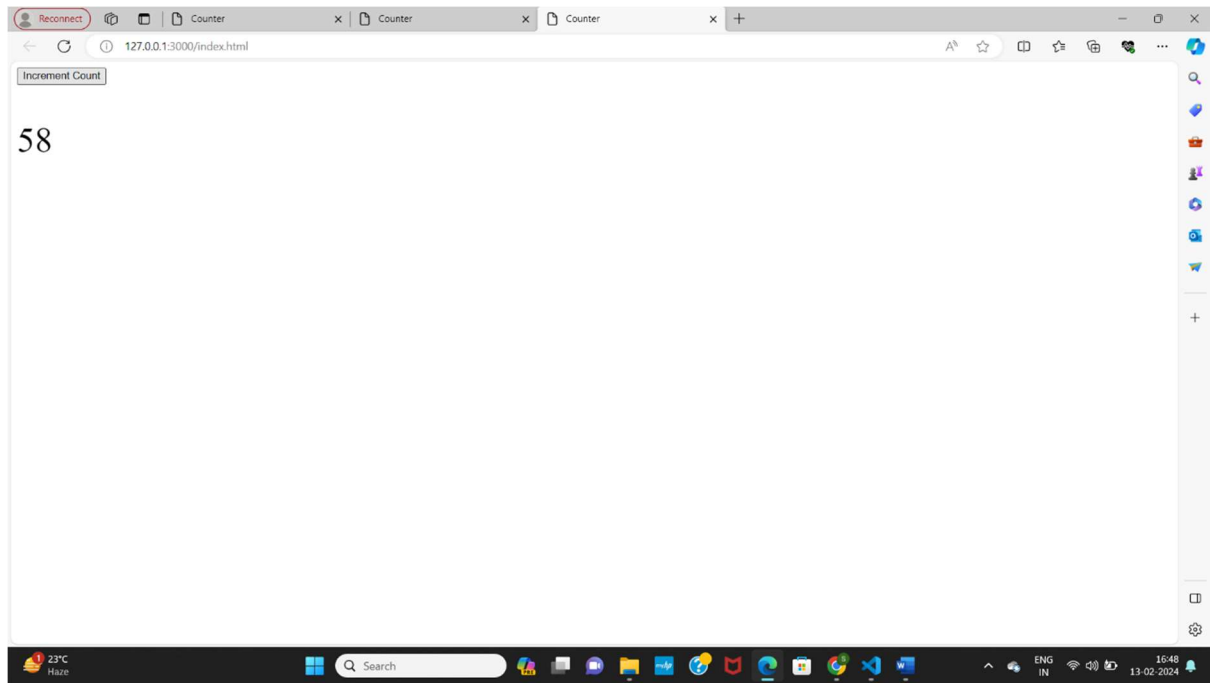
  #count {
    font-size: 16px;
  }
</style>
<script>
  let count = 0;

  function incrementCount() {
    count++;
    document.getElementById("count").innerText = count;
    updateFontSize();
  }

  function updateFontSize() {
    let fontSize = 16 + count * 0.5;
    document.getElementById("count").style.fontSize = fontSize + "px";
  }
</script>
<body>
  <button onclick="incrementCount()">Increment Count</button>
  <p id="count">0</p>
```

```
</body>
</html>
```

## Output



T3.) Repeat the previous exercise but make a list of numbers. In this case you will not be able to simply update the innerHTML of the paragraph, you will need to use the document. createElement() and document. appendChild() functions to add a new list item.

## Answer

```
<!DOCTYPE html>
<html>
<head>
  <style>

    #countList {
      font-size: 1em;
    }
  </style>
</head>
<body>
```

```

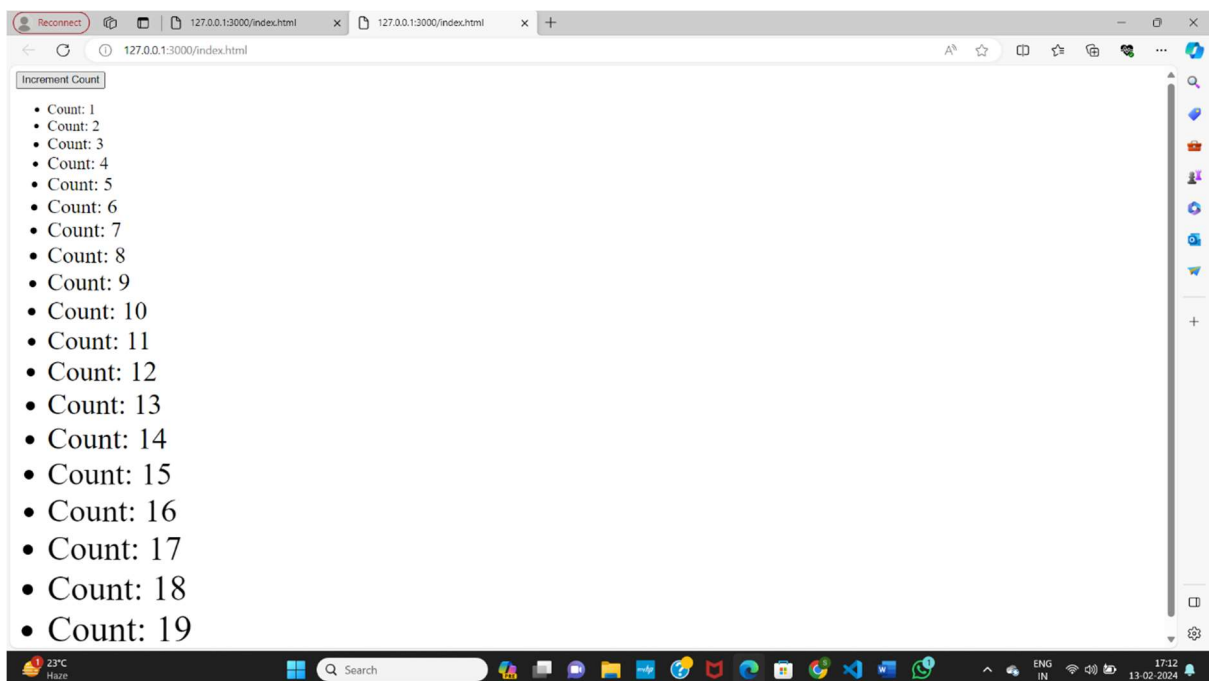
<button onclick="incrementCount()">Increment
Count</button>
<ul id="countList"></ul>

<script>

    function incrementCount() {
        var countList = document.getElementById("countList");
        var count = countList.children.length + 1;
        var listItem = document.createElement("li");
        listItem.textContent = "Count: " + count;
        var fontSize = 1 + (count / 10);
        listItem.style.fontSize = fontSize + "em";
        countList.appendChild(listItem);
    }
</script>
</body>
</html>

```

## Output



T4.) Given the following html. Every time the button is pressed you should add a row to the table, where the new row of the table contains the sum of the

previous two rows. You should make use of the last Child, previous Sibling, and inner Text attributes in this exercise.

Answer

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Table with Sum of Previous Rows</title>
</head>
<body>
  <button onclick="addRow()">Add Row</button>
  <table id="dataTable">
    <thead>
      <tr>
        <th>Row Number</th>
        <th>Sum</th>
      </tr>
    </thead>
    <tbody>
      <tr>
        <td>1</td>
        <td>1</td>
      </tr>
      <tr>
        <td>2</td>
        <td>1</td>
      </tr>
    </tbody>
  </table>

  <script>
    function addRow() {

      let table = document.getElementById("dataTable");

      let lastRow = table.rows[table.rows.length - 1];

      let prevRow = lastRow.previousElementSibling;

      let sum = parseInt(prevRow.cells[1].innerText) +
        parseInt(lastRow.cells[1].innerText);

      let newRow = document.createElement("tr");

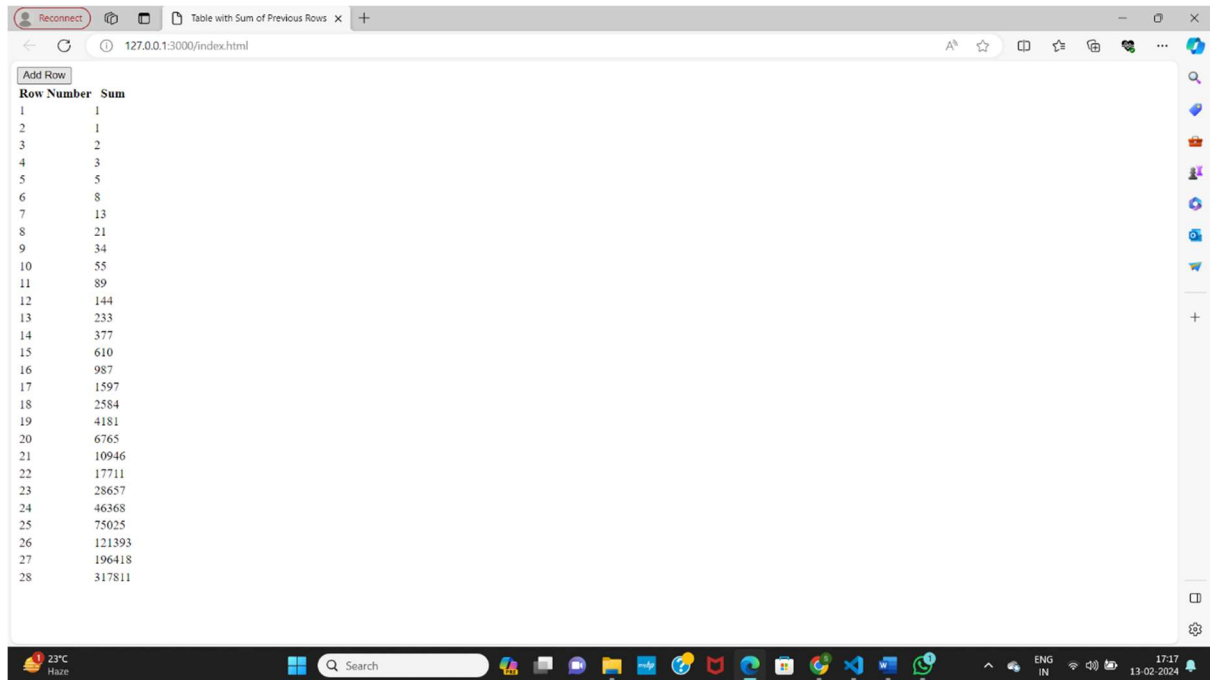
      let cell1 = document.createElement("td");
      cell1.innerText = table.rows.length;
      newRow.appendChild(cell1);
      let cell2 = document.createElement("td");
      cell2.innerText = sum;
      newRow.appendChild(cell2);
    }
  </script>
</body>
</html>
```

```

        table.querySelector("tbody").appendChild(newRow);
    }
</script>
</body>
</html>

```

## Output



Row Number	Sum
1	1
2	1
3	2
4	3
5	5
6	8
7	13
8	21
9	34
10	55
11	89
12	144
13	233
14	377
15	610
16	987
17	1597
18	2584
19	4181
20	6765
21	10946
22	17711
23	28657
24	46368
25	75025
26	121393
27	196418
28	317811

T5.) Create an html page with two text input boxes and four buttons. The buttons should be labeled +, -, \*, and /. When one of these buttons is pressed you should get the value from both text input boxes and add, subtract, multiply, or divide the numbers entered in the text input boxes. The result should be displayed below the buttons. Note In order to do math on the values you read from the text input boxes you will need to use `Number.parseInt` on the value. for example suppose you get a reference to input box 1 using `myIn1 = document.querySelector("#in1id");` then the statement `value1 =Number.parseInt(myIn1.value)` converts the string from the text input box to an integer. In fact most of the time Javascript will do the conversion for you automatically except for addition.

## Answer

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Calculator</title>
</head>

```



```

<body>
  <input type="text" id="input1" placeholder="Enter a number">
  <input type="text" id="input2" placeholder="Enter another number">
  <br>
  <button onclick="calculate('+')">+</button>
  <button onclick="calculate('-')">-</button>
  <button onclick="calculate('*')">*</button>
  <button onclick="calculate('/')">/</button>
  <br>
  <div id="result"></div>

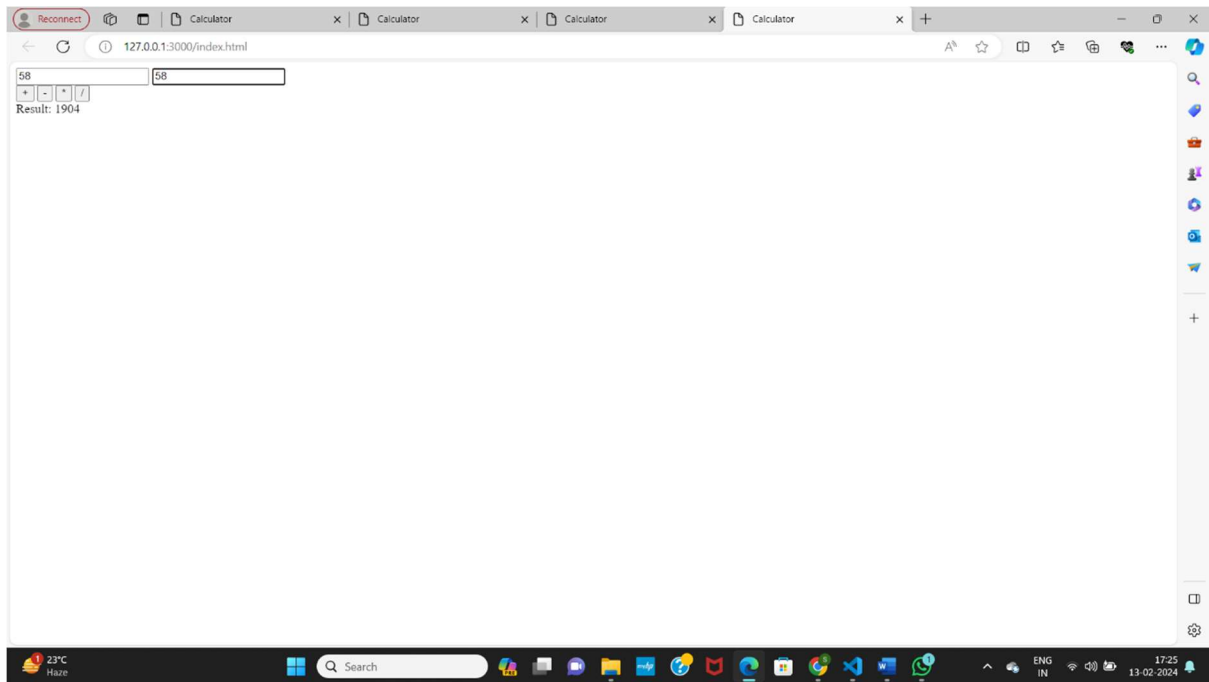
  <script>
    function calculate(operator) {
      let input1 = Number.parseInt(document.getElementById("input1").value);
      let input2 = Number.parseInt(document.getElementById("input2").value);
      let result;

      switch (operator) {
        case '+':
          result = input1 + input2;
          break;
        case '-':
          result = input1 - input2;
          break;
        case '*':
          result = input1 * input2;
          break;
        case '/':
          if (input2 !== 0) {
            result = input1 / input2;
          } else {
            result = "Error: Division by zero";
          }
          break;
        default:
          result = "Error: Invalid operator";
          break;
      }

      document.getElementById("result").innerText = "Result: " + result;
    }
  </script>
</body>
</html>

```

Output



T6.) Starting with the code given, create a page that looks like the following image: The rest of the page must be created using javascript. You must use document. createElement and the appendChild functions.

Answer

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Create Page</title>
</head>
<body>

<button onclick="makePage();">Click Here</button>

<script>
function makePage() {

    var mainContainer = document.createElement("div");
    mainContainer.style.textAlign = "center";
    mainContainer.style.padding = "20px";

    var title = document.createElement("h1");
    title.textContent = "Dynamic Page";

    var image = document.createElement("img");
    image.src = "https://via.placeholder.com/150";
    image.style.marginBottom = "20px";
```

```

    var paragraph = document.createElement("p");
    paragraph.textContent = "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.";

    var list = document.createElement("ul");
    var listItem1 = document.createElement("li");
    listItem1.textContent = "Item 1";
    var listItem2 = document.createElement("li");
    listItem2.textContent = "Item 2";
    var listItem3 = document.createElement("li");
    listItem3.textContent = "Item 3";
    list.appendChild(listItem1);
    list.appendChild(listItem2);
    list.appendChild(listItem3);

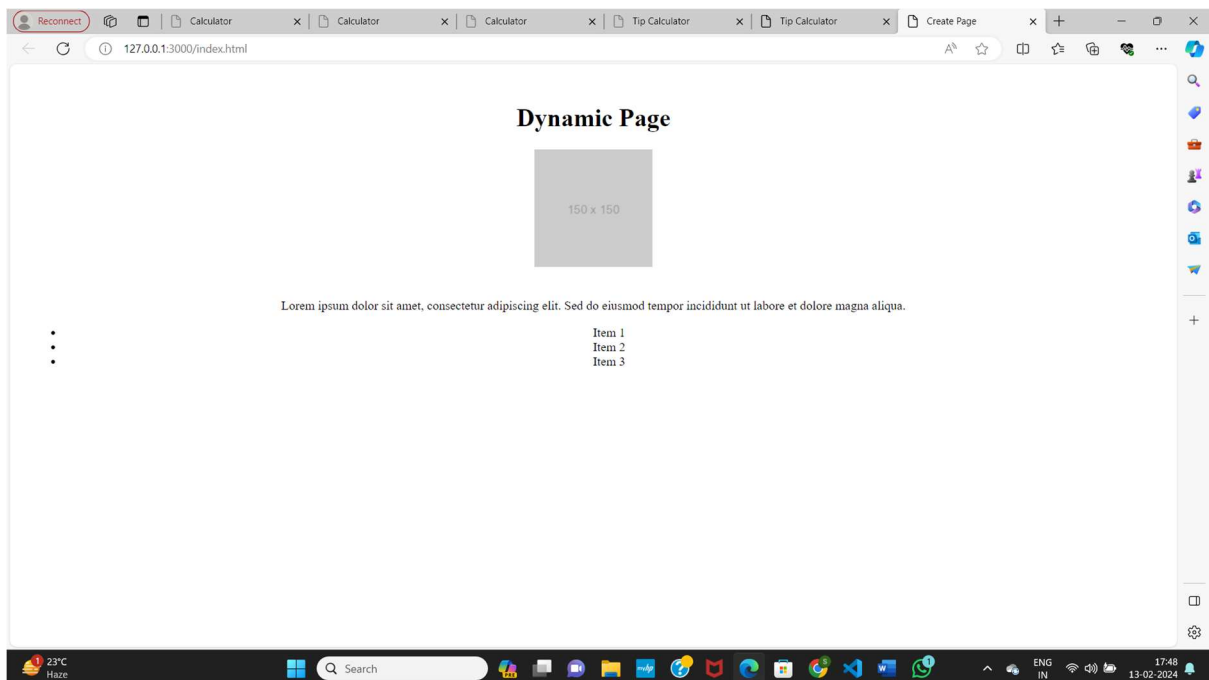
    // Append elements to the main container
    mainContainer.appendChild(title);
    mainContainer.appendChild(image);
    mainContainer.appendChild(paragraph);
    mainContainer.appendChild(list);

    // Append main container to the body
    document.body.innerHTML = '';
    document.body.appendChild(mainContainer);
}
</script>

</body>
</html>

```

## Output



T7.) Create a Tip Calculator as a single page web application (SPA). Design an interface that allows you to enter the amount of the tip. The percentage you would like to tip, and the number of people to split the tip with. Do not use 3 text input elements! Calculate and dynamically display the tip.

Answer

Html code-

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Tip Calculator</title>
  <link rel="stylesheet" href="styles.css">
</head>

<body>
  <div class="calculator">
    <h2>Tip Calculator</h2>
    <div>
      <label for="tipAmount">Tip Amount: <span id="tipPercentage">15%</span></label>
      <input type="range" id="tipAmount" min="0" max="30" value="15">
    </div>
    <div>
      <label for="numberOfPeople">Number of People: <span
id="peopleCount">1</span></label>
      <input type="range" id="numberOfPeople" min="1" max="10" value="1">
    </div>
    <div>
      <button onclick="calculateTip()">Calculate Tip</button>
    </div>
    <div id="result"></div>
  </div>

  <script src="script.js"></script>
</body>
</html>
```

CSS code-

```
.calculator {
  max-width: 400px;
  margin: 50px auto;
  padding: 20px;
  border: 1px solid #ccc;
  border-radius: 5px;
  text-align: center;
}

h2 {
```

```

    margin-bottom: 20px;
}

input[type="range"] {
    width: 80%;
    margin-bottom: 10px;
}

button {
    padding: 10px 20px;
    background-color: #007bff;
    color: #fff;
    border: none;
    border-radius: 5px;
    cursor: pointer;
}

button:hover {
    background-color: #0056b3;
}

#result {
    margin-top: 20px;
}

```

Script js code-

```

function calculateTip() {
    let tipAmount = document.getElementById("tipAmount").value;
    let numberOfPeople = document.getElementById("numberOfPeople").value;

    let tipPercentage = parseFloat(tipAmount) / 100;
    let tipPerPerson = tipPercentage / numberOfPeople;

    document.getElementById("result").innerHTML = `Tip per person:
    ${tipPerPerson.toFixed(2)}`;
}

document.getElementById("tipAmount").addEventListener("input", function() {
    document.getElementById("tipPercentage").textContent = this.value + "%";
});

document.getElementById("numberOfPeople").addEventListener("input", function() {
    document.getElementById("peopleCount").textContent = this.value;
});

```

Output

