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01. <!DOCTYPE html>

```html
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Dynamic Text Animation</title>
<style>
  #hello {
    transition: transform 0.5s ease-in-out;
  }
</style>
</head>
<body>
<h2 id="hello">Hello</h2>
<input type="text" id="textInput" placeholder="Enter text">
<button id="changeTextBtn">Change Text</button>

<script>
  const helloHeading = document.getElementById('hello'); const
  textInput = document.getElementById('textInput'); const
  changeTextBtn = document.getElementById('changeTextBtn');

  changeTextBtn.addEventlistener('click', () => { const
    newText = textInput.value.trim();
    if (newText) {
      helloHeading.textContent = newText;
      helloHeading.style.transform = 'rotate(0deg)';

      // Trigger reflow
      void helloHeading.offsetWidth;
      helloHeading.style.transform = 'rotate(360deg)';
    }
  });
```
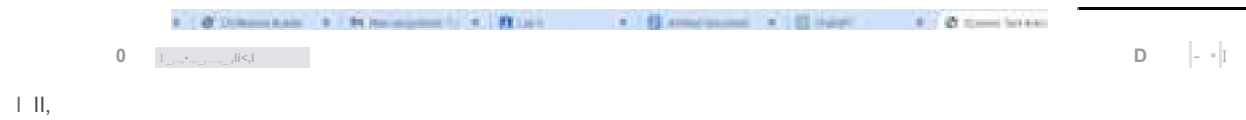
```
</script>
```

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

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

```html
  #count{
    font-size: 16px; /* Initial font size*/
    transition: font-size 0.2s ease-in-out;
  }
</style>
</head>
<body>
<button id="incrementBtn"
onclick="incrementCounter()">Increment</button>
<p id="count">O</p>
<script>
  let count= O;

  function incrementCounter() { count++;
    document.getElementByld('count').innerText = count;
    updateFontSize();
  }

  function updateFontSize() {
    // Increase font size as the count gets larger const
    baseFontSize = 16;
    const fontSizeIncrement = 2; // Adjust this value as needed
document.getElementByld('count').style.fontSize = baseFontSize + count*
fontSizeIncrement + 'px';
  }
</script>
</body>
</html>
```
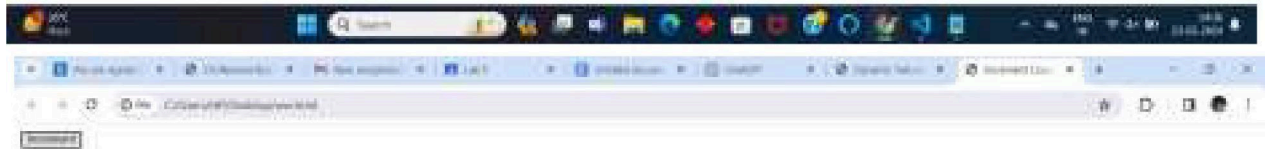
03.
```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Increment Counter with List</title>
<style> #count{
    font-size: 16px; /* Initial font size*/
    transition: font-size 0.2s ease-in-out;
  }
</style>
</head>
<body>
<button id="incrementBtn"
onclick="incrementCounter()">Increment</button>
<ul id="countlist">

  <!-- Initial list item -->
  <li id="countItem">0</li>
</ul>

<script>
  let count= 0;
  const countlist = document.getElementById('countlist');
```

```
function incrementCounter() { count++;
  const newlistItem = document.createElement('li');
  newlistItem.textContent = count;
  countlist.appendChild(newlistItem);
  updateFontSize(newlistItem);
}

function updateFontSize(listItem) {
  // Increase font size as the count gets larger const
  baseFontSize = 16;
  const fontSizeIncrement = 2; // Adjust this value as needed
  listItem.style.fontSize = baseFontSize +count* fontSizeIncrement + 'px';
}
</script>
</body>
</html>
```

```html
04. <!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Add Row with Sum to Table</title>
</head>
<body>
<button id="addRowBtn">Add Row</button>
```

```html
<table id="dataTable">
  <thead>
    <tr>
      <th>Row</th>
      <th>Sum</th>
    </tr>
  </thead>
  <tbody>
    <!-- Initial rows -->
    <tr>
      <td>1</td>
      <td>1</td>
    </tr>
    <tr>
      <td>2</td>
      <td>1</td>
    </tr>
  </tbody>
</table>

<script>
  canst addRowBtn = document.getElementById('addRowBtn'); canst
  tableBody = document.querySelector('#dataTable tbody');

  addRowBtn.addEventlistener('click', () => { canst
    rows = tableBody.children;
    canst lastRow = rows[rows.length - 1];
    canst previousRow = lastRow.previousElementSibling;

    canst newRow = document.createElement('tr');
```
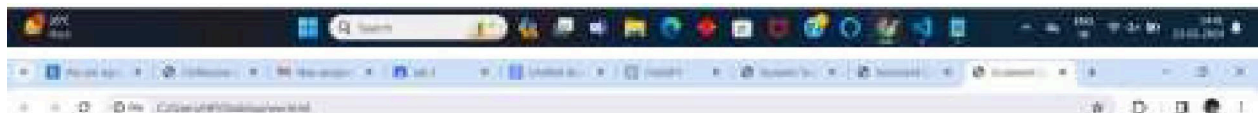
1.,

```
    canst newRowNumber =
    parseInt(lastRow.firstElementChild.inner
    Text) +

    canst newRowSum =
    parseInt(lastRow.lastElementChild.inner
    Text) +
```

```
parseInt(previousRow.lastElementChild.innerText);

    canst newRowData1 = document.createElement('td');
    newRowData1 .innerText = newRowNumber;
```

```
    newRow.appendChild(newRowData1);

    const newRowData2 = document.createElement('td');
    newRowData2.innerText = newRowSum;
    newRow.appendChild(newRowData2);

    tableBody.appendChild(newRow);
  });
</script>
</body>
</html>
```

Q5.
```html
<!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 number">
<input type="text" id="input2" placeholder="Enter number">
<br>
<button onclick="calculate('+')">+</button>
<button  onclick="calculate('-')">-</button>
<button onclick="calculate('*')">*</button>
<button onclick="calculate('/')">/</button>
<p id="result"></p>

<script>
  function calculate(operation) {
    const input1 =
Number.parseInt(document.getElementById('input1').value);
    const input2 =
Number.parseInt(document.getElementById('input2').value);
```
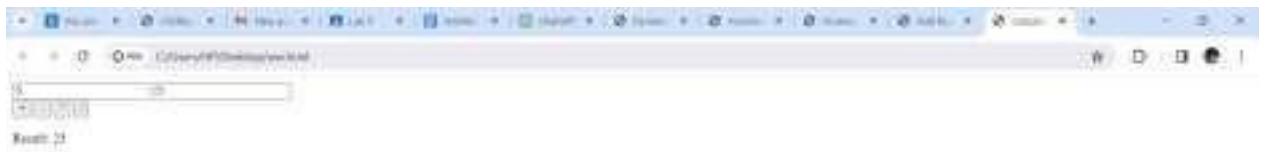
```
    let result;

    switch (operation) {
      case'+':
        result = input1 + input2;
        break;
      case'-':

        result = input1 - input2;
        break;
      case'*':

        result = input1 * input2;
        break;
      case'/':

        result = input1 / input2;
        break;
      default:

        result = 'Invalid operation';
    }

    document.getElementById('result').textContent = 'Result: ' + result;
  }
</script>
</body>
</html>
```

Q6. `<!DOCTYPE html>`
```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Dynamic Page Creation</title>
<style>
  body {
    font-family: Arial, sans-serif;
     margin: 0;
     padding: 0;
     display: flex;
    justify-content: center;
    align-items: center; height:
    100vh; background-color:
    #f0fOfO;
  }

  #container {
    width: 400px;
    padding: 20px;
    background-color: #fff;
```

border-radius: 10px;

```css
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
      text-align: center;
    }

    h1 {
      color: #007bff;
      margin-bottom: 20px;
    }

    p{
      margin-bottom: 20px;
    }

    ul {
      text-align: left;
      margin-left: 40px;
      margin-bottom: 20px;
    }

    li {
      margin-bottom: 10px;
    }
    .button {
      display: inline-block;
      margin: 5px;
      padding: 10px 20px;
      background-color: #007bff;
      color: #fff;
      border: none;
      border-radius: 5px;
      cursor: pointer;
      transition: background-color 0.3s ease;
    }

    .button:hover {
      background-color: #0056b3;
    }
  </style>
```

```html
</head>
<body>
<button onclick="makePage();" class="button">Click Here</button>

<script>
function makePage() {
  // Clear existing content document.body.innerHTML
  = '';

  // Create container div
  canst container= document.createElement('div');
  container.id = 'container';

  // Create h1
  const title = document.createElement('h1');
  title.textContent = 'I am an H1';

  // Create paragraph
  canst paragraph = document.createElement('p');
  paragraph.textContent = 'This paragraph is followed by a list';

  // Create list
  canst list = document.createElement('ul'); canst
  items= ['This is First', 'This is Second'];
  items.forEach(text => {
    canst listItem = document.createElement('li');
    listItem.textContent = text;
    list.appendChild(listItem);
  });

  // Append elements to container
  container.appendChild(title);
  container.appendChild(paragraph);
  container.appendChild(list);

  // Append container to body
  document.body.appendChild(container);
}
```

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

I am an H

This paragraph is followed

07. <!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>

```
<style>
  body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
    display: flex;
    justify-content: center;
    align-items: center; height:
    100vh; background-color:
    #f0fOfO;
  }

  #calculator {
    padding: 20px;
    background-color: #fff;
    border-radius: 10px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
    text-align: center;
  }

  label {
    display: block;
    margin-bottom: 10px;
  }

  input {
    width: 100%; padding:
    10px; margin-bottom:
    20px; border-radius:
    5px;
    border: 1px solid #ccc;
    box-sizing: border-box;
  }
  button {
    padding: 10px 20px;
    background-color: #007bff;
    color: #fff;
    border: none;
```

```css
      border-radius: 5px;
      cursor: pointer;
      transition: background-color 0.3s ease;
    }

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

    #tipResult {
      margin-top: 20px;
      font-size: 24px;
    }
```
```html
  </style>
</head>
<body>
<div id="calculator">
  <label for="billAmount">Bill Amount ($):</label>
   <input type="number" id="billAmount" placeholder="Enter bill amount">

   <label for="tipPercentage">Tip Percentage (%):</label> <input
type="number" id="tipPercentage" placeholder="Enter tip percentage">

   <label for="numPeople">Number of People:</label>
   <input type="number" id="numPeople" placeholder="Enter number of
people">

   <button onclick="calculateTip()">Calculate Tip</button>
   <div id="tipResult"></div>
</div>

<script>
function calculateTip() {
   const billAmount =
parseFloat(document.getElementById('billAmount').value); const
tipPercentage =
parseFloat(document.getElementById('tipPercentage').value);
```

```
    const numPeople =
parseFloat(document.getElementById('numPeople').value);

  if (isNaN(billAmount) || isNaN(tipPercentage) || isNaN(numPeople) ||

billAmount <= 0 || tipPercentage < 0 || numPeople <= 0) {

document.getElementById('tipResult').textContent = 'Please enter valid
inputs';

    return;
  }

  const tipAmount = (billAmount * tipPercentage) / 100; const
  totalAmount = billAmount + tipAmount;
  const tipPerPerson = tipAmount / numPeople; const
  totalPerPerson = totalAmount / numPeople;

        const tipResult = 'Tip Amount: $${tipAmount.toFixed(2)}<br> Total
     Amount (including tip): $${totalAmount.toFixed(2)}<br> Tip per person:
                    $${tipPerPerson.toFixed(2)}<br>
             Total per person: $${totalPerPerson.toFixed(2)}·;

  document.getElementById('tipResult').innerHTML = tipResult;
}
</script>
</body>
</html>
```

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