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Q1. <!DOCTYPE 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)';

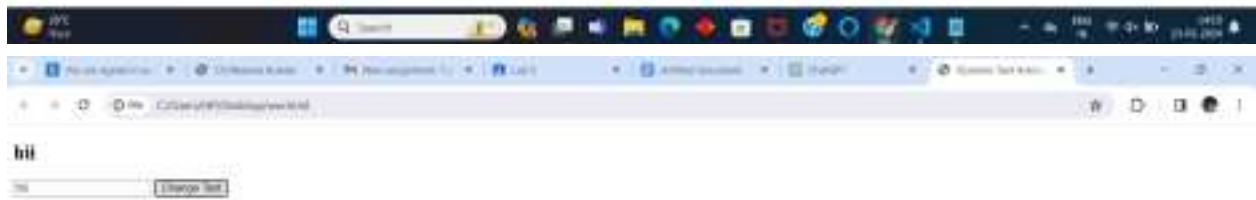
}

});

</script>

</body>

</html>



Q2. <!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>

```
#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">0</p>
<script>
  let count = 0;

  function incrementCounter() {
    count++;
    document.getElementById('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.getElementById('count').style.fontSize = baseFontSize + count *
fontSizeIncrement + 'px';
  }
</script>
</body>
</html>
```





```
Q3. <!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');
```

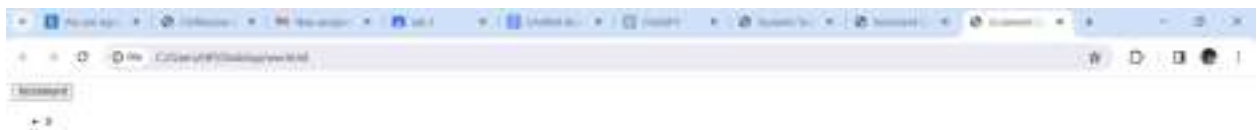
```
function incrementCounter() {  
    count++;  
    const newListItem = document.createElement('li');  
    newListItem.textContent = count;  
    countList.appendChild(newListItem);  
    updateFontSize(newListItem);  
}
```

```
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>
```





Q4. <!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>

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

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

  const newRow = document.createElement('tr');

  const newRowNumber = parseInt(lastRow.firstElementChild.innerText) +
1;
  const newRowSum = parseInt(lastRow.lastElementChild.innerText) +
parseInt(previousRow.lastElementChild.innerText);

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



```
newRow.appendChild(newRowData1);
```

```
const newRowData2 = document.createElement('td');
```

```
newRowData2.innerText = newRowSum;
```

```
newRow.appendChild(newRowData2);
```

```
tbody.appendChild(newRow);
```

```
});
```

```
</script>
```

```
</body>
```

```
</html>
```





```
Q5. <!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;
```

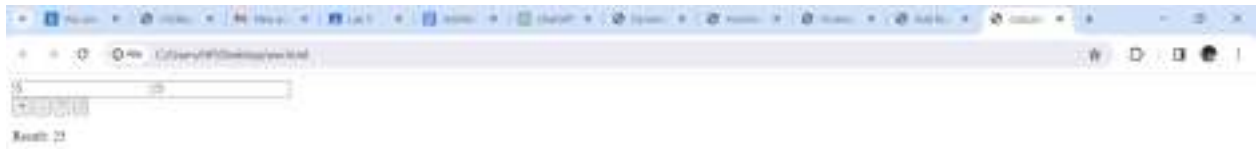
```
switch (operation) {  
  case '+':  
    result = input1 + input2;  
    break;  
  case '-':  
    result = input1 - input2;  
    break;  
  case '*':  
    result = input1 * input2;  
    break;  
  case '/':  
    result = input1 / input2;  
    break;  
  default:  
    result = 'Invalid operation';  
}
```

```
document.getElementById('result').textContent = 'Result: ' + result;  
}
```

```
</script>
```

```
</body>
```

```
</html>
```



```
Q6. <!DOCTYPE html>
<html 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: #f0f0f0;
  }

  #container {
    width: 400px;
    padding: 20px;
    background-color: #fff;
    border-radius: 10px;
```

```
    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>
```

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

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

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

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

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

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

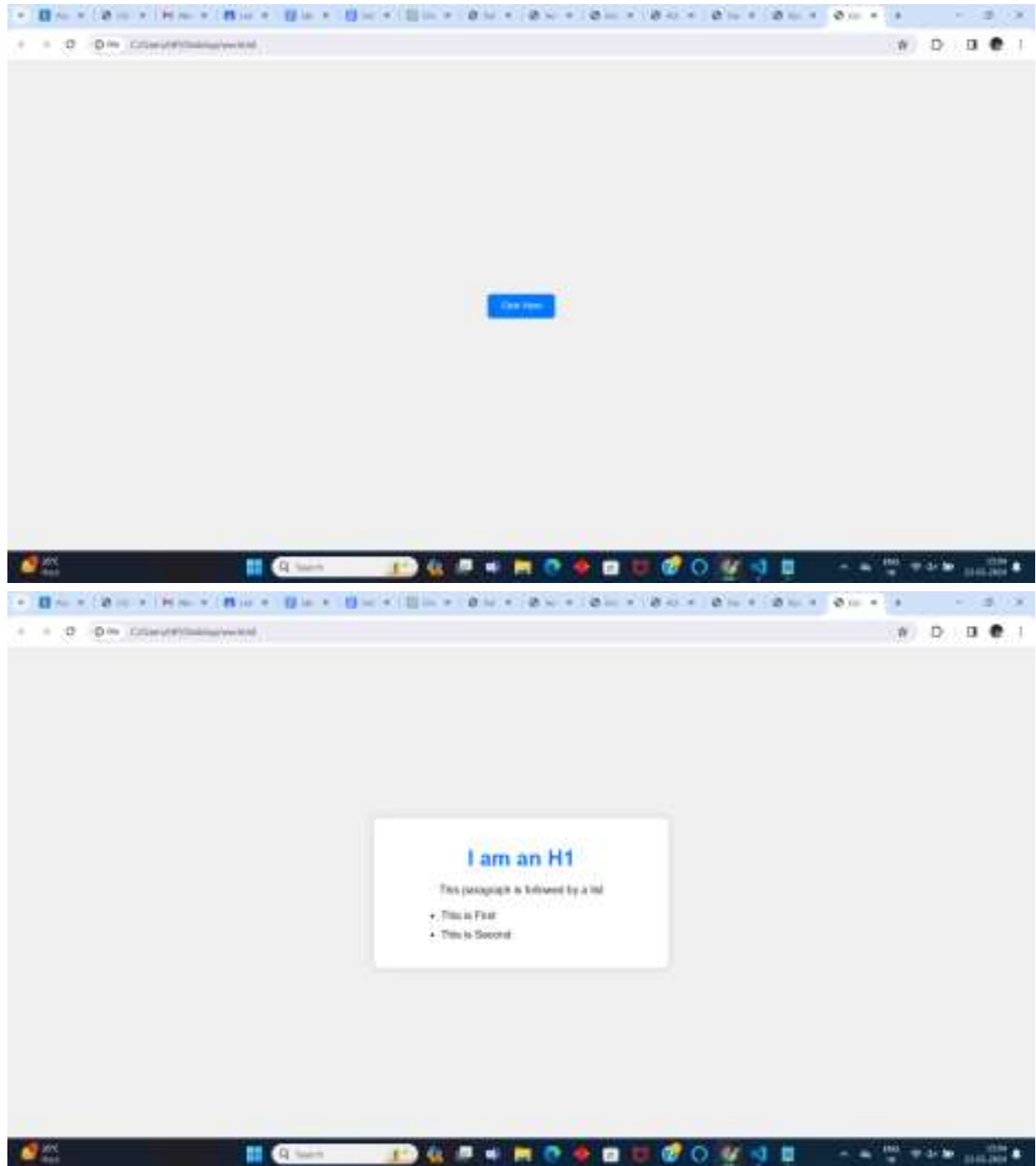
  // Append elements to container
  container.appendChild(title);
  container.appendChild(paragraph);
  container.appendChild(list);

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

</script>

</body>

</html>



Q7. <!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: #f0f0f0;
}

#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;
```



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

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

```
#tipResult {
  margin-top: 20px;
  font-size: 24px;
}
```

```
</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>
```

The screenshot shows a web browser window with a JavaScript calculator for calculating a tip. The calculator is displayed in a white box with a light gray border. It has three input fields for user input and four lines of output text. The inputs are: Bill Amount (\$), Tip Percentage (%), and Number of People. The outputs are: Tip Amount, Total Amount (including tip), Tip per person, and Total per person. The values entered are 5000, 5, and 50, resulting in a tip of \$250.00, a total of \$5250.00, and a per-person total of \$525.00.

Input	Value	Output	Value
Bill Amount (\$)	5000	Tip Amount:	\$250.00
Tip Percentage (%)	5	Total Amount (including tip):	\$5250.00
Number of People	50	Tip per person:	\$25.00
		Total per person:	\$525.00