CS-222-WEBD ASSIGNMENT-5

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Question-1: 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.

```html
<!DOCTYPE html>
<html>

<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width">
    <title>replit</title>
    <link href="style.css" rel="stylesheet" type="text/css" />
</head>
|                                                          Generate
<body>
    <h2 id="out"> Hello</h2>
    <input id="box" type="text"  placeholder="enter text">
    <button id="btn">Click Me!</button>
    <script src="script.js"></script>
</body>

</html>
```

```javascript
const ans =  document.getElementById("btn").addEventListener("click",
function() {
  var inputText = document.getElementById("box").value;
  var wordText = document.getElementById("out");
  wordText.innerText = inputText;
💡|
})
```

Question-2: 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.

```html
<!DOCTYPE html>
<html>

<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>replit</title>
  <link href="style.css" rel="stylesheet" type="text/css" />
</head>

<body>
  <p id="count">0</p>
  <button id="increment-button">Increment</button>


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

</html>
```

.

```javascript
const ans=
document.getElementById("btn").addEventListener("click",
function() {
  var countElement = document.getElementById("count");
  var button = document.getElementById("increment-button");
  let count = 0;

  button.addEventListener("click", () => {
    count++;
    countElement.innerText = count;
    countElement.style.fontSize = (16 + count) + "px";
  })
})
```

Question-3: 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.

```html
<!DOCTYPE html>
<html>

<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>replit</title>
  <link href="style.css" rel="stylesheet" type="text/css" />
</head>
```
Generate `Ctrl` `I`
```html
<body>
  <ul id="count-list"></ul>
  <button id="increment-button">Increment</button>


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

</html>
```

```javascript
var countList = document.getElementById("count-list");
var incrementButton = document.getElementById("increment-button");
var count = 0;

incrementButton.addEventListener("click", function() {
  count++;
  var listItem = document.createElement("li");
  listItem.innerText = count;
  countList.appendChild(listItem);
```

Question-4: 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 lastChild, previousSibling, and innerText attributes in this exercise.

```html
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>replit</title>
  <link href="style.css" rel="stylesheet" type="text/css" />
</head>

<body>
  <table id="myTable" border="1">
    <tr>
      <th>Row</th>
      <th>Sum</th>
    </tr>
    <tr>
      <td>1</td>
      <td>1</td>
    </tr>
    <tr>
      <td>1</td>
      <td>1</td>
    </tr>
  </table>
  <button id="addRowBtn">Add Row</button>
  <button id="addColBtn">Add Col</button>
  <script src="script.js"></script>
</body>

</html>
```

```javascript
var addRowBtn = document.getElementById("addRowBtn");
var table = document.getElementById("myTable");

addRowBtn.addEventListener("click", function() {
  var rows = table.getElementsByTagName("tr");
  var lastRow = rows[rows.length - 1];
  var prevRow = lastRow.previousElementSibling;
  var prevRowSum = parseInt(prevRow.lastElementChild.innerText);
  var prevPrevRow = prevRow.previousElementSibling;
  var prevPrevRowSum =
parseInt(prevPrevRow.lastElementChild.innerText);
  var newRow = table.insertRow(-1);
  var newRowNumber =
parseInt(lastRow.firstElementChild.innerText) + 1;
  var newCell1 = newRow.insertCell(0);
  var newCell2 = newRow.insertCell(1);
  newCell1.innerText = newRowNumber;
  newCell2.innerText = prevRowSum + prevPrevRowSum;
});
```

Question-5: 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.

```html
<!DOCTYPE html>
<html>

<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>replit</title>
  <link href="style.css" rel="stylesheet" type="text/css" />
</head>

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

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

</html>
```

```javascript
function performOperation(operator) {
const input1 =
Number.parseInt(document.getElementById('input1').value); const
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 = "Error: Division by zero";
} else {
}
result = input1 / input2;
break;
```

```javascript
  default:
  result = "Invalid operator";
  }
  }
  document.getElementById('result').innerText = "Result: " +
  result; |
```

Question-6: 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.

```html
<!DOCTYPE html>
<html>

<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>replit</title>
  <link href="style.css" rel="stylesheet" type="text/css" />
</head>

<body>
  <button onclick="makePage();">Click |
  <script src="script.js"></script>
</body>

</html>
```

```javascript
function makePage() {

const container = document.createElement('div');
container.classList.add('container');

const heading = document.createElement('h1');
heading.textContent = 'Dynamic Page Created with JavaScript';

const paragraph = document.createElement('p');
paragraph.textContent = 'This page was dynamically created using
JavaScript. We used document.createElement() and appendChild()
functions to construct the elements.';

container.appendChild(heading);
}
container.appendChild(paragraph);
|
document.body.innerHTML = ''; // Clear existing content
document.body.appendChild(container);
```

.Question-7: 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.

```html
<body>
  <div class="container">
    <h1>Tip Calculator</h1>
    <label for="bill-amount">Bill Amount: $<span id="bill-
value">0</span></label>
    <input type="range" id="bill-amount" min="0" max="1000"
step="1" value="0">
    <br>
    <label for="tip-percentage">Tip Percentage: <span id="tip-
percent">0%</span></label>
    <input type="range" id="tip-percentage" min="0" max="30"
step="1" value="0">
    <br>
    <label for="split-people">Split Among: <span id="split-
value">1</span> person(s)</label>
    <input type="range" id="split-people" min="1" max="10"
step="1" value="1">
    <br>
    <h2 id="tip-amount">Tip: $0.00</h2>
  </div>

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

```javascript
var billAmountRange = document.getElementById("bill-amount");
var billValue = document.getElementById("bill-value");
var tipPercentageRange = document.getElementById("tip-
percentage");
var tipPercent = document.getElementById("tip-percent");
var splitPeopleRange = document.getElementById("split-people");
var splitValue = document.getElementById("split-value");
var tipAmount = document.getElementById("tip-amount");

billAmountRange.addEventListener("input", updateBillValue);
tipPercentageRange.addEventListener("input", updateTipPercent);
splitPeopleRange.addEventListener("input", updateSplitValue);

function updateBillValue() {
  billValue.textContent = billAmountRange.value;
  calculateTip();
}
```

```javascript
function updateTipPercent() {
  tipPercent.textContent = tipPercentageRange.value + "%";
  calculateTip();
}

function updateSplitValue() {
  splitValue.textContent = splitPeopleRange.value;
  calculateTip();
}

function calculateTip() {
  var billAmount = parseFloat(billAmountRange.value);
  var tipPercentage = parseFloat(tipPercentageRange.value) / 100;
  var numberOfPeople = parseInt(splitPeopleRange.value);

  var tip = (billAmount * tipPercentage) / numberOfPeople;
  tipAmount.textContent = "Tip: $" + tip.toFixed(2);
}
```