95-481/95-881

Web Application Development

AI Lab Report

**Name:** Shandon Herft

**Partner(s):** Sanjali Jain

**Lab:** 3

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**AI System**: chatGPT

# Iteration #1

## Request

give me javascript code to create a calculator on a web page

Result

<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Simple Calculator</title>

  <style>

    body {

      display: flex;

      align-items: center;

      justify-content: center;

      height: 100vh;

      margin: 0;

    }

    #calculator {

      width: 300px;

      padding: 20px;

      border: 1px solid #ccc;

      border-radius: 8px;

      box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

    }

    input {

      width: 100%;

      margin-bottom: 10px;

      padding: 10px;

      box-sizing: border-box;

    }

    button {

      width: 48%;

      padding: 10px;

      box-sizing: border-box;

      margin: 0 1% 1% 0;

    }

  </style>

</head>

<body>

<div id="calculator">

  <input type="text" id="display" readonly>

  <br>

  <button onclick="appendToDisplay('1')">1</button>

  <button onclick="appendToDisplay('2')">2</button>

  <button onclick="appendToDisplay('3')">3</button>

  <button onclick="appendToDisplay('+')">+</button>

  <br>

  <button onclick="appendToDisplay('4')">4</button>

  <button onclick="appendToDisplay('5')">5</button>

  <button onclick="appendToDisplay('6')">6</button>

  <button onclick="appendToDisplay('-')">-</button>

  <br>

  <button onclick="appendToDisplay('7')">7</button>

  <button onclick="appendToDisplay('8')">8</button>

  <button onclick="appendToDisplay('9')">9</button>

  <button onclick="appendToDisplay('\*')">\*</button>

  <br>

  <button onclick="appendToDisplay('0')">0</button>

  <button onclick="clearDisplay()">C</button>

  <button onclick="calculateResult()">=</button>

  <button onclick="appendToDisplay('/')">/</button>

</div>

<script>

  function appendToDisplay(value) {

    document.getElementById('display').value += value;

  }

  function clearDisplay() {

    document.getElementById('display').value = '';

  }

  function calculateResult() {

    try {

      document.getElementById('display').value = eval(document.getElementById('display').value);

    } catch (error) {

      document.getElementById('display').value = 'Error';

    }

  }

</script>

</body>

</html>

# Iteration #2

## Issue

Gave an actual mathematical calculator

## Request

## i want a calculator on an ebooks webpage on a website that will determine the number of trees saved from the use of eBooks verses traditional books which takes inputs in rather than an actual mathematical calculator you provided. it should incorporate the following features in its calculation: 1.) The number of pages within the paper, traditional, printed copy of the book;

## 2.) The number of paper, traditional, printed copies of the book that would be requested to be printed if the eBook was not requested instead.

## Result

# <!DOCTYPE html>

# <html lang="en">

# <head>

# <meta charset="UTF-8">

# <meta name="viewport" content="width=device-width, initial-scale=1.0">

# <title>eBook vs Traditional Book Calculator</title>

# <style>

# body {

# display: flex;

# align-items: center;

# justify-content: center;

# height: 100vh;

# margin: 0;

# }

# #calculator {

# width: 300px;

# padding: 20px;

# border: 1px solid #ccc;

# border-radius: 8px;

# box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

# }

# input {

# width: 100%;

# margin-bottom: 10px;

# padding: 10px;

# box-sizing: border-box;

# }

# button {

# width: 100%;

# padding: 10px;

# box-sizing: border-box;

# margin-top: 10px;

# }

# </style>

# </head>

# <body>

# <div id="calculator">

# <label for="numPages">Number of pages in traditional book:</label>

# <input type="number" id="numPages" required>

# <label for="numCopies">Number of traditional book copies:</label>

# <input type="number" id="numCopies" required>

# <button onclick="calculateTreesSaved()">Calculate Trees Saved</button>

# <p id="result"></p>

# </div>

# <script>

# function calculateTreesSaved() {

# const numPages = parseInt(document.getElementById('numPages').value, 10);

# const numCopies = parseInt(document.getElementById('numCopies').value, 10);

# if (isNaN(numPages) || isNaN(numCopies) || numPages <= 0 || numCopies <= 0) {

# document.getElementById('result').innerText = 'Please enter valid numbers for pages and copies.';

# return;

# }

# const treesSaved = numPages \* numCopies \* 0.002; // Assuming 500 sheets of paper per tree

# document.getElementById('result').innerText = `Using eBooks instead of traditional books would save approximately ${treesSaved.toFixed(2)} trees.`;

# }

# </script>

# </body>

# </html>

# Iteration #3

Issue: Need it to be like the example files

Request: can you the following features into the webpage: instructions, and have the input go into a single box instead of two, a single button, a description of what we're trying to achieve and the result

Result:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>eBook vs Traditional Book Calculator</title>

<style>

body {

display: flex;

align-items: center;

justify-content: center;

height: 100vh;

margin: 0;

}

#calculator {

width: 300px;

padding: 20px;

border: 1px solid #ccc;

border-radius: 8px;

box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

}

input {

width: 100%;

margin-bottom: 10px;

padding: 10px;

box-sizing: border-box;

}

button {

width: 100%;

padding: 10px;

box-sizing: border-box;

margin-top: 10px;

}

p {

margin-top: 10px;

}

</style>

</head>

<body>

<div id="calculator">

<p>Calculate the estimated number of trees saved by choosing eBooks over traditional printed books.</p>

<label for="inputData">Enter the total number of pages and copies:</label>

<input type="text" id="inputData" placeholder="e.g., 300 pages, 5 copies" required>

<button onclick="calculateTreesSaved()">Calculate</button>

<p id="result"></p>

<p id="instructions">Please enter the total number of pages and copies in the format: "number of pages, number of copies".</p>

</div>

<script>

function calculateTreesSaved() {

const inputData = document.getElementById('inputData').value;

const regex = /^(\d+)\s\*pages,\s\*(\d+)\s\*copies$/;

const match = inputData.match(regex);

if (!match) {

document.getElementById('result').innerText = 'Invalid input format. Please follow the instructions.';

return;

}

const numPages = parseInt(match[1], 10);

const numCopies = parseInt(match[2], 10);

if (isNaN(numPages) || isNaN(numCopies) || numPages <= 0 || numCopies <= 0) {

document.getElementById('result').innerText = 'Please enter valid numbers for pages and copies.';

return;

}

const treesSaved = numPages \* numCopies \* 0.002; // Assuming 500 sheets of paper per tree

document.getElementById('result').innerText = `Using eBooks instead of traditional books would save approximately ${treesSaved.toFixed(2)} trees.`;

}

</script>

</body>

</html>