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| **Session** | **2024-25 (ODD)** | | **Course Name** | **Web Technology Lab** | |
| **Semester** | **3** | | **Course Code** | **23CT1301** | |
| **Roll No** | **64** | | **Name of Student** | **Prem Nandurkar** | |
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| Practical Number | | 7 | | | |
| Course Outcome | | 1. Understand various internet technologies. 2. Design the web pages using HTML and CSS. 3. Implement the XML technology to store the data. 4. Develop the interactive web pages using JavaScript. | | | |
| Aim | | [A] Write a program in JavaScript to perform arithmetic operations.  [B] Write a Program in JavaScript to create Dialogue Boxes. | | | |
| Problem Definition | | [A]Write a JavaScript program to take two numbers from the user and perform basic arithmetic operations like addition, subtraction, multiplication, and division.  [B] Write a JavaScript program to show different dialogue boxes like Alert, Confirm, and Prompt to interact with the user. | | | |
| Theory  (100 words) | | This program performs basic arithmetic operations such as addition, subtraction, multiplication, and division using JavaScript. The program uses HTML and CSS for the calculator layout and JavaScript functions for the calculation logic. Users can input numbers and operators through buttons, and the result is displayed on the calculator screen. The eval() function is used to evaluate the arithmetic expression entered by the user. This project helps in understanding JavaScript functions, event handling, and DOM manipulation, which are essential concepts in web development and dynamic webpage creation.  This program demonstrates the use of JavaScript dialogue boxes — **Alert**, **Confirm**, and **Prompt** — to interact with users. The alert() method displays a simple message, confirm() asks the user for confirmation (OK/Cancel), and prompt() accepts input from the user. These dialog boxes are useful for creating interactive and user-friendly web applications. By using JavaScript event handling, buttons trigger each type of dialog box, and user responses are displayed dynamically on the webpage. This helps students understand basic user interaction in JavaScript and the working of in-built browser dialog functions | | | |
| Procedure and Execution  (100 Words) | | Step for Implementation:  [A] 1. Create an HTML structure for the calculator layout.  2. Design the calculator using CSS (buttons, display, and layout).  3. Use JavaScript to handle button clicks and display values.  4. Implement a calculate() function to perform operations using eval().  5. Add clearDisplay() to reset the calculator.  6. Test all buttons for correct functionality and handle errors using try-catch.  [B] 1. Create an HTML page with buttons for Alert, Confirm, and Prompt.  2. Add CSS to style the buttons and output area.  3. Write JavaScript functions for each dialog box (showAlert(), showConfirm(), showPrompt()).  4. Use alert() for displaying messages, confirm() for Yes/No, and prompt() for user input.  5. Display the result or user response dynamically using innerText.  6. Test each button to ensure it works correctly. | | | |
| Code:    [A]  <!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;        justify-content: center;        align-items: center;        height: 100vh;        background: white;        font-family: Arial, sans-serif;      }      .calculator {        background:black;        padding: 20px;        border-radius: 15px;        box-shadow: 0 5px 15px rgba(0,0,0,0.4);        width: 280px;      }      .display {        background:black;        color: green;        font-size: 2em;        text-align: right;        padding: 10px;        border-radius: 10px;        margin-bottom: 15px;        overflow-x: auto;      }      .buttons {        display: grid;        grid-template-columns: repeat(4, 1fr);        gap: 10px;      }      button {        padding: 20px;        font-size: 1.2em;        border: none;        border-radius: 10px;        cursor: pointer;        background: burlywood;        color: white;        transition: 0.2s;      }      button:hover {        background: slategrey;      }      .operator {        background: orange;      }      .operator:hover {        background: orange;      }      .equal {        grid-column: span 2;        background:green;      }      .equal:hover {        background:green;      }      .clear {        background: red;      }      .clear:hover {        background: red;      }    </style>  </head>  <body>    <div class="calculator">      <div class="display" id="display">0</div>      <div class="buttons">        <button class="clear" onclick="clearDisplay()">C</button>        <button onclick="appendValue('/')">÷</button>        <button onclick="appendValue('\*')">×</button>        <button onclick="appendValue('-')">-</button>        <button onclick="appendValue('7')">7</button>        <button onclick="appendValue('8')">8</button>        <button onclick="appendValue('9')">9</button>        <button class="operator" onclick="appendValue('+')">+</button>        <button onclick="appendValue('4')">4</button>        <button onclick="appendValue('5')">5</button>        <button onclick="appendValue('6')">6</button>        <button onclick="appendValue('.')">.</button>        <button onclick="appendValue('1')">1</button>        <button onclick="appendValue('2')">2</button>        <button onclick="appendValue('3')">3</button>        <button class="equal" onclick="calculate()">=</button>        <button style="grid-column: span 2;" onclick="appendValue('0')">0</button>      </div>    </div>    <script>      let display = document.getElementById("display");      function appendValue(val) {        if (display.innerText === "0" && val !== ".") {          display.innerText = val;        } else {          display.innerText += val;        }      }      function clearDisplay() {        display.innerText = "0";      }      function calculate() {        try {          display.innerText = eval(display.innerText);        } catch {          display.innerText = "Error";        }      }    </script>  </body>  </html>  [B]  <!DOCTYPE html>  <html lang="en">  <head>    <meta charset="UTF-8">    <meta name="viewport" content="width=device-width, initial-scale=1.0">    <title>JavaScript Dialog Boxes</title>    <style>      body {        font-family: Arial, sans-serif;        background: #f5f5f5;        display: flex;        justify-content: center;        align-items: center;        height: 100vh;      }      .container {        background: #fff;        padding: 20px;        border-radius: 12px;        box-shadow: 0 5px 15px rgba(0,0,0,0.3);        text-align: center;      }      button {        margin: 10px;        padding: 12px 20px;        font-size: 16px;        border: none;        border-radius: 8px;        cursor: pointer;        background: #007bff;        color: white;        transition: 0.2s;      }      button:hover {        background: #0056b3;      }      #output {        margin-top: 15px;        font-weight: bold;        color: #333;      }    </style>  </head>  <body>    <div class="container">      <h2>JavaScript Dialog Boxes</h2>      <button onclick="showAlert()">Show Alert</button>      <button onclick="showConfirm()">Show Confirm</button>      <button onclick="showPrompt()">Show Prompt</button>      <div id="output"></div>    </div>    <script>      function showAlert() {        alert("This is a simple alert dialog box!");      }      function showConfirm() {        let result = confirm("Do you like JavaScript?");        document.getElementById("output").innerText = result          ? "You clicked OK "          : "You clicked Cancel ";      }      function showPrompt() {        let name = prompt("What is your name?");        if (name) {          document.getElementById("output").innerText = "Hello, " + name + " ";        } else {          document.getElementById("output").innerText = "You didn’t enter anything!";        }      }    </script>  </body>  </html> | | | |
| Output: [A]  [B] | | | |
| Output Analysis | | [A] The calculator takes input through buttons. On pressing numbers and operators, the expression appears on the display. When the “=” button is clicked, the correct result is shown. “C” clears the screen.  [B]  **Alert Box:** Displays a message “This is a simple alert dialog box!”  **Confirm Box:** Shows “Do you like JavaScript?” and prints the result based on user choice (OK/Cancel).  **Prompt Box:** Asks for user’s name and displays a greeting message. | | | |
| Link of student Github profile where lab assignment has been uploaded | | https://github.com/Nandurkar-Prem/Web-Technology-Lab | | | |
| Conclusion | | The program successfully performs all arithmetic operations using JavaScript and shows results dynamically on the screen. It helps to understand event handling and DOM manipulation. The program clearly demonstrates the use of alert(), confirm(), and prompt() functions for user interaction. It improves understanding of JavaScript dialogue boxes and event handling. | | | |
| Plag Report (Similarity index < 12%) | | 9% | | | |
| Date | | 13/10/2025 | | | |