JS1 TUTE

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| 1. | ```html
<!DOCTYPE html>
<html>
<head>
  <title>Popup Message Example</title>
</head>
<body>
  <h1>Click the Button to Display a Popup Message</h1>
  <button id="popupButton">Click Me</button>

  <script>
    // JavaScript code to handle button click event
    document.getElementById('popupButton').addEventListener('click', function()
{
      alert('This is an alert');
    });
  </script>
</body>
</html
``` |
|----|---|
| 2. | ```html
<!DOCTYPE html>
<html>
<head>
  <title>Mark Calculator</title>
</head>
<body>
  <h1>Mark Calculator</h1>
  <label for="mark1">Mark 1:</label>
  <input type="number" id="mark1" required><br><br>

  <label for="mark2">Mark 2:</label>
  <input type="number" id="mark2" required><br><br>

  <label for="mark3">Mark 3:</label>
  <input type="number" id="mark3" required><br><br>

  <label for="mark4">Mark 4:</label>
  <input type="number" id="mark4" required><br><br>

  <label for="mark5">Mark 5:</label>
  <input type="number" id="mark5" required><br><br>

  <button onclick="calculateMarks()">Calculate</button>
  <button onclick="checkGrade()">Grade</button>
``` |

| | ```html
<script>
    let marks = [];

    function calculateMarks() {
        let mark1 = parseInt(document.getElementById('mark1').value);
        let mark2 = parseInt(document.getElementById('mark2').value);
        let mark3 = parseInt(document.getElementById('mark3').value);
        let mark4 = parseInt(document.getElementById('mark4').value);
        let mark5 = parseInt(document.getElementById('mark5').value);

        marks = [mark1, mark2, mark3, mark4, mark5];

        let total = marks.reduce((acc, curr) => acc + curr, 0);
        let average = total / marks.length;

        alert(`Total marks: ${total}\nAverage marks: ${average}`);
    }

    function checkGrade() {
        let total = marks.reduce((acc, curr) => acc + curr, 0);
        let average = total / marks.length;

        if (average > 30) {
            alert("Congrats! You passed.");
        } else {
            alert("Better luck next time.");
        }
    }
</script>
</body>
</html>
``` |
| 3. | ```html
<!DOCTYPE html>
<html>
<head>
    <title>Change Background Color</title>
</head>
<body>
    <h1>Change Background Color</h1>
    <button onmouseover="changeBackgroundColor('red')"
onmouseout="restoreBackgroundColor()">Red</button>
    <button onmouseover="changeBackgroundColor('green')"
onmouseout="restoreBackgroundColor()">Green</button>
    <button onmouseover="changeBackgroundColor('blue')"
onmouseout="restoreBackgroundColor()">Blue</button>

    <script>
        let originalBackgroundColor = document.body.style.backgroundColor;
``` |

	``
    function changeBackgroundColor(color) {
        document.body.style.backgroundColor = color;
    }

    function restoreBackgroundColor() {
        document.body.style.backgroundColor = originalBackgroundColor;
    }
  </script>
</body>
</html>
```
Copy and paste this code into a text editor and save it with the extension ".html" (e.g., background_color_change.html). Then, you can open the HTML file in your web browser. When you move the mouse pointer over each button, the background color of the page will change to th |
| 4. | ```
<!DOCTYPE html>
<html>
<head>
  <title>Calculate Circle Area</title>
</head>
<body>
  <h1>Calculate Circle Area</h1>
  <button onclick="calculateArea()">Calculate Area</button>

  <script>
    function calculateArea() {
      // Prompt the user to enter the radius
      let radius = prompt("Enter the radius of the circle:");

      // Convert the input to a number (since prompt returns a string)
      radius = parseFloat(radius);

      if (isNaN(radius) || radius <= 0) {
        alert("Invalid input. Please enter a valid positive number for the radius.");
      } else {
        // Calculate the area of the circle (A = π * r^2)
        let area = Math.PI * Math.pow(radius, 2);

        alert(`The area of the circle with radius ${radius} is ${area.toFixed(2)}`);
      }
    }
  </script>
</body>
</html>
``` |
| 5. | ```
<!DOCTYPE html>
<html>
<head>
  <title>Day of the Week</title>
``` |

	```html</head><body> Day of the Week <button onclick="getDayOfWeek()">Get Day of the Week</button> <script> function getDayOfWeek() { let userInput = prompt("Enter a number from 1 to 7:"); let dayOfWeek; // Convert the input to an integer (since prompt returns a string) let dayNumber = parseInt(userInput); switch (dayNumber) { case 1: dayOfWeek = "Sunday"; break; case 2: dayOfWeek = "Monday"; break; case 3: dayOfWeek = "Tuesday"; break; case 4: dayOfWeek = "Wednesday"; break; case 5: dayOfWeek = "Thursday"; break; case 6: dayOfWeek = "Friday"; break; case 7: dayOfWeek = "Saturday"; break; default: dayOfWeek = "Invalid input. Please enter a number from 1 to 7."; } alert(dayOfWeek); } </script></body></html>```
6.	```html<!DOCTYPE html><html><head> <title>Redirect to Google</title>```

```html
</head>
<body>
  <h1>Redirect to Google</h1>
  <button onclick="redirectToGoogle()">Google</button>

  <script>
    function redirectToGoogle() {
      // Display the confirm box
      let result = confirm("Do you want to go to Google?");

      // If 'OK' is selected, redirect to Google
      if (result) {
        window.location.href = "https://www.google.com";
      } else {
        // If 'Cancel' is selected, display a message
        alert("You decided to stay.");
      }
    }
  </script>
</body>
</html>
```

7.	

```html
<!DOCTYPE html>
<html>
<head>
  <title>Mathematical Operations</title>
</head>
<body>
  <h1>Mathematical Operations</h1>
  <button onclick="performMathOperations()">Perform Operations</button>

  <script>
    function performMathOperations() {
      // Prompt the user to enter two numbers
      let num1 = parseFloat(prompt("Enter the first number:"));
      let num2 = parseFloat(prompt("Enter the second number:"));

      if (isNaN(num1) || isNaN(num2)) {
        alert("Invalid input. Please enter valid numbers.");
      } else {
        // Addition
        let sum = num1 + num2;
        alert(`Addition Result: ${sum}`);

        // Subtraction
        let difference = num1 - num2;
        alert(`Subtraction Result: ${difference}`);

        // Division
```

| | ```
            if (num2 !== 0) {
                let division = num1 / num2;
                alert(`Division Result: ${division}`);
            } else {
                alert("Cannot divide by zero.");
            }

            // Multiplication
            let product = num1 * num2;
            alert(`Multiplication Result: ${product}`);
        }
    }
    </script>
</body>
</html>
``` |
| 8. | ```
<!DOCTYPE html>
<html>
<head>
    <title>Year of Birth from NIC</title>
</head>
<body>
    <h1>Year of Birth from NIC</h1>
    <label for="nic">Enter NIC:</label>
    <input type="text" id="nicInput">
    <button onclick="getYearOfBirth()">Get Year of Birth</button>

    <script>
        function getYearOfBirth() {
            const nic = document.getElementById('nicInput').value.trim();

            if (nic.length !== 13) {
                alert("Invalid NIC format. NIC number should be 13 characters long.");
            } else {
                // Assuming the year of birth is encoded in the first four digits of the NIC
                const yearOfBirth = nic.substring(0, 4);
                alert(`Year of Birth: ${yearOfBirth}`);
            }
        }
    </script>
</body>
</html>
``` |