1.

<html>

    <head></head>

    <body>

        <script>

            function myFunction(){

                alert("This is a alert");

            }

        </script>

        <button type="button" onclick="myFunction()">Button</button>

    </body>

</html>

2.

<html>

    <head>

  <title>Grade Calculator</title>

</head>

<body>

  <h1>Grade Calculator</h1>

  <button onclick="calculateGrade()">Calculate Grade</button>

  <script>

    function calculateGrade() {

      const marks = [];

      for (let i = 1; i <= 5; i++) {

        const mark = parseFloat(prompt(`Enter Mark ${i}:`));

        if (isNaN(mark)) {

          alert("Invalid input. Please enter a valid number.");

          return;

        }

        marks.push(mark);

      }

      const total = marks.reduce((sum, mark) => sum + mark, 0);

      const average = total / 5;

      alert(`Total marks: ${total}\nAverage marks: ${average.toFixed(2)}`);

      if (average > 30) {

        alert("Congrats! You passed");

      } else {

        alert("Better luck next time");

      }

    }

  </script>

</body>

</html>

3.

<!DOCTYPE html>

<html>

<head>

  <title>Change Background Color</title>

  <style>

    body {

      text-align: center;

      margin-top: 100px;

    }

    .color-button {

      width: 100px;

      height: 50px;

      font-size: 16px;

    }

  </style>

</head>

<body>

  <h1>Change Background Color</h1>

  <button class="color-button" onmouseover="changeColor('red')" onmouseout="restoreColor()">Red</button>

  <button class="color-button" onmouseover="changeColor('green')" onmouseout="restoreColor()">Green</button>

  <button class="color-button" onmouseover="changeColor('blue')" onmouseout="restoreColor()">Blue</button>

  <script>

    let originalBackgroundColor;

    function changeColor(color) {

      originalBackgroundColor = document.body.style.backgroundColor;

      document.body.style.backgroundColor = color;

    }

    function restoreColor() {

      document.body.style.backgroundColor = originalBackgroundColor;

    }

  </script>

</body>

</html>

4.

<!DOCTYPE html>

<html>

<head>

  <title>Calculate Circle Area</title>

</head>

<body>

  <h1>Calculate Circle Area</h1>

  <script>

    function calculateCircleArea() {

      const radius = parseFloat(prompt("Enter the radius of the circle:"));

      if (isNaN(radius)) {

        alert("Invalid input. Please enter a valid number.");

        return;

      }

      const pi = 22 / 7;

      const area = pi \* radius \* radius;

      alert(`The area of the circle is: ${area.toFixed(2)}`);

    }

    calculateCircleArea();

  </script>

</body>

</html>

5.

<!DOCTYPE html>

<html>

<head>

  <title>Day of the Week</title>

</head>

<body>

  <h1>Day of the Week</h1>

  <script>

    function getDayOfWeek() {

      const userInput = parseInt(prompt("Enter a number from 1 to 7:"));

      if (isNaN(userInput) || userInput < 1 || userInput > 7) {

        alert("Invalid input. Please enter a number from 1 to 7.");

        return;

      }

      const daysOfWeek = [

        "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"

      ];

      const day = daysOfWeek[userInput - 1];

      alert(`The day of the week is: ${day}`);

    }

    getDayOfWeek();

  </script>

</body>

</html>

6.

<!DOCTYPE html>

<html>

<head>

  <title>Google Button Redirect</title>

</head>

<body>

  <button id="googleButton" style="padding: 5px;">Google</button>

  <script>

    function handleGoogleButtonClick() {

      const userChoice = confirm("Do you want to go to Google?");

      if (userChoice) {

        window.location.href = "https://www.google.com";

      } else {

        alert("You decided to stay.");

      }

    }

    const googleButton = document.getElementById("googleButton");

    googleButton.addEventListener("click", handleGoogleButtonClick);

  </script>

</body>

</html>

7.

<!DOCTYPE html>

<html>

<head>

  <title>Mathematical Operations</title>

</head>

<body>

  <h1>Mathematical Operations</h1>

  <script>

    function performMathOperations() {

      const num1 = parseFloat(prompt("Enter the first number:"));

      if (isNaN(num1)) {

        alert("Invalid input. Please enter a valid number.");

        return;

      }

      const num2 = parseFloat(prompt("Enter the second number:"));

      if (isNaN(num2)) {

        alert("Invalid input. Please enter a valid number.");

        return;

      }

      const addition = num1 + num2;

      const subtraction = num1 - num2;

      const division = num1 / num2;

      const multiplication = num1 \* num2;

      const resultMessage = `Addition: ${addition}\nSubtraction: ${subtraction}\nDivision: ${division}\nMultiplication: ${multiplication}`;

      alert(resultMessage);

    }

    performMathOperations();

  </script>

</body>

</html>

8.

<!DOCTYPE html>

<html>

<head>

  <title>Year of Birth from NIC</title>

</head>

<body>

  <h1>Year of Birth from NIC</h1>

  <script>

    function getYearOfBirth() {

      const nicNumber = prompt("Enter the NIC number:");

      if (nicNumber.length < 4) {

        alert("Invalid NIC number. Please enter a valid NIC number.");

        return;

      }

      const yearOfBirth = nicNumber.slice(0, 4);

      alert(`Year of Birth: ${yearOfBirth}`);

    }

    getYearOfBirth();

  </script>

</body>

</html>