PRACTICAL – 1

AIM: Design a User Interface for a) Welcome screen b) Multiplication and Addition of any two numbers

- **Code of Welcome.html:**

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Welcome</title>
    <style>
      * {
        box-sizing: border-box;
        padding: 0;
        margin: 0;
        font-family: "Times New Roman", Times, serif;
      }
      html {
        width: 100%;
        height: 100%;
        background: linear-gradient(#e66465, #9198e5, rgb(1, 59, 250));
        background-repeat: no-repeat;
      }
      #box {
        display: flex;
        width: 40%;
        height: 60%;
        background-color: white;
        position: absolute;
        top: 50%;
        left: 50%;
        transform: translate(-50%, -50%);
        border: none;
        z-index: 999;
        border-radius: 18px;
        background-color: rgba(255, 255, 255, 0.479);
        box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
        backdrop-filter: blur(10px);
      }
      #box a {
        display: flex;
        width: 100%;
        flex-wrap: wrap;
        font-weight: 700;
        text-align: center;
        text-transform: uppercase;
        align-items: center;
        justify-content: center;
        font-size: 48px;
        border: none;
        text-decoration: none;
        color: #2030e0;
        border-radius: 18px;
```
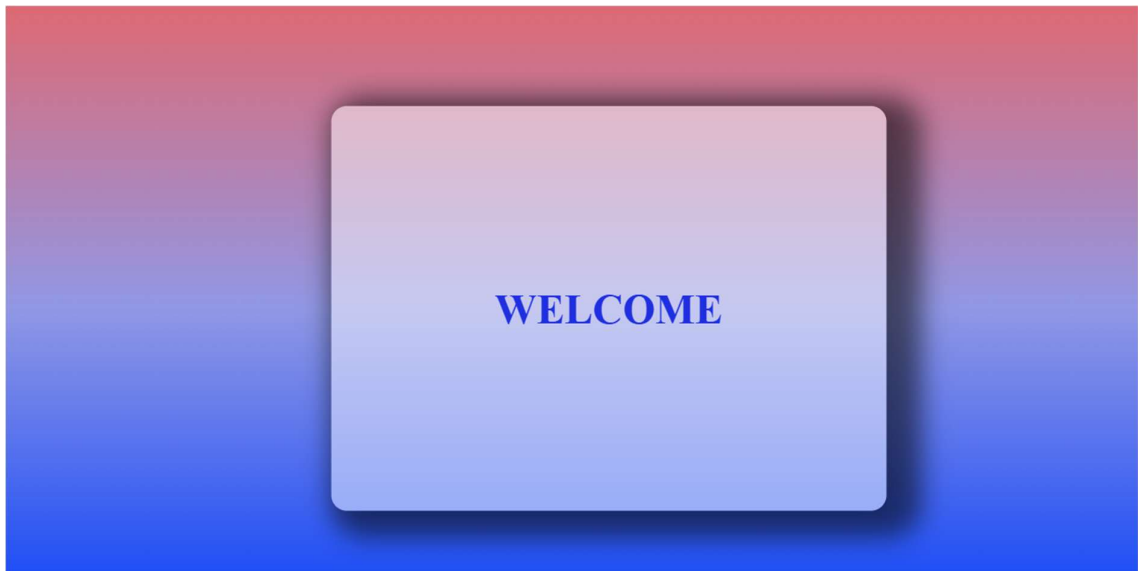
```
        box-shadow: rgba(0, 0, 0, 0.548) 20px 10px 30px 20px;
    }
    #box a:hover{
        color: #074feb;
        text-decoration: underline;
        cursor: pointer;
    }
  </style>
 </head>
 <body>
  <div id="box">
    <a href="cal.html">Welcome</a>
  </div>
 </body>
</html>
```

- **Output:**

- **Code of cal.html:**

```
<!DOCTYPE html>
<html lang="en">
 <head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <title>Simple Calculator</title>
  <style>
    body {
      background: linear-gradient(#e66465, #9198e5, rgb(1, 59, 250));
      display: flex;
      justify-content: center;
      align-items: center;
      height: 100vh;
      margin: 0;
    }
    .calculator {
      background: #ffffffdd;
      padding: 2rem 3rem;
      border-radius: 15px;
      box-shadow: rgba(0, 0, 0, 0.548) 20px 10px 30px 20px;
      text-align: center;
```
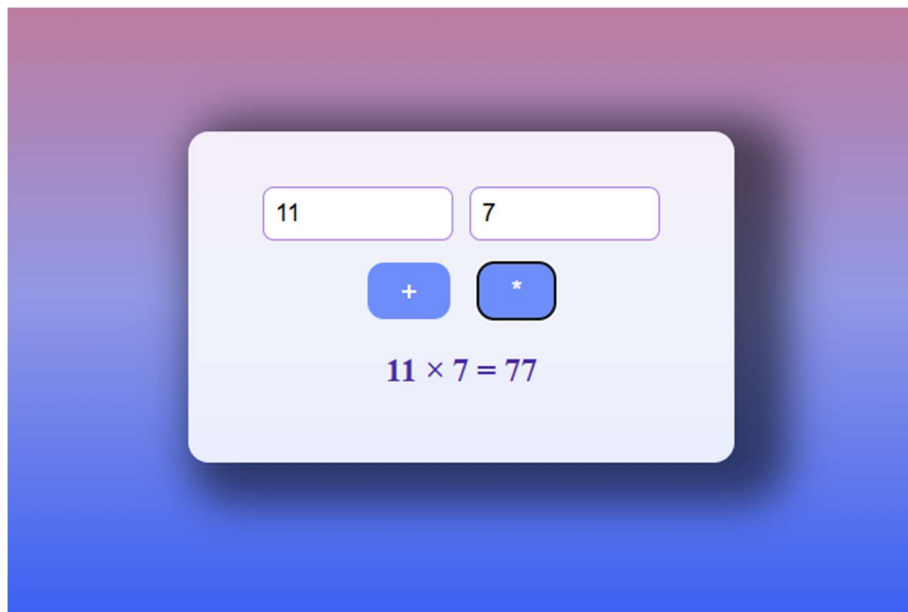
```
      width: 300px;
    }
    input[type="number"] {
      width: 120px;
      padding: 0.5rem;
      margin: 0.5rem 0.25rem;
      font-size: 1.1rem;
      border-radius: 8px;
      border: 1.5px solid #a777e3;
      outline-color: #6e8efb;
    }
    button {
      padding: 0.55rem 1.5rem;
      margin: 0.5rem 0.5rem 1rem 0.5rem;
      font-size: 1.3rem;
      border: none;
      border-radius: 12px;
      background-color: #6e8efb;
      color: white;
      cursor: pointer;
      transition: background-color 0.3s ease;
    }
    button:hover {
      background-color: #a777e3;
    }
    #result {
      display: block;
      font-size: 1.5rem;
      font-weight: 600;
      color: #4a2c9f;
      min-height: 2em;
      margin-top: 0.5rem;
    }
  </style>
</head>
<body>
  <div class="calculator">
    <input type="number" name="num1" id="num1" placeholder="Enter a number" />
    <input type="number" name="num2" id="num2" placeholder="Enter a number" />
    <div>
      <button id="plus" title="Add">+</button>
      <button id="mul" title="Multiply">*</button>
    </div>
    <label id="result" aria-live="polite"></label>
  </div>
  <script type="text/javascript">
    let btnPlus = document.getElementById("plus");
    let btnMul = document.getElementById("mul");
    let input1 = document.getElementById("num1");
    let input2 = document.getElementById("num2");
    let resultLabel = document.getElementById("result");
    function parseInputs() {
      let val1 = parseFloat(input1.value);
      let val2 = parseFloat(input2.value);
      return { val1, val2 };
    }
    btnPlus.addEventListener("click", function (event) {
      const { val1, val2 } = parseInputs();
```

```
    if (isNaN(val1) || isNaN(val2)) {
      resultLabel.textContent =
        "Please enter valid numbers in both fields.";
      return;
    }
    const sum = val1 + val2;
    resultLabel.textContent = `${val1} + ${val2} = ${sum}`;
  });
  btnMul.addEventListener("click", function (event) {
    const { val1, val2 } = parseInputs();
    if (isNaN(val1) || isNaN(val2)) {
      resultLabel.textContent =
        "Please enter valid numbers in both fields.";
      return;
    }
    const product = val1 * val2;
    resultLabel.textContent = `${val1} × ${val2} = ${product}`;
  });
 </script>
 </body>
</html>
```

- **Output:**

PRACTICAL – 2

AIM: 2.1. Design an user interface for assigning a grade to students based on the subjects marks

2.2. Design an User interface for printing the numbers in a) Ascending order b) Descending order c) Subtraction

- **Code:**

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Grade</title>
    <style>
      * {
        box-sizing: border-box;
        padding: 0;
        margin: 0;
        font-family: "Times New Roman", Times, serif;
      }
      html {
        width: 100%;
        height: 100%;
        background: linear-gradient(#e66465, #9198e5, rgb(1, 59, 250));
        background-repeat: no-repeat;
      }
      #box {
        display: flex;
        justify-content: center;
        align-items: center;
        align-content: center;
        flex-direction: column;
        width: 40%;
        height: 60%;
        background-color: white;
        position: absolute;
        top: 50%;
        left: 50%;
        transform: translate(-50%, -50%);
        border: none;
        z-index: 999;
        border-radius: 18px;
        background-color: rgba(255, 255, 255, 0.479);
        box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
        backdrop-filter: blur(10px);
      }
      input[type="text"] {
        width: 200px;
        text-align: center;
        height: 25px;
        padding: 0.5rem;
        margin: 0.5rem 0.25rem;
        font-size: 1.1rem;
        border-radius: 8px;
        border: 1.5px solid #a777e3;
```

```css
      outline-color: #6e8efb;
    }
    button {
      padding: 0.55rem 1.5rem;
      margin: 0.5rem 0.5rem 1rem 0.5rem;
      font-size: 1.3rem;
      border: none;
      border-radius: 12px;
      background-color: #6e8efb;
      color: white;
      cursor: pointer;
      transition: background-color 0.3s ease;
    }
    button:hover {
      background-color: #a777e3;
    }
    #result {
      display: block;
      font-size: 1.5rem;
      font-weight: 600;
      color: #4a2c9f;
      min-height: 2em;
      margin-top: 0.5rem;
    }
    .header_text {
      color: black;
      font-size: 18px;
      font-weight: 600;
      margin: 10px 0px;
    }
  </style>
 </head>
 <body>
  <div id="box">
   <label for="marks" class="header_text"> Enter Marks to see your grade</label>
   <input type="text" id="marks" name="marks" placeholder="Enter Grade" />
   <label id="result"></label>
   <label for="num" class="header_text"> Enter numbers in comma seprated to see Ascending order and
Descending order</label>
   <input type="text" id="num" name="num" placeholder="Enter number" />
   <label id="result2"></label>
   <label id="result3"></label>
   <label for="num2" class="header_text"> Enter Two numbers to perform subtraction </label>
   <div>
    <input type="text" id="num2" name="num2" placeholder="Enter first operand" />
    <input type="text" id="num3" name="num3" placeholder="Enter second operand" />
   </div>
   <label id="result4"></label>
   <button id="subtraction">Subtraction</button>
  </div>
  <script>
   let inp_grade = document.getElementById("marks");
   let result = document.getElementById("result");
   let inp_num = document.getElementById("num");
   let result2 = document.getElementById("result2");
   let result3 = document.getElementById("result3");
   let inp_num2 = document.getElementById("num2");
   let inp_num3 = document.getElementById("num3");
```

```
    let result4 = document.getElementById("result4");
    let subtraction = document.getElementById("subtraction");
    subtraction.addEventListener("click", function () {
      let num1 = Number(inp_num2.value);
      let num2 = Number(inp_num3.value);
      if (isNaN(num1) || isNaN(num2)) { result4.textContent = "Please enter valid numbers."; }
      else { result4.textContent = "Subtraction Result: " + (num1 - num2); }
    });
    inp_num.addEventListener("input", function () {
      let numbers = inp_num.value.split(",").map(Number);
      if (numbers.some(isNaN)) {
        result2.textContent = "Please enter valid numbers.";
        result3.textContent = "";
      } else {
        let asc = [...numbers].sort((a, b) => a - b);
        let desc = [...numbers].sort((a, b) => b - a);
        result2.textContent = "Ascending Order: " + asc.join(", ");
        result3.textContent = "Descending Order: " + desc.join(", ");
      }
    });
    inp_grade.addEventListener("input", function () {
      let grade = Number(inp_grade.value);
      if (grade >= 80 && grade <= 100) {
        result.textContent = "Grade is A";
      } else if (grade >= 70 && grade < 80) {
        result.textContent = "Grade is B";
      } else if (grade >= 60 && grade < 70) {
        result.textContent = "Grade is C";
      } else if (grade >= 50 && grade < 60) {
        result.textContent = "Grade is D";
      } else if (grade >= 0 && grade < 50) {
        result.textContent = "Grade is F";
      } else {
        result.textContent = "";
      }
    });
  </script>
 </body>
</html>
```

- **Output:**

PRACTICAL – 3

AIM: 3.1 Design an user interface for calculator
3.2 Design a user interface for registration of a student for admissions.

- **Code of 3.1:**

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Calculator</title>
  </head>
  <style>
    * {
      margin: 0;
      padding: 0;
      box-sizing: border-box;
    }
    html, body {
      width: 100%;
      height: 100%;
      display: flex;
      justify-content: center;
      align-items: center;
      background-color: #f7f7f7;
      font-family: Arial, sans-serif;
      background: linear-gradient(whitesmoke, rgb(196, 219, 226), lightblue, rgb(140, 186, 201));
      background-repeat: no-repeat;
    }
    table {
      width: 300px;
      height: 400px;
      background-color: #333;
      border-radius: 10px;
      overflow: hidden;
      box-shadow: 0 4px 15px rgba(0, 0, 0, 0.2);
    }
    #result {
      background-color: #222;
      font-size: 32px;
      font-weight: 800;
      color: white;
      text-align: right;
      padding-right: 10px;
      border-bottom: 1px solid #444;
    }
    #result td {
      width: 100%;
    }
    #textbox {
      display: block;
      width: 100%;
    }
    button {
      width: 50px;
```

```
        height: 50px;
        border-radius: 50%;
        font-size: 18px;
        border: none;
        color: white;
        cursor: pointer;
        transition: background-color 0.3s;
    }
    .btns td {
        width: 25%;
    }
    #zero {
        width: 110px;
        border-radius: 25px;
    }
    #clear {
        background-color: #ff9500;
    }
    #abs, #mod, #divi, #mul, #subs, #adds {
        background-color: #ff9500;
    }
    #exe {
        background-color: #ff9500;
    }
    button:hover {
        background-color: #ffbf47;
    }
    .nums {
        background-color: #505050;
    }
</style>
<body>
    <table>
        <tr id="result" name="result">
            <td colspan="4"> <label for="result" id="textbox">0</label></td>
        </tr>
        <tr class="btns">
            <td align="center"><button type="button"
                id="clear">AC</button></td>
            <td align="center"><button type="button"
                id="abs">+/-</button></td>
            <td align="center"><button type="button" id="mod"
                class="nums">%</button></td>
            <td align="center"><button type="button" id="divi"
                class="nums">&divide;</button></td>
        </tr>
        <tr class="btns">
            <td align="center"><button class="nums"
                type="button">7</button></td>
            <td align="center"><button class="nums"
                type="button">8</button></td>
            <td align="center"><button class="nums"
                type="button">9</button></td>
            <td align="center"><button type="button" id="mul"
                class="nums">x</button></td>
        </tr>
        <tr class="btns">
            <td align="center"><button class="nums"
```

```
            type="button">4</button></td>
        <td align="center"><button class="nums"
            type="button">5</button></td>
        <td align="center"><button class="nums"
            type="button">6</button></td>
        <td align="center"><button type="button" id="subs"
            class="nums">-</button></td>
      </tr>
      <tr class="btns">
        <td align="center"><button class="nums"
            type="button">1</button></td>
        <td align="center"><button class="nums"
            type="button">2</button></td>
        <td align="center"><button class="nums"
            type="button">3</button></td>
        <td align="center"><button type="button" id="adds"
            class="nums">+</button></td>
      </tr>
      <tr class="btns">
        <td colspan="2" align="center"><button type="button" id="zero"
            class="nums">0</button></td>
        <td align="center"><button type="button"
            class="nums">.</button></td>
        <td align="center"><button type="button"
            id="exe">=</button></td>
      </tr>
    </table>
</body>

<script>
    const buttons = document.querySelectorAll('button.nums');
    const result = document.getElementById('textbox');
    let firstValue = null;
    let operator = null;
    let isOperatorPressed = false;
    buttons.forEach(function(button) {
        button.addEventListener('click', function() {
            if (result.innerText === '0' || isOperatorPressed) {
                result.innerText = this.innerText;
                isOperatorPressed = false;
            } else {
                result.innerText += this.innerText;
            }
        });
    });
    document.getElementById('clear').addEventListener('click', () => {
        result.innerText = '0';
        firstValue = null;
        operator = null;
        isOperatorPressed = false;
    });
    document.getElementById('abs').addEventListener('click', () => {
        let currentValue = result.innerText;
        if (currentValue.charAt(0) === '-') {
            result.innerText = currentValue.slice(1);
        } else {
            result.innerText = '-' + currentValue;
        }
```

```javascript
    });
    document.querySelectorAll('#adds, #subs, #mul, #divi, #mod').forEach(function(button) {
        button.addEventListener('click', function() {
            if (result.innerText !== '') {
                if (firstValue !== null && operator !== null) {

                    const secondValue = parseFloat(result.innerText);
                    let computation;
                    switch (operator) {
                        case '+':
                            computation = firstValue + secondValue;
                            break;
                        case '-':
                            computation = firstValue - secondValue;
                            break;
                        case '*':
                            computation = firstValue * secondValue;
                            break;
                        case '/':
                            computation = firstValue / secondValue;
                            break;
                        case '%':
                            computation = firstValue % secondValue;
                            break;
                    }
                    result.innerText = computation.toString();
                    firstValue = computation;
                } else {
                    firstValue = parseFloat(result.innerText);
                }
                operator = this.innerText === 'x' ? '*' : (this.innerText === '÷' ? '/' : this.innerText);
                isOperatorPressed = true;
            }
        });
    });
    document.getElementById('exe').addEventListener('click', () => {
        if (firstValue !== null && operator !== null) {
            const secondValue = parseFloat(result.innerText);
            let computation;
            switch (operator) {
                case '+':
                    computation = firstValue + secondValue;
                    break;
                case '-':
                    computation = firstValue - secondValue;
                    break;
                case '*':
                    computation = firstValue * secondValue;
                    break;
                case '/':
                    computation = firstValue / secondValue;
                    break;
                case '%':
                    computation = firstValue % secondValue;
                    break;
                default:
                    computation = secondValue;
            }
```

```
                result.innerText = computation.toString();
                firstValue = computation;
                operator = null;
                isOperatorPressed = false;
            }
        });
    </script>
</html>
```
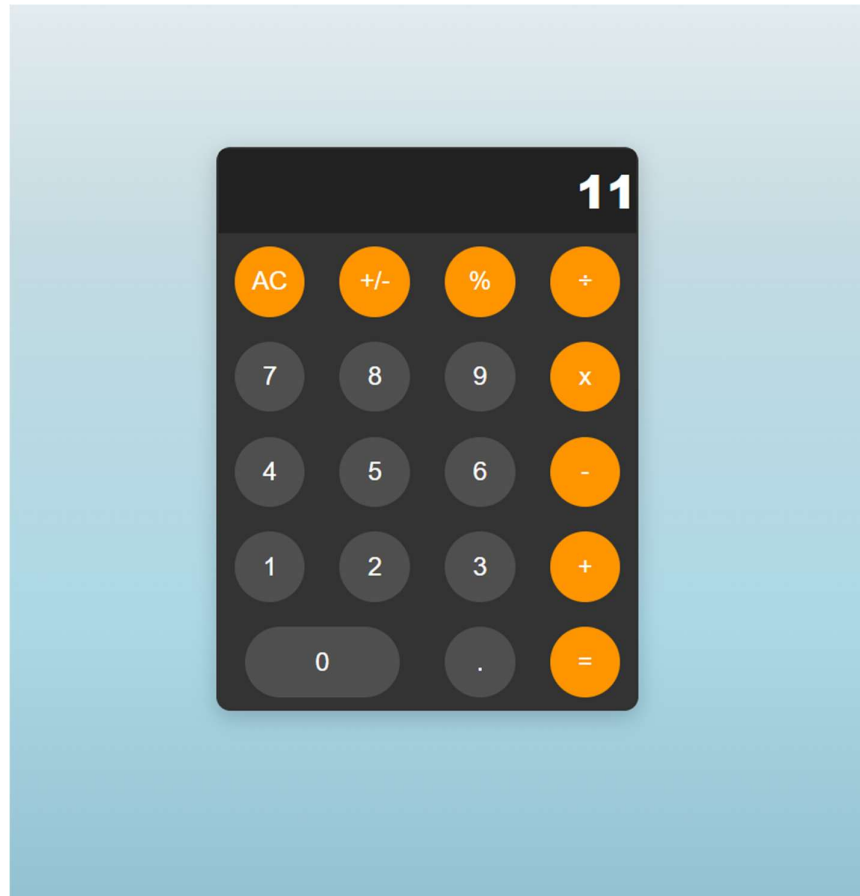
- **Output:**

- **Code of 3.2:**

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Registration Form</title>
    <style>
      html {
        width: 100%;
        height: 100%;
        background: linear-gradient( rgba(173, 216, 230, 0.800), rgba(173, 216, 230, 0.700), rgba(173, 216,
230, 0.600), rgba(173, 216, 230, 0.500));
        background-repeat: no-repeat;
      }
      form {
        display: flex;
        justify-content: center;
```

```
            align-items: center;
            height: 70%;
            width: 35%;
            font-family: Arial, sans-serif;
            background-color: whitesmoke;
            box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
            backdrop-filter: blur(10px);
            border-radius: 10px;
            padding: 20px;
            box-sizing: border-box;
            position: absolute;
            top: 50%;
            left: 50%;
            transform: translate(-50%, -50%);
        }
        input[type="text"], input[type="email"], input[type="tel"]{
            width: 200px;
            height: 25px;
            text-align: center;
            padding: 0.5rem;
            margin: 0.5rem 0.25rem;
            font-size: 1.1rem;
            border-radius: 8px;
            border: 1.5px solid #a777e3;
            outline-color: #6e8efb;
        }
        select{
            width: 217px;
            margin: 0.5rem 0.25rem;
            padding: 0.5rem;
            font-size: 1.1rem;
            border-radius: 8px;
            border: 1.5px solid #a777e3;
            outline-color: #6e8efb;
        }
        button {
            padding: 0.55rem 1.5rem;
            margin: 0.5rem 0.5rem 1rem 0.5rem;
            font-size: 1.3rem;
            border: none;
            border-radius: 12px;
            background-color: #6e8efb;
            color: white;
            cursor: pointer;
            transition: background-color 0.3s ease;
        }
        button:hover {
            background-color: #a777e3;
        }
    </style>
</head>
<body>
    <form action="#" enctype="multipart/form-data">
        <table align="center" width="400px" height="400px">
        <caption> <h2>Admission Form</h2> </caption>
        <tr>
            <td><label for="name">Full Name:</label></td>
            <td><input type="text" name="name" id="name" placeholder="ex John Marston"></td>
```
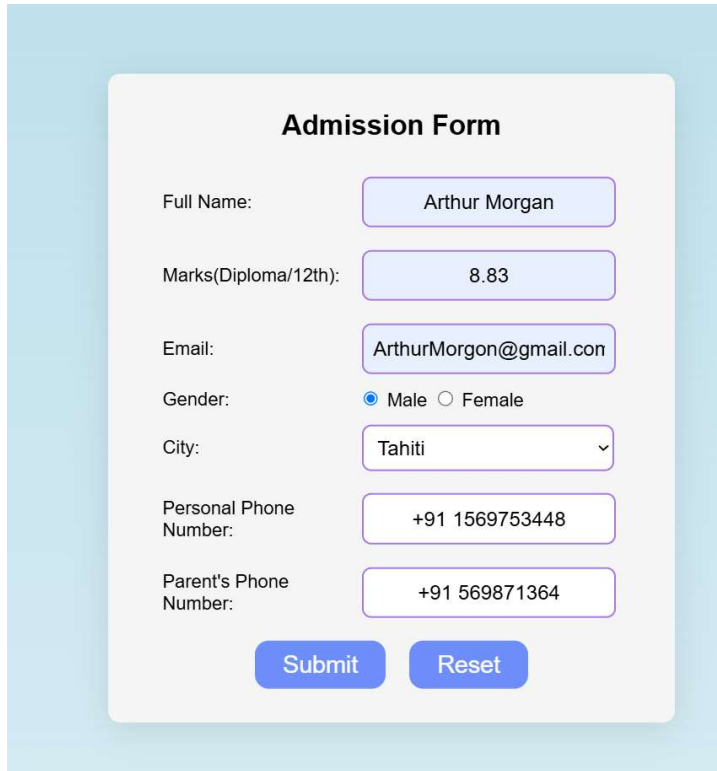
```
      </tr>
      <tr>
        <td><label for="marks">Marks(Diploma/12th):</label></td>
        <td><input type="text" name="marks" id="marks" placeholder="CGPA/percentage"></td>
      </tr>
      <tr>
        <td><label for="email">Email:</label></td>
        <td><input type="email" name="email" id="email" placeholder="example@gmail.com"></td>
      </tr>
      <tr>
        <td><label for="gender">Gender:</label></td>
        <td>
          <input type="radio" name="gender" id="male" value="male">
          <label for="male">Male</label>
          <input type="radio" name="gender" id="female" value="female">
          <label for="female">Female</label>
        </td>
      </tr>
      <tr>
        <td><label for="city">City:</label></td>
        <td>
          <select name="city" id="city">
            <option value="new_york">New York</option>
            <option value="los_angeles">Los Angeles</option>
            <option value="chicago">Chicago</option>
            <option value="houston">Houston</option>
            <option value="phoenix">Tahiti</option>
          </select>
        </td>
      </tr>
      <tr>
        <td><label for="phone">Personal Phone Number:</label></td>
        <td><input type="tel" name="phone" id="phone" placeholder="+91 123456789"></td>
      </tr>
      <tr>
        <td><label for="phone">Parent's Phone Number:</label></td>
        <td><input type="tel" name="phone" id="phone" placeholder="+91 123456789"></td>
      </tr>
      <tr>
        <td colspan="2" align="center">
          <button type="submit">Submit</button>
          <button type="reset">Reset</button>
        </td>
      </tr>
    </table>
  </form>
 </body>
</html>
```

- **Output:**

PRACTICAL – 4

AIM: 4.1 Design an user interface for semester registration
4.2 Design an user interface for displaying and changing of picture on the form
4.3 Design an user interface for To count the number of digits in a given number

- **Code of 4.1:**

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Semester Form</title>
    <style>
      html {
        width: 100%;
        height: 100%;
        background: linear-gradient( rgba(173, 216, 230, 0.800), rgba(173, 216, 230, 0.700), rgba(173, 216, 230, 0.600), rgba(173, 216, 230, 0.500));
        background-repeat: no-repeat;
      }
      form {
        display: flex;
        justify-content: center;
        align-items: center;
        height: 70%;
        width: 35%;
        font-family: Arial, sans-serif;
        background-color: whitesmoke;
        box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
        backdrop-filter: blur(10px);
        border-radius: 10px;
        padding: 20px;
        box-sizing: border-box;
        position: absolute;
        top: 50%;
        left: 50%;
        transform: translate(-50%, -50%);
      }
      input[type="text"], input[type="email"], input[type="tel"]{
        width: 200px;
        height: 25px;
        text-align: center;
        padding: 0.5rem;
        margin: 0.5rem 0.25rem;
        font-size: 1.1rem;
        border-radius: 8px;
        border: 1.5px solid #a777e3;
        outline-color: #6e8efb;
      }
      select{
        width: 217px;
        margin: 0.5rem 0.25rem;
        padding: 0.5rem;
        font-size: 1.1rem;
        border-radius: 8px;
```

```
            border: 1.5px solid #a777e3;
            outline-color: #6e8efb;


        }
      button {
            padding: 0.55rem 1.5rem;
            margin: 0.5rem 0.5rem 1rem 0.5rem;
            font-size: 1.3rem;
            border: none;
            border-radius: 12px;
            background-color: #6e8efb;
            color: white;
            cursor: pointer;
            transition: background-color 0.3s ease;
        }
      button:hover {             background-color: #a777e3;          }
    </style>
</head>
<body>
    <form action="#" enctype="multipart/form-data">
      <table align="center" width="400px" height="400px">
        <caption> <h2>Semester Form</h2> </caption>
        <tr>
          <td><label for="name">Full Name:</label></td>
          <td><input type="text" name="name" id="name" placeholder="ex John Marston"></td>
        </tr>
        <tr>
          <td><label for="marks">Enrollment No</label></td>
          <td><input type="text" name="eno" id="eno" placeholder="Enrollment no"></td>
        </tr>
        <tr>
          <td><label for="email">Email:</label></td>
          <td><input type="email" name="email" id="email" placeholder="example@gmail.com"></td>
        </tr>
        <tr>
          <td><label for="selective_sub_1">Elective subject 1</label></td>
          <td>
            <input type="radio" name="sub1" id="DS" value="DS">
            <label for="DS">Data Structure</label>
            <input type="radio" name="sub1" id="JAVA" value="JAVA">
            <label for="JAVA">JAVA</label>
          </td>
        </tr>
        <tr>
          <td><label for="sub2">Elective subject 2</label></td>
          <td>
            <select name="sub2" id="sub2">
              <option value="C">C</option>
              <option value="Android">Android</option>
              <option value="PHP">PHP</option>
              <option value="python">Python</option>
            </select>
          </td>
        </tr>
        <tr>
          <td><label for="phone">Phone Number:</label></td>
          <td><input type="tel" name="phone" id="phone" placeholder="+91 123456789"></td>
        </tr>
```

```
        <tr>
          <td colspan="2" align="center">
            <button type="submit">Submit</button>
            <button type="reset">Reset</button>
          </td>
        </tr>
      </table>
    </form>
  </body>
</html>
```

- **Output:**

- **Code of 4.2:**

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title> Images </title>
    <style>
      html {
        width: 100%;
        height: 100%;
        background: linear-gradient( rgba(173, 216, 230, 0.800), rgba(173, 216, 230, 0.700), rgba(173, 216, 230, 0.600), rgba(173, 216, 230, 0.500));
        background-repeat: no-repeat;
      }
      form {
        height: 80%;
        width: 90%;
        padding: 10px;
        position: absolute;
        top: 50%;
```

```
            left: 50%;
            transform: translate(-50%, -50%);
            font-family: Arial, sans-serif;
            background-color: whitesmoke;
            box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
            backdrop-filter: blur(10px);
            border-radius: 10px;
            box-sizing: border-box;
        }
        button {
            padding: 0.45rem 1.1rem;
            font-size: 1rem;
            border: none;
            border-radius: 12px;
            background-color: #6e8efb;
            color: white;
            cursor: pointer;
            transition: background-color 0.3s ease;
        }
        button:hover {          background-color: #a777e3;         }
        #header_text {
            margin-bottom: 20px;
            font-size: 2rem;
            color: #333;
            text-align: center;
            font-weight: 900;
            text-transform: uppercase;
        }
        .grid-container {
            display: grid;
            grid-template-columns: repeat(4, 1fr);
            gap: 10px;
            padding: 10px;
        }
        .box {
            padding: 20px;
            background-color: #f0f0f0;
            border: 1px solid #ccc;
            border-radius: 8px;
            text-align: center;
            font-size: 1.5rem;
            color: #333;
        }
    </style>
</head>
<body>
    <form action="#" enctype="multipart/form-data">
        <p id="header_text"> Images </p>
        <div class="grid-container">
            <div class="box">
                <button class="img-btn" id="btn1">Select Image</button>
                <input type="file" id="file1" style="display:none" accept="image/*">
            </div>
            <div class="box">
                <button class="img-btn" id="btn2">Select Image</button>
                <input type="file" id="file2" style="display:none" accept="image/*">
            </div>
            <div class="box">
```

```html
          <button class="img-btn" id="btn3">Select Image</button>
          <input type="file" id="file3" style="display:none" accept="image/*">
        </div>
        <div class="box">
          <button class="img-btn" id="btn4">Select Image</button>
          <input type="file" id="file4" style="display:none" accept="image/*">
        </div>
        <div class="box">
          <button class="img-btn" id="btn5">Select Image</button>
          <input type="file" id="file5" style="display:none" accept="image/*">
        </div>
        <div class="box">
          <button class="img-btn" id="btn6">Select Image</button>
          <input type="file" id="file6" style="display:none" accept="image/*">
        </div>
        <div class="box">
          <button class="img-btn" id="btn7">Select Image</button>
          <input type="file" id="file7" style="display:none" accept="image/*">
        </div>
        <div class="box">
          <button class="img-btn" id="btn8">Select Image</button>
          <input type="file" id="file8" style="display:none" accept="image/*">
        </div>
      </div>
    </form>
    <script>
      for (let i = 1; i <= 8; i++) {
        const btn = document.getElementById(`btn${i}`);
        const fileInput = document.getElementById(`file${i}`);
        const box = btn.parentElement;
        btn.addEventListener('click', (e) => {
          e.preventDefault();
          fileInput.click();
        });
        fileInput.addEventListener('change', () => {
          const file = fileInput.files[0];
          if (file && file.type.startsWith("image/")) {
            const reader = new FileReader();
            reader.onload = function(e) {
              const existingImg = box.querySelector("img");
              if (existingImg) existingImg.remove();
              const img = document.createElement("img");
              img.src = e.target.result;
              img.style.maxWidth = "100%";
              img.style.maxHeight = "150px";
              img.style.marginTop = "10px";
              box.appendChild(img);
              btn.textContent = "Change Image";
            };
            reader.readAsDataURL(file);
          }
        });
      }
    </script>
  </body>
</html>
```
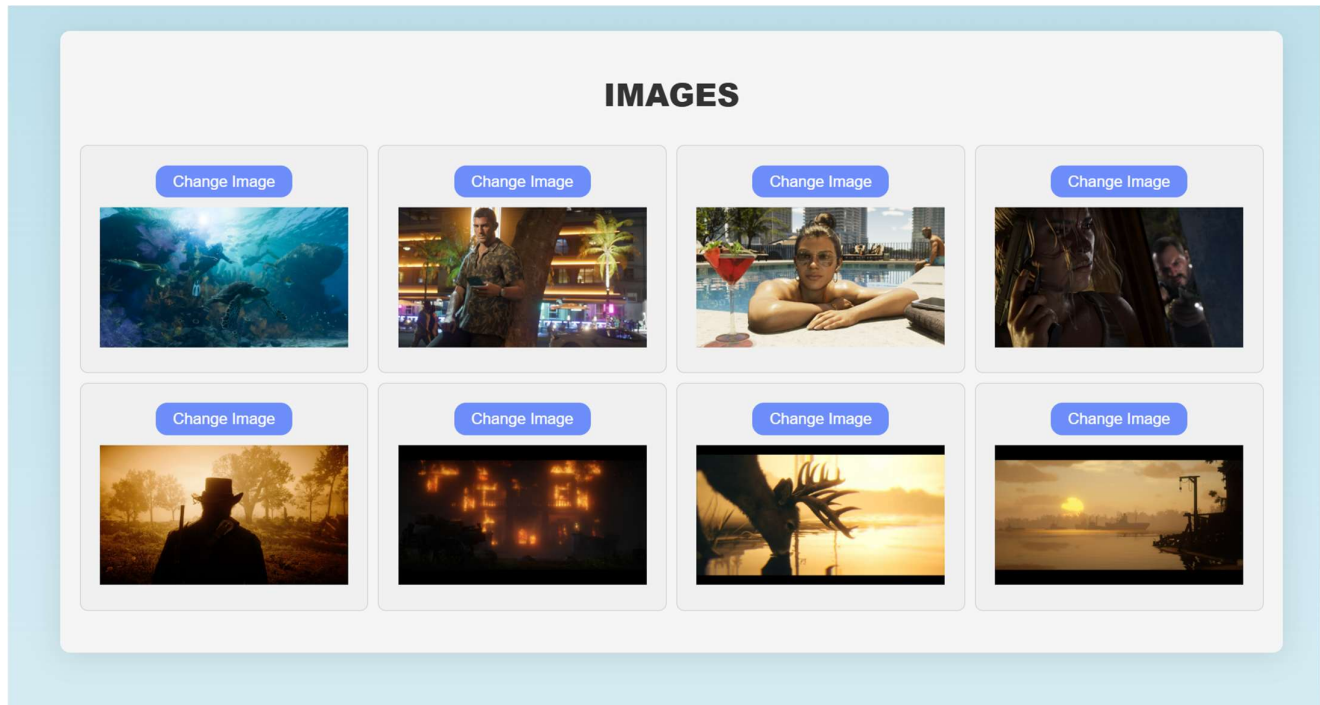
- **Output:**

- **Code of 4.3:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Count Digits</title>
  <style>
    html {
      width: 100%;
      height: 100%;
      background: linear-gradient(rgba(173, 216, 230, 0.800), rgba(173, 216, 230, 0.700), rgba(173, 216, 230, 0.600), rgba(173, 216, 230, 0.500));
    }
    form {
      height: 40%;
      width: 40%;
      padding: 10px;
      position: absolute;
      top: 50%;
      left: 50%;
      transform: translate(-50%, -50%);
      display: flex;
      flex-direction: column;
      align-items: center;
      background-color: whitesmoke;
      box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
      backdrop-filter: blur(10px);
      border-radius: 10px;
    }
    input[type="text"] {
      width: 200px;
      height: 25px;
      text-align: center;
      padding: 0.5rem;
      margin: 0.5rem 0.25rem;
      font-size: 1.1rem;
```
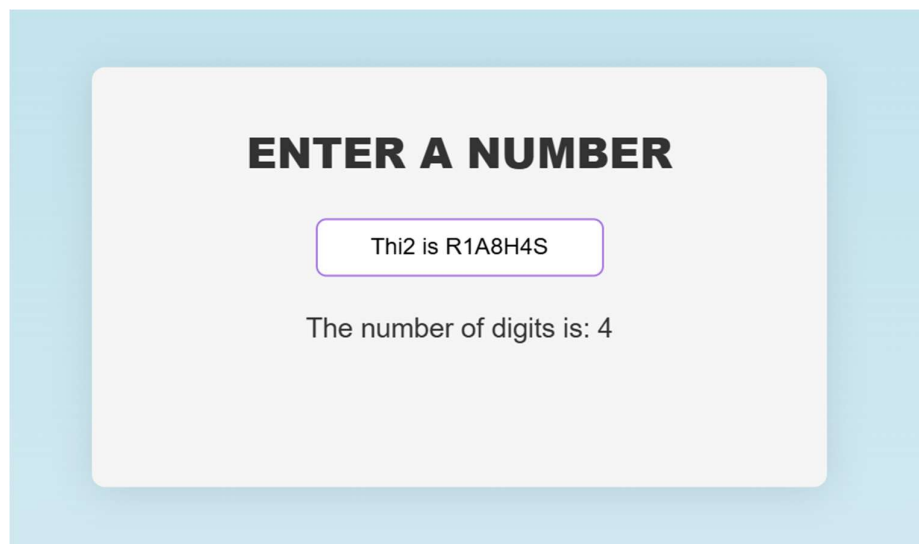
```
        border-radius: 8px;
        border: 1.5px solid #a777e3;
        outline-color: #6e8efb;
    }
    #header_text {
        margin-bottom: 20px;
        font-size: 2rem;
        color: #333;
        text-align: center;
        font-weight: 900;
        text-transform: uppercase;
    }
    #result {
        margin-top: 20px;
        font-size: 1.3rem;
        color: #333;
    }
    </style>
</head>
<body>
    <form action="#" onsubmit="return false;">
        <p id="header_text">Enter a Number</p>
        <input type="text" id="num" name="num" placeholder="Enter number" />
        <label id="result"></label>
    </form>
    <script>
        const numInput = document.getElementById('num');
        const resultLabel = document.getElementById('result');
        numInput.addEventListener('input', function () {
            const value = numInput.value;
            const digitMatches = value.match(/\d/g);
            if (value === '') {              resultLabel.textContent = '';          }
            else {
                const count = digitMatches ? digitMatches.length : 0;
                resultLabel.textContent = `The number of digits is: ${count}`;
            }
        });
    </script>
</body>
</html>
```

- **Output:**

ENTER A NUMBER

Thi2 is R1A8H4S

The number of digits is: 4

PRACTICAL – 5

AIM: 5.1 Design an user interface for simple sort program
5.2 Design an User interface User interest form, Making suggestion form
5.3 Design an user interface to check whether the year is leap year or not
5.4 Design an user interface for menu based Program

- **Code of 5.1:**

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Count number</title>
    <style>
      html {
        width: 100%;
        height: 100%;
        background: linear-gradient(rgba(173, 216, 230, 0.8), rgba(173, 216, 230, 0.7), rgba(173, 216, 230, 0.6), rgba(173, 216, 230, 0.5));
        background-repeat: no-repeat;
      }
      form {
        height: 50%;
        width: 45%;
        display: flex;
        flex-direction: column;
        justify-content: center;
        position: absolute;
        top: 50%;
        left: 50%;
        transform: translate(-50%, -50%);
        align-items: center;
        padding: 20px;
        font-family: Arial, sans-serif;
        background-color: whitesmoke;
        box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
        backdrop-filter: blur(10px);
        border-radius: 10px;
        box-sizing: border-box;
      }
      input[type="text"] {
        width: 200px;
        height: 25px;
        text-align: center;
        padding: 0.5rem;
        margin: 0.5rem 0.25rem;
        font-size: 1.1rem;
        border-radius: 8px;
        border: 1.5px solid #a777e3;
        outline-color: #6e8efb;
      }
      .header_text {
        font-size: 1.2rem;
        font-weight: bold;
        margin-bottom: 10px;
        text-align: center;
      }
    </style>
```

```html
</head>
<body>
 <form action="#" enctype="multipart/form-data">
  <label for="num" class="header_text">
   Enter numbers in comma seprated to see Ascending order and Descending order</label>
  <input type="text" id="num" name="num" placeholder="Enter number" />
  <label id="result2"></label>
  <label id="result3"></label>
 </form>
 <script>
   const num = document.getElementById("num");
   const result2 = document.getElementById("result2");
   const result3 = document.getElementById("result3");
   num.addEventListener("input", () => {
     const values = num.value.split(",").map(Number);
     const ascending = [...values].sort((a, b) => a - b);
     const descending = [...values].sort((a, b) => b - a);
     result2.textContent = "Ascending: " + ascending.join(", ");
     result3.textContent = "Descending: " + descending.join(", ");
   });
 </script>
 </body>
</html>
```

- **Output:**

- **Code of 5.2: <!DOCTYPE html>**

```html
<html lang="en">
 <head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <title>Contact Us Form</title>
  <style>
   html {
    width: 100%;
    height: 100%;
    background: linear-gradient(rgba(173, 216, 230, 0.8), rgba(173, 216, 230, 0.7), rgba(173, 216, 230, 0.6),
rgba(173, 216, 230, 0.5));
    background-repeat: no-repeat;
   }
```

```css
    form {
      display: flex;
      justify-content: center;
      align-items: center;
      height: 70%;
      width: 35%;
      font-family: Arial, sans-serif;
      background-color: whitesmoke;
      box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
      backdrop-filter: blur(10px);
      border-radius: 10px;
      padding: 20px;
      box-sizing: border-box;
      position: absolute;
      top: 50%;
      left: 50%;
      transform: translate(-50%, -50%);
    }
    input[type="text"], input[type="email"], input[type="tel"], textarea {
      width: 200px;
      height: 25px;
      text-align: center;
      padding: 0.5rem;
      margin: 0.5rem 0.25rem;
      font-size: 1.1rem;
      border-radius: 8px;
      border: 1.5px solid #a777e3;
      outline-color: #6e8efb;
    }
    select {
      width: 217px;
      margin: 0.5rem 0.25rem;
      padding: 0.5rem;
      font-size: 1.1rem;
      border-radius: 8px;
      border: 1.5px solid #a777e3;
      outline-color: #6e8efb;
    }
    button {
      padding: 0.55rem 1.5rem;
      margin: 0.5rem 0.5rem 1rem 0.5rem;
      font-size: 1.3rem;
      border: none;
      border-radius: 12px;
      background-color: #6e8efb;
      color: white;
      cursor: pointer;
      transition: background-color 0.3s ease;
    }
    button:hover {        background-color: #a777e3;     }
  </style>
</head>
<body>
 <form action="#" enctype="multipart/form-data">
   <table align="center" width="400px" height="400px">
    <caption>
     <h2>Contact US</h2>
    </caption>
```

```
<tr>
  <td><label for="name">Full Name:</label></td>
  <td>input type="text" name="name" id="name" placeholder="ex Arthur Morgan"/><td>
</tr>
<tr>
  <td><label for="email">Email:</label></td>
  <td>
    <input type="email" name="email" id="email" placeholder="example@gmail.com"/>
  </td>
</tr>
<tr>
  <td><label for="phone">Phone Number:</label></td>
  <td>
    <input type="tel" name="phone" id="phone" placeholder="+91 123456789"/>
  </td>
</tr>
<tr>
    <td><label for="Interests">Interests:</label></td>
</tr>
<tr>
    <td colspan="2" style="width:100%; ">
      <textarea wrap="soft" name="Interests" id="Interests" placeholder="Your Interests"
style="width:100%;"></textarea>
    </td>
</tr>
<tr>
  <td colspan="2" align="center">
    <button type="submit">Submit</button>
    <button type="reset">Reset</button>
  </td>
</tr>
  </table>
 </form>
 </body>
</html>
```

- **Output:**

- **Code of 5.3:**

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Leap Year Checker</title>
    <style>
      html {
        width: 100%;
        height: 100%;
        background: linear-gradient(rgba(173, 216, 230, 0.8),rgba(173, 216, 230, 0.7),rgba(173, 216, 230, 0.6),rgba(173, 216, 230, 0.5));
        background-repeat: no-repeat;
      }
      form {
        height: 40%;
        width: 35%;
        display: flex;
        flex-direction: column;
        justify-content: center;
        position: absolute;
        top: 50%;
        left: 50%;
        transform: translate(-50%, -50%);
        align-items: center;
        padding: 20px;
        font-family: Arial, sans-serif;
        background-color: whitesmoke;
        box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
        backdrop-filter: blur(10px);
        border-radius: 10px;
        box-sizing: border-box;
      }
      input[type="text"] {
        width: 200px;
        height: 25px;
        text-align: center;
        padding: 0.5rem;
        margin: 0.5rem 0.25rem;
        font-size: 1.1rem;
        border-radius: 8px;
        border: 1.5px solid #a777e3;
        outline-color: #6e8efb;
      }
      .header_text {
        font-size: 1.2rem;
        font-weight: bold;
        margin-bottom: 10px;
        text-align: center;
      }
    </style>
  </head>
  <body>
    <form action="#" enctype="multipart/form-data">
      <label for="num" class="header_text">
      Enter year to Check Leap Year</label>
      <input type="text" id="num" name="num" placeholder="Enter year" />
```
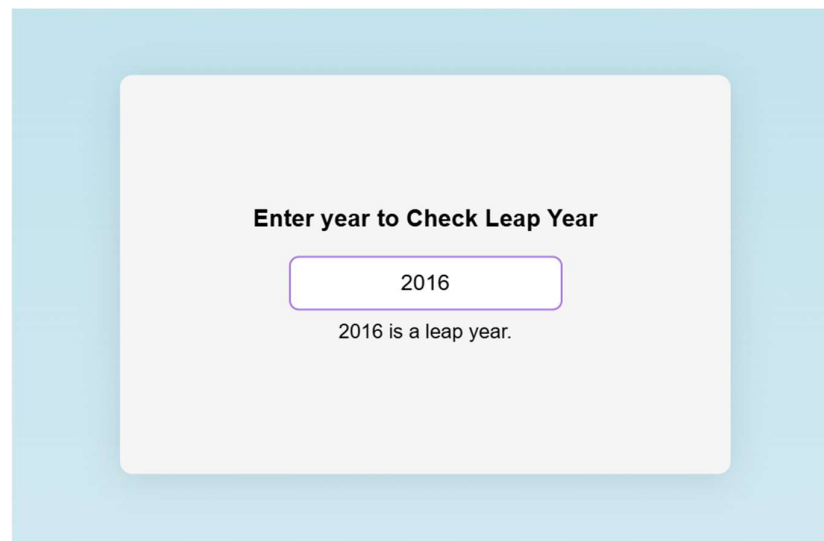
```
       <label id="result2"></label>
     </form>
     <script>
       const num = document.getElementById("num");
       const result2 = document.getElementById("result2");
       num.addEventListener("input", () => {
         const year = parseInt(num.value);
         if (isNaN(year)) {
           result2.textContent = "Please enter a valid year.";
           return;
         }
         if ((year % 4 === 0 && year % 100 !== 0) || (year % 400 === 0)) {
           result2.textContent = year + " is a leap year.";
         } else {
           result2.textContent = year + " is not a leap year.";
         }
       });
     </script>
   </body>
 </html>
```

- **Output:**

- **Code of 5.4:**

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Menu Based Program</title>
    <style>
      html {
        width: 100%;
        height: 100%;
        background: linear-gradient(rgba(173, 216, 230, 0.8), rgba(173, 216, 230, 0.7), rgba(173, 216, 230, 0.6),
rgba(173, 216, 230, 0.5));
        background-repeat: no-repeat;
      }
      body { font-family: Arial, sans-serif; margin: 40px; }
      form {
        height: 50%;
        width: 45%;
```

```css
      display: flex;
      flex-direction: column;
      justify-content: center;
      position: absolute;
      top: 50%;
      left: 50%;
      transform: translate(-50%, -50%);
      align-items: center;
      padding: 20px;
      font-family: Arial, sans-serif;
      background-color: whitesmoke;
      box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
      backdrop-filter: blur(10px);
      border-radius: 10px;
      box-sizing: border-box;
    }
    .header_text {
      font-size: 1.2rem;
      font-weight: bold;
      margin-bottom: 10px;
      text-align: center;
    }
    .menu { margin-bottom: 20px; display: flex; flex-direction: column; gap: 10px; }
    button {
      padding: 0.45rem 1.1rem;
      font-size: 1rem;
      border: none;
      border-radius: 12px;
      background-color: #6e8efb;
      color: white;
      cursor: pointer;
      transition: background-color 0.3s ease;
    }
    button:hover {        background-color: #a777e3;      }
    #output { margin-top: 30px; font-weight: bold; }
  </style>
</head>
<body>
 <form action="#" enctype="multipart/form-data">
   <!-- Design an user interface for menu based Program -->
   <h2>Menu</h2>
   <div class="menu">
     <button onclick="showOption(1)">Show Date</button>
     <button onclick="showOption(2)">Show Time</button>
     <button onclick="showOption(3)">About</button>
     <button onclick="showOption(0)">Exit</button>
   </div>
   <div id="output"></div>
 </form>
 <script>
   function showOption(option) {
     const output = document.getElementById('output');
     switch(option) {
       case 1:
         output.textContent = "Today's date is: " + new Date().toLocaleDateString();
         break;
       case 2:
         output.textContent = "Current time is: " + new Date().toLocaleTimeString();
```

```
            break;
        case 3:
            output.textContent = "Basic web for Time show";
            break;
        case 0:
            output.textContent = "Thank you!!";
            break;
        default:
            output.textContent = "";
        }
    }
  </script>
 </body>
</html>
```

- **Output:**