

## 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;
```

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        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"

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```

        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;
  }
}

```

```

});
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;
    }
  }
});

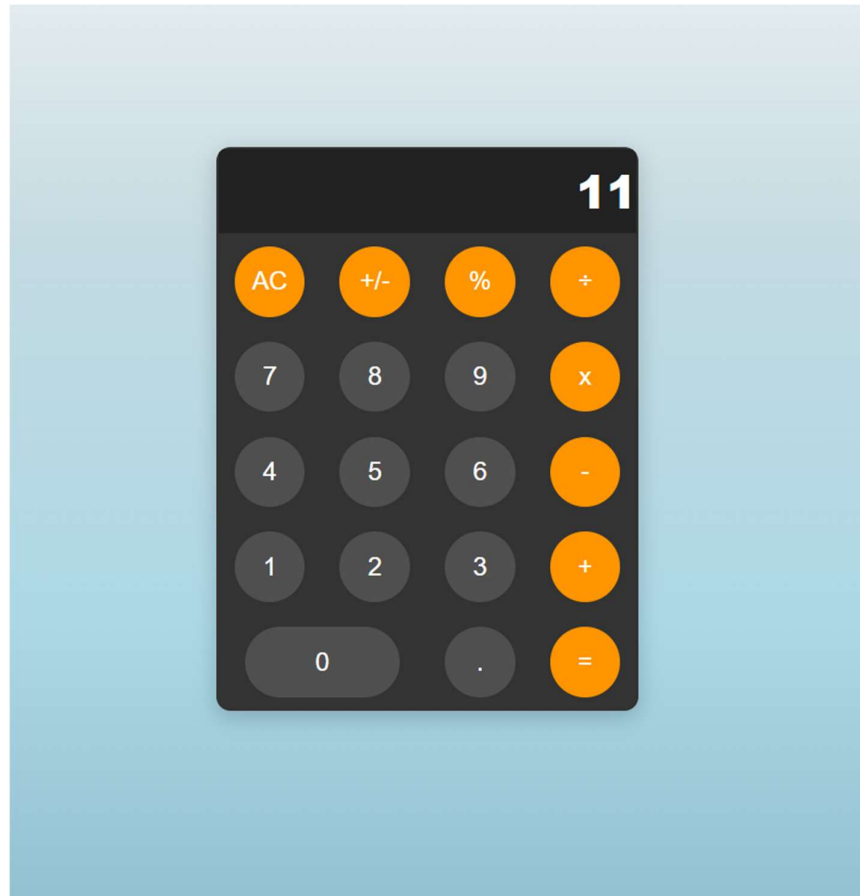
```

```

        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;

```

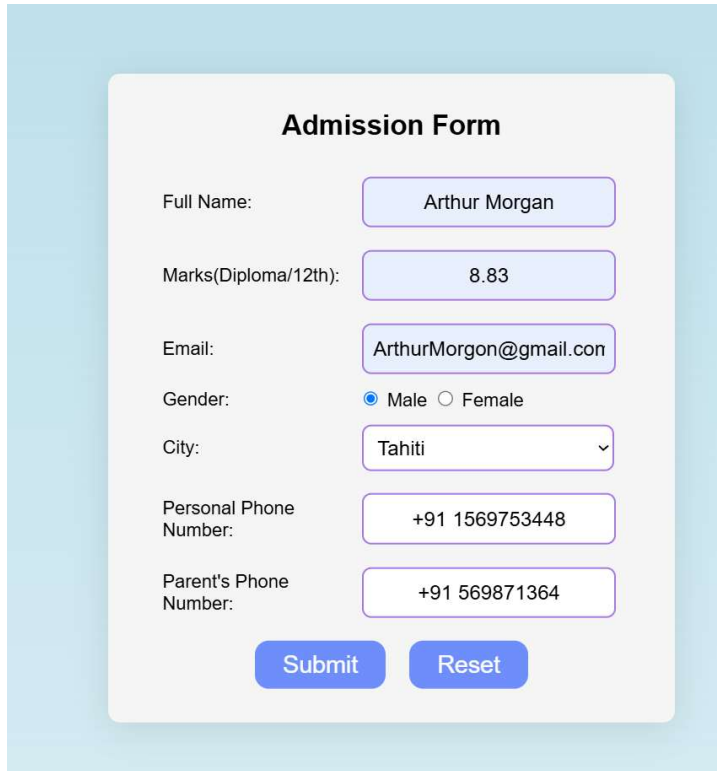
```

        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>
        </table>
    </form>
</body>

```

```
</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:**



The image shows a web form titled "Admission Form" with a light blue background. The form is a white card with rounded corners. It contains several input fields with labels to their left. The inputs are: "Full Name:" with "Arthur Morgan", "Marks(Diploma/12th):" with "8.83", "Email:" with "ArthurMorgon@gmail.com", "Gender:" with radio buttons for "Male" (selected) and "Female", "City:" with a dropdown menu showing "Tahiti", "Personal Phone Number:" with "+91 1569753448", and "Parent's Phone Number:" with "+91 569871364". At the bottom of the form are two blue buttons: "Submit" and "Reset".

**Admission Form**

Full Name: Arthur Morgan

Marks(Diploma/12th): 8.83

Email: ArthurMorgon@gmail.com

Gender: ☒ Male ☐ Female

City: Tahiti

Personal Phone Number: +91 1569753448

Parent's Phone Number: +91 569871364

Submit Reset