

1.Simple Calculator

Label Name	Element Name	Constraints
Input1	input1	This element is to get the first input. Type should be 'number'
Input2	input2	This element is to get the second input. Type should be 'number'
Select Operation	Operation	A drop down list contains the following values: Select... , ADD, SUBTRACT, MULTIPLY and DIVIDE. Set these values as its option tag text and option tag's 'value' attributes
	Submit	An image for submit must be included using <u>img</u> tag
	Reset	An image for reset must be included using <u>img</u> tag

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8" />
  <title>Calculator Form</title>
</head>

<body>
  <div>
    <label for="number1">Input1</label>
    <input type="number" id="number1" name="number1" required />
    <br /><br />

    <label for="number2">Input2</label>
    <input type="number" id="number2" name="number2" required />
    <br /><br />

    <label for="operation">Select Operation</label>
    <select id="operation" name="operation" required>
```

```
<option value="">Select..</option>
<option value="add">Add</option>
<option value="sub">Subtract</option>
<option value="mul">Multiply</option>
<option value="div">Divide</option>
</select>
<br /><br />

<button type="submit" onclick="calculation()">
  
</button>

<button type="reset">
  
</button>
<br /><br />
Result : <span id="result"></span>
</div>

<script type="text/javascript">
  function calculation() {
    const a = parseInt(document.getElementById("number1").value);
    const b = parseInt(document.getElementById("number2").value);
    const op = document.getElementById("operation").value;

    if (!a || !b || !op) {
      alert("Fill all the fields");
    };

    switch (op) {
      case "add":
        var res = a + b;
        document.getElementById("result").innerText = res;
        break;
      case "sub":
        var res = a - b;
        document.getElementById("result").innerText = res;
        break;
      case "mul":
        var res = a * b;
```

```

        document.getElementById("result").innerText = res;
        break;
    case "div":
        var res = a / b;
        document.getElementById("result").innerText = res;
        break;
    };
};
</script>
</body>
</html>

```

Input1

Input2

Select Operation Multiply ▾



Result : 20

2. Player Application Form Validation

In the player application form created, do the following validation using JavaScript.

1. All fields are mandatory
2. Matches played, runs scored, wickets and age should be numbers
3. Player name should contain alphabets only
4. Email should be in the correct format

If all validation rules are satisfied, success page should be displayed.

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8" />
    <title>Player Application Form</title>

```

```
<style>
  .error {
    color: red;
  }
  .success {
    color: green;
  }
</style>
</head>
<body>
  <h2>Player Application Form</h2>

  <form id="playerForm" novalidate>
    <label for="playerName">Player Name:</label><br />
    <input type="text" id="playerName" name="playerName" /><br /><br />
    <label for="email">Email:</label><br />
    <input type="email" id="email" name="email" /><br /><br />
    <label for="matches">Matches Played:</label><br />
    <input type="text" id="matches" name="matches" /><br /><br />
    <label for="runs">Runs Scored:</label><br />
    <input type="text" id="runs" name="runs" /><br /><br />
    <label for="wickets">Wickets:</label><br />
    <input type="text" id="wickets" name="wickets" /><br /><br />
    <label for="age">Age:</label><br />
    <input type="text" id="age" name="age" /><br /><br />
    <input type="submit" value="Submit" />
  </form>

  <p id="error" class="error"></p>
  <p id="success" class="success"></p>

  <script>
    document.getElementById('playerForm').addEventListener('submit',
function(event) {
    event.preventDefault();

    const errorElem = document.getElementById('error');
    const successElem = document.getElementById('success');
    errorElem.innerText = '';
    successElem.innerText = '';
```

```
const name = document.getElementById('playerName').value.trim();
const email = document.getElementById('email').value.trim();
const matches = document.getElementById('matches').value.trim();
const runs = document.getElementById('runs').value.trim();
const wickets = document.getElementById('wickets').value.trim();
const age = document.getElementById('age').value.trim();

if (!name || !email || !matches || !runs || !wickets || !age) {
    errorElem.innerText = "All fields are mandatory.";
    return;
}

if (isNaN(matches)) {
    errorElem.innerText = "Matches Played must be a number.";
    return;
}

if (isNaN(runs)) {
    errorElem.innerText = "Runs Scored must be a number.";
    return;
}

if (isNaN(wickets)) {
    errorElem.innerText = "Wickets must be a number.";
    return;
}

if (isNaN(age)) {
    errorElem.innerText = "Age must be a number.";
    return;
}

if (!/^[A-Za-z\s]+$/.test(name)) {
    errorElem.innerText = "Player Name must contain alphabets and
spaces only.";
    return;
}

if (!/^[^\s@]+@[^\s@]+\.[^\s@]+$/.test(email)) {
    errorElem.innerText = "Email format is invalid.";
    return;
}
```

```
        successElem.innerText = "Successfully Submitted";
    });
</script>
</body>
</html>
```

Player Application Form

Player Name:

Email:

Matches Played:

Runs Scored:

Wickets:

Age:

Successfully Submitted

3. Create a html page with radio buttons to select colors. Selected color should be applied as the background colour of the page.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Background Color Selector</title>
  <style>
```

```
body {
  font-family: Arial, sans-serif;
  text-align: center;
  padding: 20px;
}

.color-options {
  text-align: left;
  padding: 20px;
  border: 2px solid #ccc;
  border-radius: 10px;
  background-color: #fff;
}

.color-options label {
  display: block;
  margin: 10px 0;
}
</style>
</head>
<body>

  <h2>Select Background Color</h2>

  <div class="color-options">
    <label><input type="radio" name="bgColor" value="lightblue"> Light
Blue</label>
    <label><input type="radio" name="bgColor" value="lightgreen"> Light
Green</label>
    <label><input type="radio" name="bgColor" value="lightpink"> Light
Pink</label>
    <label><input type="radio" name="bgColor" value="lightyellow"> Light
Yellow</label>
    <label><input type="radio" name="bgColor" value="#f0f0f0"> Default
Grey</label>
  </div>

  <script>
    const radios = document.querySelectorAll('input[name="bgColor"]');
```

```
    radios.forEach( radio => {  
      radio.addEventListener('change', function () {  
        document.body.style.backgroundColor = this.value;  
      });  
    });  
</script>  
  
</body>  
</html>
```

Select Background Color

- ☐ Light Blue
- ☒ Light Green
- ☐ Light Pink
- ☐ Light Yellow
- ☐ Default Grey