

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

Calculator

Input1


10


Input2

0

Select Operation

DIVIDE





Cannot divide by zero.

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

```
<meta charset="UTF-8">
<title>Simple Calculator</title>
<style>
  body {
    font-family: Arial, sans-serif;
    margin: 50px;
  }
  .calculator {
    max-width: 300px;
    padding: 20px 20px;
    border: 2px solid #ccc;
    border-radius: 10px;
    color: red;
    background-color: lightgrey;
  }
  label {
    display: block;
    margin-top: 10px;
  }
  input, select {
    width: 90%;
    padding: 8px;
    margin-top: 5px;
    background-color: cornsilk;
  }
  .buttons {
    display: flex;
    justify-content: space-between;
    margin-top: 15px;
  }
  .buttons img {
    width: 48px;
    height: 48px;
    cursor: pointer;
  }
  #result {
    margin-top: 15px;
    font-weight: bold;
  }
</style>
```

```
</head>
<body>

<div class="calculator">
  <center><b>Calculator</b></center>
  <label for="input1">Input1</label>
  <input type="number" id="input1" name="input1">

  <label for="input2">Input2</label>
  <input type="number" id="input2" name="input2">

  <label for="operation">Select Operation</label>
  <select id="operation" name="operation">
    <option value="">Select..</option>
    <option value="ADD">ADD</option>
    <option value="SUBTRACT">SUBTRACT</option>
    <option value="MULTIPLY">MULTIPLY</option>
    <option value="DIVIDE">DIVIDE</option>
  </select>

  <div class="buttons">
    <!-- Use your own image URLs if needed -->
    
    
  </div>

  <div id="result"></div>
</div>

<script>
function calculate() {
  const num1 = parseFloat(document.getElementById('input1').value);
  const num2 = parseFloat(document.getElementById('input2').value);
  const operation = document.getElementById('operation').value;
  const resultDiv = document.getElementById('result');

  if (isNaN(num1) || isNaN(num2)) {
```

```
        resultDiv.textContent = "Please enter valid numbers.";
        return;
    }

    let result;
    switch (operation) {
        case "ADD":
            result = num1 + num2;
            break;
        case "SUBTRACT":
            result = num1 - num2;
            break;
        case "MULTIPLY":
            result = num1 * num2;
            break;
        case "DIVIDE":
            if (num2 === 0) {
                resultDiv.textContent = "Cannot divide by zero.";
                return;
            }
            result = num1 / num2;
            break;
        default:
            resultDiv.textContent = "Please select a valid operation.";
            return;
    }

    resultDiv.textContent = "Result: " + result;
}

function resetForm() {
    document.getElementById('input1').value = '';
    document.getElementById('input2').value = '';
    document.getElementById('operation').value = '';
    document.getElementById('result').textContent = '';
}
</script>

</body>
</html>
```

2. Player Application Form Validation

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

1. All fields are mandators
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.

Player Details

Name*

DOB*

Please fill out this field.

Age*

Email Id*

Country*

Skill*
☐ Batting ☐ Bowling

Bat Style*
☐ Right Handed ☐ Left Handed

Bowl Style*
☐ Right Handed ☐ Left Handed

Matches*

Runs*

Wickets*

Achievements*

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Player Details</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f0f8ff;
    }
    .container {
      width: 500px;
      margin: 40px auto;
      border: 2px solid #0a4c8a;
      background-color: #add8e6;
    }
    .header {
      background-color: #1e4f7b;
      color: white;
      padding: 10px;
      text-align: center;
      font-size: 24px;
      font-weight: bold;
    }
    form {
      padding: 20px;
    }
    label {
      display: block;
      margin-top: 10px;
      font-weight: bold;
    }
    .required::after {
      content: "*";
      color: red;
    }
    input[type="text"],
    input[type="email"],
```

```
input[type="date"],
select,
textarea {
  width: 100%;
  padding: 6px;
  margin-top: 5px;
  box-sizing: border-box;
}
input[type="radio"],
input[type="checkbox"] {
  margin-right: 5px;
}
textarea {
  height: 60px;
}
.button-group {
  text-align: center;
  padding: 20px;
  background-color: #1e4f7b;
}
.button-group input {
  padding: 8px 20px;
  margin: 0 10px;
  font-size: 16px;
  background-color: white;
  border: none;
  border-radius: 4px;
  cursor: pointer;
}
.button-group input:hover {
  background-color: #ddd;
}
</style>
<script>
function validateForm() {
  // Get input values
  const name = document.getElementById("name").value.trim();
  const dob = document.getElementById("dob").value.trim();
  const age = document.getElementById("age").value.trim();
  const email = document.getElementById("email").value.trim();
```

```
const country = document.getElementById("country").value;
const matches = document.getElementById("matches").value.trim();
const runs = document.getElementById("runs").value.trim();
const wickets = document.getElementById("wickets").value.trim();

const batting = document.getElementById("batting").checked;
const bowling = document.getElementById("bowling").checked;

// Check if all fields are filled
if (!name || !dob || !age || !email || !country || !matches || !runs || !wickets) {
    alert("Please fill in all required fields.");
    return false;
}

// Name validation: alphabets only
const nameRegex = /^[A-Za-z\s]+$/;
if (!nameRegex.test(name)) {
    alert("Name must contain alphabets only.");
    return false;
}

// Email validation
const emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
if (!emailRegex.test(email)) {
    alert("Please enter a valid email address.");
    return false;
}

// Age, Matches, Runs, Wickets: should be numeric
const numberFields = { age, matches, runs, wickets };
for (const [field, value] of Object.entries(numberFields)) {
    if (isNaN(value) || value === "") {
        alert(`${field.charAt(0).toUpperCase() + field.slice(1)} must be a valid number.`);
        return false;
    }
}

// Skill selection validation
```



```
if (!batting && !bowling) {
    alert("Please select at least one skill: Batting or Bowling.");
    return false;
}

// If all validations pass
alert("Form submitted successfully!");
window.location.href = "success.html"; // Replace with actual success
page
return false; // prevent default submit (for demo)
}
</script>

</head>
<body>

<div class="container">
    <div class="header">Player Details</div>
    <form onsubmit="return validateForm()">
        <label class="required">Name</label>
        <input type="text" placeholder="Enter your name" required>

        <label class="required">DOB</label>
        <input type="text" placeholder="DD/MM/YYYY" required>

        <label class="required">Age</label>
        <input type="text" placeholder="Enter your age" required>

        <label class="required">Email Id</label>
        <input type="email" placeholder="abc12@xyz.com" required>

        <label class="required">Country</label>
        <select required>
            <option>India</option>
            <option>Australia</option>
            <option>South Africa</option>
            <option>England</option>
        </select>

        <label class="required">Skill</label>
```

```
<input type="checkbox" name="skill" value="Batting">Batting
<input type="checkbox" name="skill" value="Bowling">Bowling

<label class="required">Bat Style</label>
<input type="radio" name="batStyle" value="Right Handed">Right Handed
<input type="radio" name="batStyle" value="Left Handed">Left Handed

<label class="required">Bowl Style</label>
<input type="radio" name="bowlStyle" value="Right Handed">Right Handed
<input type="radio" name="bowlStyle" value="Left Handed">Left Handed

<label class="required">Matches</label>
<input type="text" placeholder="Matches Played" required>

<label class="required">Runs</label>
<input type="text" placeholder="Total runs scored" required>

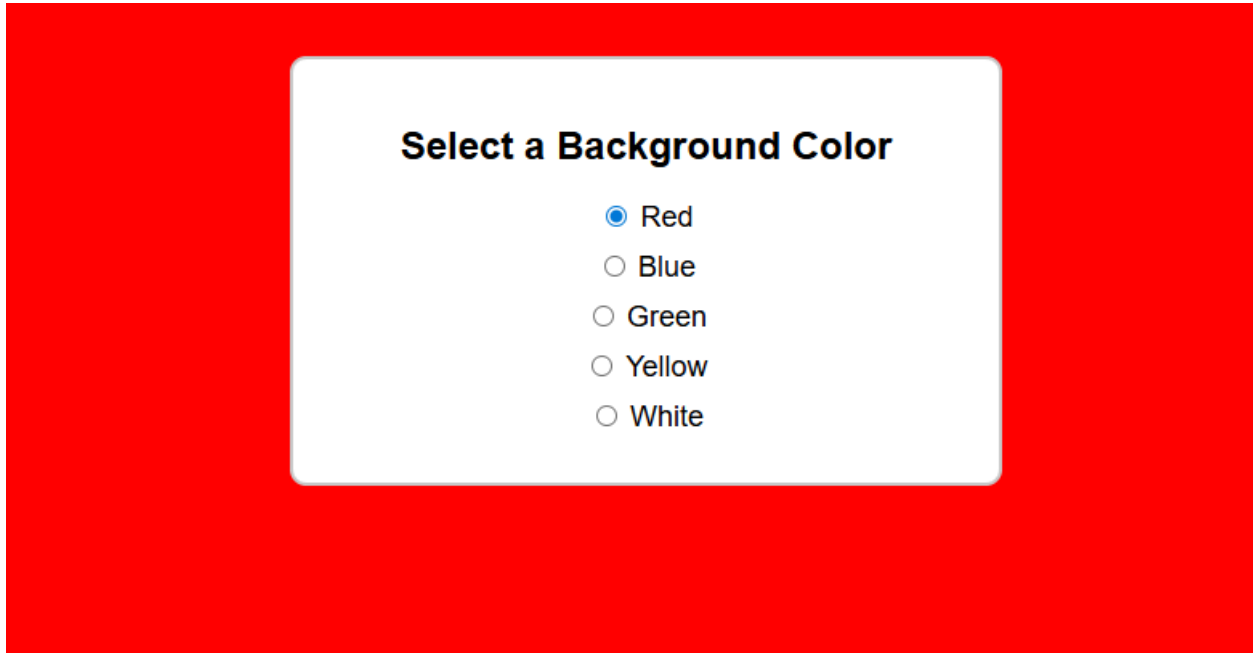
<label class="required">Wickets</label>
<input type="text" placeholder="Wickets" required>

<label>Achievements</label>
<textarea placeholder="Your Achievements in Cricket"></textarea>

<div class="button-group">
  <input type="submit" value="Submit">
  <input type="reset" value="Reset">
</div>
</form>
</div>

</body>
</html>
```

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>Change Background Color</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      padding: 30px;
      transition: background-color 0.3s ease;
    }
    .container {
      max-width: 400px;
      margin: auto;
      text-align: center;
      padding: 20px;
      border: 2px solid #ccc;
      border-radius: 10px;
      background-color: white;
    }
  </style>
</head>
<body>
  <div class="container">
    <h2>Select a Background Color</h2>
    <div>
      <input checked="" type="radio"/> Red
      <input type="radio"/> Blue
      <input type="radio"/> Green
      <input type="radio"/> Yellow
      <input type="radio"/> White
    </div>
  </div>
</body>
</html>
```

```
}
h2 {
  margin-bottom: 20px;
}
label {
  display: block;
  margin: 10px 0;
  font-size: 18px;
}
</style>
</head>
<body>

<div class="container">
  <h2>Select a Background Color</h2>

  <label><input type="radio" name="color" value="red"
onclick="changeColor(this.value)"> Red</label>
  <label><input type="radio" name="color" value="blue"
onclick="changeColor(this.value)"> Blue</label>
  <label><input type="radio" name="color" value="green"
onclick="changeColor(this.value)"> Green</label>
  <label><input type="radio" name="color" value="yellow"
onclick="changeColor(this.value)"> Yellow</label>
  <label><input type="radio" name="color" value="white"
onclick="changeColor(this.value)"> White</label>
</div>

<script>
  function changeColor(color) {
    document.body.style.backgroundColor = color;
  }
</script>

</body></html>
```