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PROBLEM 1 : Simple Calculator

| Simple Calculator |
|-------------------|
| Input1:           |
| 4                 |
| Input2:           |
| 2                 |
| Select Operation: |
| SUBTRACT ~        |
| SUBMIT            |
| Result: 2         |

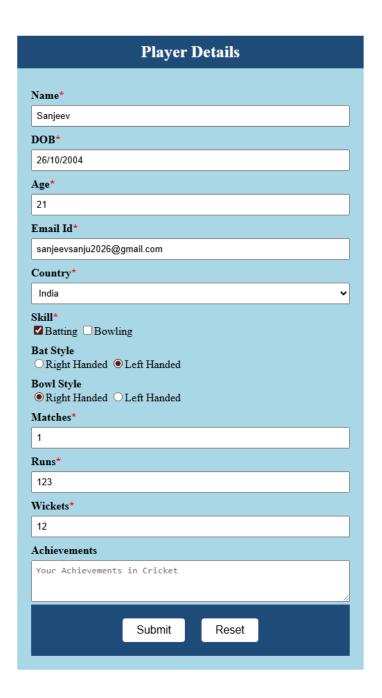
```
background-color: #84faa1;
    border-radius: 10px;
    text-align: center;
  .container input, .container select {
   width: 80%;
   padding: 5px;
   margin: 5px 0;
  .container img {
   margin: 10px;
   cursor: pointer;
    width: 40px;
  }
</style>
<script>
  function calculate() {
    var num1 = parseFloat(document.getElementById("IN1").value);
   var num2 = parseFloat(document.getElementById("IN2").value);
    var operation = document.getElementById("operation").value;
    var result;
    if (operation == "ADD") {
      result = num1 + num2;
    } else if (operation == "SUBTRACT") {
      result = num1 - num2;
    } else if (operation == "MULTIPLY") {
     result = num1 * num2;
    } else if (operation == "DIVIDE") {
     if (num2 != 0) {
        result = num1 / num2;
      } else {
        result = "Cannot divide by zero";
    } else {
      result = "Please select a valid operation";
    document.getElementById("result").innerHTML = "Result: " + result;
```

```
function resetForm() {
      document.getElementById("calcForm").reset();
      document.getElementById("result").innerHTML = "";
 </script>
</head>
<body>
 <div class="container">
   <h2>Simple Calculator</h2>
   <form id="calcForm">
      <label for="IN1">INPUT 1:</label><br>
      <input type="number" id="IN1" name="IN1"><br>
     <label for="IN2">Input2:</label><br>
      <input type="number" id="IN2" name="IN2"><br>
      <label for="operation">Select Operation:</label><br>
      <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><br>
<img src="submit.png" alt="Submit" onclick="calculate()"</pre>
style="width:40px; cursor:pointer;">
<img src="multiply.png" alt="Reset" onclick="resetForm()"</pre>
style="width:40px; cursor:pointer;">
</form>
   <h3 id="result"></h3>
 </div>
</body>
</html>
```

PROBLEM 3 : 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, the success page should be displayed.



```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <title>Player Details</title>
 <style>
   body {
     background-color: white;
    .container {
     width: 500px;
     margin: 40px auto;
     background-color: #add8e6;
    .header {
     background-color: #1e4f7b;
     color: white;
     padding: 10px;
     text-align: center;
     font-size: 24px;
    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;
```

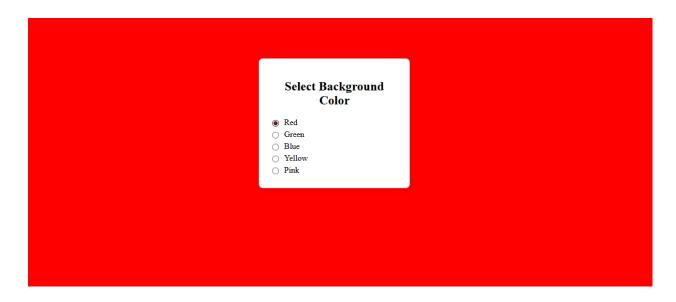
```
margin-top: 5px;
     box-sizing: border-box;
   textarea {
     height: 60px;
   .button-group {
     text-align: center;
     padding: 20px;
     background-color: #1e4f7b;
   .button-group input {
     padding: 8px 20px;
     margin: 0 10px;
     font-size: 16px;
     background-color: white;
     border: none;
     border-radius: 4px;
   .button-group input:hover {
     background-color: #ddd;
 </style>
 <script>
   function validateForm() {
     var name = document.getElementById("name").value.trim();
     var dob = document.getElementById("dob").value.trim();
     var age = document.getElementById("age").value.trim();
     var email = document.getElementById("email").value.trim();
     var matches = document.getElementById("matches").value.trim();
     var runs = document.getElementById("runs").value.trim();
     var wickets = document.getElementById("wickets").value.trim();
     if (name == "" || dob == "" || age == "" || email == "" || matches
== "" || runs == "" || wickets == "") {
       alert("All fields are mandatory.");
       return false;
     }
```

```
if (isNaN(age) || isNaN(matches) || isNaN(runs) || isNaN(wickets)) {
       alert("Age, Matches, Runs, and Wickets should be numbers.");
       return false;
     var nameRegex = /^[A-Za-z ]+$/;
     if (!nameRegex.test(name)) {
       alert("Name should contain alphabets only.");
       return false;
     var emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
     if (!emailRegex.test(email)) {
       alert("Enter a valid email address.");
       return false;
     alert("Form submitted successfully!");
     window.location.href = "success.html";
     return false;
 </script>
</head>
<body>
<div class="container">
 <div class="header"><b>Player Details</b></div>
 <form onsubmit="return validateForm();">
   <label class="required">Name</label>
   <input type="text" id="name" placeholder="Enter your name" required>
   <label class="required">DOB</label>
   <input type="text" id="dob" placeholder="DD/MM/YYYY" required>
   <label class="required">Age</label>
   <input type="text" id="age" placeholder="Enter your age" required>
   <label class="required">Email Id</label>
   <input type="email" id="email" placeholder="abc12@xyz.com" required>
```

```
<label class="required">Country</label>
   <select required>
     <option>India
     <option>Australia
     <option>South Africa
     <option>England
   </select>
   <label class="required">Skill</label>
   <input type="checkbox" name="skill" value="Batting">Batting
   <input type="checkbox" name="skill" value="Bowling">Bowling
   <label>Bat Style</label>
   <input type="radio" name="batStyle" value="Right Handed">Right Handed
   <input type="radio" name="batStyle" value="Left Handed">Left Handed
   <label>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" id="matches" placeholder="Matches Played" required>
   <label class="required">Runs</label>
   <input type="text" id="runs" placeholder="Total runs scored" required>
   <label class="required">Wickets</label>
   <input type="text" id="wickets" placeholder="Wickets" required>
   <label>Achievements
   <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>
```

PROBLEM 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>
<head>
 <title>Change Background Color</title>
 <style>
    .container {
     width: 250px;
     margin: 100px auto;
     background-color: white;
     padding: 20px;
     text-align: left;
     border: 1px solid #ccc;
     border-radius: 8px;
     box-shadow: 2px 2px 10px rgba(0,0,0,0.1);
    }
    .container h2 {
      text-align: center;
```

```
.color-option {
     display: flex;
      align-items: center;
      margin: 5px 0;
    .color-option input[type="radio"] {
      margin-right: 10px;
  </style>
  <script>
    function changeColor() {
      var colors = document.getElementsByName("bgcolor");
      for (var i = 0; i < colors.length; i++) {</pre>
        if (colors[i].checked) {
          document.body.style.backgroundColor = colors[i].value;
          break;
      }
  </script>
</head>
<body>
  <div class="container">
    <h2>Select Background Color</h2>
    <div class="color-option">
      <input type="radio" name="bgcolor" value="red"</pre>
onclick="changeColor()"> <label>Red</label>
    </div>
    <div class="color-option">
      <input type="radio" name="bgcolor" value="green"</pre>
onclick="changeColor()"> <label>Green</label>
    </div>
    <div class="color-option">
      <input type="radio" name="bgcolor" value="blue"</pre>
onclick="changeColor()"> <label>Blue</label>
    </div>
```