



BCSE203E- Web Programming

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Task 1

Create a web page that sorts numbers entered by a user by using HTML form element. You are to create the web page as depicted as follows

HTML CODE :-

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Sort Numbers</title>
7      <link rel="stylesheet" href="styles.css">
8  </head>
9  <body>
10 <h1>Input Numbers</h1>
11 <form id="sortForm">
12     <div class="number-box" id="a">
13         <label for="A">A:</label>
14         <input type="number" id="A" name="A" required>
15     </div>
16     <div class="number-box" id="b">
17         <label for="B">B:</label>
18         <input type="number" id="B" name="B" required>
19     </div>
20     <div class="number-box" id="c">
21         <label for="C">C:</label>
22         <input type="number" id="C" name="C" required>
23     </div>
24 </form>
25
26 <hr>
27
28 <div class="sortBox">
29     <div id="boxA"><button type="button" id="ascend" onclick="sortAscending()">Sort in Ascending Order</button></div>
30     <div id="boxB"><button type="button" id="descend" onclick="sortDescending()">Sort in Descending Order</button></div>
31 </div>
32
33 <hr>
34
35 <h1>Output Numbers:</h1>
36 <div id="sortedNumbers"></div>
37
38 <script src="indexx.js"></script>
39 </body>
40 </html>
```

CSS CODE :-

```
1  *{
2    background-color: #c4c0c0;
3  }
4  .number-box {
5    display: inline-table;
6    border: 2px solid black;
7    padding: 10px;
8    margin: 20px;
9    width: 75px;
10   text-align: center;
11 }
12 .sortBox{
13   padding: 10px;
14   margin: 10px;
15   display: flex ;
16 }
17 #boxA{
18   padding: 10px;
19 }
20 }
21 #boxB{
22   padding: 10px;
23 }
```

JAVASCRIPT CODE :-

```
1  function sortNumbers(event) {
2    event.preventDefault();
3    let a = parseFloat(document.getElementById("A").value);
4    let b = parseFloat(document.getElementById("B").value);
5    let c = parseFloat(document.getElementById("C").value);
6    let numbers = [a, b, c];
7
8    numbers.sort(function (a, b) {
9      if (a < b) return -1;
10     if (a > b) return 1;
11     return 0;
12   });
13
14   displayNumbers(numbers);
15 }
16
17 function sortAscending() {
18   let a = parseFloat(document.getElementById("A").value);
19   let b = parseFloat(document.getElementById("B").value);
20   let c = parseFloat(document.getElementById("C").value);
21   let numbers = [a, b, c];
22
23   numbers.sort(function (a, b) {
24     if (a < b) return -1;
25     if (a > b) return 1;
26     return 0;
27   });
28
29   displayNumbers(numbers);
30 }
31
32 function sortDescending() {
33   let a = parseFloat(document.getElementById("A").value);
34   let b = parseFloat(document.getElementById("B").value);
35   let c = parseFloat(document.getElementById("C").value);
36   let numbers = [a, b, c];
37
38   numbers.sort(function (a, b) {
39     if (a < b) return 1;
40     if (a > b) return -1;
41     return 0;
42   });
43 }
```

OUTPUT :-

BCSE203E_A22.pdf x Sort Numbers x +

127.0.0.1:3000/web/assignment2/sort.html

Input Numbers

A: 1283 B: 203985 C: 2358

Sort in Ascending Order Sort in Descending Order

Output Numbers:

1283 2358 203985

BCSE203E_A22.pdf x Sort Numbers x +

127.0.0.1:3000/web/assignment2/sort.html

Input Numbers

A: 234698 B: 8794 C: 09154130

Sort in Ascending Order Sort in Descending Order

Output Numbers:

9154130 234698 8794

TASK 2

1. Write a function which returns the maximum, ascending and descending of three number

CODE :-

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>Maximum, Ascending, and Descending of Three Numbers</title>
5      <style>
6          body {
7              background-color: #c4c0c0;
8              text-align: center;
9          }
10         h2 {
11             color: #333;
12         }
13         p {
14             color: #666;
15         }
16         input[type="number"] {
17             padding: 10px;
18             margin-bottom: 10px;
19             border: 1px solid #ccc;
20             border-radius: 5px;
21         }
22         button {
23             padding: 10px 20px;
24             background-color: #00fbff;
25             color: #fff;
26             border-radius: 5px;
27         }
28         #result {
29             margin-top: 20px;
30             font-weight: bold;
31         }
32     </style>
33 </head>
34 <body>
35     <h2>Maximum, Ascending, and Descending of Three Numbers</h2>
36     <p>Enter three numbers:</p>
37     <input type="number" id="num1" placeholder="Number 1">
38     <input type="number" id="num2" placeholder="Number 2">
39     <input type="number" id="num3" placeholder="Number 3">
40     <button onclick="sortNumbers()">Sort Numbers</button>
41     <p id="result"></p>
42     <script>
43         function sortNumbers() {
44             var num1 = document.getElementById("num1").value;
45             var num2 = document.getElementById("num2").value;
46             var num3 = document.getElementById("num3").value;
47             num1 = Number(num1);
48             num2 = Number(num2);
49             num3 = Number(num3);
50             var max = Math.max(num1, num2, num3);
51             var sortedNums = [num1, num2, num3].sort(function(a, b) {
52                 return a - b;
53             });
54             var ascending = "Ascending: " + sortedNums.join(", ");
55             sortedNums.sort(function(a, b) {
56                 return b - a;
57             });
58             var descending = "Descending: " + sortedNums.join(", ");
59             var maxNum = "Maximum: " + max;
60             document.getElementById("result").innerHTML = ascending + "<br>" + descending + "<br>" + maxNum;
61         }
62     </script>
63 </body>
64 </html>
```

OUTPUT :-

Maximum, Ascending, and Descending of Three Numbers

Enter three numbers:

Number 1 Number 2 Number 3 **Sort Numbers**

Maximum, Ascending, and Descending of Three Numbers

Enter three numbers:

2349 43809 3247 **Sort Numbers**

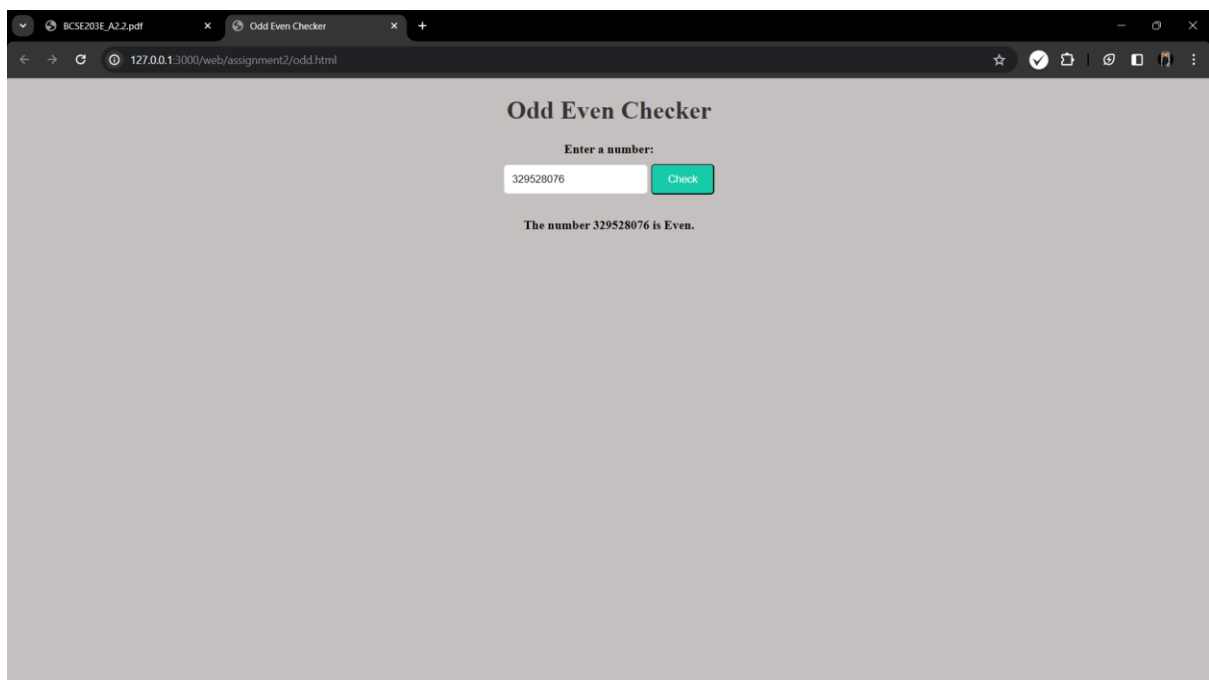
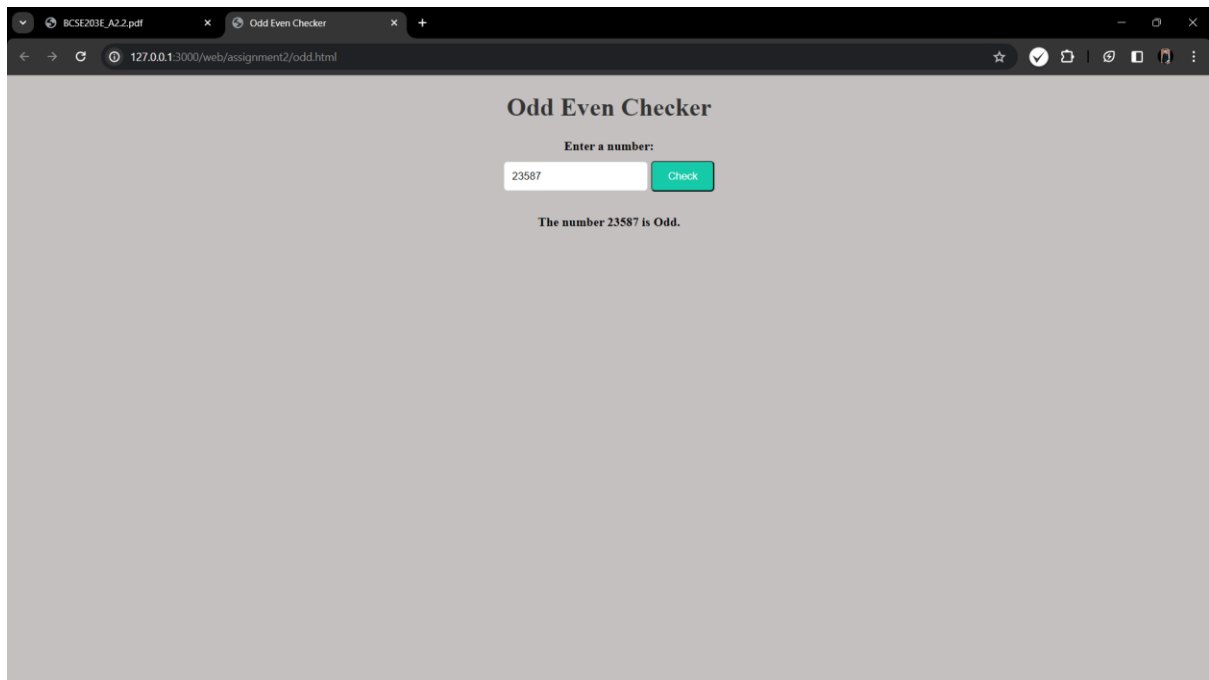
Ascending: 2349, 3247, 43809
Descending: 43809, 3247, 2349
Maximum: 43809

2. Write a function which checks number till given input/parameter is odd or even

CODE :-

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <meta charset="UTF-8">
5    <meta name="viewport" content="width=device-width, initial-scale=1.0">
6    <title>Odd Even Checker</title>
7    <style>
8      body {
9        background-color: #c4c0c0;
10       text-align: center;
11     }
12     h1 {
13       color: #333;
14     }
15     label {
16       font-weight: bold;
17       margin-bottom: 10px;
18       display: block;
19     }
20     input[type="number"] {
21       padding: 10px;
22       margin-bottom: 10px;
23       border: 1px solid #ccc;
24       border-radius: 5px;
25     }
26     button {
27       padding: 10px 20px;
28       background-color: #16caa9;
29       color: #fff;
30       border-radius: 5px;
31     }
32     #result {
33       margin-top: 20px;
34       font-weight: bold;
35       color: black;
36     }
37   </style>
38   <script>
39     function checkOddEven() {
40       let num = parseInt(document.getElementById("numberInput").value);
41       let result;
42       if (num % 2 === 0) {
43         result = "Even";
44       } else {
45         result = "Odd";
46       }
47       document.getElementById("result").innerText = `The number ${num} is ${result}.`;
48     }
49   </script>
50 </head>
51 <body>
52   <h1>Odd Even Checker</h1>
53   <label for="numberInput">Enter a number:</label>
54   <input type="number" id="numberInput">
55   <button onclick="checkOddEven()">Check</button>
56   <div id="result"></div>
57 </body>
58 </html>
```

OUTPUT :-



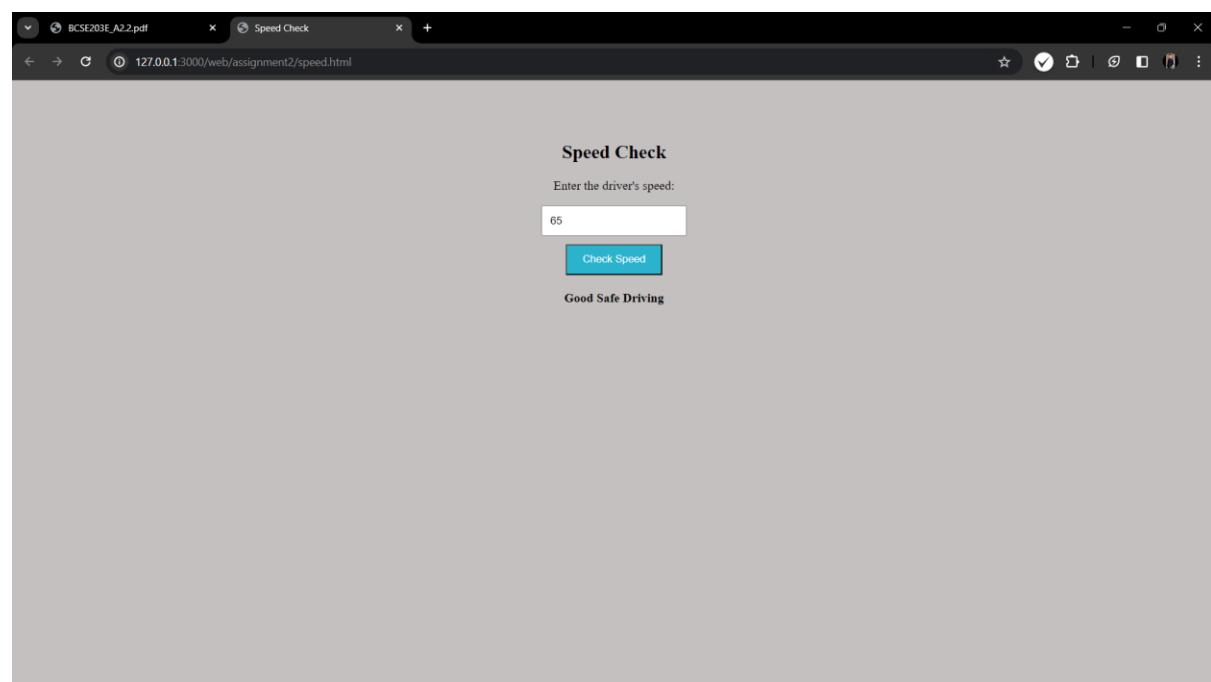
3. Write a function which checks given input/parameter:

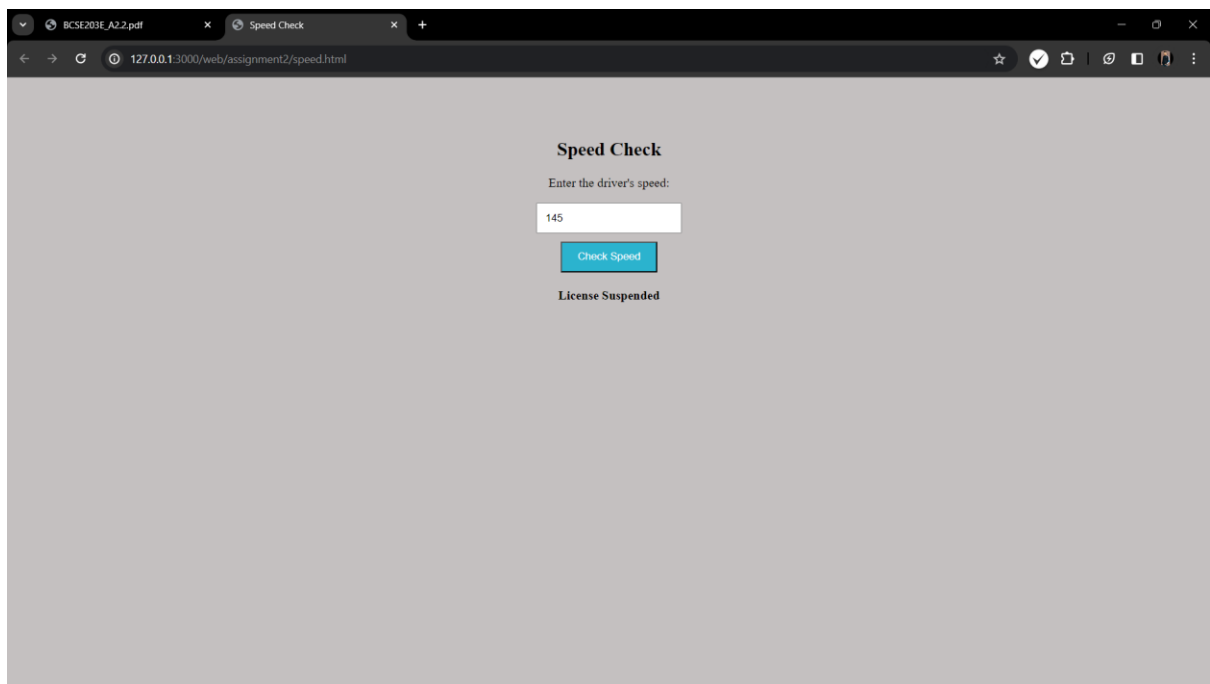
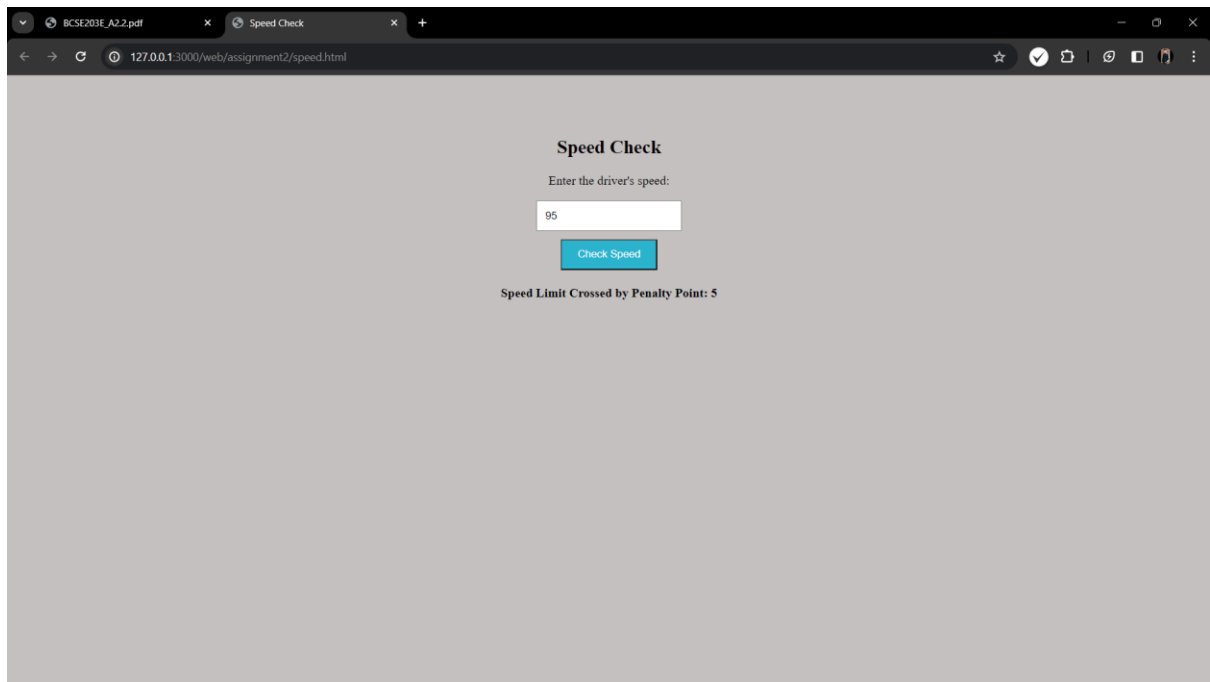
- If input/parameter is below speedlimit of 70 print => 'Good Safe Driving'
- If input/parameter is above speedlimit of 70, every 5 kilometers is Penalty Point, print => 'Speed Limit Crossed by Penalty Point' + Point
- If Driver gets more than 10 penalty points ie. above the speed limit 120, print => 'License Suspended'

CODE :-

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <title>Speed Check</title>
5 <style>
6   body {
7     background-color: #c4c0c0;
8     text-align: center;
9     padding-top: 50px;
10  }
11  input[type="number"] {
12    padding: 10px;
13    margin-bottom: 10px;
14  }
15  button {
16    padding: 10px 20px;
17    background-color: #2bb3ce;
18    color: #fff;
19  }
20  #result {
21    margin-top: 20px;
22    font-weight: bold;
23  }
24 </style>
25 </head>
26 <body>
27 <h2>Speed Check</h2>
28 <p>Enter the driver's speed:</p>
29 <input type="number" id="speed" placeholder="Enter speed in km/h">
30 <br>
31 <button onclick="checkSpeed()">Check Speed</button>
32 <p id="result"></p>
33
34 <script>
35   function checkSpeed() {
36     var speed = document.getElementById("speed").value;
37     if (speed < 70) {
38       document.getElementById("result").innerHTML = "Good Safe Driving";
39     } else if (speed >= 70 && speed <= 120) {
40       var penaltyPoints = Math.floor((speed - 70) / 5);
41       document.getElementById("result").innerHTML = "Speed Limit Crossed by Penalty Point: " + penaltyPoints;
42     } else {
43       document.getElementById("result").innerHTML = "License Suspended";
44     }
45   }
46 </script>
47 </body>
48 </html>
```

OUTPUT :-





Task 3

Design an Event management website which includes the following webpages.

1. Index .html
2. Login.html
3. Event Registration form.html

Apply JavaScript for validating all fields in the Login.html and Event Registration form.html JavaScript

Validation guidelines

1. Validate whether a given value is an empty or not and alert the user.
2. Password validation and confirm password check.
3. Validate whether a given value is a character or not.
4. Validate whether a given value is a phone number using regular expression.
5. Validate whether a given value is a email using regular expression.
6. Tab validation
7. Radio button, checkbox, text area validation.

INDEX CODE :-

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Event Management</title>
7   <link rel="stylesheet" href="styles.css">
8 </head>
9 <body>
10  <header>
11    <h1>Welcome to Event Management</h1>
12  </header>
13  <nav>
14    <ul>
15      <li><a href="login.html">Login</a></li>
16      <li><a href="event_registration_form.html">Event Registration</a></li>
17    </ul>
18  </nav>
19  <footer>
20    <p>&copy; 2024 Event Management</p>
21  </footer>
22 </body>
23 </html>
```

LOGIN CODE :-

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Login</title>
7   <link rel="stylesheet" href="SI.css">
8   <script src="validation.js" defer></script>
9 </head>
10 <body>
11  <header>
12    <h1>Login</h1>
13  </header>
14  <form id="loginForm" action="#">
15    <div>
16      <label for="username">Username:</label>
17      <input type="text" id="username" name="username">
18    </div>
19    <div>
20      <label for="password">Password:</label>
21      <input type="password" id="password" name="password">
22    </div>
23    <button type="submit">Login</button>
24  </form>
25  <footer>
26    <p>&copy; 2024 Event Management</p>
27  </footer>
28 </body>
29 </html>
```

EVENT REGISTER FORM CODE :-

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8">
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <title>Event Registration</title>
7 <link rel="stylesheet" href="styles.css">
8 <script src="validation.js" defer</script>
9 </head>
10 <body>
11 <header>
12 <h1>Event Registration</h1>
13 </header>
14 <form id="eventRegistrationForm" action="#">
15 <div>
16 <label for="fullName">Full Name:</label>
17 <input type="text" id="fullName" name="fullName">
18 </div>
19 <div>
20 <label for="email">Email:</label>
21 <input type="email" id="email" name="email">
22 </div>
23 <div>
24 <label for="phone">Phone:</label>
25 <input type="text" id="phone" name="phone">
26 </div>
27 <div>
28 <label for="event">Event:</label>
29 <select id="event" name="event">
30 <option value="conference">Conference</option>
31 <option value="workshop">Workshop</option>
32 <option value="seminar">Seminar</option>
33 </select>
34 </div>
35 <div>
36 <label for="comments">Comments:</label>
37 <textarea id="comments" name="comments"></textarea>
38 </div>
39 <button type="submit">Register</button>
40 </form>
41 <footer>
42 <p>&copy; 2024 Event Management</p>
43 </footer>
44 </body>
45 </html>
```

CSS CODE :-

```
1 body {
2   font-family: Arial, sans-serif;
3   margin: 0;
4   padding: 0;
5 }
6
7 header {
8   background-color: #c8c0c0;
9   color: #ffff;
10  text-align: center;
11 }
12
13 nav ul {
14   list-style-type: none;
15   padding: 0;
16   margin: 0;
17   background-color: #f1f1f1;
18   text-align: center;
19 }
20
21 nav ul li {
22   display: inline;
23   padding: 10px;
24 }
25
26 nav ul li a {
27   text-decoration: none;
28   color: #008080;
29 }
30
31 main {
32   padding: 20px;
33 }
34
35 footer {
36   background-color: #aaaaaa;
37   color: #ffffff;
38   text-align: center;
39   padding: 10px;
40 }
41
```

JAVA SCRIPT CODE :-

```
1 window.addEventListener('DOMContentLoaded', () => {
2   const loginForm = document.getElementById('loginForm');
3   const eventRegistrationForm = document.getElementById('eventRegistrationForm');
4
5   loginForm.addEventListener('submit', (e) => {
6     e.preventDefault();
7     validateLoginForm();
8   });
9   eventRegistrationForm.addEventListener('submit', (e) => {
10    e.preventDefault();
11    validateEventRegistrationForm();
12  });
13
14  function validateLoginForm() {
15    const username = document.getElementById('username').value.trim();
16    const password = document.getElementById('password').value.trim();
17    if (username === '') {
18      alert('Please enter a username');
19      return;
20    }
21    if (password === '') {
22      alert('Please enter a password');
23      return;
24    }
25    if (password.length < 6) {
26      alert('Password must be at least 6 characters long');
27      return;
28    }
29    alert('Login successful!');
30    loginForm.submit();
31  }
32 }
```

```
33 function validateEventRegistrationForm() {
34   const fullName = document.getElementById('fullName').value.trim();
35   const email = document.getElementById('email').value.trim();
36   const phone = document.getElementById('phone').value.trim();
37   const event = document.getElementById('event').value.trim();
38   const comments = document.getElementById('comments').value.trim();
39   if (fullName === '') {
40     alert('Please enter your full name');
41     return;
42   }
43   if (email === '') {
44     alert('Please enter your email');
45     return;
46   }
47   const emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
48   if (!emailRegex.test(email)) {
49     alert('Please enter a valid email address');
50     return;
51   }
52   if (phone === '') {
53     alert('Please enter your phone number');
54     return;
55   }
56   const phoneRegex = /^\d{10}$/;
57   if (!phoneRegex.test(phone)) {
58     alert('Please enter a valid phone number');
59     return;
60   }
61   if (event === '') {
62     alert('Please select an event');
63     return;
64   }
65   if (comments === '') {
66     alert('Please enter your comments');
67     return;
68   }
69   alert('Event registration successful!');
70   eventRegistrationForm.submit();
71 }
72 };
```

OUTPUT :-

