Assignmnt-3

Subject: CSW-1 (CSE 2141)

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Q1) Create a webpage using jQuery that contains three buttons to change the background color of the entire page to red, blue, or green, depending on which button is clicked. Additionally, add a separate button that toggles the visibility of all <div> elements on the page. When the toggle button is clicked, the <div> elements should either be shown or hidden based on their current visibility state. Ensure that the background color change and visibility toggle functionalities work smoothly together.

CODE:-

```
<html>
<head>
<title>Ahab Anwer, Assignemnt-3, Q-1</title>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
<script>
 $(document).ready(function() {
 $('#btn1').click(function() {
 $('body').css('background-color', 'red');
 });
 $('#btn2').click(function() {
 $('body').css('background-color', 'blue');
 });
 $('#btn3').click(function() {
 $('body').css('background-color', 'green');
 });
$('#btn4').click(function() {
$('.content').toggle();
 });
 });
```

```html
    </script>
    <style>
        button {
            padding: 10px 20px;
            margin: 10px;
            cursor: pointer;
        }
        .content {
            width: 80%;
            margin: 20px auto;
            padding: 20px;
          border: 1px solid black;
            text-align: center;
            font-size: 20px;
        }
    </style>
   </head>
<body>
<h2>Background Color Change and Toggle Div Visibility</h2>
 <button id="btn1">Red Background</button>
   <button id="btn2">Blue Background</button>
   <button id="btn3">Green Background</button>
   <button id="btn4">Toggle Div Visibility</button>
  <div class="content">Hi, Iam Ahab Anwer</div>
   <div class="content">Curretly Pursuing my degree in B.Tech(CSE)</div>
   <div class="content">From Sikhsa 'O' Anusandhan College</div>
</body>
</html>
```
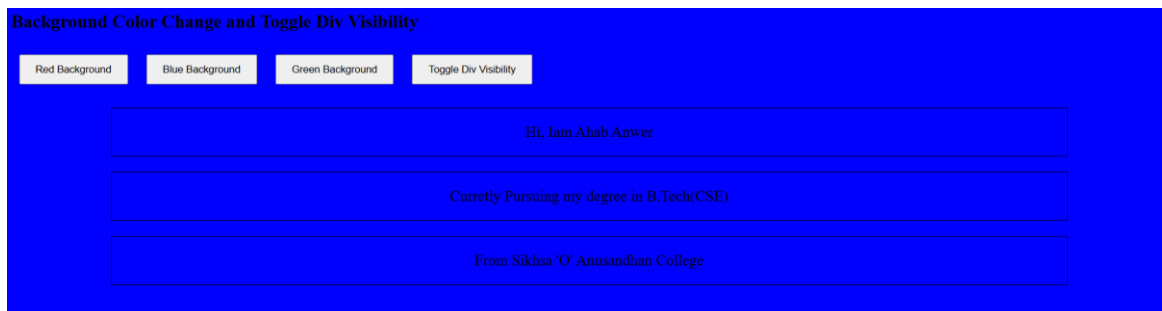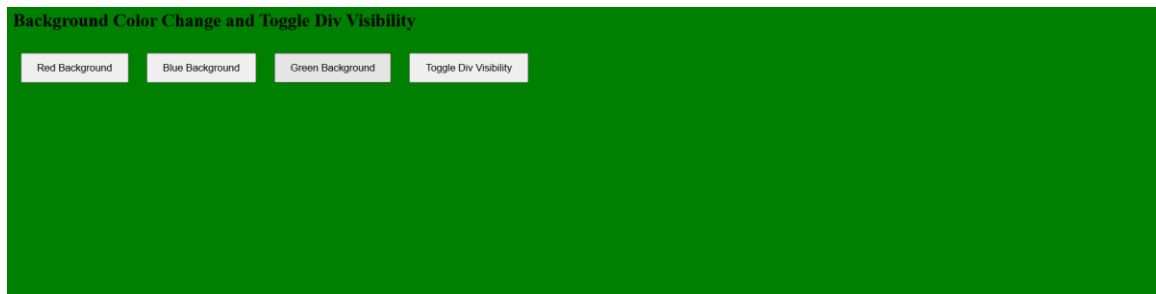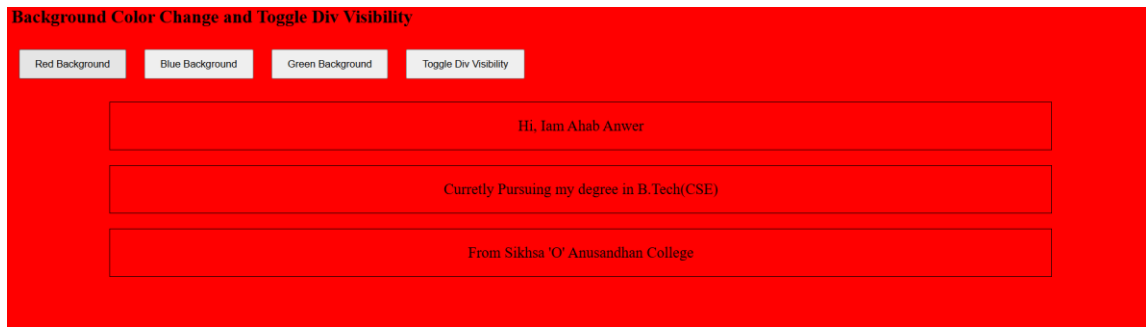
OUTPUT:-

Q2) Write a jQuery program to perform the following actions on a <div> element: when the user clicks on the <div>, its text should change to 'Clicked!'; when the user doubleclicks, the background color should change to orange; when the user hovers (mouse enters) over the <div>, the border color should change to green; and when the user moves the mouse away (mouse leaves), the border color should revert to black. The <div> should initially have a light blue background, a black border, and centered text.

CODE:-

```html
<html >

<head>

   <title>Ahab Anwer, Assignment-3, Q-2</title>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script>

$(document).ready(function() {

$('#btn1').click(function() {

$('#btn1').text('Clicked!');
```

```
        });
$('#btn1').dblclick(function() {
$('#btn1').css('background-color', 'orange');
        });
$('#btn1').mouseenter(function() {
$('#btn1').css('border-color', 'green');
        });
$('#btn1').mouseleave(function() {
$('#btn1').css('border-color', 'black');
        });
        });
</script>
<style>
    #btn1 {
        width: 200px;
        height: 100px;
        background-color: lightblue;
        border: 2px solid black;
        display: flex;
        justify-content: center;
        align-items: center;
        font-size: 20px;
        color: black;
        margin: 50px auto;
        cursor: pointer;
        box-shadow:0px 8px 16px rgba(0,0,0,0.7);
            }
</style>
</head>
<body>
<div id="btn1">Hover/Click Me</div>
```

</body>

</html>

OUTPUT:-
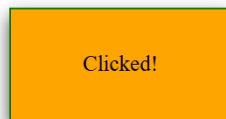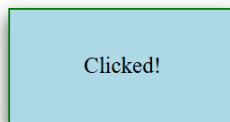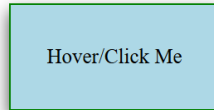
Q3) Write a jQuery program that starts an animation on a <div> element when a 'Start' button is clicked and stops the animation when a 'Stop' button is clicked. The animation should increase the width of the <div> from 100px to 400px over 2 seconds. If the 'Stop' button is clicked during the animation, the <div> should immediately stop resizing at its current width.

CODE:-

```
<html>

<head>

<title>Ahab Anwer,Assignmnet-3,Q-3</title>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script>

$(document).ready(function() {

$("#btn1").click(function() {

$("#animated").animate({ width: "400px" }, 2000);

 });

$("#btn2").click(function() {
```

```
$("#animated").stop();

});

});

</script>

<style>

#animated {

        width: 100px;

        height: 50px;

        background-color: lightcoral;

        margin: 20px auto;

        text-align: center;

        line-height: 50px;

        color: white;

        font-size: 18px;

    }

button {

        padding: 10px 20px;

        margin: 10px;

        font-size: 15px;

        cursor: pointer;

    }

</style>

</head>

<body>

<button id="btn1">Start</button>

<button id="btn2">Stop</button>

<div id="animated">Animate Me</div>

</body>

</html>
```

OUTPUT:-

Start Stop

Animate Me

Start Stop

Animate Me

Q4) Write a jQuery program with two buttons: one button labeled 'Fetch Text' to retrieve and display the text content of a <p> element using an alert, and another button labeled 'Fetch HTML' to retrieve and display the HTML content of a <div> element using an alert.

CODE:-

```html
<html>
<head>
<title>Ahab Anwer,Assignment-3,Q-4</title>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
<script>
 $(document).ready(function() {
 $("#btn1").click(function() {
 alert($("#textElement").text());
       });
$("#btn2").click(function() {
alert($("#htmlElement").html());
       });
     });
   </script>
</head>
<body>
<p id="textElement">Hi, Iam Ahab Anwer studying at Siksha 'O' Anusandhan.</p>
<div id="htmlElement"><strong>Hi, Iam<i> Ahab Anwer </i>studying at Siksha 'O' Anusandhan.</strong></div>
<button id="btn1">Fetch Text</button>
<button id="btn2">Fetch HTML</button>
```

```
</body>

</html>
```

OUTPUT:-

Hi, Iam Ahab Anwer studying at Siksha 'O' Anusandhan.

Hi, Iam *Ahab Anwer* **studying at Siksha 'O' Anusandhan.**
Fetch Text | Fetch HTML

Hi, Iam Ahab Anwer studying at Siksha 'O' Anusandhan.

Hi, Iam *Ahab Anwer* **studying at Siksha 'O' Anusandhan.**
Fetch Text | Fetch HTML

This page says

Hi, Iam Ahab Anwer studying at Siksha 'O' Anusandhan.

OK

Hi, Iam Ahab Anwer studying at Siksha 'O' Anusandhan.

Hi, Iam *Ahab Anwer* **studying at Siksha 'O' Anusandhan.**
Fetch Text | Fetch HTML

This page says

Hi, Iam<i> Ahab Anwer </i>studying at Siksha 'O' Anusandhan.

OK

Q5) Write a jQuery program to manipulate an unordered list (<ul>) containing the items 'Getting Started with Full Stack,' 'HTML,' and 'CSS.' Use the append() method to add a new list item 'CSS' at the end of the list, the prepend() method to add 'Introduction to Full Stack Development' at the beginning, the after() method to insert a paragraph 'Topics updated' immediately after the list, and the before() method to add a heading 'List of Topics Covered' immediately before the list.

CODE:-

```
<html>

<head>

<title>Ahab Anwer,Assignment-3,Q-5</title>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script>

 $(document).ready(function() {

 $("#btn1").click(function() {

 $("#topicList").append('<li>CSS</li>');

        });

$("#btn2").click(function() {

$("#topicList").prepend('<li>Introduction to Full Stack Development</li>');
```

```
        });
$("#btn3").click(function() {
$("#topicList").after('<p>Topics updated</p>');
        });
$("#btn4").click(function() {
$("#topicList").before('<h2>List of Topics Covered</h2>');
        });
    });
    </script>
</head>
<body>
<ul id="topicList">
    <li>Getting Started with Full Stack</li>
    <li>HTML</li>
    <li>CSS</li>
    </ul>
 <button id="btn1">Append </button>
    <button id="btn2">Prepend </button>
    <button id="btn3">Add After</button>
    <button id="btn4">Add Before </button>
</body>
</html>
```

OUTPUT:-

- Getting Started with Full Stack
- HTML
- CSS

[Append] [Prepend] [Add After] [Add Before]

- Getting Started with Full Stack
- HTML
- CSS
- CSS

[Append] [Prepend] [Add After] [Add Before]

- Introduction to Full Stack Development
- Getting Started with Full Stack
- HTML
- CSS
- CSS

Append Prepend Add After Add Before

- Introduction to Full Stack Development
- Getting Started with Full Stack
- HTML
- CSS
- CSS

Topics updated

Append Prepend Add After Add Before

List of Topics Covered

- Introduction to Full Stack Development
- Getting Started with Full Stack
- HTML
- CSS
- CSS

Topics updated

Append Prepend Add After Add Before

Q6) Write a jQuery program that lets a user apply one of two classes ('highlight' and 'dim') to a <div> element by clicking two different buttons. The 'highlight' class should set the background color of the <div> to yellow, while the 'dim' class should reduce the opacity of the <div>. Ensure that clicking the 'Add Highlight' button applies the 'highlight' class, and clicking the 'Add Dim' button applies the 'dim' class, with the previously applied class being removed before the new one is added.

CODE:-

```html
<html>

<head>

<title>Ahab Anwer , Assignment-3,Q-6</title>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script>

 $(document).ready(function() {

 $("#btn1").click(function() {

 $('#myDiv').removeClass('dim').addClass('highlight');

  });
```

```
$("#btn2").click(function() {
 $('#myDiv').removeClass('highlight').addClass('dim');
  });
  });
</script>
<style>
.highlight {
 background-color: yellow;
  }
 .dim {
  background-color:rgba(241, 248, 28, 0.7);
  opacity: 0.7;
  }
 #myDiv {
  width: 200px;
  height: 100px;
  border: 1px solid #000;
  margin-top: 20px;
    }
</style>
</head>
<body>
<button id="btn1">Add Highlight</button>
<button id="btn2">Add Dim</button>
<div id="myDiv">Hi, Iam Ahab Anwer</div>
</body>
</html>
```

OUTPUT:-

Q7) Create a webpage that contains a table displaying student data and an 'Add Row' button. The 'Add Row' button should add a new row with data from input fields each time it is clicked. Additionally, include a 'Change Color' button to change the text color of all table data to red.

CODE:-

```html
<html>
<head>
  <title>Ahab Anwer, Assignment-3, Q-7</title>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
  <script>
    $(document).ready(function() {
      $("#btn1").click(function() {
        const name = $("#name").val();
        const age = $("#age").val();
        const regdNo = $("#regdNo").val();
        const grade = $("#grade").val();
        if (name && age && regdNo && grade) {
          $('#studentTable tbody').append(`
            <tr>
              <td>${name}</td>
```

```
                    <td>${age}</td>

                    <td>${regdNo}</td>

                    <td>${grade}</td>

                </tr>

            `);

            $("#name").val('');

            $("#age").val('');

            $("#regdNo").val('');

            $("#grade").val('');

        } else {

            alert("Please fill out all fields.");

        }

    });

$("#btn2").click(function() {

    $("#studentTable td").css('color', 'red');

    });

    });

</script>

<style>

    table {

        width: 100%;

        border-collapse: collapse;

        margin-top: 20px;

    }

    th, td {

        border: 1px solid #ddd;

        padding: 8px;

        text-align: left;

    }

    th {

        background-color: #f2f2f2;
```

```html
        }
    </style>
</head>
<body>
<h2>Student Data Table</h2>
    <input type="text" id="name" placeholder="Enter name">
    <input type="number" id="age" placeholder="Enter age">
    <input type="number" id="regdNo" placeholder="Enter Registration no"> <!-- Updated ID to match JS variable -->
    <input type="text" id="grade" placeholder="Enter grade">


    <button id="btn1">Add Row</button>
    <button id="btn2">Change Color</button>


    <table id="studentTable">
      <thead>
        <tr>
          <th>Name</th>
          <th>Age</th>
          <th>Regd.no</th>
          <th>Grade</th>
        </tr>
      </thead>
      <tbody>
        <tr>
          <td>Snehasish Roy</td>
          <td>19</td>
          <td>2341001099</td>
          <td>A</td>
        </tr>
        <tr>
```

```
            <td>Majid Khan</td>

            <td>20</td>

            <td>2341001100</td>

            <td>B</td>

          </tr>

          <tr>

            <td>Mayank Singh</td>

            <td>20</td>

            <td>2341001101</td>

            <td>B</td>

          </tr>

          <tr>

            <td>Ahab Anwer</td>

            <td>20</td>

            <td>2341001097</td>

            <td>A</td>

          </tr>

        </tbody>

      </table>

  </body>

</html>
```

OUTPUT:-

Student Data Table

| Masqur Khan | 21 | 2341001069 | B | Add Row | Change Color |

Name	Age	Regd.no	Grade
Snehasish Roy	19	2341001099	A
Majid Khan	20	2341001100	B
Mayank Singh	20	2341001101	B
Ahab Anwer	20	2341001097	A

Student Data Table

Name	Age	Regd.no	Grade
Snehasish Roy	19	2341001099	A
Majid Khan	20	2341001100	B
Mayank Singh	20	2341001101	B
Ahab Anwer	20	2341001097	A
Masqur Khan	21	2341001069	B

Student Data Table

Name	Age	Regd.no	Grade
Snehasish Roy	19	2341001099	A
Majid Khan	20	2341001100	B
Mayank Singh	20	2341001101	B
Ahab Anwer	20	2341001097	A
Masqur Khan	21	2341001069	B

Q8) Create a webpage that includes a text box and a button. Write jQuery code that removes the element with an ID matching the text entered in the text box when the button is clicked. The webpage should initially contain a <div> with paragraphs, each having a unique ID.

CODE:-

```html
<html>
<head>
    <title>Ahab Anwer,Assignment-3,Q-8</title>
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
    <script>
$(document).ready(function() {
$("#btn1").click(function() {
 const idToRemove = $("#" + $("#idInput").val());
 idToRemove.remove();
      });
    });
   </script>
</head>
<body>
 <h2>Remove Element by ID</h2>
```

```
<input type="text" id="idInput" placeholder="Enter ID to remove">

<button id="btn1">Remove Element</button>

<div id="content">

    <p id="id1">This is paragraph 1.</p>

    <p id="id2">This is paragraph 2.</p>

    <p id="id3">This is paragraph 3.</p>

    <p id="id4">This is paragraph 4.</p>

</div>

</body>

</html>
```

OUTPUT:-

Remove Element by ID

| Enter ID to remove | Remove Element |

This is paragraph 1.

This is paragraph 2.

This is paragraph 3.

This is paragraph 4.

Remove Element by ID

| id2 | Remove Element |

This is paragraph 1.

This is paragraph 2.

This is paragraph 3.

This is paragraph 4.

Remove Element by ID

| id2 | Remove Element |

This is paragraph 1.

This is paragraph 3.

This is paragraph 4.

Q9) Write code to display a popup box without using the JavaScript alert() function.

CODE:-

```html
<html>
<head>
<title>Ahab Anwer,Assignment-3,Q-9</title>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
<script>
$(document).ready(function() {
$("#btn1").click(function() {
$("#popup").show();
      });
    });
  </script>
<style>
body{
text-align:center;
}
    #popup {
      display: none;
      position: fixed;
      top: 0;
      left: 0;
      width: 100%;
      height: 100%;
      background-color: rgba(0, 0, 0, 0.3);
    }
    .popup-content {
      margin: 20% auto;
      padding: 10px;
      background-color: white;
      width: 200px;
      text-align: center;
    }
```

```
</style>

</head>

<body>

<h2>Simple Popup without using alert</h2>

<button id="btn1">Show Popup</button>

<div id="popup">

<div class="popup-content">

<p>Hi , I am Ahab Anwer!</p>

</div>

</div>

</body>

</html>
```

OUTPUT:-

Simple Popup without using alert

Show Popup

Simple Popup without using alert
Show Popup

Hi , I am Ahab Anwer!
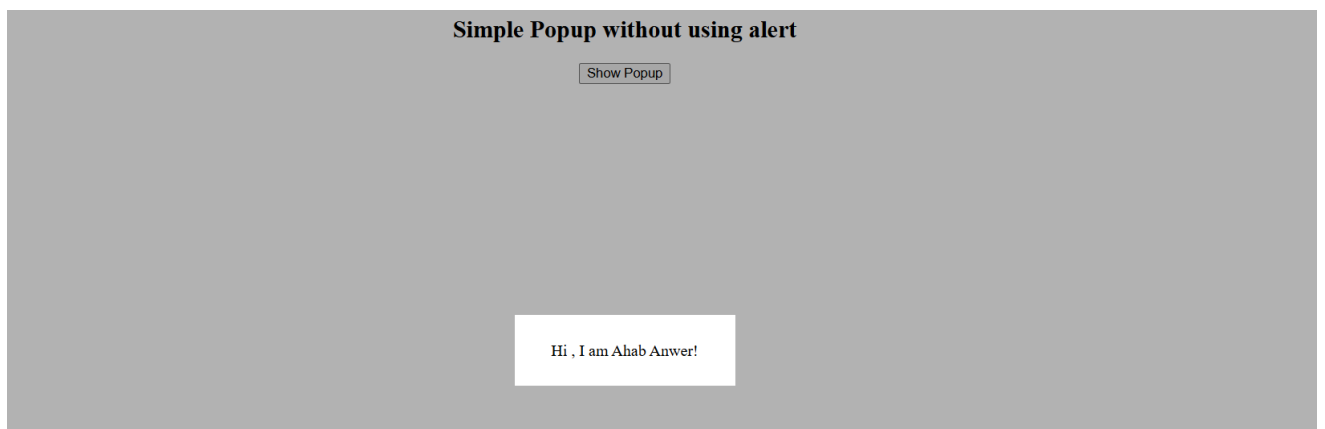
Q10) Create a sign-up form with the following requirements:

1. Users should be able to see hover states for all interactive elements on the page.

2. An error message should be displayed when the form is submitted if:

o Any input field is empty.

o The email address is not formatted correctly.

Hints:

1. To check if a field is empty, you can use the following code

var a = $("#fieldId").val();

if (a == "") {

// Field is empty

}

2. In HTML5, you can use the type attribute set to email to validate email addresses.

CODE:-

```
<html>
<head>
   <title>Ahab Anwer, Assignment-3, Q-10</title>
   <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
   <script>
     $(document).ready(function() {
        $("#signupForm").submit(function(event) {
           event.preventDefault();
$("#errorMessage").text("");
var username = $("#username").val();
        var email = $("#email").val();
        var password = $("#password").val();
 if (username == "" || email == "" || password == "") {
           $("#errorMessage").text("All fields are required.");
           return;
        }
if (!$("#email")[0].checkValidity()) {
           $("#errorMessage").text("Please enter a valid email address.");
           return;
        }
$("#errorMessage").css("color", "green").text("Form submitted successfully!");
```

```
                });

            });

        </script>

<style>

        body {

            font-family: Arial, sans-serif;

        }

        form {

            max-width: 300px;

            margin: 0 auto;

            padding: 20px;

            border: 1px solid #ddd;

            border-radius: 5px;

            background-color: #f9f9f9;

        }

        input[type="text"], input[type="email"], input[type="password"] {

            width: 100%;

            padding: 10px;

            margin-bottom: 10px;

            border: 1px solid #ddd;

            border-radius: 3px;

        }

        input[type="submit"] {

            width: 100%;

            padding: 10px;

            background-color: #28a745;

            border: none;

            color: white;

            font-weight: bold;

            cursor: pointer;

            border-radius: 3px;
```

```
        }

        input[type="text"]:hover, input[type="email"]:hover, input[type="password"]:hover {

            border-color: #007bff;

        }

        input[type="submit"]:hover {

            background-color: #218838;

        }

        .error {

            color: red;

            font-size: 16px;

            margin-bottom: 10px;

        }

        .hint {

            font-size: 16px;

            color: #888;

            margin-bottom: 10px;

        }

    </style>

</head>

<body>

<h2 style="text-align:center;">Sign-Up Form</h2>

<form id="signupForm">

    <div class="error" id="errorMessage"></div>

<input type="text" id="username" placeholder="User Name" pattern="[A-Za-z\s]+" title="Only
letters and spaces allowed" required>

    <div class="hint"><small>Hint: Only letters and spaces allowed in the name.</small></div>

<input type="email" id="email" placeholder="Email" title="Please enter a valid email" required>

    <div class="hint"><small>Hint: Please enter a valid email address (e.g.,
name@example.com).</small></div>

 <input type="password" id="password" placeholder="Password" pattern="(?=.*\d)(?=.*[a-
z])(?=.*[A-Z])(?=.*[@#$%^&+=]).{8,}" title="Password must contain at least 8 characters, including 1
uppercase, 1 lowercase, 1 digit, and 1 special character" required>
```

```
    <div class="hint"><small>Hint: Must be at least 8 characters with at least 1 uppercase letter, 1
lowercase letter, 1 digit, and 1 special symbol.</small></div>

    <input type="submit" value="Sign Up">

  </form>

</body>

</html>
```

OUTPUT:-

Sign-Up Form

Form submitted successfully!

Ahab Anwer

Hint: Only letters and spaces allowed in the name.

ahabanwer982@gmail.com

Hint: Please enter a valid email address (e.g.,
name@example.com).

••••••••••••

Hint: Must be at least 8 characters with at least 1
uppercase letter, 1 lowercase letter, 1 digit, and 1
special symbol.

Sign Up

Sign-Up Form

Ahab Anwer

Hint: Only letters and spaces allowed in the name.

ahabanwer982@

⚠ Please enter a part following '@'. 'ahabanwer982@' is incomplete.

••••••••

Hint: Must be at least 8 characters with at least 1
uppercase letter, 1 lowercase letter, 1 digit, and 1
special symbol.

Sign Up