

# ASSIGNMENT-3

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*Subject – Computer Science Workshop-1(CSE 2141)*

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*Section – 23412G1 Branch – B. Tech (CSE)*

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1. Create a webpage using jQuery that contains three buttons to change the background colour 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.

HTML CODE :-

```
<!DOCTYPE html>
<head>
  <title> Deepteshrout Assignment 3 Question1 </title>
  <script src=" https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js
"></script>
</head>
<body>
  <button id="redButton">Red</button>
  <button id="blueButton">Blue</button>
  <button id="greenButton">Green</button>
  <button id="toggleDivs">Toggle Div Visibility</button>

  <div>This is a sample content inside a <code>div</code> element.</div>
  <div>Here's another <code>div</code> element with some text.</div>

  <script>
    $(document).ready(function() {
      $('#redButton').click(function() {
        $('body').css('background-color', 'red');
      });
      $('#blueButton').click(function() {
        $('body').css('background-color', 'blue');
      });
    });
```

```
$('#greenButton').click(function() {  
    $('body').css('background-color', 'green');  
});  
$('#toggleDivs').click(function() {  
    $('div').toggle();  
});  
</script>  
</body>  
</html>
```

# NORMAL OUTPUT

Red | Blue | Green | Toggle Div Visibility

This is a sample content inside a div element.  
Here's another div element with some text.

## OUTPUT 1 (RED BACKGROUND)



## OUTPUT 2 (BLUE BACKGROUND)



## OUTPUT 3 (GREEN BACKGROUND)



## TOGGLE VISIBILITY



2. 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 double-clicks, 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.

HTML CODE:-

```
<!DOCTYPE html>
<head>
  <title> Deepteshrout Assignment 3 Question2 </title>
  <script src=" https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js
"></script>
  <script>
    $(document).ready(function() {
      $("#myDiv").click(function() {
        $(this).text("The text has been changed!");
      });
      $("#myDiv").dblclick(function() {
        $(this).css("background-color", "green");
      });
      $("#myDiv").hover(
        function() {
          $(this).css("border", "5px solid green");
        },
        function() {
          $(this).css("border", "none");
        }
      );
    });
  </script>
</head>
<body>
<div id="myDiv" style="padding: 20px; background-color: lightblue; cursor: pointer;">
  Click me to change my text!
</div>
</body>
</html>
```

## OUTPUT 1

Click me to change my text!

## OUTPUT 2

Click me to change my text!

## OUTPUT 3

The text has been changed!

3. 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.

HTML CODE :-

```
<!DOCTYPE html>
<html>
<head>
  <title> Deepteshrout Assignment 3 Question3 </title>
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
  <script>
    $(document).ready(function() {
      $("#start").click(function() {
        $("div").animate({
          width: "400px"
        }, 3000)
      });
      $("#stop").click(function() {
        $("div").stop();
      });
    });
  </script>
  <style>
    div {
      background: dodgerblue;
      height: 50px;
      width: 100px;
      position: fixed;
    }
  </style>
</head>
<body>
  <button id="start">Start</button>
  <button id="stop">Stop</button>
  <p></p>
  <div></div>
</body>
</html>
```

## OUTPUT 1

---



## OUTPUT 2

---



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

HTML CODE:-

```
<!DOCTYPE html>
<head>
  <title> Deeptesh rout Assignment 3 Question4 </title>
  <script src=" https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js
"></script>
</head>
<body>
  <p id="text-paragraph">This is a simple paragraph with some text.</p>
  <div id="html-div">
    <p>This is a <strong>div</strong> with <em>HTML</em> content.</p>
  </div>
  <button id="fetch-text">Fetch Text</button>
  <button id="fetch-html">Fetch HTML</button>
  <script>
    $(document).ready(function(){
      $('#fetch-text').click(function(){
        let textContent = $('#text-paragraph').text();
        alert("Text Content: " + textContent);
      });
      $('#fetch-html').click(function(){
        let htmlContent = $('#html-div').html();
        alert("HTML Content: " + htmlContent);
      });
    });
  </script>
</body>
</html>
```



## OUTPUT 1

jQuery Fetch Content

127.0.0.1:5500/Question4.html

This is a simple paragraph with some text.

This is a **div** with *HTML* content.

Fetch Text Fetch HTML

127.0.0.1:5500 says

Text Content: This is a simple paragraph with some text.

OK

## OUTPUT 2

jQuery Fetch Content

127.0.0.1:5500/Question4.html

This is a simple paragraph with some text.

This is a **div** with *HTML* content.

Fetch Text Fetch HTML

127.0.0.1:5500 says

HTML Content:

<p>This is a <strong>div</strong> with <em>HTML</em> content.</p>

OK

5. 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.

HTML CODE :-

```
<!DOCTYPE html>
<head>
  <title>jQuery List Manipulation</title>
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
  <script>
    $(document).ready(function(){
      $("#b1").click(function () {
        $('#topic-list').append('<li>CSS</li>');
      });
      $("#b2").click(function () {
        $('#topic-list').prepend('<li>Introduction to Full Stack Development</li>');
      });
      $("#b3").click(function () {
        $('#topic-list').after('<p>Topics updated</p>');
      });
      $("#b4").click(function () {
        $('#topic-list').before('<h2>List of Topics Covered</h2>');
      });
    });
  </script>
</head>
<body>
  <ul id="topic-list">
    <li>Getting Started with Full Stack</li>
    <li>HTML</li>
    <li>CSS</li>
  </ul>

  <button id="b1">Append</button>
  <button id="b2">Prepend</button>
  <button id="b3">After</button>
  <button id="b4">Before</button>

</body>
</html>
```

OUTPUT :-

### List of Topics Covered

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

Topics updated

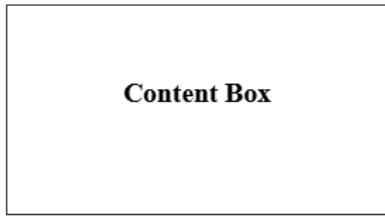
6. Write a jQuery program that lets a user apply one of two classes ('highlight' and 'dim') to a <div> element by clicking two different buttons. The 'highlight' class should set the background colour of the <div> to yellow, while the 'dim' class should reduce the opacity of the <div>. Ensure that clicking 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.

HTML CODE :-

```
<!DOCTYPE html>
<head>
  <title> Deepteshrout Assignment 3 Question 6 </title>
  <script src=" https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js
"></script>
  <style>
    .highlight {
      background-color: yellow;
    }
    .dim {
      opacity: 0.5;
    }
    #content-box {
      width: 200px;
      height: 100px;
      border: 1px solid #333;
      margin: 20px;
      padding: 10px;
      text-align: center;
      line-height: 80px;
      font-weight: bold;
    }
  </style>
</head>
<body>
  <div id="content-box">Content Box</div>
  <button id="add-highlight">Add Highlight</button>
  <button id="add-dim">Add Dim</button>
  <script>
    $(document).ready(function(){
      $('#add-highlight').click(function(){
        $('#content-box').removeClass('dim').addClass('highlight');
      });
      $('#add-dim').click(function(){
        $('#content-box').removeClass('highlight').addClass('dim');
      });
    });
  </script>
</body>
</html>
```

### NORMAL OUTPUT :-

---



Add Highlight

Add Dim

### OUTPUT 2 : -

### OUTPUT 3 :-

---



Add Highlight

Add Dim



Add Highlight

Add Dim

7. 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 Colour' button to change the text colour of all table data to red.

HTML CODE : -

```
<!DOCTYPE html>
<head>
  <title>Deeptesh Rout Assignment 3 Question 7</title>
  <style>
    table {
      width: 100%;
      border-collapse: collapse;
    }
    table, th, td {
      border: 1px solid black;
      padding: 8px;
      text-align: left;
    }
    th {
      background-color: #f2f2f2;
    }
    .input-row {
      margin-bottom: 15px;
    }
    .input-row input {
      margin-right: 10px;
      padding: 5px;
    }
    button {
      padding: 7px 15px;
      margin-right: 10px;
      cursor: pointer;
    }
  </style>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"
"></script>
</head>
<body>

  <h2>Student Data Table</h2>
  <div class="input-row">
    <input type="text" id="nameInput" placeholder="Enter Name">
    <input type="text" id="ageInput" placeholder="Enter Age">
    <input type="text" id="gradeInput" placeholder="Enter Grade">
    <button id="addRowButton">Add Row</button>
    <button id="changeColorButton">Change Color</button>
  </div>
  <table id="studentTable">
    <thead>
      <tr>
        <th>Name</th>
```

```

        <th>Age</th>
        <th>Grade</th>
    </tr>
</thead>
<tbody>
</tbody>
</table>

<script>
$(document).ready(function() {
    $('#addRowButton').on('click', function() {
        const name = $('#nameInput').val();
        const age = $('#ageInput').val();
        const grade = $('#gradeInput').val();

        if (name && age && grade) {
            const newRow = `<tr>
                <td>${name}</td>
                <td>${age}</td>
                <td>${grade}</td>
            </tr>`;
            $('#studentTable tbody').append(newRow);

            $('#nameInput').val("");
            $('#ageInput').val("");
            $('#gradeInput').val("");
        } else {
            alert('Please fill in all fields.');
```

OUTPUT :-

Student Data Table

Enter Name

Enter Age

Enter Grade

Add Row

Change Color

Name	Age	Grade
Deeptesh Rout	25	9.1
Aditya Gopal Nayak	20	9.0
Ayushman Behera	20	9.3



8. 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.

HTML CODE:-

```
<!DOCTYPE html>
<head>
  <title> Deepteshrout Assignment 3 Question 8 </title>
  <script src=" https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js
"></script>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 20px;
    }
    #paragraphs {
      margin-bottom: 20px;
    }
    #removeInput {
      margin-right: 10px;
    }
    button {
      padding: 7px 15px;
      cursor: pointer;
    }
  </style>
</head>
<body>

  <h2>Remove Paragraph by ID</h2>

  <input type="text" id="removeInput" placeholder="Enter ID to remove">
  <button id="removeButton">Remove Element</button>

  <div id="paragraphs">
    <p id="para1">This is the first paragraph with ID 'para1'.</p>
    <p id="para2">This is the second paragraph with ID 'para2'.</p>
    <p id="para3">This is the third paragraph with ID 'para3'.</p>
    <p id="para4">This is the fourth paragraph with ID 'para4'.</p>
    <p id="para5">This is the fifth paragraph with ID 'para5'.</p>
  </div>

  <script>
    $(document).ready(function() {
      $('#removeButton').click(function() {
        var idToRemove = $('#removeInput').val();
        $('#'+ idToRemove).remove();
        $('#removeInput').val("");
      });
    });
  </script>
</body>
```

</html>

## OUTPUT 1:-

### Remove Paragraph by ID

This is the first paragraph with ID 'para1'.

This is the second paragraph with ID 'para2'.

This is the third paragraph with ID 'para3'.

This is the fourth paragraph with ID 'para4'.

This is the fifth paragraph with ID 'para5'.

## OUTPUT 2 :-

### Remove Paragraph by ID

This is the second paragraph with ID 'para2'.

This is the third paragraph with ID 'para3'.

This is the fourth paragraph with ID 'para4'.

This is the fifth paragraph with ID 'para5'.

## OUTPUT 3 :-

## OUTPUT 4:-

### Remove Paragraph by ID

This is the third paragraph with ID 'para3'.

This is the fourth paragraph with ID 'para4'.

This is the fifth paragraph with ID 'para5'.

### Remove Paragraph by ID

This is the fourth paragraph with ID 'para4'.

This is the fifth paragraph with ID 'para5'.

## OUTPUT 5:-

## OUTPUT 6:-

### Remove Paragraph by ID

This is the fifth paragraph with ID 'para5'.

### Remove Paragraph by ID

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

HTML CODE : -

```
<!DOCTYPE html>
<head>
  <title> Deepteshrout Assignment 3 Question 9 </title>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"
"></script>
  <style>
    #overlay {
      position: fixed;
      top: 0;
      left: 0;
      width: 100%;
      height: 100%;
      background: rgba(0, 0, 0, 0.5);
      display: none;
      align-items: center;
      justify-content: center;
    }
    #popup-box {
      background-color: white;
      width: 300px;
      padding: 20px;
      border-radius: 5px;
      box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2);
      text-align: center;
    }
    #close-popup {
      margin-top: 15px;
      padding: 8px 16px;
      background-color: #333;
      color: white;
      border: none;
      border-radius: 3px;
      cursor: pointer;
    }
  </style>
</head>
<body>
  <button id="show-popup">Show Popup</button>
  <div id="overlay">
    <div id="popup-box">
      <p>This is a custom popup box!</p>
      <button id="close-popup">Close</button>
    </div>
  </div>
  <script>
    $(document).ready(function(){
      $('#show-popup').click(function(){
        $('#overlay').fadeIn();
      });
    });
  </script>
</body>
</html>
```

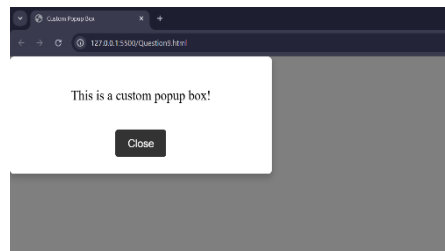
```
        $('#close-popup').click(function(){
            $('#overlay').fadeOut();
        });
    });
</script>
</body>
</html>
```

#### OUTPUT 1:-

---

Show Popup

#### OUTPUT 2:-



10. Create a sign-up form with the following requirements:  
Users should be able to see hover states for all interactive elements on the page.  
An error message should be displayed when the form is submitted if:  
Any input field is empty. The email address is not formatted correctly.

HTML CODE :-

```
<!DOCTYPE html>
<head>
  <title> Deepteshrout Assignment 3 Question 10 </title>
  <script src=" https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js
"></script>
  <style>
    body {
      font-family: Arial, sans-serif;
      display: flex;
      justify-content: center;
      align-items: center;
      height: 100vh;
      margin: 0;
      background-color: #f4f4f4;
    }
    #signup-form {
      background: #fff;
      padding: 20px;
      width: 300px;
      border-radius: 5px;
      box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
    }
    #signup-form h2 {
      margin-top: 0;
      font-size: 24px;
    }
    .form-field {
      margin-bottom: 15px;
    }
    label {
      display: block;
      margin-bottom: 5px;
      font-weight: bold;
    }
    input[type="text"], input[type="email"], input[type="password"] {
      width: 100%;
      padding: 8px;
      border: 1px solid #ccc;
      border-radius: 3px;
      font-size: 14px;
    }
    input[type="text"]:hover, input[type="email"]:hover, input[type="password"]:hover
{
  border-color: #555;
}
```

```

#submit-btn {
  width: 100%;
  padding: 10px;
  background-color: #4CAF50;
  color: white;
  border: none;
  border-radius: 3px;
  cursor: pointer;
  font-size: 16px;
  transition: background-color 0.3s ease;
}

/* Hover effect for button */
#submit-btn:hover {
  background-color: #45a049;
}

.error-message {
  color: red;
  font-size: 14px;
  display: none;
  margin-bottom: 10px;
}
</style>
</head>
<body>

<form id="signup-form">
  <h2>Sign Up</h2>
  <div class="error-message" id="error-message">Please fill in all fields
correctly.</div>
  <div class="form-field">
    <label for="name">Name</label>
    <input type="text" id="name" placeholder="Enter your name">
  </div>

  <div class="form-field">
    <label for="email">Email</label>
    <input type="email" id="email" placeholder="Enter your email">
  </div>

  <div class="form-field">
    <label for="password">Password</label>
    <input type="password" id="password" placeholder="Enter your password">
  </div>

  <button type="button" id="submit-btn">Sign Up</button>
</form>

<script>
$(document).ready(function() {
  $('#submit-btn').click(function() {
    $('#error-message').hide();
  });
});

```

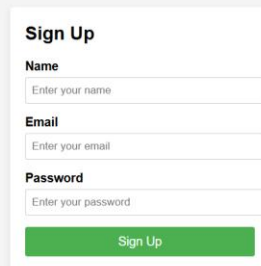
```

var name = $('#name').val();
var email = $('#email').val();
var password = $('#password').val();

if (name === "" || email === "" || password === "") {
    $('#error-message').text("Please fill in all fields.").show();
} else if (!validateEmail(email)) {
    $('#error-message').text("Please enter a valid email address.").show();
} else {
    alert("Form submitted successfully!");
    $('#signup-form')[0].reset(); // Optional: Reset form after submission
}
});
function validateEmail(email) {
    var emailPattern = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
    return emailPattern.test(email);
}
});
</script>

</body>
</html>

```



**Sign Up**

**Name**

**Email**

**Password**