# WEB TECHNOLOGY LABORATORY (LPCIT-107)

# **Practical File**



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# 1 Create a simple web page by writing HTML using a simple text editor, Notepad.

```
Code:
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>My Simple Webpage</title>
</head>
<body>
   <h1>Welcome to My Simple Webpage</h1>
   <h2>About Me</h2>
    Hello! My name is John Doe. I am a web developer learning HTML.
   <h2>My Hobbies</h2>
   I enjoy spending my free time on various hobbies including reading, hiking, and phote
   <h2>My Favorite Image</h2>
   Here is an inline image of a beautiful landscape:
   <img src="https://shorturl.at/tBFKZ" alt="Beautiful Landscape">
</body>
</html>
```

#### Welcome to My Simple Webpage

#### About Me

Hello! My name is John Doe. I am a web developer learning HTML.

#### My Hobbies

I enjoy spending my free time on various hobbies including reading, hiking, and photography.

#### My Favorite Image

Here is an inline image of a beautiful landscape:



2 Demonstrate the use of Links, Lists and Tables in HTML. You should be able to link separate pages and create named links within a document, using them to build a "table of contents".

```
Code:
```

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Table of Contents</title>
</head>
<body>
   <h1>Table of Contents</h1>
   <h2>Contents:</h2>
   <01>
       <a href="#section1">Introduction</a>
       <a href="#section2">Main Content</a>
       <a href="#section3">Conclusion</a>
   <h2 id="section1">1. Introduction</h2>
   This is the introduction section.
   <h2 id="section2">2. Main Content</h2>
   This is the main content section.
   <h2 id="section3">3. Conclusion</h2>
   This is the conclusion section.
   <h2>References</h2>
```

```
<thead>
       Topic
          Link
       </thead>
     HTML Basics
          <a href="html_basics.html">Click Here</a>
       CSS Fundamentals
          <a href="css_fundamentals.html">Click Here</a>
       JavaScript Essentials
          <a href="js_essentials.html">Click Here</a>
       </body>
</html>
```

### **Table of Contents**

#### Contents:

- 1. Introduction 2. Main Content
- 3. Conclusion

#### 1. Introduction

This is the introduction section.

#### 2. Main Content

This is the main content section.

#### 3. Conclusion

This is the conclusion section.

#### References

| Topic                 | Link       |
|-----------------------|------------|
| HTML Basics           | Click Here |
| CSS Fundamentals      | Click Here |
| JavaScript Essentials | Click Here |

3 Create simple Forms in HTML and demonstrate the use of various form elements like input box, textarea, submit and radio buttons etc.

```
Code:
```

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Simple HTML Form</title>
</head>
<body>
    <h1>Simple HTML Form</h1>
    <form action="#" method="post">
        <label for="name">Name:</label>
        <input type="text" id="name" name="name" required><br><br>
        <label for="email">Email:</label>
        <input type="email" id="email" name="email" required><br><br>
        <label for="message">Message:</label><br>
        <textarea id="message" name="message" rows="4" cols="50" required></textarea><br><br>
        <label for="gender">Gender:</label><br>
        <input type="radio" id="male" name="gender" value="male" required>
        <label for="male">Male</label><br>
        <input type="radio" id="female" name="gender" value="female">
        <label for="female">Female</label><br><br>
        <label for="age">Age:</label>
        <select id="age" name="age" required>
            <option value="">Select...</option>
            <option value="under18">Under 18</option>
            <option value="18to30">18 to 30</option>
            <option value="31to50">31 to 50</option>
            <option value="over50">Over 50</option>
        </select><br><br>
```

### Simple HTML Form

| Name:                       |
|-----------------------------|
| Email:                      |
| Message:                    |
|                             |
|                             |
| Gender:                     |
| ○ Male<br>○ Female          |
| Age: Select 🗸               |
| Subscribe to our newsletter |
| Submit                      |

4 Demonstrate the use of cascading style sheets (CSS) (inline, internal and external) to specify various aspects of style, such as colours and text fonts and sizes, in HTML document

Code:

Heading with Inline CSS

Paragraph with Inline CSS

Internal CSS

```
}
p {
    color: green;
    font-family: 'Times New Roman', serif;
    font-size: 18px;
    }
    </style>
</head>
<body>
    <h1>Internal CSS Example</h1>
    This paragraph demonstrates internal CSS.
</body>
```

# </html>

#### Output:

#### Internal CSS Example

This paragraph demonstrates internal CSS.

#### External CSS

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>External CSS Demo</title>
    <link rel="stylesheet" href="./style4c.css"</pre>
</head>
<body>
    <h1>External CSS Example</h1>
    This paragraph demonstrates external CSS.
</body>
</html>
CSS file
h1 {
    color: blue;
    font-family: Arial, sans-serif;
    font-size: 24px;
}
```

```
p {
    color: green;
    font-family: 'Times New Roman', serif;
    font-size: 18px;
}
```

### External CSS Example

This paragraph demonstrates external CSS.

5 Create an html file to implement the concept of document object model, different operations and event handling using JavaScript.

```
Code:
```

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>DOM Operations and Event Handling</title>
<style>
    .container {
       text-align: center;
       margin-top: 50px;
   }
   button {
       padding: 10px 20px;
       font-size: 16px;
        cursor: pointer;
    }
</style>
</head>
<body>
<div class="container">
    <h2>DOM Operations and Event Handling</h2>
    Initial text
    <button id="changeTextBtn">Change Text</button>
</div>
<script>
   // Wait for the DOM content to be fully loaded
   document.addEventListener('DOMContentLoaded', function () {
        // Accessing DOM elements
        var outputElement = document.getElementById('output');
        var changeTextBtn = document.getElementById('changeTextBtn');
        // Function to handle button click event
```

```
function changeText() {
    outputElement.textContent = "Text changed!";
}
// Adding event listener to the button
    changeTextBtn.addEventListener('click', changeText);
});
</script>
```

</body> </html>

Output:

### **DOM Operations and Event Handling**

Initial text

Change Text

### **DOM Operations and Event Handling**

Text changed!

Change Text

### 6 Demonstrate the use of various selectors, filters and event handling in jQuery..

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>jQuery Selectors, Filters, and Event Handling</title>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<style>
   .container {
       text-align: center;
       margin-top: 50px;
   }
   button {
       padding: 10px 20px;
       font-size: 16px;
       cursor: pointer;
   }
</style>
</head>
<body>
<div class="container">
   <h2>jQuery Selectors, Filters, and Event Handling</h2>
   Selected paragraph 1
   Selected paragraph 2
   Unselected paragraph 1
   Unselected paragraph 2
   <button id="selectBtn">Select Paragraphs</button>
</div>
<script>
   // Wait for the DOM content to be fully loaded
   $(document).ready(function() {
       // Event handling with jQuery
       $('#selectBtn').click(function() {
           // Selecting elements with jQuery selectors and filters
```

```
$('.selected').css('color', 'red'); // Select all paragraphs with class 'selected
$('.unselected').hide(); // Hide all paragraphs with class 'unselected'
});
});
</script>
</body>
</html>
```

jQuery Selectors, Filters, and Event Handling

- Selected paragraph 1
- Selected paragraph 2
- Unselected paragraph 1
- Unselected paragraph 2

Select Paragraphs

#### jQuery Selectors, Filters, and Event Handling

Selected paragraph 1 Selected paragraph 2 Select Paragraphs

# 7 Demonstrate the use of AJAX to retrieve and manipulate the web page content

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>AJAX Example</title>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<style>
    .container {
        text-align: center;
        margin-top: 50px;
    }
    #content {
        margin-top: 20px;
    }
</style>
</head>
<body>
<div class="container">
    <h2>AJAX Example</h2>
    <button id="loadContentBtn">Load Content</button>
    <div id="content"></div>
</div>
<script>
    $(document).ready(function() {
        // Event handling for button click
        $('#loadContentBtn').click(function() {
            // AJAX request to retrieve content from an external file
            $.ajax({
                url: 'sample-content.html', // URL of the external file to retrieve content :
                type: 'GET',
                dataType: 'html',
                success: function(response) {
                    // Manipulate the retrieved content and append it to the 'content' div
```

```
$('#content').html(response);
},
error: function(xhr, status, error) {
    // Handle errors if any
    console.error('Error:', status, error);
    });
});
});
</body>
</body>
</html>
```

# AJAX Example

Load Content

### 8 Demonstrate the use of GET and POST methods of AJAX.

```
Code:
```

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>AJAX GET and POST Example</title>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<style>
    .container {
        text-align: center;
        margin-top: 50px;
    }
    #response {
        margin-top: 20px;
    }
</style>
</head>
<body>
<div class="container">
    <h2>AJAX GET and POST Example</h2>
    <button id="getDataBtn">GET Data</putton>
    <button id="submitFormBtn">Submit Form (POST)</button>
    <div id="response"></div>
</div>
<script>
    $(document).ready(function() {
        // Event handling for GET data button click
        $('#getDataBtn').click(function() {
            $.ajax({
                url: 'example.php', // URL to send the GET request
                type: 'GET', // Using GET method
                dataType: 'html',
                success: function(response) {
                    $('#response').html(response); // Display response in the 'response' div
                }.
```

```
error: function(xhr, status, error) {
                    console.error('Error:', status, error); // Log any errors
                }
            });
        });
        // Event handling for submit form button click
        $('#submitFormBtn').click(function() {
            var formData = {
                name: 'John Doe',
                email: 'john@example.com'
            };
            $.ajax({
                url: 'submit.php', // URL to send the POST request
                type: 'POST', // Using POST method
                data: formData, // Data to send with the request
                dataType: 'html',
                success: function(response) {
                    $('#response').html(response); // Display response in the 'response' div
                },
                error: function(xhr, status, error) {
                    console.error('Error:', status, error); // Log any errors
                }
            });
        });
    });
</script>
</body>
</html>
```

### AJAX GET and POST Example

GET Data Submit Form (POST)

### 9 Creation of Web pages using HTML5 and CSS3.

```
Code:
```

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>My Website</title>
<style>
    /* CSS styling */
    body {
        font-family: Arial, sans-serif;
        margin: 0;
        padding: 0;
        background-color: #f0f0f0;
    }
    header {
        background-color: #333;
        color: #fff;
        padding: 20px;
        text-align: center;
    }
    nav {
        background-color: #444;
        color: #fff;
        padding: 10px;
        text-align: center;
    }
    nav a {
        color: #fff;
        text-decoration: none;
        padding: 10px 20px;
    }
    section {
        padding: 20px;
    }
    footer {
        background-color: #333;
        color: #fff;
        padding: 20px;
```

```
text-align: center;
   }
</style>
</head>
<body>
<header>
   <h1>Welcome to My Website</h1>
</header>
<nav>
   <a href="#">Home</a>
   <a href="#">About</a>
   <a href="#">Services</a>
   <a href="#">Contact</a>
</nav>
<section>
   <h2>About Us</h2>
   Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed at felis sit amet dui tip
</section>
<section>
   <h2>Our Services</h2>
   Web Design
       Graphic Design
       SEO Optimization
   </section>
<footer>
   © 2024 My Website. All rights reserved.
</footer>
</body>
</html>
```

