Affiliated to Tribhuvan University

LAB REPORT ON WEB TECHNOLOGY

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FACULTY : BSC.CSIT 5TH SEMESTER

INDEX

S.N	TITLE	DATE	SIGNATURE
1	HTML Introduction	24TH JAN 2025	
2	Display your name at browser's title and name and college info as plain text in a web browser.	24TH JAN 2025	
3	Display your name and address details in a web browser declared inside the body.	24TH JAN 2025	
4	Write a complete source code to demonstrate the use of HTML, head, title, and body tags.	24TH JAN 2025	
5	Write a source code to demonstrate whitespace collapsing.	24TH JAN 2025	
6	Create two paragraphs with the headings	24TH JAN 2025	
7	Create an html page to display your bio data using <pre> tag.	31ST JAN 2025	
8	Write HTML code to demonstrate the use of	31ST JAN 2025	
9	Write HTML code to demonstrate:	31ST JAN 2025	
10	List the images as list item.	31ST JAN 2025	
11	Write HTML code to demonstrate the use of URLs along with absolute and relative URLs.	31ST JAN 2025	
12	Create a link in HTML? Show a proper section of the code.	31ST JAN 2025	
13	Write HTML code to generate the output with the use of anchor tags:	31ST JAN 2025	
14	Create an image gallery of any three popular places in Nepal.	7TH FEB 2025	
15	Demonstrate the use of align, vspace and hspace attribute using minimum of six images.	7TH FEB 2025	
16	Create a web page that demonstrates the use of destination anchors using name, id attributes.	7TH FEB 2025	
17	Create a webpage to containing about your college and links to your university website.	7TH FEB 2025	
18	Demonstrate the use of top to bottom and bottom to top link using anchor tags.	7TH FEB 2025	
19	Write HTML code to create an image gallery of 9 images with 3 images in a row.	7TH FEB 2025	
20	Write a HTML code to demonstrate how audio, video can be added to the web pages.	7TH FEB 2025	
21	Write the HTML code to make table.	7TH FEB 2025	

22	Design the following single table using HTML.	14TH FEB 2025	
23	Design the following table using nested tables in HTML.	14TH FEB 2025	
24	Design an html form to submit a job application form	14TH FEB 2025	
25	Demonstrate HTML5 tags (like article, aside, figure, section).	14TH FEB 2025	
26	Demonstrate the use of the HTML5 datetime and range input type.	14TH FEB 2025	
27	CSS Introduction	21ST FEB 2025	
28	Illustrate the use of background properties in CSS.	21ST FEB 2025	
29	Construct a web page with four paragraph and style using CSS.	21ST FEB 2025	
30	Design a web page with six images and style them using external CSS.	21ST FEB 2025	
31	Make a nested list using internal CSS.	21ST FEB 2025	
32	Make a web page having 3 rows and 2 columns with all the hyperlinks & style using external CSS.	21ST FEB 2025	
33	Design an form to demonstrate the 10 different types of controls generated using INPUT tag.	27TH FEB 2025	
34	Design the given table and style.	27TH FEB 2025	
35	Design a horizontal menu of any five options and style.	27TH FEB 2025	
36	Develop a web page with a before the paragraph with red color and yellow background using CSS.	27TH FEB 2025	
37	Illustrate the concept of pseudo elements (::after, ::first-letter, ::selection, ::first-line).	27TH FEB 2025	
38	Design following list using html and css.	27TH FEB 2025	
39	JavaScript Introduction	7TH MAR 2025	
40	Declare variables of different data types. Perform operations on these variables and display.	7TH MAR 2025	
41	Write a JavaScript program that uses if-else statements to determine if a number is even or odd. Implement a loop to print numbers from 1 to 10.	7TH MAR 2025	
42	Create a function that accepts user input using the prompt method and displays the input using an alert box. Use a confirm box to ask the user for a yes/no response and display the result.	7TH MAR 2025	

43	Define an object representing a person with properties like name, age, and address. Access and display these properties values.	7TH MAR 2025	
44	Declare an array of colors. Use a loop to iterate through the array and display each color on the webpage in HTML table.	7TH MAR 2025	
45	Explain all the following built-in objects with examples.	7TH MAR 2025	
46	Utilize the Date object to display the current date and time.	7TH MAR 2025	
47	Use the Math object to perform a mathematical operation.	14TH MAR 2025	
48	Create a user-defined object representing a car. Implement an event handler that triggers when a button is clicked, updating the car's properties.	14TH MAR 2025	
49	Write a JavaScript program that includes a try-catch block to handle potential errors. Trigger an error intentionally and observe how it's caught.	14TH MAR 2025	
50	How events are handled in JavaScript? Illustrate with examples.	14TH MAR 2025	
51	Implement JavaScript code to set and retrieve cookies. Display the stored cookie information on the webpage.	14TH MAR 2025	
52	Integrate jQuery into an HTML document. Use different selectors (element, ID, class) to manipulate elements on the webpage.	14TH MAR 2025	
53	Implement jQuery events for mouse interactions (e.g., click, hover) on specific elements. Display relevant information when these events occur.	14TH MAR 2025	
54	Apply various jQuery effects (hide, show, fade, slide) to elements on webpage. Create a button that triggers a combination of these effects.	21ST MAR 2025	
55	Develop a form with input fields. Use jQuery to validate the form, providing feedback to users for correct or incorrect entries.	21ST MAR 2025	
56	Form validation email addresses, ensure passwords match, and check if a phone number follows a specific format.	21ST MAR 2025	
57	How animation is done using jQuery? Illustrate with example.	21ST MAR 2025	
58	Create a Web form that contains a text field for name, age, phone number, email, dropdown for colleges, radio for gender and a checkbox for I accept all the terms. Perform the client-side validations in JavaScript.	21ST MAR 2025	
59	Develop a form where validation occurs in real-time as the user types. Use events like keyup or input to trigger immediate feedback on the validity of the entered data.	21ST MAR 2025	

60	Design a form with conditional validation. Validate a postal code only if a specific country is selected.	21ST MAR 2025	
61	XML Introduction	26TH MAR 2025	
62	Create a simple XML element.	26TH MAR 2025	
63	Create a XML document with simple and complex type.	26TH MAR 2025	
64	Create an XML document that conforms to the following DTD.	26TH MAR 2025	
65	Create an XML and DTD documents for the following output.	26TH MAR 2025	
66	Create an XML and DTD documents for the following output.	26TH MAR 2025	
67	PHP Introduction	28TH MAR 2025	
68	Write a simple PHP script that prints "Hello, PHP!" to the browser with your detail.	28TH MAR 2025	
69	Declare variables of different data types (integer, float, string) and demonstrate the usage of constants in PHP.	28TH MAR 2025	
70	Create a PHP program that uses if-else statements to check if a number is positive, negative, or zero. Utilize different operators for comparison.	28TH MAR 2025	
71	Develop a function that calculates the average of an array of numbers. Test the function with various arrays.	28TH MAR 2025	
72	Define a PHP class representing a "Book" with properties like title and author. Create objects of this class and display their attributes.	28TH MAR 2025	
73	Design HTML form with input fields. Create a PHP script that retrieves & display the form data when submitted.	28TH MAR 2025	
74	Form with PHP validation. Ensure that required fields are filled, and validate email addresses and make sure the phone number starts with 98 or 97 using regex.	28TH MAR 2025	
75	Implement PHP code that responds to a button click event on a form. Display a message when the button is clicked.	4TH APR 2025	
76	Create a PHP script that sets a cookie with user preferences. Retrieve and display this information on subsequent visits.	4TH APR 2025	
77	Develop a PHP script that reads content from a text file, modifies it, and then writes the updated content back to the file.	4TH APR 2025	
78	Final Project using (HTML, CSS, JavaScript, PHP).	4TH APR 2025	
79	Conclusion	4TH APR 2025	

HTML

Introdunction:

HTML, which stands for Hyper Text Markup Language, is the foundational building block of the web. It is a markup language used to create and structure content on websites, defining elements like headings, paragraphs, links, images, and more. Unlike programming languages that use logic and functions, HTML uses tags to define how content should be displayed in a web browser. HTML is platform independent, meaning it works across different devices and operating systems, and it follows a straightforward syntax that makes it easy for beginners to learn. Over the years, HTML has evolved through multiple versions, with HTML5 being the latest standard, introducing new features for modern web development.

Lab 1: Display your name at browser's title and name and college information as plain text in a web browser.

Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
</head>
<body>
  <div>
    <p> Name is displayed at browsers title.</p>
    <h3>College Details</h3>
    <p>Name of college: <b>Prime College</b><br>Location: khushibu, kathmandu</p>
  </div>
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```

Output:

Name is displayed at browsers title.

College Details

Name of college: **Prime College**
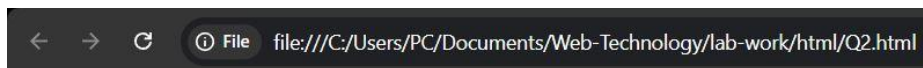Location: khushibu, kathmandu

```
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
```

Lab 2: Display your name and address details in a web browser declared inside the body.

Code:

```
<!DOCTYPE html>
<html>
<head>
   <title>Samyak Manandhar</title>
</head>
<body>
   <h3>My name is SAMYAK MANANDHAR. I live in Sanobhranng, Kathmandu.</h3>
   <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
   </pre>
</body>
</html>
```

Output:

Lab 3: Write a complete source code to demonstrate the use of HTML, head, title, and body tags.

Code:

```
<!DOCTYPE html>
<html>
<head>
   <title>Samyak Manandhar</title>
</head>
<body>
   <h1>Samyak Manandhar</h1>
   <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit. Est voluptatem blanditiis harum atque velit
obcaecati, illum, maiores dolorem, ipsam veniam quae quia commodi dignissimos similique! Alias aliquam
commodi sapiente ipsam?</p>
   <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
```

```
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
   </pre>
</body>
</html>
```

Output:

Lab 4: Write a source code to demonstrate whitespace collapsing.

Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
</head>
<body>
    <p>This    is    an    is
an example of White Space Collapsing.</p>
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```

Output:

Lab 5: Create two paragraphs. Paragraph 1 with the heading "Management Colleges in Nepal" and Paragraph 2 with the heading "Engineering Colleges in Nepal." Heading of Paragraph 2 must be smaller than the heading of Paragraph 1. Use various HTML tags like b, i, sup, sub, small, strong, abbr, acronym, blockquote with cite attribute, cite, q inside the paragraphs.

Code:

```
<!DOCTYPE html>
<html>
<head>  <title>Samyak Manandhar</title></head>
<body>
   <h3>Management Colleges in Nepal</h3>
      <p>Management studies are one of the growing fields of interest for students in Nepal. The backbone of the future, budding students tend to see opportunities in various fields. With time, management studies have found their own space, and the new generation of students are willing to be managers, entrepreneurs, business leaders, etc.</p>
      <h3>Engineering College in Nepal</h3>
      <pre>Name: Samyak Manandhar
         Symbol: 79010513
         Registration Number: 5-2-410-62-2022
         BSc.CSIT 5th Semester</pre>
</body>
</html>
```

Output:

**Lab 6: Create an html page to display your bio data using <pre> tag.**

Code:

```
<!DOCTYPE html>
<html>
<head>
   <title>Samyak Manandhar</title>
</head>
<body>
      <pre>
```

```
            Name: Samyak Manandhar
            Age: 20 years
            Profession: Student of Science
            Club Membership: Member of Simrik Yuwa Pariwar (joined 2 years ago)
            Skills: Photoshop expertise
            Interests: Writing articles about challenging professions in Nepal
            Languages: Nepali, English
            Address: sanobharang
            Contact Information: 9843922441      </pre>
</body>
</html>
```

Output:
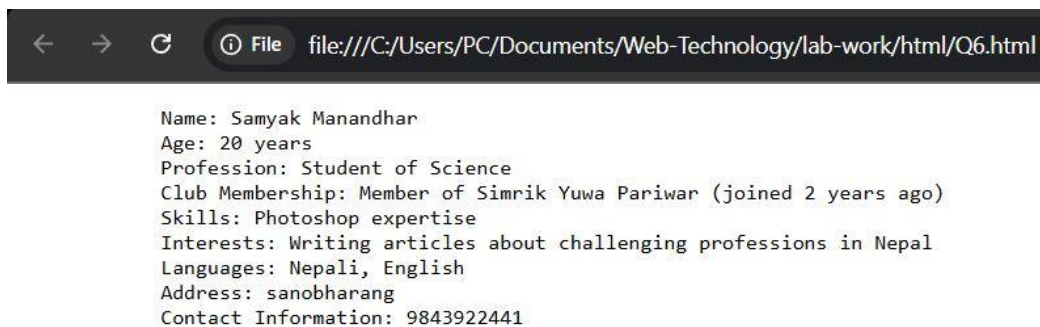
Lab 7: Write HTML code to demonstrate the use of
   a. code
   b. kbd
   c. var
   d. samp

Code:

```
<!DOCTYPE html>
<html>
<head>   <title>Samyak Manandhar</title> </head>
<body>
  <code>hello world</code>
  <p>Press <kbd>Ctrl</kbd> + <kbd>C</kbd> to copy text (Windows).</p>
  <p>The area of a triangle is: 1/2 x <var>b</var> x <var>h</var>, where <var>b</var> is the base, and
<var>h</var> is the vertical height.</p>
  <p>Message from my computer:</p>
  <p><samp>File not found.<br>Press F1 to continue</samp></p>
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
```

```
    </pre>
</body>
</html>
```

Output:

hello world

Press Ctrl + C to copy text (Windows).

The area of a triangle is: 1/2 x *b* x *h*, where *b* is the base, and *h* is the vertical height.

Message from my computer:

```
File not found.
Press F1 to continue
```
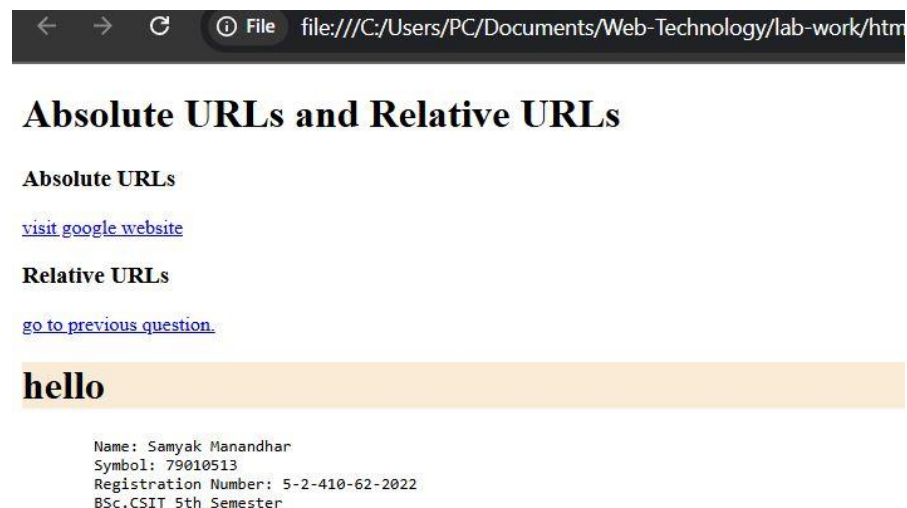
```
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
```
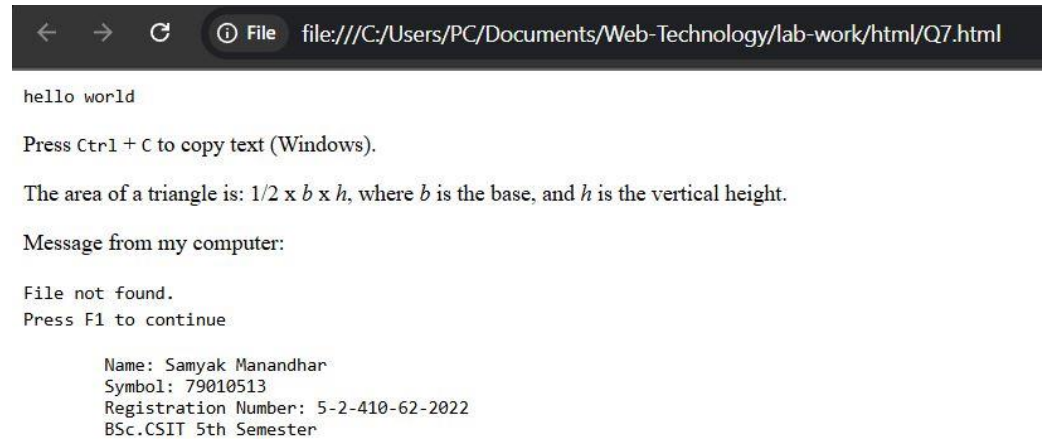
Lab 8: Write HTML code to demonstrate:
- a.   **Unordered list** b.   **Ordered list**
- b.   **Nested unordered list**
- c.   **Nested ordered list**
- d.   **Definition list**

Code:

```html
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
</head>
<body>
  <ul><li>This is an example unordered list.</li></ul><hr>
  <ol><li>This is an example ordered list.</li></ol><hr>
  <ul>
    <li>
      <h2>This is an example of nested unordered list.</h2>
      <ul>
        <li>HTML</li>
        <li>CSS
          <ul>
            <li>onsubmit Attribute</li>
            <li>onclick Attribute</li>
          </ul>
        </li>
        <li>JavaScript</li>
```

```
        </ul>
    </li>
</ul><hr> <ol> <li> <h2>This is an example of nested unordered list.</h2> <ol>
        <li>HTML</li>
        <li>CSS
          <ol>
            <li>onsubmit Attribute</li>
            <li>onclick Attribute</li>
          </ol>  </li>
        <li>JavaScript</li>
      </ol>  </li> </ol><hr>
  <dl>
    <dt>Coffee</dt>
    <dd>Black hot drink</dd>
    <dt>Milk</dt>
    <dd>White cold drink</dd>
  </dl><pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester </pre>
</body>
</html>
```
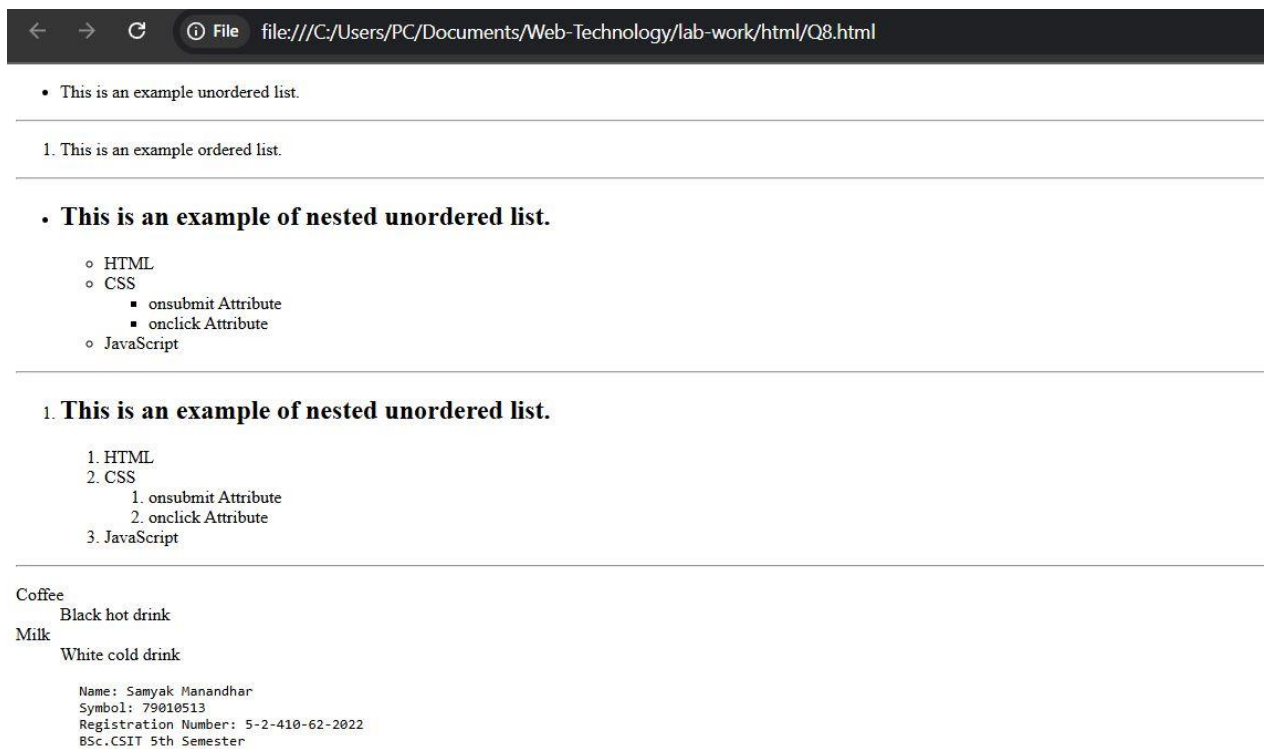
Output:

Lab 9: List the images as list item.

Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
</head>
<body>
  <h2>Image as list item.</h2>
  <img src="primelogo.jpeg"><br>
  <img src="primelogo.jpeg"><br>
  <img src="primelogo.jpeg">
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```
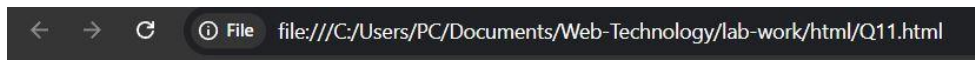
Output:

Lab 10: Write HTML code to demonstrate the use of URLs along with absolute and relative URLs.

Code:

```
<!DOCTYPE html>
<html>
<head>    <title>Samyak Manandhar</title>
  <style> .hello{
        margin: 0px;
        padding: 0%;
        width: 100%;
        background-color: antiquewhite; }
  </style>
</head>
<body>
  <h1>Absolute URLs and Relative URLs</h1>
  <h3>Absolute URLs</h3>
  <a href="https://www.google.com/">visit google website</a>
  <h3>Relative URLs</h3>
  <a href="Q9.html">go to previous question.</a>
  <div class="hello">
    <h1>hello</h1>
  </div>
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```

Output:

Lab 11: Create a link in HTML? Show a proper section of the code.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Samyak Manandhar</title>
</head>
<body>
    <h1>Creating a Link in HTML</h1>
    To visit Google, click <a href="https://www.google.com/">here</a>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

Lab 12: Write HTML code to generate the output with the use of anchor tags: <u>Home</u> <u>About</u> <u>Gallery</u>
Home is in parent directory, About is in sub directory of Home and Gallery is in root directory. Write the
code for each and every tabs.
Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Samyak Manandhar</title>
</head>
<body>
    <h1>Home Page</h1>
    <p>Welcome to tha Home page</p>
    <a href="#">Home</a> |
```
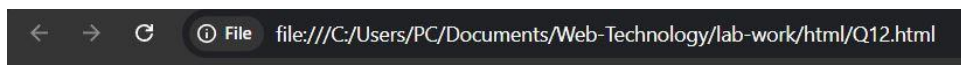
```
    <a href="#">About us</a> |
    <a href="#">Gallery</a>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</body>
</html>
```
**Output:**

Home Page

Welcome to tha Home page

Home | About us | Gallery

```
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
```

Lab 13: Create an image gallery of any three popular places in Nepal along with their short description with the images aligned in left or right.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Samyak Manandhar</title>
</head>
<body>
    <h2>Popular places in Nepal</h2>
        <table>
            <tr>
                <td><img src="bouddha.jpg" alt="Description of the image" height="150px" style="float: left;
margin-right: 10px;"></td>
                <td><b>Bouddha</b><br>
                    A UNESCO World Heritage site.</td>
            </tr>
            <tr>
```

```
        <td><img src="chitwan.jpg" alt="Description of the image" height="150px" style="float: left;
margin-right: 10px;"></td>
        <td><b>Chitwan National park</b><br>
          A UNESCO World Heritage site with diverse wildlife.</td>
      </tr>
      <tr>
        <td><img src="kathmandu.jpg" alt="Description of the image" height="150px" style="float: left;
margin-right: 10px;"></td>
        <td><b>Kathmandu Durbar Square</b><br>
          A UNESCO World Heritage site.</td>
      </tr>
      </table>
      <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
      </pre>
</body>
</html>
```

Output:

Lab 14: Demonstrate the use of align, vspace and hspace attribute using minimum of six images.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
   <title>Samyak Manandhar</title>
</head>
<body>
   <h1>Image Gallery</h1>
   <img src="kathmandu.jpg" alt="" height="60px" hspace="10" vspace="5">
   <img src="kathmandu.jpg" alt="" height="60px" hspace="10" vspace="5">
   <img src="kathmandu.jpg" alt="" height="60px" hspace="10" vspace="5">
   <img src="kathmandu.jpg" alt="" height="60px" hspace="10" vspace="5">
   <img src="kathmandu.jpg" alt="" height="60px" hspace="10" vspace="5">
   <img src="kathmandu.jpg" alt="" height="60px" hspace="10" vspace="5">
   <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
   </pre>
</body>
</html>
```

Output:
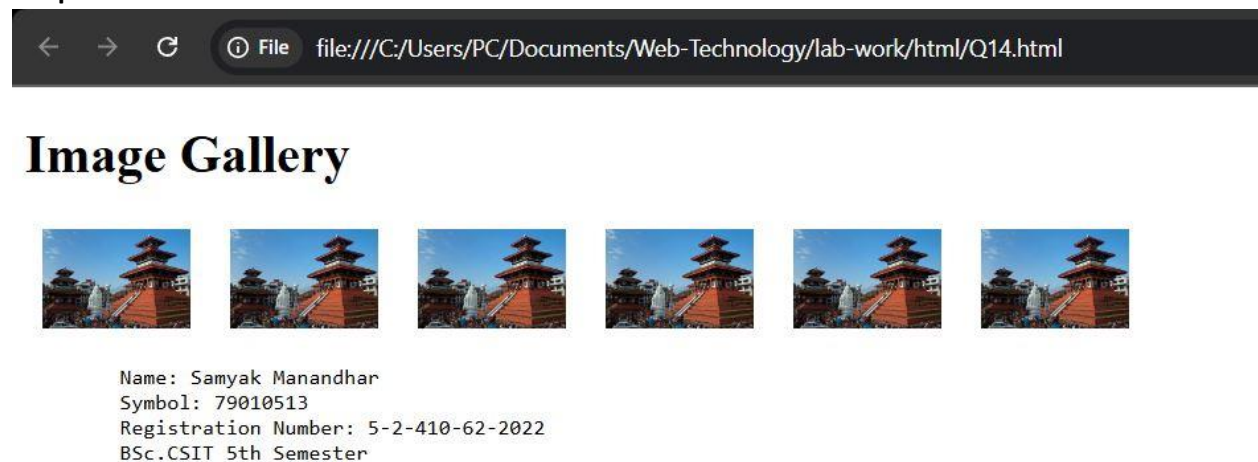
Lab 15: Create a web page that demonstrates the use of destination anchors using name and id attributes.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head> <title>Samyak Manandhar</title> </head>
<body>
 <h1 id="Top of the page">Demonstrating Destination Anchors</h1>
     <a href="#GO to section 1">GO to section 1</a> <br>
     <a href="#GO to section 2">GO to section 2</a><br>
     <a href="#GO to section 3">GO to section 3</a>
 <h2 id="GO to section 1">GO to section 1</h2>
 <p>This is the content of section 1. You can go to
  <a href="#Top of the page ">top of the page</a> or to other section using links above.</p>
 <h2 id="GO to section 2">GO to section 2</h2>
 <p>This is the content of section 2. You can go to
  <a href="#Top of the page ">top of the page</a> or to other section using links above.</p>
  <h2 id="GO to section 3">GO to section 3</h2>
 <p>This is the content of section 3. You can go to
  <a href="#Top of the page ">top of the page</a> or to other section using links above.</p>
  <pre>
  Name: Samyak Manandhar
  Symbol: 79010513
  Registration Number: 5-2-410-62-2022
  BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```

Output:
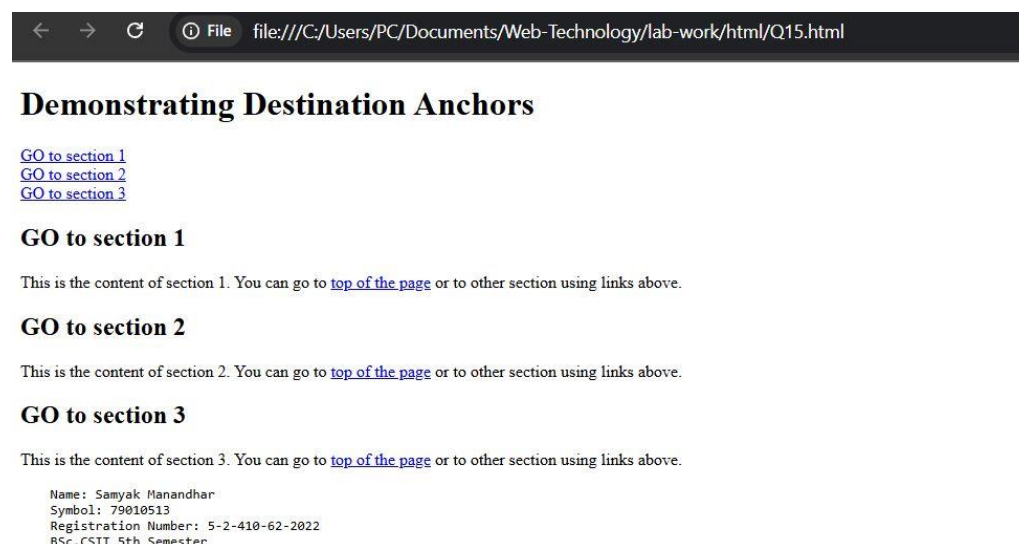
Lab 16: Create a webpage to containing brief description about your college and links to your college and university website.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Samyak Manandhar</title>
</head>
<body>
    <h1>About My College</h1>
    <p>Prime College is an educational institution striving to deliver practical-based education, empowering young minds and cultivating a culture of excellence among skilled individuals. We offer diverse academic programs at both undergraduate and graduate levels. Our dedicated faculty members bring their extensive expertise to the classroom, fostering a dynamic learning environment.</p>
        <p>For more information about our college do visit our college <a href="https://prime.edu.np/">website</a></p>
    <p>visit my wesite. <a href="https://samyakmdr.github.io/website">Tribhuvan University</a></p>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:
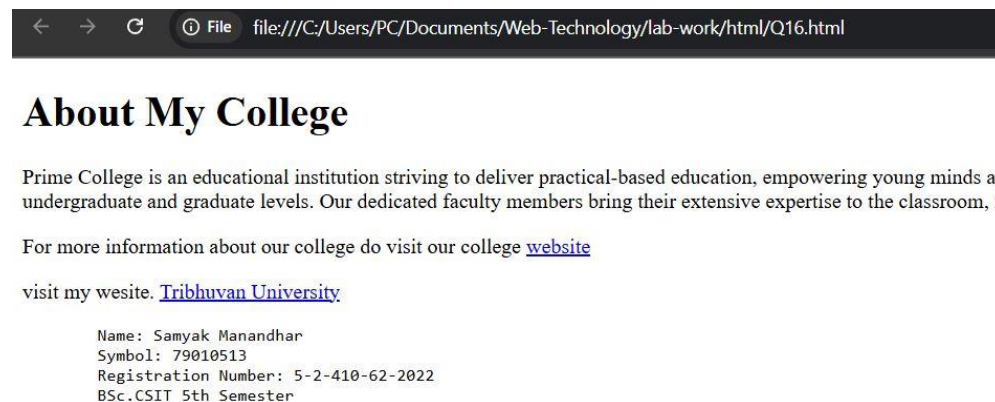
Lab 17: Demonstrate the use of top to bottom and bottom to top link using anchor tags.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Samyak Manandhar</title>
</head>
<body>
    <h2 id="top of page">Top of the Page</h2>
    <p>This is the top of the page</p>
<hr>
    <h1>Demonstrating Top to Bottom and Bottom to Top Links</h1>
    <a href="#bottom of page"><p>Go to Bottom of the page</p></a>
    <a href="#top of page"><p>Go to Top of the page</p></a>
    <hr>
    <h2>GO to section 1</h2>
 <p>This is the content of section 1.
    <h2>GO to section 2</h2>
 <p>This is the content of section 2.
    <h2>GO to section 3</h2>
 <p>This is the content of section 3.
    <h2>GO to section 4</h2>
 <p>This is the content of section 4.
    <h2>GO to section 5</h2>
 <p>This is the content of section 5. <hr>
    <h2 id="bottom of page">Bottom of the Page</h2>
    <p>This is the bottom of the page</p>
    <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
</pre>
</body>
</html>
```
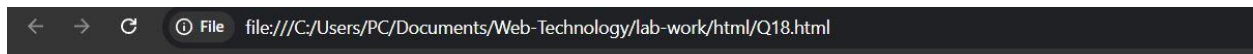
Output:

Lab 18: Write HTML code to create an image gallery of 9 images with 3 images in a row each having 125 width and height 100.
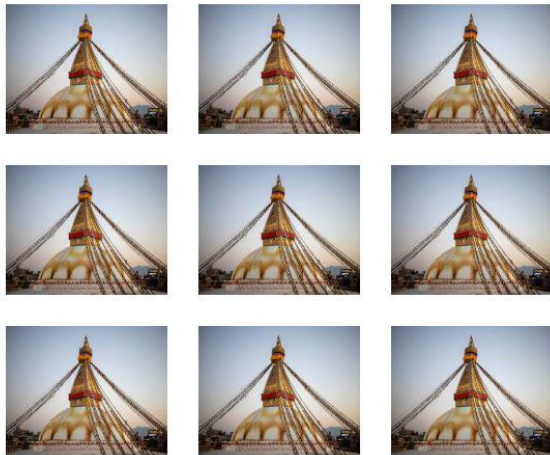
Code:

```
<!DOCTYPE html>
<html lang="en">
<head><title>Samyak Manandhar</title></head>
<body>
  <h1>Image Gallery</h1>
  <img src="bouddha.jpg" alt="" height="100px" width="125px" hspace="10" vspace="10">
  <img src="bouddha.jpg" alt="" height="100px" width="125px" hspace="10" vspace="10">
  <img src="bouddha.jpg" alt="" height="100px" width="125px" hspace="10" vspace="10"><br>
  <img src="bouddha.jpg" alt="" height="100px" width="125px" hspace="10" vspace="10">
  <img src="bouddha.jpg" alt="" height="100px" width="125px" hspace="10" vspace="10">
  <img src="bouddha.jpg" alt="" height="100px" width="125px" hspace="10" vspace="10"><br>
  <img src="bouddha.jpg" alt="" height="100px" width="125px" hspace="10" vspace="10">
  <img src="bouddha.jpg" alt="" height="100px" width="125px" hspace="10" vspace="10">
  <img src="bouddha.jpg" alt="" height="100px" width="125px" hspace="10" vspace="10">
  <pre>Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester</pre>
</body>
</html>
```

Output:

Lab 19: Write a HTML code to demonstrate how audio, video can be added to the web pages along with all the attributes.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Samyak Manandhar</title>
</head>
<body>
  <h1>Media Elements in HTML</h1>
  <div class="media-container">
    <h2>Audio Player</h2>
    <audio controls autoplay loop muted preload="auto" id="myAudio">
      <source src="audio.mp3" type="audio/mpeg">
      <source src="audio.ogg" type="audio/ogg">
      Your browser does not support the audio element.
    </audio>
    <div>
      <button onclick="document.getElementById('myAudio').play()">Play</button>
      <button onclick="document.getElementById('myAudio').pause()">Pause</button>
```

```
        <button onclick="document.getElementById('myAudio').volume += 0.1">Volume +</button>
        <button onclick="document.getElementById('myAudio').volume -= 0.1">Volume -</button>
      </div>
    </div>
    <div class="media-container">
      <h2>Video Player</h2>
      <video width="640" height="50" controls autoplay loop muted preload="auto" poster="poster.jpg" id="myVideo">
        <source src="video.mp4" type="video/mp4">
        <source src="video.webm" type="video/webm">
        Your browser does not support the video tag.
      </video>
      <div>
        <button onclick="document.getElementById('myVideo').play()">Play</button>
        <button onclick="document.getElementById('myVideo').pause()">Pause</button>
        <button onclick="document.getElementById('myVideo').requestFullscreen()">Fullscreen</button>
      </div>
    </div>
    <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

file:///C:/Users/PC/Documents/Web-Technology/lab-work/html/Q19.html

Media Elements in HTML

Audio Player

▶ 0:00 / 0:00 ────────── 🔇 ⋮

[Play] [Pause] [Volume +] [Volume -]

Video Player

▶ 0:00

[Play] [Pause] [Fullscreen]

```
Name: Samyak Manandhar
Symbol: 79010513
Registration Number: 5-2-410-62-2022
BSc.CSIT 5th Semester
```

Lab 20: Write the HTML code to make table:

Code:

```
<!DOCTYPE html>
<html lang="en">
<head><title>Samyak Manandhar</title></head>
<body>
   <table border="0" width="80%" height="20%" style="border-spacing:0px;">
     <tr>
        <th rowspan="2">SN</th>
        <th colspan="2">Name</th>
        <th rowspan="2">College</th>
        <th rowspan="2">Address</th>
        <th rowspan="2">Email</th>
        <th rowspan="2">Phone</th>
     </tr>
     <tr>
        <th>First name</th>
        <th>Last name</th>
     </tr>
     <tr>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
     </tr>
     <tr>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
     </tr>
     <tr>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
```

```html
        <td> </td>
        <td> </td>
      </tr>
      <tr>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
        <td> </td>
      </tr>
    </table>
    <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

Lab 21: Design the following single table using HTML.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Samyak Manandhar</title>
</head>
<body>
  <table border="" width="450px" height="100px" style="border-spacing:0px;">
    <tr>
      <td>A</td>
```

```
        <td colspan="2">B</td>
        <td>C</td>
        <td>D</td>
      </tr>
      <tr>
        <td rowspan="2" colspan="4">E</td>
        <td>F</td>
      </tr>
      <tr>
        <td >G</td>
      </tr>
      <tr>
        <td colspan="2">H</td>
        <td colspan="2">J</td>
        <td>K</td>
      </tr>
      <tr>
        <td colspan="3">L</td>
        <td colspan="2">M</td>
      </tr>
    </table>
    <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

Lab 22: Design the following table using nested tables in HTML.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Samyak Manandhar</title>
</head>
<body>
  <table border=""  style="border-spacing:0px;">
    <tr>
      <td colspan="">logo</td>
      <td colspan="4">ABC Company</td>
    </tr>
    <tr>
      <td><table border=""  style="border-spacing:0px;">
        <tr><td><a href="">Home</a></td></tr>
        <tr><td><a href="">About</a></td></tr>
        <tr><td><a href="">Contact</a></td></tr>
      </table></td>
      <td align="center" colspan="4">
        <table border=""  style="border-spacing:0px;">
          <tr>
            <td colspan="4">Content 1</td>
            <td>News 1</td>
          </tr>
          <tr>
            <td>Content 2</td>
            <td>News 2</td>
          </tr>
        </table>
      </td>
    </tr>
    <tr>
      <td>Copyright</td>
      <td><a href="">Facebook</a>.<a href="">Twitter</a></td>
      <td>Powered By</td>
    </tr>
  </table>
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
```

```
    </pre>
</body>
</html>
```

Output:

Lab 23: Design an html form to submit a job application form. Demonstrate the use of drop-down list, text areas and file upload control. (Make the form beautifully aligned).

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title> Samyak Form</title>
</head>
<body>
  <h1>SAMYAK FORM</h1>
 <form action="" method="post">
  <table>
   <div>
     <label for="First name">Full Name:</label>
         <input type="text" placeholder="">
    </div>
    <div>
      <label for="email">Email:</label>
      <input type="email" placeholder="">
    </div>
    <div>
      <label for="contact">Phone Number:</label>
      <input type="number" placeholder="">
    </div>
    <div>
```

```html
    <label for="">Position Applying For:</label>

    <select>
       <option value="">--Select Position--</option>
       <option value="">A</option>
       <option value="">B</option>
    </select>
   </div>
   <div>
      <label for="">Year of Experience:</label>
      <select>
         <option value="">--Select Experience--</option>
         <option value="">0-1 years</option>
         <option value="">1-3 years</option>
         <option value="">3-5 years</option>
         <option value="">5+ years</option>
      </select>
   </div>
   <tr>
      <td>
         <label for="">Cover Letter:</label><br>
         <textarea name="" cols="50" rows="4"></textarea>
      </td>
   </tr>
   <tr>
      <td>
         <label for="file">Upload Resume:</label>
         <input type="file">
      </td>
   </tr>
   <tr>
      <td>
         <input type="Submit" name="submit" value="Submit Application">
         <input type="reset" name="rest" value="Reset Form">
      </td>
   </tr>
 </table>
 <pre>
   Name: Samyak Manandhar
   Symbol: 79010513
   Registration Number: 5-2-410-62-2022
   BSc.CSIT 5th Semester
 </pre>
</form>
```
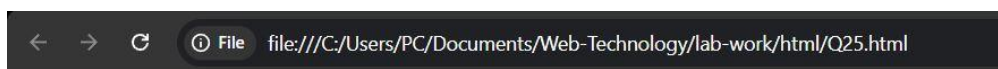
```
</body>
</html>
```

Output:

Lab 24: Demonstrate HTML5 tags (like article, aside, figure, section).

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Samyak Manandhar</title>
</head>
<body>
  <h1>Understanding HTML5 Semantic Tags</h1>
  <h2>Main Content</h2>
  <article>Semantic HTML5 tags provide meaning to the web content. These tags help search engines and other user devices to determine the significance and context of web pages.</article><br>
    <article>Using semantic tags. we make our web pages more accessible and improve SEO perfomance.</article>
  <h2>Key HTML5 Tags</h2>
  <section>The following are some of the key HTML5 semantic tags:</section>
  <ul>
    <li><b>< aside ></b>: Represents content related to the main content, often used for sidebars.</li>
    <li><b>< figure ></b>: Used for self-contained content, such as imaged or diagrams, along with their captions. </li>
    <li><b>< figcaption ></b>: Provides a caption for the content inside a < figure >tag.</li>
    <li><b>< article ></b>: Represent a self-contained piece of content.</li>
    <li><b>< section ></b>: Define a section within a document.</li>
```

```
    </ul>
    <h2>Sidebar</h2>
    <aside>This is an aside section where related content, such as links to related articles or advertisements,
might appear.</aside>
    <h2>Example of Figure with Caption</h2>
    <figure><img src="Kathmandu.jpg" width="100px" height="50px" alt="">
        <figcaption>Beautiful View of Durbar Square</figcaption>
    </figure>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

79010513   SAMYAK MANANDHAR
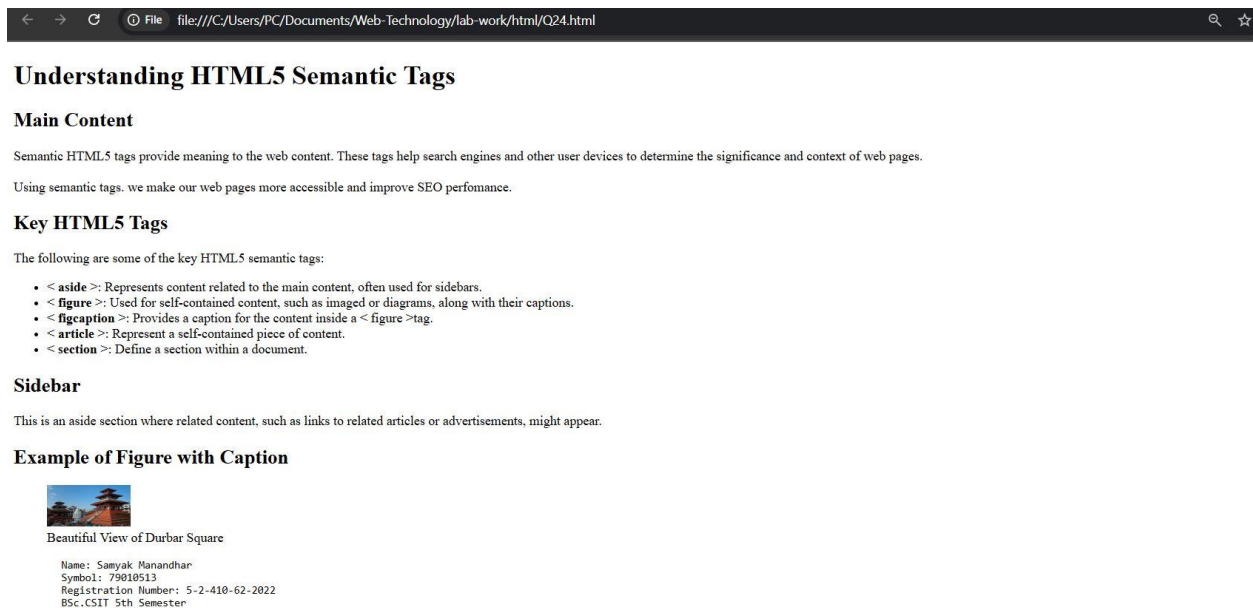
Lab 25: Demonstrate the use of the HTML5 datetime and range input type.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Samyak Manandhar</title>
</head>
<body>
    <h1>Event Scheduling Form</h1>
        <label for="">Event Name :</label>
        <input type="text">br>
        <label for="">Event Date and Time :</label>
        <input type="datetime-local">br>
    <div>
        <input type="button" name="" value="Schedule Event">
        <input type="button" name="" value="Reset Event">
    </div><br>
        <h1>Volume Control</h1>
        <label for="">Set Volume Level :</label>
        <input type="range">
        <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

CSS

Introduction:

CSS (Cascading Style Sheets) is a fundamental technology used for styling web pages alongside HTML and JavaScript. It provides web developers with powerful tools to control the visual presentation of HTML documents, enabling the creation of attractive, consistent, and responsive designs across different devices and screen sizes. By separating content (HTML) from presentation (CSS), this styling language promotes cleaner code organization and more efficient website maintenance. The core principle of CSS lies in its ability to target HTML elements and apply various style properties to them. These properties can control everything from basic text formatting like color and font size to complex layout aspects such as positioning, spacing, and animations. CSS uses a simple syntax based on selectors that identify which elements to style, followed by declaration blocks containing property-value pairs that define the actual styling rules.

Lab 1: Illustrate the use of background properties in CSS.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Samyak Manandhar</title>
  <style>
  body{
     background-image: url(kathmandu.jpg);
     background-repeat: no-repeat;
    background-size:cover;
  }
  </style>
</head>
<body>
</body>
</html>
```

Output:
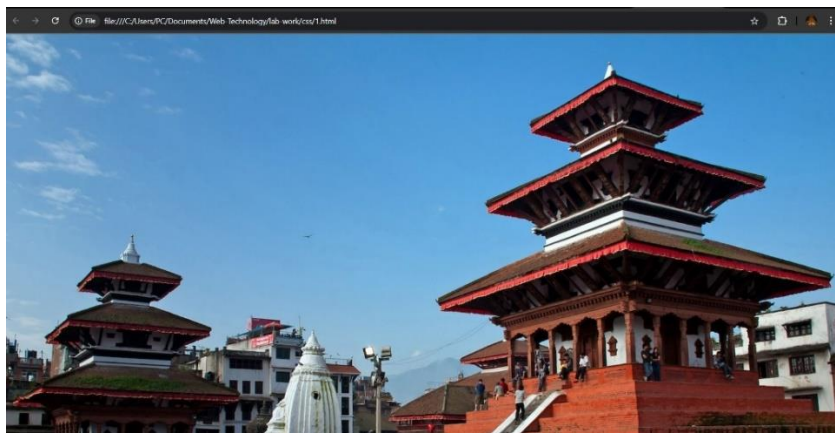
Lab 2: Construct a web page with four paragraph and style using CSS.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
   <title>Samyak Manandhar</title>
   <style>
      p{
         background-color: rgb(35, 201, 204);
      }
      .a{
       font-weight: bold;
      }
      .b{
         font-style: italic;
      }
      .c{
         text-align: center;
      }
      .d{
         text-decoration: underline;
      }
   </style>
</head>
<body>
   <div class="a">
      <p>This is 1 paragraph in bold</p>
   </div>
   <div class="b">
      <p>This is 2 paragraph in italicized</p>
   </div>
   <div class="c">
      <p>This is 3 paragraph in center</p>
   </div>
   <div class="d">
      <p>This is 1 paragraph in underline</p>
   </div>
   <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
   </pre>
```

```
</body>
</html>
```

Output:
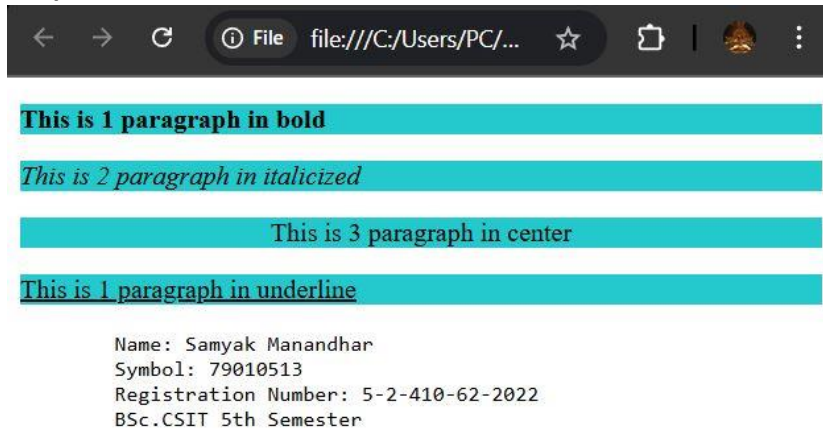
Lab 3: Design a web page with six images and style them using external CSS.

Code:

```
HTML:
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Samyak Manandhar</title>
  <link rel="stylesheet" href="3.css">
</head>
<body>
  <ul>
    <li> <img src="1233309236050526208.webp" alt="image"></li>
    <li> <img src="1233309236050526208.webp" alt="image"></li>
    <li> <img src="1233309236050526208.webp" alt="image"></li>
    <li> <img src="1233309236050526208.webp" alt="image"></li>
    <li> <img src="1233309236050526208.webp" alt="image"></li>
  </ul>
<pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>
CSS:
img{
```

```
    height: 100px;
    border-radius: 6px;
}
body ul{
 list-style: none;
}
body ul li{
    display: inline;
    padding: 0px 50px 0px 50px;
}
```

Output:

Lab 4: Make a nested list using internal CSS.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head> <title>Samyak Manandhar</title>
   <style>
      .item{
         background: #999999;
         border-radius: 7px;
         padding: 2px;
         margin-bottom: 10px;
      }
      ul{
         background-color: maroon;
         list-style: none;
         margin: 3px 3px;
      }
      ul li{
         margin: 4px 0px;
         margin-left: -24px;
         background-color: magenta;
         border-radius: 4px;
```

```
        padding: 6px;
    }
    h3{
        margin: 0px;
    }
  </style>
</head>
<body>
  <div class="item">
    <h3>   item 1</h3>
    <ul>
      <li>subitem 1.1</li>
      <li>subitem 1.2
        <ul>
          <li>subitem 1.2.1</li>
          <li>sub 1.2.2</li>
        </ul></li></ul>
  </div>
  <div class="item">
    <h3>   item 2</h3>
    <ul>
      <li>subitem 2.1</li>
      <li>subitem 2.2</li>
    </ul> </div>
  <div class="item"><h3>   item 3</h3></div>
<pre>Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester</pre>
</body>
</html>
```

Output:
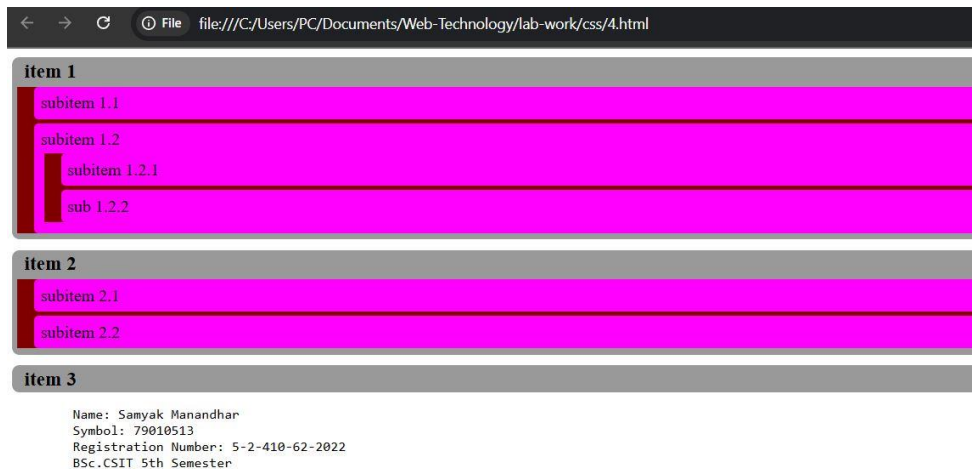
Lab 5: Make a web page having 3 rows and 2 columns with all the hyperlinks and style it using external CSS.

Code:

HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Samyak Manandhar</title>
    <link rel="stylesheet" href="5.css">
</head>
<body>
    <div class="container">
        <div class="colomn">
            <div class="row">
                <a href="">link 1</a>
            </div>
            <div class="row">
                <a href="">link 1</a>
            </div>
            <div class="row">
                <a href="">link 1</a>
            </div>
        </div>
        <div class="colomn">
            <div class="row">
                <a href="">link 1</a>
            </div>
            <div class="row">
                <a href="">link 1</a>
            </div>
            <div class="row">
                <a href="">link 1</a>
            </div>
            <pre>
                Name: Samyak Manandhar
                Symbol: 79010513
                Registration Number: 5-2-410-62-2022
                BSc.CSIT 5th Semester
            </pre>
        </div>
    </div>
</body>
</html>
```

CSS:
```css
.container{
    display: grid;
    grid-template-rows: 1fr 1fr;
    grid-template-columns: 1fr 1fr 1fr;
    margin: 10px;
}
.row{
    border: 4px solid black;
    border-radius: 8px;
    width: 300px;
    height: 30px;
    margin: 10px;
    text-align: center;
    padding-top: 10px;

}
.row a{
    text-align: center;
    text-decoration: none;
    color: #000;
    text-transform: capitalize;
    font-weight: bold;
}
```

Output:
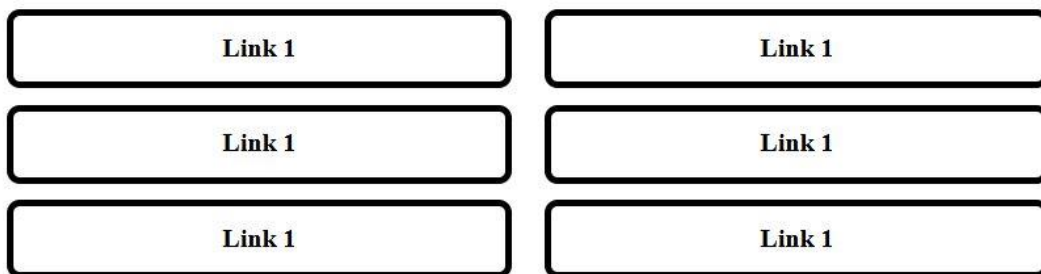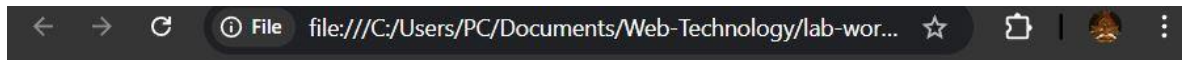
Lab 6: Design an html form to demonstrate the 10 different types of controls generated using INPUT tag. Style the form as:
- **Set the background color of textbox yellow when it is focused.**
- **Change the text color blue to textbox.**
- **Increase the height of combo options when it is checked.**
- **Set the border color red if the input is invalid in textbox and textarea.**
- **Set green border to valid input.**
- **Design the form using fieldset.**

Code:

HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Samyak Manandhar</title>
    <link rel="stylesheet" href="6.css">
</head>
<body>
    <h1>HTML Form</h1>
    <form action="">
        <fieldset>
            <legend>Personal Information</legend>
            <div class="name">
                <label for="Name">Name:</label>
                <input type="text">
            </div> <br>
            <div class="password">
                <label for="Password">Password:</label>
                <input type="password">
            </div><br>
            <div class="gender">
                <label for="Gender">Gender:</label>
                <input type="radio" name="gender info" value="choice1">
                <label for="Male">Male</label>
                <input type="radio" name="gender info" value="choice2">
                <label for="Male">Female</label>
            </div><br>
            <div>
                <label for="hobbies">Hobbies:</label><br>
                <input type="checkbox" name="hobbies">
                <label for="reading">Reading</label><br>
                <input type="checkbox" name="hobbies">
                <label for="Travelling">Travelling</label><br>
```

```html
        <input type="checkbox" name="hobbies">
        <label for="Gaming">Gaming</label>
      </div><br>
      <div class="email">
        <label for="email">Email:</label>
        <input type="email">
      </div><br>
      <div class="age">
        <label for="age">Age:</label>
        <input type="number">
      </div><br>
      <div class="dob">
        <label for="dob">Date of Birth:</label>
        <input type="datetime-local">
      </div><br>
      <div class="web">
        <label for="web">Website:</label>
        <input type="url">
      </div><br>
      <div class="file">
        <label for="file">Upload Resume:</label>
        <input type="file">
      </div><br>
      <div class="button">
        <button>Submit</button>
        <button>Reset</button>
      </div>
    </fieldset>
  </form>
<pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>

CSS:
fieldset{
  border-color: aqua;
  border-radius: 4px;
}
input{
```

```
    border: 2px solid;
}
input:valid{
    border-color: rgb(71, 230, 71);
}
input:invalid{
    border-color: red;
}
input:focus{
    background: yellow;
}
```

Output:

Lab 7: Design the given table and style as:

Class A	Class B
Class C	Class D

- **Set the border of any style and color.**
- **Set width of all Classes 600 pixel and height 550 pixel.**
- **Set different background color for all classes.**
- **Every text color should be different.**
- **Display Class C and Class D in uppercase and remaining in lower case.**

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Samyak Manandhar</title>
  <style>
    table{
      border: 1px solid;
      border-spacing:0px;
    }
    td{
      border: 1px solid;
      text-align: center;
    }
    .a{
      background-color: aqua;
      width: 100px;
      height: 85px;
      text-transform: lowercase;
    }
    .b{
      background-color: greenyellow;
      width: 100px;
      height: 85px;
      text-transform: lowercase;
    }
    .c{
      background-color: rgb(220, 116, 221);
      width: 100px;
      height: 85px;
      text-transform: capitalize;
    }
    .d{
      background-color: rgb(227, 191, 93);
```

```
            width: 100px;
            height: 85px;
            text-transform: capitalize;
        }
    </style>
</head>
<body>
    <table>
        <tr>
            <td class="a">class a</td>
            <td class="b">class b</td>
        </tr>
        <tr>
            <td class="c">class c</td>
            <td class="d">class d</td>
        </tr>
    </table>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:
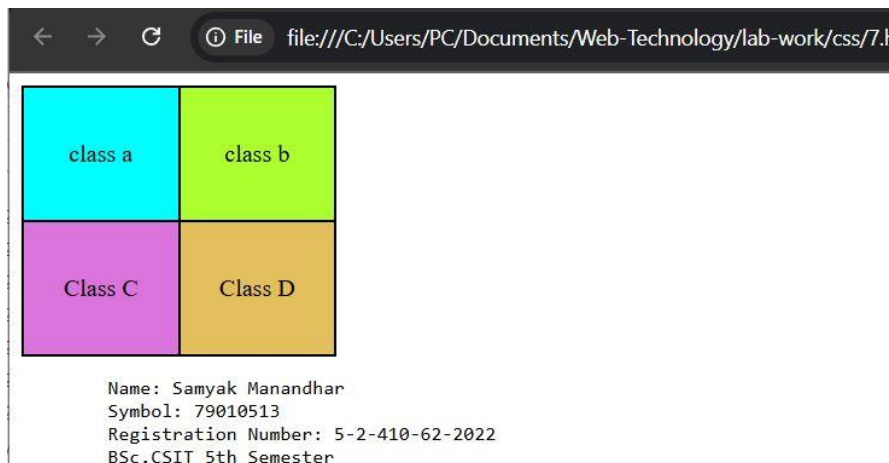
Lab 8: Design a horizontal menu of any five options and style as:

- **Set border for all links.**
- **Set different background color and text color.**
- **Change the font color and increase the font size when mouse over it.**
- **Remove the underline from link.**
- **Change all the default behavior of links.**

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Samyak Manandhar</title>
  <style>
    body{
      margin: 0px;
    }
    .navbar{
      background: black;
      height: 38px;
    }
    ul{
    padding: 9px;
    }
    li{
      display: inline;
    }
    a{
      font-size: 12px;
      background: rgb(46, 171, 46);
      padding: 12px;
      color: white;
      text-decoration: none;
      font-family: sans-serif;

    }
    .white{
      width: 349px;
    }
    .white ul{
      background: white;
      height: 40px;
    }
  </style>
</head>
<body>
```

```
    <div class="navbar">
      <div class="white">
        <ul>
          <li><a href="">Home</a></li>
          <li><a href="">About</a></li>
          <li><a href="">Services</a></li>
          <li><a href="">Portfolio</a></li>
          <li><a href="">Contact</a></li>
        </ul>
      </div>
<pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
  </div>
</body>
</html>
```

Output:
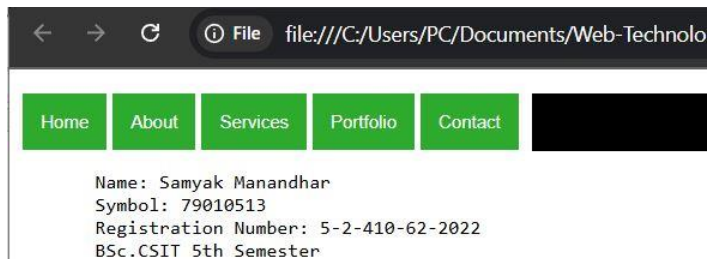
Lab 9: Develop a web page with a paragraph and add some contents before the paragraph with red color and yellow background using CSS.

Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
  <style>
    span{
      color: red;
      background-color: yellow;
    }
  </style>
</head>
```

```
<body>
  <p><span>This is the added content before the paragraph.</span> This is the main paragraph content.
It contains some information that follows the added content.</p>
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```

Output:
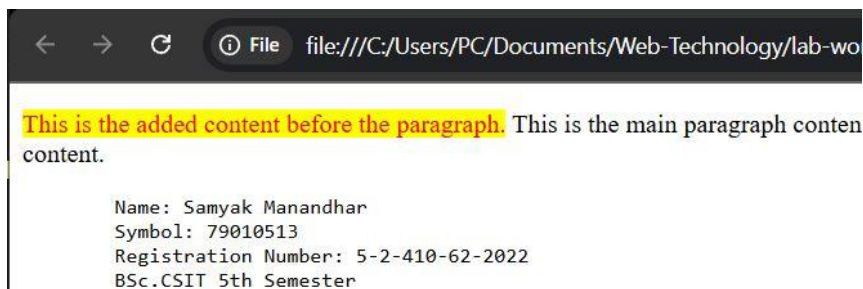
Lab 10: Illustrate the concept of pseudo elements with example. (::after, ::first-letter, ::selection, ::first-line).

Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar </title>
  <style>
    p::first-letter{
      color: green;
      font-size: 38px;
      float: left;
    }
    p::first-line{
      color: red;
    }
    p::after{
      content: " -End of this example.";
      color: blue;
    }
    p::selection{
      color: yellow;
    }
```

```
    </style>
</head>
<body>
    <p>Pseudo-elements are used to style specific parts of an element's content. These can be powerful
tools for designers who want to apply styles to parts of content that are not directly selectable in the
HTML structure. This paragraph demonstrates the use of several pseudo-elements together.</p>
    <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

Lab 11: Design following list using html and CSS
✓ **Mouse**
✓ **Keyboard**
✓ **Monitor**
✓ **Printer**
✓ **Touchpad**

Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
  <style>
    ul{
      list-style: none;
    }
    ul li:before {
      content: '✓';
    }
```

```
    </style>
</head>
<body>
    <ul>
        <li>Mouse</li>
        <li>Keyboard</li>
        <li>Monitor</li>
        <li>Printer</li>
        <li>Touchpad</li>
    </ul>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

JavaScript

Introduction:

JavaScript's ubiquity stems from its unique position as the only programming language natively understood by web browsers, making it indispensable for front-end development. Over the years, it has transcended its initial role as a browser scripting tool to become a unified language for both client-side and server-side programming through environments like Node.js. Its event-driven architecture allows seamless handling of user interactions—clicks, scrolls, or keyboard inputs—while asynchronous capabilities enable tasks like fetching data from servers without freezing the interface. Modern JavaScript (ES6+) introduced cleaner syntax with features like template literals, destructuring, and async/await, significantly improving code readability and maintainability. Frameworks like React, Angular, and Vue.js leverage JavaScript's flexibility to build scalable single-page applications, while tools like Express.js (for back-end) and Electron (for desktop apps) demonstrate its versatility beyond the web. Despite criticisms of quirks like type coercion, JavaScript's vast community, constant evolution (via TC39), and compatibility across all devices cement its status as the linchpin of contemporary web development.

Lab 1: Declare variables of different data types (string, number, boolean). Perform operations on these variables and display the results using document.write in well formatted output.

Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
  <script>
    let length = 50;
    let breath = 20;
    let fname = "samyak";
    let lname = "manandhar";
    let x = true;
    let y = false;
    function area(){
      document.write('your area is: '+length*breath);
    }
    function fullname(){
      document.write('<br><br>your name is: '+ fname +" "+ lname);
    }
    function checkCitizen() {
      let citizenRadios = document.getElementsByName('citizen');
      let result = document.getElementById('result');
      let isNepaliCitizen = false;
      for (let radio of citizenRadios) {
        if (radio.checked) {
```

```
            isNepaliCitizen = radio.value;
            break;
          }        }
        isNepaliCitizen == 'yes'
          ? result.innerHTML="You are a Nepali citizen."
          : result.innerHTML="You are not a Nepali citizen.";
      }
    </script>
</head>
<body>
    <script>
      area();
      fullname();
    </script>
    <p>Are you a Nepali Citizen?</p>
    <input type="radio" id="yes" name="citizen" value="yes">
    <label for="yes">Yes</label>
    <input type="radio" id="no" name="citizen" value="no">
    <label for="no">No</label><br><br>
    <button onclick="checkCitizen()">Submit</button>
    <p id="result"></p>
<br>
    <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

Lab 2: Write a JavaScript program that uses if-else statements to determine if a number is even or odd. Implement a loop to print numbers from 1 to 10.

Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
  <script>
    let num;
    for(num=1; num<11; num++){
    if(num % 2 == 0){
      document.write(+num," is even<br>");
    }else{
      document.write(+num," is odd<br>");
    }
  }
  </script>
</head>
<body>
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```

Output:


```
1 is odd
2 is even
3 is odd
4 is even
5 is odd
6 is even
7 is odd
8 is even
9 is odd
10 is even
```

```
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
```

Lab 3: Create a function that accepts user input using the prompt method and displays the input using an alert box. Use a confirm box to ask the user for a yes/no response and display the result.

Code:

```html
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
  <script>
    function name(){
      const name = prompt("Please enter your name.");
      if(name){
        alert("Hello," +name);
      }
      else{
        alert("No name was entered.");
      }
    }
  </script>
</head>
<body>
  <script>
    name();
  </script>
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```

Output:
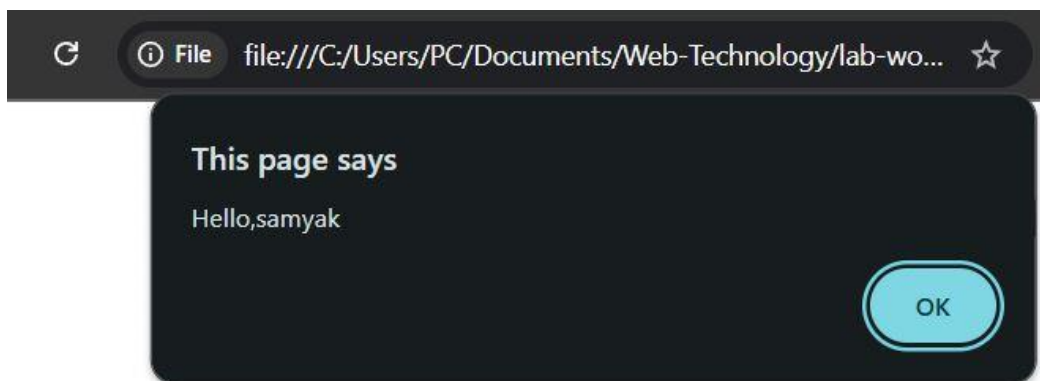
Lab 4: Define an object representing a person with properties like name, age, and address. Access and display these properties values.

Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
  <script>
    const person={
      name: "Samyak Manandhar",
      age: 20,
      address: "Thahity, kathmandu"
    }
  </script>
</head>
<body>
  <script>
    document.write(person.name);
    document.write("<br>"+person.age);
    document.write("<br>"+person.address);
  </script>
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```

Output:
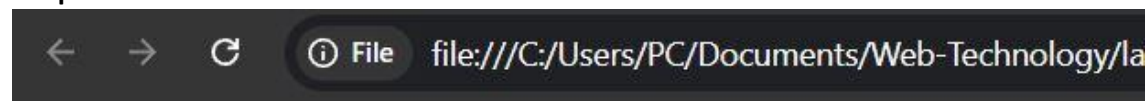
Lab 5: Declare an array of colors. Use a loop to iterate through the array and display each color on the webpage in HTML table.

Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>Samyak Manandhar</title>
  <script> const colors = ["Red", "Green", "blue", "Yellow", "Orage", "Purple"]; </script>
</head>
<body>
  <table border="1" cellpadding="10">
    <tr><th>Color</th></tr>
    <script>
      for (let color of colors) {
          document.write(`<tr><td>${color}</td></tr>`);
      }
    </script>
  </table>
  <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```

Output:

Lab 6: Explain all the following built-in objects with examples of each:
- **Array Methods**
- **Date Methods**
- **String Methods**
- **Math Methods**

Code:

```
<!DOCTYPE html>
<html>
<head>
    <title>Samyak Manandhar</title>
</head>
<body>
    <script>
        document.write("<h2>Array Methods</h2>");
        let arr = [1, 2, 3, 4, 5];
        arr.push(6);
        document.write("After push(6): " + arr + "<br>");
        arr.pop();
        document.write("After pop(): " + arr + "<br>");
        arr.shift();
        document.write("After shift(): " + arr + "<br>");
        arr.unshift(0);
        document.write("After unshift(0): " + arr + "<br><br>");
        const date = new Date();
        document.write("<h2>Date Methods:</h2>");
        document.write(`Current Date and Time: ${date.toLocaleString()}<br>`);
        document.write(`Current Date: ${date.getDate()} <br>`);
        document.write(`Current Month: ${date.getMonth()+1}<br>`);
        document.write(`Current Year: ${date.getFullYear()}<br><br>`);
        let text = " Hello World! ";
        let newText = text.replace("World", "Samyak");
        const upperText = text.toUpperCase().trim();
        document.write("<h2>String Methods:</h2>");
        document.write(`Original String: "${text}"<br>`);
        document.write(`Uppercase and Trimmed: "${upperText}"<br>`);
        document.write(`Substring (0, 5): "${text.slice(0, 5)}"<br><br>`);
        const num = 4.7;
        let maxNumber = Math.max(1, 5, 10, 3);
        let minNumber = Math.min(1, 5, 10, 3);
        document.write("<h2>Math Methods:</h2>");
        document.write("Maximum value: " + maxNumber+"<br>");
        document.write("Minimum value: " + minNumber+"<br>");
        document.write(`Random Number (0 to 1): ${Math.random()}<br>`);
        document.write(`Floor of ${num}: ${Math.floor(num)}<br>`);
```

```
        document.write(`Ceiling of ${num}: ${Math.ceil(num)}<br>`);
    </script>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:
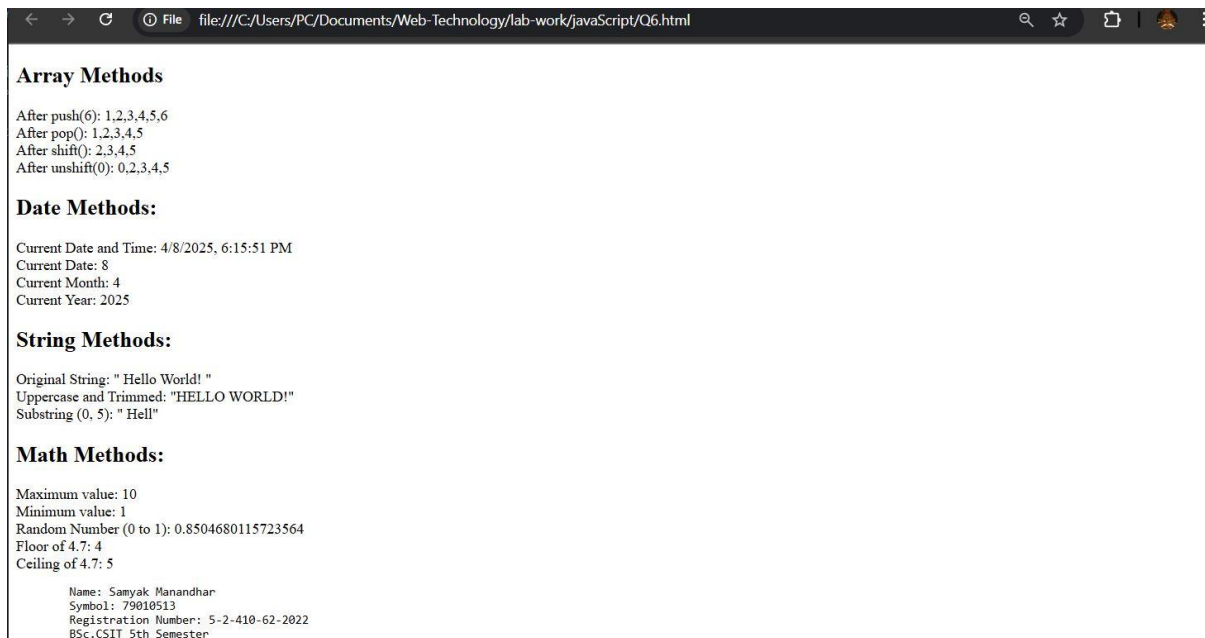
Lab 7: Utilize the Date object to display the current date and time.

Code:

```
<!DOCTYPE html>
<html>
<head>
    <meta charset='utf-8'>
    <meta http-equiv='X-UA-Compatible' content='IE=edge'>
    <title>Samyak Manandhar</title>
    <meta name='viewport' content='width=device-width, initial-scale=1'>
    <link rel='stylesheet' type='text/css' media='screen' href='main.css'>
    <script>
        const date = new Date();
        document.write(`Current Date and Time:<br> Date and Time: ${date.toLocaleString()}<br>`);
```

```
    </script>
  </head>
  <body>
    <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
    </pre>
  </body>
</html>
```

Output:

Current Date and Time:
Date and Time: 4/8/2025, 6:14:49 PM

```
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
```
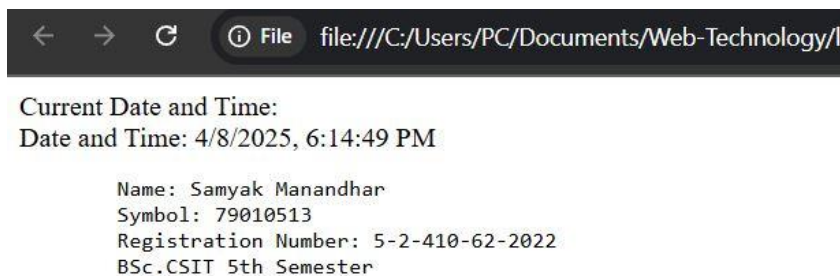
Lab 8: Use the Math object to perform a mathematical operation (e.g., random number generation).

Code:

```html
<!DOCTYPE html>
<html>
<head>
  <meta charset='utf-8'>
  <meta http-equiv='X-UA-Compatible' content='IE=edge'>
  <title>Samyak Manandhar</title>
  <meta name='viewport' content='width=device-width, initial-scale=1'>
  <link rel='stylesheet' type='text/css' media='screen' href='main.css'>
  <script>
    let randomNumber = Math.floor(Math.random() * 101);
    let base = 2;
    let exponent = 3;
    let result = Math.pow(base, exponent);
    let num = -7;
    let absValue = Math.abs(num);
    document.write("<h2>Math Methods:</h2>");
    document.write(`Random Number (0 to 1): ${Math.random()}<br>`);
    document.write(`Random Number (1 to 100): ${randomNumber} <br>`);
    document.write(`Square Root of 16: ${Math.sqrt(16)}<br>`);
```

```
        document.write(`Power: ${base}^${exponent} = ${result}<br>`);
        document.write(`Absolute value of ${num} is: ${absValue}`);
    </script>
</head>
<body>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

Math Methods:

Random Number (0 to 1): 0.14075571301805834
Random Number (1 to 100): 30
Square Root of 16: 4
Power: 2^3 = 8
Absolute value of -7 is: 7

Name: Samyak Manandhar
Symbol: 79010513
Registration Number: 5-2-410-62-2022
BSc.CSIT 5th Semester
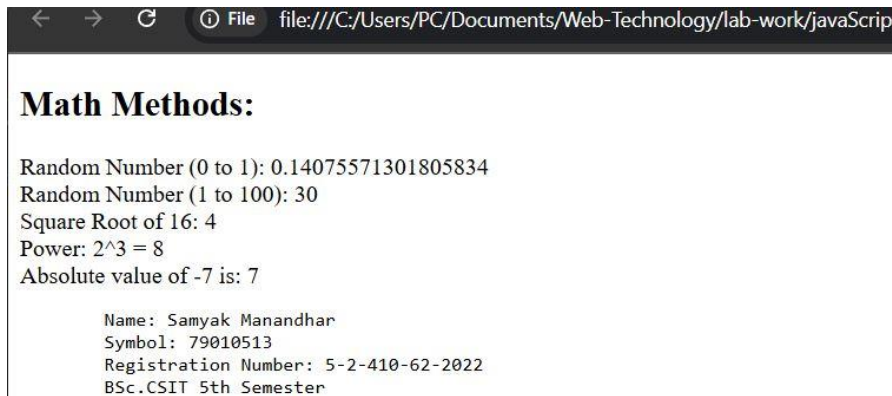
Lab 9: Create a user-defined object representing a car. Implement an event handler that triggers when a button is clicked, updating the car's properties.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Car Object Event Handler</title>
</head>
<body>
  <h2>Car Object</Object></h2>
  <p id="carInfo"></p>
  <button id="updateBtn">Update Car</button>
  <script>
    const car = {
      brand: "Toyota",
      model: "Corolla",
```

```
    year: 2020,
    displayInfo: function() {
      return `${this.brand} ${this.model} (${this.year})`;
    }
  };
  const carInfo = document.getElementById("carInfo");
  carInfo.textContent = car.displayInfo();
  document.getElementById("updateBtn").addEventListener("click", function() {
    car.brand = "Tesla";
    car.model = "Model 3";
    car.year = 2023;
    carInfo.textContent = car.displayInfo();
  });
</script>
<pre>
  Name: Samyak Manandhar
  Symbol: 79010513
  Registration Number: 5-2-410-62-2022
  BSc.CSIT 5th Semester
</pre>
</body>
</html>
```

Output:
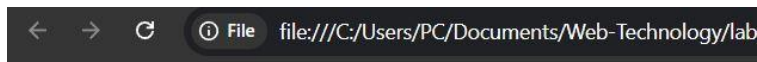
Lab 10: Write a JavaScript program that includes a try-catch block to handle potential errors. Trigger an error intentionally and observe how it's caught.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Division Error Handling</title>
</head>
<body>
  <h2>Division Error Handling</h2>
```

```
<button id="divideBtn">Perform Division</button>
<p id="output"></p>
<script>
 function divide(a, b) {
   let output = document.getElementById("output");
   try {
     if (b === 0) {
       throw new Error("Cannot divide by zero.");
     }
     output.innerHTML += `Result: ${a / b} <br>`;
   } catch (err) {
     output.innerHTML += `An error occurred: ${err.message} <br>`;
   } finally {
     output.innerHTML += `Division attempt completed. <br>`;
   }
 }
 document.getElementById("divideBtn").addEventListener("click", function() {
   let output = document.getElementById("output");
   output.innerHTML = ""; // Clear previous output
   divide(10, 0); // This will trigger the error
   divide(10, 2); // This will successfully divide
 });
</script>
<pre>
 Name: Samyak Manandhar
 Symbol: 79010513
 Registration Number: 5-2-410-62-2022
 BSc.CSIT 5th Semester
</pre>
</body>
</html>
```

Output:
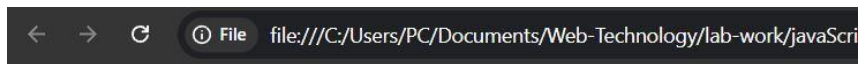
Division Error Handling

Perform Division

An error occurred: Cannot divide by zero.
Division attempt completed.
Result: 5
Division attempt completed.

    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester

Lab 11: How events are handled in JavaScript? Illustrate with examples.

Code:

```
<!DOCTYPE html>
<html>
<head>
   <title>Inline Event Example</title>
</head>
<body>
   <button onclick="showMessage()">Click Me</button>
   <script>
     function showMessage() {
        alert('Button clicked! I am samyak');
     }
   </script>
</body>
</html>
```

Output:
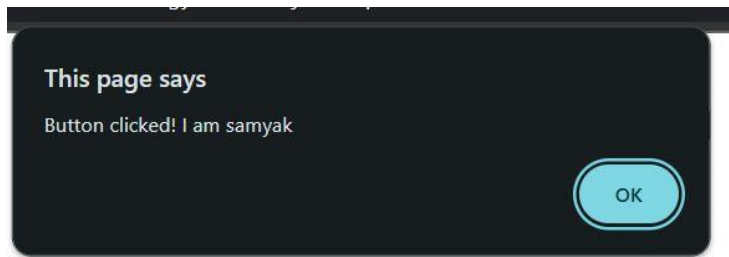
**Lab 12: Implement JavaScript code to set and retrieve cookies. Display the stored cookie information on the webpage.**

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Cookie Manager</title>
</head>
<body>
 <h1>Cookie</h1>
 <input type="text" id="cookieName" placeholder="Cookie Name">
 <input type="text" id="cookieValue" placeholder="Cookie Value">
 <button onclick="setCookie()">Set Cookie</button>
 <p id="cookieDisplay"></p>
 <script>
  function setCookie() {
    let name = document.getElementById("cookieName").value;
```

```
    let value = document.getElementById("cookieValue").value;
    if (name && value) {
      document.cookie = `${name}=${value}; path=/; expires=Fri, 31 Dec 9999 23:59:59 GMT`;
      displayCookies();
    }
  }
  function displayCookies() {
    let cookies = document.cookie;
    document.getElementById("cookieDisplay").textContent = cookies || "No cookies found.";
  }
  window.onload = displayCookies;
</script>
<pre>
  Name: Samyak Manandhar
  Symbol: 79010513
  Registration Number: 5-2-410-62-2022
  BSc.CSIT 5th Semester
</pre>
</body>
</html>
```

Output:
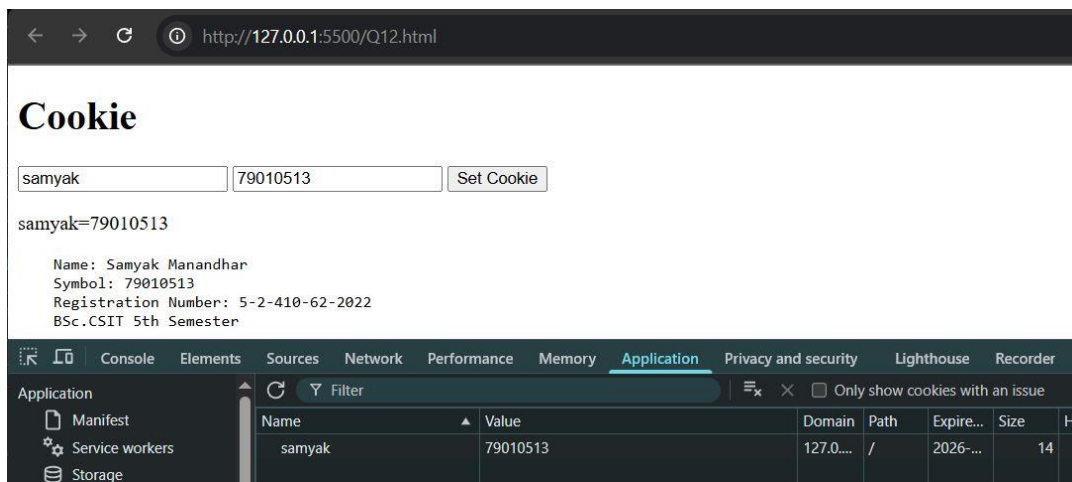
Lab 13: Integrate jQuery into an HTML document. Use different selectors (element, ID, class) to manipulate elements on the webpage.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>  <title>jQuery Example</title>
  <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
  <style>   .highlight { color: red; font-weight: bold; }  </style>
</head>
```

```html
<body>
 <h1>jQuery Example</h1>
 <p class="text_31">This is a paragraph with class 'text_31'.</p>
 <p id="special_31">This is a paragraph with ID 'special_31'.</p>
 <p class="text_31">Another paragraph with class 'text_31'.</p>
 <button id="changeText">Change Text</button>
 <button id="toggleHighlight">Toggle Highlight</button>
 <button id="hideShow">Hide/Show Paragraph</button>
 <script>
  $(document).ready(function() {
   $("#changeText").click(function() {
    $("p").text("Text has been changed!");
   });
   $("#toggleHighlight").click(function() {
    $(".text_31").toggleClass("highlight");
   });
   $("#hideShow").click(function() {
    $("#special_31").toggle();
   });   });
 </script>
 <pre>
  Name: Samyak Manandhar
  Symbol: 79010513
  Registration Number: 5-2-410-62-2022
  BSc.CSIT 5th Semester
 </pre>
</body>
</html>
```

Output:

Lab 14: Implement jQuery events for mouse interactions (e.g., click, hover) on specific elements. Display relevant information when these events occur.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
   <title>jQuery Mouse Events</title>
   <script src="jquery-3.7.1.min.js"></script>
   <style>
     #hoverBox {
        width: 200px;
        height: 100px;
        background-color: lightgray;
        text-align: center;
        line-height: 100px;
        margin-top: 20px;
        cursor: pointer;
     }
     #output {
        margin-top: 10px;
        font-size: 18px;
        font-weight: bold;
     }
   </style>
</head>
<body>
   <h1>jQuery Mouse Events</h1>
   <div id="hoverBox">Click or Hover</div>
   <p id="output"></p>
   <script>
     $(document).ready(function() {
        $("#hoverBox").click(function() {
           $("#output").text("Area is Clicked!");
        });
        $("#hoverBox").hover(
           function() {
              $(this).css("background-color", "lightblue");
           },
           function() {
              $(this).css("background-color", "lightgray");
           }
        );
        $("#hoverBox").dblclick(function() {
```

```
            $("#output").text("Area is Clicked!");
        });
    });
    </script>
    <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

Lab 15: Apply various jQuery effects (hide, show, fade, slide) to elements on the webpage. Create a button that triggers a combination of these effects.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>jQuery Effects</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      text-align: center;
      padding: 20px;
    }
    #effect-box {
      width: 200px;
```

```
            height: 200px;
            background-color: #4CAF50;
            color: white;
            display: flex;
            align-items: center;
            justify-content: center;
            margin: 30px auto;
            border-radius: 5px;
        }
        button {
            padding: 10px 15px;
            background-color: #333;
            color: white;
            border: none;
            border-radius: 5px;
            cursor: pointer;
            margin: 5px;
        }
    </style>
</head>
<body>
    <h1>jQuery Effects</h1>
    <div id="effect-box">Effect Box</div>
    <button id="hide-btn">Hide</button>
    <button id="show-btn">Show</button>
    <button id="fade-btn">Fade</button>
    <button id="slide-btn">Slide</button>
    <button id="combo-btn">Combo Effect</button>
    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
    <script>
        $(document).ready(function() {
            $("#hide-btn").click(function() {
                $("#effect-box").hide(500);
            });
            $("#show-btn").click(function() {
                $("#effect-box").show(500);
            });
            $("#fade-btn").click(function() {
                $("#effect-box").fadeToggle(800);
            });
            $("#slide-btn").click(function() {
                $("#effect-box").slideToggle(800);
            });
            $("#combo-btn").click(function() {
```

```
$("#effect-box")
    .slideUp(500)
    .delay(300)
    .fadeIn(500)
    .animate({backgroundColor: "#2196F3"}, 800)
    .animate({backgroundColor: "#4CAF50"}, 800);
    });
  });
</script>
<pre>
  Name: Samyak Manandhar
  Symbol: 79010513
  Registration Number: 5-2-410-62-2022
  BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```

Output:

Lab 16: Develop a form with input fields. Use jQuery to validate the form, providing feedback to users for correct or incorrect entries.
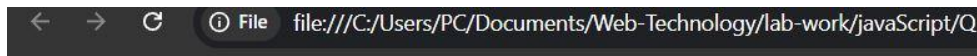
Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Simple Form Validation</title>
 <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
 <style>
  body { font-family: Arial, sans-serif; }
  .error { color: red; font-size: 14px; }
  .success { color: green; font-size: 14px; }
  input { display: block; margin-bottom: 10px; padding: 5px; }
 </style>
</head>
<body>
 <h2>Form Validation</h2>
 <form id="userForm">
  <input type="text" id="name" placeholder="Enter Name">
  <span id="nameError" class="error"></span>
  <input type="number" id="age" placeholder="Enter Age">
  <span id="ageError" class="error"></span>
  <button type="submit">Submit</button>
  <p id="formMessage"></p>
 </form>
 <script>
  $(document).ready(function() {
   $("#userForm").submit(function(event) {
    event.preventDefault();
    let valid = true;
    let name = $("#name").val().trim();
    if (name === "") {
     $("#nameError").text("Name is required.");
     valid = false;
    } else {
     $("#nameError").text("");
    }
    let age = $("#age").val().trim();
    if (age === "" || isNaN(age) || age < 1 || age > 120) {
     $("#ageError").text("Enter a valid age (1-120).");
     valid = false;
    } else {
     $("#ageError").text("");
```

```
      }
      if (valid) {
        $("#formMessage").text("Form submitted successfully!").addClass("success");
      } else {
        $("#formMessage").text("Please fix errors and try again.").addClass("error");
      }
    });
  });
 </script>
 <pre>
   Name: Samyak Manandhar
   Symbol: 79010513
   Registration Number: 5-2-410-62-2022
   BSc.CSIT 5th Semester
</pre>
</body>
</html>
```

Output:

Lab 17: Extend the previous form validation example to include more complex validation requirements. Validate email addresses, ensure passwords match, and check if a phone number follows a specific format.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Advanced Form Validation</title>
 <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
 <style>
  body { font-family: Arial, sans-serif; }
  .error { color: red; font-size: 14px; }
  .success { color: green; font-size: 14px; }
  input { display: block; margin-bottom: 10px; padding: 5px; }
 </style>
</head>
<body>
 <h2>Advanced Form Validation</h2>
 <form id="userForm">
  <input type="text" id="name" placeholder="Enter Name">
  <span id="nameError" class="error"></span>
  <input type="number" id="age" placeholder="Enter Age">
  <span id="ageError" class="error"></span>
  <input type="email" id="email" placeholder="Enter Email">
  <span id="emailError" class="error"></span>
  <input type="password" id="password" placeholder="Enter Password">
  <span id="passwordError" class="error"></span>
  <input type="password" id="confirmPassword" placeholder="Confirm Password">
  <span id="confirmPasswordError" class="error"></span>
  <input type="text" id="phone" placeholder="Enter Phone (10 digits)">
  <span id="phoneError" class="error"></span>
  <button type="submit">Submit</button>
  <p id="formMessage"></p>
 </form>
 <script>
  $(document).ready(function() {
   $("#userForm").submit(function(event) {
    event.preventDefault();
    let valid = true;
    let name = $("#name").val().trim();
    if (name === "") {
     $("#nameError").text("Name is required.");
```

```javascript
    valid = false;
  } else {
    $("#nameError").text("");
  }
  let age = $("#age").val().trim();
  if (age === "" || isNaN(age) || age < 1 || age > 120) {
    $("#ageError").text("Enter a valid age (1-120).");
    valid = false;
  } else {
    $("#ageError").text("");
  }
  let email = $("#email").val().trim();
  let emailPattern = /^[^ ]+@[^ ]+\.[a-z]{2,3}$/;
  if (!emailPattern.test(email)) {
    $("#emailError").text("Enter a valid email.");
    valid = false;
  } else {
    $("#emailError").text("");
  }
  let password = $("#password").val();
  if (password.length < 6) {
    $("#passwordError").text("Password must be at least 6 characters.");
    valid = false;
  } else {
    $("#passwordError").text("");
  }
  let confirmPassword = $("#confirmPassword").val();
  if (confirmPassword !== password) {
    $("#confirmPasswordError").text("Passwords do not match.");
    valid = false;
  } else {
    $("#confirmPasswordError").text("");
  }
  let phone = $("#phone").val().trim();
  let phonePattern = /^[0-9]{10}$/;
  if (!phonePattern.test(phone)) {
    $("#phoneError").text("Enter a valid 10-digit phone number.");
    valid = false;
  } else {
    $("#phoneError").text("");
  }
  if (valid) {
    $("#formMessage").text("Form submitted successfully!").addClass("success");
  } else {
```

```
      $("#formMessage").text("Please fix errors and try again.").addClass("error");
    }
  });
});
</script>
<pre>
  Name: Samyak Manandhar
  Symbol: 79010513
  Registration Number: 5-2-410-62-2022
  BSc.CSIT 5th Semester
</pre>
</body>
</html>
```

Output:

Lab 18: How animation is done using jQuery? Illustrate with example.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>jQuery Animation Example</title>
  <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
  <style>
    body { font-family: Arial, sans-serif; text-align: center; margin-top: 50px; }
    .box {
      width: 100px;
```

```
      height: 100px;
      background-color: blue;
      position: relative;
      margin: 20px auto;
    }
  </style>
</head>
<body>
  <h2>jQuery Animation Example By Samyak</h2>
  <button id="animateBtn">Animate Box</button>
  <div class="box"></div>
  <script>
   $(document).ready(function() {
    $("#animateBtn").click(function() {
     $(".box").animate({
       left: '250px',  // Move right
       opacity: 0.5,   // Reduce opacity
       width: '150px', // Increase width
       height: '150px' // Increase height
     }, 1000); // Duration: 1 second
    });
   });
  </script>
<pre>
  Name: Samyak Manandhar
  Symbol: 79010513
  Registration Number: 5-2-410-62-2022
  BSc.CSIT 5th Semester
</pre>
</body>
</html>
```

Output:

jQuery Animation Example By Samyak

Animate Box

```
         Name: Samyak Manandhar
              Symbol: 79010513
     Registration Number: 5-2-410-62-2022
              BSc.CSIT 5th Semester
```

Lab 19: Create a Web form that contains a text field for name, age, phone number, email, dropdown for colleges, radio for gender and a checkbox for I accept all the terms. Perform the client-side validations in JavaScript as:

a. All fields are required

b. Name must contain alphabets and white spaces and of length greater than 6 characters long c. Age must be integer and must be between and 50

d. Phone number must be exactly 10 digits long and must start with 98 or 97

e. Email must be valid

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Web Form</title>
  <script>
    function validateForm() {
      var name = document.getElementById("name").value;
      var age = document.getElementById("age").value;
      var phone = document.getElementById("phone").value;
      var email = document.getElementById("email").value;
      var college = document.getElementById("college").value;
      var gender = document.querySelector('input[name="gender"]:checked');
      var terms = document.getElementById("terms").checked;
      var namePattern = /^[a-zA-Z\s]{7,}$/;
      if (!namePattern.test(name)) {
        alert("Name must contain only alphabets and white spaces, and be at least 7 characters long.");
        return false;
      }
      if (isNaN(age) || age < 18 || age > 50) {
        alert("Age must be an integer between 18 and 50.");
        return false;
      }
      var phonePattern = /^(98|97)\d{8}$/;
      if (!phonePattern.test(phone)) {
        alert("Phone number must be exactly 10 digits long and start with 98 or 97.");
        return false;
      }
      var emailPattern = /^[a-zA-Z0-9._-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,6}$/;
      if (!emailPattern.test(email)) {
        alert("Please enter a valid email address.");
        return false;
      }
      if (college == "") {
        alert("Please select a college.");
        return false;
```

```
        }
        if (!gender) {
          alert("Please select your gender.");
          return false;
        }
        if (!terms) {
          alert("You must accept the terms and conditions.");
          return false;
        }
        return true;
      }
    </script>
  </head>
  <body>
    <h2>Registration Form</h2>
    <form onsubmit="return validateForm()">
      <label for="name">Name:</label>
      <input type="text" id="name" name="name" required><br><br>
      <label for="age">Age:</label>
      <input type="number" id="age" name="age" required><br><br>
      <label for="phone">Phone Number:</label>
      <input type="text" id="phone" name="phone" required><br><br>
      <label for="email">Email:</label>
      <input type="email" id="email" name="email" required><br><br>
      <label for="college">College:</label>
      <select id="college" name="college" required>
        <option value="">Select your college</option>
        <option value="college1">College 1</option>
        <option value="college2">College 2</option>
        <option value="college3">College 3</option>
      </select><br><br>
      <label>Gender:</label>
      <input type="radio" id="male" name="gender" value="male">
      <label for="male">Male</label>
      <input type="radio" id="female" name="gender" value="female">
      <label for="female">Female</label><br><br>
      <label for="terms">I accept all the terms:</label>
      <input type="checkbox" id="terms" name="terms" required><br><br>
      <input type="submit" value="Submit">
    </form>
    <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
```
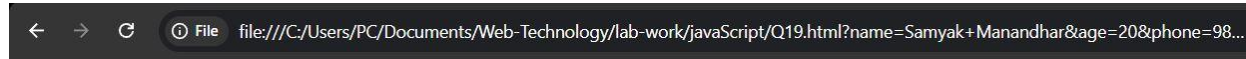
```
      BSc.CSIT 5th Semester
  </pre>
</body>
</html>
```
Output:

Registration Form

Name: [_____]

Age: [_____]

Phone Number: [_____]

Email: [_____]

College: [Select your college ▾]

Gender: ○ Male ○ Female

I accept all the terms: ☐

[Submit]

```
Name: Samyak Manandhar
Symbol: 79010513
Registration Number: 5-2-410-62-2022
BSc.CSIT 5th Semester
```

Lab 20: Develop a form where validation occurs in real-time as the user types. Use events like keyup or input to trigger immediate feedback on the validity of the entered data.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Real-time Validation Form</title>
  <style>
    .valid {
      border: 2px solid green;
    }
    .invalid {
      border: 2px solid red;
    }
    .feedback {
      font-size: 0.9em;
      color: red;
    }
    .feedback-valid {
      color: green;
```

```
        }
    </style>
    <script>
      function validateName() {
        var name = document.getElementById("name").value;
        var feedback = document.getElementById("name-feedback");
        var namePattern = /^[a-zA-Z\s]{7,}$/;
        if (namePattern.test(name)) {
          document.getElementById("name").classList.add("valid");
          document.getElementById("name").classList.remove("invalid");
          feedback.textContent = "Valid name!";
          feedback.classList.add("feedback-valid");
          feedback.classList.remove("feedback");
        } else {
          document.getElementById("name").classList.add("invalid");
          document.getElementById("name").classList.remove("valid");
          feedback.textContent = "Name must contain only alphabets and white spaces, and be at least 7
characters long.";
          feedback.classList.add("feedback");
          feedback.classList.remove("feedback-valid");
        }
      }
      function validateAge() {
        var age = document.getElementById("age").value;
        var feedback = document.getElementById("age-feedback");

        if (age >= 18 && age <= 50 && !isNaN(age)) {
          document.getElementById("age").classList.add("valid");
          document.getElementById("age").classList.remove("invalid");
          feedback.textContent = "Valid age!";
          feedback.classList.add("feedback-valid");
          feedback.classList.remove("feedback");
        } else {
          document.getElementById("age").classList.add("invalid");
          document.getElementById("age").classList.remove("valid");
          feedback.textContent = "Age must be an integer between 18 and 50.";
          feedback.classList.add("feedback");
          feedback.classList.remove("feedback-valid");
        }
      }
      function validatePhone() {
        var phone = document.getElementById("phone").value;
        var feedback = document.getElementById("phone-feedback");
        var phonePattern = /^(98|97)\d{8}$/;
```

```
      if (phonePattern.test(phone)) {
        document.getElementById("phone").classList.add("valid");
        document.getElementById("phone").classList.remove("invalid");
        feedback.textContent = "Valid phone number!";
        feedback.classList.add("feedback-valid");
        feedback.classList.remove("feedback");
      } else {
        document.getElementById("phone").classList.add("invalid");
        document.getElementById("phone").classList.remove("valid");
        feedback.textContent = "Phone number must start with 98 or 97 and be exactly 10 digits long.";
        feedback.classList.add("feedback");
        feedback.classList.remove("feedback-valid");
      }
    }
    function validateEmail() {
      var email = document.getElementById("email").value;
      var feedback = document.getElementById("email-feedback");
      var emailPattern = /^[a-zA-Z0-9._-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,6}$/;
      if (emailPattern.test(email)) {
        document.getElementById("email").classList.add("valid");
        document.getElementById("email").classList.remove("invalid");
        feedback.textContent = "Valid email address!";
        feedback.classList.add("feedback-valid");
        feedback.classList.remove("feedback");
      } else {
        document.getElementById("email").classList.add("invalid");
        document.getElementById("email").classList.remove("valid");
        feedback.textContent = "Please enter a valid email address.";
        feedback.classList.add("feedback");
        feedback.classList.remove("feedback-valid");
      }
    }
  </script>
</head>
<body>
  <h2>Real-time Validation Form</h2>
  <form>
    <label for="name">Name:</label>
    <input type="text" id="name" name="name" onkeyup="validateName()" required>
    <div id="name-feedback"></div><br><br>
    <label for="age">Age:</label>
    <input type="number" id="age" name="age" onkeyup="validateAge()" required>
    <div id="age-feedback"></div><br><br>
    <label for="phone">Phone Number:</label>
```

```
<input type="text" id="phone" name="phone" onkeyup="validatePhone()" required>
<div id="phone-feedback"></div><br><br>
<label for="email">Email:</label>
<input type="email" id="email" name="email" onkeyup="validateEmail()" required>
<div id="email-feedback"></div><br><br>
<input type="submit" value="Submit" disabled>
</form>
<pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
</pre>
</body>
</html>
```

Output:

Lab 21: Design a form with conditional validation. For example, validate a postal code only if a specific country is selected. Implement this logic using JavaScript and jQuery.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
```

```
<title>Conditional Validation Form</title>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<style>
  .valid {
    border: 2px solid green;
  }
  .invalid {
    border: 2px solid red;
  }
  .feedback {
    font-size: 0.9em;
    color: red;
  }
  .feedback-valid {
    color: green;
  }
</style>
<script>
  $(document).ready(function () {
    $('#country').change(function () {
      var country = $(this).val();
      var postalCodeField = $('#postal-code');
      var postalCodeFeedback = $('#postal-feedback');
      postalCodeField.removeClass('valid invalid');
      postalCodeFeedback.text('');
      if (country === 'Nepal') {
        postalCodeField.prop('required', true);
        postalCodeField.on('input', function () {
          var postalCode = $(this).val();
          var postalCodePattern = /^\d{5}$/;
          if (postalCodePattern.test(postalCode)) {
            postalCodeField.addClass('valid').removeClass('invalid');
                              postalCodeFeedback.text('Valid   postal   code!').addClass('feedback-
valid').removeClass('feedback');
          } else {
            postalCodeField.addClass('invalid').removeClass('valid');
                              postalCodeFeedback.text('Postal   code   must   be   5   digits   long   for
Nepal.').addClass('feedback').removeClass('feedback-valid');
          }
        });
      } else {
        postalCodeField.prop('required', false);
        postalCodeField.removeClass('valid invalid');
        postalCodeFeedback.text('');
```

```
            }
        });
    });
    </script>
</head>
<body>
    <h2>Conditional Validation Form</h2>
    <form>
        <label for="country">Country:</label>
        <select id="country" name="country" required>
            <option value="">Select a country</option>
            <option value="Nepal">Nepal</option>
            <option value="India">India</option>
            <option value="USA">USA</option>
            <option value="UK">UK</option>
        </select><br><br>
        <label for="postal-code">Postal Code:</label>
        <input type="text" id="postal-code" name="postal-code">
        <div id="postal-feedback"></div><br><br>
        <input type="submit" value="Submit">
    </form>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

XML:

Introduction:

XML (eXtensible Markup Language) is a flexible, text-based markup language designed to store and transport structured data in a human-readable and machine-readable format. Unlike HTML, which focuses on displaying data, XML is used to define, organize, and share data across different systems and platforms. It uses tags to define elements and attributes to provide additional information, allowing users to create custom markup languages tailored to specific needs. XML is widely used in web services (SOAP, REST), configuration files, document storage (e.g., Microsoft Office files), and data interchange between applications. Its platform-independent nature and simplicity make it a popular choice for data representation in various industries, including finance, healthcare, and e-commerce. Additionally, XML supports validation through DTD (Document Type Definition) and XML Schema, ensuring data integrity and consistency.

Lab 1: Create a simple XML element.

Code:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<student>
  <name>Samyak</name>
  <college_roll_no>24</college_roll_no>
  <tu_roll_no>79010513</tu_roll_no>
</student>
```

Output:

Lab 2: Create a XML document with simple and complex type.

Code:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<school>
 <student>
  <name>Samyak Manandhar</name>
  <college_roll_no>25</college_roll_no>
  <tu_roll_no>79010513</tu_roll_no>
  <courses>
   <course>
    <course_name>Web Technology</course_name>
    <course_code>CSC 318</course_code>
   </course>
```

```
      <course>
        <course_name>Multimedia</course_name>
        <course_code>CSC 319</course_code>
      </course>
    </courses>
  </student>
</school>
```

Output:

This XML file does not appear to have any style information associated with it. The document tree is

```
▼<school>
  ▼<student>
      <name>Samyak Manandhar</name>
      <college_roll_no>25</college_roll_no>
      <tu_roll_no>79010513</tu_roll_no>
    ▼<courses>
      ▼<course>
          <course_name>Web Technology</course_name>
          <course_code>CSC 318</course_code>
        </course>
      ▼<course>
          <course_name>Multimedia</course_name>
          <course_code>CSC 319</course_code>
        </course>
      </courses>
    </student>
  </school>
```

Lab 3: Create an XML document that conforms to the following DTD.

Code:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE Report SYSTEM "reports.dtd">
<Report>
  <Students>
    <Student StudId="S001">
      <Name>
        <First>Samyak</First>
        <Last>Manandhar</Last>
      </Name>
      <Status>Completed</Status>
      <CrsTaken CrsCode="C001">Mathematics</CrsTaken>
      <CrsTaken CrsCode="C002">Computer Science</CrsTaken>
    </Student>
  </Students>
  <Classes>
    <Class>
      <Semester>Fall 2025</Semester>
      <ClassRoster Members="S001">no name</ClassRoster>
    </Class>
  </Classes>
  <Courses>
    <Course CrsCode="C001">Mathematics</Course>
```

```
    <Course CrsCode="C002">Computer Science</Course>
  </Courses>
</Report>
```

Output:

```
This XML file does not appear to have any style information associated with it. The document tree is shown below.

▼<Report>
  ▼<Students>
    ▼<Student StudId="S001">
      ▼<Name>
          <First>Samyak</First>
          <Last>Manandhar</Last>
        </Name>
        <Status>Completed</Status>
        <CrsTaken CrsCode="C001">Mathematics</CrsTaken>
        <CrsTaken CrsCode="C002">Computer Science</CrsTaken>
      </Student>
    </Students>
  ▼<Classes>
    ▼<Class>
        <Semester>Fall 2025</Semester>
        <ClassRoster Members="S001">no name</ClassRoster>
      </Class>
    </Classes>
  ▼<Courses>
      <Course CrsCode="C001">Mathematics</Course>
      <Course CrsCode="C002">Computer Science</Course>
    </Courses>
  </Report>
```

Lab 4: Create an XML and DTD documents for the following output.

Code:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE people SYSTEM "person.dtd">
<people>
  <person>
    <name>Samyak Manandhar</name>
    <age>20</age>
  </person>
  <person>
    <name>Jane Smith</name>
    <age>22</age>
  </person>
</people>
```

Output:

```
This XML file does not appear to have any style information associated with it. Th

▼<people>
  ▼<person>
      <name>Samyak Manandhar</name>
      <age>20</age>
    </person>
  ▼<person>
      <name>Jane Smith</name>
      <age>22</age>
    </person>
  </people>
```

Lab 5: Create an XML and DTD documents for the following output.

Code:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE person SYSTEM "family.dtd">
<person>
  <name>
    <fname>Samyak</fname>
    <lname>Sayami</lname>
  </name>
  <age>20</age>
  <children>
    <person>
      <name/>
      <age>0</age>
    </person>
    <person>
      <name>
        <fname>-</fname>
        <mi>-</mi>
        <lname>-</lname>
      </name>
      <age>0</age>
    </person>
  </children>
</person>
```

Output:

PHP:

Introduction:

PHP (Hypertext Preprocessor) is a popular open-source, server-side scripting language primarily used for web development. Developed by Rasmus Lerdorf in 1994, PHP is embedded within HTML code and executed on the server, generating dynamic web content before sending it to the client's browser. Known for its simplicity and flexibility, PHP enables developers to create interactive websites, handle forms, manage databases, track sessions, and process files efficiently. It supports major databases like MySQL, PostgreSQL, and SQLite, and integrates seamlessly with web servers such as Apache and Nginx. Over the years, PHP has evolved to include object-oriented programming features and robust frameworks like Laravel and Symfony, enhancing its capabilities for building complex web applications. With a vast global community, extensive documentation, and cross-platform compatibility, PHP remains a cornerstone of web development, powering major platforms including WordPress, Facebook (in its early stages), and Wikipedia. Its enduring popularity stems from its ease of learning, powerful functionality, and ability to deliver high-performance web solutions.

Lab 1: Write a simple PHP script that prints "Hello, PHP!" to the browser with your detail.

Code:

```
<!DOCTYPE html>
<html><head>    <title>Hello PHP</title> </head>
<body> <?php
    echo "<h1>Hello, PHP!</h1>";
    echo "<p>This is made by Samyak Manandhar</p>";
    echo "<p>Today's date is: " . date('2025-04-05') . "</p>";
    echo "<p>PHP version: " . phpversion() . "</p>";   ?><pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester    </pre>
</body>
</html>
```

Output:
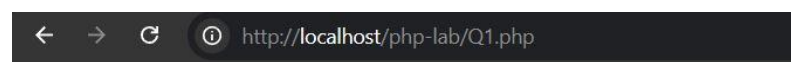
Hello, PHP!

This is made by Samyak Manandhar

Today's date is: 2025-04-05

PHP version: 8.2.12

```
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
```

Lab 2: Declare variables of different data types (integer, float, string) and demonstrate the usage of constants in PHP.

Code:

```
<!DOCTYPE html>
<html>
<head>    <title>PHP Variables and Constants Demo</title>
    <style>      body {
        margin: 20px;
    }   </style>
</head>
<body>
    <h2>PHP Variables and Constants Demo</h2>
    <?php
    $intVar = 42;
    echo "<p>Integer Variable: $intVar</p>";
    $floatVar = 3.14;
    echo "<p>Float Variable: $floatVar</p>";
    $stringVar = "Hello, World!";
    echo "<p>String Variable: $stringVar</p>";
    define("PI", 3.14159);
    define("GREETING", "Welcome to PHP!");
    echo "<p>PI Constant: " . PI . "</p>";
    echo "<p>Greeting Constant: " . GREETING . "</p>";
    ?>   <pre>
      Name: Samyak Manandhar
      Symbol: 79010513
      Registration Number: 5-2-410-62-2022
      BSc.CSIT 5th Semester    </pre>
</body>
</html>
```

Output:

Lab 3: Create a PHP program that uses if-else statements to check if a number is positive, negative, or zero. Utilize different operators for comparison.

Code:
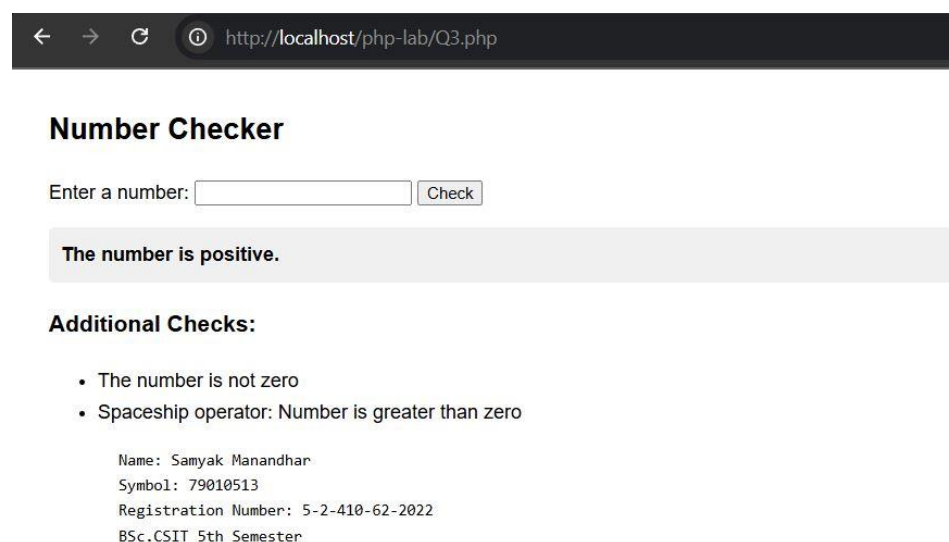
```
<!DOCTYPE html>
<html>
<head>
    <title>Number Checker</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            margin: 30px;
            line-height: 1.6;
        }
        .result {
            font-weight: bold;
            margin-top: 15px;
            padding: 10px;
            background-color: #f0f0f0;
            border-radius: 5px;
        }
    </style>
</head>
<body>
    <h2>Number Checker</h2>
    <form method="post">
        Enter a number: <input type="number" name="number" step="any" required>
        <input type="submit" value="Check">
    </form>
    <?php
    if ($_SERVER["REQUEST_METHOD"] == "POST") {
        $number = $_POST["number"];
        echo "<div class='result'>";
        if ($number == 0) {
            echo "The number is zero.";
        }
        elseif ($number > 0) {
            echo "The number is positive.";
        }
        elseif ($number < 0) {
            echo "The number is negative.";
        }
        else {
            echo "This is not a valid number.";
```

```php
        }
        echo "</div>";
        echo "<h3>Additional Checks:</h3>";
        echo "<ul>";
        if ($number === 0) {
            echo "<li>The number is exactly zero (including type check)</li>";
        }
        if ($number != 0) {
            echo "<li>The number is not zero</li>";
        }
        $comparison = $number <=> 0;
        if ($comparison === 1) {
            echo "<li>Spaceship operator: Number is greater than zero</li>";
        } elseif ($comparison === -1) {
            echo "<li>Spaceship operator: Number is less than zero</li>";
        } else {
            echo "<li>Spaceship operator: Number is equal to zero</li>";
        }
        echo "</ul>";
    }
    ?>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

Lab 4: Develop a function that calculates the average of an array of numbers. Test the function with various arrays.

Code:

```
<!DOCTYPE html>
<html>
<head>   <title>Array Average Calculator</title></head>
<body>
  <h2>Array Average Calculator</h2>
  <?php
  function calculateAverage($array) {
    if (empty($array)) {
      return 0;      }
    $sum = array_sum($array);
    $count = count($array);
    return $sum / $count;   }
  $array1 = [1, 2, 3, 4, 5];
  $array2 = [10, 20, 30, 40];
  $array3 = [7, 14, 21, 28, 35];
echo "<div class='result'>Average of array [" . implode(', ', $array1) . "]: " . calculateAverage($array1) .
"</div>";
  echo "<div class='result'>Average of array [" . implode(', ', $array2) . "]: " . calculateAverage($array2) .
"</div>";
  echo "<div class='result'>Average of array [" . implode(', ', $array3) . "]: " . calculateAverage($array3) .
"</div>";
  $emptyArray = [];
  $singleElementArray = [42];
  $negativeNumbers = [-5, -10, -15];   ?>
  <pre>      Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester   </pre>
</body>
</html>
```
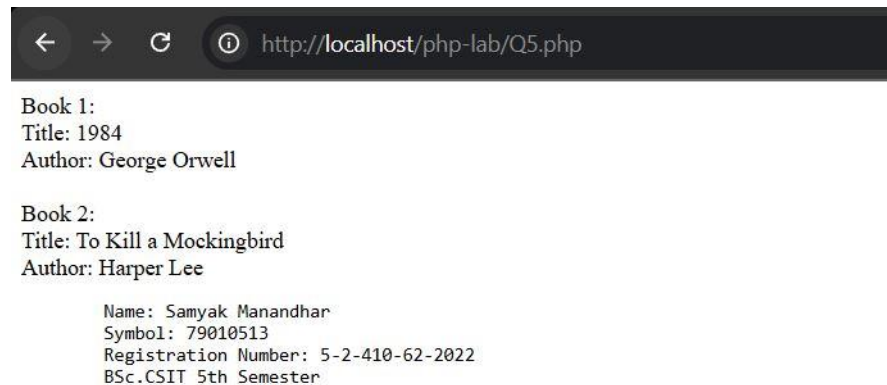
Output:
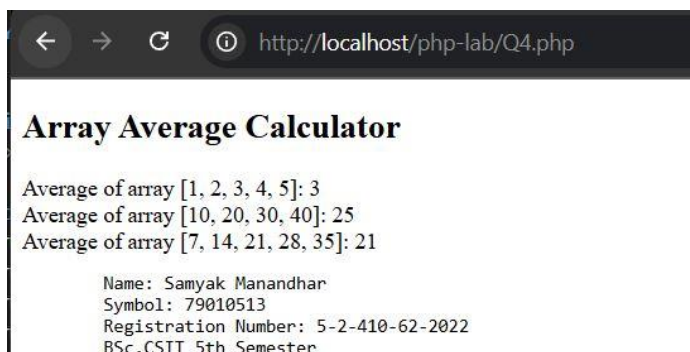
Lab 5: Define a PHP class representing a "Book" with properties like title and author. Create objects of this class and display their attributes.

Code:

```php
<?php
class Book {
    public $title;
    public $author;
    public function __construct($title, $author) {
        $this->title = $title;
        $this->author = $author;
    }
    public function displayInfo() {
        echo "Title: " . $this->title . "\n";
        echo "Author: " . $this->author . "\n";
    }
}
$book1 = new Book("1984<br>", "George Orwell <br><br>");
$book2 = new Book("To Kill a Mockingbird <br>", "Harper Lee");
echo "Book 1:\n<br>";
$book1->displayInfo();
echo "\n";
echo "Book 2:\n<br>";
$book2->displayInfo();
echo "<pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>";
?>
```

Output:

Lab 6: Design a simple HTML form with input fields. Create a PHP script that retrieves and displays the form data when submitted.

Code:

```php
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = htmlspecialchars($_POST['name'] ?? '');
    $email = htmlspecialchars($_POST['email'] ?? '');
    $message = htmlspecialchars($_POST['message'] ?? '');
    echo "<h1>Form Data Submitted:</h1>";
    echo "<p>Name: $name</p>";
    echo "<p>Email: $email</p>";
    echo "<p>Message: $message</p>";
    echo "<hr>";
}
?>
<!DOCTYPE html>
<html>
<head>
    <title>Contact Form</title>
</head>
<body>
    <h1>Contact Form</h1>
    <form method="post">
        <p>Name:<br>
            <input type="text" name="name" value="<?php echo isset($_POST['name']) ? htmlspecialchars($_POST['name']) : ''; ?>"></p>
        <p>Email:<br>
            <input type="email" name="email" value="<?php echo isset($_POST['email']) ? htmlspecialchars($_POST['email']) : ''; ?>"></p>
        <p>Message:<br>
            <textarea name="message" rows="4"><?php echo isset($_POST['message']) ? htmlspecialchars($_POST['message']) : ''; ?></textarea></p>
        <p><input type="submit" value="Submit"></p>
    </form>
    <pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:

Form Data Submitted:

Name: samyak

Email: samyak.mdr7@gmail.com

Message: hi

Contact Form

Name:
[samyak]

Email:
[samyak.mdr7@gmail.com]

Message:
[hi]

[Submit]

```
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
```

Lab 7: Enhance the previous form with PHP validation. Ensure that required fields are filled, and validate email addresses and make sure the phone number starts with 98 or 97 using regex.

Code:

```php
<?php
$name = $email = $phone = $message = '';
$errors = [];
$success = false;
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = trim(htmlspecialchars($_POST['name'] ?? ''));
    $email = trim(htmlspecialchars($_POST['email'] ?? ''));
    $phone = trim(htmlspecialchars($_POST['phone'] ?? ''));
```

```php
    $message = trim(htmlspecialchars($_POST['message'] ?? ''));
    if (empty($name)) {
        $errors['name'] = "Name is required";
    }
    if (empty($email)) {
        $errors['email'] = "Email is required";
    } elseif (!filter_var($email, FILTER_VALIDATE_EMAIL)) {
        $errors['email'] = "Invalid email format";
    }
    if (!empty($phone) && !preg_match('/^(97|98)\d{8}$/', $phone)) {
        $errors['phone'] = "Phone must start with 97 or 98 and be 10 digits";
    }
    if (empty($errors)) {
        $success = true;
    }
}
?>
<!DOCTYPE html>
<html>
<head>    <title>Contact Form</title></head>
<body>
    <h1>Contact Form</h1>
    <?php if ($success): ?>
        <h2>Form Data Submitted:</h2>
        <p>Name: <?php echo $name; ?></p>
        <p>Email: <?php echo $email; ?></p>
        <?php if (!empty($phone)): ?>
            <p>Phone: <?php echo $phone; ?></p>
        <?php endif; ?>
        <p>Message: <?php echo $message; ?></p>
        <hr>
    <?php endif; ?>
    <form method="post">
        <p>Name: <span style="color:red">*</span><br>
        <input type="text" name="name" value="<?php echo $name; ?>">
        <?php if (isset($errors['name'])): ?>
            <span style="color:red"><?php echo $errors['name']; ?></span>
        <?php endif; ?>      </p>
        <p>Email: <span style="color:red">*</span><br>
        <input type="email" name="email" value="<?php echo $email; ?>">
        <?php if (isset($errors['email'])): ?>
            <span style="color:red"><?php echo $errors['email']; ?></span>
        <?php endif; ?>
        </p>
```

```
<p>Phone (optional):<br>
    <input type="text" name="phone" value="<?php echo $phone; ?>" placeholder="97xxxxxxxx or
98xxxxxxxx">
    <?php if (isset($errors['phone'])): ?>
      <span style="color:red"><?php echo $errors['phone']; ?></span>
    <?php endif; ?>
    </p>
    <p>Message:<br>
    <textarea name="message" rows="4"><?php echo $message; ?></textarea>  </p>
    <p><input type="submit" value="Submit"></p>
    <p><small>Fields marked with <span style="color:red">*</span> are required</small></p>
  </form>
  <pre>     Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester   </pre>
</body>
</html>
```

Output:

Lab 8: Implement PHP code that responds to a button click event on a form. Display a message when the button is clicked.

Code:

```php
<?php
$message = '';
if ($_SERVER['REQUEST_METHOD'] == 'POST' && isset($_POST['submit_button'])) {
    $message = "The button was clicked!";
}
?>
<!DOCTYPE html>
<html>
<head>
    <title>Button Click Example</title>
</head>
<body>
    <h1>Button Click Demo</h1>
    <form method="post">
        <p>
            <input type="submit" name="submit_button" value="Click Me">
        </p>
    </form>
    <?php if (!empty($message)): ?>
        <p style="color: green; font-weight: bold;"><?php echo $message; ?></p>
    <?php endif; ?>
    <pre>
        Name: Samyak Manandhar
        Symbol: 79010513
        Registration Number: 5-2-410-62-2022
        BSc.CSIT 5th Semester
    </pre>
</body>
</html>
```

Output:
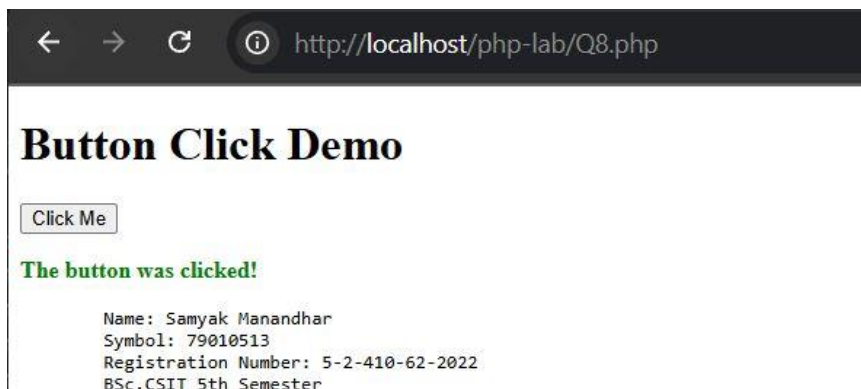
Lab 9: Create a PHP script that sets a cookie with user preferences. Retrieve and display this information on subsequent visits.

Code:

```php
<?php
$theme = $fontSize = '';
$message = '';
$preferencesSet = false;
if ($_SERVER['REQUEST_METHOD'] == 'POST' && isset($_POST['set_preferences'])) {
    $theme = $_POST['theme'] ?? 'light';
    $fontSize = $_POST['font_size'] ?? 'medium';
    setcookie('user_theme', $theme, time() + (30 * 24 * 60 * 60));
    setcookie('user_font_size', $fontSize, time() + (30 * 24 * 60 * 60));
    $message = "Preferences saved successfully!";
    $preferencesSet = true;
}
if (isset($_COOKIE['user_theme'])) {
    $theme = $_COOKIE['user_theme'];
    $preferencesSet = true;
}
if (isset($_COOKIE['user_font_size'])) {
    $fontSize = $_COOKIE['user_font_size'];
    $preferencesSet = true;
}
?>
<!DOCTYPE html>
<html>
<head>
    <title>User Preferences</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            padding: 20px;
            <?php if ($theme == 'dark'): ?>
                background-color: #333;
                color: #fff;
            <?php else: ?>
                background-color: #f5f5f5;
                color: #333;
            <?php endif; ?>

            <?php if ($fontSize == 'small'): ?>
                font-size: 14px;
```

```php
        <?php elseif ($fontSize == 'large'): ?>
           font-size: 18px;
        <?php else: ?>
           font-size: 16px;
        <?php endif; ?>
     }
     .pref-box {
        border: 1px solid #ccc;
        padding: 20px;
        margin: 20px 0;
        border-radius: 5px;
        <?php if ($theme == 'dark'): ?>
           border-color: #555;
           background-color: #444;
        <?php else: ?>
           background-color: #fff;
        <?php endif; ?>
     }
   </style>
</head>
<body>
   <h1>User Preferences</h1>
   <?php if (!empty($message)): ?>
      <p style="color: green;"><?php echo $message; ?></p>
   <?php endif; ?>
   <div class="pref-box">
      <h2>Set Your Preferences</h2>
      <form method="post">
        <p>
          <label for="theme">Theme:</label><br>
          <select name="theme" id="theme">
             <option value="light" <?php echo ($theme == 'light') ? 'selected' : ''; ?>>Light</option>
             <option value="dark" <?php echo ($theme == 'dark') ? 'selected' : ''; ?>>Dark</option>
          </select>
        </p>
        <p>
          <label for="font_size">Font Size:</label><br>
          <select name="font_size" id="font_size">
             <option value="small" <?php echo ($fontSize == 'small') ? 'selected' : ''; ?>>Small</option>
                     <option value="medium" <?php echo ($fontSize == 'medium') ? 'selected' : '';
?>>Medium</option>
             <option value="large" <?php echo ($fontSize == 'large') ? 'selected' : ''; ?>>Large</option>
          </select>
        </p>
```
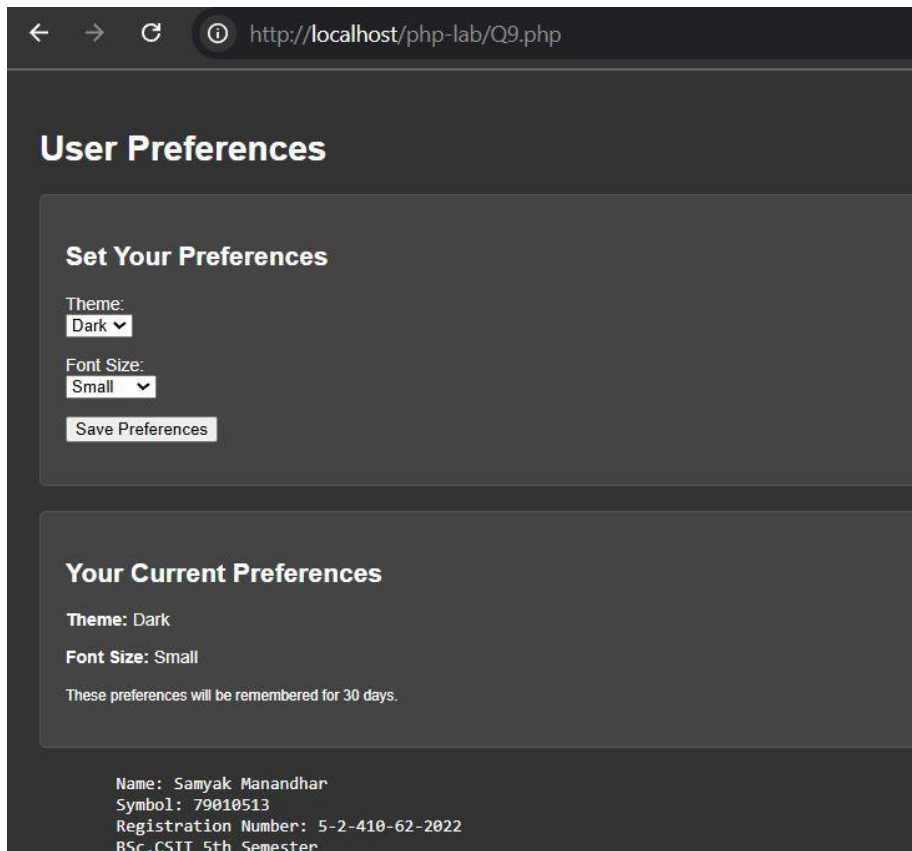
```
        <p>
            <input type="submit" name="set_preferences" value="Save Preferences">
        </p>
    </form>
</div>
<?php if ($preferencesSet): ?>
    <div class="pref-box">
        <h2>Your Current Preferences</h2>
        <p><strong>Theme:</strong> <?php echo ucfirst($theme); ?></p>
        <p><strong>Font Size:</strong> <?php echo ucfirst($fontSize); ?></p>
        <p><small>These preferences will be remembered for 30 days.</small></p>
    </div>
<?php endif; ?>
<pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
</pre>
</body>
</html>
```

Output:

Lab 10: Develop a PHP script that reads content from a text file, modifies it, and then writes the updated content back to the file.

Code:

```php
<?php
// Define the file path
$filePath = 'sample.txt';
$originalContent = file_get_contents($filePath);
$updatedContent = $originalContent . "\nThis line was added by the PHP script.";
file_put_contents($filePath, $updatedContent);
echo "<h2>Original Content:</h2>";
echo "<pre>" . htmlspecialchars($originalContent) . "</pre>";
echo "<h2>Updated Content:</h2>";
echo "<pre>" . htmlspecialchars($updatedContent) . "</pre>";
echo "<p>File has been successfully updated.</p>";
echo "<pre>
    Name: Samyak Manandhar
    Symbol: 79010513
    Registration Number: 5-2-410-62-2022
    BSc.CSIT 5th Semester
  </pre>";
?>
```

Output:
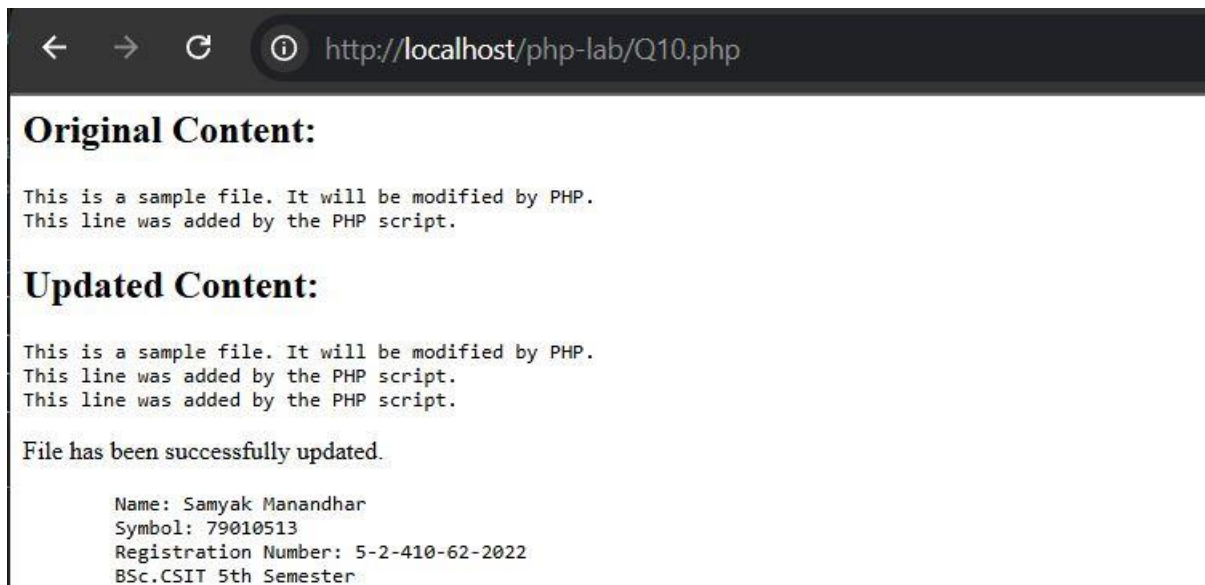
PROJRCT WORK

Introduction:

Travelease is your all-in-one travel platform built to simplify your journey from planning to booking. Whether you're searching for serene landscapes, adventurous escapes, or vibrant cultural hotspots, we've got you covered with curated travel destinations across the country and beyond. Each tour card offers a complete overview from beautiful images and detailed descriptions to cost, duration, and a convenient reserve button for easy booking.

But Travelease is more than just a user experience — it also comes with a powerful admin system hidden behind a secret URL. This admin dashboard allows authorized users to securely log in and manage all travel listings. Admins can effortlessly add new destinations, edit existing packages, and delete outdated ones. This ensures the platform remains up-to-date, relevant, and reliable for every traveler who visits.

Whether you're planning your next getaway or managing tour data behind the scenes, Travelease ensures everything runs smoothly all in one place.

PHP:

Code:

Index.php
```
<?php require 'db.php'; ?>
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>TravelEase - Explore the World</title>
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.4.0/css/all.min.css">
  <link rel="stylesheet" href="style.css?v1.1">
  <script src="script.js?v=2 defer"></script>
</head>
<body>
  <nav class="navbar">
    <div class="logo">
      <i class="fas fa-plane"></i>
      <span>TravelEase</span>
    </div>
    <div class="search-bar">
      <input type="text" id="searchInput" placeholder="Search destinations...">
      <i class="fas fa-search" id="searchIcon"></i>
    </div>
    <ul class="nav-links" id="navLinks">
```

```html
        <li><a href="#">Home</a></li>
        <li><a href="#">Tours</a></li>
        <li><a href="#">About Us</a></li>
        <li><a href="#">Contact Us</a></li>
        <li>
          <button class="book-now-btn">Book Now</button>
        </li>
      </ul>
      <div class="menu-toggle" id="menuToggle">
        <i class="fas fa-bars"></i>
      </div>
    </nav>

    <!-- Landing Page Image -->
    <div class="landing-image">
      <img src="img/banner.png" alt="Landing Image" width="100%">
    </div>

    <!-- Dynamic Tour Cards -->
    <section class="tour-section">
      <h2>Explore Destinations</h2>
      <h6>Visit the tour packages at affortable Price</h6>
      <div class="tour-container">
      <?php
        require 'db.php';
        $q = $conn->query("SELECT * FROM destinations");
        while ($r = $q->fetch_assoc()):
      ?>
      <div class="tour-card">
        <img src="uploads/<?= $r['image'] ?>" alt="<?= $r['title'] ?>">
        <h3><?= $r['title'] ?></h3>
        <p class="tour-description"><?= $r['description'] ?></p>
        <p><strong><?= $r['nights'] ?>N/<?= $r['days'] ?>D</strong></p>
        <p>Rs. <?= $r['cost'] ?></p>
        <div class="rating">
<?php
$rating = rand(35, 50) / 10;
$fullStars = floor($rating);
$hasHalfStar = ($rating - $fullStars) >= 0.5;
$emptyStars = 5 - $fullStars - ($hasHalfStar ? 1 : 0);

for ($i = 0; $i < $fullStars; $i++) {
   echo '<i class="fas fa-star"></i>';
}
```

```php
    if ($hasHalfStar) {
        echo '<i class="fas fa-star-half-alt"></i>';
    }
    for ($i = 0; $i < $emptyStars; $i++) {
        echo '<i class="far fa-star"></i>';
    }
    if ($rating == 0) {
        echo str_repeat('<i class="far fa-star"></i>', 5);
    }
    ?>
    <span>(<?= number_format($rating, 1) ?>)</span>
</div>
        <a href="reserve.php?id=<?= $r['id'] ?>" class="reserve-btn">Reserve</a>
    </div>
    <?php endwhile; ?>
    </div>
  </section>

  <!-- Contact Section -->
  <section class="contact-section">
    <h2 class="section-title">Get in Touch</h2>
    <div class="contact-container">
      <div class="contact-info">
        <h3>Contact Information</h3>
        <div class="info-item">
          <i class="fas fa-map-marker-alt"></i>
          <div>
            <h4>Address</h4>
            <p>123 Travel Street, Kathmandu, Nepal</p>
          </div>
        </div>
        <div class="info-item">
          <i class="fas fa-phone-alt"></i>
          <div>
            <h4>Phone</h4>
            <p>+977 1234567890</p>
          </div>
        </div>
        <div class="info-item">
          <i class="fas fa-envelope"></i>
          <div>
            <h4>Email</h4>
            <p>info@travelease.com</p>
          </div>
```

```html
          </div>
          <div class="info-item">
            <i class="fas fa-clock"></i>
            <div>
              <h4>Working Hours</h4>
              <p>Mon-Fri: 9AM - 6PM</p>
              <p>Sat: 10AM - 4PM</p>
            </div>
          </div>
        </div>

        <div class="contact-form">
          <form id="contactForm" action="process_form.php" method="POST">
            <div class="form-group">
              <label for="name">Full Name*</label>
              <input type="text" id="name" name="name" class="form-control" required>
            </div>
            <div class="form-group">
              <label for="email">Email Address*</label>
              <input type="email" id="email" name="email" class="form-control" required>
            </div>
            <div class="form-group">
              <label for="phone">Phone Number</label>
              <input type="tel" id="phone" name="phone" class="form-control">
            </div>
            <div class="form-group">
              <label for="subject">Subject*</label>
              <input type="text" id="subject" name="subject" class="form-control" required>
            </div>
            <div class="form-group">
              <label for="message">Your Message*</label>
              <textarea id="message" name="message" class="form-control" required></textarea>
            </div>
            <button type="submit" class="submit-btn">
              <i class="fas fa-paper-plane"></i> Send Message
            </button>
          </form>
        </div>
      </div>
    </div>
  </section>
</body>
</html>
```
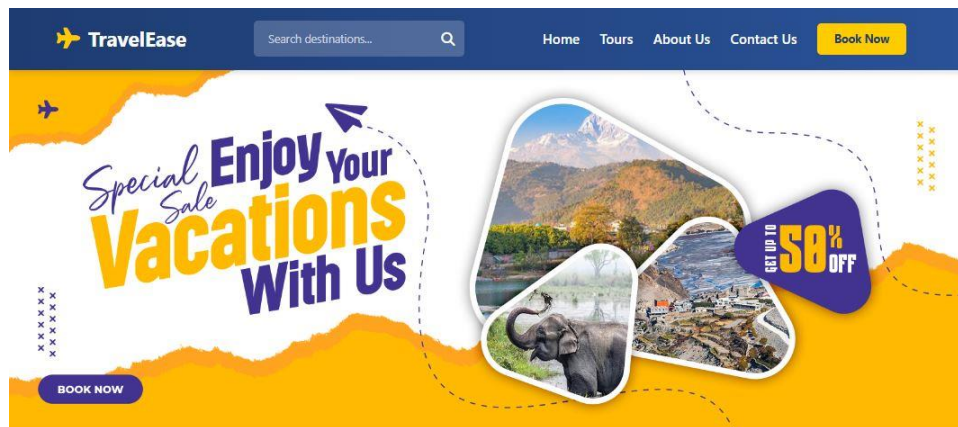
Search destinations...

Home   Tours   About Us   Contact Us   **Book Now**

Special Sale **Enjoy Your Vacations With Us**

GET UP TO **50% OFF**

BOOK NOW

Explore Destinations

Visit the tour packages at affortable Price

Chitwan National Park
While most accommodation at Nepal's Chitwan National Park is outside the...

2N/3D
Rs. 9000.00
★★★★☆ (4.8)

Reserve

Travel Mustang
Exploring the rocky hills, hidden walled cities, primordial monasteries, and the...

3N/4D
Rs. 12000.00
★★★★☆ (4.8)

Reserve

Pokhara Tour
Hike on Travel and Trek is the right place to come to. Whatever your travel...

2N/3D
Rs. 6000.00
★★★★☆ (4.1)

Reserve

Get in Touch

Contact Information

Address
123 Travel Street, Kathmandu, Nepal

Phone
+977 1234567890

Email
info@travelease.com

Working Hours
Mon-Fri: 9AM - 6PM
Sat: 10AM - 4PM

Full Name*

Email Address*

Phone Number

Subject*

Your Message*

Send Message

login.php

```php
<?php
session_start();
require '../db.php';
if ($_SERVER['REQUEST_METHOD'] === 'POST') {
   $u = $_POST['username'];
   $p = sha1($_POST['password']);
   $q = $conn->prepare("SELECT * FROM admin WHERE username=? AND password=?");
   $q->bind_param("ss", $u, $p);
   $q->execute();
   $res = $q->get_result();
   if ($res->num_rows > 0) {
      $_SESSION['admin_logged_in'] = true;
      header("Location: dashboard.php");
      exit();
   } else {
      echo "Invalid credentials";
   }
}
?>
<link rel="stylesheet" href="add.css">
<form method="POST">
   <input type="text" name="username" required placeholder="Username"><br>
   <input type="password" name="password" required placeholder="Password"><br>
   <button type="submit">Login</button>
</form>
```


dashboard.php

```php
<?php
session_start();
if (!isset($_SESSION['admin_logged_in'])) {
   header("Location: login.php");
   exit();
}
require '../db.php';
$result = $conn->query("SELECT * FROM destinations");
```

```php
?>
<link rel="stylesheet" href="dashboard.css">
<button class="button-add"><a href="add.php">Add New Destination</a></button>
<table>
  <tr>
    <th>Image</th>
    <th>Title</th>
    <th>Description</th>
    <th>Nights/Days</th>
    <th>Cost</th>
    <th>Actions</th>
  </tr>
  <?php while ($row = $result->fetch_assoc()): ?>
  <tr>
    <td><img src="../uploads/<?= htmlspecialchars($row['image']) ?>" width="100" alt="Image of <?= htmlspecialchars($row['title']) ?>"></td>
    <td><?= htmlspecialchars($row['title']) ?></td>
    <td><?= htmlspecialchars($row['description']) ?></td>
    <td><?= $row['nights'] ?>N/<?= $row['days'] ?>D</td>
    <td>Rs. <?= number_format($row['cost'], 2) ?></td>
    <td>
      <a href="edit.php?id=<?= $row['id'] ?>" class="edit">Edit</a> |
      <a href="delete.php?id=<?= $row['id'] ?>" class="delete" onclick="return confirm('Are you sure you want to delete this destination?')">Delete</a>
    </td>
  </tr>
  <?php endwhile; ?>
</table>
```
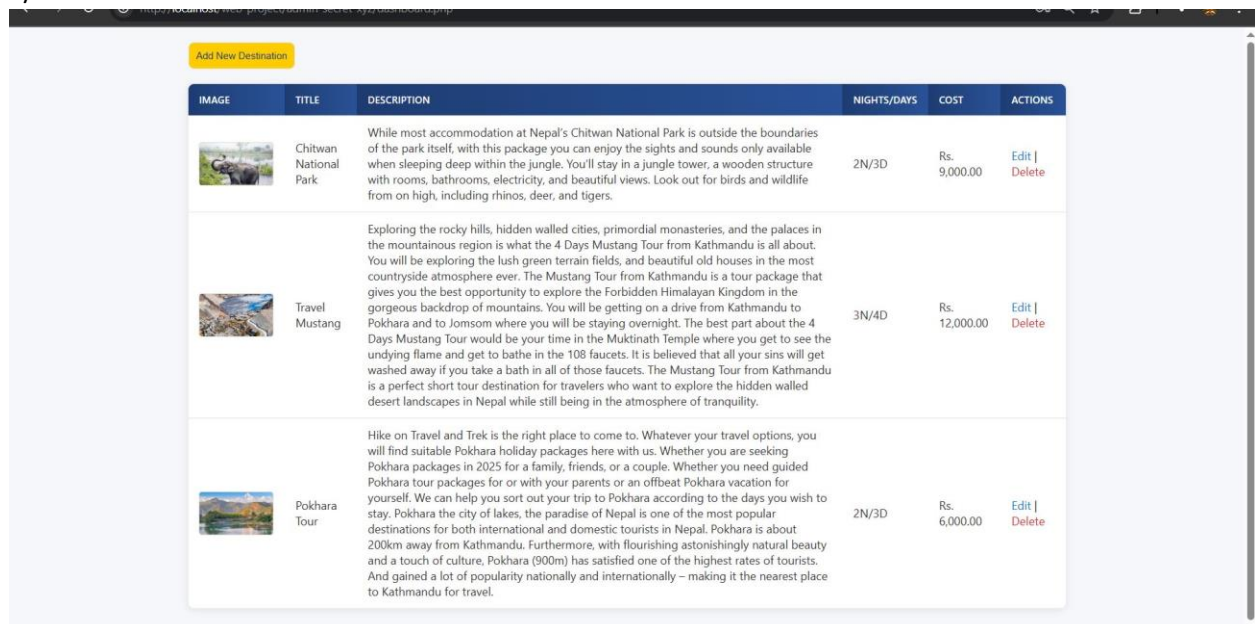
add.php
```php
<?php
session_start();
if (!isset($_SESSION['admin_logged_in'])) {
    // If the session is not set, redirect to login page
    header("Location: login.php");
    exit();
}
// Include the database connection
require '../db.php';
// Initialize variables for error handling
$title = $description = $nights = $days = $cost = $image = "";
$error = "";
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Get the form data
    $title = $_POST['title'];
    $description = $_POST['description'];
    $nights = $_POST['nights'];
    $days = $_POST['days'];
    $cost = $_POST['cost'];
    // Handle image upload
    if (isset($_FILES['image'])) {
        $image_name = $_FILES['image']['name'];
        $image_tmp_name = $_FILES['image']['tmp_name'];
        $image_path = "../uploads/" . $image_name;
        // Move the uploaded file to the uploads directory
        if (move_uploaded_file($image_tmp_name, $image_path)) {
            $image = $image_name; // Store the image filename in the database
        } else {
            $error = "Failed to upload image.";
        }
    }
    // Insert new destination into the database
    if ($title && $description && $nights && $days && $cost && $image) {
        $query = "INSERT INTO destinations (title, description, nights, days, cost, image)
                VALUES ('$title', '$description', '$nights', '$days', '$cost', '$image')";

        if ($conn->query($query) === TRUE) {
            // Redirect to the destination list page after successful insertion
            header("Location: index.php");
            exit();
        } else {
            $error = "Error: " . $conn->error;
        }
```

```php
    } else {
        $error = "Please fill in all the fields.";
    }
}
?>
```
```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Add New Destination</title>
    <link rel="stylesheet" href="add.css">
</head>
<body>
    <div class="header">
        <h2>Add New Destination</h2>
    </div>
    <div class="body">
    <?php if ($error): ?>
        <p style="color: red;"><?php echo $error; ?></p>
    <?php endif; ?>
    <form method="POST" enctype="multipart/form-data">
        <label for="title">Destination Title</label>
        <input type="text" name="title" value="<?= $title ?>" required><br>
        <label for="description">Description</label>
        <textarea name="description" required><?= $description ?></textarea><br>
        <label for="nights">Nights</label>
        <input type="number" name="nights" value="<?= $nights ?>" required><br>
        <label for="days">Days</label>
        <input type="number" name="days" value="<?= $days ?>" required><br>
        <label for="cost">Cost</label>
        <input type="number" name="cost" value="<?= $cost ?>" required><br>
        <label for="image">Upload Image</label>
        <input type="file" name="image" required><br>
        <button type="submit">Add Destination</button><br><br>
        <button class="submit"><a href="dashboard.php">Back to Dashboard</a></button>
    </form>
    </div>
</body>
</html>
```

edit.php

```php
<?php
session_start();
if (!isset($_SESSION['admin_logged_in'])) {
    header("Location: login.php");
    exit();
}
require '../db.php';
$title = $description = $nights = $days = $cost = $image = "";
$error = "";
if (isset($_GET['id'])) {
    $id = $_GET['id'];
    $query = "SELECT * FROM destinations WHERE id = $id";
    $result = $conn->query($query);
    if ($result->num_rows > 0) {
        $row = $result->fetch_assoc();
        $title = $row['title'];
        $description = $row['description'];
        $nights = $row['nights'];
        $days = $row['days'];
        $cost = $row['cost'];
        $image = $row['image'];
    } else {
        $error = "Destination not found.";
    }
}
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $title = $_POST['title'];
```

```php
      $description = $_POST['description'];
      $nights = $_POST['nights'];
      $days = $_POST['days'];
      $cost = $_POST['cost'];
      if (isset($_FILES['image']) && $_FILES['image']['name'] != "") {
        $image_name = $_FILES['image']['name'];
        $image_tmp_name = $_FILES['image']['tmp_name'];
        $image_path = "../uploads/" . $image_name;
        if (move_uploaded_file($image_tmp_name, $image_path)) {
          $image = $image_name;
        } else {
          $error = "Failed to upload image.";
        }
      }
      if ($title && $description && $nights && $days && $cost) {
        $query = "UPDATE destinations SET title = '$title', description = '$description',
              nights = '$nights', days = '$days', cost = '$cost', image = '$image'
              WHERE id = $id";

        if ($conn->query($query) === TRUE) {
          header("Location: index.php");
          exit();
        } else {
          $error = "Error: " . $conn->error;
        }
      } else {
        $error = "Please fill in all the fields.";
      }
    }
    ?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Edit Destination</title>
    <link rel="stylesheet" href="add.css">
</head>
<body>
    <h2>Edit Destination</h2>
    <?php if ($error): ?>
      <p style="color: red;"><?php echo $error; ?></p>
    <?php endif; ?>
    <form method="POST" enctype="multipart/form-data">
```

```html
<label for="title">Destination Title</label>
<input type="text" name="title" value="<?= $title ?>" required><br>
<label for="description">Description</label>
<textarea name="description" required><?= $description ?></textarea><br>
<label for="nights">Nights</label>
<input type="number" name="nights" value="<?= $nights ?>" required><br>
<label for="days">Days</label>
<input type="number" name="days" value="<?= $days ?>" required><br>
<label for="cost">Cost</label>
<input type="number" name="cost" value="<?= $cost ?>" required><br>
<label for="image">Upload Image (Leave blank to keep existing image)</label>
<<input type="file" name="image"><br>
<button type="submit">Update Destination</button><br><br>
<button class="submit"><a href="dashboard.php">Back to Dashboard</a></button>
</form>
</body>
</html>
```

Edit Destination

Destination Title

Chitwan National Park

Description

While most accommodation at Nepal's Chitwan National Park is outside the boundaries of the park itself, with this package you can enjoy the sights and sounds only available when sleeping deep within the jungle. You'll stay in a jungle tower, a wooden structure with rooms, bathrooms, electricity, and beautiful views. Look out for birds and wildlife from on high, including rhinos, deer, and tigers.

Nights

2

Days

3

Cost

9000.00

Upload Image (Leave blank to keep existing image) <

Choose File No file chosen

Update Destination

Back to Dashboard

delete.php

```php
<?php
require '../db.php';
$id = $_GET['id'];
$conn->query("DELETE FROM destinations WHERE id = $id");
header('Location: dashboard.php');
?>
```

reserve.php

```php
<?php
session_start();
require 'db.php';
if (isset($_GET['id'])) {
    $id = $_GET['id'];
    $query = "SELECT * FROM destinations WHERE id = $id";
    $result = $conn->query($query);
    $destination = $result->fetch_assoc();
}
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    $name = $_POST['name'];
    $email = $_POST['email'];
    $phone = $_POST['phone'];
    $date_of_travel = $_POST['date_of_travel'];
    $destination_id = $_POST['destination_id'];
    $sql = "INSERT INTO reservations (name, email, phone, date_of_travel, destination_id)
        VALUES ('$name', '$email', '$phone', '$date_of_travel', '$destination_id')";
    if ($conn->query($sql) === TRUE) {
        $message = "Your reservation has been successfully placed!";
    } else {
        $message = "Error: " . $conn->error;
    }
}
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Reserve Your Trip</title>
    <link rel="stylesheet" href="reserve.css">
</head>
<body>
    <h2>Reserve Your Trip to <?= $destination['title'] ?></h2>
    <?php if (isset($message)): ?>
        <p style="color: green;"><?= $message ?></p>
    <?php endif; ?>
    <form method="POST">
        <input type="hidden" name="destination_id" value="<?= $destination['id'] ?>">
        <label for="name">Full Name:</label>
        <input type="text" name="name" required><br>
        <label for="email">Email Address:</label>
        <input type="email" name="email" required><br>
```

```
<label for="phone">Phone Number:</label>
<input type="tel" name="phone"><br>
<label for="date_of_travel">Date of Travel:</label>
<input type="date" name="date_of_travel" required><br>
<button type="submit">Reserve Now</button>
</form>
<a href="index.php">Back to Destinations</a>
</body>
</html>
```

logout.php

```
<?php
session_start();
session_unset();  // remove all session variables
session_destroy(); // destroy the session
header("Location: login.php");
exit();
```

process_form.php

```
<?php
require 'db.php';
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    $name = $conn->real_escape_string($_POST['name']);
    $email = $conn->real_escape_string($_POST['email']);
    $phone = $conn->real_escape_string($_POST['phone']);
    $subject = $conn->real_escape_string($_POST['subject']);
    $message = $conn->real_escape_string($_POST['message']);

    $sql = "INSERT INTO messages (name, email, phone, subject, message) VALUES ('$name', '$email',
'$phone', '$subject', '$message')";

    if ($conn->query($sql)) {
        echo "Message sent successfully!";
    } else {
        echo "Error: " . $conn->error;
    }
}
?>
```

CSS:

Code:

style.css

```css
* {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
}

.navbar {
    background: linear-gradient(90deg, #1e3c72, #2a5298);
    color: white;
    padding: 15px 5%;
    display: flex;
    justify-content: space-between;
    align-items: center;
    box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
    position: relative;
}

.logo {
    font-size: 24px;
    font-weight: bold;
    display: flex;
    align-items: center;
}

.logo i {
    margin-right: 10px;
    color: #ffcc00;
}

.nav-links {
    display: flex;
    list-style: none;
    align-items: center;
}

.nav-links li {
    margin: 0 12px;
    position: relative;
}
```

```css
.nav-links a {
    color: white;
    text-decoration: none;
    font-weight: 500;
    transition: color 0.3s;
}

.nav-links a:hover {
    color: #ffcc00;
}

.dropdown {
    position: relative;
}

.dropdown-content {
    display: none;
    position: absolute;
    background: white;
    min-width: 200px;
    box-shadow: 0 8px 16px rgba(0, 0, 0, 0.2);
    border-radius: 5px;
    z-index: 1;
    right: 0;
}

.dropdown-content a {
    color: #333;
    padding: 12px 16px;
    display: block;
}

.dropdown-content a:hover {
    background: #f1f1f1;
    color: #1e3c72;
}

.dropdown:hover .dropdown-content {
    display: block;
}

.book-now-btn {
    background: #ffcc00;
```

```css
    color: #1e3c72;
    padding: 10px 20px;
    border: none;
    border-radius: 5px;
    font-weight: bold;
    cursor: pointer;
    transition: background 0.3s;
}

.book-now-btn:hover {
    background: #ffd700;
}
.search-bar {
    display: flex;
    align-items: center;
    background: rgba(255, 255, 255, 0.2);
    border-radius: 5px;
    padding: 8px 12px;
    margin: 0 15px;
    transition: all 0.3s;
    width: 250px;
}

.search-bar input {
    border: none;
    background: transparent;
    color: white;
    outline: none;
    width: 100%;
    padding: 5px;
}

.search-bar input::placeholder {
    color: rgba(255, 255, 255, 0.7);
}

.search-bar i {
    color: white;
    cursor: pointer;
}

/* For dark backgrounds */
.search-bar.dark {
    background: rgba(0, 0, 0, 0.1);
```

```css
}
.search-bar.dark input {
    color: #333;
}
.search-bar.dark input::placeholder {
    color: rgba(0, 0, 0, 0.5);
}
.search-bar.dark i {
    color: #333;
}

.auth-buttons .login-btn {
    background: transparent;
    color: white;
    border: 1px solid white;
    padding: 8px 15px;
    border-radius: 5px;
    margin-right: 10px;
    cursor: pointer;
}

.auth-buttons .signup-btn {
    background: white;
    color: #1e3c72;
    border: none;
    padding: 8px 15px;
    border-radius: 5px;
    cursor: pointer;
}

.menu-toggle {
    display: none;
    cursor: pointer;
    font-size: 22px;
}

.user-profile {
    display: flex;
    align-items: center;
    cursor: pointer;
}

.user-profile img {
    width: 30px;
```

```css
    height: 30px;
    border-radius: 50%;
    margin-right: 8px;
}

@media (max-width: 992px) {
  .search-bar {
      display: none;
  }
}

@media (max-width: 768px) {
  .nav-links {
      display: none;
      flex-direction: column;
      width: 100%;
      position: absolute;
      top: 70px;
      left: 0;
      background: #2a5298;
      padding: 20px;
  }

  .nav-links.active {
      display: flex;
  }

  .nav-links li {
      margin: 10px 0;
  }

  .dropdown-content {
      position: static;
      box-shadow: none;
      background: rgba(255, 255, 255, 0.1);
  }

  .menu-toggle {
      display: block;
  }

  .auth-buttons {
      display: none;
  }
```

```css
}
/* ----------------------------------------------------------*/
/* Main Tour Section */
.tour-section {
    margin: 40px auto;
    padding: 0 5%;
    max-width: 1400px; /* Increased to accommodate 3 cards */
    width: 100%;
}

.tour-section h2 {
    font-size: 32px;
    margin: 40px 0px 0px 0px;
    color: #1e3c72;

}

.tour-section h6 {
    font-size: 20px;
    margin: 20px 0px;
    color: #1e3c72;
    font-weight: normal;

}

/* Tour Container - Now a flex/grid container */
.tour-container {
    display: grid;
    grid-template-columns: repeat(3, 1fr); /* 3 columns */
    gap: 30px; /* Space between cards */
    margin: 0 auto;
    max-width: none; /* Remove previous max-width */
}

/* Individual Tour Cards */
.tour-card {
    border: 2px solid #1e3c72;
    text-align: left;
    padding: 15px;
    border-radius: 8px;
    display: flex;
    flex-direction: column;
    height: 100%; /* Ensures equal height */
    margin-bottom: 0; /* Remove previous margin-bottom */
```

```css
    box-shadow: 0 5px 15px rgba(0, 0, 0, 0.1);
}

.tour-card img {
    width: 100%;
    height: 240px;
    object-fit: cover;
    margin-bottom: 15px;
}

.tour-description {
    margin-bottom: 8px;
    color: #555;
    display: -webkit-box;
    -webkit-line-clamp: 2;
    -webkit-box-orient: vertical;
    overflow: hidden;
    text-overflow: ellipsis;
    min-height: 2.8em;
    line-height: 1.4em;
}

.reserve-btn {
    background: #ffcc00;
    color: #2a5298;
    border: none;
    padding: 8px 20px;
    border-radius: 5px;
    cursor: pointer;
    font-size: 1rem;
    text-decoration: none;
    text-align: center;
    margin-top: 8px;
    font-style: bolder;
}

.rating {
    color: #0cff24; /* Default yellow for stars */
    margin-bottom: 10px;
    font-size: 0.9rem;
}

.rating .fa-star,
.rating .fa-star-half-alt {
```

```css
  color: #0cff24; /* Filled/half stars - yellow */
}

.rating .far.fa-star {
  color: #ddd; /* Empty stars - gray */
}

.rating span {
  color: #666;
  margin-left: 5px;
}


/* Responsive Adjustments */
@media (max-width: 1024px) {
  .tour-container {
    grid-template-columns: repeat(2, 1fr); /* 2 columns on tablets */
  }
}

@media (max-width: 768px) {
  .tour-container {
    grid-template-columns: 1fr; /* 1 column on mobile */
    gap: 20px;
  }

  .tour-card img {
    height: 200px;
  }
}

/* ----------------------------------------------------------*/

/* GET in touch */

/* Reusing your navbar styles */
* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
  font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
}

body {
```

```css
    background-color: #f5f7fa;
}

/* Contact Form Styles */
.contact-section {
    max-width: 1000px;
    margin: 50px auto;
    padding: 0 20px;
}

.section-title {
    text-align: center;
    margin-bottom: 40px;
    color: #1e3c72;
    font-size: 2.2rem;
}

.contact-container {
    display: flex;
    background: white;
    border-radius: 10px;
    box-shadow: 0 5px 15px rgba(0, 0, 0, 0.1);
    overflow: hidden;
}

.contact-info {
    flex: 1;
    padding: 40px;
    background: linear-gradient(135deg, #1e3c72, #2a5298);
    color: white;
}

.contact-info h3 {
    font-size: 1.8rem;
    margin-bottom: 20px;
    position: relative;
    padding-bottom: 10px;
}

.contact-info h3::after {
    content: '';
    position: absolute;
    left: 0;
    bottom: 0;
```

```css
    width: 50px;
    height: 3px;
    background: #ffcc00;
}

.info-item {
    display: flex;
    align-items: center;
    margin-bottom: 25px;
}

.info-item i {
    font-size: 1.2rem;
    margin-right: 15px;
    color: #ffcc00;
    width: 20px;
    text-align: center;
}

.contact-form {
    flex: 1;
    padding: 40px;
}

.form-group {
    margin-bottom: 20px;
}

.form-group label {
    display: block;
    margin-bottom: 8px;
    font-weight: 500;
    color: #333;
}

.form-control {
    width: 100%;
    padding: 12px 15px;
    border: 1px solid #ddd;
    border-radius: 5px;
    font-size: 1rem;
    transition: border 0.3s;
}
```

```css
.form-control:focus {
  border-color: #1e3c72;
  outline: none;
}

textarea.form-control {
  min-height: 150px;
  resize: vertical;
}

.submit-btn {
  background: linear-gradient(90deg, #1e3c72, #2a5298);
  color: white;
  border: none;
  padding: 12px 30px;
  border-radius: 5px;
  cursor: pointer;
  font-size: 1rem;
  font-weight: 500;
  transition: all 0.3s;
}

.submit-btn:hover {
  background: linear-gradient(90deg, #2a5298, #1e3c72);
  transform: translateY(-2px);
}

/* Responsive */
@media (max-width: 768px) {
  .contact-container {
    flex-direction: column;
  }

  .contact-info, .contact-form {
    padding: 30px;
  }
}
```

add.css

```css
.body {
  font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
  background-color: #f5f7fa;
  color: #333;
```

```css
    line-height: 1.6;
    padding: 0;
    margin: 0;
    display: flex;
    justify-content: center;
    align-items: center; /* Full height of the viewport */
}

/* Container */
.container {
    max-width: 800px;
    margin: 30px auto;
    padding: 20px;
    background: white;
    border-radius: 8px;
    box-shadow: 0 2px 10px rgba(0, 0, 0, 0.1);
    display: flex;
    flex-direction: column;
    align-items: center;
}

/* Title Styling */
h2 {
    color: #1e3c72;
    text-align: center;
    padding-bottom: 10px;
    border-bottom: 2px solid #f0f0f0;
    font-size: 28px;
    margin-top: 0;
}

/* Error Message */
.error-message {
    background-color: #ffebee;
    color: #d32f2f;
    padding: 10px 15px;
    border-radius: 4px;
    margin-bottom: 20px;
    border-left: 4px solid #d32f2f;
}

/* Form Styles */
/* Update the form styles */
form {
```

```css
    display: block;
    max-width: 600px; /* Reduced from 800px for better proportions */
    margin: 0 auto; /* This centers the form */
    padding: 30px;
    border: 2px solid #ddd;
    border-radius: 8px;
    background: white;
    box-shadow: 0 2px 15px rgba(0, 0, 0, 0.1);
}

/* Update input/textarea widths to be full width within form */
input[type="text"],
input[type="number"],
textarea,
input[type="file"] {
    width: 100%; /* Changed from 90% to use full form width */
    box-sizing: border-box; /* Includes padding in width calculation */
    padding: 4px;
    border: 1px solid #333;
    border-radius: 6px;
}

/* Update the container to remove its background/border
   since the form now has its own styling */
.container {
    max-width: 800px;
    margin: 30px auto;
    padding: 20px;
    background: transparent; /* Changed from white */
    box-shadow: none; /* Removed shadow from container */
    border-radius: 0;
}

textarea {
    min-height: 120px;
    resize: vertical;
}

/* File Input Customization */
input[type="file"] {
    padding: 8px;
    border: 1px dashed #ccc;
    background-color: #f9f9f9;
}
```

```css
/* Button Styles */
button[type="submit"] {
    background: linear-gradient(90deg, #1e3c72, #2a5298);
    color: white;
    border: none;
    padding: 12px 20px;
    font-size: 16px;
    border-radius: 4px;
    cursor: pointer;
    transition: all 0.3s;
    font-weight: 500;
    margin-top: 10px;
}

button[type="submit"]:hover {
    background: linear-gradient(90deg, #2a5298, #1e3c72);
    transform: translateY(-2px);
    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
}

.submit {
    color: white;
    border: none;
    padding: 12px 20px;
    font-size: 16px;
    border-radius: 4px;
    cursor: pointer;
    transition: all 0.3s;
    font-weight: 500;
}

/* Back Link */
a {
    text-align: center;
    margin-top: 20px;
    color: #1e3c72;
    text-decoration: none;
    font-weight: 500;
    padding: 8px 16px;
    border-radius: 4px;
    transition: all 0.3s;
}
```

```css
a:hover {
    background-color: #e3e9f7;
    text-decoration: underline;
}

/* Responsive Design */
@media (max-width: 768px) {
    .container {
        margin: 20px;
        padding: 15px;
    }

    form {
        flex-direction: column;
    }
}
```

dashboard.css
```css
body {
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
    line-height: 1.6;
    color: #333;
    background-color: #f5f7fa;
    padding: 20px;
    max-width: 1200px;
    margin: 0 auto;
}

.button-add {
    background-color: #ffcc00;
    border: 1px solid #e0e0e0;
    border-radius: 8px;
    padding: 10px;
}

.button-add a {
    color: #1e3c72;
    text-decoration: none;
    transition: color 0.3s;
}

a:hover {
    color: #2a5298;
}
```

```css
/* Add New Button */
.add-new {
    display: inline-block;
    background: linear-gradient(90deg, #1e3c72, #2a5298);
    color: white;
    padding: 10px 20px;
    border-radius: 5px;
    margin-bottom: 20px;
    font-weight: 500;
}

.add-new:hover {
    background: linear-gradient(90deg, #2a5298, #1e3c72);
    color: white;
    transform: translateY(-2px);
    box-shadow: 0 4px 8px rgba(0,0,0,0.1);
}

/* Destinations Table */
table {
    width: 100%;
    border-collapse: collapse;
    margin: 20px 0;
    box-shadow: 0 2px 10px rgba(0,0,0,0.1);
    background: white;
    border-radius: 8px;
    overflow: hidden;
}

th, td {
    padding: 12px 15px;
    text-align: left;
    border-bottom: 1px solid #e0e0e0;
}

th {
    background: linear-gradient(90deg, #1e3c72, #2a5298);
    color: white;
    font-weight: 500;
    text-transform: uppercase;
    font-size: 0.85rem;
}
```

```css
tr:hover {
    background-color: #f8f9fa;
}

tr:last-child td {
    border-bottom: none;
}

/* Image in table */
td img {
    border-radius: 4px;
    object-fit: cover;
    border: 1px solid #e0e0e0;
}

/* Action Links */
.actions a {
    display: inline-block;
    padding: 5px 10px;
    margin-right: 5px;
    border-radius: 4px;
    font-size: 0.85rem;;
}
.actions a.edit {
    background-color: #e3f2fd;
    color: #1976d2;
}
.actions a.delete {
    background-color: #ffebee;
    color: #d32f2f;
    text-decoration: none;
}
.actions a:hover {
    opacity: 0.9;
}
td a{
    text-decoration: none;
}
.edit{
    color: #1976d2;
}
.delete{
    color: #d32f2f;
}
```

```css
/* Confirmation Dialog */
.confirm-dialog {
    background-color: #ffebee;
    padding: 10px;
    border-radius: 4px;
    margin-top: 5px;
    display: none;
}
/* Responsive Table */
@media (max-width: 768px) {
    table {
        display: block;
        overflow-x: auto;
    }
    th, td {
        padding: 8px 10px;
    }
}
```

JAVASCRIPT:

Code:

```javascript
document.addEventListener('DOMContentLoaded', function() {
    console.log("Script loaded successfully");
const menuToggle = document.getElementById('menuToggle');
const navLinks = document.getElementById('navLinks');
menuToggle.addEventListener('click', () => {
    navLinks.classList.toggle('active');
});
//Get in touch part----------------------
document.getElementById('contactForm').addEventListener('submit', function(e) {
    const email = document.getElementById('email').value;
    if (!email.includes('@') || !email.includes('.')) {
        alert('Please enter a valid email address');
        e.preventDefault();
    }
});
//search bar-------------------------------
document.addEventListener('DOMContentLoaded', function() {
    console.log("Script loaded successfully");

    // Mobile menu toggle
    const menuToggle = document.getElementById('menuToggle');
    const navLinks = document.getElementById('navLinks');
```

```javascript
    if (menuToggle && navLinks) {
      menuToggle.addEventListener('click', function() {
        navLinks.classList.toggle('active');
        console.log("Menu toggled");
      });
    }
    // Search functionality
    const searchInput = document.getElementById('searchInput');
    const searchIcon = document.getElementById('searchIcon');
    const tourCards = document.querySelectorAll('.tour-card');
    if (searchInput && searchIcon) {
      function performSearch() {
        const searchTerm = searchInput.value.toLowerCase();
        console.log("Searching for:", searchTerm);
        tourCards.forEach(card => {
          const title = card.querySelector('h3').textContent.toLowerCase();
          const description = card.querySelector('.tour-description').textContent.toLowerCase();
          if (title.includes(searchTerm) || description.includes(searchTerm)) {
            card.style.display = 'block';
          } else {
            card.style.display = 'none';
          }
        });
      }
      searchInput.addEventListener('input', performSearch);
      searchIcon.addEventListener('click', performSearch);
    }
    // Form validation
    const contactForm = document.getElementById('contactForm');
    if (contactForm) {
      contactForm.addEventListener('submit', function(e) {
        const email = document.getElementById('email').value;
        if (!email.includes('@') || !email.includes('.')) {
          alert('Please enter a valid email address');
          e.preventDefault();
        }
      });
    }
  });
});
```

SQL:

Code:

```sql
CREATE DATABASE IF NOT EXISTS travel_db;
USE travel_db;
-- Admin login table
CREATE TABLE admin (
    id INT AUTO_INCREMENT PRIMARY KEY,
    username VARCHAR(50) NOT NULL,
    password VARCHAR(255) NOT NULL -- store hashed password
);
-- Insert a default admin (username: admin, password: admin123)
INSERT INTO admin (username, password)
VALUES ('admin', SHA1('admin123'));
-- Destinations (tour packages)
CREATE TABLE destinations (
    id INT AUTO_INCREMENT PRIMARY KEY,
    title VARCHAR(255) NOT NULL,
    description TEXT NOT NULL,
    nights INT NOT NULL,
    days INT NOT NULL,
    cost DECIMAL(10,2) NOT NULL,
    image VARCHAR(255) NOT NULL
);
-- Contact form messages
CREATE TABLE messages (
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    email VARCHAR(100) NOT NULL,
    phone VARCHAR(20),
    subject VARCHAR(255) NOT NULL,
    message TEXT NOT NULL,
    sent_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP
);
```

CONCLUSION

In conclusion, the development of the Travelease project has provided a comprehensive understanding of how front-end and back-end technologies work together to create a dynamic, user-friendly travel website. Throughout this project, we successfully implemented HTML for structure, CSS for styling, and JavaScript for interactivity, resulting in a visually appealing and responsive interface. Additionally, XML was explored for data handling concepts, while PHP was used as the server-side scripting language to manage database operations such as user authentication, content management, and file uploads.

The project also included the creation of a secure admin panel through a secret URL, which allows administrators to log in and add, edit, or delete travel destinations efficiently. This feature ensures that the website remains current and manageable from the backend while offering users a seamless browsing and booking experience.

Overall, the Travelease project not only enhanced technical skills but also demonstrated the practical application of web development technologies in building a real-world solution. It stands as a solid foundation for more advanced projects in the future.