**Expt 1 - Website Using HTML**

\*\*Introduction:\*\*

Welcome to our website, where we showcase the versatility and power of HTML through the demonstration of essential tags. HTML, the backbone of the web, empowers developers to structure and present content seamlessly across various platforms. In this demonstration, we explore five fundamental HTML tags—Headings, Paragraphs, Images, Anchors, and Tables—each playing a crucial role in web development.

\*\*Description of HTML Tags:\*\*

1. \*\*Headings:\*\* HTML offers six levels of headings, ranging from `<h1>` to `<h6>`, allowing developers to organize content hierarchically and emphasize key points effectively.

2. \*\*Paragraphs:\*\* Enclosed within `<p>` tags, paragraphs facilitate the presentation of textual information, ensuring clarity and readability for website visitors.

3. \*\*Images:\*\* The `<img>` tag enables the integration of visual elements such as graphics, illustrations, and photographs, enhancing the visual appeal and context of web pages.

4. \*\*Anchors:\*\* Represented by the `<a>` tag, anchors create hyperlinks to other web pages or resources, enabling seamless navigation and fostering user interaction.

5. \*\*Tables:\*\* Defined by a combination of `<table>`, `<tr>`, `<th>`, and `<td>` tags, tables provide a structured layout for presenting tabular data, facilitating comparison and analysis.

\*\*Conclusion:\*\*

By mastering these fundamental HTML tags, developers can create dynamic and engaging websites that deliver compelling content and seamless user experiences. Explore our demonstration to learn how these tags can elevate your web development projects.

**Expt 2 - Website Using HTML and CSS**

\*\*Theoretical Background:\*\*

Cascading Style Sheets (CSS) is a fundamental technology used in web development to define the presentation and layout of HTML documents. With CSS, developers can control the appearance of various elements on a webpage, including colors, fonts, spacing, and positioning, thus enhancing the visual appeal and user experience of websites.

CSS offers three main methods for styling web pages: inline, internal, and external stylesheets.

1. \*\*Inline Styles:\*\* Inline styles are applied directly within HTML elements using the `style` attribute. This method allows for styling specific elements individually, but it's less efficient for larger projects as it mixes content with presentation. For example:

```html

<p style="color: blue; font-size: 16px;">This is a paragraph with inline styles.</p>

```

2. \*\*Internal Styles:\*\* Internal styles are defined within the `<style>` element in the HTML `<head>` section. This method allows for styling multiple elements within a single document, providing better organization than inline styles. For example:

```html

<head>

<style>

p {

color: blue;

font-size: 16px;

}

</style>

</head>

```

3. \*\*External Stylesheets:\*\* External stylesheets are separate CSS files linked to HTML documents using the `<link>` element. This method promotes modularity and reusability by allowing the same stylesheet to be applied across multiple pages. For example:

```html

<head>

<link rel="stylesheet" href="styles.css">

</head>

```

And in `styles.css`:

```css

p {

color: blue;

font-size: 16px;

}

```

In summary, CSS provides versatile methods for styling web pages, allowing developers to create visually appealing and consistent designs while maintaining code organization and efficiency. Whether using inline, internal, or external stylesheets, CSS empowers developers to customize the look and feel of their websites to suit their design goals and user preferences.

**Expt 3 - Responsive Website with Bootstrap**

\*\*Theoretical Background:\*\*

Responsive web design has become a cornerstone in modern web development, ensuring that websites adapt seamlessly to various screen sizes and devices. By utilizing HTML and CSS, developers can dynamically resize, hide, or rearrange elements to maintain optimal user experience across desktops, tablets, and smartphones. This approach not only enhances accessibility but also addresses the evolving landscape of device usage among internet users.

Bootstrap, a popular open-source front-end framework, simplifies the process of creating responsive and mobile-first websites. It provides a comprehensive collection of HTML, CSS, and JavaScript components and tools, empowering developers to build consistent and visually appealing web pages efficiently. Bootstrap's key features, such as platform independence, responsive design capabilities, and customizable themes, contribute to its widespread adoption in the web development community.

Applications of Bootstrap extend beyond responsive web design, encompassing mobile-first development, cross-browser compatibility, and time-saving efficiency. Developers can integrate Bootstrap into their projects through two primary methods: including Bootstrap via Content Delivery Network (CDN) links or downloading the framework from the official website and linking to the CSS and JavaScript files locally.

\*\*Example:\*\*

```html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Responsive Web Design Example</title>

<!-- Bootstrap CSS library -->

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css" integrity="sha384-ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T" crossorigin="anonymous">

</head>

<body>

<div class="container text-center">

<!-- Text color class used -->

<h1 class="text-success">Computer</h1>

<p>A computer is a machine that can be programmed to carry out sequences of arithmetic or logical operations (computation) automatically</p>

</div>

</body>

</html>

```

In this example, Bootstrap's CSS library is included via CDN links, enabling the use of Bootstrap classes to style elements and create a responsive layout.