**ASSIGNMENT- MODERN HTML**

**1-**   **List out the features of HTML**

Ans- HTML (Hypertext Markup Language) is the backbone of web content, offering a set of key features:

1. **Text-Based:** HTML uses text and tags to structure content.
2. **Markup:** It employs predefined tags to format and organize content.
3. **Hierarchy:** HTML arranges elements hierarchically for structured content.
4. **Platform-Independent:** HTML works on various devices and platforms.
5. **Hyperlinks:** Enables linking between web pages and resources.
6. **Multimedia Support:** Embeds images, audio, and video.
7. **Forms:** Provides form elements for user data submission.
8. **Semantic Markup:** HTML5 introduces semantic elements for meaning.
9. **Document Structure:** Consists of <head> (metadata) and <body> (content).
10. **CSS Integration:** Combines with CSS for styling.
11. **Scripting Support:** Allows interactivity via JavaScript.
12. **Comments:** Supports comments for code documentation.
13. **Accessibility:** Provides features for web accessibility.
14. **Responsive Design:** Adapts content to different devices.
15. **Extensible:** Can be extended for dynamic applications.
16. **Backward Compatibility:** Maintains compatibility with older versions.
17. **Open Standard:** Developed collaboratively by the W3C.

HTML evolves to meet the needs of modern web development while remaining an open, universal standard.

**2-**   **What are HTML Entities ? List out 5 commonly used HtML entities?**

Ans- HTML entities are special codes used to represent reserved characters, symbols, and characters with special meanings in HTML, ensuring they render correctly in web browsers. They begin with an ampersand (&) and end with a semicolon (;). Here are five commonly used HTML entities:

1. **&lt;** - Represents the less-than sign ("<").
2. **&gt;** - Represents the greater-than sign (">").
3. **&amp;** - Represents the ampersand itself ("&").
4. **&quot;** - Represents double quotation marks (").
5. **&apos;** - Represents single quotation marks (apostrophes) (').

HTML entities are crucial for displaying characters that may otherwise be misinterpreted as HTML tags or code. They are especially important when working with user-generated content, ensuring that user input is displayed safely and accurately on web pages.

**3-**   **Define accessibility in the context of web development. Discuss why it's essential to create accessible websites and how it benefits different user groups.**

Ans- Accessibility in web development refers to the practice of designing and building websites and web applications in a way that ensures equal access and usability for all users, including those with disabilities. It involves creating digital content that can be perceived, navigated, and interacted with by individuals with various impairments, such as visual, auditory, motor, or cognitive disabilities.

Accessibility is essential for several reasons:

1. **Inclusivity:** It promotes inclusivity, allowing people of all abilities to access and interact with online content.
2. **Legal Compliance:** Many countries have laws and regulations (e.g., the Americans with Disabilities Act in the U.S.) that require websites to be accessible to all users.
3. **Enhanced User Experience:** Improving accessibility often leads to a better user experience for everyone, not just those with disabilities.
4. **Expanded Audience:** Accessible websites can reach a broader audience, potentially increasing traffic and engagement.
5. **Ethical Responsibility:** Ensuring accessibility is a matter of ethical responsibility, as the web has become a fundamental part of modern life.

Accessibility benefits various user groups, including:

* **Visually Impaired Users:** Screen readers and Braille displays can interpret content, making it accessible through audio or tactile output.
* **Hearing-Impaired Users:** Captions and transcripts for multimedia content ensure information is available via text.
* **Motor-Impaired Users:** Keyboard navigation and other assistive technologies make it easier to interact with websites.
* **Cognitive Disabilities:** Clear and consistent design, with simple navigation, benefits users with cognitive impairments.
* **Aging Population:** As the population ages, accessible design becomes increasingly important for those with age-related impairments.

Creating accessible websites is not only a legal requirement but also a way to provide equal opportunities and a better online experience for everyone, regardless of their abilities.

**4-**   **List any 3 ways which help us in improving the accessibility of HTML.**

Ans- Improving the accessibility of HTML is crucial for ensuring that web content is usable by individuals with disabilities. Here are three key ways to enhance HTML accessibility:

1. **Semantic HTML Elements:** Use semantic HTML elements (e.g., **<header>**, **<nav>**, **<main>**, **<article>**, **<section>**, **<aside>**, **<footer>**) to provide meaningful structure to your content. These elements convey the document's outline and help assistive technologies understand the content's hierarchy.
2. **Alternative Text for Images:** Always include descriptive alt attributes in **<img>** tags to provide alternative text for images. This text is read aloud by screen readers, allowing visually impaired users to understand the image's content or purpose.
3. **Keyboard Accessibility:** Ensure that all interactive elements (e.g., links, buttons, form fields) are navigable and operable using a keyboard. Test your website's keyboard navigation to make sure users can access all functionality without a mouse.

These practices are fundamental in making web content more accessible, benefiting users with disabilities and improving overall usability for all visitors.

**5-**   **Create a web page that highlights the features of HTML. Use appropriate semantic tags to structure the content and showcase at least three key features of HTML with explanation.**

**6-**   **Create a simple web page which has a table. the table must have 2 columns HTML and HTML5. The table should include a minimum of three rows describing the differences between HTML and HTML5.**

**Ans- Solution of 5 and 6 is in the attached folders**