

30-9-23 [Assignment - 4] [P.W 27/5]

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Q.1] list out the features of HTML5?

⇒ ① HTML5 are addition of Semantic tags which makes the life easier to find the ~~the~~ ^{the} elements.

② Semantics :- HTML5 has elements like `<header>`, `<footer>`, `'nav'`, `'section'`, and `'article'`.

③ Multimedia :- HTML5 include native support for embedding audio and video content using `<audio>` / `<video>` elements, eliminating the need for third-party plugins (like 'flash').

④ Canvas :- The `<canvas>` elements allows for dynamic rendering of graphics, charts and animation using JavaScript, providing a powerful graphics API.

⑤ Scalable vector Graphics (SVG)
÷ HTML5 includes SVG, which includes and enables the creation of scalable and resolution-independent vector graphics directly in HTML document.

⑥ offline web Applications :-

HTML5 introduced technology like Application cache and web storage API (local storage and session storage).

- ⑦ Other than HTML5 provides web Workers, Geolocation, Drag and drop, form Enhancements, web storage, web sockets, responsive web design, Improved Accessibility, cross-browser compatibility, Audio and video API's, Dynamic 2D Graphics, web components.

Q.2] What are HTML Entities? list out 5 commonly used HTML entities.

→ HTML Entities are special codes and sequences of characters used to represent reserved or problematic characters in HTML and XML documents. These characters are often reserved for specific purpose in HTML, such as angle brackets (" $<$ " and " $>$ ") that are used for Markup tags and characters like "&" and "\"" which has special meanings in HTML.

five commonly used HTML Entities are:-

① $& \text{amp};$

→ Represents the ampersand character ($\&$). Its used to ensure that the ampersand itself is displayed.

② $& \text{lt};$

Represent less than sign " $<$ ".

③ $& \text{gt};$

Represent greater than sign " $>$ ".

(d) & quote ;
Represents double quotation mark " " .

(e) & apos ;
Represents the single quotation mark ' ' .

Q.3 Define accessibility in context of web development.
Discuss why it's essential to create accessible content and ~~showcase~~ at least three key features of HTML5 ~~with explanation~~ website and how it benefits different user groups.

⇒ (i) Accessibility in web development refers to the practice of designing and developing websites and web applications to ensure they can be used to understood by people with disability, providing equal access to information and functionality.

(a) Creating accessible websites is essential because it promotes inclusivity and ensure that everyone ~~is~~ including people with disability can access and use ~~in~~ online content. It not only adheres to legal requirements but also enhances the user experience for a broader audience, potentially increasing reach, engagement and user satisfaction.

(3) Creating a website benefits different user groups by :-

(a) Visually Impaired :- providing screen reader compatibility

(b) Hearing Impaired :- offering captions and transcript for

video benefits those with hearing impairments.

② Motor disability

Keyboard navigation ensures users with motor disability can interact.

④ Cognitive Disabilities:

Clear and simple design aids users with certain disability.

⑤ Aging population

Accessibility aids aging users who have varying abilities.

Q.4] List any 3 ways which helps us in improving the ~~list~~ accessibility of HTML.

① Use Semantic Elements

→ Employ semantics like `<nav>`, `<header>` and `<button>`

② Alt text for Images.

→ Always include descriptive alt text in ``.

③ Proper form labels:-

Associate form elements in their labels using the `for` attribute in `<label>` element or by wrapping input with `<label>` tags.