

Modern HTML - Answers

1. List out the features of HTML5.

- New elements, attributes, and behaviors - to support multimedia and better error handling.

New tags like:

- `<article>` - Defines a self-contained composition in a document, page, application intended for independent distribution or reuse.
 - `<aside>` - Content in an `<aside>` should be tangential to the main content and could be removed without significantly impacting the core content.
 - `<figure>` - It represents a self-contained piece of content, Such as image, illustration, diagram or code-block.
 - Enhanced forms with new input types.
 - Build-in audio and video support with `<audio>` and `<video>` Tag.
 - Local storage for offline use.
 - Graphics and Animation with `<canvas>` and `<svg>`.
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2. What are HTML Entities? List out 5 commonly used HTML entities?

HTML Entities:

- To display Reserved Characters, Invisible Characters, and Non-keyboard Characters.
- To show symbols like `&`, `<`, `>`.
- To avoid conflicts with HTML syntax.
- Enhance text presentation.
- Improve Readability and User Experience.

Commonly used HTML Entities:

- `<`; this entity represents `<`.
- `>`; this entity represents `>`.

- `&`; this entity represents &.
- `"`; this entity represents “ double quotes.
- `'`; this entity represents ‘ apostrophe.

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.

Accessibility in web development:

Accessibility in web development means designing and developing websites so it is accessible by everyone. This includes people with disabilities like Visual, Auditory, Motor or cognitive impairments. It's about ensuring that everyone can perceive, interact, understand and navigate through the web content .

Creating accessible website is essential because:

- **It's inclusive:** The Accessibility ensures people with disabilities are not excluded from information, services and opportunities.
- **It's often legally required and ethically right:** Many regions have laws promoting accessibility and its fundamental principle of treating everyone fairly.
- **It improves experience for everyone:** Features that help dis-abilities often make the website usable by all, including adults and other mobile users.
- **It can broaden your audience:** By making your website accessible to all, you can reach a larger segment of people.

Benefits for different user groups:

- **For Visually Impaired User:** Screen readers can interpret properly structured content.
- **For Hearing-impaired User:** Caption and Transcripts for Audio and Video content make multimedia accessible.

- For Motor-Impaired User: Keyboard Navigation and well designed interactive elements allow users to use without a mouse.
- For Cognitive-Impaired User: Clear and Consistent navigation, simple language and Content Flow improve Understanding.

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

- Using Semantic HTML tags: `<article>`, `<nav>`, `<aside>`, `<header>`, `<footer>` and `<main>` provides meaning and Structure to the content. This helps the assistive technologies understand the purpose of different page sections, making navigation and content interpretation easier.
- Providing Alternative text for images: The **alt** attribute for the `` tag allows you to describe the image content in text. This is crucial for visually impaired users who rely on screen readers. A good **alt** text should be concise and accurately convey the image's purpose and information. For decorative images, an empty **alt=""** can be used to signal that it doesn't convey essential content.
- Ensuring Proper Heading Structure(< h1 > to < h6 >): Using heading logically to structure content creates an outline of the image. From `<h1>` represents the main topic of the content, followed by `<h2>` to `<h6>` sub-topics and so on.

5. Create a web page that highlights the features of HTML5. Use appropriate semantic tags to structure the content and showcase at least three key features of HTML5 with explanations.

CODE:

```
<!DOCTYPE html>
<html lang="en-US">
  <head>
    <meta charset="UTF-8">
```

```

        <meta name="variable" content="width=device-width,
initial-scale=1.0">
        <title>HTML5 Features</title>
    </head>
    <body>
        <header>
            <h1>Exploring the features of HTML5</h1>
            <p>Discovering some of new features of HTML5.</p>
        </header>
        <main>
            <article>
                <h2>Semantic Elements</h2>
                <p>HTML5 introduced semantic tags that clearly
describe the meaning of the content.</p>
                <ul>
                    <li><strong>&lt;article&gt;;</strong> It
defines a self contained composition in document, page,
application.</li>
                    <br>
                    <li><strong>&lt;nav&gt;;</strong> It defines
a set of navigation links.</li>
                    <br>
                    <li><strong>&lt;aside&gt;;</strong> It
represents content aside from the main content.</li>
                </ul>
            </article>
            <article>
                <h2>Canvas API for Grpahics</h2>
                <p>The &lt;canvas&gt; element provides a way to
draw graphics on the fly.</p>
                <pre><code>
                    &lt;canvas id="myCanvas" width="200"
height="100"&gt;
                        &lt;/canvas&gt;
                </code></pre>
            </article>
            <article>
                <h2>Video and Audio Support</h2>
                <p>HTML5 natively supports embedding audio and
video content using the &lt;audio&gt; and &lt;video&gt; elements.
This eliminates third-party plugins.</p>
                <video width="300" height="200" controls>
                    <source src="video-link" type="video/mp4">

```

```

        </video>
        <audio controls>
            <source src="audio-link" type="audio/mpeg">
        </audio>

    </article>
</main>
<footer>
    <p>&copy; 2025 HTML5 Feature showcase</p>
</footer>
</body>
</html>

```

OUTPUT: [Preview](#)

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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.

CODE:

```

<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    </head>
    <body>
        <h1>Difference between HTML and HTML 5</h1>
        <table Border="1" cellspacing="0.4" cellpadding="1">
            <tr>
                <th>HTML</th>
                <th>HTML 5</th>
            </tr>
            <tr>
                <td>Relied heavily on plugins for multimedia.</td>
                <td>Offers native support for video and audio
through <code><video></code> and <code><audio></code> tags reducing the need
for plugins.</td>
            </tr>
        </table>
    </body>
</html>

```

```

        </tr>
        <tr>
            <td>Had less semantic structure, often used
generic <div> and <span> tags for layout.</td>
            <td>Introduced semantic tags <article>,
<aside>, <nav> for better content structure to
improve meaning for browsers and assistive technologies.</td>
        </tr>
        <tr>
            <td>No built in support for local storage of data
on client-side</td>
            <td>Offers Web Storage for storing data directly
in the user's browser. </td>
        </tr>
    </table>
</body>
</html>

```

OUTPUT: [Preview](#)
