

Modern HTML

Q1.List out the features of HTML5.

HTML5 is the latest and most enhanced version of HTML.It adds a diverse set of new tools for the web developer to use.

Features:

- **Header and Footer tag** eliminates the requirement for a <div> tag to separate two parts.
- **Canvas** element for 2D drawing.
- **Video and Audio** elements for media playback.
- New **form controls** like calendar,date,time,email,url etc.,
- **Nav tag** to define a set of navigation links.
- **Mark tag** to highlight a particular text.
- **Section tags** define specific sections and subsections in the document.
- **Figure and figcaption** to insert an image with its caption.

Q2.What are HTML Entities.List out 5 commonly used HTML entities.

HTML entities are some characters that are reserved in HTML and they have special meaning when used in the document.It is a piece of text that begins with ampersand(&) and ends with a semicolon(;).Some commonly used entities are

Character	Entity	Description
&	&	ampersand
<	<	less-than
>	>	greater-than
°	°	degree
"	"	quotation mark

Q3.What is web accessibility?List some of the assistive devices which play a major role in providing web accessibility.

Web accessibility is the practice of ensuring that the websites and web applications are accessible by people with disabilities of many kinds.Main goal is to ensure that all the websites,web apps, and online services deliver the best user experience for everyone.

Some of the assistive devices are:

- Talking devices such as talking thermostat
- Screen reading software
- Text-to-speech systems using Optical Character Recognition
- Digital screen magnifiers
- Keyboard with large keys,braille

Q4. List any 3 ways which help us in improving the accessibility of HTML.

1. Always add an alt attribute to the image tag, this way the screen reader will be able to describe the image to the user.
2. Label element is useful for screen reader users, as it reads out loud the label when the user focuses on the input element.
3. Use Semantic HTML means using correct HTML elements for their correct purpose
4. Provide sufficient color contrast, use clear language, page layouts and table layouts.

Q5. Write short notes on tab index.

Tab index is a global attribute that allows an HTML element to receive focus. It specifies the tab order of an element. It takes an integer (negative, 0, positive) as a value.

- **Tabindex: -1** means that the element should be focusable (receive focus programmatically through Javascript or as the target of links.) and is not reachable via sequential keyboard navigation.
- **Tabindex: 0** it will place the element in the default focus order.
- **Tabindex: 1** it will place the element in focus order, the order in which the elements are focused is the increasing value of the tabindex.

Q6. List any semantic tags in HTML along with their descriptions.

Semantic HTML tags are tags that define the meaning of the content they contain. They are easier to read and understand.

- **<header>** - It defines content that should be considered the introductory information of a page or section.
- **<nav>** - It is used for navigation links.
- **<main>** - It contains the main content of a page.
- **<section>** - It is a way of grouping nearby content of a similar theme.
- **<footer>** - It tells the bottom of a page, usually contains contact information, copyright information etc.,

Q7. What are the benefits of using semantic tags in our web page.

- Using semantic tags makes the web page much easier to read.
- It provides better user experience and has greater accessibility.
- Clearer code and easier to maintain.
- By using semantic tags it helps the search engines to rank our page using the most relevant and meaningful content on the page.

Q8. Create a simple web page with semantic HTML which has the header, main, and footer sections. The header section must contain links to navigate to different sections of the web page. The main section must contain three subsections about what is HTML. What is semantic HTML and a list of commonly used semantic tags? In the end, the footer section must contain your name.

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Question8</title>
</head>
<body>

```

```

  <header>
    <nav>
      <a href="#section1">HTML</a> <br>
      <a href="#section2">Semantic HTML</a><br>
      <a href="#section3">Common Semantic HTML tags</a><br>
    </nav>
  </header>
  <main>

```

```

    <section id="section1">
      <h2>HTML Section</h2>
      <p>

```

The HyperText Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It is the most basic building block of the Web. It defines the meaning and structure of web content. We can create a static website by HTML only. Hypertext defines the link between the web pages and markup language defines the text document within the tag that define the structure of web pages.

```

      </p>
    </section>

```

```

    <section id="section2">
      <h2>Semantic HTML Section</h2>
      <p>

```

HTML semantics refers to the tags that provide meaning to an HTML page rather than just presentation. Using semantic tags makes the web page much easier to read. It provides better user experience and has greater accessibility. It provides clearer code and easier to maintain. By using semantic tags it helps the search engines to rank our page using the most relevant and meaningful content on the page.

```

    </p>
</section>

<section id="section3">
  <h2>Common Semantic HTML tags</h2>
  <ul>
    <li>header - It defines content that should be considered the
introductory information of a page or section.</li>
    <li>nav - It is used for navigation links.</li>
    <li>main - It contains the main content of a page.</li>
    <li>section - It is a way of grouping nearby content of a similar
theme.</li>
    <li>footer - It tells the bottom of a page,usually contains contact
information,copyright information etc.,</li>
  </ul>
</section>
</main>

<footer>Kerelli Sowmya</footer>
</body>
</html>

```

Q9.Create a simple web page with a form for a user to enter their personal information. The form should contain three input fields with the labels "First Name", "Last Name", and "Email". The first input field shoFId have a tabindex value of 2. The second input field should have a tabindex value of 1. The third input field should have a tabindex value of 4. The form should have a submit button with the label "Submit" and a tabindex value of 3. Observe the behaviors of tab index on your webpage.

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Question9</title>
</head>
<body>
  <h3>Tabindex usage on the form input elements</h3>

```

```

<form >
  <label for="fname">First Name:</label> <br>
  <input type="text" id="fname" name="fname" tabindex="2"> <br>
  <label for="lname">Last Name:</label> <br>
  <input type="text" id="lname" name="lname" tabindex="1"> <br>
  <label for="email">Email:</label> <br>
  <input type="email" name="email" id="email" tabindex="4"><br> <br>
  <input type="button" value="Submit" tabindex="3">
</form>
</body>
</html>

```

Q10.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.

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Question10</title>
</head>
<body>
  <table border="2">
    <thead>
      <th>HTML</th>
      <th>HTML5</th>
    </thead>
    <tbody>
      <tr>
        <td>No audio and video support</td>
        <td>Audio and video can be added to a web page</td>
      </tr>
      <tr>
        <td>It is not mobile friendly</td>
        <td>It is mobile friendly</td>
      </tr>
    </tbody>
  </table>

```

```
<tr>
  <td>Does not allow Javascript to run in browser</td>
  <td>Allows Javascript to run in background</td>
</tr>
<tr>
  <td>It is not possible to draw shapes like circles,rectangle etc.,</td>
  <td>We can draw shapes like circle,rectangles etc.,</td>
</tr>
<tr>
  <td>Use cookies to store data</td>
  <td>Use local storage instead of cookies</td>
</tr>
</tbody>
</table>
</body>
</html>
```