1. **Question:** What is HTML?  
   **Answer:** HTML stands for Hypertext Markup Language. It's the standard language used to create web pages. HTML uses tags to structure content.
   * **Hints:** 
     + Hypertext Markup Language
     + Create web pages
     + Uses tags
2. **Question:** What are HTML tags?  
   **Answer:** HTML tags are special codes used to define elements within a web page. They consist of an opening tag, content, and a closing tag. Opening tags denote the beginning of an element, while closing tags signal its end. Tags give structure and meaning to content in HTML documents.
   * **Hints:** 
     + Special codes
     + Used to define elements
     + Consist of an opening tag, content, and a closing tag
     + Give structure and meaning to content
3. **Question:** What are HTML Attributes?  
   **Answer:** HTML attributes provide additional information about HTML elements. Attributes modify the behavior or appearance of elements. They're added to the opening tag of an element and consist of a name and a value, separated by an equals sign. For example, in <img src="image.jpg" alt="description">, "src" specifies the image file's location, and "alt" provides alternative text for accessibility.
   * **Hints:** 
     + Additional information about HTML elements
     + Modify the behavior or appearance of elements
     + Added to the opening tag of an element
     + Name and a value, separated by an equals sign
     + src
     + alt
4. **Question:** What is a marquee in HTML?  
   **Answer:** In HTML, a marquee is used to create scrolling text or images horizontally or vertically within a webpage. It's implemented using the <marquee> tag, but it's not recommended for modern web development due to accessibility and usability concerns.
   * **Hints:** 
     + Scrolling text or images horizontally or vertically
     + <marquee>
     + Not recommended for modern web
     + Issues with accessibility and usability concerns
5. **Question:** How do you separate a section of texts in HTML?  
   **Answer:** In HTML, you can separate a section of text using the <br> tag to create line breaks, the <p> tag to create paragraphs, or the <blockquote> tag to indicate a block of quoted text.
   * **Hints:** 
     + <br> => create line breaks
     + <p> => create paragraphs
     + <blockquote> => indicate a block of quoted text
6. **Question:** Define the list types in HTML?  
   **Answer:** The list types in HTML are as below:

Ordered list: The ordered list uses <ol> tag and displays elements in a numbered format.

Unordered list: The unordered list uses <ul> tag and displays elements in a bulleted format.

Definition list: The definition list is used to represent a list of terms along with their corresponding descriptions or definitions using <dt> for terms and <dd> for definitions.

* + **Hints:** 
    - Ordered list: <ol> and in a numbered format
    - Unordered list: <ul> and in a bulleted format
    - Definition list: a list of terms along with their corresponding descriptions or definitions using <dt> and <dd>

1. **Question:** How do you align list elements in an HTML file?  
   **Answer:** In HTML, you can align list elements by applying CSS properties like "text-align" to the list elements or their parent container.

|  |
| --- |
| <ul style="text-align: left;">  <li>Item 1</li>  <li>Item 2</li>  <li>Item 3</li>  </ul>  <dl style="text-align: left;">  <dt>Term 1</dt>  <dd>Definition 1</dd>  <dt>Term 2</dt>  <dd>Definition 2</dd>  </dl>  <div style="text-align: left;">  <ul>  <li>Item 1</li>  <li>Item 2</li>  <li>Item 3</li>  </ul>  </div> |

* + **Hints:** 
    - Using "text-align"
    - To the list elements (ul, ol, dl) or their parent container (div).

1. **Question:** Differentiate between an Ordered list and an Unordered list?  
   **Answer:** Ordered list: The ordered list uses <ol> tag and displays elements in a numbered format.

Unordered list: The unordered list uses <ul> tag and displays elements in a bulleted format.

* + **Hints:** 
    - Ordered list: <ol> and in a numbered format
    - Unordered list: <ul> and in a bulleted format

1. **Question:** What is an element in HTML?  
   **Answer:** An element is a fundamental building block of a web page. It defines the structure and meaning of the content, such as headings, paragraphs, links, images, etc. Elements consist of an opening tag, content, and a closing tag, although some elements are self-closing.
   * **Hints:** 
     + Fundamental building block
     + Defines the structure and meaning of the content
     + Heading, paragraph
     + Consist of an opening tag, content, and a closing tag
     + Some are self-closing
2. **Question:** What is the difference between HTML and CSS?  
   **Answer:** HTML (Hypertext Markup Language) defines the structure and content of web pages, while CSS (Cascading Style Sheets) controls the visual appearance and styling of those elements.
   * **Hints:** 
     + Hypertext Markup Language
     + Defines the structure and content
     + Cascading Style Sheets
     + Controls the visual appearance and styling
3. **Question:** Are the HTML tags and elements the same thing?  
   **Answer:** Tags are special codes used to define elements within a web page. Element defines the structure and meaning of the content, such as headings, paragraphs. It consists of an opening tag, content, and a closing tag (in most cases).
   * **Hints:** 
     + Tags => special codes
     + Tags => used to define elements
     + Element => structure and meaning of the content
     + Elements => headings, paragraphs
     + Elements => opening tag, content, and a closing tag
4. **Question:** What are void elements in HTML?  
   **Answer:** Void elements in HTML are those that don't have a closing tag. They stand alone and don't contain any content or child elements. Examples include <img>, <br>, and <input>.
   * **Hints:** 
     + Don't have a closing tag
     + Stand alone
     + No content or child elements
     + <img>, <br>, and <input>
5. **Question:** What is the advantage of collapsing white space?  
   **Answer:** Collapsing white space in HTML helps maintain consistent spacing and layout, making code easier to read and manage. It reduces file size and load time by eliminating unnecessary spaces, tabs, and line breaks.

|  |
| --- |
| <p>This is an example without collapsing white space.</p> |

* + **Hints:** 
    - Maintain consistent spacing and layout
    - Make code easier to read and manage
    - Reduces file size and load time
    - Eliminates unnecessary spaces, tabs, and line breaks

1. **Question:** What are HTML Entities?  
   **Answer:** HTML entities are special codes used to display characters that have special meaning in HTML, such as <, >, &, ", and '. They start with an ampersand (&) and end with a semicolon (;). For example, &lt; represents the less-than sign (<). They are used to ensure proper rendering of characters and to avoid conflicts with HTML syntax.
   * **Hints:** 
     + Display characters with special meaning in HTML
     + <, >, &, ", and '
     + Start with & and end with ;
     + &lt; => less-than sign
     + Use to avoid conflicts with HTML syntax
2. **Question:** How do you display a table in an HTML webpage?  
   **Answer:** <table> element is used to define the table structure. Inside the <table> element, additional elements such as <tr> for table rows, <th> for table headers (optional), and <td> for table data cells are. Some more tags like <caption> for table caption, <colgroup> for grouping of one or more columns in a table, <col> with <colgroup> element for specifying column properties for each column, <tbody> for grouping the body content in a table, <thead> for grouping the header content in a table, <tfooter> for grouping the footer content in a table can be used.
   * **Hints:** 
     + <table> to define the table structure
     + <tr> for table rows
     + <th> for table headers (optional)
     + <td> for table data cells are
     + <caption> for caption
     + <colgroup> for grouping of one or more columns
     + <col> with <colgroup> for specifying each column properties
     + <tbody> for grouping the body content
     + <thead> for grouping the header content
     + <tfooter> for grouping the footer content
3. **Question:** How do we insert a comment in HTML?  
   **Answer:** Anything within <!-- and --> is treated as a comment and is not rendered by the browser.
   * **Hints:** 
     + Anything within <!-- and -->
     + Not rendered by the browser
4. **Question:** How do you insert a copyright symbol in HTML?  
   **Answer:** You can insert a copyright symbol by using &copy; or &#169;.
   * **Hints:** 
     + &copy;
     + &#169;
5. **Question:** What is white space in HTML?  
   **Answer:** In HTML, white space refers to any spaces, tabs, or line breaks within the HTML code. These white spaces don't affect the visual layout of the webpage but are used to format the code for easier readability by developers.
   * **Hints:** 
     + Spaces, tabs, or line breaks within the HTML code
     + Don't affect the visual layout
     + Used to format the code for easier readability by developers
6. **Question:** How do you create links to different sections within the same HTML web page?  
   **Answer:** To create links to different sections within the same HTML webpage, first, assign an ID to the target section using the "id" attribute. Then, create a link using the anchor tag (<a>). Set the value of the "href" attribute of the anchor to "#" followed by the ID of the target section.
   * **Hints:** 
     + Assign an ID to the target section
     + Create a link using the anchor tag (<a>)
     + Set the value of the "href" to "#" followed by the ID of the target section
7. **Question:** How do you create a hyperlink in HTML?  
   **Answer:** To create a hyperlink in HTML, we use the anchor tag <a> with the href attribute. We set the value of the href to the URL of the destination. When clicked, navigates to the URL.
   * **Hints:** 
     + <a> with the href attribute
     + Set the value of the href to the URL of the destination
     + Navigates to the URL
8. **Question:** Define an image map?  
   **Answer:** An image map in HTML is a graphical element that contains multiple clickable areas within a single image, each region links to a different URL. Image maps are created using the <map> element which defines the clickable areas and the <area> element to specify the coordinates and link destinations for each area.

|  |
| --- |
| <img src="example.jpg" alt="Example Image" usemap="#examplemap">  <map name="examplemap">  <area shape="rect" coords="0,0,100,100" href="page1.html" alt="Area 1">  <area shape="circle" coords="150,150,50" href="page2.html" alt="Area 2">  <area shape="polygon" coords="200,0,250,50,200,100" href="page3.html" alt="Area 3">  </map> |

* + **Hints:** 
    - Graphical element
    - Contains multiple clickable areas within a single image
    - Each region links to a different URL
    - <map> => clickable areas
    - <area> => specify the coordinates and link destinations for each area

1. **Question:** Why do we use a style sheet in HTML?  
   **Answer:** We use a style sheet in HTML to control the visual appearance and layout of web pages. By separating the style information from the HTML content, it allows for better organization, easier maintenance, and consistent design across multiple pages. Style sheets also enable responsiveness, accessibility, and enhanced user experience by applying styles such as colors, fonts, spacing, and positioning to HTML elements.
   * **Hints:** 
     + Control the visual appearance and layout of web pages
     + Separating the style information from the HTML content allows better organization, easier maintenance, and consistent design across multiple pages
     + Enables responsiveness, accessibility, and enhanced user experience
2. **Question:** What is semantic HTML?  
   **Answer:** Semantic HTML refers to the practice of using HTML elements that accurately describe the content they contain. Semantic HTML enhances accessibility, search engine optimization (SEO), and overall code maintainability. For example: In semantic HTML <b> </b> tag is not used for bold statement as well as <i> </i> tag is not used for italic. Instead of these we use <strong></strong> and <em></em> tags.
   * **Hints:** 
     + Accurately describe the content they contain
     + Enhances accessibility, SEO, and overall code maintainability
     + <strong></strong> instead of <b> </b>
     + <em></em> instead of <i> </i>
3. **Question:** What is SVG in HTML?  
   **Answer:** SVG stands for Scalable Vector Graphics. In HTML, SVG is a markup language used to create vector graphics, which are images that can be scaled to any size without losing quality. SVG graphics are defined using XML syntax and can include shapes, text, and other graphical elements. They're commonly used for icons, illustrations, and interactive graphics on web pages. SVG files can be embedded directly into HTML documents using the <svg> element or referenced as external files.

|  |
| --- |
| <svg width="100" height="100">  <circle cx="50" cy="50" r="40" fill="red" />  </svg> |

* + **Hints:** 
    - Scalable Vector Graphics
    - Create vector graphics means images that can be scaled to any size without losing quality
    - Defined using XML syntax
    - Include shapes, text, and other graphical elements
    - <svg>

1. **Question:** What would happen if there is no text between the HTML tags?  
   **Answer:** If there is no text between HTML tags, the element will still be present in the HTML document, but it won't display any visible content in the browser. The element's behavior, such as its styling or interactions, may still apply depending on how it's defined and any attributes it has. Some tags, such as the tags without a closing tag like the <img> tag, do not require any text between them.
   * **Hints:** 
     + Element will still be present
     + Won't display any visible content in the browser
     + Styling or interactions, may still apply
     + Tags without a closing tag like the <img> tag, do not require any text between them
2. **Question:** How do you create nested web pages in HTML?  
   **Answer:** Nested web pages basically mean a webpage within a webpage. We can create nested web pages in HTML using the built-in iframe tag.

|  |
| --- |
| <iframe src="nested\_page.html" width="400" height="300" frameborder="0"></iframe> |

* + **Hints:** 
    - iframe

1. **Question:** How do you add buttons in HTML?  
   **Answer:** To add buttons in HTML, you use the <button> element. We can also specify additional attributes like type, id, class, style and event handler like onclick to customize the button's behavior and appearance.
   * **Hints:** 
     + <button>
     + type, id, class, style and event handler like onclick
2. **Question:** What are the different types of headings in HTML?  
   **Answer:** There are six types of heading tags in HTML which are defined with the <h1> to <h6> tags. Each type of heading tag displays a different text size from another. <h1> is the largest heading tag and <h6> is the smallest.
   * **Hints:** 
     + Six types of heading tags
     + Each displays a different text size from another
     + <h1> is the largest
     + <h6> is the smallest
3. **Question:** How do you insert an image in the HTML webpage?  
   **Answer:** To insert an image in an HTML webpage, we use the <img> element. src specifies the URL or file path of the image. alt provides alternative text for accessibility and describes the image. We can also specify additional attributes like width, height, title, and style to customize the appearance and behavior of the image.
   * **Hints:** 
     + <img>
     + src => URL or file path of the image
     + alt => provides alternative text for accessibility and describes the image
     + Additional attributes like width, height, title, and style
4. **Question:** What is the alt attribute in HTML?  
   **Answer:** The "alt" attribute in HTML stands for "alternative text. The alt attribute is used for displaying a text in place of an image whenever the image cannot be loaded due to any technical issue. This text is important for accessibility, helping users who cannot see the image understand its content.
   * **Hints:** 
     + Alternative text
     + Displaying a text in place of an image
     + Important for accessibility
5. **Question:** How are hyperlinks inserted in the HTML webpage?  
   **Answer:** Hyperlinks in HTML are inserted using the <a> tag. You enclose the text or image you want to turn into a link within <a> </a> tags, and in the opening <a> tag, you specify the destination URL using the "href" attribute. For example: <a href="https://example.com">Click here</a>.
   * **Hints:** 
     + <a>
     + Enclose the text or image to turn into a link within <a> </a>
     + Specify the destination URL using the "href" attribute
6. **Question:** How do you add colour to the text in HTML?  
   **Answer:** We can add color to text in HTML using the "color" attribute within the <font> tag or by using the "style" attribute within various tags like <p>, <span>, or <div>. In the style attribute, the value consists of a property (such as "color") followed by a colon and then the actual color value in pair fashion. For example: <font color="red">Red text</font>, or <p style="color: blue;">Blue text</p>. It's generally recommended to use CSS for styling instead of inline styles.
   * **Hints:** 
     + color attribute within the <font> tags
     + style attribute within <p>, <span>, or <div>
     + Consists of a property (such as "color") followed by a colon and then the actual color value in pair fashion
     + Recommended to use CSS instead of inline styles
7. **Question:** How do you add CSS styling in HTML?  
   **Answer:** There are three ways to include the CSS with HTML. They are inline CSS, internal style sheet, external style sheet. We can add CSS styling to HTML using the <style> tag within the <head> section of our HTML document or by linking an external CSS file using the <link> tag. Additionally, we can apply inline styles directly to HTML elements using the "style" attribute. Inline CSS is used when less amount of styling is needed or in cases where only a single element has to be styled. External style sheet is used when the style is applied to many elements or HTML pages. Internal style sheet is used when a single HTML document has a unique style and several elements need to be styled to follow the format.
   * **Hints:** 
     + Three ways
     + Inline CSS, internal style sheet, external style sheet
     + Internal style sheet => <style> within the <head> section
     + External style sheet => CSS file using the <link>
     + Inline CSS => Directly to elements using the "style" attribute
     + Inline CSS => less amount of styling / a single element has to be styled
     + External style sheet => style is applied to many elements / HTML pages
     + Internal style sheet => single HTML document has a unique style and several elements need to follow the format
8. **Question:** What hierarchy do the style sheets follow?  
   **Answer:** Style sheets in HTML follow a hierarchy known as the "Cascade" which stands for Cascading Style Sheets (CSS). This hierarchy determines the priority of styles applied to elements. Inline styles have the highest priority, followed by internal styles, and then external styles.
   * **Hints:** 
     + Hierarchy known as the "Cascade"
     + Determines the priority of styles applied to elements
     + Inline styles > internal styles > external styles
9. **Question:** How do you add JavaScript to an HTML webpage?  
   **Answer:** There are three ways to include the JavaScript with HTML. In inline JavaScript, we can add JavaScript to our HTML elements directly whenever a certain event occurs. We can add the JavaScript code using attributes of the HTML tags that support it. We can define a script block anywhere on the HTML code within <script> </script> tag, which will get executed as soon as the browser reaches that part of the document. This is why script blocks are usually added at the bottom of HTML documents. We can also import the JavaScript code from a separate file. This is especially useful if there is a large amount of scripting added to an HTML webpage. We can mention the destination of the external file in src attribute of <script> tag.
   * **Hints:** 
     + Three ways
     + Inline JavaScript => add JavaScript directly whenever a certain event occurs using attributes of the HTML tags that support it
     + Script block => within <script></script> at the bottom of HTML documents
     + External JavaScript => mention the destination of the external file in src attribute of <script> tag
10. **Question:** What is the ‘class' attribute in HTML?  
    **Answer:** The "class" attribute in HTML is used to specify one or more class names for an element. It allows us to apply CSS styles to multiple elements with the same class.
    * **Hints:** 
      + Used to specify one / more class names for an element
      + To apply CSS styles to multiple elements with the same class
11. **Question:** What is the difference between the ‘id' and ‘class' attributes of HTML elements?  
    **Answer:** IDs are unique identifier which are typically used for styling or targeting specific elements with CSS or JavaScript, while classes are used to apply styles or functionality to multiple elements. An element can have only one "id," which must be unique within the HTML document, while multiple elements can share the same "class."
    * **Hints:** 
      + IDs => unique identifier which are typically used for styling or targeting specific elements with CSS or JavaScript
      + Classes => used to apply styles or functionality to multiple elements
      + One unique id within the HTML document
      + Multiple elements can have the same class
12. **Question:** What is the difference between HTML and XHTML?  
    **Answer:** HTML (Hypertext Markup Language) and XHTML (Extensible Hypertext Markup Language) are both markup languages used for creating web pages, but they have some differences. XHTML is an extension of HTML that follows stricter rules of XML. In XHTML, all elements must be properly nested and closed, with attributes enclosed in quotes. However, HTML is more forgiving, allowing for looser syntax. HTML can interpret malformed code more leniently. XHTML will produce errors if the code is not well-formed. HTML is served with the MIME type "text/html," while XHTML is served as "application/xhtml+xml" or "application/xml". Older web browsers may have better support for HTML, while XHTML may require more attention to ensure compatibility.

|  |
| --- |
| <!DOCTYPE html>  <html xmlns="http://www.w3.org/1999/xhtml">  <head>  <title>XHTML Example</title>  </head>  <body>  <p>This is a paragraph.</p>  <img src="example.jpg" alt="Example Image" />  </body>  </html>  <!DOCTYPE html>  <html>  <head>  <title>HTML Example</title>  </head>  <body>  <p>This is a paragraph.</p>  <img src="example.jpg" alt="Example Image">  </body>  </html> |

* + **Hints:** 
    - HTML => Hypertext Markup Language, and XHTML => Extensible Hypertext Markup Language
    - Both are markup languages
    - XHTML is an extension of HTML that follows stricter rules of XML
    - XHTML => all elements must be properly nested and closed, with attributes enclosed in quotes
    - HTML => more forgiving and has looser syntax
    - HTML => can interpret malformed code
    - XHTML => produce errors if the code is not well-formed
    - HTML => served with the MIME type "text/html,"
    - XHTML => served as "application/xhtml+xml" / "application/xml"
    - HTML => Older web browsers may have better support
    - XHTML => require more attention to ensure compatibility

1. **Question:** What is the difference between HTML and HTML5?  
   **Answer:** HTML5 is the latest version of HTML and includes new features and improvements over previous versions. Some key differences between HTML and HTML5 include support for multimedia elements (such as video and audio), improved semantics like <header>, <footer>, <nav>, and <article>, and better support for mobile devices. HTML5 includes support for <canvas> and Scalable Vector Graphics (SVG), allowing for the creation of vector graphics directly in HTML documents. HTML5 introduces the localStorage API, which allows web applications to store data locally on the user's device. The HTML5 has the JavaScript Web Worker API, which allows the browser interface to run in multiple threads. The DOCTYPE declaration in html5 is very simple "<! DOCTYPE html>. Character encoding declaration is simple <meta charset = "UTF-8">.
   * **Hints:** 
     + Latest version of HTML
     + Support for multimedia elements (such as video and audio)
     + Improved semantics like <header>, <footer>, <nav>, and <article>
     + Support for <canvas> and SVG
     + Introduces the localStorage API
     + Has the JavaScript Web Worker API
     + The DOCTYPE declaration and Character encoding declaration is very simple
2. **Question:** What is the role of the <head> tag in HTML?  
   **Answer:** The <head> tag in HTML is used to contain meta-information about the HTML document, such as its title, links to external resources like stylesheets and scripts, metadata like character encoding, and more. It's not displayed directly on the webpage but serves an important role in providing instructions and data to the browser about how to handle and present the content of the document.
   * **Hints:** 
     + Contain meta-information
     + title, links to external resources like stylesheets and scripts, metadata like character encoding, and more
     + Not displayed directly on the webpage
     + Serves instructions and data to the browser about presenting the content of the document.
3. **Question:** What is the role of the <meta> tag in HTML?  
   **Answer:** The <meta> tag provides additional meta information about the web page, such as character encoding used, viewport settings for responsive design, keywords for search engines, authorship details, and more. It is located within the <head> section of the HTML document.

|  |
| --- |
| <meta charset="UTF-8">  <meta name="viewport" content="width=device-width, initial-scale=1.0">  <meta name="keywords" content="HTML, CSS, JavaScript, web development">  <meta name="author" content="John Doe">  <meta name="description" content="This is a sample webpage demonstrating the usage of meta tags."> |

* + **Hints:** 
    - Meta information
    - Character encoding used, viewport settings for responsive design, keywords for search engines, authorship details, and more
    - Located within the <head>

1. **Question:** What is the difference between an absolute and relative URL?  
   **Answer:** An absolute URL specifies the complete web address of a resource, including the protocol (e.g., http:// or https://), domain name (e.g., www.example.com), and path (e.g., /path/to/resource). A relative URL, on the other hand, specifies the location of a resource relative to the current page or the current domain. Absolute URLs are used to link to resources on external websites, while relative URLs are used for resources within the same website.
   * **Hints:** 
     + Absolute URL => complete web address including the protocol, domain name, and path
     + Relative URL => location of a relative to the current page / current domain.
     + Absolute URL => link to external websites
     + Relative URL => link within the same website
2. **Question:** What is the role of the alt attribute in HTML?  
   **Answer:** The "alt" attribute is used to provide alternative text for an image. It describes the content of the image and is displayed if the image cannot be loaded or if the user is using a screen reader. This attribute is important for accessibility, helping visually impaired users understand the purpose and content of the image.
   * **Hints:** 
     + Alternative text for an image
     + Describes the content of the image
     + Displayed if the image cannot be loaded
     + User is using a screen reader
     + Important for accessibility
     + Helping visually impaired users
3. **Question:** What is the role of the title attribute in HTML?  
   **Answer:** The title attribute provides additional information about an element, such as a link or an image. The title text is displayed as a tooltip when a user hovers over the element.
   * **Hints:** 
     + Additional information about an element
     + Displayed as a tooltip
4. **Question:** What is a form in HTML?  
   **Answer:** In HTML, a form is a container that holds various input elements, such as text fields, checkboxes, radio buttons, and submit buttons. It allows users to input data that can be submitted to a server for processing. They are created using the <form> tag.
   * **Hints:** 
     + Container that holds various input elements
     + Allows users to input data that can be submitted to a server for processing
     + <form>
5. **Question:** What are the different types of form input fields in HTML?  
   **Answer:** The names of different types of form input fields in HTML are: Text Input, File Input, Hidden Input, Date Input, Email Input, Number Input, Range Input, Color Input, Password Input, Checkbox, Radio Button, Select Dropdown, Textarea, Submit Button. Each input field type is used to collect different types of data from users.
   * **Hints:** 
     + Text Input
     + File Input
     + Hidden Input
     + Date Input
     + Email Input
     + Password Input
     + Number Input
     + Range Input
     + Color Input
     + Checkbox
     + Radio Button
     + Select Dropdown
     + Textarea
     + Submit Button
6. **Question:** What is the role of the action attribute in HTML forms?  
   **Answer:** The "action" attribute in HTML forms specifies the URL to which the form data should be submitted when the form is submitted. This URL can be a relative or absolute URL, and it typically corresponds to a server-side script or program that handles the form data and performs further actions, such as saving it to a database or sending an email.

|  |
| --- |
| **<form action="/submit-form.php" method="post">**  **<label for="username">Username:</label>**  **<input type="text" id="username" name="username"><br>**    **<label for="password">Password:</label>**  **<input type="password" id="password" name="password"><br>**    **<input type="submit" value="Submit">**  </form> |

* + **Hints:** 
    - Specifies the URL to which the form data should be submitted
    - Can be a relative / absolute URL
    - Corresponds to a server-side script / program

1. **Question:** What is the role of the method attribute in HTML forms?  
   **Answer:** The "method" attribute in HTML forms determines how form data is sent to the server. It specifies whether the data is sent through the URL (GET method) or in the request body (POST method). GET is used for simple data, while POST is for sensitive or large data.

|  |
| --- |
| **<form action="/submit-form.php" method="post">**  **<label for="username">Username:</label>**  **<input type="text" id="username" name="username"><br>**    **<label for="password">Password:</label>**  **<input type="password" id="password" name="password"><br>**    **<input type="submit" value="Submit">**  </form> |

* + **Hints:** 
    - Determines how form data is sent to the server
    - GET => sent through the URL
    - POST => in the request body

1. **Question:** In how many ways can you display HTML elements?  
   **Answer:** HTML elements can be displayed in three main ways: block, inline, inline-block.
   * **Hints:** 
     + Three main ways
     + block
     + inline
     + inline-block.
2. **Question:** What is the difference between “display: none” and “visibility: hidden” when used as attributes to the HTML element?  
   **Answer:** "Display: none" completely removes the element from the page, making it invisible and not taking up any space. "Visibility: hidden" hides the element but still reserves space for it.
   * **Hints:** 
     + "display: none" => completely removes and not taking up any space
     + "visibility: hidden" => hides the element but still reserves space for it
3. **Question:** How to specify the link in HTML and explain the target attribute?  
   **Answer:** In HTML, we can specify a link using the <a> tag and the "href" attribute to define the URL destination. For example: <a href="https://example.com">Link Text</a>. The "target" attribute is used to specify where the linked document should be opened when clicked. It can take values like "\_blank" to open in a new tab or window, "\_self" to open in the same frame, "\_parent" to open in the parent frame, or "\_top" to open in the full body of the window. If "target" is omitted, the link will open in the same window by default.
   * **Hints:** 
     + <a> tag and the "href" attribute to define the URL destination
     + Is used to specify where the linked document should be opened
     + "\_blank"
     + "\_self"
     + "\_parent"
     + "\_top"
4. **Question:** What is the difference between link tag <link> and anchor tag <a>?  
   **Answer:** The <link> tag is used to link external resources like stylesheets to an HTML document, while the <a> tag is used to create hyperlinks within the document or to other documents. <link> is primarily for defining relationships between the current document and external resources, while <a> is for creating clickable links that navigate to different parts of the document or to other web pages.
   * **Hints:** 
     + <link> => link external resources like stylesheets
     + <a> => create hyperlinks within the document / to other documents
     + <link> => defines relationships between the current document and external resources
     + <a> => for creating clickable links that navigates
5. **Question:** When to use scripts in the head and when to use scripts in the body?  
   **Answer:** Scripts in the <head> section are typically used for essential scripts that need to be loaded before the page content, such as external JavaScript libraries or scripts required for page functionality. Scripts in the <body> section are usually placed at the end to ensure that the HTML content loads first, improving page loading speed, and they're often used for scripts that manipulate the DOM or interact with the page content after it's loaded, such as event handlers or dynamic content.
   * **Hints:** 
     + Scripts in the <head> are used for that need to be loaded before the page content, such as external JavaScript libraries / scripts required for page functionality
     + Scripts in the <body> are placed at to ensure that the HTML content loads first, improving page loading speed, and for manipulating the DOM or interacting with the page content such as event handlers / dynamic content
6. **Question:** How to create forms in HTML?  
   **Answer:** To create a form in HTML, you use the <form> tag with attributes like "action" to specify where the form data should be sent, and "method" to define how it should be sent (e.g., GET or POST). Inside the <form> tag, you add input elements like <input>, <textarea>, and <select> to collect user data. For example:

|  |
| --- |
| **<form action="/submit-form" method="post">**  **<label for="username">Username:</label>**  **<input type="text" id="username" name="username"><br>**  **<label for="password">Password:</label>**  **<input type="password" id="password" name="password"><br>**  **<input type="submit" value="Submit">**  </form> |

* + **Hints:** 
    - <form>
    - Attributes like "action" to specify where the form data should be sent, and "method" to define how it should be sent (e.g., GET or POST).
    - Inside <form> add input elements like <input>, <textarea>, and <select> to collect user data

1. **Question:** How to handle events in HTML?  
   **Answer:** In HTML, we can handle events using event attributes like "onclick" directly within HTML elements to trigger JavaScript functions. Alternatively, event listeners can be added to HTML elements using the addEventListener() method, which provides more flexibility and separation of concerns.
   * **Hints:** 
     + Using event attributes like "onclick" directly within HTML elements
     + Alternatively, using the addEventListener() method
2. **Question:** What are the 3 required parts of HTML?  
   **Answer:** The three required parts of HTML are:

1) DOCTYPE declaration: It defines the version of HTML being used and ensures proper rendering in different browsers.

2) <html> element: This element wraps all the content on the webpage and signifies the beginning of an HTML document.

3) <body> element: It contains the visible content of the webpage, such as text, images, links, and other elements displayed in the browser window.

* + **Hints:** 
    - DOCTYPE => defines version of HTML and essential rendering in different browsers
    - <html> => wraps all the content and signifies the beginning
    - <body> => contains the visible content

1. **Question:** What are the various markup languages available?  
   **Answer:** HTML: Hypertext Markup Language

KML: Key whole Markup Language

MathML: Mathematical Markup Language

SGML: Standard Generalized Markup Language

XHTML: eXtensible Hypertext Markup Language

XML: eXtensible Markup Language

* + **Hints:** 
    - HTML
    - KML
    - MathML
    - SGML
    - XHTML
    - XML

1. **Question:** What is the current version of HTML?  
   **Answer:** The current version of HTML is HTML5.
   * **Hints:** 
     + HTML5
2. **Question:** What is !DOCTYPE?  
   **Answer:** The <!DOCTYPE> declaration specifies the document type and version of HTML being used in a web page. It's required at the beginning of an HTML document and helps browsers render the page correctly by defining the rules and elements of the markup language being used.

|  |
| --- |
|  |

* + **Hints:** 
    - Specifies the document type and version of HTML being used
    - Helps browsers render the page correctly by defining the rules and elements being used

1. **Question:** What are the importance of various heading tags?  
   **Answer:** Heading tags provide structure and organization to the content. They help both users and search engines understand the hierarchy and importance of different sections on a webpage. Additionally, proper use of heading tags improves the visual appearance of the page, and aids in search engine optimization (SEO) by indicating the main topics and keywords of the content.
   * **Hints:** 
     + Provide structure and organization to the content.
     + Help users and search engines understand the hierarchy and importance of different sections on a webpage
     + Improves the visual appearance of the page
     + Aids in SEO by indicating the main topics and keywords of the content
2. **Question:** Are <b> and <strong> tags same? If not, then why?  
   **Answer:** <b> makes text look bold, but <strong> shows that the text is really important or needs emphasis, which is better for screen readers and search engines.
   * **Hints:** 
     + <b> => makes text look bold
     + <strong> => shows that the text is important / needs emphasis, which is better for screen readers and search engines
3. **Question:** What is the difference between <em> and <i> tags?  
   **Answer:** By default, the visual result is the same but the main difference between these two tags is that the <em> tag is used to emphasize text, indicating stress or importance, while <i> is used to italicize text for presentational purposes. <em> carries semantic meaning, conveying emphasis to both browsers and assistive technologies, whereas <i> is primarily for visual styling.
   * **Hints:** 
     + <em> => emphasize text, carries semantic meaning, indicating stress or importance to both browsers and assistive technologies
     + <i> => italicize text for presentational purposes
4. **Question:** What are the different formats in which colors in HTML can be declared?  
   **Answer:** Colors in HTML can be declared using various formats:

1. Named Colors: HTML supports a wide range of named colors that you can use directly in your code. Some examples include: "red".

2. Hexadecimal: Represented by a "#" followed by six characters, each representing the intensity of red, green, and blue (RGB) color channels. For example, "#FF0000" represents red.

3. RGB: Defined using the "rgb()" function, specifying the intensity of red, green, and blue color channels individually. Each intensity value ranges from 0 to 255. For example, "rgb(255, 0, 0)" represents red.

4. RGBA: Similar to RGB, but with an additional parameter representing the alpha channel for transparency. The alpha value ranges from 0 (fully transparent) to 1 (fully opaque). For example, "rgba(255, 0, 0, 0.5)" represents semi-transparent red.

5. HSL: Defined using the "hsl()" function, specifying the hue, saturation, and lightness of the color. Hue is represented as an angle from 0 to 360 degrees, saturation and lightness as percentages. For example, "hsl(0, 100%, 50%)" represents red. In hue, 0 represents red, 120 represents green and 240 represents blue color. In saturation, 100% represents completely saturated, while 0% represents completely unsaturated (gray). In lightness, 100% represents white, while 0% represents black.

6. HSLA: Similar to HSL, but with an additional parameter representing the alpha channel for transparency. For example, "hsla(0, 100%, 50%, 0.5)" represents semi-transparent red.

* + **Hints:** 
    - Named Colors => direct color name
    - Hexadecimal => "#" followed by six characters
    - RGB => "rgb()" function
    - RGBA => similar to RGB, but with an additional alpha channel parameter
    - HSL => "hsl()" function, specifying the hue, saturation, and lightness of the color
    - HSLA => similar to HSL, but with an additional alpha channel parameter

1. **Question:** What is the difference between block and inline elements?  
   **Answer:** Block elements typically start on a new line and take up the full width available. Examples include <div>, <p>, <h1>-<h6>, and <ul>. It can contain other block and inline elements. Inline elements don't start on a new line and only take up as much width as necessary. Examples include <span>, <a>, <strong>, and <em>. It cannot contain block elements, only other inline elements or text.
   * **Hints:** 
     + Block elements => start on a new line and take up the full width available. Examples are <div>, <p>, <h1>-<h6>, and <ul>. It can contain other elements.
     + Inline elements => don't start on a new line and only take up as much width as necessary. Examples are <span>, <a>, <strong>, and <em>. It cannot contain block elements.
2. **Question:** What are the basic building blocks of HTML?  
   **Answer:** An HTML document consist of its basic building blocks which are tags, attributes and elements. Tags are special codes consists of an opening tag, content, and a closing tag. HTML attributes provide additional information about HTML elements. Element defines the structure and meaning of the content, such as headings, paragraphs.
   * **Hints:** 
     + Tags
     + Attributes
     + Elements
3. **Question:** What are some common HTML tags?  
   **Answer:** Some common HTML tags include:   
   <html> defines the root of an HTML document. <head> contains metadata about the document. <title> sets the title of the document. <body> contains the content of the document. <h1> to <h6> denote headings of different levels. <p> defines a paragraph. <a> defines a hyperlink. <img> inserts an image. <ul> defines an unordered list. <li> defines a list item. <table> tag is used to create tables in HTML
   * **Hints:** 
     + <html>
     + <head>
     + <title>
     + <body>
     + <h1> to <h6>
     + <p>
     + <img>
     + <ul>
     + <li>
     + <table>
4. **Question:** What is the purpose of the <body> tag in HTML?  
   **Answer:** The <body> tag is used to define the main content of the HTML document that is displayed in the browser.
   * **Hints:** 
     + Define the main content that is displayed in the browser
5. **Question:** What is the purpose of the <div> tag in HTML?  
   **Answer:** The <div> tag in HTML is a container used to group and organize content or elements within a webpage. It's often used to create divisions or sections of content and to apply styles or scripts to specific parts of the page. <div> tags are versatile and can be styled or manipulated using CSS and JavaScript to create layouts, structure content, or apply functionality.
   * **Hints:** 
     + Container used to group and organize content / elements within a webpage
     + Create divisions / sections
     + Can be applied styles or scripts to specific parts of the page
     + Create layouts, structure content, or apply functionality
6. **Question:** What is the purpose of the <span> tag in HTML?  
   **Answer:** The <span> tag is an inline container used to apply styles or manipulate specific portions of text within a larger block of content. It's commonly used to target and style individual words or phrases, or to apply scripting to specific parts of text within a paragraph or other block-level element.
   * **Hints:** 
     + Inline container used to apply styles / manipulate specific portions of text
     + Used to target and style individual words or phrases / to apply scripting to specific parts of text
7. **Question:** What are the <thead>, <tbody>, and <tfoot> tags used for?  
   **Answer:** The <thead>, <tbody>, and <tfoot> tags are used to structure the content within an HTML table. <thead> defines the header section of the table, typically containing column headings. <tbody> contains the main body of the table, comprising rows of data. <tfoot> represents the footer section of the table, often used for summary rows or totals.
   * **Hints:** 
     + <thead> => header section of the table which contains column headings.
     + <tbody> => main body of the table which comprises rows of data
     + <tfoot> => footer section of the table used for summary rows / totals
8. **Question:** What is the purpose of the <tr> tagin HTML?  
   **Answer:** The <tr> tag in HTML is used to define a row within a table. It stands for "table row." Each <tr> element contains one or more <td> (table data) or <th> (table header) elements, representing the cells of the row.
   * **Hints:** 
     + table row
     + Contains one or more <td> (table data) or <th> (table header)
9. **Question:** What is the purpose of the <th> and <td> tags in HTML?  
   **Answer:** The <th> tag stands for "table header" is used to define a header cell in a table, while the <td> tag stands for "table data" is used to define a data cell.
   * **Hints:** 
     + <th> stands for "table header" which defines a header cell
     + <td> stands for "table data" which defines a data cell
10. **Question:** What is the purpose of the colspan and rowspan attributes in the <td> and <th> tags?  
    **Answer:** The "colspan" attribute in the <td> and <th> tags specifies the number of columns a cell should span horizontally, merging multiple adjacent cells into one wider cell. The "rowspan" attribute specifies the number of rows a cell should span vertically, merging multiple cells in different rows into one taller cell.
    * **Hints:** 
      + colspan merging multiple adjacent cells into one wider cell
      + rowspan merging multiple cells in different rows into one taller cell
11. **Question:** What is the purpose of the name attribute in form elements?  
    **Answer:** The "name" attribute is crucial for distinguishing different form fields and retrieving their values on the server for further processing or validation.
    * **Hints:** 
      + Distinguish different form fields
      + Retrieve their values on the server for further processing / validation
12. **Question:** What is the purpose of the <input> tag in HTML?  
    **Answer:** The <input> tag in HTML is used to create various types of input fields , such as text fields, checkboxes, radio buttons, and submit buttons within a form, allowing users to enter data.
    * **Hints:** 
      + Create various types of input fields
      + Within a form
      + Allows users to enter data
13. **Question:** What is the purpose of the type attribute in the <input> tag?  
    **Answer:** The "type" attribute in the <input> tag specifies the type of input field to be created, such as "text", "checkbox", "radio", "submit", etc. It determines the behavior and appearance of the input field, allowing for different types of user input. The "type" attribute is crucial for defining the functionality and usability of the input field within a form.
    * **Hints:** 
      + Specifies the type of input field to be created
      + Determines the behavior and appearance of the input field
      + Allow different types of user input
      + Define the functionality and usability of the input field
14. **Question:** What is the purpose of the <label> tag in HTML?  
    **Answer:** The <label> tag in HTML is used to associate text with form input elements. It provides a label or description for an input field, making it more accessible and user-friendly. When users click on the label, it focuses or activates the associated input field. Additionally, labels enhance the semantic structure of forms, improving search engine optimization (SEO) and overall code readability.
    * **Hints:** 
      + Used to associate text with form input elements
      + Provides a label / description for an input field,
      + Make accessible and user-friendly
      + Clicking on the label, focuses / activates the associated input field
      + Enhance the semantic structure of forms, improving SEO and overall code readability
15. **Question:** What is the purpose of the <select> tag in HTML?  
    **Answer:** The <select> tag in HTML is used to create a dropdown list or selection menu within a form. It allows users to choose one or more options from a list of predefined choices. The <select> tag contains one or more <option> tags, each representing an item in the dropdown menu.

|  |
| --- |
| **<form>**  **<label for="cars">Choose a car:</label>**  **<select id="cars" name="cars">**  **<option value="volvo">Volvo</option>**  **<option value="saab">Saab</option>**  **<option value="mercedes">Mercedes</option>**  **<option value="audi">Audi</option>**  **</select>**  **<input type="submit" value="Submit">**  </form> |

* + **Hints:** 
    - Used to create a dropdown list / selection menu
    - Allows users to choose one / more options from a list
    - <select> contains one / more <option>, each representing an item in the dropdown menu

1. **Question:** What is the purpose of the <option> tag in the <select> tag?  
   **Answer:** The <option> tag in the <select> element is used to define individual options within a dropdown list. Each <option> tag represents a selectable item in the list. Users can choose one or more options from the dropdown menu created by the <select> tag.
   * **Hints:** 
     + Used to define individual options within a dropdown list
     + <option> represents a selectable item in the list
     + Users can choose one / more options from the dropdown menu
2. **Question:** What is the purpose of the value attribute in the <option> tag?  
   **Answer:** The "value" attribute in the <option> tag specifies the value that will be submitted to the server when the option is selected. It provides a way to associate a specific piece of data with each option in a dropdown list. If the "value" attribute is not specified, the text content of the <option> tag will be used as the value by default.
   * **Hints:** 
     + Specifies the value that will be submitted to the server when the option is selected
     + Provides a way to associate a specific piece of data with each option
     + If no "value" attribute, the text content of the <option> will be used as the value
3. **Question:** What is the purpose of the <textarea> tag in HTML?  
   **Answer:** The <textarea> tag in HTML is used to create a multiline text input field within a form. It allows users to input larger blocks of text, such as comments, messages, or descriptions, by providing a resizable text area where they can type or paste text. The <textarea> tag is useful for capturing longer user inputs that may not fit well in single-line text fields.
   * **Hints:** 
     + Used to create a multiline text input field
     + Allows users to input larger blocks of text by providing a resizable text area
     + Useful for capturing longer user inputs that may not fit well in single-line text fields
4. **Question:** What is the purpose of the <iframe> tag in HTML?  
   **Answer:** The <iframe> tag in HTML is used to embed another HTML document within the current document. It stands for "inline frame". This is commonly used for embedding maps, videos, or other third-party content, providing a way to integrate external content seamlessly into your webpage.

|  |
| --- |
| <iframe src="https://www.example.com" width="600" height="400"></iframe> |

* + **Hints:** 
    - Used to embed another HTML document
    - Inline frame
    - Used for embedding maps, videos, or other third-party content, providing a way to integrate external content seamlessly

1. **Question:** What is the purpose of the <audio> and <video> tags in HTML?  
   **Answer:** The <audio> and <video> tags in HTML are used to embed audio and video content, respectively, directly into a webpage without the need for external plugins like Flash. They provide native support for multimedia playback in modern web browsers. These tags support various audio and video formats and offer a range of attributes for controlling playback, such as autoplay, loop, and volume control, providing a seamless and accessible way to integrate multimedia content into webpages.
   * **Hints:** 
     + Embed audio and video content, respectively without Flash
     + Provide native support for multimedia playback
     + Support various audio and video formats
     + Offer attributes for controlling playback, such as autoplay, loop, and volume control
2. **Question:** What is the purpose of the <canvas> tag in HTML?  
   **Answer:** The <canvas> tag in HTML is used to draw graphics, animations, and other visual content dynamically within a webpage using JavaScript. It provides a blank rectangular area where developers can programmatically draw shapes, lines, text, images, and more, allowing for interactive and visually rich web applications. The <canvas> element is commonly used for creating charts, graphs, games, image manipulation tools, and other graphical applications directly within the browser.

|  |
| --- |
| **<canvas id="myCanvas" width="200" height="100" style="border:1px solid black;"></canvas>**  **<script>**  **// Get the canvas element**  **var canvas = document.getElementById('myCanvas');**  **// Get the 2D drawing context**  **var ctx = canvas.getContext('2d');**  **// Draw a red rectangle**  **ctx.fillStyle = 'red';**  **ctx.fillRect(10, 10, 100, 50);**  </script> |

* + **Hints:** 
    - Used to draw graphics, animations, and other visual content dynamically using JavaScript
    - Provides a blank rectangular area to programmatically draw shapes, lines, text, images, charts, graphs, games, image manipulation tools, other graphical applications and more, allowing for interactive and visually rich web applications

1. **Question:** What is the purpose of the <header>, <main>, <footer>, and <nav> tags in HTML?  
   **Answer:** The <header>, <main>, <footer>, and <nav> tags in HTML are used to structure the layout of a webpage and provide semantic meaning to different sections. <header> contains introductory content or navigation links at the top of the page. <main> holds the main content unique to each page. <footer> includes footer content, such as copyright information or contact details, at the bottom of the page. <nav> defines a section for navigation links, like menus, for easier website navigation.
   * **Hints:** 
     + All are used to structure the layout and provide semantic meaning to different sections
     + <header> contains introductory content / navigation links at the top of the page
     + <main> holds the main content
     + <footer> includes footer content at the bottom of the page
     + <nav> defines a section for navigation links, like menus, for easier website navigation
2. **Question:** What is the purpose of the <article> and <section> tags in HTML?  
   **Answer:** <article> represents a self-contained piece of content, such as a blog post, article, or forum post, that can be independently distributed or reused. <section> defines a thematic grouping of content within a document, such as chapters, sections, or different parts of a webpage.
   * **Hints:** 
     + <article> is a self-contained piece of content
     + <section> is a thematic grouping of content within a document
3. **Question:** What is the purpose of the <aside> tag in HTML?  
   **Answer:** The <aside> tag in HTML is used to define content that is related to the main content of the webpage but is considered secondary or tangential. It typically contains content such as sidebars, advertisements, or supplementary information that complements the main content.
   * **Hints:** 
     + Content that is related to the main content but is considered secondary / tangential
     + Content such as sidebars, advertisements, or supplementary information
4. **Question:** What is the purpose of the <figure> and <figcaption> tags in HTML?  
   **Answer:** The <figure> tag is used to encapsulate self-contained content, such as images, diagrams, or videos. The <figcaption> tag defines a caption for a <figure> element. The <figcaption> element can be placed as the first or last child of the <figure> element.

|  |
| --- |
| **<figure>**  **<img src="example.jpg" alt="Example Image">**  **<figcaption>This is an example image.</figcaption>**  </figure> |

* + **Hints:** 
    - Used to encapsulate self-contained content, such as images, diagrams, or videos
    - <figcaption> defines a caption for a <figure> element

1. **Question:** What are the advantages of using external CSS stylesheets?  
   **Answer:** Some advantages of using external CSS stylesheets include easier maintenance, consistent styling across multiple pages, better separation of concerns (HTML for structure, CSS for presentation), and faster page loading times due to browser caching.
   * **Hints:** 
     + Easier maintenance
     + Consistent styling across multiple pages
     + Separation between HTML (structure) and CSS (design)
     + Faster page loading times due to browser caching
2. **Question:** What is the purpose of the CSS display property?  
   **Answer:** The CSS display property controls how an element is displayed in the layout of a webpage. It determines the type of box model used for the element, such as block, inline, inline-block, or none. By setting the display property, we can control the positioning and visibility of elements, allowing for flexible and responsive layouts.
   * **Hints:** 
     + Controls how an element is displayed in the layout
     + Determines the type of box model used for the element, such as block, inline, inline-block, or none
     + Positioning and visibility of elements can be controlled for flexible and responsive layouts
3. **Question:** What is the purpose of the CSS position property?  
   **Answer:** The purpose of the CSS position property is to control the positioning of an element within its containing parent element. It allows you to specify whether an element should be positioned relative to the normal flow of the document (static), or if it should be moved relative to its closest positioned ancestor (relative), or if it should be positioned relative to the browser window (absolute or fixed).
   * **Hints:** 
     + Control the positioning of an element within its containing parent element
     + Specify whether an element should be positioned static, relative, absolute or fixed.
4. **Question:** What is the purpose of the CSS float property?  
   **Answer:** The float property is used to align an element to the left or right of its container, allowing other content to wrap around it. However, it's important to note that floating elements are taken out of the normal document flow, which can affect the layout of adjacent elements.
   * **Hints:** 
     + Used to align an element to the left / right of its container
     + Allow other content to wrap around it
     + Out of the normal document flow
     + Can affect the layout of adjacent elements
5. **Question:** What is the purpose of the CSS box-sizing property?  
   **Answer:** The purpose of the CSS box-sizing property is to control how the total width and height of an element are calculated. By default, the width and height properties include only the content area of an element, excluding padding, borders, and margins. However, when the box-sizing property is set to "border-box", the width and height properties include the padding and border sizes, resulting in a more intuitive sizing behavior.
   * **Hints:** 
     + Control how the total width and height of an element are calculated
     + When we set box-sizing to "border-box", it includes padding and border to the overall height and width of the element
     + Otherwise by default element size will be bigger.
6. **Question:** What is the purpose of the CSS flexbox layout?  
   **Answer:** Flexbox allows for easier alignment, distribution, and reordering of items, helping to create flexible and responsive layouts without relying heavily on floats or positioning.
   * **Hints:** 
     + Allows easier alignment, distribution, and reordering of items
     + Helps to create flexible and responsive layouts
7. **Question:** What is the purpose of the viewport meta tag in HTML?  
   **Answer:** The viewport meta tag in HTML controls how a webpage looks on mobile screens, ensuring it fits well and scales properly. It's crucial for making websites easy to use on phones and tablets.
   * **Hints:** 
     + Controls how a webpage looks on mobile screens
     + Ensuring it fits well and scales properly
     + Makes websites easy to use on phones and tablets
8. **Question:** What is the purpose of the <fieldset> and <legend> tags in HTML?  
   **Answer:** The <fieldset> tag is used to group related form elements together, and the <legend> tag is used to provide a caption or description for the <fieldset>.

|  |
| --- |
| **<form>**  **<fieldset>**  **<legend>Contact Information</legend>**  **<label for="name">Name:</label>**  **<input type="text" id="name" name="name"><br>**  **<label for="email">Email:</label>**  **<input type="email" id="email" name="email"><br>**  **<label for="message">Message:</label>**  **<textarea id="message" name="message"></textarea>**  **</fieldset>**  </form> |

* + **Hints:** 
    - <fieldset> is used to group related form elements together
    - <legend> is used to provide a caption / description for the <fieldset>

1. **Question:** What is the purpose of the <datalist> tag in HTML?  
   **Answer:** The <datalist> tag in HTML provides a predefined list of options for an <input> element. This enhances user experience by providing auto-completion or dropdown suggestions, making it easier for users to input data accurately and quickly.
   * **Hints:** 
     + Provides a predefined list of options for an <input> element
     + Provides auto-completion or dropdown suggestions
2. **Question:** What is the purpose of the <meter> tag in HTML?  
   **Answer:** The <meter> tag in HTML is used to represent measurements within a specific range. It can be used to indicate the measurement of data such as disk usage, completion percentage, or any other measurable value.

|  |
| --- |
| <meter value="0.6" min="0" max="1">60%</meter> |

* + **Hints:** 
    - Used to represent measurements within a specific range
    - Indicate the measurement of disk usage, completion percentage, or any other measurable value

1. **Question:** What is the purpose of the <time> tag in HTML?  
   **Answer:** The <time> tag in HTML is used to represent dates, times, or durations. It adds semantic meaning to the content, making it easier for search engines and assistive technologies to understand the context of the time-related information.

|  |
| --- |
| <p>I have a plan on <time datetime="2008-03-26 20:00">Independence day</time>.</p> |

* + **Hints:** 
    - Used to represent dates, times, or durations
    - Adds semantic meaning to the content
    - Making it easier for search engines and assistive technologies to understand the context of the time-related information

1. **Question:** What is the purpose of the required attribute in form elements?  
   **Answer:** The required attribute in form elements is used to specify that a particular input field must be filled out before the form can be submitted. It ensures that users provide necessary information, reducing errors and improving data accuracy. Additionally, browsers will prevent form submission if required fields are left empty, providing instant feedback to users.
   * **Hints:** 
     + Used to specify that a particular input field must be filled out before the form can be submitted
     + Ensures that users provide necessary information
     + Browsers will prevent form submission if required fields are left empty