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## HTML Assignment - 1

(1) Describe the basic structure of an HTML document.

→ An HTML document is composed of a basic structure that defines the overall layout and content. Here's a breakdown of the key components:

### HTML Structure

```
<!DOCTYPE html>
<html>
  <head>
    <title>My web page </title>
  </head>
  <body>
    <h1>Hello world </h1>
    <p>This is a paragraph </p>
  </body>
</html>
```

(2) What are HTML form elements and attributes? Provide example of commonly used form elements and their attributes.

→ HTML form are used to collect user input. They consist of various form elements like text fields, checkboxes, radio buttons, etc. Each element has its own set of attributes.



to define its behaviour and appearance  
Common form element and attributes

- o Text Field : `<input type="text">`
- o Password : `<input type="password">`
- o Checkbox : `<input type="checkbox">`
- o Radio button : `<input type="radio">`
- o Submit button : `<input type="submit">`
- o Reset button : `<input type="reset">`
- o Text area : `<input type="textare">`
- o Select box : `<input type="select">`

### Example

`<form>`

`<label for="name"> name: </label>`

`<input type="text" id="name" name="name">`

`<label for="email"> Email: </label>`

`<input type="email" id="email" name="email">`

`<label for="password"> Password: </label>`

`<input type="password" id="password" name="password">`

`<input type="submit" value="submit">`

`</form>`

(3) Discuss the importance of browser support in web development. How can developers ensure cross browser compatibility?



→ Browser support crucial in HTML development because different browsers may interpret HTML and CSS differently leading to inconsistency in how web page are displayed across browser. Compatibility ensure that your web pages look and function consistently across various browsers.

→ Strategies to ensure cross-browser compatibility

- o Use valid HTML and CSS: Adhere to latest HTML and CSS standards to minimize browser specific quirks.
- o Test in multiple browsers: Test your website on different browsers and devices to identify and fix any compatibility issues.
- o Use CSS reset: A CSS reset helps standardize styles across different browsers.

(4) How can background colors and images be added to an HTML webpage? Provide code example demonstrating both techniques.

→ Adding background color

```
<body style="background-color: lightblue;">
</body>
```



## Adding Background image

```
<body style="background-image: url('background.jpg');
```

```
</body>
```

⑤ Explain div and span tag in details

→ Div tag (<div>)

- Defines a division or a section in a document.
- Used to group elements together and apply styles to them.
- Can be used to create layouts and structure content.

→ Span tag (<span>)

- Defines an inline element that can be used to group elements together.
- Typically used for styling specific parts of a page or applying to elements within a line.
- Often used with CSS to apply styles like color, font size, or bold text.

### Example

```
<div style="background-color: lightgray; padding:
```

This is a div Element.

```
<span style="color: blue;"> This text is blue
```



# HTML Assignment - 2

(1) Explain the difference between headings (

# ) and paragraph ( tag) in HTML provide examples of when each should and describe their semantic significance.

## Headings ()

- Used to structure and organize content
- Indicate the importance of text within the document

- # is the most important heading, while is the least important

### Example

# main heading </h1>

## sub heading </h2>

### sub heading </h3>

~~<p> this is a paragraph of text </p>~~

## Paragraphs ( tag)

- Used to group

- Defines a block level element meaning it starts on a new line and takes up the full width of its container

### Example

<p> This is the first paragraph </p>

<p> This is the second paragraph </p>



(2) How can you create an horizontal line in HTML? Describe its purpose and give an example of its usage.

- ) The `<hr>` tag creates a horizontal line on the page.
- o it is used to visually separate section of content.

### Example

`<p> This is a paragraph. </p>`  
`<hr>`

`<p> This is another paragraph. </p>`

(3) Discuss the use of subscript (`<sub>`) and superscript (`<sup>`) tags in HTML. Provide examples demonstrating their application in text formatting.

→ Subscript (`<sub>`)

- o used to display text below the normal line.
- o often for chemical formulas or mathematical expressions.

### Example

`<p> H2O </sub> </p>`



## • superscript (<sup>)

- used to display text above the normal line
- often for footnotes, exponents, or trademarks

### Example

<p> x <sup>2</sup> </sup> + 2x + 1 </p>

- (4) Describe the process of aligning text in HTML using CSS. What are some CSS properties and values you can use to achieve text alignment?

-> To align text in HTML using CSS you can use following properties

- text-align : Align the text within an element
- values left, right, center, justify
- margin : Adds spacing around an element
- value : out to (centers an element)

### Example

<p style="text-align: center;"> This text is centered. </p>

<p style="text-align: right;"> This text is right-aligned. </p>



(5) Compare and contrast unordered list (<ul>) order list (<ol>) and definition list (<dl>) in HTML

→  
o unordered lists (<ul>):

o used to create a list of items without a specific order

o Each list is marked with a bullet point

Example

<ul>

<li> Item 1 </li>

<li> Item 2 </li>

<li> Item 3 </li>

</ul>

o ordered list (<ol>):

o used to create a list of items in specific order.

o Each list item is numbered

Example

<ol>

<li> First step </li>

<li> Second step </li>

<li> Third step </li>

</ol>

# HTML

## Assignment : 3

(1) Explain the structure of an HTML table  
Provide an example of a basic table structure

→ An HTML table is defined using the `<table>` tag. It consists of the following elements

- `<tr>` (table row) : Defines a row in table
- `<th>` (table header) : Defines a header cell in a table header row
- `<td>` (table data) : Defines a data cell in a table row

### Example

`<table>`

`<tr>`

`<th> Name </th>`

`<th> Age </th>`

`<th> City </th>`

`</tr>`

`<tr>`  
`<td> John Doe </td>`

`<td> 30 </td>`

`<td> New </td>`

`</tr>`

`<tr>`  
`<td> Jane Smith </td>`

`<td> 25 </td>`

`<td> Los Angeles </td>`

`</tr>`

`</table>`



(2) How can you center align a table and cell contents in HTML? Describe the properties or HTML attributes used for them and provide examples demonstrating their application.

→ Using CSS

o Table alignment

→ margin: auto; - centers the table horizontally

o Cell content alignment

→ text-align: left/right/center; - Aligns text horizontally

→ vertical-align: top/middle/bottom; - Aligns content vertically within a cell

Example

```
<table style="margin: auto;">
```

```
<tr>
```

```
<th style="text-align: center;">
```

```
<th style="text-align: center;">
```

```
<th style="text-align: center;">
```

```
</tr>
```

```
<tr>
```

```
<td> John Doe </td>
```

```
<td> 30 </td>
```

```
<td> New York </td>
```

```
</tr>
```

```
</table>
```

## using HTML Attributes

- align attribute for tables:
- align = "center" - Centers the table.
- align attribute for cells:
- align = "left/right/center" - Aligns content within a cell
- valign attributes for cells:
- valign = "top/middle/bottom" - Aligns content vertically within a cell

(3) Describe the process of nesting tables in HTML. Provide an example illustrating nested table.

- Nesting table involves placing one table within another. This can be used for creating complex layouts or hierarchical data structures.

### Example

<table>

<tr>

<td> Table 1 </td>

</tr>

</table>

<tr>

<td> Table 2 </td>

</tr>



</td>

</tr>

</table>

(4) What are frames in HTML and how are they created? Explain the purpose of the <frameset> and <frame> tags.

→ Frames divide a browser window into multiple independent sections, each displaying a different HTML document.

○ <frameset> tag: Defines a frameset, which is the container for all frames.

○ <frame> tag: Defines an individual frame within a frameset.

### Example

```
<frameset rows="50%, 50%">  
  <frame src="top.html" />  
  <frame src="bottom.html" />  
</frameset>
```

(5) Discuss the concept of creating hyperlinks to frames.

→ Hyperlinks to frames can be used to specify which frame should display the linked content.

document. This is done using the target attribute in the <a> tag

<a href = "page 1.html" target = "top frame"> Top frame link </a>

<a href = "page 2.html" target = "bottom frame"> Bottom frame link </a>



## HTML Assignment - 4

Q. Explain the different ways to create hyperlinks in HTML.

Ans. There are ~~main~~ two main ways to create hyperlinks in HTML:

1. Using the `<a>` tag:

• The `<a>` tag is used to define an anchor or link.

• The `href` attribute specifies the URL of the linked resource.

### Example

`<a href="https://www.example.com">Link to Example website </a>`

2. Using the `<area>` tag

• The `<area>` tag is used to define an active area within an image map.

• The `href` attribute specifies the URL of the linked resource.

### Example

```

<area shape="rect" coords="0,0,80,80" href="
link1.html" alt="Link 1"/>
<area shape="circle" coords="100,100,40" href="
link2.html" alt="Link 2"/>
</map>
```

(2) How can you style hyperlinks in HTML to change their color?

→ You can use CSS to style hyperlinks and change their color. Here's how:

• using an internal style sheet:

```
<style>
a {
color: blue;
}
</style>
```

• using an external style sheet:

```
css
a {
color: blue;
}
```



inline style:

```
<a href="http://www.example.com" style="color:red; text-decoration: underline;">Link to Example website </a>
```

Describe the process of inserting an image on a webpage using the `<img>` tag in HTML.

To insert an image on a webpage, use the `<img>` tag with the following attributes

- `src`: Specifies the URL of the image
- `alt`: Specifies alternative text for the image which is displayed if the image cannot be loaded

- `width` and `height`: Specifies the width and height of the image in pixels

### Example

```

```

(ii) Discuss the step involved in creating an HTML form with various input elements like textboxes, buttons, checkboxes, dropdowns and date fields provide examples demonstrating each type of form element.

→ To create a html form you need to use  
<form> tag. inside the form, you can add various  
input elements using the <input> tag with  
different attributes here are some examples

#### o Text box

```
<input type="text" name="name" placeholder="Enter  
your name">
```

#### o Button

```
<input type="button" value="submit">
```

#### o Check box

```
<input type="checkbox" name="vehicle" value="car">
```

#### o Dropdown

```
<select name="country">  
  <option value="IN"> India </option>  
  <option value="US"> United States </option>  
  <option value="UK"> United Kingdom </option>  
</select>
```

#### o Date Field

```
<input type="date" name="birthdate">
```



(5) Explain how multimedia content can be embedded on a webpage using HTML5 `<video>` and `<audio>` tags

→ video

```
<video width="320" height="240" controls>
```

```
<source src="movie.mp4" type="video/mp4">
```

Your browser does not support the video tag.  
~~<video>~~  
<sup>video</sup>  
~~<video>~~

→ audio

```
<audio controls>
```

```
<source src="audio.ogg" type="audio/ogg">
```

Your browser does not support the audio tag.  
~~<audio>~~

### Additional Consideration

- o Form Validation: You can use HTML5's built-in validation features or JavaScript to validate user input within form
- o Accessibility: Ensure your form and multimedia content are accessible to user with disabilities by following accessibility guidelines

• responsive design : design your form  
media elements to adapt to different  
screen sizes and devices.

*Handwritten signature*