Web Technology

DATE

Assignment 1

Group- A

1 What is the structure of HTML File? Explain with example.

> The <HTML> is a markup language that is used by the browsers to manipulate text, images, and other content to display it in the required format.
The structure of HTML file is mainly divided into two parts. They are:-

a) Head

> This contains the information about the HTML Document or file. for example: title of the page, version of HTML, Meta Data, etc.

b) Body

> This contains everthing you want to display on the web page

Example:-

```
<!DOCTYPE html>
<html>
<head>
   <title> Page title </title>
</head>
<body>
    <h2> Heading Content </h2>
    <P> Paragraph Content </P>
</body>
</html>
```

PAGE

DATE

2. What is HTML Link? Explain different link used in html.

→ HTML links are hyperlinks. In HTML, when we click on a link, we directly jump to another document. A link does not have to be text. A link can be an image or any other HTML element.

The HTML <a> tag defines a hyperlink. It has the following syntax:

 link text

DATE

The different types of link used in html are as follows:-

a) Local links

→ A local link uses a pagename (including sub-directories if needed) as the target. It is "local" to the current server.

Example:

 click here to go to local page

b) Internal links

→ Internal links can also be called page jump, you can make this jump with two simple steps.

Example 1: <A NAME = "ur bookmark name"> </A>

Example 2: <A HREF = "#ur bookmark name"> Add the text to be displayed & clicked by the user </A> </B>

c) External links

→ To link to any page in the world, you need the (URL) of the page you want to link to.

Example:

 text to click on

d) Download links

→ File links are used for allowing a visitor to download a file. These links are set up exactly the same as the local or external link. Instead of "pointing" to another page or site, it points to a file.

Example :- click here to download this file

PAGE

example: <img src = "/images/logo.png" alt = "image"
border = "0" />

e) E-mail links

→ The email link is for receiving e-mail and feedback from visitor. This link will prompt the browser's e-mail program to start and place the e-mail address in automatically.

Example: <a href = "Assign: mail_address @ mail. com"
click here to sent e-mail

PAGE

scrolling. Specified coordinates will be relative to the browser window.

4. What is the strength of CSS? What are the various approaches to include CSS document in HTML.

→ CSS handles the look and feel part of a webpage. Using CSS, we can control the color of the text, the style of fonts, the spacing between paragraphs, how colums are sized and laid out, etc.

The following are the strength of CSS:-

a) CSS saves time
b) easy maintenance
c) Gobal web standards
d) Platform Independence

The various approaches to include CSS document in HTML are:-

a) Inline Styles

→ Using the style attribute in the HTML start tag.

DATE

b) Embedded styles

→ Using the <style> element in the head section of a document.

c) External style sheets

→ Using the <link> element, pointing to an external CSS file.

DATE

5. What is HTML 5 ? Explain characteristics of HTML 5.

→ HTML 5 is the next major revision of the HTML standard superseding HTML 4.01, XHTML 1.0, and XHTML 1.1. HTML 5 is a standard for structuring and presenting content on the World Wide Web. HTML 5 is a cooperation between the World Wide Web Consortium (W3C) and the Web Hypertext Application Technology Working Group (WHATWG).

The characteristic of HTML 5 are as follows:-

a) New Semantic Elements
→ These are like <header>, <footer>, and <section>.

b) Forms 2.0
→ Improvements to HTML web forms where new attributes have been introduced for <input> tag.

c) Persistent Local Storage
→ To achieve without resorting to third-party plugins.

d) WebSocket
→ A next-generation bidirectional communication technology for web applications.

e) Server-Sent Events
→ HTML 5 introduces events which flow from web server to the web browsers and they are called Server-sent Events (SSE).

f) Canvas
→ This supports a two-dimensional drawing surface that you can program with Javascript.

PAGE

DATE

g) Audio & video
→ You can embed audio or video on your webpages without resorting to third-party plugins.

h) Geolocation
→ Now, visitors can choose to share their physical location with your web application.

i) Microdata
→ This lets you create your own vocabularies beyond HTML 5 and extend your web pages with custom semantics.

j) Drag and drop
→ Drag and drop the items from one location to another location on the same webpage.

DATE

7. What is CSS selector? Explain different types of selector with suitable example.

→ CSS selector are used to select the content you want to ~~style~~ style. Selectors are the part of CSS rule set. CSS selectors select HTML elements according to its id, class, type, attribute, etc.

There are different types of selectors in CSS. They are:-

a) CSS Element Selector

→ The element selector selects HTML elements based on the element name.

Example:-

```
<!DOCTYPE html>
<html>
<head>
<style>
p{
    text-align: center;
    color: blue;
}
</style>
</head>
<body>
<p>This style will be applied on every paragraph.</p>
<p id="para1">Me too!</p>
<p>And me!</p>
</body>
</html>
```

PAGE

DATE

b) CSS Id Selector

→ The id selector selects the id attribute of an HTML element to select a specific element. An id is always unique within the page so it is chosen to select a single, unique element. It is written with the hash character (#), followed by the id of the element.
Example with id "para1":-

```
<!DOCTYPE html>
<html>
<head>
<style>
#para1 {
        text-align: center;
        color: blue;
}
</style>
</head>
<body>
<p id = "para1"> Hello </p>
<p> This paragraph will not be affected. </p>
</body>
</html>
```

PAGE

DATE

c) CSS class selector

→ This class selector selects HTML elements with a specific class attribute. It is used with a period character . (full stop symbol) followed by the class name. A class name should not be started with a number.

Example with a class "center".

```
<!DOCTYPE html>
<html>
<head>
<style>
.center{
    text-align: center;
    color: blue;
}
</style>
</head>
<body>
<h1 class="center"> This heading is blue & center aligned.</h1>
<p class = "center"> This paragraph is blue & center aligned.</p>
</body>
</html>
```

PAGE

DATE

d) CSS Universal selector

-> The universal selector is used as a wild card character. It selects all the elements on the pages.

Example :-

```
<!DOCTYPE html>
<html>
<head>
<style>
* {
    color: green;
    font-size: 20px;
}
</style>
</head>
</body>
<h2> This is heading </h2>
<p> This style will be applied on paragraph. </p>
<p id = "para1" > Me too! </p>
<p> And Me! </p>
</body>
</html>
```

DATE

Q) CSS group selector

-> The grouping selector is used to select all the element with the same style definitions. Grouping selector is used to minimize the code. Commas are used to separate each selector in grouping.

Example:-

```
<!DOCTYPE html>
<html>
<head>
<style>
h1, h2, p {
    text-align: center;
    color: blue;
}
</style>
</head>
<body>
<h1> Hello </h1>
<h2> Hello everyone (in smaller font) </h2>
<p> This is paragraph. </p>
</body>
</html>
```

PAGE

DATE

6. Compare the contrast between a block level element and an Inline element in HTML.

⇒ The compare between a block level element and an Inline element in HTML are as follows:-

	Inline Element		Block level element
1.	Inline element can begin within a line of the HTML element and it never starts a newline for the HTML.	1.	Block level element cannot begin within a line of the HTML element and it always start newline of the HTML.
2.	Inline elements can break among the lines.	2.	Block elements cannot break among the lines.
3.	It creates small structure.	3.	It creates large structure.
4.	Inline elements accept only left & right margins.	4.	Block elements accept all the margins including left, right, top and bottom.

DATE

8. What is HTML form? Differentiate between "GET" and "POST" methods used to send form data.

→ A HTML form is a section of a document containing normal content, markup, special elements called controls (checkboxes, radio buttons, menus, etc.), and labels on those controls.

The differences between "GET" and "POST" methods used to send form data are as follows:-

	GET	POST
a)	In GET Method, values are visible in the URL.	a) In post method, values are not visible in the URL
b)	GET has limitation on the length of the values, generally 255 characters.	b) POST has no limitation on the length of the values since they are submitted via body of HTTP.
c)	It supports only string data types.	c) This method supports different data types, such as string, numeric, binary, etc.
d)	GET performs better compared to POST because of the simple nature of appending the values in the URL	d) It has lower performance as compared to GET method because of time spent in including POST values in the HTTP body.
e)	GET request is often cache-able	e) POST request is hardly cacheable.

PAGE

DATE

10. Discuss about normal flow box layout in CSS and also discuss about positioning in CSS.

→ Normal flow box layout is the way that block and inline elements are displayed on a page before any changes are made to their layout. The flow is essentially a set of things that are all working together and know about each other in your layout. Once something is taken out of flow it works independently.

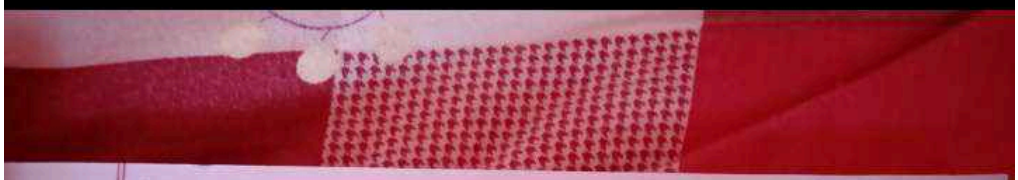
In normal flow, inline elements display in the inline direction, that is in the direction words are displayed in a sentence according to writing mode of the document. Block elements display one after the other, as paragraphs do in the writing mode of that document.

CSS helps you to position your HTML element. You can put any HTML element at whatever location you like. You can specify whether you want the element positioned relative to its natural position in the page or absolute based on its parent element.

The types of positioning in CSS are as follows :-

a) Relative Positioning

→ Relative Positioning changes the position of the HTML element relative to where it normally appears. So "left:20" adds 20 pixels to the element's LEFT position.



DATE

b) Absolute positioning

→ An element with position: absolute is positioned at the specified coordinates relative to your screen top-left corner.

c) fixed positioning

→ fixed positioning allows you to fix the position of an element to a particular spot on the page, regardless of scrolling. Specified coordinates will be relative to the browser window.