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Assignment no - 02

1) Define HTML, CSS, Javascript, Give four characteristics of each

→ ① HTML

- HTML stands for hypertext-markup language
- HTML is the practice of displaying text, graphics, audio, videos, etc. in a certain way using special tags.

*) Characteristics

- Flexible
- Platform independent
- Supported across / most browsers
- Light weight.

2) CSS

- CSS stands for cascading style sheets.
- CSS (Cascading style sheets) is a language designed to simplify the process of making web pages presentable.

*) Characteristics

- CSS saves Time :- You can write CSS once and then reuse same sheet in multiple HTML pages.

- Easy maintenance :- To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.

- Multiple device compatibility :- For the same HTML document different versions of a website can be presented for different screen widths.

• Global web standards:- Now most of the HTML attributes are being deprecated and it is being recommended to use CSS.

3) Javascript

• Javascript is a light weight, oop language.
• It is a scripting language for web pages.
• It is used to add interactivity and dynamic effects to web pages.
• ".js" is the extension.

*) Characteristics
1) Platform - independent
2) Dynamic typing
3) Lightweight
4) prototype
5) Handling user input.

2) Define the following tags with syntax and example
→ a) Image tag

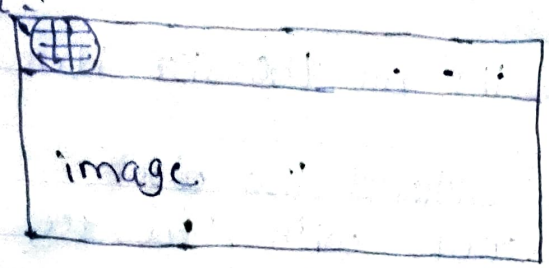
• The <img> tag is used to embed an image in an HTML page. The <img> tag has two required attributes:-

✓ src - specifies the path to the image.
✓ alt - specifies an alternate text for the image. If the image for some reason cannot be displayed.

• Syntax:- <img src="image URL">
• Ex:- <html>
<body>

```
<h1> The img element </h1>
<img src = "img_girl.jpg"
  alt = "Girl in a jacket"
  width "500" height " 1000"
</body>
</html>
```

Output:



5) List tag

- HTML Lists are used to specify lists information.
- All lists may contain one or more list elements.
- There are two different types of HTML Lists:
  1) ordered List or Numbered List (ol)
  2) unordered List or Bulleted List (ul)

1) Ordered List

*) In the ordered HTML Lists, all the list items are mainly with numbers by default.
*) It is known as numbered list also.
*) The ordered list starts with <ol> tag and the list item start with <li> tag.

Ex:-

```
<html>
<body>
<ol>
<li> Aries </li>
<li> Bingo </li>
<li> Leo </li>
<li> Oracle </li>
```

```
</ol>
</body>
</html>
```

output :- 1. Aries
2. Bingo 3) Leo 4) Oracle

2) Unordered List

* In HTML unordered list all the list items are market with bullets.
* It is also known as bulleted list also.
* The unordered list starts with <ul> tag and list item start with the <li> tag.

Ex:-
```
<html>
<body>
<ul>
<li> Aries </li>
<li> Bingo </li>
<li> Leo </li>
<li> Oracle </li>
</ul>
</body>
</html>
```

output:-
- Aries
- Bingo
- Leo
- Oracle

3) Table tag

* The <table> tag defines an HTML table

- An HTML table consists of one <table> element and one or more <tr> and <td> elements.
- The <tr> element defines a table row.
- The <th> element defines a table header.
- The <td> element defines a table cell.

*) Syntax:

```
<table>
 <tr>
<td> This is cell 1 </td>
<td> This is cell 2 </td>
 </tr>
</table>
```

*) Ex:

```
<html>
<body>
<table border="2" width="70%">
<tr>
<th> name </th>
<th> age </th>
</tr>
<tr>
<td> John </td>
<td> 20 </td>
</tr>
<tr>
 <td> Tom </td>
 <td> 10 </td>
</tr>
</table>
</body>
</html>
```

d) Div tag

*) The tag defines a division or a section in an HTML document.
The tag is used as a container for HTML elements.
The tag is easily styled by using the class or id attribute.

Ex:-
```
<html>
<body>
<div style="border: 5px outset red">
<h2> This is a heading in a div element </h2>
</div>
</body>
</html>
```

e) Text formatting

*) HTML formatting element were designed to display special type of text:-

1) <b> - Bold text
2) - Important text
3) <i> - Italic text
4) - Emphasized text
5) <mark> - marked text
6) <small> - smaller text
7) <del> - Deleted text
8) <ins> - Inserted text
9) <sub> - subscript text
10) <sup> - super script text.

f) List the form elements

• HTML form elements are used to store user input

1) HTML <input> tag.
2) HTML <Label> tag.
3) HTML <button> tag.
4) HTML <Select>, <option> and <opt group> tag.
5) HTML <textarea> tag.
6) HTML <field set> tag.
7) HTML <legend> tag
8) HTML <datalist> tag.
9) HTML <output> tag.

g) Span tag

* A element which is used to color a part of a text.
- The tag is an inline container used to mark up a part of a text, part of a document.

```
<html>
<body>
<p> My mother has
<span style="color: blue; font-weight: bold">
blue </span>
eyes and my father has <span style="color: green;
font-weight: bold">
dark green </span> eyes </p>
</body>
</html>
```

h) Frame tag

* A <Frame> tag is used with <Frame set>, and it divides a web page into multiple sections or frames and each frame can contain different web pages.

Ex:-
```
<html>
<body>
<Frameset rows="20%, 60%, 20%">
```

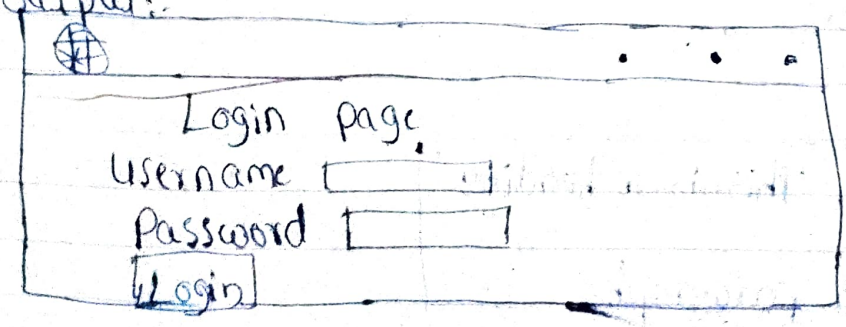
```
< frame name="top"
  src="/attr1.html" />
< frame name="main"
  src="./gradient.html" />
</frame>
</body>
</html>
```

3) Design a log in form using HTML, CSS and Java Script.

```
-> <!DOCTYPE html>
<html>
<head>
<title> login page </title>
</head>
<body bg color="Powder blue">

<Center>
<h1> Assignment 1 </h1>
<form>
<h1> Student login form <br /> <h1>
<br />
</label 1> Username: </ /label>
<input type="text" id="uname" name="text">
<br /> <br />

</label> Password: </ /label>
<input type="password" id="pass"
name="Password" max length "8">
<br /> <br />

<button type="submit" onclick="checklogin()">
```

```
login
</button>
</form>
</center>
<script>
function checklogin ()
{
var u=document.getElementById("uname").value;
var p=document.getElementById("Pass").value;

If (u=="admin" && p=="bca123")
{
alert ("login successfull");
}
else
{
alert ("login unsuccessfull");
}
}

</script>
</body>
</html>
```

output:



4) Explain levels of style sheet in CSS?

→ • Inline CSS • Internal / Embedded CSS
• External CSS.

① **Inline CSS**

* In inline style may be used to apply a unique style for a single element.
* To use inline styles, add the style attributes to the relevant element. The style attribute can contain any CSS property.

General Format:

```
Style = "property_1: Value_1;
         property_2: Value_2;
         . . .
         property_n: Value_n;"
```

Example:-

```
<html>
<body>
<h1 style="color: blue; text_align: Center;>
  This is a heading </h1>
<P style="color: red;">This is a paragraph.</P>
</body>
</html>
```

output:-

This is a heading

This is a paragraph.

2) Internal CSS

* An internal style sheet may be used if one single HTML page has a unique style
* The internal style is defined inside the <style> element inside the head section.

General form:

```
<style type="text/CSS">
    rule list
</style>
```

Ex:-

```
<html>
<head>
<Style>
  body
  { background-color: lines;
  }
  h1
  { Color: maroon:
    margin-left: 40px:
  }
</style>
</head>
<body>
<h1> This is a heading </h1>
<P> This is a paragraph. </p>
</body>
</html>
```

Output:-

This is a heading
This is a paragraph

3) External CSS

* The external style sheet is generally used when you want to make changes on multiple pages.
* External styles are defined within the <link> element. inside the <head> section of an HTML page

* General form:

<link rel="Style sheet" type="text/CSS" href="http://www.wherever.org/termpages.CSS> </link>

Ex:-
```
<html>
<head>
<link rel="Style sheet" href="mystyle.CSS">
</head>
<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>
</html>
```

mystyle.CSS

```
body {
 background-Color: light blue;
}
h1 {
   Color: navy;
   margin-left: 20px;
}
```

5) Explain screen output and keyboard input in javaScript.

→ Screen Output

- console.log(): This is primarily used for debugging and displaying information in the browser's console.

```
Console.log ("Hello, world!");
let x=10;
Console.log ("The value of x is :", x);
```

- document.write(): This method writes directly into the HTML document.

```
document.write ("<p>This is written to the
document.</p>");
```

- inner HTML (or innerText): This property allows you to modify the content of an HTML element.

```
document.getelement By Id ("myElement").innerHTML" New
Content";
```

- alert(): This function displays a pop-up box with a message. It's often used for simple notifications or warnings, but can be disruptive to the user experience.

```
alert ("This is an alert message!");
```

Keyboard input

*) prompt(): This function displays a dialog box that prompts the user to enter text.

```
let name = prompt("Please enter your name:");
if (name) {
    Console.log("Hello," + name + "!");
}
```

*) Event Listeners :- Javascript allows you to listen for keyboard events such as keydown, keypress, keyup. These events can be attached to specific elements or the entire document.

```
document.addEventListener("keydown", function(event)
{ Console.log("key pressed :", event, "Code:",
  event.code);
});
```

*) Keydown :- Triggered when a key is initially pressed down.

*) keypress :- Triggered when a character key is pressed down (deprecated, use keydown instead).

*) keyup :- Triggered when a key is released.

The event object provides information about the key that was pressed, including it's character (event.key) and its code (event.code).

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