

Unit - I

Date: _____

1. Introduction of HTML

HTML or Hypertext Markup Language is the standard language used to create web pages on Internet.

It provides the structure for content on the web.

What is HTML?

• **Markup Language:** HTML uses tags to tell the web browser how to display content.

• **Structure:** It organizes text, images, links and other content into a web page.

Structure of HTML Document

<!DOCTYPE html> → Declares the document type and version of HTML

<html> → The root element that contains all HTML elements.

<head> → Contains meta-information about the document.

<title> Page Title </title> → Sets the title of the page

</head>

<body> → Contains visible content of the page.

<h1> This is heading </h1>

<p> This is paragraph </p>

</body>

</html>

2 HTML5 Semantic Structure Elements

HTML 5 introduced several semantic structure elements that are used to define the different parts of a web page in a meaningful way.

1. <header>

2. <nav>

3. <Section>

4. <article>

5. <footer>

1. <header>

The <header> element is used to define the introductory content at the top of a page.

2. <nav>

The <nav> element is used to define a section that contains navigation links.

3. <main>

The <main> element represents the main content of a web page, where the primary information is located.

4. <Section>

The <Section> element defines a used to divide a web page into different sections.

5. <article>

The <article> element is used for news articles or individual comments.

6. <Footer>

The <Footer> element defines the footer section of a web page.

Example:

```
<!DOCTYPE html>
<html>
  <head>
    <title> Simple subpage </title>
  </head>
  <body>
    <header>
      <h1> Welcome to my subpage </h1>
      <ul>
        <li> <a href="#"> Home </a> <li>
        <li> <a href="#"> About </a> <li>
      </ul>
    </header>
    <nav>
      <ul>
        <li> <a href="#"> Home </a> <li>
        <li> <a href="#"> About </a> <li>
      </ul>
    </nav>
    <section>
      <h2> About </h2>
      <p> This is a simple subpage </p>
      <ul>
        <li> <a href="#"> Home </a>
        <li> <a href="#"> Article 1: Introduction </a>
        <li> <a href="#"> Article 2: Conclusion </a>
      </ul>
    </section>
    <footer>
      <p> All rights reserved </p>
    </footer>
  </body>
</html>
```

3. Describe the HTML documents for the following table structure.

	Average	Red eyes
height	weight	eyes
Male	1.9	0.003
Female	1.7	0.002

```

<!DOCTYPE html>
<html>
  <head> <title> Document </title> </head>
  <body>
    <tbl_struct>
      <tbl_header>
        <tr> <th colspan="3" rowspan="2"> Average </th> <th colspan="3" rowspan="2"> Red eyes </th> </tr>
        <tr> <th> height </th> <th> weight </th> <th> eyes </th> <th> gender </th> </tr>
      <tbl_info cols="6">
      <tbl_r cells="5" ix="2" maxcspan="1" maxrspan="1" usedcols="5">
      <tbl_r cells="6" ix="3" maxcspan="1" maxrspan="1" usedcols="6">
      <tbl_r cells="6" ix="4" maxcspan="1" maxrspan="1" usedcols="6">
      <tbl_r cells="6" ix="5" maxcspan="1" maxrspan="1" usedcols="6">
    </tbl_struct>
    <table border="1">
      <thead>
        <tr> <th data-cs="3" data-kind="parent" data-rs="2"> Average </th> <th data-cs="3" data-kind="parent" data-rs="2"> Red eyes </th> <th data-cs="2" data-kind="parent" data-rs="2"> gender </th> </tr>
        <tr> <th> height </th> <th> weight </th> <th> eyes </th> <th> gender </th> </tr>
      </thead>
      <tbody>
        <tr> <td> 1.9 </td> <td> 0.003 </td> <td> Red </td> <td> Male </td> <td> M </td> </tr>
        <tr> <td> 1.7 </td> <td> 0.002 </td> <td> Green </td> <td> Female </td> <td> F </td> </tr>
      </tbody>
    </table>
  </body>
</html>

```

What is CSS?

Cascading Style Language is a language used to style and layout web pages. While in HTML structures the content, CSS defines how that content should look.

Why with CSS?

- Separation of content and design
- Consistency
- Flexibility
- Saves time
- Easy maintenance due to its modularity and reusability

Syntax: Selector

property : value;

CSS Selectors

CSS Selectors are pattern used to select element for styling. Common types of CSS Selectors includes

1. Element Selection

- > Target HTML elements.
- > eg: p {color: blue}

2. Class Selector:

- > Targets elements with specific class.
- > eg: .class-name {font-size: 16px}

3. ID Selector:

- > Targets elements with specific ID.
- > eg: #unique-id {background-color: yellow}

4. Attribute Selector:

→ Targets elements based on attributes.

→ e.g.: `input [type="text"] { border: 1px solid black; }`

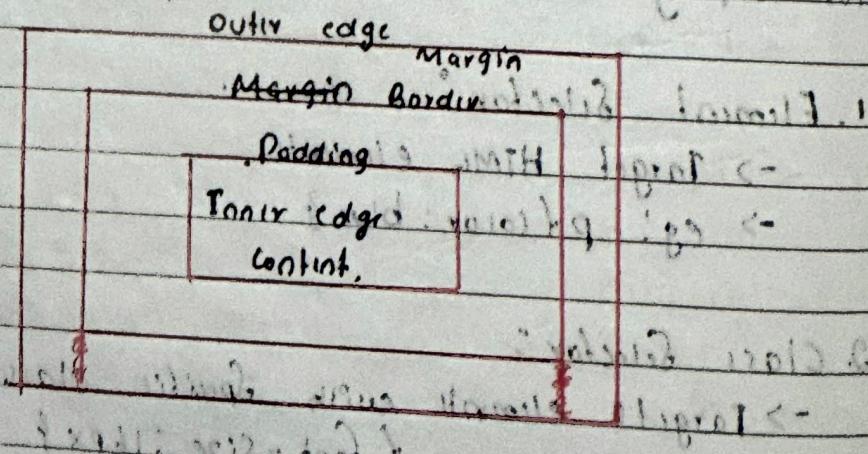
5. Pseudo Class Selector:

→ Targets elements based on their state

→ e.g.: `a:hover { color: red; }`

5 The Box Model

- On a given web page or a document all the ~~border~~ elements can have borders.
- The borders have various styles, colors and widths.
- The amount of space between the content of the element and its border is known as padding.
- The space between border and element is known as margin.



example:

<!DOCTYPE html>

<html> will have a single root element

<head> <style> example of inline

div {

width: 200px; height: 100px;

padding: 10px;

border: 5px solid black;

margin: 10px;

{

will <style> apply here at first

div <head> without box width, a

<body> ignoring and not applying

<div> This is box model example <div>

</body>

</html>- will box model start at body of

document with focus on

normal or odd behavior

original way of

<body> approach > document

<child>

<child>

child selector

<child> has got focus

Unit - II

1 Javascript

- JavaScript is a client side Scripting language.
- JavaScript is a dynamic computer programming language.
- It is mainly for enhancing the interaction of user with web page.

Benefits of Javascript:

1. Easy to Learn and Simple Implementation.
2. Attractive and Beautiful interface with rich interface by javascript.
3. JavaScript is used in every domain on web and Application.
4. Used in both Front-End and Back-end programming.
5. Client Side execution.
6. Validation on Browser.
7. Easy language.

Example: <!DOCTYPE html>

```

<html>
  <head>
    <title></title>
    <script type = "text/javascript">
      let a = prompt ("Enter first no.");
      let b = prompt ("Enter second no.");
      var c = parseInt(a) + parseInt(b);
      document.write ("The Sum :" + c);
    </script>
  </head>
  <body></body>
</html>

```

Array

- Array is a group of objects
- It stores multiple values in a single variable.
- It is used to store collection of data.

Syntax: Var arr = {
 [1, 2, 3],
 [a, b, c]
 }

Example: function Show-array(arr)

{

for (var i=0; i<arr.length; i++)
 {

document.write(array[i]);

document.write("
");

}

}

var arr1=[1, 2, 3];

Show-array(arr1);