**HTML**

**(hyper text markup language)**

**What is HTML?**

* HTML stands for Hyper Text Markup Language
* HTML is the standard markup language for creating Web pages
* HTML describes the structure of a Web page

**Hyper text :** hyper text is the text used to link various web.

**Mark-up:** it means highlighting text either by underlining or displaying it an different colors or both.

**Language :** it refers to the way of communication between web page, which has its own syntax and rules.

## A Simple HTML Document

<!DOCTYPE html>  
<html>  
<head>  
<title>Page Title</title>  
</head>  
<body>  
  
<h1>My First Heading</h1>  
<p>My first paragraph.</p>  
  
</body>  
</html>

### Example Explained

* The <!DOCTYPE html> declaration defines that this document is an HTML5 document
* The <html> element is the root element of an HTML page
* The <head> element contains meta information about the HTML page
* The <title> element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)
* The <body> element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
* The <h1> element defines a large heading
* The <p> element defines a paragraph

## What is an HTML Element?

An HTML element is defined by a start tag, some content, and an end tag:

<tagname> Content goes here... </tagname>

Examples of some HTML elements:

<h1>My First Heading</h1>

<p>My first paragraph.</p>

# HTML Tags

**HTML tags are like keywords which defines that how web browser will format and display the content**

* All HTML tags must enclosed within < > these brackets.
* Every tag in HTML perform different tasks.
* If you have used an open tag <tag>, then you must use a close tag </tag> (except some tags)

## Unclosed HTML Tags

Some HTML tags are not closed, for example br and hr.

**<br> Tag**: br stands for break line, it breaks the line of the code.

**<hr> Tag**: hr stands for Horizontal Rule. This tag is used to put a line across the webpage.

## HTML Meta Tags

DOCTYPE, title, link, meta and style

## HTML Text Tags

<p>, <h1>, <h2>, <h3>, <h4>, <h5>, <h6>, <strong>, <em>, <abbr>, <acronym>, <address>, <bdo>, <blockquote>, <cite>, <q>, <code>, <ins>, <del>, <dfn>, <kbd>, <pre>, <samp>, <var> and <br>

## HTML Link Tags

<a> and <base>

## HTML Page Structure

# HTML Editors

## Notepad ,Texteditor ,vs code ect

## HTML Documents

All HTML documents must start with a document type declaration: <!DOCTYPE html>.

The HTML document itself begins with <html> and ends with </html>.

The visible part of the HTML document is between <body> and </body>.

## The <!DOCTYPE> Declaration

The <!DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly.

The <!DOCTYPE> declaration is not case sensitive.

The <!DOCTYPE> declaration for HTML5 is:

**HTML Attributes**

* All HTML elements can have **attributes**
* Attributes provide **additional information** about elements
* Attributes are always specified in **the start tag**
* Attributes usually come in name/value pairs like: **name="value"**

## The href Attribute

The <a> tag defines a hyperlink. The href attribute specifies the URL of the page the link goes to:

**example**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<h2>The href Attribute</h2>**

**<p>HTML links are defined with the a tag. The link address is specified in the href attribute:</p>**

**<a href="https://bisag-n.gov.in/">bisag</a>**

**</body>**

**</html>**

## The src Attribute

## The <img> tag is used to embed an image in an HTML page. The src attribute specifies the path to the image to be displayed:

<img src="img\_girl.jpg">

## The width and height Attributes

## The <img> tag should also contain the width and height attributes, which specify the width and height of the image (in pixels):

<img src="img\_girl.jpg" width="500" height="600">

## The style Attribute

## The style attribute is used to add styles to an element, such as color, font, size, and more.

## <p style="color:red;">This is a red paragraph.</p>

# CSS

**Cascading Style Sheets**

**CSS is the language we use to style a Web page.**

## Why Use CSS?

## CSS is used to define styles for your web pages, including the design, layout and variations in display for different devices and screen sizes.

## CSS Syntax

## C:\Users\Asus Gaming\Downloads\img_selector.gif

### Example

In this example all <p> elements will be center-aligned, with a red text color:

* p is a selector in CSS (it points to the HTML element you want to style: <p>).
* color is a property, and red is the property value
* text-align is a property, and center is the property value

**<!DOCTYPE html>**

**<html>**

**<head>**

**<style>**

**p {**

**color: red;**

**text-align: center;**

**}**

**</style>**

**</head>**

**<body>**

**<p>Hello World!</p>**

**<p>These paragraphs are styled with CSS.</p>**

**</body>**

**</html>**

## CSS Selectors

## The CSS element Selector

p {  
  text-align: center;  
  color: red;  
}

## The CSS id Selector

To select an element with a specific id, write a hash (#) character, followed by the id of the element.

**<!DOCTYPE html>**

**<html>**

**<head>**

**<style>**

**#para1 {**

**text-align: center;**

**color: red;**

**}**

**</style>**

**</head>**

**<body>**

**<p id="para1">Hello World!</p>**

**<p>This paragraph is not affected by the style.</p>**

**</body>**

**</html>**

**.**

## The CSS class Selector

To select elements with a specific class, write a period (.) character, followed by the class name.

.center {  
  text-align: center;  
  color: red;  
}

## The CSS Universal Selector

The universal selector (\*) selects all HTML elements on the page.

\* {  
  text-align: center;  
  color: blue;  
}

**Three Ways to Insert CSS**

There are three ways of inserting a style sheet:

* External CSS
* Internal CSS
* Inline CSS
* **External CSS**

### "mystyle.css"

body {  
  background-color: lightblue;  
}  
  
h1 {  
  color: navy;  
  margin-left: 20px;  
}

“html file”

<!DOCTYPE html>  
<html>  
<head>  
<link rel="stylesheet" href="mystyle.css">  
</head>  
<body>  
<h1>This is a heading</h1>  
<p>This is a paragraph.</p>  
</body>  
</html>

* **Internal CSS**
* Internal styles are defined within the <style> element, inside the <head> section of an HTML page:

<!DOCTYPE html>  
<html>  
<head>  
<style>  
body {  
  background-color: linen;  
}  
  
h1 {  
  color: maroon;  
  margin-left: 40px;  
}  
</style>  
</head>

<body>  
  
<h1>This is a heading</h1>  
<p>This is a paragraph.</p>  
  
</body>  
</html>

* **Inline CSS**

Inline styles are defined within the "style" attribute of the relevant element:

<!DOCTYPE html>  
<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>

## CSS Comments

Comments are used to explain the code, and may help when you edit the source code at a later date.

Comments are ignored by browsers.

A CSS comment is placed inside the <style> element, and starts with /\* and ends with \*/:

### Example

/\* This is a single-line comment \*/  
p {  
  color: red;  
}

## The CSS Box Model

In CSS, the term "box model" is used when talking about design and layout.

The CSS box model is essentially a box that wraps around every HTML element. It consists of: margins, borders, padding, and the actual content. The image below illustrates the box model:

Explanation of the different parts:

* **Content** - The content of the box, where text and images appear
* **Padding** - Clears an area around the content. The padding is transparent
* **Border** - A border that goes around the padding and content
* **Margin** - Clears an area outside the border. The margin is transparent