HTML

(HyperText Markup Language)

WWW (World Wide Web)

The **World Wide Web** (**WWW**), commonly known as **the Web**

A system that interconnect resources on the internet.

Interconnection via hyperlinks

We use Web browsers to have access to web resources.

Resources are presented in web pages or websites.

What is HTML?

- HTML stands for HyperText Markup Language

    Hyper refers to creating linked and nonlinear structures of information

    Text refers to the words on the computer screen that we are marking up

    Markup is the process of the preparing the text to define how it displays when viewed as pages on the WWW by marking them with formatting directions conveyed by notations.

- HTML is a document-layout and hyperlink-specification language.

- HTML is a set of logical codes (markup) in parentheses that constitute the appearance of a web document and the information it contains.

Example:

<B> This text would appear bold in the browser </B>
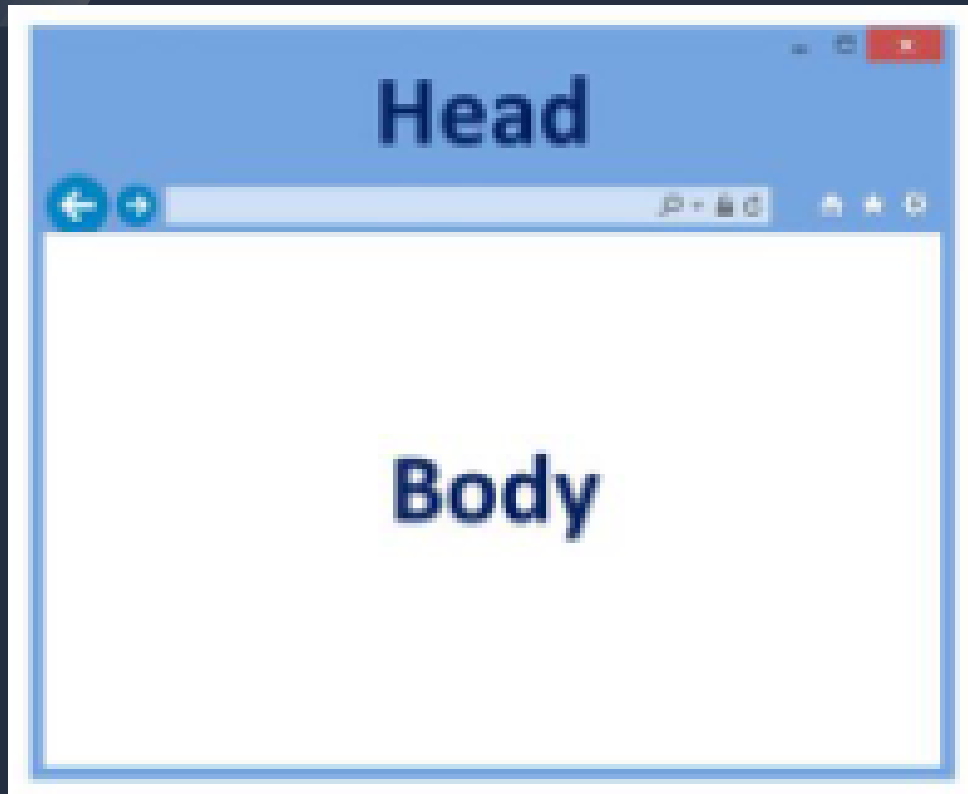
Also HTML is platform independent

Text Editor

- Notepad from Microsoft is the common HTML Text Editor. But there are also other text editors like Sublime Text , Notepad++ , ATOM and etc.

  HTML documents has a file extension of .html or .htm

Elements of a Web Page

1. Title: A Web page's title identifies the subject or purpose of the page.

2. Body: The body of the Web page contains information that displays in the browser window.

3. Normal Text: It is the text that makes up the main content of a Web Page.

4. Headings:

These are used to set off different paragraphs of text or different sections of a page.

5. Image:

It is another important element of a Web page such as an icon, bullet, line, photo,   illustration or other picture.

6. Hyperlink:

It serves as a primary way to navigate between pages.

Web Page Document Structure

- The easiest way to create and develop a document is to type the required elements in as a starting point.

In Notepad you would start with:
```
<HTML>
      <HEAD>
              <TITLE>          </TITLE>
      </HEAD>
<BODY>
</BODY>
</HTML>
```

Although, HTML is not case sensitive, it is a standard practice to always type HTML tags in uppercase letters.

The <HTML> tag

- The <HTML> and </HTML> tags serve to delimit the beginning and ending of an HTML document.

  <HTML> is an Opening tag
  </HTML> is a Closing tag or End tag

The <HEAD> tag

- The <head> element is a container for metadata (data about data) and is placed between the <html> tag and the <body> tag.

- Metadata is data about the HTML document. Metadata is not displayed.

- Metadata typically define the document title, character set, styles, scripts, and other meta information.

The <TITLE> tag

- The <title> tag defines the title of the document. The title must be text-only, and it is shown in the browser's title bar or in the page's tab.

- The <title> tag is required in HTML documents!

- The contents of a page title is very important for search engine optimization (SEO)! The page title is used by search engine algorithms to decide the order when listing pages in search results.

Here are some tips for creating good titles:

• Go for a longer, descriptive title (avoid one- or two-word titles)

• Search engines will display about 50-60 characters of the title, so try not to have titles longer than that

• Do not use just a list of words as the title (this may reduce the page's position in search results)

• So, try to make the title as accurate and meaningful as possible!

Note: You can NOT have more than one <title> element in an HTML document.

The <BODY> tag

- The <body> tag defines the document's body.

- The <body> element contains all the contents of an HTML document, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

- Note: There can only be one <body> element in an HTML document.

The <BODY> Attributes

Background color:
use the BGCOLOR attribute to set the document's background color

<BODY BGCOLOR= "#FFFFFF">   </BODY>

Text Color:
use the TEXT attribute to control the color of all the normal text in the document.

<BODY BGCOLOR= "#FFFFFF" TEXT="FF0000">   </BODY>

IMAGE BACKGROUND

use BACKGROUND attribute to set an image background for the document.

(Background images are "tiled" in the web browser)

<BODY BACKGROUND="logo.gif" BGCOLOR="FFFFFF">

HTML Tags

- An element is a fundamental component of the structure of a text document.

- It is the first word or character that appears inside the "<" opening bracket.

- To denote the various elements in an HTML document., we use tags.

- HTML tags consist of a left angle bracket (<), a tag name, and a right angle bracket (>).

Tags are usually paired to start and end the tag instruction.

The end tag looks just like the starting except the slash (/) precedes the text within the brackets.

Words that follow the element and are contained inside ">" bracket of the opening tag are called attributes.

Types of HTML tags

- There are two types of tags: containers and empty.

  Container tags have both an opening and a closing and are used to surround the text within your document for presentation by the tag.

  The closing tag name is preceded by a forward slash.
  i.e. <TITLE> Welcome </TITLE>

Empty tags use only an opening and tell the browser to perform an instruction such as breaking to the next line, inserting a horizontal line or inserting an image.

i.e.
 , <HR> , <IMG src="name">

HEADINGS

HTML defines six levels of headings that can be used to structure a text flow into a more readable, more manageable document.

Inside the BODY element, heading elements H1 through H6 are generally used for major divisions of the document.

Headings are used in order of importance, not based on they render in the browser.

H1 is the most important; H6 is the least important

The size of the text surrounded by a heading element varies from very large in an <H1> tag to very small in an <H6> tag.

Example:

<H1> Heading 1 </H1>
<H2> Heading 2 </H2>
<H3> Heading 3 </H3>
<H4> Heading 4 </H4>
<H5> Heading 5 </H5>
<H6> Heading 6 </H6>

Paragraph

- One of the most commonly used tags in HTML is the paragraph marker, which is used to break apart blocks of text into separate paragraphs.

  Each paragraph starts with <P> and ends with the corresponding </P> tag.

Line Break

- Line break allows you to decide where the text will break on a line or continue to the end of the window.

  A <BR> is an empty element, which may contain attributes but it does not contain any content.

  The <BR> element does not have a closing tag because it marks a position and does not contain any content.

Horizontal Rule

- The <HR> element causes the browser to display a horizontal line (rule) in your document.

  Horizontal rules give you a way to visually separate sections of your document.

Attribute	Description	Default Value
SIZE	height of the rule in pixels	2 pixels
WIDTH	width of the rule in pixels or percentage of screen width	100%
NOSHADE	draw the rule with a flat look instead of a 3D look	not set (3D look)
ALIGN	aligns the line (Left, Center, Right)	Center
COLOR	sets a color for the rule (IE 3.0 or later)	No set

<HR>
Attributes

Character Formatting

- Character formatting elements allows you to:

1. Specify the appearance of individual characters (bold, italic , typewriter)

2. Create preformatted text (text with spaces and tabs retained)

3. Align text left, right , justified, and centered

4. Change the font , size , and color

   HTML provides two general ways to apply formatting text, the physical style and logical style.

PHYSICAL tags

- Physical style tags indicate exactly the way text is to be formatted. This tag indicates a specific change in appearance. Below is the list of physical tags; they can be combined to create other effect.

```
<B> Bold
<I> Italic
<TT> Monospaced typewriter font
<U> Underline
<S> Strike through
<BIG> Bigger print than the surrounding text
<SMALL> Smaller print
<SUB> Subscript
<SUP> Superscript
```

Logical Tags

- Logical style tags take the approach that what's really important is the type of information being displayed, rather than exactly how it is displayed.

<EM> emphasis </EM>
- These tag adds emphasis to the inserted texts

Example:

<P>Say it with <EM>emphasis</EM></P>

Say it with *emphasis*

\<STRONG\> strong emphasis \</STRONG\>

    To mark text/s as a very important note, use \<STRONG\> and \</STRONG\> tags.

Example:

\<P\>Say it with \<STRONG\>emphasis\</STRONG\>\</P\>

Say it with **emphasis**

\<CITE\> citation \</CITE\>

    Use \<CITE\> and \</CITE\> to insert a citation.

Example:

\<P\>A citation gives credit where it's due.
\<CITE\>Anonymous, 2003\</CITE\>\</P\>

A citation gives credit where it's due.
Anonymous, 2003

Preformatted Text

- Preformatted text allows you to break away from the normal rules of HTML and quickly specify exactly how a section of text will appear in the reader's Web browser.

- <PRE>

  </PRE>

Font Element

- <FONT> tag lets you change the size, style, and color of text.

  It must be used like any other physical or logical style tag for changing the appearance of a short segment of text.

  <FONT SIZE=5 COLOR="purple"> This text will be big and purple. </FONT>

Color Attribute

- The color attribute for the <font> tag sets the color of the enclosed text.

- The value of the attribute may be expressed in either of two ways: as the red, green, and blue (RGB) components of the desired color as a standard color name.

- The RGB color value, denoted by a preceding hash mark (#), is a six digit hexadecimal.

- The RGB color value, denoted by a preceding hash mark (#), is a six-digit hexadecimal number.

  For example, to create basic yellow text

  <P> <FONT color="#FFFF00"> Yellow </FONT> </P>

Face Attribute

- The font face displayed by the browser depends on which fonts are available on the individual user's system.

  The browser parses the list of font names, one after the other, until it matches the one with a font name supported by the user's system.

  If none match, the text display defaults to the font style set by the user in their browser's preferences.

Example:

<P>   This text is in the default font. But <FONT face="Braggadocio, Machine"> heaven only knows </FONT> what font face is this one? </P>

This text is in the default font. But, *heaven* *only knows* what font   face is this one?

Size Attribute

The <FONT> tag is also use to change the size of the font for a character, word, phrase, or on any range of text.

The values of SIZE are 1 to 7, with 3 being the default size.

Example:
<P> Bored with your plain old font? <FONT SIZE=5> Change it.
</FONT> </P>

Bored with your plain old font? Change it.

Text Alignment

- This is the ability to arrange a block of text such as a heading or a paragraph so that it is aligned against the left margin, aligned against the right margin, or centered.

  ALIGN has three values: LEFT, RIGHT or CENTER.

Special Characters and Symbols

- These are not found on the average keyboard that can be inserted using special character entities.

- They are recognized in HTML as they begin with an ampersand and end with a semi-colon.

E.g. &lowast

Special Character	Entity Name	Special Character	Entity Name
ampersand	&	greater-than sign	>
asterisk	∗	less-than sign	<
cent sign	¢	non-breaking space	
copyright	©	quotation mark	"
fraction one qtr	¼	registration mark	®
fraction one half	½	trademark sign	™

HTML Comments

- HTML comments describe the page itself or provide some kind of indication of the status of the page.

- Text in comments is ignored when the HTML file is parsed.

- Comment tags consist of a beginning and ending sequence of characters ("<!--" and "-->")

LINK , VLINK , and ALINK:

These attributes control the colors of the different link states.

LINK – initial appearance

VLINK – visited link

ALINK – active link being clicked

<BODY BGCOLOR= "#FFFFFF" TEXT="FF0000" LINK="#0000FF"
VLINK="FF00FF" ALINK="FFFF00">   </BODY>