Introduction to HTML

Let us know

- Web browser
- Web sites

Top 10 Most Popular Websites

Indian school Al wadi Al kabir website   Web pages

To create web page or web site

Programming language is used (Software)

HTML- programming language used to create web

pages

HTML is – Hyper Text Markup Language

# What software's are required to write HTML program

- Text Editor – Note pad / word pad
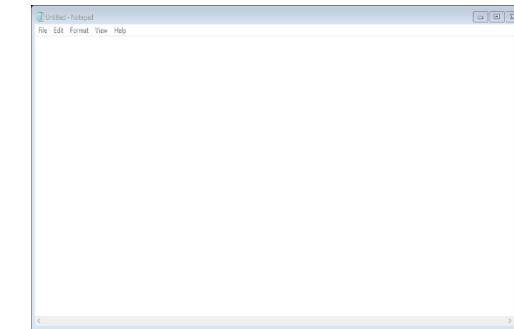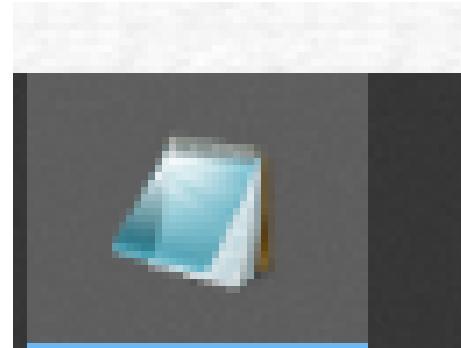
- Write html program in notepad
- Save it using .html extension
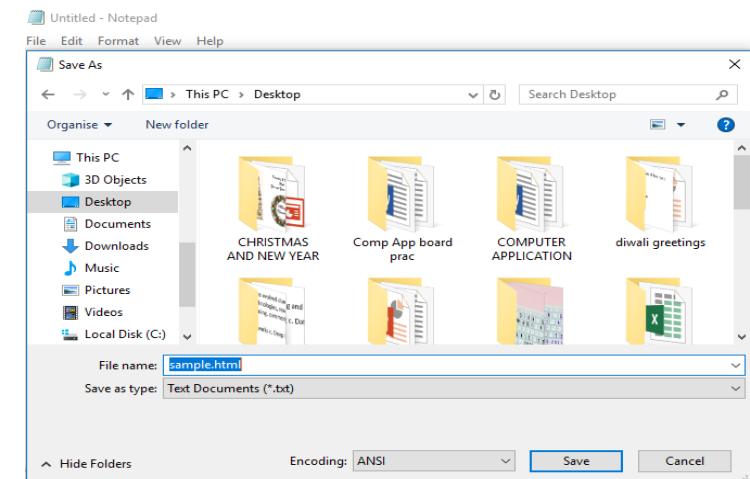
- After saving please find the web page using web browser

Structure of HTML program

```
<html>
<head><title>sample program
</title></head>
```
HEAD
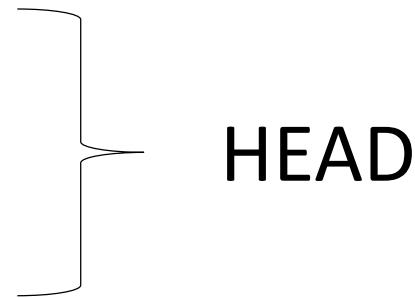
```
<body>
Hi Dheepak
How are you
You are learning html code now
 </body>
</html>
```
BODY
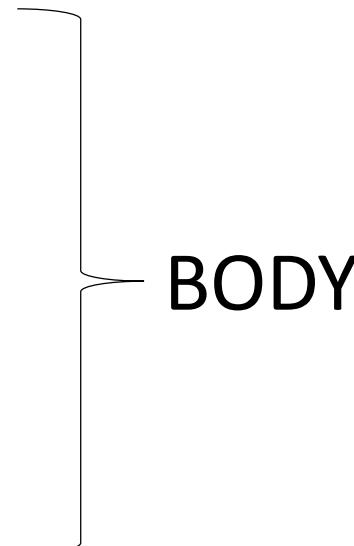
HTML Documents

- 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>.

Example :

```
<!DOCTYPE html>
<html>
<body>
<h1>My First Heading</h1>
<p>My first paragraph.</p>
</body>
</html>
```

HTML Tags

- Html program is written using html tags <>-
- Tags are Predefined code is written inside the angular brackets
- <HTML>- starting tag for html program
- HTML program is divided into two divisions
- HEAD and BODY
- HEAD is used to define the title for the webpage, Detail of authors
- BODY is used to define the content of the web page

Types of Tags
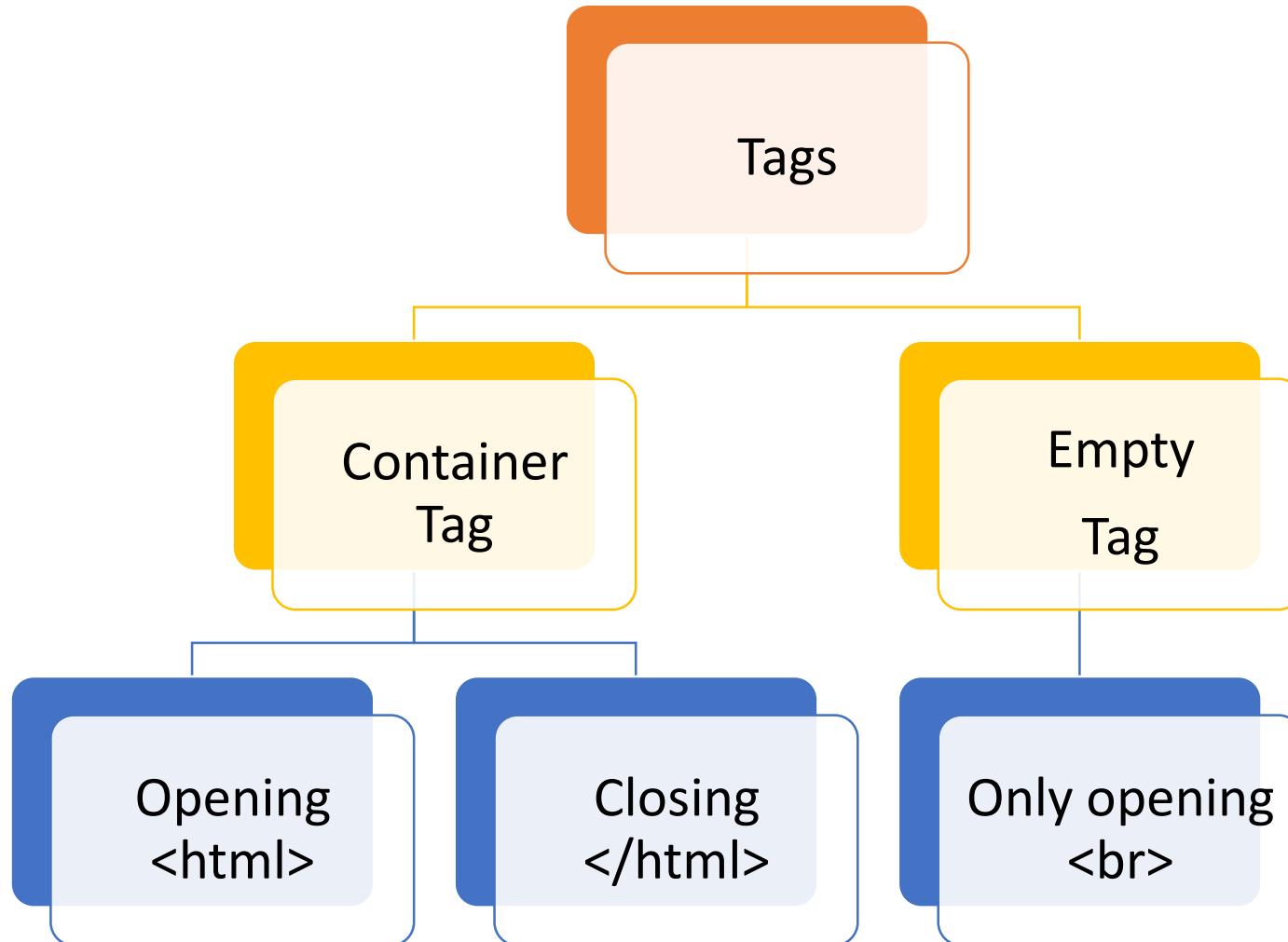
HTML Elements

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

- <tagname>Content goes here...</tagname>
- The HTML element is everything from the start tag to the end tag:

- <h1>My First Heading</h1>
- <p>My first paragraph.</p>

Attributes: text, background, bgcolor, link, vlink, alink

- alink- Color of text for selected hyperlinks
- Background-   Image to be used a background
- Bgcolor-   Background color
- Link-   Color of text for unvisited hyperlinks
- text - Foreground color of text
- vlink-Color of text for visited hyperlinks
- Some more attributes, we will learn later part of this chapter

<comment>

- HTML Comment Tags
- You can add comments to your HTML source by using the following syntax:
- <!-- Write your comments here -->
- Example

<!-- This is a comment -->

<p>This is a paragraph.</p>

<!-- Remember to add more information here -->

 -break tag

<hr> tag

<hr> -horizontal ruler tag

The <hr> tag defines a thematic break in an HTML page, and is most often displayed as a horizontal rule.

The <hr> element is used to separate content (or define a change) in an HTML page:

Example

```
<h1>This is heading 1</h1>
<p>This is some text.</p>
<hr>
<h2>This is heading 2</h2>
<p>This is some other text.</p>
<hr>
```

HTML Line Breaks

- The HTML <br> element defines a line break.
- Use <br> if you want a line break (a new line) without starting a new paragraph:

- Example
- <p>This is
a paragraph
with line breaks.</p>

HTML Headings

- HTML headings are defined with the <h1> to <h6> tags.
- <h1> defines the most important heading. <h6> defines the least important heading:
- Example

<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>

<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>

Write a program using heading tag

<html>

<head><title> Heading tags</title></head>

<body>

<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3><hr>

<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>

</body></html>

- Type in notepad
- Click File ->Save As
- Type file name as headings.html

Text tags

 - Bold text

 - Important text

<i> - Italic text

 - Emphasized text

<mark> - Marked text

<small> - Smaller text

<del> - Deleted text

<ins> - Inserted text

<sub> - Subscript text

<sup> - Superscript text

HTML and Elements

- The HTML element defines bold text, without any extra importance.
- Ex: hi Deepak
- The HTML element defines text with strong importance. The content inside is typically displayed in bold.
- Ex: hi Deepak

HTML <i> and Elements

- The HTML <i> element defines a part of text in an alternate voice or mood. The content inside is typically displayed in italic.

- Ex: <i>This text is italic</i>

- The HTML element defines emphasized text. The content inside is typically displayed in italic.

- A screen reader will pronounce the words in with an emphasis, using verbal stress.

- Ex: This text is emphasized

Program using text tags

<html>

<head> <title> Text tags in html</title></head>

<body>

 hi Deepak

 hi Deepak

<i>This text is italic</i>

This text is emphasized

</body>

</html>

- Type in notepad
- Click File ->Save As
- Type file name as text1.html

HTML Paragraphs

- The HTML <p> element defines a paragraph.

- A paragraph always starts on a new line, and browsers automatically add some white space (a margin) before and after a paragraph.

- Example

<p>This is a paragraph.</p>
<p>This is another paragraph.</p>

Program using <p> tag

<html>

<head><title> paragraph tag in program</title></head>

<body>

<p>
This paragraph
contains a lot of lines
in the source code,
but the browser
ignores it.
</p>
</body>
</html>

- Type in notepad
- Click File ->Save As
- Type file name as text2.html

- HTML <small> Element
- The HTML <small> element defines smaller text
- EX: <small>This is some smaller text.</small>
- HTML <mark> Element
- The HTML <mark> element defines text that should be marked or highlighted:
- Ex: <p>Do not forget to buy <mark>milk</mark> today.</p>
- HTML <del> Element
- The HTML <del> element defines text that has been deleted from a document. Browsers will usually strike a line through deleted text:
- Ex: <p>My favorite color is ~~blue~~ red.</p>

Subscript & Super Script

- HTML <sub> Element

- The HTML <sub> element defines subscript text. Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font. Subscript text can be used for chemical formulas, like H_2O

Ex: <p>This is _{subscripted} text.</p>

   <p> H₂O

- HTML <sup> Element

- The HTML <sup> element defines superscript text. Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font. Superscript text can be used for footnotes, like a^2+b^2

Ex: <p>This is ^{superscripted} text.</p>

   <p>a²+b²</p>

Program using Text tag

```
<html>
<head><title> Text tag in program</title></head>
<body>
<small>This is some smaller text.</small>
<p>Do not forget to buy <mark>milk</mark> today.</p>
<p>My favourite colour is <del>blue</del> red.</p>
<p>This is <sub>subscripted</sub> text.</p>
    <p> H<sub>2</sub>O
<p>This is <sup>superscripted</sup> text.</p>
    <p>a<sup>2</sup>+b<sup>2</sup></p>
</body>
</html>
```

- Type in notepad
- Click File ->Save As
- Type file name as text3.html

HTML Styles

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

- The HTML Style Attribute

- Setting the style of an HTML element, can be done with the style attribute.

- The HTML style attribute has the following syntax:

<tagname style="*property*:*value;*">

The property is a CSS property. The value is a CSS value.

You will learn more about CSS later in this tutorial.

Background Color

The CSS background-color property defines the background color for an HTML element.

Example:

Set the background color for a page to powderblue:

```
<body style="background-color:powderblue;">
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>
```

Example:

```
<h1 style="background-color:powderblue;">This is a heading</h1>
<p style="background-color:tomato;">This is a paragraph.</p>
```

Text Color

- The CSS color property defines the text color for an HTML element:

- Example

```
<h1 style="color:blue";>This is a heading</h1>
<p style="color:red";>This is a paragraph.</p>
```

Font Family:

The CSS font-family property defines the font to be used for an HTML element:

```
Example
<h1 style="font-family:verdana";>This is a heading</h1>
<p style="font-family:courier";>This is a paragraph.</p>
```

Text Size

- The CSS font-size property defines the text size for an HTML element:
- Example

`<h1 style="font-size:300%;">This is a heading</h1>`

`<p style="font-size:160%;">This is a paragraph.</p>`

Text Alignment:

The CSS text-align property defines the horizontal text alignment for an HTML element

`<h1 style="text-align:center;">Centered Heading</h1>`
`<p style="text-align:center;">Centered paragraph.</p>`

Program using style tag

```
<html>
<head><title> style tag in program</title></head>
<body style="background-color:powderblue;">
<h1>This is a heading</h1>
<p>This is a paragraph.</p>

<h1 style="background-color:powderblue;">This is a heading using style</h1>
<p style="background-color:tomato;">This is a paragraph using style</p>

<h1 style="color:blue;">This is a  heading using font color </h1>
<p style="color:red;">This is a paragraph using font color.</p>

<h1 style="font-family:verdana;">This is a heading using font style</h1>
<p style="font-family:courier;">This is a paragraph using font style</p>

<h1 style="font-size:300%;">This is a heading changing font size</h1>

<p style="font-size:160%;">This is a paragraph changing font size</p>

<h1 style="text-align:center;">Centered Heading</h1>

<p style="text-align:center;">Centered paragraph.</p>
</body></html>
```

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"**
- All HTML elements can have attributes

1. The href attribute of <a> specifies the URL of the page the link goes to
2. The src attribute of <img> specifies the path to the image to be displayed
3. The width and height attributes of <img> provide size information for images
4. The alt attribute of <img> provides an alternate text for an image
5. The style attribute is used to add styles to an element, such as color, font, size, and more
6. The lang attribute of the <html> tag declares the language of the Web page
7. The title attribute defines some extra information about an element

Document structure in HTML5

- <DOCTYPE..> TAG

- <meta charset...> TAG

DOCTYPE: This tells browser what version of HTML that is used in the document

To create HTML5 document, it should be written as:<!DOCTYPE html>

HTML tag is similar to earlier discussed

META charset

META tag's charset attribute is given to specify the character encoding used. By default for English pages, the UTF-8 character encoding is used, which is specified through it.

Document structure in HTML 5

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8"/>
<title>...</title>
</head>
<body>
.
.
.
</body>
</html>
```

Color Attributes

- The six digit number and letter combinations represent color by giving their RGB(red,green, blue) value. The six digits are actually three two-digit number in sequence

RED	GREEN	BLUE
• FIRST 2 DIGITS ARE USED TO INDICATE RED COLOR • #FF0000	• SECOND 2 DIGITS ARE USED TO INDICATE GREEN COLOR • #008000	• LAST 2 DIGITS ARE USED TO INDICATE BLUE COLOR • #0000FF

COLOR ATTRIBUTE

- Hexa decimal value in the range 00-FF is used to represent colors
- 0-9 digits and alphabets from A to F is used to represent this color combination

Color name	Hexadecimal RGB value
Aqua	#00FFFF
Black	#000000
Blue	#0000FF
Grey	#808080
Green	#008000
Purple	#800080
Red	#ff000000
White	#FFFFFF
Yellow	#ffff00

Align -attribute

- There are 3 types of alignment in HTML
- Right , Left, Center
- This attribute will help us to align the text, image , paragraph ,etc.
- Example: <p align="center">
- <h1 align="right">
- <h6 align="left">

<Base font> tag

- It define the basic size for the font, the browser will use to render normal document text
- <base font> tag is used with its attribute size
- The value for font size is from 1 to 7
- Example: <BASEFONT SIZE=5>
- <BASEFONT SIZE=+2>
- <BASEFONT SIZE=-1>

ATTRIBUTES OF HR TAG

Attribute	Value	Description
Align	Left Center Right	Specifies the alignment of a <hr>element
Noshade	Noshade	Specifies that a <hr>element should render in one solid color(noshaded), instead of a shaded color
Size	Pixels	Specifies the height of <hr> element
Width	Pixels%	Specifies the width of a <hr> element
EXAMPLE	<hr>	<hr width=20 size=30 align=center noshade>

List in HTML

- There are 3 basic types of lists in HTML
- Numbered(ordered list-OL)
- Unnumbered(unordered list-UL)
- Definition
- Type attribute is used with – ordered list and unordered list
- Unordered list uses shapes as attributes
- Ordered list uses numbers and alphabets as attributes

Ordered list(numbered)

- A numbered list is also known as ordered list which is referred as OL

- The items tagged using the same tag

- Numbered ordered list items beginning with the Arabic numeral 1

- The start attribute for the <ol> tag lets you change that beginning value.

- The type attribute may have value 'A', 'a', 'I' , 'i', or '1'

Type value	Generated style	Sample sequence
A	Capital letters	A,B,C,D
a	Lowercase letters	a,b,c,d
I	Captial roman numerals	I,II,III,IV
I	Lowercase roman numerals	i,ii,iii,iv
1	Arabic numerals	1,2,3,4

UnOrdered list(Bullets)

- A unnumbered list is also known as unordered list which is referred as UL
- The items tagged using the same tag
- unordered list items by default has solid circle
- The type attribute values are disc, circle or square
- Ex:<ul type=square>

Definition list

- A definition list (coded as <DL>) usually consist of alternating a definition term(coded as <DT>) and a definition description (coded as <DD>) web browsers generally format the definition on a new line and indent it.

<DL>

<DT> NCSA

<DD> NCSA, the National center for supercomputing Applications, is located on the campus of the university of Ullinois.

</DL>

Nested List

- Lists can be nested
- List written inside other list
- Example

```
<ul>
<li> A few new Indian states:
        <ul type=circle>
        <li> Jharkhand
        <li> Uttaranchal
        <li> Chhattisgarh</ul>
<li> Two other states:
        <ul type=circle>
        <li> West Bengal
        <li>Karnataka</ul>
</ul>
```

Progam

```
<html lang="en">
<body bgcolor="#00ff88">
<p align=right>
In this paragraph we have used alignment attribute which can change the content display according to our align
</p>
<hr width=20 size=30 align=center noshade>
<ol type='A' start=5>
            <li> Jharkhand
            <li> Uttaranchal
            <li> Chhattisgarh</ol>
            <ul type=circle>
            <li> West Bengal
            <li>Karnataka</ul>
<DL>
            <DT> NCSA
            <DD> NCSA, the National center for supercomputing Applications, is located on the campus of the university of Ullinois.
</DL>
</body>
</html>
```

Types of Ordered lists

<html><body>

<h4> numbered list</h4>

  apples

 bananas

<h4> Letter list</h4>

<ol type="A">

 apples

 bananas

 Lemon

 Oranges


```html
<h4> Lowercase letters</h4>
<ol type="a">
<li> apples</li>
<li> bananas</li>
<li> Lemon</li>
<li> Oranges</li>
</ol>
<h4> Roman numbers list:</h4>
<ol type="I">
<li> apples</li>
<li> bananas</li>
</ol>
```

```
<h4> lowercase Roman numbers list:</h4>
<ol type="i">
<li> apples</li>
<li> bananas</li>
<li> Lemon</li>
<li> Oranges</li>
</ol>
</body>
</html>
```

Types of unordered lists

```
<html><body>
<h4> Disc Bulleted list</h4>
<ul type=Disc> <li> apples</li>
<li> bananas</li>
</ul>
<h4> circle Bulleted list</h4>
<ul type="circle">
<li> apples</li>
<li> bananas</li>
</ul>
<h4> Square Bulleted list</h4>
<ul type="square">
<li> apples</li>
<li> bananas</li>
</ul></body>
</html>
```

Nested lists

```
<html><body>
<h4> A Nested  list</h4>
<ul > <li>Coffee</li>
<li> Tea</li>
<ul>
<li> black tea</li>
<li> Green tea</li>
</ul>
<li> Juice</li>
<li> Milk</li>
</ul></body>
</html>
```

Definition lists

```
<html><body>
<h4> A Definition list</h4>
<DL > <DT>Coffee</DT>
<DD> Black hot Drink</DD>
<DT>Milk</DT>
<DD> White hot Drink</DD>
</DL>
</body>
</html>
```

Inserting of image in webpage

- To insert image <img src="filename. Filetype" alt="this is new pic">

Attribute	Value
Src	Source = file name and type is specified
Width	Pixels%
Height	Pixels%
Align	Top Middle Bottom Left right

Image Program

<html>

<head><title> image</title></head>

<body>

<img src="weaving.jpg" width=50% height=50% align="right">

</img>

</body>

</html>