





JULY, 2023



## **Web Page**

- A Web page is a document commonly written in HTML (Hypertext Markup Language) that can be displayed in all Internet browsers
- It is accessed by entering a URL address and may contain text, graphics, and hyperlinks to other web pages and files
- Web pages can be either static or dynamic
- Static pages show the same content each time they are viewed.
- Dynamic pages provides custom content based on the results of a search or request.



## **Markup Language**

- A Markup language is a computer language that uses tags to define elements within a document.
- It is human-readable, meaning **Markup** files contain standard words, rather than typical programming syntax.
- The **language** specifies code for formatting, both the layout and style, within a text file. The code used to specify the formatting are called **tags**.
- HTML and XML (eXtensible Markup Language) is a an example of a widely known and used Markup languages.



### Introduction to HTML

- HTML is a standard markup language and derived from Standard Generalized Markup Language (SGML)
- It includes all of the functionality of previous HTML versions.
- HTML is language used to describe the structure of a document
- HTML5 is the newest version of HTML
- HTML and XML (eXtensible Markup Language) is a an example of a widely known and used Markup languages.









## **HTML Vs CSS Vs JavaScript**







HTML + CSS (Presentation)



HTML + CSS + JavaScript (Functionality)



## Why learn HTML?

- Every webpage you look at is written in a language called HTML.
- You can think of HTML as the skeleton that gives every webpage structure.
- Web browsers can read HTML files and render them into visible or audible web pages.
- Browsers do not display the HTML tags and scripts, but use them to interpret the content of the page.







## **HTML Versions**

Year	Version
1989	Tim Berners-Lee invented www
1991	Tim Berners-Lee invented HTML
1993	Dave Raggett drafted HTML+
1995	HTML Working Group defined HTML 2.0
1997	W3C Recommendation: HTML 3.2
1999	W3C Recommendation: HTML 4.01
2000	W3C Recommendation: XHTML 1.0
2008	WHATWG HTML5 First Public Draft
2012	WHATWG HTML5 Living Standard
2014	W3C Recommendation: HTML5
2016	W3C Candidate Recommendation: HTML 5.1
2017	W3C Recommendation: HTML5.1 2nd Edition
2017	W3C Recommendation: HTML5.2

<sup>9</sup> Hyperlink Markup Language| © Smartcliff | Internal | Version 1.0



## First HTML Page

- The essence of HTML programming is tags.
- A tag is a keyword enclosed by angle brackets (Example: <.....>)
- There are opening and closing tags for many but few tags do not have closing tag.
- The text appearing on the web page is between the two tags.
- A tag is also named as element.
- All Web pages share a common structure.
- Tags are not case-sensitive.



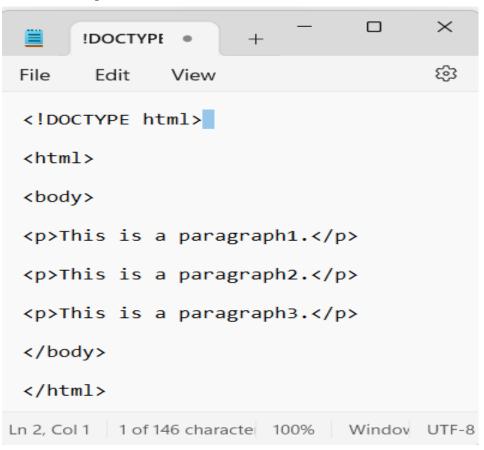
## First HTML Page

- An HTML file must have an .htm or .html file extension.
- HTML files can be created with text editors:
  - NotePad, NotePad ++, PSPad, etc.,
- Or HTML editors (WYSIWYG (What You See Is What You Get) Editors):
- Macromedia Dreamweaver
- Visual Studio Code, Etc.,



## **HTML-Editors**

#### Notepad



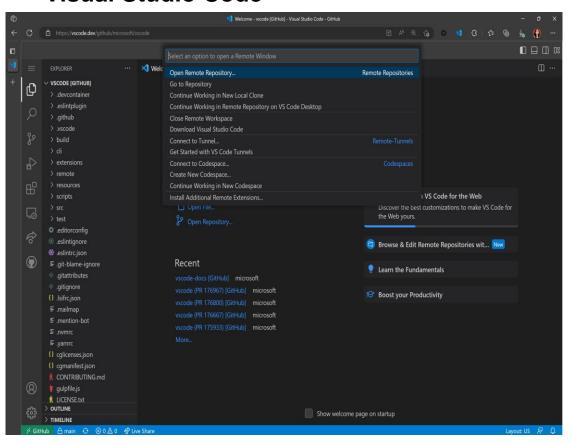
#### Atom

```
cry Technical Problems\Santa Riding Reindeer (Query Animation-new\Santa Riding Reindeer (Query Animation - Atom
Packages Help
      Santa Rolling Effect.html
185 kbody>
               <div class="topwrap1" style="position: fixed; width: 100%; bottom: 0;">
                  <div class="tree-two" id="bg-tree">
                      <div class="wrap">
                           <div id="animatedImage" style="position: fixed; padding-top: 550px; z-index: 99; left: 1px</pre>
                                   <img id="img1" src="Images/toyfest/santas.gif" alt="animatedImage" />
          <script type="text/javascript">
               var distanceBall = 0;
                var directionBall = 1;
                document.getElementById('animatedImage').style.top = 10;
                document.getElementById('animatedImage').style.left = 10;
                var timerToggle = null;
                                                                                                   CRUF UTF-S HTML TO I used
                                                                                                    ヘ 口 See (4) 図 11:49 PM
```



## **HTML-Editors**

Visual Studio Code



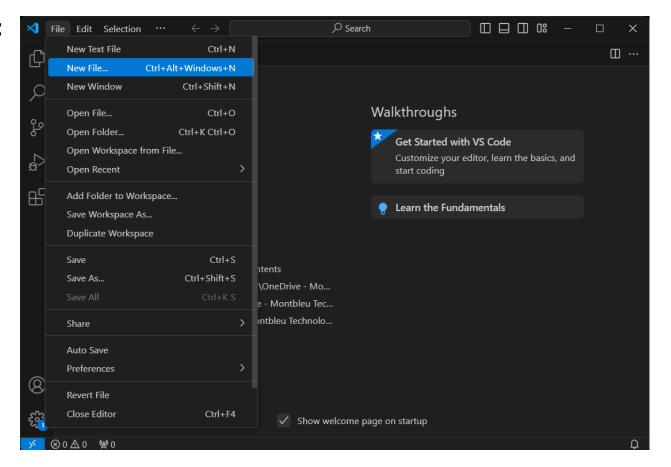
#### Sublime Text

```
bg_prove.c
T.PR.EL
                                                                550
is to preven
                                                                Set Syntax: C#
W POLICES
                                                                Set Syntan: camip4
 3 Bellio
                                                                Set Syntam: CSS
 F. NR
                                                                Set Syntax: C
 2 space
 F-client
                                   vote PR_Aintenel was 1 Set Syntax: C++
 P $100
                                                                Set Syntax: Clojure
                                             wishest:
                                well_t
 F-949-6
                                              fmove, smove; Set Syntax: Objective-C
 * marcon
                                vec3_t
                                             wishdirt
                                                                Set Syntax: Objective-C++
 31.86
                                             wiskspeed:
                                                                Set Syntax: R Console
 P-9504
                                asercad_t cad;
                                                                Set Syntax: Scala:
 P geomine
 8- renderer
                                PM_Friction[];
                                                                Set Syntax: JavaScript
 In second
                                facus - ps->csd.forusrdsove Set Syntax: AppleScript
 In Aprileon
                                serve - pe--ced_righteeve; Set Syntax: ActionScript
 P 44
                                                                Set Syntax: Shell Script (Rash)
 If anix
                                scale . PR Codscalet Scad | Set Syntax: JavaScript (Rails)
 F well I
                                FM_LietHausmentüär III;
                                gml. forward[2] = 8;
                                pml.right[7] - Rr
                               rectorNormalize (pel.ferward);
rectorNormalize (pel.right);
                                    1 1 + 1 ; 1 + 2 ; 1++ 1 {
                                    wishwel[i] = pml.forward[i]+fmove + pml.right[i]+smove;
                                wintwelli21 w #p
                                rectoringy (wishet; wishdir);
                               wishspeed = VectorNormalize(wishdir);
wishspeed == scale;
                                PM_Accelerate (wishdir, wishspeed, pm_miraccelerate);
                              37 we see have a proped place that is very stoop, even 17 Though so den't have a procedurity of aller slong the steep place.
```



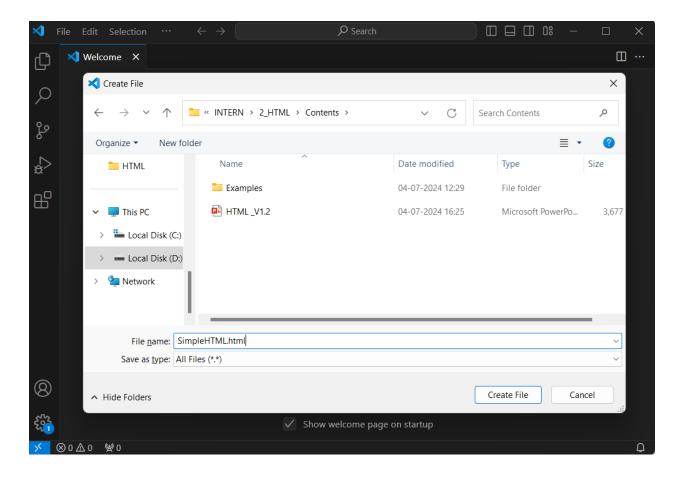
#### **Step 1: Open Visual Studio Code**

#### Step 2:





## Step 3: Create HTML file, For example SimpleHTML.html





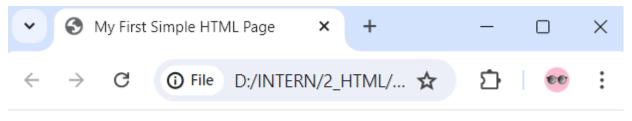
#### **Step 4: Type the below contents in the text editor**

```
<!DOCTYPE html>
  <html>
  <head>
  <title>My First Simple HTML Page</title>
  </head>
  <body>
  Hello, I am here in your webpage!
  </body>
  </html>
```



Step 5: Save it

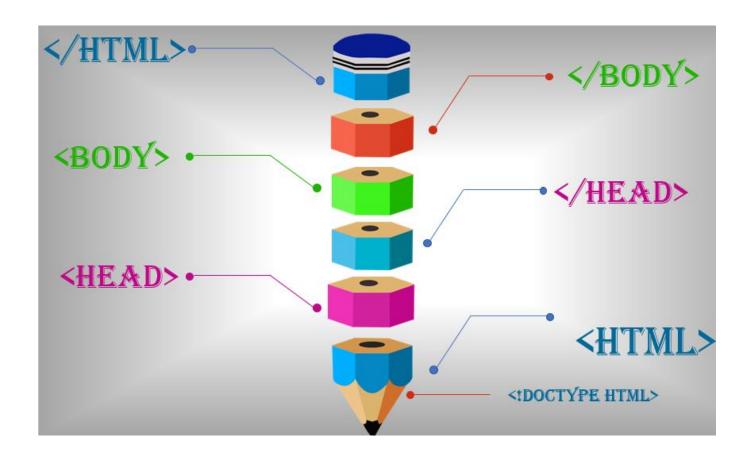
**Step 6:** Launch or run your html file using any browser like **Google Chrome**, your page should look like this



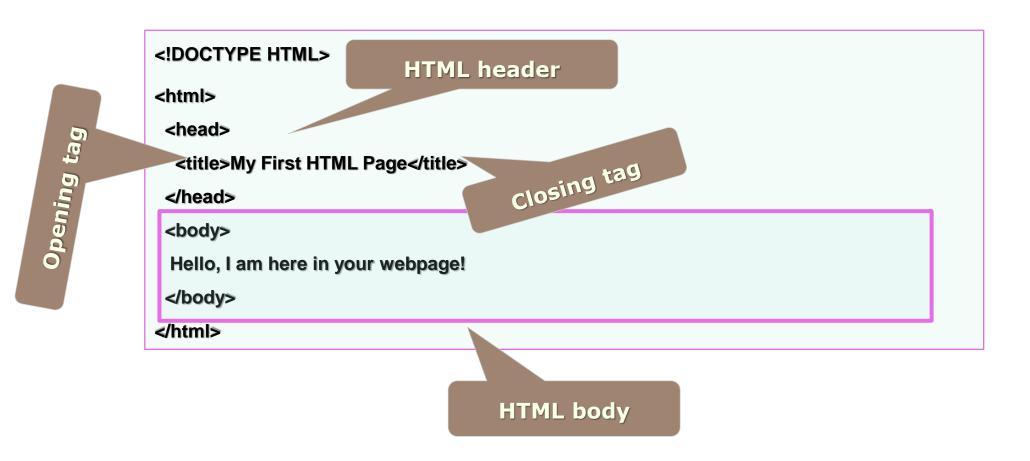
Hello, I am here in your webpage!



## HTML









## First HTML Page: <!DOCTYPE>

- The <!DOCTYPE> declaration must be the very first thing in your HTML document, before the <html> tag.
- The <!DOCTYPE> declaration is **not an HTML tag**; it is an **instruction** to the **web browser** about what **version of HTML** the page is written in.
- HTML 4.01/XHTML
- <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" http://www.w3.org/TR/xhtml1/ DTD/xhtml1-strict.dtd">
  - The DTD specifies the rules for the markup language, so that the browsers render the content correctly.
- HTML 5
  - <!DOCTYPE html>



## First HTML Page: <html>

- The <html> tag tells the browser that this is an HTML document.
- The <html> tag represents the root of an HTML document.
- The <html> tag is the container for all other HTML elements (except for the <!DOCTYPE> tag).



## First HTML Page: <head>

- The <head> element is a container for all the head elements.
- The <head> element can include a title for the document, scripts, styles, meta information, and more.
- The following elements can go inside the <head> element:
  - <title> (this element is required in an HTML document)
  - <style>
  - <base>
  - k>
  - <meta>
  - <script>
  - <noscript>



## First HTML Page: <title>

The <title> tag is required in all HTML documents and it defines the title of the document.

#### The <title> element:

- defines a title in the browser toolbar
- > provides a title for the page when it is added to favourites
- > displays a title for the page in search-engine results



## First HTML Page: <body>

- The <body> tag defines the **document's body**.
- The <body> element contains all the contents of an HTML document, such as text, hyperlinks, images, tables, lists, etc.



## **HTML Code Formatting**

- The HTML source code should be formatted to increase readability and facilitate debugging.
- Every block element should **start on a new line**.
- Every nested (block) element should be indented.
- Browsers ignore multiple whitespaces in the page source, so formatting is harmless.
- For performance reasons, formatting can be sacrificed.



## **HTML Display**

- Large or small screens, and resized windows will create different results.
- With HTML, you cannot change the output by adding extra spaces or extra lines in your HTML code.
- The browser will **remove extra spaces** and **extra lines** when the page is displayed.
- Any number of spaces, and any number of new lines, count as only one space.



## **HTML Display**

- Every HTML element has a default display value depending on what type of element it is.
- The default display value for most elements is **block** or **inline**.

#### **Block-level Elements**

- A block-level element always starts on a new line and takes up the full width available (stretches out to the left and right as far as it can).
- **Examples:**
- < div>
- < h1 > < h6 >
- -
- <form>
- Etc.,



## **HTML Display**

#### **Inline Elements**

- An inline element does not start on a new line and only takes up as much width as necessary.
- **Examples:** 
  - <span>
  - <a>
  - <img>
  - Etc.,



## **Basic HTML Tag:**

- HTML documents are divided into paragraphs.
- Browsers automatically add an **empty line** before and after a paragraph.

```
<!DOCTYPE html>
<html>
<body>
This is a paragraph1.
This is a paragraph2.
This is a paragraph3.
</body>
</html>
              paragraph 1.html
  File
                                       F:/Personal/Training/...
                                                                           102
 This is a paragraph1.
 This is a paragraph2.
 This is a paragraph3.
```



## **Basic HTML Tag:**

> This paragraph contains a lot of lines in the source code, but the browser ignores it. > The number of lines in a paragraph depends on the size of the browser window. If you resize the browser window, the number of lines in this paragraph will change. **Before resize the Browser Window** paragraph2.html  $\times$  + (i) File | F:/Personal/Training/Internal%20Review/Web/HTML\_Example/paragraph2.html វេទ This paragraph contains a lot of lines in the source code, but the browser ignores it. This paragraph contains a lot of spaces in the source code, but the browser ignores it. The number of lines in a paragraph depends on the size of the browser window. If you resize the browser window, the number of lines in this paragraph will change.

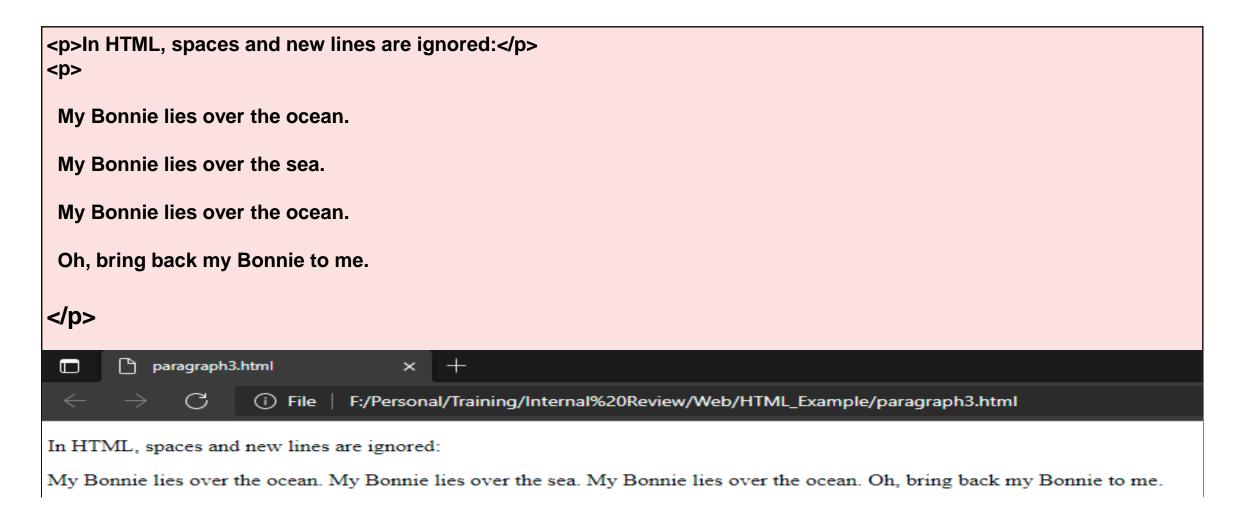


## **Basic HTML Tag:**

> This paragraph contains a lot of lines in the source code. but the browser ignores it. > The number of lines in a paragraph depends on the size of the browser window. If you resize the browser window, the number of lines in this paragraph will change. **After resize the Browser Window**  $\times$ paragraph2.html (i) File F:/Personal/Training/... €3 €`≘ 侖 This paragraph contains a lot of lines in the source code, but the browser ignores it. This paragraph contains a lot of spaces in the source code, but the browser ignores it. The number of lines in a paragraph depends on the size of the browser window. If you resize the browser window, the number of lines in this paragraph will change.



## **Basic HTML Tag:**





## **Basic HTML Tag: <br>**

- The <br/>br> tag inserts a single line break.
- The <br/>br> tag is an empty tag which means that it has no end tag.





## Basic HTML Tag: <h1> to <h6>

The <h1> to <h6> tags are used to define **HTML headings**.

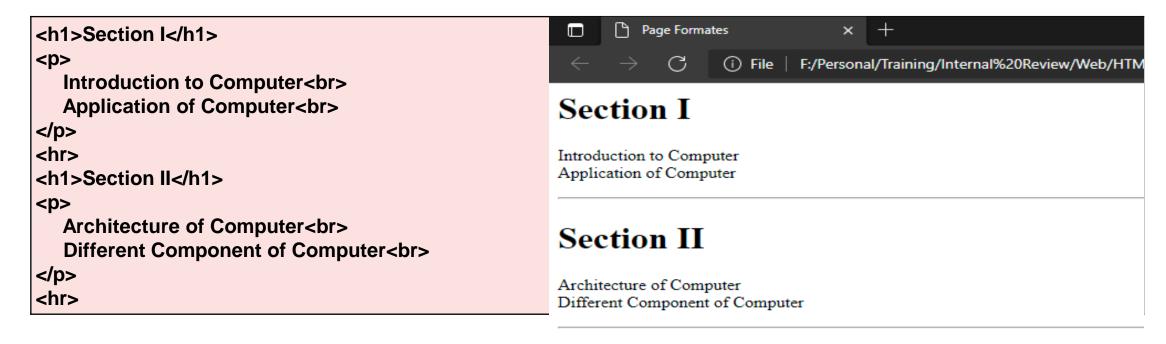
<h1> defines the most important heading. <h6> defines the least important heading.





## **Basic HTML Tag: <hr>>**

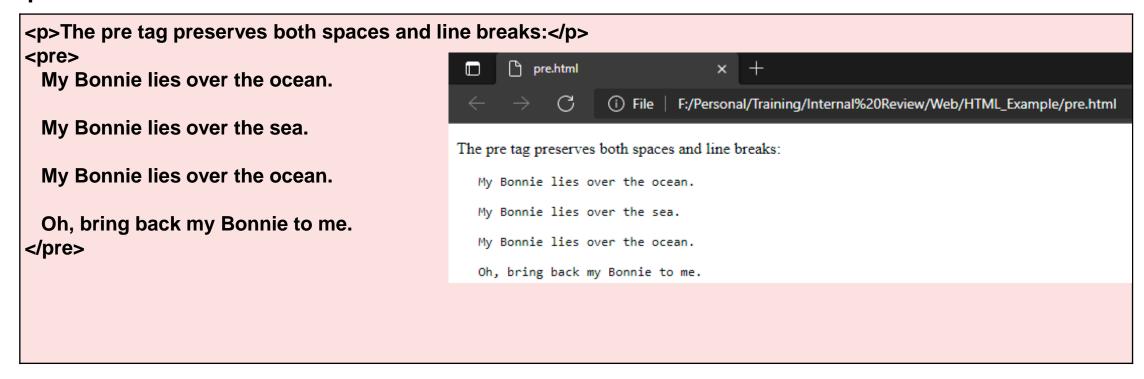
- The <hr> tag is used to break the page into various parts, creating horizontal margins with help of a horizontal line running from left to right hand side of the page.
- This is also an **empty tag** which means that it has **no end tag**.





## **Basic HTML Tag:**

- The tag defines preformatted text.
- Text in a element is displayed in a fixed-width font (usually Courier), and it preserves both spaces and line breaks.





### **HTML Formatting Elements**

- Formatting elements were designed to display special types of text:
  - Bold text <b>...</b>
  - Important text <strong>...</strong> Italic text <i>...</i>
  - Emphasized text<em>...</em>
  - Marked text <mark>...</mark>
  - Small text <small>...</small>
  - Deleted text <del>...</del>
  - Inserted text <ins>...</ins>
  - Subscripts <sub>...</sub>
  - Superscripts <sup>...</sup>



# **HTML Formatting Elements**

Formatting.html  $\times$  + This text is normal. E:/VIT/IP/UNIT%20II/HTML%20Examples/Basics/Formatting.html <b>This text is bold.</b> <strong>This text is strong.</strong> This text is normal This text is bold. <i>This text is italic.</i> This text is strong. <tm>This text is emphasized. This text is italic. HTML <small>Small</small> Formatting This text is emphasized. HTML <mark>Marked</mark> Formatting HTML Small Formatting My favorite color is <del>blue</del> red. HTML Marked Formatting My favorite <ins>color</ins> is red. My favorite color is blue red. This is <sub>subscripted</sub> text. My favorite color is red. This is <sup>superscripted</sup> text. This is subscripted text. This is superscripted text



# **HTML Formatting Elements**

- Browsers display <strong> as <b>, and <em> as <i>.
- However, there is a **difference** in the **meaning of these tags**:
- <br/> <br/> and <i> defines **bold and italic text**
- <strong> and <em> means that the text is "important".

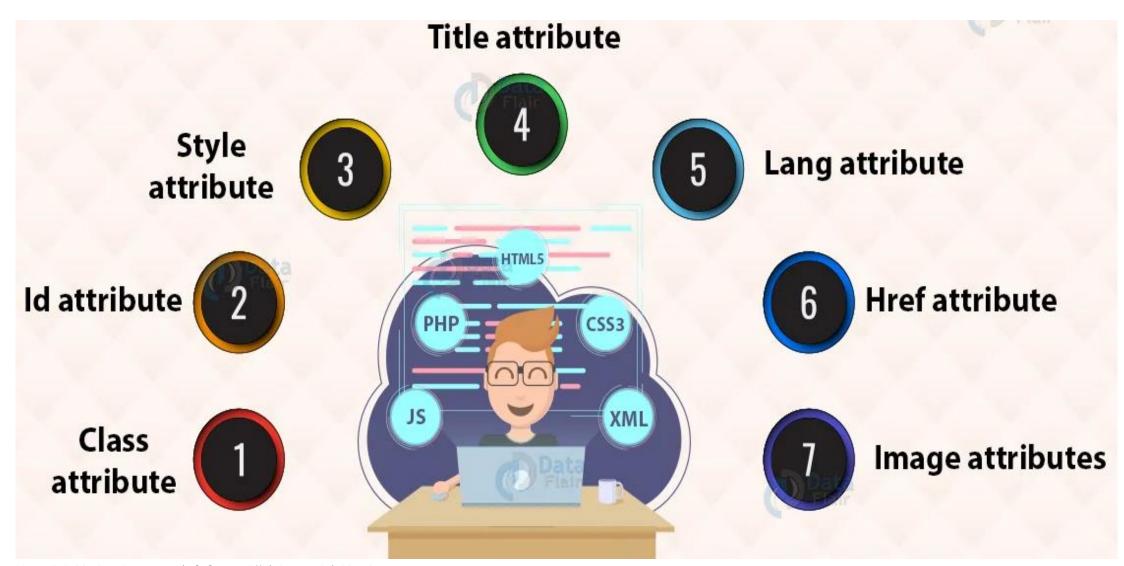


#### **HTML Attributes**

- HTML Elements can have multiple attributes.
- HTML attributes are used to provide additional information about the HTML elements, attributes are the reserved keywords.
- An attribute is used to define the **characteristics** of an HTML element and is placed inside the element's opening tag.
- HTML attributes are specified using a **name/value** pair format, where the attribute name defines the property, and its value provides specific details, like name="value".

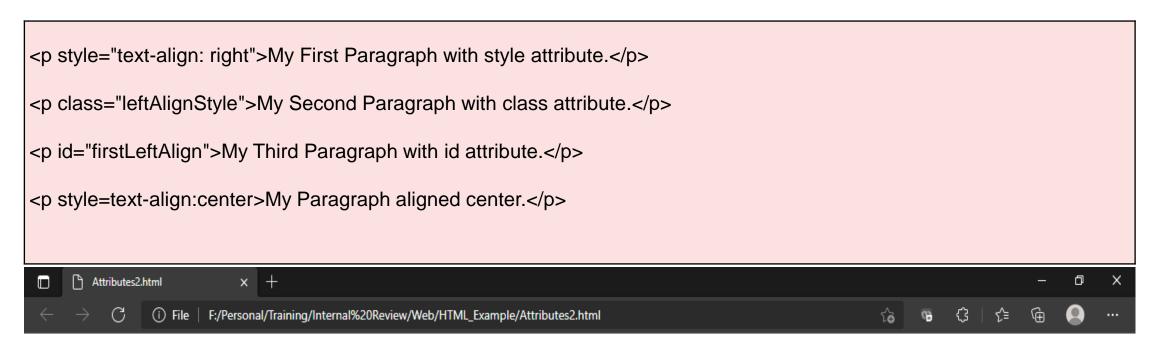


### **HTML Attributes**





#### **HTML Attributes**



My First Paragraph with style attribute.

My Second Paragraph with class attribute.

My Third Paragraph with id attribute.

My Paragraph aligned center.



- The <div> element is a block-level element that is often used as a container for other HTML elements.
- The <div> element has **no required attributes**, but **style and class are common**.
- When used together with CSS, the <div> element can be used to **style blocks of content**.





### **Basic HTML Tag: <span>**

- The <span> element is an **inline element** that is often used as a **container for some text**.
- The <span> element has no required attributes, but style and class are common.
- When used together with CSS, the <span> element can be used to style parts of the text.

My mother has <span style="color:blue;font-weight:bold">blue</span> eyes and my father has <span</p> style="color:darkolivegreen;font-weight:bold">dark green</span> eyes. Span.html i File E:/VIT/IP/UNIT%20II/HTML%20Examples/Div&Span/span.html My mother has blue eyes and my father has dark green eyes.



### **Basic HTML Tag: <a>**

- HTML links are **hyperlinks**.
- An **anchor tag** is a HTML element that creates a link to a target URL.
- A hyperlink is a **text or an image** you can click on, and jump to another document.

**Example**: <a href="url">link text</a>

- The href attribute specifies the **destination address** 
  - Internal Link: Address location may be absolute / relative
  - External Link: Website URL



### **Basic HTML Tag: <a>**

When you move the **mouse over a link**, two things will normally happen:

- The mouse arrow will turn into a little hand
- The color of the link element will change

By **default**, a link will appear like this (in all browsers):

- An unvisited link is underlined and blue
- A **visited** link is underlined and **purple**
- An active link is underlined and red

```
 External Link:
Learn HTML : <a href="https://smartcliff.in/">Visit SmartCliff!</a>
 Internal Link:
<a href="information_about_the_planet_venus.txt">About planet venus!</a>
```



### **Basic HTML Tag: <a>**

The **target attribute** specifies where to open the linked document.

**\_blank:** Opens the linked document in a new window or tab

**\_self**: Opens the linked document in the same frame as it was clicked (this is **default**)

**\_parent:** Opens the linked document in the parent frame

**\_top:** Opens the linked document in the full body of the window

Open link in a new window or tab: <a href="https://smartcliff.in/" target="\_self">Visit SmartCliff!</a>



#### **Basic HTML Tag: <a>**

#### **Create Bookmarks**

- HTML bookmarks are used to allow readers to jump to specific parts of a Web page.
- Bookmarks are practical if your website has long pages.
- To make a bookmark, you must first create the bookmark, and then add a link to it.
- When the link is clicked, the page will scroll to the location with the bookmark.

```
<!DOCTYPE html>
<html>
<head></head>
<body>
<a href="#bookmark">text</a>
<a name="bookmark">text</a>
</body>
</html>
```



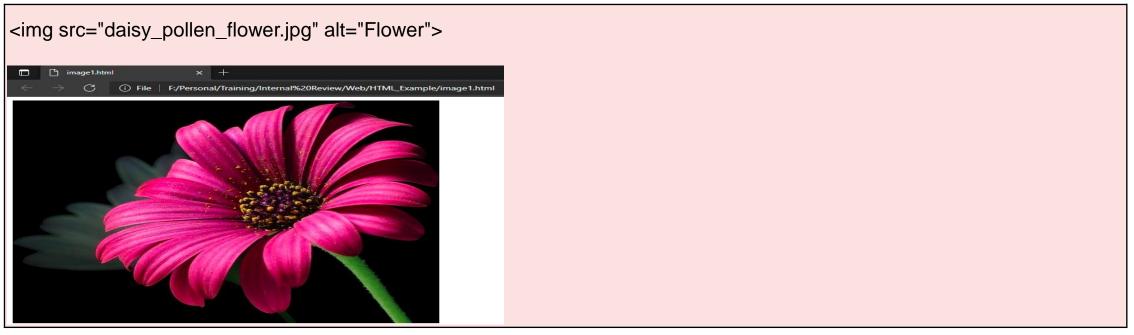
# **Creating Bookmarks - Example**

```
<html>
 <head>
  <title>HTML Bookmark Example</title>
 </head>
 <body>
  <h1>Tutorials</h1>
  >
    <a href="#script">Scripting Languages</a>
  <h2>Programming</h2>
  C Programming
  C++ Programming
  Java Programming
```

```
Python Programming
  <h2>Web Design</h2>
  HTML 5
  CSS3
  <h2>Databases</h2>
  Oracle
  MySQL
   <h2>
   <a name="script">Scripting Languages</a>
  </h2>
  Javascript
  PHP
 </body></html>
```



- Use the HTML <img> element to define an image.
- Use the HTML **src attribute** to define the URL of the image.
- Use the HTML alt attribute to define an alternate text for an image, if it cannot be displayed.
- Use the HTML width and height attributes to define the size of the image.













```
Image from the same folder as the current page:
    <img style="border:0" src="Images/sun.gif" alt="Sun" width="104" height="142">
    <img style="border:0" src="./Images/programming.gif" alt="Computer_man" width="104" height="142">
Insert an image from One Level down of the current web site:
    <img style="border:0" src="Images/Test/globe.gif" alt="Globe" width="104" height="142">
 Insert an image from a web site:
    <img src="https://images.pexels.com/photos/60597/dahlia-red-blossom-bloom-60597.jpeg" alt="pexels.com"</p>
       width="104" height="142">
                                    Image from the same folder as the current page:
                                           image from One Level down of the current web site:
                                    Insert an image from a web site:
```



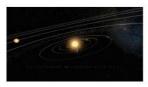
### **Basic HTML Tag: <img>**

- Insert an image from root of the current web site: <img style="border: 1;" src="./Images/smiley.png" alt="Smiley" width="104" height="142">
- Insert an image from One Level up of the current web site: <img style="border: 1px;" src="../Examples/planets.gif" alt="Planets" width="104" height="142">
- Insert an image from One Level up of the current web site: <img style="border: 1px;" src="../Examples/Images/venglobe.gif" alt="Venglobe" width="104" height="142">

Insert an image from root of the current web site:



Insert an image from One Level up of the current web site:



Insert an image from One Level up of the current web site:





### **Basic HTML Tag: Image Maps**

- Use the <map> tag to define an image-map.
- An image-map is an image with **clickable areas**.
- The name attribute of the <map> tag is associated with the <img>'s usemap attribute and creates a relationship between the image and the map.
- The <map> tag contains a number of <area> tags, that defines the clickable areas in the image-map
- **Shape**: To define the shape of the clickable area, and you can choose one of these values:
  - **rect** defines a rectangular region
  - **circle** defines a circular region
  - **poly** defines a polygonal region
  - **default** defines the entire region



### **Basic HTML Tag: Image Maps**

```
Click on the sun or on one of the planets to watch it closer:
<img src="planets.gif" width="145" height="126" alt="Planets" usemap="#planetmap">
<map name="planetmap">
<area shape="rect" coords="0,0,82,126" alt="Sun" href="sun.html">
<area shape="circle" coords="90,58,3" alt="Mercury" href="merglobe.gif">
<area shape="circle" coords="124,58,8" alt="Venus" href="information_about_the_planet_venus.txt">
</map>
```



# **Basic HTML Tag: <figure>**

- The **<figure>** element identifies **self-contained content** related to the main content, such as an image, table, or chart.
- The **<figcaption>** element is often nested within a **<**figure> element to add a **caption** to the content identified by the <figure> tags.
- A caption can be associated with the <figure> element by inserting a <figcaption>inside it (as the first or the last child).
- The first <figcaption> element found in the figure is presented as the figure's caption.



# **Basic HTML Tag: <figure>**

<img src="flamingo.jpg" alt="flamingo" width="150" height="150"> <i>Fig:1</i>Flamingo <figure> <img src="flamingo.jpg" alt="flamingo"width="250" height="250">> </figure> <figure> <img src="elephant.jpg" alt="Elephant"width="350" height="350">> <figcaption><i>fig. 1</i> An Elephant at Sunset</figcaption> </figure>



Fig:1Flamingo





fig. 1 An Elephant at Sunset



- The HTML element represents tabular data that is, information presented in a two**dimensional table** comprised of **rows** and **columns** of cells containing data.
- Tables are divided into table rows with the 
   tag.
- Table data are the **data containers** of the table.
- They can contain all sorts of HTML elements like **text**, **images**, **lists**, **other tables**, etc.
- The **<caption>** tag defines a **table caption**.
- The <caption> tag must be inserted immediately after the tag.
- A table row can also be divided into **table headings** with the tag.



```
<caption>First Table</caption>
   Cell 1
                                            Cell 2
                                                Cell 1
      Cell 3
                                                Cell 2
                                                Cell 3
   Cell 4
                                            Cell 5
                                                Cell 4
      Cell 6
                                                Cell 5
   Cell 6
Table.html
                                                                                ×
                                                                         i File | E:/VIT/IP/
     Table.html
                                                                 First Table
          i File E:/VIT/IP/
                                                               Cell 1 Cell 2 Cell 3
Cell 1 Cell 2 Cell 3
                                                               Cell 4 Cell 5 Cell 6
Cell 4 Cell 5 Cell 6
```



```
<caption>First Table</caption>
  First
     Second
                                            Table2.html
     Thrid
  (i) File | E:/VIT/IP/U
     Cell 1
     Cell 2
     Cell 3
                                        First Table
  First Second Thrid
  Cell 4
                                    Cell 1 | Cell 2
                                               Cell 3
     Cell 5
     Cell 6
                                    Cell 4 Cell 5
                                               Cell 6
```



# **Basic HTML Tag: Tables – Using Image inside table**

```
Table3.html
<caption>First Table</caption>
                                                   First
                                                 First Table
    Second
                                                       Second Thrid
                                               First
    Thrid
                                                      Cell 2 Cell 3
                                           Cell 1
  Cell 1
    Cell 2
                                                      Cell 5
                                                         Cell 6
    Cell 3
  =200px height=200px>
    Cell 5
    Cell 6
```



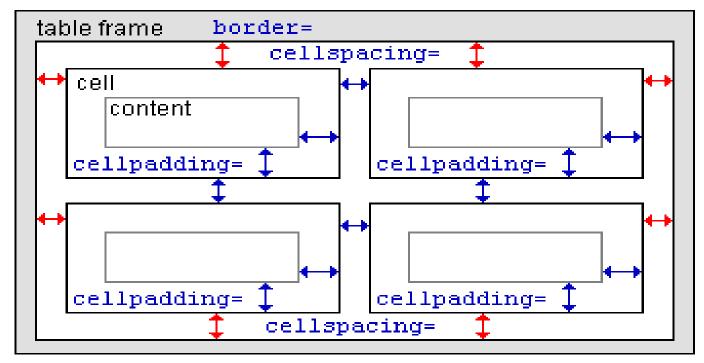
## **Basic HTML Tag: Tables – Nested Table**

```
H
This is a paragraph
                                     HELLO
This is another paragraph
                                     This cell contains a table:
A
 B
 Table4.html
 C
 D
                                                            i File E:/VIT/IP/UNIT%20II/H
This cell contains a table:
                                                  This is a paragraph
A B
C D
                                                  This is another paragraph
                                                             HELLO
```

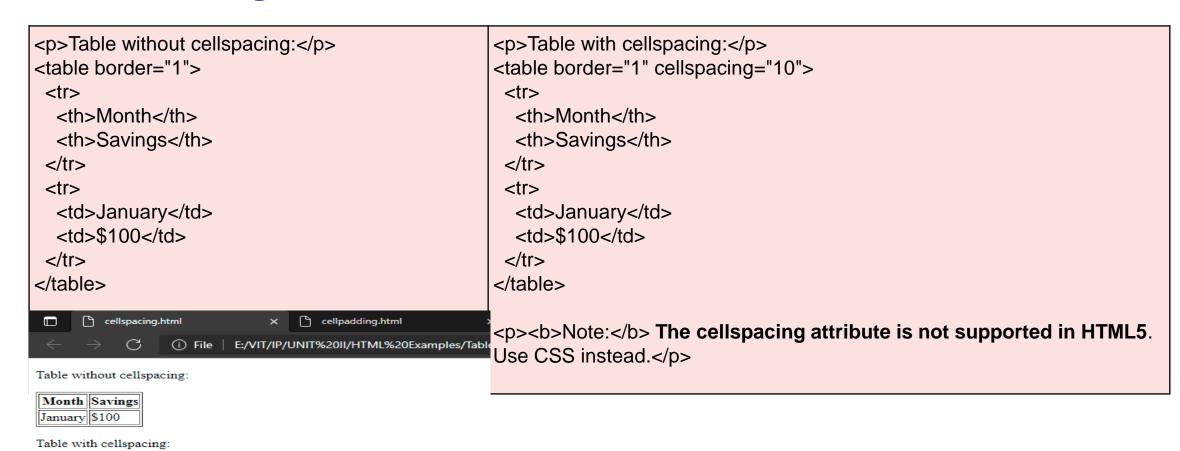


#### **Cellspacing and Cellpadding**

- To adjust the white space in your table cells.
- The cellspacing attribute defines the **width** of the border, while cellpadding represents the **distance between** cell borders and the content within a cell.







Month Savings

\$100

January

Note: The cellspacing attribute is not supported in HTML5. Use CSS instead.

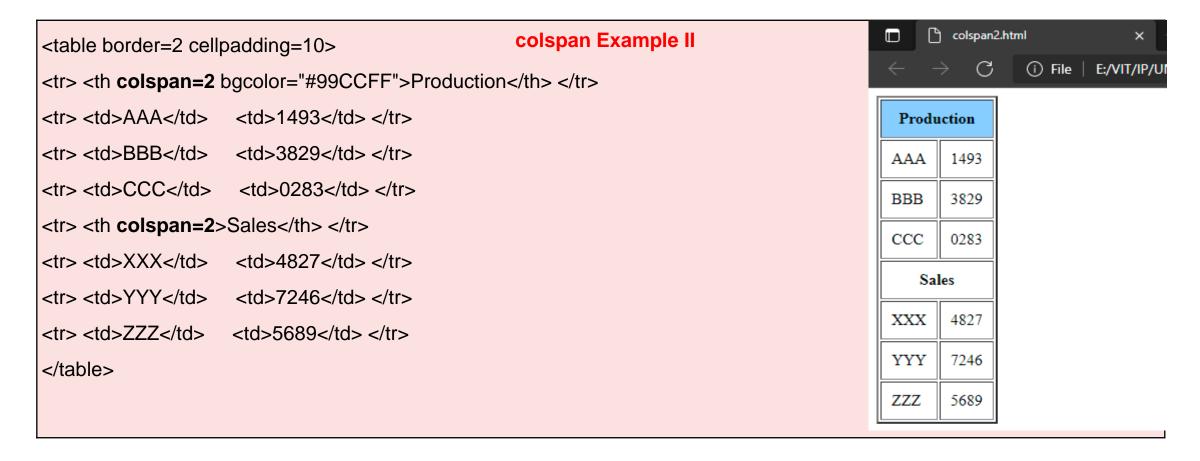


- **Colspan and rowspan**
- Table cells can **span** across **more than one column or row**.
- The attributes COLSPAN ("how many across") and ROWSPAN ("how many down") indicate how many columns or rows a cell should take up.
- Use the colspan attribute to make a cell span many columns
- Use the rowspan attribute to make a cell **span many rows**



```
colspan Example I
Month
 Savings
                                                   colspan.html
i File E:/VIT/IP/U
 January
 $100
                                                 Month Savings
                                                 January $100
February $100
February
                                                 Sum: $180
 $100
Sum: $180
```







```
rowspan Example
Month
 Savings
 Savings for holiday!
January
 $100
 $50
                                                       rowspan.html
(i) File
                                                                 E:/VIT/IP/UNIT%20II/
 February
                                                    Month Savings Savings for holiday!
 $80
                                                    January $100
$50
                                                   February $80
```



### **Basic HTML Tag: <colgroup>**

- The <colgroup> tag specifies a **group of one or more columns** in a table for formatting.
- The <colgroup> tag is useful for **applying styles** to entire columns, instead of repeating the styles for each cell, for each row.
- To **define different properties** to a column within a <colgroup>, use the **<col>** tag within the <colgroup> tag.

```
<colgroup>
                                       3476896
 <col span="2" style="background-color:red">
                                       My first HTML
 <col style="background-color:yellow">
                                       $53
</colgroup>
                                       (P) Colgroup.html
 ISBN
                                       5869207
                                       My first CSS
 Title
                                                                            (i) File | E:/VIT/IP/UNI
 Price
                                       $49
                                                                             Price
My first HTML $53
                                      My first CSS
                                                                            $49
```



### **Basic HTML Tag: List**

HTML lists are used to present **list of information** in well formed and semantic way. There are **three** different types of list in HTML and each one has a specific purpose and meaning.

#### **Ordered list**

Used to create a list of **related items**, in a **specific order**. All the list items are marked with **numbers** by default. It is also known as **numbered list**.

#### **Unordered list**

Used to create a list of related items, in no particular order. All the list items are marked with bullets. It is also known as bulleted list.

#### **Description list**

Used to create a list of terms and their **descriptions**.

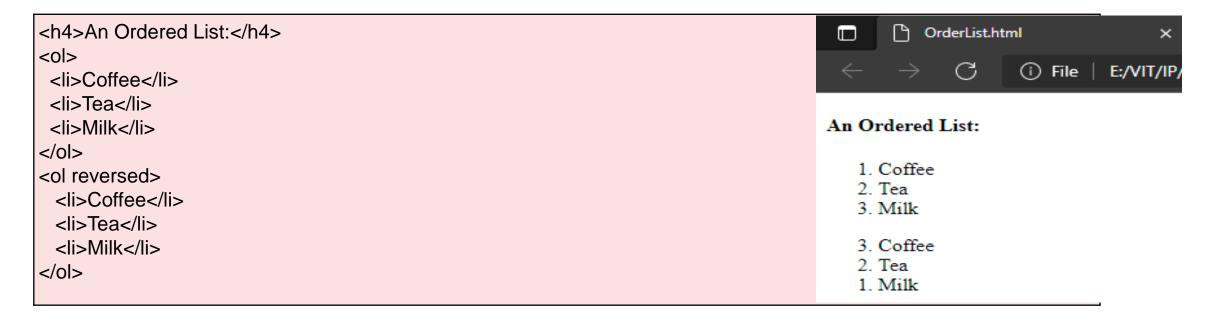


# **Basic HTML Tag: List**

- The commonly used **HTML list tag** are as follows:
  - - Defines an unordered list
  - Defines an ordered list
  - Defines a list item
  - <dl> Defines a description list
  - <dt> Defines the term in a description list
  - <dd> Defines the description in a description list



## **Basic HTML Tag: Ordered List**





## **Basic HTML Tag: Ordered List**



Note: we used the "start" attribute on the "ol" tag to restart the numbering at "3" following the break in the list above.

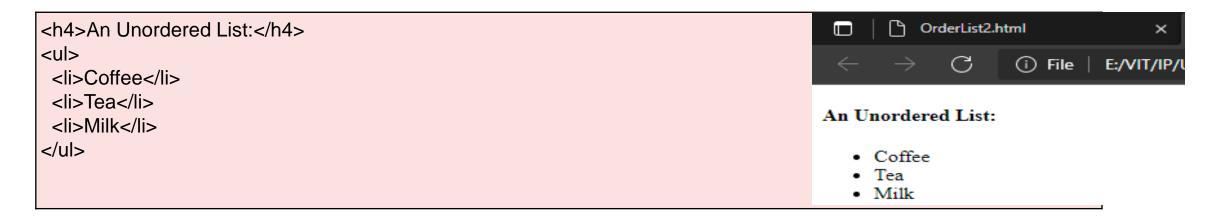


## **Basic HTML Tag: Ordered List**





## **Basic HTML Tag: Unordered List**





## **Basic HTML Tag: Unordered List**





## **Basic HTML Tag: Nested List**

```
<h4>A nested List:</h4>
                                                                                      Nested1.html
ul>
Coffee
                                                                                                i File E:/VIT/IP/UNIT
Tea
  <l
  Black tea
                                                                                 A nested List:
  Green tea
   ul>
   China

    Coffee

   Africa

    Tea

    Black tea

    Green tea

    China

    Africa

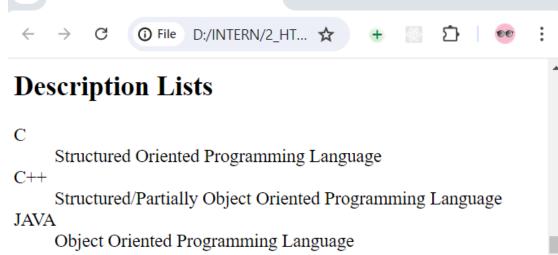
Milk

    Milk
```



## **Basic HTML Tag: Description Lists**

```
<h2>Description Lists</h2>
 < dl>
  <dt>C</dt>
  <dd>Structured Oriented Programming Language</dd>
  <dt>C++</dt>
  <dd>Structured/Partially Object Oriented Programming Language</dd>
  <dt>JAVA</dt>
  <dd>Object Oriented Programming Language</dd>
 </dl>
                                3 10_Lists.html
```





## **Basic HTML Tag: Comment Tag**

HTML comment tag use to comment a source code



- Comments helps coders to improve the code readability and to understand more about the code
- Comments will not be displayed on the screen
- Comment Tag does not support any Standard Attributes.



## **Basic HTML Tag: Comment Tag**



# Read the Comments given in your Code Page



### **HTML Favicon**

- A favicon is a small file containing one or more icons that are used to represent the website or a blog.
- It is also known as a tab icon, website icon, URL icon, or bookmark icon.
- It is a **small image** displayed next to the page title in the browser tab.
- It should be a simple image with high contrast.
- It is displayed to the left of the page title in the browser tab.



### **HTML Favicon**

#### How To Add a Favicon in HTML?

- To add a favicon to your website, either save your favicon image to the root directory of your web server, or create a folder in the root directory called images, and save your favicon image in this folder.
- A common name for a favicon image is "favicon.ico".
- Next, add a <link> element to your "index.html" file, after the <title> element.



### **HTML Favicon**

```
<!DOCTYPE html>
<html>
<head>
 <link rel="icon" type="image/x-icon" href="/images/favicon.ico">
 <title>My Page Title</title>
</head>
<body>
<h1>This is a Heading</h1>
This is a paragraph.
</body>
</html>
                                                                             Favorite Icon & Emojis
                                                                                                             ×
                                                                                            i File C:/Users/1
```



### **HTML Favicon**

- **Favicon File Format Support** 
  - The file formats supported for a favicon image are:
    - .ico (favorite icon)
    - .png (Portable Network Graphics)
    - .gif (Graphics Interchange Format)
    - .jpeg (Joint Photographic Experts Group)
    - .svg (Scalable Vector Graphics)



## HTML Emoji

- Emojis are **small digital images** or **icons** that are generally used in messaging and other places to express emotions or ideas.
- Emojis are characters from the **UTF-8** character set.
- To display an HTML page correctly, a web browser must know the character set used in the page.

### Approach

- By setting the charset used to display webpages in the browser to UTF-8, emojis can be added to HTML documents.
- Use the <meta> tag in the head section to specify this character encoding information.
- Emojis can be added to HTML after the charset has been declared by utilizing the p and span tags.



## **HTML Emoji**

- While the emoji is inserted in the same line using the <span> tag, it is inserted in a new line using the tag.
- Two methods are used to add emoji in HTML documents:
  - Using hexadecimal code
  - Using decimal code
- The hexadecimal and decimal codes for emojis start with "&#x" and end with ";" to inform the browser, the character represented by the code needs to be displayed.

### Reference Link



## **HTML Emoji**

```
<!DOCTYPE html>
<html>
<head>
<title>Emojis</title>
<meta charset="UTF-8">
</head>
<body>
<!--Emojis-->
Emoji : 😜 → Decimal
Emoji : 😜 → Hexadecimal
                                                                                             X
                                             Emojis
                                                                 ×
</body>
                                                      ① File | C:/Users/1338/Docu... 🖒 🛣
</html>
                                           Emoji: 😜
                                           Emoji: 😜
```



## **Basic HTML Tag: HTML Form**

- **HTML Forms** are required when you want to **collect some data from the site visitor**.
- For example during user registration you would like to collect information such as name, email address, credit card, etc.
- A form will take **input from the site visitor** and then will post it to a **back-end application** such as CGI, ASP.Net or PHP script etc.
- The back-end application will perform required processing on the passed data based on defined business logic inside the application.



### **HTML Form: <form> Element**

The **<form>** element defines an HTML form:

```
<form>
form elements
</form>
```

- HTML forms contain form elements.
- Form elements are different types of input elements, checkboxes, radio buttons, submit buttons, and more.



### **HTML Form Attributes**

- The **action attribute** defines the **action to be performed** when the form is submitted.
- The common way to **submit a form** to a server, is by using a **submit button**. Normally, the form is submitted to a web page on a web server.
  - <form action="action\_page.jsp">
- The method attribute specifies the **HTTP method** (**GET or POST**) to be used when submitting the forms:

```
<form action="action_page.jsp" method="GET">
```

(OR)

<form action="action\_page.jsp" method="POST">



### **HTML Form Attributes: Get and Post Method**

#### **Get Method**

- We can use GET (the default method) If the form **submission** is **passive** (like a search engine query), and without sensitive information.
- When you use GET, the form **data will be visible** in the page address: action\_page.jsp?firstname=Arul&lastname=Kumar
- GET is best suited to **short amounts of data**.

#### **Post Method**

- We can use **POST method** If the form is updating data, or includes sensitive information (password).
- POST offers **better security** because the submitted data is **not visible** in the page address.



### **HTML Form Elements**

The HTML <form> element can contain one or more of the following **form elements**:

- <input>
- <label>
- <select>
- <textarea>
- <fieldset>
- <legend>
- <datalist>
- <output>
- <option>
- <optgroup>



## **HTML Form: <Input> Element**

- The **<input> element** is the most important form element.
- The <input> element has many variations, depending on the type attribute.

### **Example:**

- text Defines normal text input <input type="text">
- radio Defines radio button input (for selecting one of many choices) <input type="radio">
- submit Defines a submit button (for submitting the form) <input type="submit">

### **More Input Types:**

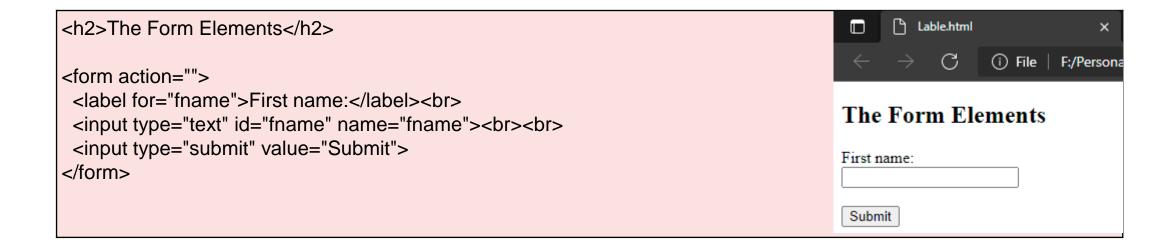
- https://www.w3schools.com/html/html\_form\_input\_types.asp
- <a href="https://www.dhiwise.com/post/ultimate-guide-to-html-input-types-boost-development-skills">https://www.dhiwise.com/post/ultimate-guide-to-html-input-types-boost-development-skills</a>



### **HTML Form: <label> Element**

The <label> element used to create a label. one label statement is used for one element

- The <label> element is useful for screen-reader users, because the screen-reader will read out loud the
- label when the user focus on the input element.





### **HTML Form: <select> Element**

- The **<select>** element defines a drop-down list.
- The **<option>** elements defines an option that can be selected.
- By default, the **first item** in the drop-down list is selected.
- To define a pre-selected option, add the **selected attribute** to the option.



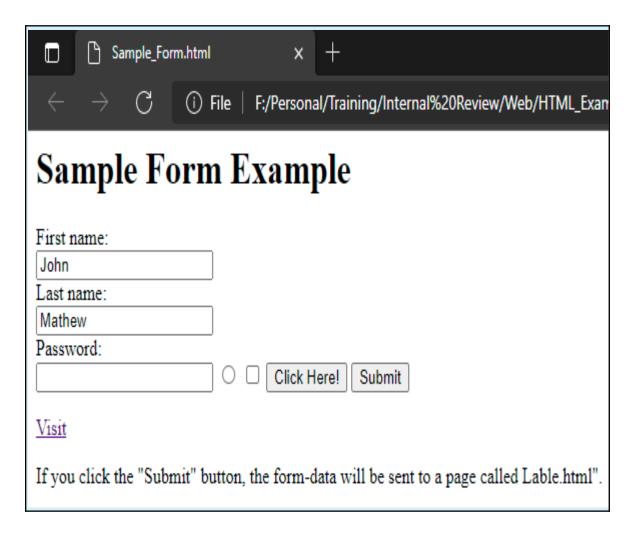


### **HTML Form Elements**

```
<h1> Sample Form Example </h1>
<form action="Lable.html">
 First name:<br>
 <input type="text" name="firstname" value="John"> <br> Last name:<br>
 <input type="text" name="lastname" value="Mathew"> <br>Password:<br>
 <input type="password" id="pwd" name="pwd">
 <input type="radio" id="radio" name="HTML" value="HTML">
 <input type="checkbox" id="Cars" name="Cars" value="Cars">
 <input type="button" onclick="alert('Hai HTML!')" value="Click Here!">
 <input type="submit" value="Submit">
</form>
<a href="information_about_the_smiley.txt">Visit</a>
If you click the "Submit" button, the form-data will be sent to a page called Lable.html".
```



### **HTML Form Elements**





### **HTML Form Elements**

#### **More HTML Form elements**

https://www.w3schools.com/html/html\_form\_elements.asp

### **HTML Form element Attributes**

https://www.w3schools.com/html/html\_form\_attributes.asp

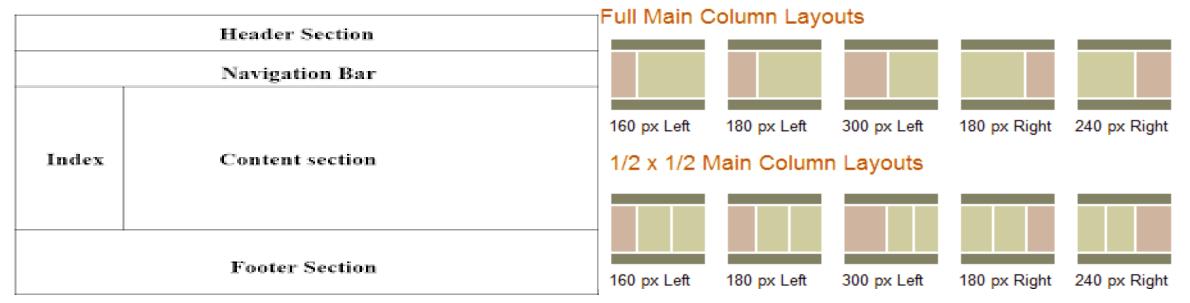


## **HTML** Layout

Page layout is the part of graphic design that deals with the arrangement of visual elements on a page.

Page layout is used to make the web pages look better.

It establishes the overall appearance, relative importance, and relationships between the graphic elements to achieve a smooth flow of information and eye movement for maximum effectiveness or

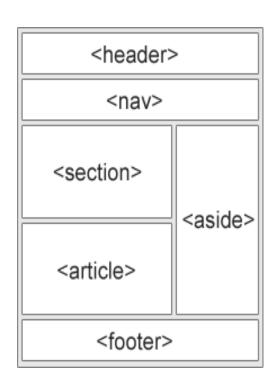




## **HTML** Layout

HTML5 offers **new semantic elements** that define different parts of a web page:

- Header: Defines a header for a document or a section
- Nav: Defines a container for navigation links
- Section: Defines a section in a document
- Article: Defines an independent self-contained article
- Aside: Defines content aside from the content (like a sidebar)
- Footer: Defines a footer for a document or a section.
- Details: Defines additional details
- Summary: Defines a heading for the details element



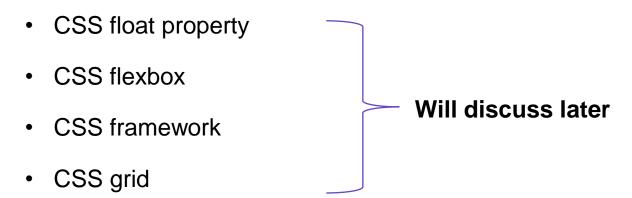


## **HTML** Layout

The <div> element is often used as a layout tool, because it can easily be positioned with CSS.

### **HTML Layout Techniques**

There are four different ways to create multicolumn layouts.



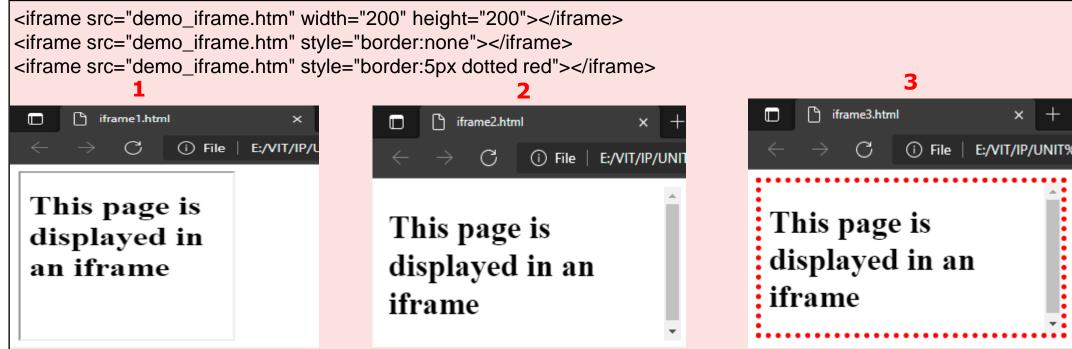


## **Basic HTML Tag: <iframe>**

An **iframe or inline** frame is used to display **external objects** including other **web pages** within a web page.

#### <iframe src="URL"></iframe>

The src attribute specifies the URL (web address) or any web page of the iframe page.





## **Basic HTML Tag: <iframe>**

<iframe height="300px" width="100%" src="demo\_iframe.htm" name="iframe\_a"></iframe> <a href="https://www.youtube.com/embed/tgbNymZ7vqY" target="iframe\_a">Muppet Music Vedio</a> When the target of a link matches the name of an iframe, the link will open in the iframe. iframe4.html File E:/VIT/IP/UNIT%20II/HTML%20Examples/iframe/iframe4.html Iframe - Target for a Link Bohemian Rhapsody | Muppet Music Video | The Muppets Copy link Watch on YouTube Muppet Music Vedio When the target of a link matches the name of an iframe, the link will open in the iframe.



## **Basic HTML Tag: <meta>**

- Metadata is data (information) about data.
- The <meta> tag provides metadata about the HTML document. Metadata will **not be displayed** on the page, but will be machine parsable.
- Meta elements are typically used to specify page description, keywords, author of the document, last modified, and other metadata.
- The metadata can be used by browsers (how to display content or reload page), search engines (keywords), or other web services.
- <meta> tags always goes inside the <head> element.
- Metadata is always passed as **name/value pairs**.



## **Basic HTML Tag: <meta>**

**Define keywords for search engines:** 

<meta name="keywords" content="HTML, CSS, XML, XHTML, JavaScript">

Define a description of our web page:

<meta name="description" content="Free Web tutorials on HTML and CSS">

Define the author of a page:

<meta name="author" content="John Doe">

Refresh document every 30 seconds:

<meta http-equiv="refresh" content="30">

Setting the viewport to make your website look good on all devices:

<meta name="viewport" content="width=device-width, initial-scale=1.0">

Etc..



## **Basic HTML Tag: <meta>**

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<meta name="description" content="Free Web tutorials">
<meta name="keywords" content="HTML,CSS,XML,JavaScript">
<meta name="author" content="Hege Refsnes">
<meta http-equiv="refresh" content="30">
</head>
<body>
All meta information goes in the head section...
</body>
</html>
```



### **HTML Media**

- Multimedia on the web is sound, music, videos, movies, and animations.
- Multimedia comes in many different formats.
- It can be almost anything you can hear or see.
- **Examples:** Images, music, sound, videos, records, films, animations, and more.
- HTML5 multimedia promises an easier future for multimedia.



# **HTML Media: Playing Videos**

- Before HTML5, videos could only be played with a plug-in (like flash).
- The HTML5 **<video>** element specifies a standard way to embed a video in a web page.
- Currently, there are 3 supported video formats for the <video> element: MP4, WebM, and Ogg.

```
video.html
<video width="320" height="240" controls>
                                                                                                                     E:/VIT/IP/UNIT
 <source src="movie.mp4" type="video/mp4">
 <source src="movie.ogg" type="video/ogg">
 Your browser does not support the video tag.
</video>
                                                                                                 0:00 / 0:12
```

#### HTML Basics



# **HTML Media: Playing Videos**

- The **controls** attribute adds **video** controls, like play, pause, and volume.
  - It is a good idea to always include width and height attributes.
- If height and width are not set, the browser does not know the size of the video. The effect will be that the page will **change** (or flicker) while the video loads.
- Text between the <video> and </video> tags will only display in browsers that do not support the <video> element.
- Multiple **<source>** elements can link to different video files. The browser will use the first recognized format.



# **HTML Media: Playing Audios**

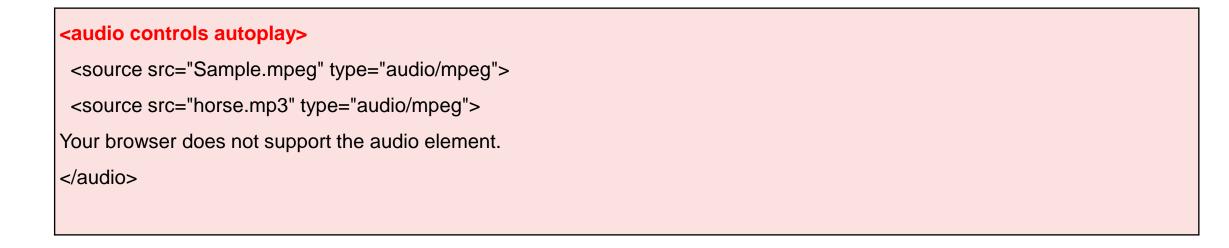
- To play an audio file in HTML, use the **<audio>** element.
- The **controls** attribute adds audio controls, like play, pause, and volume.
- Multiple **<source>** elements can link to different audio files. The browser will use the first recognized format.
- Currently, there are 3 supported file formats for the <audio> element: MP3, Way, and Ogg.

```
<audio controls>
 <source src="Sample.mpeg" type="audio/mpeg">
 <source src="horse.mp3" type="audio/mpeg">
Your browser does not support the audio element.
</audio>
```



# **HTML Media: Playing Audios**





#### **HTML Basics**



## **HTML Media: Embed Map**

### Steps:

- Open Google Maps.
- Go to the directions, map, or Street View image you'd like to embed. In the top left, click Menu.
- Click Share or embed map.
- Click Embed map.
- To the left of the text box, pick the size you want by clicking the Down arrow.
- Copy the text in the box. Paste it into the HTML of your website or blog.

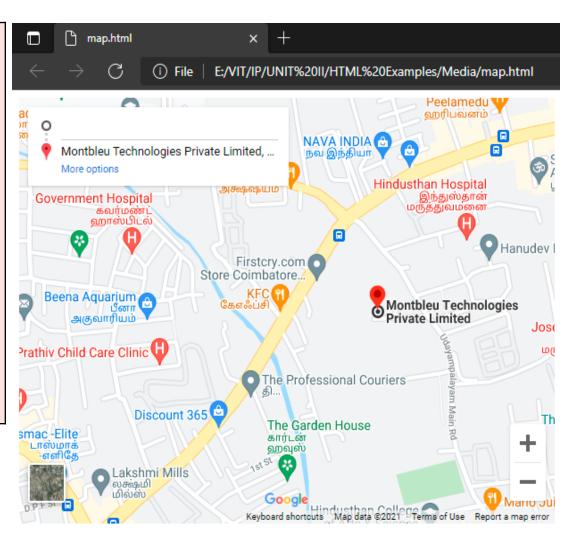
#### HTML Basics



# **HTML Media: Embed Map**

<iframe

src="https://www.google.com/maps/embed?pb=!1m23!1m12!1m 3!1d3916.2735766474107!2d76.9907259140108!3d11.01808889 21578!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!4m8!3e6!4m0!4 m5!1s0x3ba8583380afcb77%3A0x5e59090b4d743910!2sMontbl eu%20Technologies%20Private%20Limited%2C%20RR%20Lan dmark%2C%20Udayampalayam%20Road%2C%20Nava%20Ind ia%20Rd%2C%20Coimbatore%2C%20641028!3m2!1d11.01806 48!2d76.992916!5e0!3m2!1sen!2sin!4v1628096015446!5m2!1se n!2sin" width="600" height="450" style="border:0;" allowfullscreen="" loading="lazy"></iframe>





## Quiz



1. Which tag allows you to add a row in a table?

Ans: (c)



## Quiz



2. How can apply the background color for the HTML Page?

Ans: d) <body bgcolor="Red"></body>



## Quiz



3. Which tag will help you to create a Checkbox component in a HTML form?

<checkbox>

<input type="checkbox">

- c) <input=checkbox>
- <input checkbox>

Ans: b) <input type="checkbox">



### Quiz



- 4. What are the different type of list supported by HTML
  - **HTML support only Ordered List**

b) **HTML support only Unordered List** 

**HTML Support both type of List** 

**HTML** does not support any List

**Ans: c) HTML Support both type of List** 



## Quiz



5. Which of the following HTML code is valid?

- a) <font color="red">
- b) <font background-color="red">

c) <font bgcolor="red">

d) <font background="red">

Ans: a) <font color="red">

