

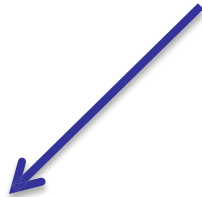
Introducing HTML5

Topics to be discussed.....

- ☐ Difference between traditional HTML4 & HTML5
- ☐ Introduction to HTML5
- ☐ HTML5 document structure
- ☐ HTML5 tags & attributes:
 - ☐ Text formatting tags
 - ☐ List tags
 - ☐ adding background
 - ☐ special characters
 - ☐ links, anchor tag
 - ☐ working with image map

HTML INTRODUCTION

Hyper Text + Markup Language = HTML



Text within Text

A text has a link within it, is a hypertext.



A computer language that is used to apply layout and formatting conventions to a text document

HTML INTRODUCTION

- ❑ **HTML** stands for **Hyper Text Mark-up Language**.
- ❑ It was developed by **Tim Berners-Lee** in 1991.
- ❑ HTML is the standard mark-up language for creating Web pages.
- ❑ HTML describes the structure of a Web page
- ❑ HTML consists of a series of elements like paragraph, line, list, images , link etc.
- ❑ The first version of HTML is **HTML 2.0** which was published in 1999, and the latest version is HTML 5.
- ❑ We can save HTML files with an extension .html.

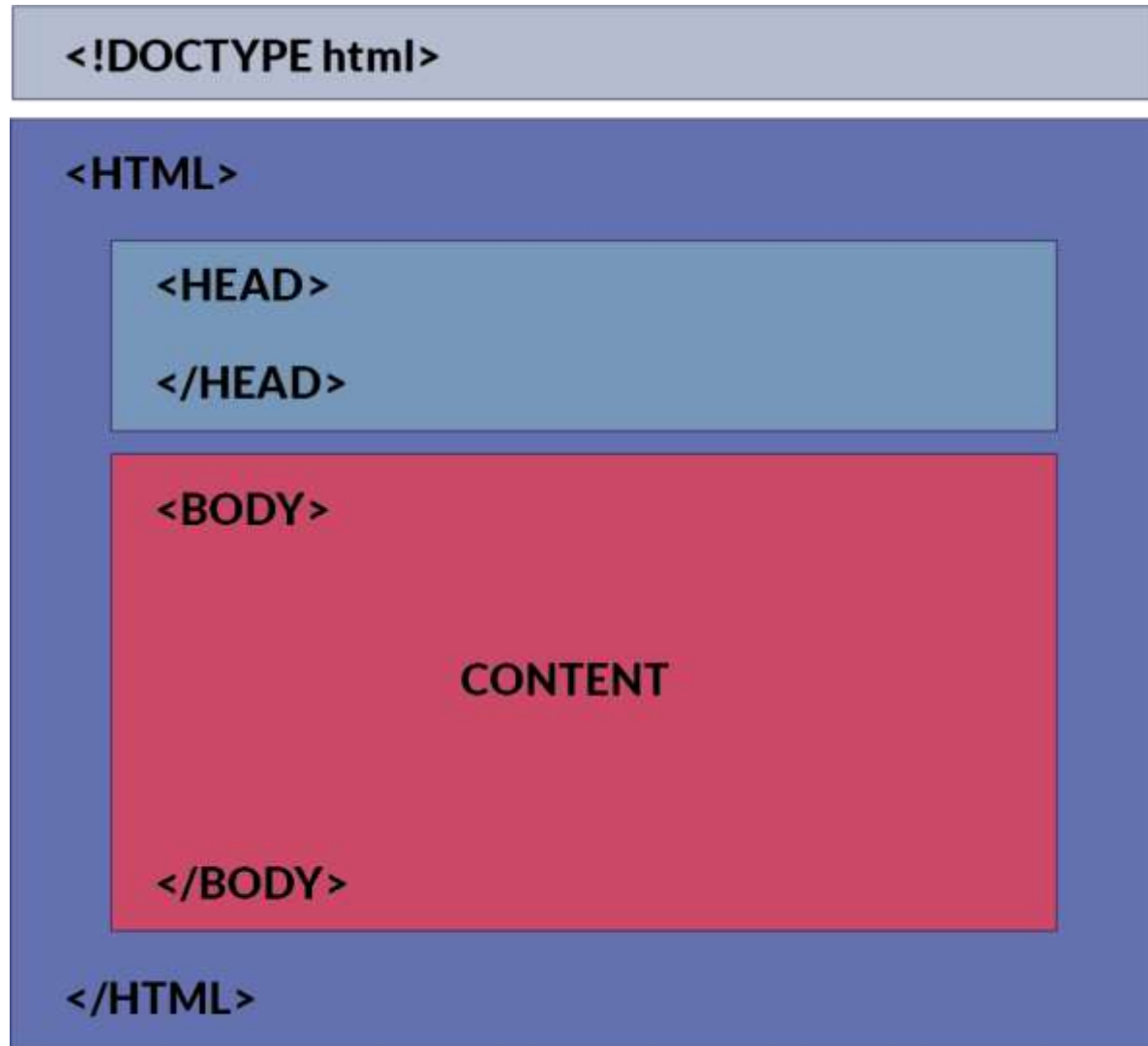
Differences

HTML 4	HTML 5
HTML 4 is the primary language for developing web pages.	HTML5 is a new version of HTML with new functionalities with markup language with Internet technologies.
It does not support video and audio.	It support video and audio with the use of <audio> and <video> tags.
Does not allow JavaScript to run in the browser.	Allows JavaScript to run in the background
It does not allow drag and drop effects.	It allows drag and drop effects
It works with all old browsers.	It supported by all new browser like Firefox, Mozilla, Chrome, Safari, etc.
Older version of HTML are less mobile-friendly.	HTML5 language is more mobile-friendly.

Differences

HTML 4	HTML 5
As it's older version, it is not fast, efficient, and flexible with respect to HTML5.	HTML5 is efficient , faster and flexible in comparison to HTML .
Shapes like circle, rectangle, triangle, etc. are not possible to draw in HTML	Shapes like circle, rectangle, triangle, etc. are easy to draw in HTML5 .'
<HTML>,<Body> , and <Head> tags are mandatory while writing a HTML code.	These tags can be omitted while writing HTML code.

HTML document structure

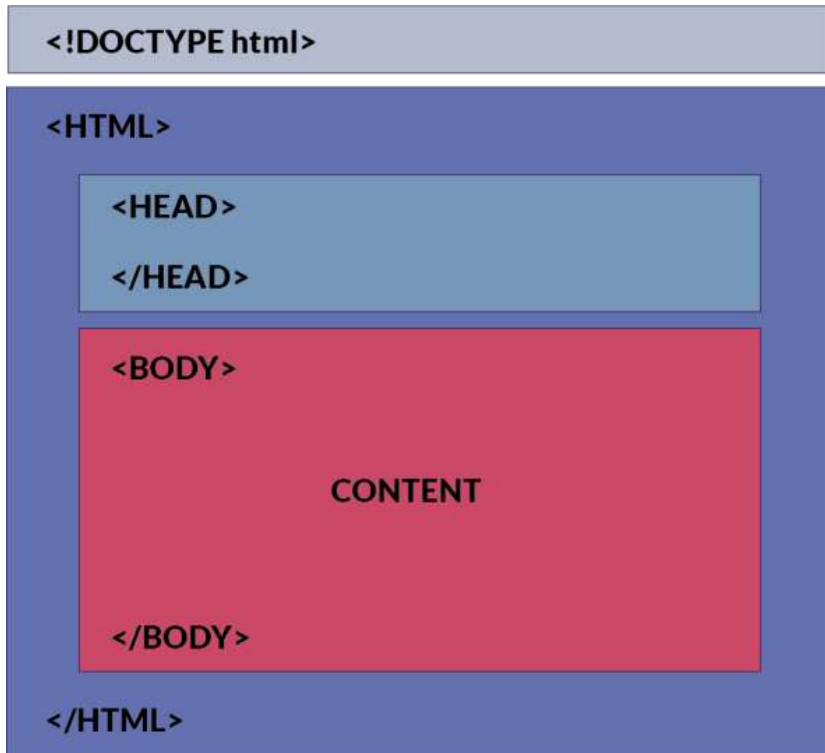


<!DOCTYPE html>:

- ❑ A doctype or document type declaration is an instruction that tells the web browser about the markup language in which the current page is written.

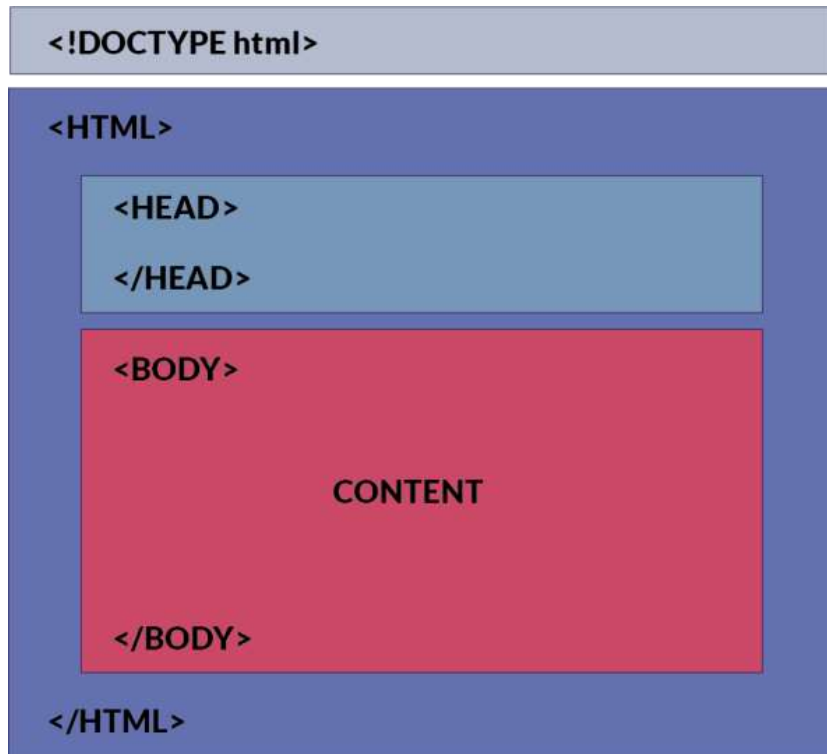


<HTML>..... </HTML>:



- ❑ The `<html>` element is the root element for an HTML document.
- ❑ This tag tells the browser that it is an HTML document.
- ❑ It is the parent of the `<head>` and `<body>`.

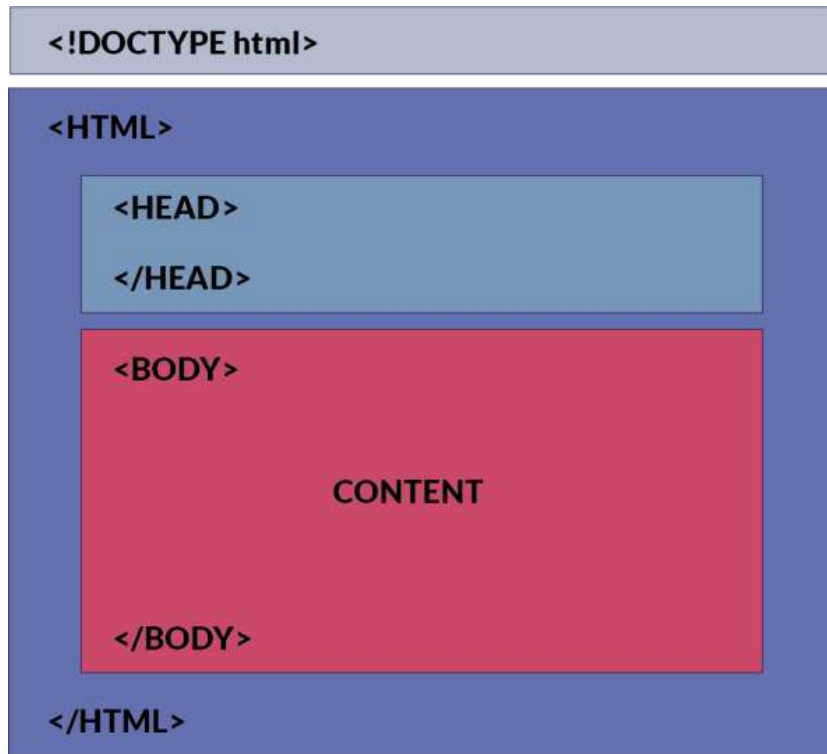
HTML document structure



`<HEAD>..... </HEAD>`:

- ☐ This tag is used to define the head portion of the HTML document.
- ☐ This element contains meta information about the HTML page
- ☐ Elements within the head tag are not visible on the front-end of a webpage.
- ☐ It **must be closed** before the body tag opens.

HTML document structure



`<BODY>..... </BODY>`:

- ☐ This tag contains the main content of the HTML document.
- ☐ the body content is what the browser will show on the front end.
- ☐ Text between body tag describes the body content of the page that is visible to the end user.

TAGS IN HTML

Tags In HTML

- ❑ HTML tags are like keywords which defines that how web browser will format and display the content.
- ❑ With the help of tags, a web browser can distinguish between an HTML content and a simple content.
- ❑ There are two types of tags:
 - ❑ **Paired Tags**
 - ❑ **Unpaired Tags**



Tags In HTML

Paired

...

Unpaired tags

- ☐ It is also called **stand alone**
 - tag or **empty tag**.
- ☐ It is also known as **singular tags**.
- ☐ A stand alone tag does not
 - required to complete.

Rules for Tags



Tag must be written in angular bracketed. (<>).

Paired tag must be closed using / (forward slash).

Tag is **not** case sensitive.

Tag and its attribute must be separated by **space**

Attribute and its value must be separated by = sign.

HTML5

tags

&

attributes

HTML5 tags & attributes:

- ❑ HTML provides various types of tags like
 - ❑ Text Formatting tags
 - ❑ Tags to add List and lines
 - ❑ Adding paragraph , line and background
 - ❑ Tags related to add Image or image map
 - ❑ Tag to create links
 - ❑ Tags to create table or form
 - ❑ Tags related to create frame



- ❑ `<p>` stands for paragraph.
- ❑ The `<p>` tag defines a paragraph.
- ❑ Browsers automatically add some space (margin) before and after each `<p>` element.
- ❑ The margins can be modified with CSS
- ❑ We can use align attribute with `<P>` tag.
- ❑ Default value of align is align=left
- ❑ We can set alignment of paragraph either left, right ,center or justify.
- ❑ **Example:**

`<p> this is paragraph</p>`

- ❑ <This tag is also known as singular tag.
- ❑ The line breaks tag
 forces text to begin on a new line.
- ❑ **Example:**

`<p> this is paragraph demo.
 this is the example
of line break</p>`

- ❑ **Output:**

this is paragraph demo.
this is the example of line break

- ❑ The used to change the appearance of text.
- ❑ We can change the color, style and size of text by using

Face	<ul style="list-style-type: none">• It is used to change the look/ appearance of text• Specify font name as a value of face attribute• Default web browser times new roman.
Color	<ul style="list-style-type: none">• This attribute is used to change text color.• Default web browser display text in black color
Size	<ul style="list-style-type: none">• This attribute used To change font size.• You can increase or decrease the size of the font.• Default font size is 3. The size should be between –7 and +7.

 example

```
<ht
```

```
ml>
```

```
<font color='red' size=4>
```

```
<p> this is paragraph demo.</p>
```

```
</font>
```

```
<font color='blue'>
```

```
<p> this is paragraph demo.</p>
```

```
</font>
```

```
</body>
```

```
</html>
```

Output:

this is paragraph demo.

this is paragraph demo.

Text Formatting Tags

Text formatting tags

❑ HTML formatting is process of formatting text for better look.

TAG	USAGE	EXAMPLE	OUTPUT
	<ul style="list-style-type: none">This tag used to write text in bold letter	computer	computer
<I>	<ul style="list-style-type: none">This tag used to write text in italic letter	<i>computer</i>	<i>computer</i>
<U>	<ul style="list-style-type: none">This tag used to place line under the text	<u>computer</u>	<u>computer</u>

Text formatting tags

TAG	USAGE	EXAMPLE	OUTPUT
<STRIKE> / 	<ul style="list-style-type: none">• This tag used to place line at middle of text• You can use this tag to delete the text	<code><strike>computer</code> <code></strike></code> <code> computer</code> <code></code>	computer
<BIG>	<ul style="list-style-type: none">• To increase the text at one point than the normal text	<code><big>computer</code> <code></big></code>	computer
<small>	<ul style="list-style-type: none">• To decrease the text at one point than the normal text	<code><small>computer</code> <code></small></code>	computer

Text formatting tags

TAG	USAGE	EXAMPLE	OUTPUT
<tt>	<ul style="list-style-type: none">It is used to display text in type writer font/ text	<code><tt> computer </tt></code>	computer
<address>	<ul style="list-style-type: none">This tag defines the contact information for the author/owner of a document	<code><address> Marwadi University</addre ss></code>	<i>Marwadi University</i>
<mark>	<ul style="list-style-type: none">To define marked or highlighted text	<code><mark>computer </mark></code>	Computer

Text formatting tags

TAG	USAGE	EXAMPLE	OUTPUT
<pre>	<ul style="list-style-type: none">Any text between the pre tags, including spaces, carriage returns and punctuation, will appear in the browser	<pre><pre> computer </pre></pre>	computer
<sub>	<ul style="list-style-type: none">This tag used to write down text at bellow the line	H₂O	H ₂ O
<sup>	<ul style="list-style-type: none">This tag used to write down text above the line	12th	12 th

Headers

Tags

Headers tag in HTML



Headers tag in HTML

- ❑ HTML provides six levels of heading to display heading on web page.
- ❑ For each level specific tag will be used.
- ❑ **<h1>.....<h6>**: These tags are known as **headers tag**
- ❑ <h1> is used to display largest size heading & <h6> shows smallest size heading ; rest of all headings are display in descending order
- ❑ we can use align attribute with headers tag.
- ❑ Align attribute contain 3 values with headers tag :
 - ❑ left , right , center

Headers tag – Example

```
<html>
<body>
<h1> Marwadi University</h1>
<h2> Marwadi University</h2>
<h3> Marwadi University</h3>
<h4> Marwadi University</h4>
<h5> Marwadi University</h5>
<h6> Marwadi University</h6>
</body>
</html>
```

Output:

Marwadi University

Marwadi University

Marwadi University

Marwadi University

Marwadi University

Marwadi University

<HR> - Horizontal Ruler Tag

<HR> tag in html

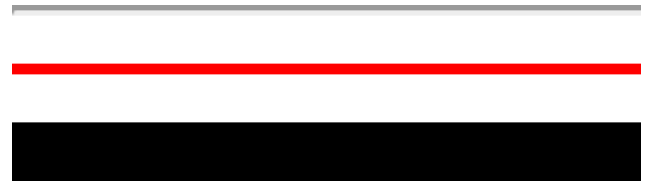
- ❑ <HR> (horizontal ruler) tag is also known as singular tag.
- ❑ The <HR> tag inserts horizontal lines in the web page.
- ❑ **Attributes :**

Size	<ul style="list-style-type: none">• The SIZE attribute gives thickness to the horizontal ruler value and should be given in pixels
Align	<ul style="list-style-type: none">• It is possible to specify the horizontal alignment of the ruler.• Possible values: left, right, or center.• Default value: center
Width	<ul style="list-style-type: none">• With the WIDTH attributes, one can specify an exact width in pixels, or percentage.
Color	<ul style="list-style-type: none">• This attribute allows you set color for line
noshades	<ul style="list-style-type: none">• The NOSHADE attribute specifies that the horizontal rule should not be shaded at all

<HR>- Example

```
<html  
<body>  
<hr>  
<hr color="Red">  
<hr color="black" size=10>  
</body>  
</html>
```

Output:



List in HTML

List in HTML

- ❑ HTML offers authors several mechanisms for specifying lists of information.
- ❑ All lists must contain one or more list elements.
- ❑ There are two types of list in HTML
 - ❑ **Unordered list**
 - ❑ **Ordered list**

Ordered List

- ❑ `..... ` used to create ordered list in HTML
- ❑ In an ordered list, item have an order that is signified by a number.
- ❑ An ordered list should start with the `` element,
- ❑ ``(list item) tag is used to add list items.
- ❑ There are 5 types of ordered lists:
 - ❑ Alphabet capital
 - ❑ Alphabet small
 - ❑ Roman capital
 - ❑ Roman small
 - ❑ Number
- ❑ Use **start** attribute to start list with specific number.

 tag – Example

```
<html>
<body>
<ol>
  <li> Red
  <li> Green
  <li> Blue
</ol>
</body>
</html>
```

Output:

1. Red
2. Green
3. Blue

 tag – Example

```
<html>
<body>
<ol type= "A">
  <li> Red
  <li> Green
  <li> Blue
</ol>
</body>
</html>
```

Output:

A. Red
B. Green
C. Blue

 tag – Example

```
<html>
<body>
<ol start="1010">
  <li> Red
  <li> Green
  <li> Blue
</ol>
</body>
</html>
```

Output:

1010. Red
1011. Green
1012. Blue

Unordered List

- ❑ `...` tag used to create
- ❑ Unordered Lists are also called unnumbered list.
- ❑ ``(list item) tag is used to add list items.
- ❑ There are 3 types of symbol used in unordered lists:
 - ❑ Disc
 - ❑ Circle
 - ❑ square

 tag – Example

```
<html>
<body>
<ul>
  <li> Red
  <li> Green
  <li> Blue
</ul>
</body>
</html>
```

Output:

- Red
- Green
- Blue

 tag – Example

```
<html>
<body>
<ul type="Square">
  <li> Red
  <li> Green
  <li> Blue
</ul>
</body>
</html>
```

Output:

- Red
- Green
- Blue

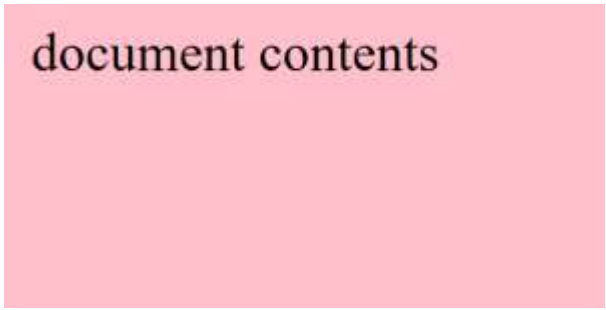
Adding Background

Adding background

- ❑ There are two ways to add background:
 - ❑ Use background colour
 - ❑ Use background image
- ❑ We can add background in <BODY> tag.
 - ❑ Use **bgcolor** to add background color
 - ❑ Use **background** attribute to add background image
(specify path for the image)

Adding background color

```
<html>  
<BODY BGCOLOR="pink">  
    document contents  
</BODY>  
</html>
```



document contents

Adding background image

```
<html>  
<BODY  
BACKGROUND="C:/Windows/Web  
/Wallpaper/Windows/img0.jpg">  
    document contents  
</BODY>  
</html>
```



document contents

Special Characters

Special characters

- ❑ Some characters are reserved in HTML and they have special meaning when used in HTML document.

Symbol	Description	Entity Name	Number Code	<u>Special Character</u>
"	quotation mark	"	"	
'	apostrophe	'	'	
&	ampersand	&	&	
<	less-than	<	<	
>	greater-than	>	>	

Adding Link

Adding link in web page

- The **<a> tag (anchor tag)** in HTML is used to create a hyperlink on the webpage.
- This hyperlink is used to link the webpage to other web pages or some section of the same web page.
- Use **href attribute** to set the path of the page that you want to open when users click on link.
- **Syntax:**

** Link Name **

Adding background image

```
<html>  
<BODY >  
<h1 align=center> Link Example  
</h1>  
<a href="d:\m1\file1.html"> CLICK  
HERE </a>  
  
</BODY>  
</html>
```

[CLICK HERE](#)

Link Example

Adding Animated text

Animated marquee

- ☐ A marquee displays a scrolling text message.
- ☐ Use <marquee> tag to create animated text
- ☐ When we want to display text which is continuously moved on screen; marquee will be used.
- ☐ By default marquee text will be starts from right side and scroll continuously until the screen will be off.

Attributes of marquee

Attributes	Usage
behavior	Defines type of scrolling : scroll, slide, alternate
bgcolor	Set background color
direction	For direction of scrolling content. : up, down, left right
height	Define height of marquee. In pixels or %
hspace	Specifies horizontal space around marquee. In number.
width	Define width of marquee.
vspace	Specifies vertical space around marquee.
loop	Specifies how many times to loop. Default is “infinite”.
scrolldelay	Define how long to delay between each scroll/jump. Default is 85 and smaller than 60 will be ignored.
scrollamount	Define scrolling amount at each interval. Default is 6

Marquee example

❑ Ex:1

<marquee> MARWADI UNIVERSITY</marquee>

❑ Ex :2 marquee text with background

<marquee bgcolor='pink'> MARWADI UNIVERSITY</marquee>

❑ Ex :3 marquee text with alternate behavior

**<marquee bgcolor='pink' behavior='alternate'> MARWADI
UNIVERSITY</marquee>**

Adding Image

 Tag

- ❑ Image can be added inside documents using the tag.
- ❑ All browsers support **GIF** and **JPEG** file formats for images and either of them can be used.
- ❑ We can also use some other format like:
 - ❑ **.png**
 - ❑ **.tiff**
 - ❑ **.svg**
 - ❑ **.webp**
- ❑ tag is an empty tag that contains attributes only, closing tags are not used in HTML image element.

 tag

SRC	<ul style="list-style-type: none">• This attribute is used for placing the image file inside your document
Border	<ul style="list-style-type: none">• You can set the border of the image using Border attribute
Width	<ul style="list-style-type: none">• When you want to increase or decrease the width of the image then you can use this attribute
Height	<ul style="list-style-type: none">• When you want to increase or decrease the height of the image then this attribute is used.
Alt	<ul style="list-style-type: none">• You can specify ALT text, which is text that is displayed in place of a graphic if the graphic cannot be displayed in a Web browser.

 tag Example

```
<html>
```

```
<img src= "C:/Windows/Web/Wallpaper/ThemeC/img28.jpg">
```

```
</BODY>
```

```
</html>
```

Output :



Image Map

Image map

- ❑ Image map is a facility provided by HTML which allows the users to open a linked document by clicking on a particular.
- ❑ We can specify co-ordinates on image & by clicking on that area we can open a link document.
- ❑ Three tags are used for create image map:
 - ❑ <image>
 - ❑ <map>
 - ❑ <area>

Image Map: <MAP> tag

- ❑ The <map> tag is used to define a client-side image-map.
- ❑ An image map is consist of an image with clickable areas, where you can click on image, and it will open to new or provided destination.
- ❑ To identify map we need to give an appropriate name for map.
- ❑ Use ***name attribute*** to give name for map.
- ❑ **Syntax :**
`<map name="any_name">`

Image Map: <AREA> tag

- ❑ The **area** tag defines clickable areas or active areas inside image-map which are connect with hyperlinks.
- ❑ If you click on those areas then it will perform some action such as open a new image, new URL, etc.
- ❑ It **always used with map** element.
- ❑ It contain three attributes:
 - ❑ Shape
 - ❑ Coords
 - ❑ href
- ❑ **Syntax :**
<area shape=" " coords="" href="*.html">

Image Map: <AREA> tag

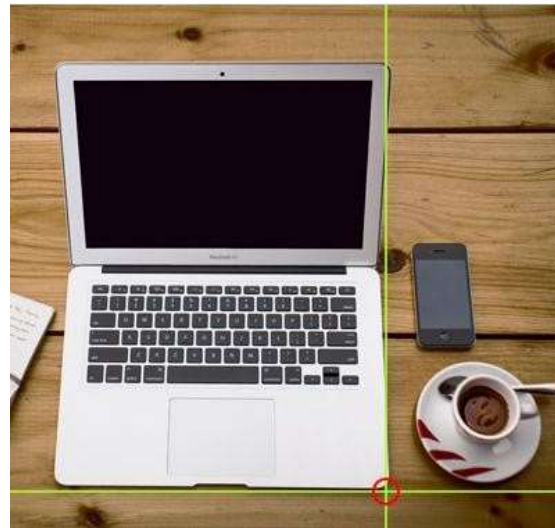


Image map: <AREA> tag

Shape	<ul style="list-style-type: none">• Specifies the shape of the area.• Three possible values are:<ul style="list-style-type: none">• rect(left,top,right, bottom)• circle (x,y,radius)• poly(xy,xy,xy)
Coords	<ul style="list-style-type: none">• Specifies the coordinates of the area
href	<ul style="list-style-type: none">• Specifies the hyperlink target for the area

Example Of Image Map

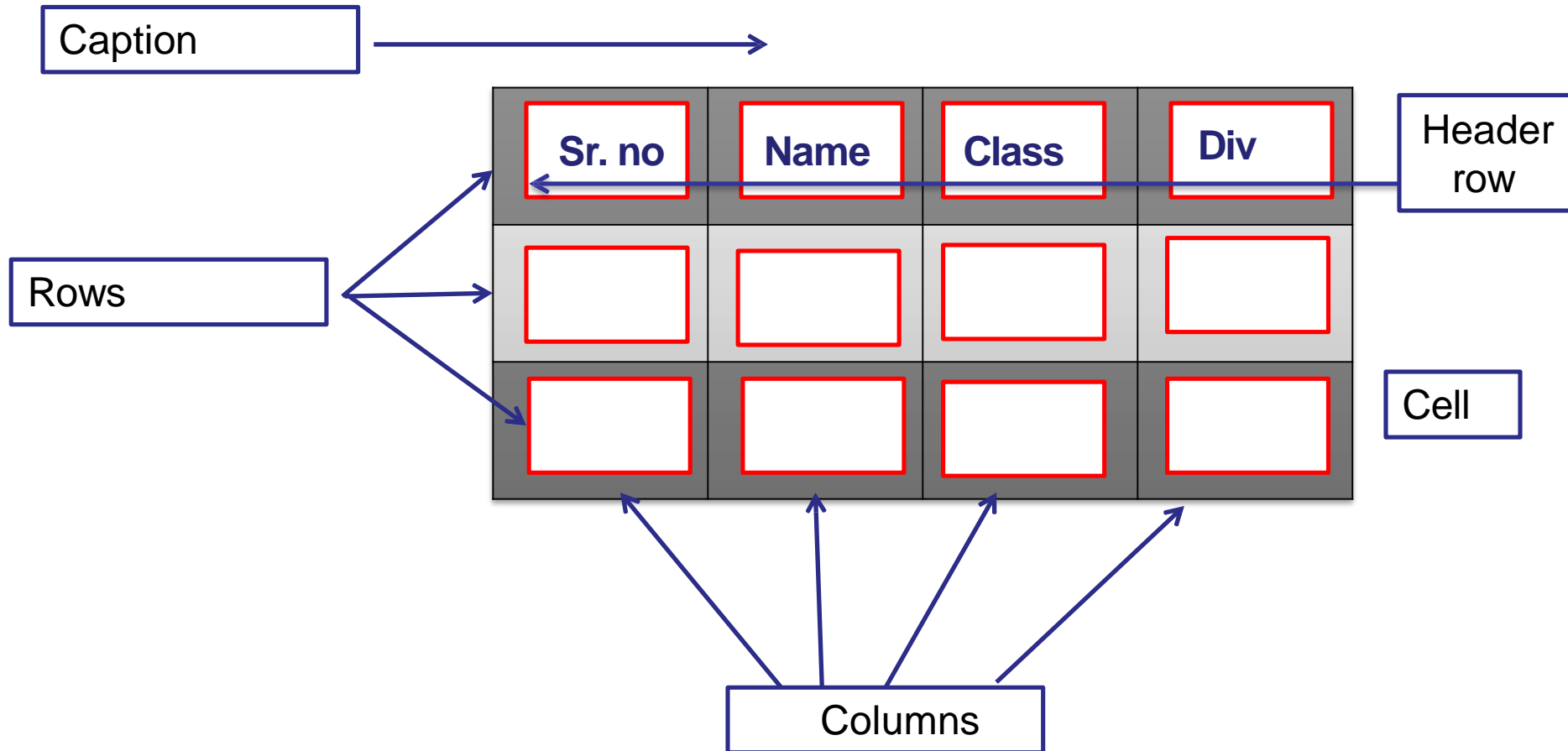
```
<html>
<body>

<map name="map1">
<area shape="rect" coords="0,0,82,126" href="form.htm">
<area shape="circle" coords="90,58,3" href="table.htm">
</map>
</body>
</html>
```

Topics to be discussed.....

- ☐ Creating and working with tables
- ☐ forms and frames
- ☐ adding multimedia to web page using audio and video
- ☐ Canvas
- ☐ SVG
- ☐ Drag/Drop
- ☐ Geo-location
- ☐ Iframes
- ☐ URL Encode
- ☐ Quick List,
- ☐ Semantic /Web Semantic
- ☐ Application Cache, SSE(Server Sent Event)

Creating and working with Table



TABLE

- ❑ A table is a representation of data arranged in rows and columns.
 - ❑ **Row:** => horizontal lines of table
 - ❑ **Column:** => vertical lines of table
 - ❑ **Cell:** => intersection of row and column
 - ❑ **Caption** => title of table.
 - ❑ **Header row** => first row of table that display title of content
- ❑ HTML tables allow web developers to arrange data into rows and columns.

TABLE

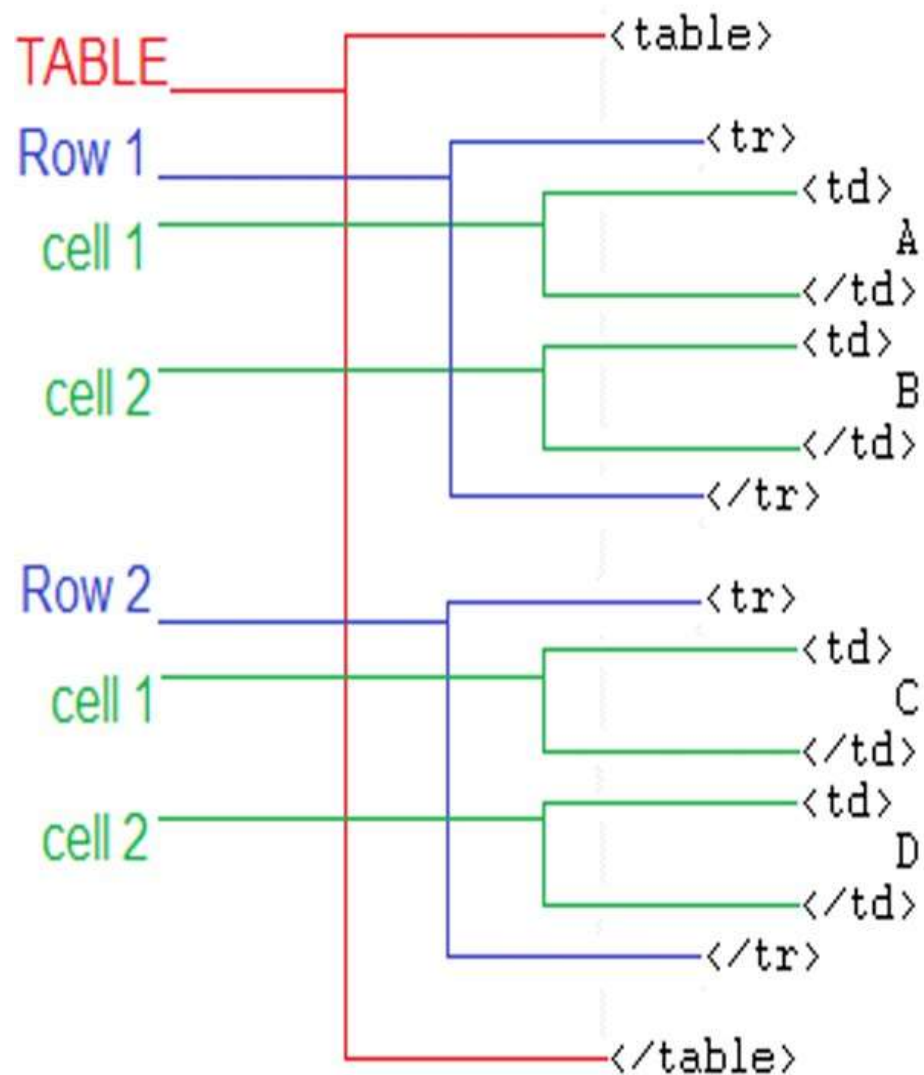
- ❑ Five tags used to create table in HTML

<Table>	This tag used to create table in HTML
<caption>	Defines a table caption
<TH>	Defines a header cell in a table
<TR>	Defines a Row in a table
<TD>	Defines a cell in a table

- ❑ In table, data always enter as per column.

TABLE

A	B
C	D



Attributes in table

Attributes	Use
border	We can use border attribute of table tag in HTML to specify border.
bordercolor	We can use this attribute for set a color for table borders.
bgcolor	We can set background color for whole table, row or just for one cell.
background	We can set background image for whole table, row or just for one cell.
align	We can align headings and data in cells left , right , center using inline align attribute .
cellspacing	The cellspacing attribute defines space between two table cells
cellpadding	The cellpadding represents distance between cell borders and content within a cell .
rowspan	It is use to merge two or more rows into a single row.
colspan	Its use to merge two or more columns into a single column.

Example

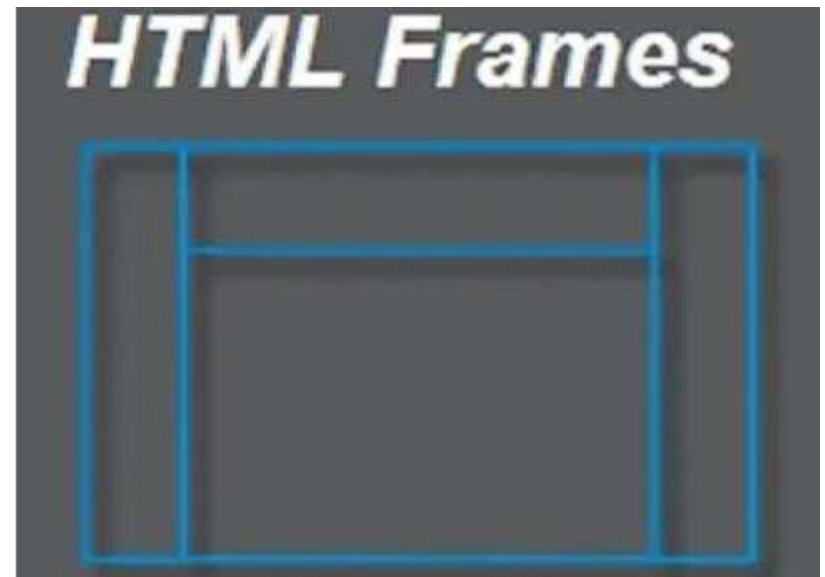
Product	Flavor
Milk	Almond
	Mango
	Chocolate
This are exclusive flavours	

Example

Product	Image
FDD	
USB	
HDD	
Printer	

Frames

- ❑ HTML frames allow to present documents in multiple views, which may be independent windows or sub windows.
- ❑ By using frame we can display multiple documents in a single window.
- ❑ Generally it is created in <head> section.
- ❑ to create this type of arrangement we required two tags:
 - ❑ <frameset>
 - ❑ <frame>



<Frameset>

- ☐ The <frameset> tag is used to define a frameset.
- ☐ <Frameset> is used to divide your browser screen into multiple parts.
- ☐ The <frameset> element holds one or more <frame> elements.
- ☐ Generally we can divide screen in either horizontal or vertical.

<Frameset>

ROWS	<ul style="list-style-type: none">• This attribute defines the number of horizontal subspaces in a frameset.• Value can be define in either % or pixels
COLS	<ul style="list-style-type: none">• This attribute defines the number of vertical subspaces in a frameset.• Value can be define in either % or pixels
*	<ul style="list-style-type: none">• It is used to display remaining part of screen
frameborder	<ul style="list-style-type: none">• This attribute specifies whether a three-dimensional border should be displayed between frames. This attribute takes value either 1 (yes) or 0 (no) .For example frameborder="0" specifies noborder.

<Frame>

❑ <frame> tag is used to display file in frameset.

Name	<ul style="list-style-type: none">• It is used to give names to frame.
SRC	<ul style="list-style-type: none">• This attribute defines the path of file that we want to display in frame.
MARGINHEIGHT	<ul style="list-style-type: none">• This attribute defines the number of vertical subspaces in a frameset.• Value can be defined in either % or pixels
MARGINWIDTH	<ul style="list-style-type: none">• This attribute defines the number of horizontal space in a frameset.• Value can be defined in either % or pixels

<Frame>

SCROLLING	<ul style="list-style-type: none">• This attribute specifies that whether the scrollbar appeared on frame or not• This property contains 3 values: YES, NO and AUTO• Default value: AUTO
NORESIZE	<ul style="list-style-type: none">• This attribute prevents frame window to be resized.

Example of frame

<HTML>

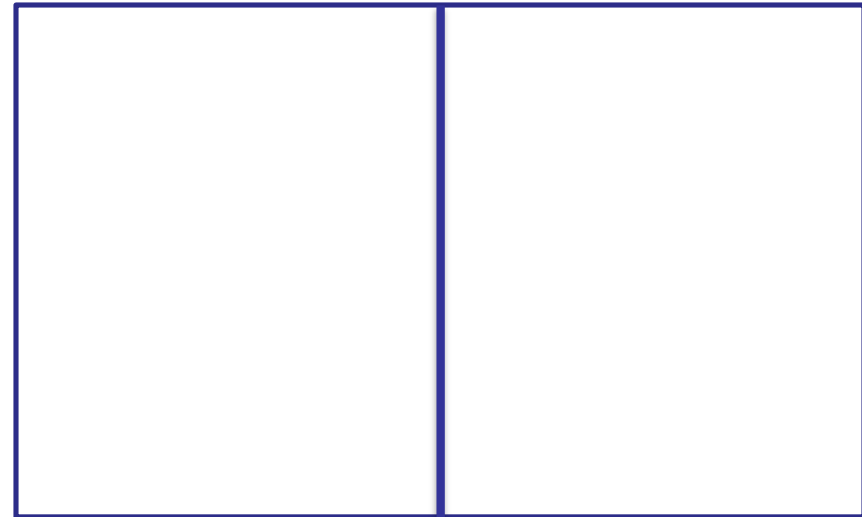
<FRAMESET COLS="50%,*">

<FRAME SRC="">

<FRAME SRC="">

</FRAMESET>

</HTML>



Example of frame

<HTML>

<FRAMESET ROWS="50%,*">

<FRAME SRC="">

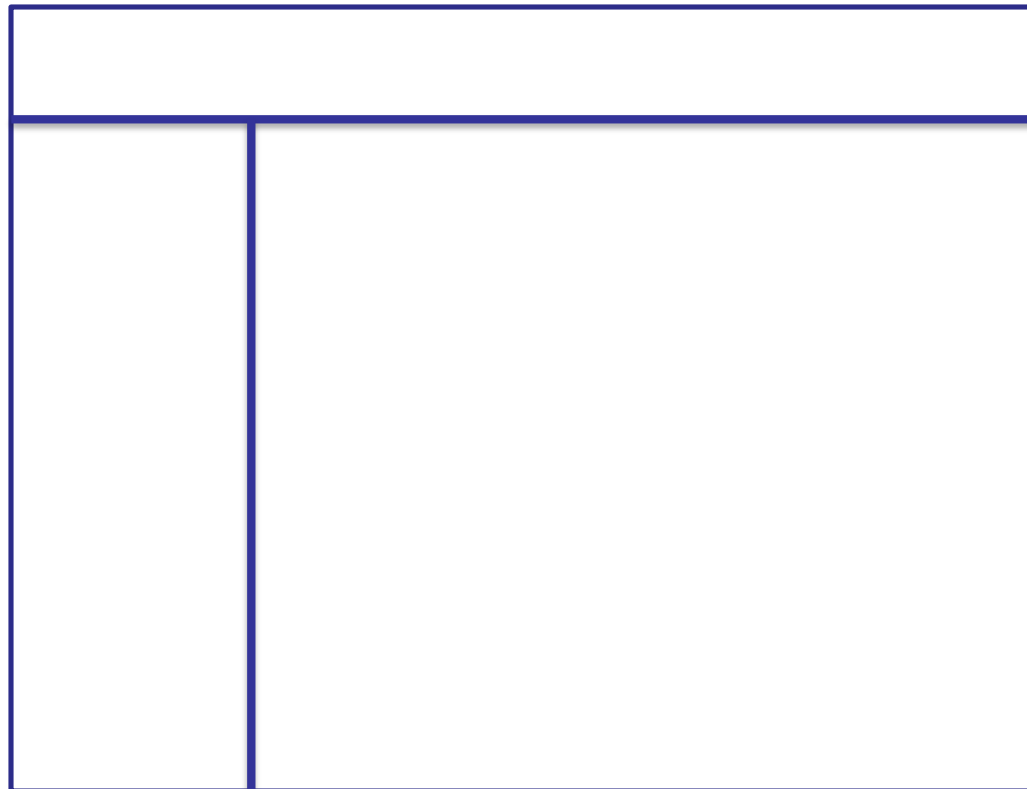
<FRAME SRC="">

</FRAMESET>

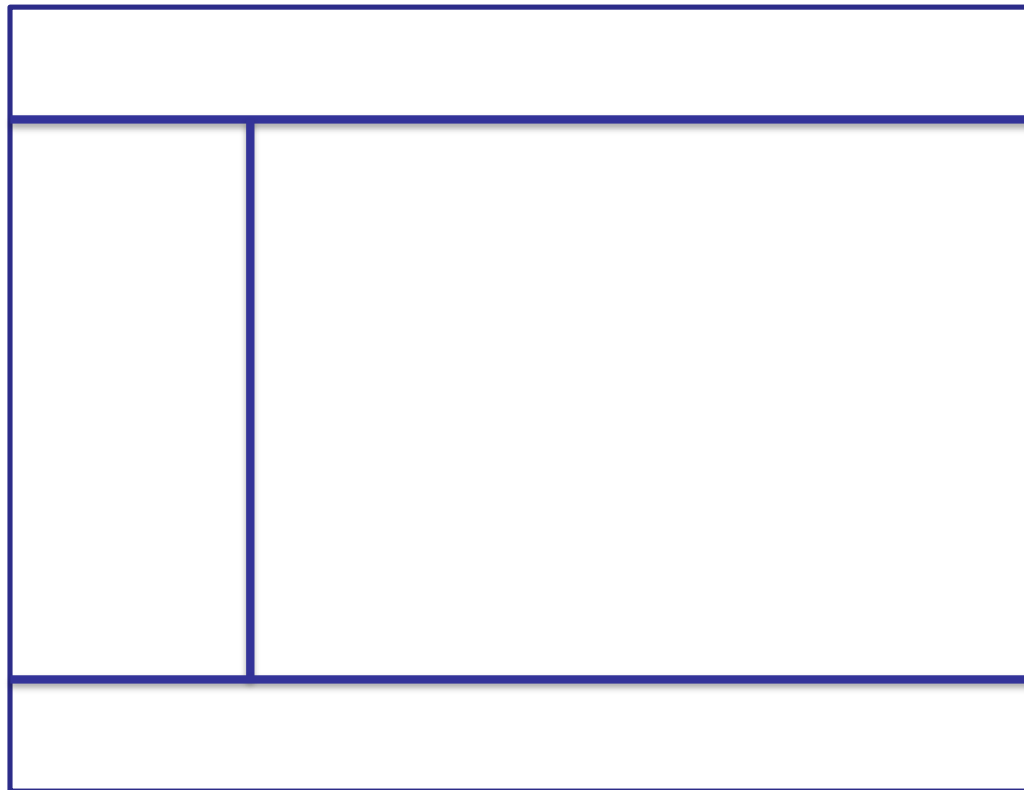
</HTML>



Example of frame



Example of frame



Form in html



form in HTML

- ❑ The <form> tag is used to create an HTML form for user input.
- ❑ A form can contain input elements like text fields, checkboxes, radio-buttons, submit buttons and more.
- ❑ Forms are used to pass data to a server.
- ❑ generally form can be created by using five tags:
 - ❑ <FORM>
 - ❑ <INPUT>
 - ❑ <TEXTAREA>
 - ❑ <OPTION>
 - ❑ <SELECT>

<form>

- ❑ <form> element provide document section to take input from user.
- ❑ It provides various interactive controls for submitting information to web server such as text field, text area, password field, etc.

ATTRIBUTE	DESCRIPTION
ACTION	<ul style="list-style-type: none">○ Specifies where to send the form-data when a form is submitted○ specify URL of file that you want to display when user send form
METHOD	<ul style="list-style-type: none">○ Specifies itty using which method form will be submitted to server○ two methods are used: GET OR POST○ default value : GET

<input>

- ❑ The <input> tag is used to select user information.
- ❑ An input field can vary in many ways, depending on the type attribute.
- ❑ An input field can be a text field, a checkbox, a password field, a radio button, a button, and more

<input>

ATTRIBUTE	DESCRIPTION
Type	<ul style="list-style-type: none">• Specifies the type of an input element• We can use following types with type attributes:<ul style="list-style-type: none">• Text• Password• Radio• Checkbox• Submit• Reset• File• Date• NUMBER

TEXT	Used to create a single line box
PASSWORD	Use to create password box . the value that we enter will be displayed in the form of symbol / bullet
HIDDEN	Used to create hidden field
RADIO	Use when we want to select a single option from multiple options
CHECKBOX	Use when we want to select a multiple option from multiple options
SUBMIT	Used to submit form
RESET	Used to display form with its default value. Generally used to clear data
FILE	Use to select file for upload. Provide one text box & browse button. The value select displayed in textbox
DATE	Its used for input fields that should contain a date. Depending on browsers upport, a date picker can show up in input field

<textarea>

- ❑ The <textarea> tag defines a multi-line text input control.
- ❑ A text area can hold an unlimited number of characters, and the text renders in a fixed-width font
- ❑ The size of a <textarea> can be specified by the cols and rows attributes

ATTRIBUTE	DESCRIPTION
COLS	o Specifies the visible width of a text-area
ROWS	o Specifies the visible number of rows in a text-area
NAME	o Specifies name of text area box

<OPTION>

- ❑ The <option> tag defines an option in a select list.
- ❑ The option element goes inside the select element.

ATTRIBUTE	DESCRIPTION
LABEL	o Specifies a shorter label for an option
SELECTED	o Specifies that an option should be selected by default
VALUE	o Specifies the value to be sent to a server when a form is submitted

<SELECT>

- ❑ The <select> tag is used to create a drop-down list or combo box
- ❑ The <option> tags inside the select element define the available options in the list.

ATTRIBUTE	DESCRIPTION
DISABLED	o Specifies that a drop-down list should be disabled
MULTIPLE	o Specifies that multiple options can be selected
NAME	o Specifies the name of a drop-down list
SIZE	o Specifies the number of visible options in a drop-down list

ATTRIBUTES

NAME	<ul style="list-style-type: none">• Used to define name of input element
VALUE	<ul style="list-style-type: none">• Specifies the value of an input element• Used with text, radio, <OPTION> , hidden, password, checkbox
SIZE	<ul style="list-style-type: none">• Specifies the width of an input field. Use with text, password
NAME	<ul style="list-style-type: none">• Specifies a name for an input element
DISABLED	<ul style="list-style-type: none">• Specifies that an input element should be disabled when the page loads
MAXLENGTH	<ul style="list-style-type: none">• Specifies the maximum length (in characters) of an input field.• Used with text or password
CHECKED	<ul style="list-style-type: none">• Specifies that an input element should be preselected when the page loads .• Used with radio or checkbox
autofocus	<ul style="list-style-type: none">• Specifies that element should automatically get focus when the page loads
Max/min	<ul style="list-style-type: none">• Specifies the maximum / minimum value
required	<ul style="list-style-type: none">• Specifies that an input field must be filled out before submitting the form

EXAMPLE

EXAMPLE:

USER NAME

ENTER EPASSWORD

ADDRESS

SELECT DEGREE

☐ BACHLORS ☐ MASTER

WHICH SITE YOU HAVE ID? ☐ YAHOO ☐ GMAIL

SEND

CLEAR

```

<HTML>
<BODY>
<FORM METHOD="GET">
<TABLE>
<TR>
    <TD>USER NAME</TD>
    <TD><INPUT TYPE="TEXT" NAME="T1">
</TR>
<TR>
    <TD>ENTER EPASSWORD</TD>
    <TD><INPUT TYPE="PASSWORD" NAME="T1">
</TR>
<TR>
    <TD>ADDRESS</TD>
    <TD><TEXTAREA NAME="ADD" ROWS=3 COLS=25></TEXTAREA></TD>
</TR>
<TR>
    <TD>SELECT DEGREE</TD>
    <TD><INPUT TYPE=RADIO NAME="G1" VALUE="BACHLORS">BACHLORS
    <INPUT TYPE=RADIO NAME="G1" VALUE="MASTER">MASTER
</TR>
<TR>
    <TD>WHICH SITE YOU HAVE ID?</TD>
    <TD><INPUT TYPE=CHECKBOX NAME="R1" VALUE="YAHOO">YAHOO
    <INPUT TYPE=CHECKBOX NAME="RR1" VALUE="GMAIL">GMAIL
</TR>
<TR>
    <TD><INPUT TYPE="SUBMIT" VALUE="SEND">
    <INPUT TYPE="RESET" VALUE="CLEAR"></TD>
</TR>
</TABLE>
</FORM>
</BODY>
</HTML>

```

Adding Multimedia To Web Page Using Audio And Video

<audio>

- ❑ HTML 5 provides tags to embed sound on a web page.
- ❑ For that HTML 5 provide <audio> tag.
- ❑ But most commonly used audio formats are:
 - ❑ ogg
 - ❑ mp3
 - ❑ Wav (not supported by IE)
- ❑ To add audio we require two tags:
 - ❑ <Audio>
 - ❑ <source>



<audio>

❑ <Audio>

- ❑ The <audio> tag in HTML5 is used to embed audio content
- ❑ User **control** property to display audio control on web page.

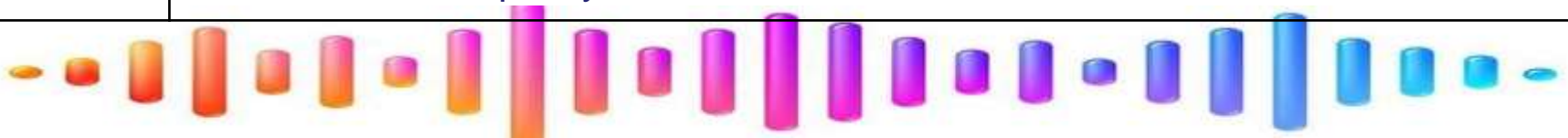
❑ <source>

- ❑ Using the <source> element enables the specification of various audio files, allowing the browser to choose the compatible format.
- ❑ Use **type** property to define the type of audio file.



Attributes

ATTRIBUTE	DESCRIPTION
AUTOPLAY	<ul style="list-style-type: none">o This Boolean attribute if specified, the audio will automatically begin to play back as soon as it can do so without stopping to finish loading the data.
CONTROLS	<ul style="list-style-type: none">o If this attribute is present, it will allow the user to control audio playback, including volume, seeking, and pause/resume playback.
LOOP	<ul style="list-style-type: none">o This Boolean attribute if specified, will allow audio automatically seek back to the start after reaching at the end.
PRELOAD	<ul style="list-style-type: none">o This attribute specifies that the audio will be loaded at page load, and ready to run. Ignored if auto play is present.
SRC	<ul style="list-style-type: none">o The URL of the audio to embed. <p>This is optional; you may instead use the <source> element within the video block to specify the video to embed</p>



Example

```
<!DOCTYPE HTML>
```

```
<html>
```

```
<body>
```

```
<audio controls autoplay>
```

```
    <source src="/html5/audio.ogg" type="audio/ogg" />
```

```
    <source src="/html5/audio.wav" type="audio/wav" />
```

```
    Your browser does not support the audio element.
```

```
</audio>
```

```
</body>
```

```
</html>
```

<Video>

- ❑ <video> tags make it simple to add media to a website.
- ❑ You need to set src attribute to identify the media source and include a controls attribute so the user can play and pause the media.
- ❑ But most commonly used audio formats are
 - ❑ ogg
 - ❑ mpeg4

<video>

ATTRIBUTE	DESCRIPTION
AUTOPLAY	<ul style="list-style-type: none">o This Boolean attribute if specified, the audio will automatically begin to play back as soon as it can do so without stopping to finish loading the data.
CONTROLS	<ul style="list-style-type: none">o If this attribute is present, it will allow the user to control audio playback, including volume, seeking, and pause/resume playback.
LOOP	<ul style="list-style-type: none">o This Boolean attribute if specified, will allow audio automatically seek back to the start after reaching at the end.
PRELOAD	<ul style="list-style-type: none">o This attribute specifies that the audio will be loaded at page load, and ready to run. Ignored if auto play is present.
SRC	<ul style="list-style-type: none">o The URL of the audio to embed.o This is optional; you may instead use the <source> element within the video block to specify the video to embed
HEIGHT	<ul style="list-style-type: none">o This attribute specifies the height of the video's display area, in CSS pixels.
WIDTH	<ul style="list-style-type: none">o This attribute specifies the width of the video's display area, in CSS pixels.

Example

EXAMPLE

```
<!DOCTYPE HTML>
```

```
<html>
```

```
<body>
```

```
<video width="300" height="200" controls autoplay>
```

```
    <source src="/html5/foo.ogg" type="video/ogg" />
```

```
    <source src="/html5/foo.mp4" type="video/mp4" />
```

```
</video>
```

```
</body>
```

```
</html>
```

CANVAS

CANVAS

- ❑ Canvas element provides HTML a bitmapped surface to work with. Its used to draw graphics on web page.
- ❑ Its only a container for graphics, you must need a scripting language to draw graphics.
- ❑ The **<canvas> tag** in HTML is used to draw graphics on a web page using JavaScript.
- ❑ rectangle like area on an HTML page.
- ❑ It can be used to draw paths, boxes, texts, gradients, and adding images.
- ❑ By default, it does not contain borders and text.

CANVAS

❑ Syntax :

```
<canvas id = "" width = "" height = "">
```

```
</canvas>
```

CANVAS Example

```
<!DOCTYPE  
html>
```

```
<body>  
<html>
```

```
<canvas id="a1" width="200" height="100" style="border:1px  
solid red;">  
</canvas>
```

```
</body>  
</html>
```

output



SVG

SVG

- ❑ SVG stands for Scalable Vector Graphics
- ❑ SVG is used to define vector-based graphics for the Web
- ❑ SVG is a W3C recommendation
- ❑ The HTML <SVG> element is a container for SVG graphics.
- ❑ SVG has several methods for rectangles, circles, polygons, text, and much more.
- ❑ SVG images can be printed with high quality at any resolution.

SVG example- LINE

<ht

ml>

<bo

dy>

```
<svg width="200" height="300" >
```

```
<line x1="0" y1="0" x2="300" y2="300"  
stroke="magenta" stroke-width="2"/>
```

```
</svg>
```

```
</body>
```

```
</html>
```

Output:

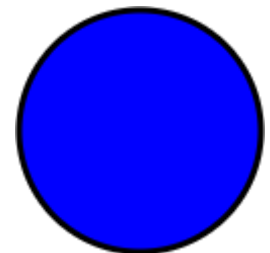


<html> **SVG example- Circle**

<body>
<svg width="100" height="100">
 <circle cx="50" cy="50" r="40" stroke="black" stroke-width="3" fill="Blue" />
</svg>

</body>
</html>

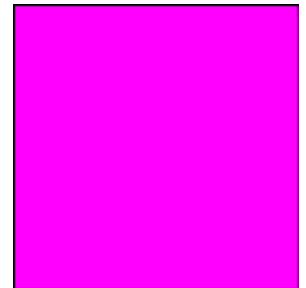
Output:



<html> **SVG example- square**

<body>
 <svg width="200" height="200" >
 <rect width="100%" height="100%" stroke-
width="magenta" stroke="Black"/>
 </svg>
</body>
</html>

Output:



<html>SVG example- rectangle

</html>

<body>

<svg width="200" height="100" >

<rect width="100%" height="100%" fill="pink"
stroke='Blue' />

</svg>

</body>

</html>

Output:



Geo-location & Iframe

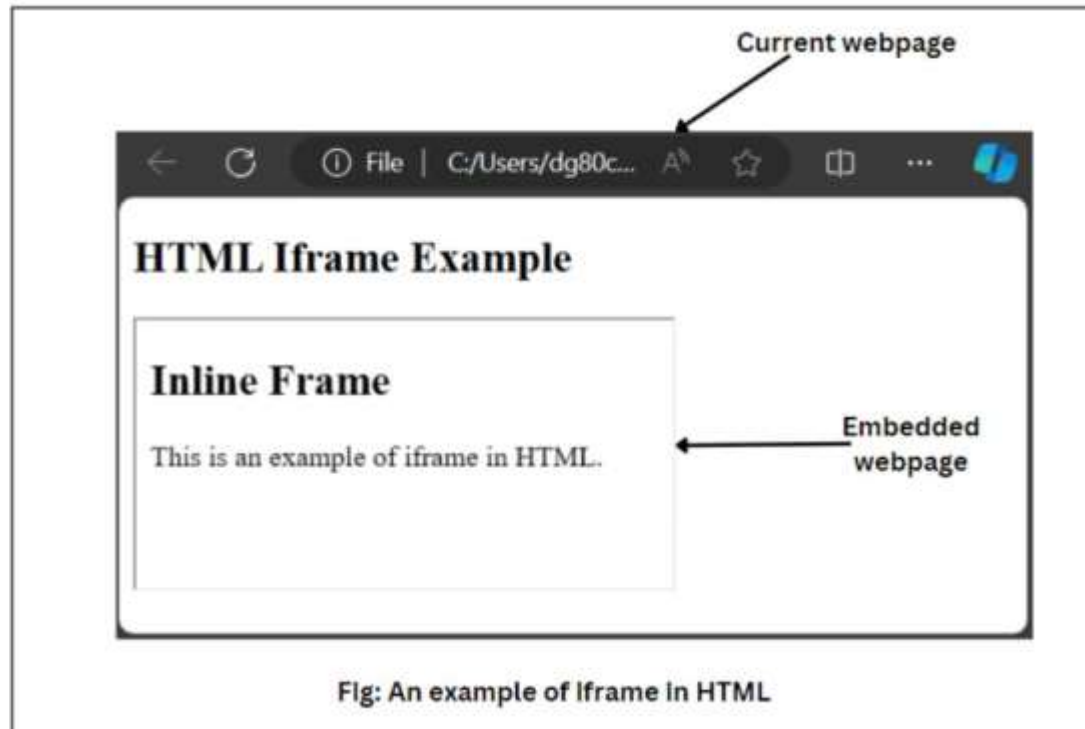
Geo-location



Geo Location

- ❑ **Geolocation** is used to get the geographical position of a user.
- ❑ **Geolocation** API supported by most of browser.
- ❑ **Geo-location** is used to share the location with some websites and be aware of the exact location.
- ❑ It is mainly used for local businesses, and restaurants, or showing locations on the map.
- ❑ It uses JavaScript to give latitude and longitude to the backend server.
- ❑ The `getCurrentPosition()` method is used to return the user's current position.

iframe



Iframe

- ❑ The <iframe> tag specifies an inline frame.
- ❑ An inline frame is used to embed another document within the current HTML document.
- ❑ By using <iframe> we can display another webpage within the webpage.
- ❑ **Syntax :**

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

URL encoding

URL encoding

- ❑ URL Encoding is the process of converting the URL into a valid format that is accepted by web browsers.
- ❑ Only certain characters are allowed to be used in the URL like alphabets A-Z and a-z, numbers 0-9, and a few special characters.
- ❑ The rest of the characters that are not in this list are used after encoding them to a suitable form.
- ❑ In URL Encoding the characters are replaced by :
 - ❑ % sign
 - ❑ 2 hexadecimal digits

URL encoding

❑ Some common characters that must be encoded are:

Unsafe character	Encoded value
Space	%20
"	%22
<	%3C
>	%3E
#	%23
%	%25
	%7C

URL encoding

❑ Example:

text=A+%22BC%22+%3C+%3E+%23

Semantic / Web Semantic

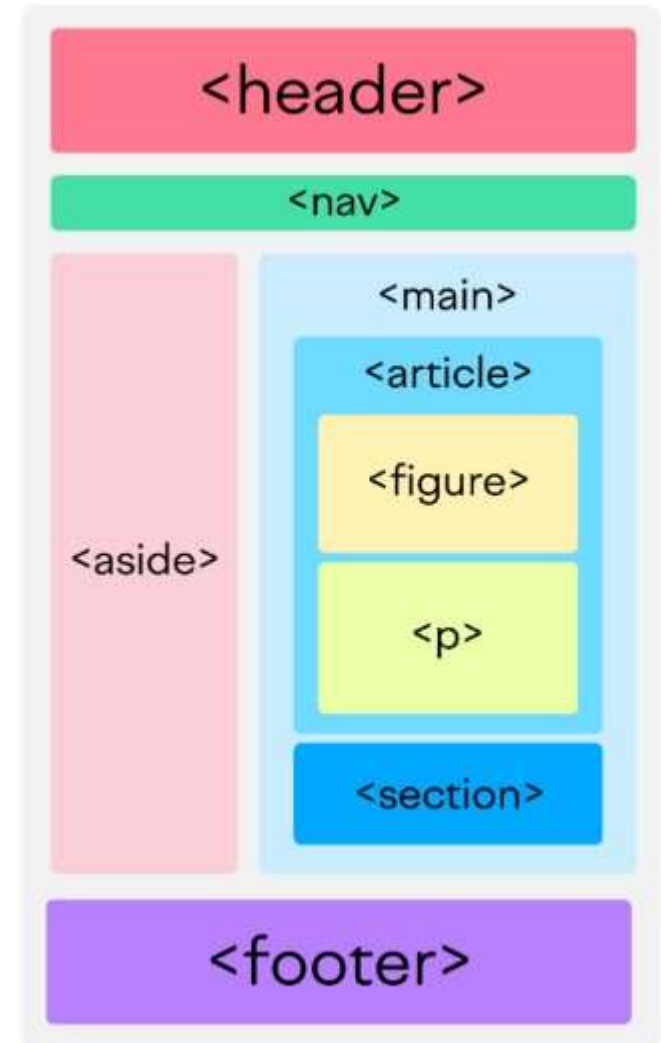
Web Semantic

- ❑ Semantic elements have meaningful names which tells about type of content.
- ❑ HTML5 introduce various semantic tags that add meaning to the organization of web content.
- ❑ Semantic tags add meaning to your HTML. They tell both the browser and the developer what kind of content is being presented.

Web Semantic Elements

Semantic HTML

- ❑ <header>
- ❑ <nav>
- ❑ <aside>
- ❑ <article>
- ❑ <figure>
- ❑ <main>
- ❑ <mark>
- ❑ <section>
- ❑ <footer>



Web Semantic Elements

<header>	<ul style="list-style-type: none">✓ Indicates the introductory or navigational content of a webpage or a section.✓ It often includes elements like headings, navigation menus, search bars, and logos, navigational links
<nav>	<ul style="list-style-type: none">✓ <nav> tag defines a set of navigation links.
<aside>	<ul style="list-style-type: none">✓ The <aside> element is like a little box for extra stuff related to the main topic
<article>	<ul style="list-style-type: none">✓ The <article> element specifies independent, self-contained content.✓ We can include contents like blog posts, product reviews, users comments and news articles.

Web Semantic Elements

<figure>	<ul style="list-style-type: none">✓ These are used to add an image to a web page with a small description.
<main>	<ul style="list-style-type: none">✓ <main> tag is used to represent the main content of the <body> tag and written in <body> tag.✓ This specifies the main page content and should be unique.
<mark>	<ul style="list-style-type: none">✓ It is used to highlight the some text part inside of another element such as paragraph, for reference or any notation purpose.

Web Semantic Elements

<section>	<ul style="list-style-type: none">✓ It represents the section of the document.✓ <section> element can be used for Chapters, Introduction, News items, Contact information.
<footer>	<ul style="list-style-type: none">✓ This element defines a footer for a document or section.✓ The footer of a page or section includes navigation links, contact information, and copyright information

Application Cache & SSE

Application cache

- ❑ The current version of HTML5 introduces application cache, which means that a web application is cached, and accessible without an internet connection.
- ❑ It can be used to store and utilize resources needed in Web applications, such as HTML, CSS, and JavaScript files, and images.
- ❑ You can cache certain files in the browser to use them in an offline state, or define them to be always updated from the server.
- ❑ **Syntax:**
`<html manifest="file_name extension_of_file">`

Application cache usage

- ❑ **Offline browsing:** Users can use application whenever they want to access site when they're offline.
- ❑ **Speed:** When data is already stored then its easy to access data with greater speed, cached resources load faster than uncached resources.
- ❑ **Reduced server load:** Browser will only download updated resources from the server.

SSE

- ❑ SSE stands for Server Sent Event.
- ❑ Server sent event enables a browser to receive automatic updates and data from a server via HTTP connections.
- ❑ **Server-sent events** are a way of sending data from a server to a web page without requiring the page to refresh or make requests.
- ❑ These events are useful for creating real-time applications, such as chat, news feeds, or notifications