

## Notes, Question Bank & Assignment UNIT-2

### Unit#2

#### What is an HTML Elements:

The HTML element is everything from the start tag to the end tag:

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

```
<h1>My First Heading</h1>
```

```
<p>My first paragraph.</p>
```

*HTML Element: The HTML element consists of 3 parts.*

- **Opening tag:** It is used to tell the browser where the content material starts.
- **Closing tag:** It is used to tell the browser where the content material ends.
- **Content:** It is the actual content material inside the opening and closing tags.

#### HTML Elements:

An HTML file is made of elements. These elements are responsible for creating web pages and define content in that webpage. An element in HTML usually consist of a start tag <tag name>, close tag </tag name> and content inserted between them. Technically, an element is a collection of start tag, attributes, end tag, content between them.

```
<!DOCTYPE html>
<html>
<head>
<title>WebPage</title>
</head>
<body>
<h1>This is my first web page</h1>
<h2> How it looks?</h2>
<p>It looks Nice!!!!!!</p>
</body>
</html>
```

#### Nested HTML Elements:

HTML can be nested, which means an element can contain another element.

#### Block - Level - Elements

-These are the elements, which structure main part of web page, by dividing a page into coherent blocks

-A block-level element always start with new line and takes the full width of web page, from left to right

-These elements can contain block-level as well as inline elements.

Following are the block-level elements in HTML.

```
<address>,<article>,<aside>,<blockquote>,<canvas>,<dd>,<div>,<dl>,<dt>,<fieldset>,<figcaption>,<figure>,<footer>,<form>,<h1>-<h6>,<header>,<hr>,<li>,<main>,<nav>,<noscript>,<ol>,<p>,<pre>,<section>,<table>,<tfoot>,<ul>,<video>
```

**div element:** The <div> element is used as a container for other HTML elements. It has no required attributes. *Style, class,* and *id* are the commonly used attributes.

#### Syntax:

```
<div>Hello World</div>
```

Exemple:

```
<!DOCTYPE html>
<html>
<head>
</head>
<body>
<div style="background-color: lightblue">This is first div</div>
<div style="background-color: lightgreen">This is second div</div>
<p style="background-color: pink">This is a block level element</p>
</body>
</html>
```

### Output:

This is first div  
This is second div  
This is a block level element

### Inline Elements

These elements does not start with new line and take width as per requirement. The Inline elements are mostly used with other elements.

Following are the Inline elements in HTML.

<a>, <abbr>, <acronym>, <b>, <bdo>, <big>, <br>, <button>, <cite>, <code>, <dfn>, <em>, <i>, <img>, <input>, <kbd>, <label>, <map>, <object>, <q>, <samp>, <script>, <select>, <small>, <span>, <strong>, <sub>, <sup>, <textarea>, <time>, <tt>, <var>..

**span element:** The <span> tag is used as a container for text. It has no required attributes. *Style*, *class*, and *id* are the commonly used attributes.

### Syntax:

```
<span>Hello</span>
```

```
<!DOCTYPE html>
<html>
<body>
<p>This is an inline span
<span style="border: 1px solid black">Hello World</span> element inside a paragraph.</p>
<p>The SPAN element is an inline element, and will not start on a new line and only takes up as much width as necessary.</p>
</body>
</html>
```

### Output:

This is an inline span Hello World element inside a paragraph.

The SPAN element is an inline element, and will not start on a new line and only takes up as much width as necessary.

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### HTML Tags:

**Doctype:** 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. The Doctype is not an element or tag, it lets the browser know about the version of or standard of HTML or any other markup language that is being used in the document.

**Declaration of a Doctype:** A DOCTYPE declaration appears at the top of a web page before all other elements. According to the HTML specification or standards, every HTML document requires a document type declaration to ensure that the pages are displayed in the way they are intended to be displayed.

The DOCTYPE for HTML5 is case-insensitive and can be written as shown below:

```
<!DOCTYPE html >
```

#### HTML abbr Tag

The <abbr> tag (Abbreviation) in HTML is used to define the abbreviation or short form of an element. The <abbr> and <acronym> tags are used as shortened versions and used to represent a series of letters. The abbreviation is used to provide useful information to browsers, translation systems, and search-engines.

#### Syntax:

```
<abbr title=""> Short form </abbr>
```

**Attribute:** This tag accepts an optional attribute as mentioned above and described below:

- **title:** It is used to specify extra information about the element. When the mouse moves over the element then it shows the information.

#### Example:

```
<!DOCTYPE html>
<html>
<body>
  <h1>Hello World</h1>
  <h2>This is abbr Tag</h2>
  <abbr title="Programming">Hello</abbr>
</body>
</html>
```

Output:

# Hello World

## This is abbr Tag

Hello

**HTML Tags:** HTML tags are the keywords that are used to produce web pages in various formats. Opening tags and closing tags are found in the majority of tags. The concluding tags contain a forward slash (/), while the language of the beginning tags is the same. Certain tags don't need to be closed.

Tags	Description	Syntax
<a href="#">!DOCTYPE html</a>	According to the HTML specification or standards, every HTML document requires a document type declaration.	<!DOCTYPE html >
<a href="#">abbreviation</a>	The abbreviation tag in HTML is used to define the abbreviation or short form of an element.	<abbr title="" "> ... </abbr>



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<a href="#"><u>bdi</u></a>	The bdi tag refers to Bi-Directional Isolation. It differentiates a text from other text that may be formatted in a different direction.	<bdi> ... </bdi>
<a href="#"><u>bdo</u></a>	The bdo stands for Bi-Directional Override. This tag is used to specify the text direction or used to change the current direction.	<bdo dir> Contents... </bdo>
<a href="#"><u>bgsound</u></a>	The bgsound tag is used to play the soundtrack in the background.	<bgsound src="">
<a href="#"><u>big</u></a>	The big tag in HTML is used to increase the selected text size by one larger than the surrounding text. In HTML 5.	<big> Contents... </big>
<a href="#"><u>blockquote</u></a>	The blockquote tag in HTML is used to display the long quotations (a section that is quoted from another source).	<blockquote> Contents... </blockquote>
<a href="#"><u>body</u></a>	The body tag in HTML is used to define the main content present inside an HTML page.	<body> Contents... </body>
<a href="#"><u>bold</u></a>	The bold tag in HTML is used to specify the bold text without any extra importance.	<b>... </b>
<a href="#"><u>break</u></a>	The break tag inserts a single carriage return or breaks in the document. This element has no end tag.	 
<a href="#"><u>button</u></a>	The button tag in HTML is used to define the clickable button. <button> tag is used to submit the content.	<button type = "button">
<a href="#"><u>caption</u></a>	The caption tag is used to specify the caption of a table. Only one caption can be specified for one table.	<caption align = "value"></caption>

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Tags	Description	Syntax
<a href="#">canvas</a>	It can be used to draw paths, boxes, texts, gradients, and add images.	<code>&lt;canvas id = "script"&gt; Contents&lt;/canvas&gt;</code>
<a href="#">center</a>	The center tag in HTML is used to set the alignment of text in the center. Not supported in HTML5.	<code>&lt;center&gt; Contents.&lt;/center&gt;</code>
<a href="#">cite</a>	The cite tag in HTML is used to define the title of a work. It displays the text in italic format.	<code>&lt;cite&gt;Content&lt;/cite&gt;</code>
<a href="#">code</a>	The code tag in HTML is used to define the piece of computer code.	<code>&lt;code&gt;Contents&lt;/code&gt;</code>
<a href="#">colgroup</a>	It is useful for applying styles to entire columns, instead of repeating the styles for each column, and for each row	<code>&lt;colgroup&gt; Column lists &lt;/colgroup&gt;</code>
<a href="#">column</a>	The col tag in HTML is used to set the column properties for each column within a colgroup tag.	<code>&lt;col attribute = "value"&gt;</code>
<a href="#">comment</a>	The comment tag is used to insert comments in the HTML code.	<code>&lt;!--...--&gt;</code>
<a href="#">data</a>	The data element gives an address to a given content with a machine-readable translator.	<code>&lt;data value=""&gt; Contents &lt;/data&gt;</code>
<a href="#">datalist</a>	The datalist tag is used to provide autocomplete feature & used with an input tag so that users can easily fill the data in the forms using select the data.	<code>&lt;datalist&gt;Contents&lt;/datalist&gt;</code>
<a href="#">dd</a>	The dd tag is used to denote the description or definition of an item in a description list.	<code>&lt;dd&gt;Contents&lt;/dd&gt;</code>
<a href="#">define</a>	The define tag in HTML represents the definition element and is used to represent a defining instance in HTML.	<code>&lt;dfn&gt;Contents&lt;/dfn&gt;</code>

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<a href="#">delete</a>	Delete tag is used to mark a portion of text which has been deleted from the document.	<code>&lt;del&gt;Contents&lt;/del&gt;</code>
<a href="#">details</a>	This tag is used to create an interactive widget that the user can open or close.	<code>&lt;details&gt;Contents&lt;/details&gt;</code>
<a href="#">dialog</a>	This tag is used to create a popup dialog and models on a web page. This tag is new in HTML5.	<code>&lt;dialog open&gt; Contents... &lt;/dialog&gt;</code>
<a href="#">dir</a>	The dir tag is used to make a list of directory titles. It is not supported in HTML 5 <code>&lt;ul&gt;</code> or CSS are used instead of <code>&lt;dir&gt;</code> tag.	<code>&lt;dir&gt; Lists... &lt;/dir&gt;</code>
<a href="#">div</a>	The div tag is used in HTML to make divisions of content in the web page (text, images, header, footer, navigation bar, etc).	<code>&lt;div&gt;Content&lt;/div&gt;</code>
<a href="#">dl</a>	The dl tag in HTML is used to represent the description list. In HTML4.1, it defines definition list and in HTML5, it defines description list.	<code>&lt;dl&gt; Contents... &lt;/dl&gt;</code>
<a href="#">dt</a>	The dt tag in HTML is used to specify the description list. It is used inside the <code>&lt;dl&gt;</code> element. It is usually followed by a <code>&lt;dd&gt;</code> tag.	<code>&lt;dt&gt; Content... &lt;/dt&gt;</code>
<a href="#">embed</a>	It is used as a container for embedding plug-ins such as flash animations.	<code>&lt;embed attributes&gt;</code>
<a href="#">fieldset</a>	The fieldset tag in HTML5 is used to make a group of related elements in the form, and it creates the box over the elements.	<code>&lt;fieldset&gt;Contents&lt;/fieldset&gt;</code>
<a href="#">figcaption</a>	The figurecaption tag in HTML is used to set a caption to the figure element in a document. This tag is new in HTML5.	<code>&lt;figcaption&gt; Figure caption &lt;/figcaption&gt;</code>

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<a href="#"><u>figure</u></a>	The figure tag in HTML is used to add self-contained content like illustrations, diagrams, photos, or codes listed in a document.	<code>&lt;figure&gt; Image content... &lt;/figure&gt;</code>
<a href="#"><u>font</u></a>	The font tag in HTML plays an important role in the web page to create an attractive and readable web page.	<code>&lt;font attribute = "value"&gt; Content &lt;/font&gt;</code>
<a href="#"><u>footer</u></a>	The footer tag in HTML is used to define a footer of HTML document. This section contains the footer information.	<code>&lt;footer&gt; ... &lt;/footer&gt;</code>
<a href="#"><u>form</u></a>	This form is used basically for the registration process, logging into your profile on a website or creating your profile on a website, etc ...	<code>&lt;form&gt; Form Content... &lt;/form&gt;</code>
<a href="#"><u>frame</u></a>	HTML Frames are used to divide the web browser window into multiple sections. Not supported in HTML5.	<code>&lt;frame/&gt;</code>
<a href="#"><u>frameset</u></a>	The frameset element contains one or more frame elements. It is used to specify the number of rows and columns in a frameset with their pixel of spaces.	<code>&lt;frameset cols = "pixels % *"&gt;</code>
<a href="#"><u>head</u></a>	The head tag in HTML is used to define the head portion of the document which contains information related to the document.	<code>&lt;head&gt;...&lt;/head&gt;</code>
<a href="#"><u>header</u></a>	The header tag is used to contain the information related to the title and heading of the related content.	<code>&lt;header&gt; ...&lt;/header&gt;</code>
<a href="#"><u>heading</u></a>	An HTML heading tag is used to define the headings of a page. These 6 heading elements are h1, h2, h3, h4, h5, and h6; with h1 being the highest level and h6 being the least.	<code>&lt;h1&gt;Heading1&lt;/h1&gt;&lt;h2&gt;Heading2&lt;/h2&gt;</code>



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Tags	Description	Syntax
<a href="#"><u>hgroup</u></a>	The hgroup tag in HTML is used to wrap one or more heading elements from <h1> to <h6>, such as the headings and sub-headings.	<hgroup> ... </hgroup>
<a href="#"><u>hr</u></a>	The hr tag in HTML stands for horizontal rule and is used to insert a horizontal rule.	<hr>
<a href="#"><u>html</u></a>	The html tag in HTML is used to define the root of HTML and XHTML documents.	<html> Contents </html>
<a href="#"><u>Iframes</u></a>	The iframe tag defines a rectangular region within the document in which the browser can display a separate document.	<iframe src="URL" title="description"></iframe>
<a href="#"><u>image</u></a>	HTML Image, how to add the image in HTML. In earlier times, the web pages only contains textual content, which made them appear quite boring and uninteresting.	
<a href="#"><u>input</u></a>	The input tag is used within < form> element to declare input controls that allow users to input data.	<input type = "value" .... />
<a href="#"><u>ins</u></a>	The ins tag is typically used to mark a range of text that has been added to the document.	<ins> Contents... </ins>
<a href="#"><u>isindex</u></a>	The index tag is used to query any document through a text field.	<isindex prompt="search">
<a href="#"><u>italic</u></a>	This tag is generally used to display a technical term, phrase, the important word in a different language.	<i> Contents</i>
<a href="#"><u>kbd</u></a>	The text enclosed within kbd tag is typically displayed in the browser's default monospace font.	<kbd> text content ... </kbd>

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<a href="#">keygen</a>	The keygen tag in HTML is used to specify a key-pair generator field in a form. When a form is submitted then two keys are generated, the private key and a public key.	<keygen name = "name">
<a href="#">label</a>	The label tag in HTML is used to provide a usability improvement for mouse users.	<label> form content... </label>
<a href="#">legend</a>	The legend tag is used to define the title for the child contents. The legend elements are the parent element.	<legend> Text </legend>
<a href="#">list</a>	The list tag in HTML is used to define the list item in an HTML document. It is used within an Ordered List <ol> or Unordered List <ul>.	<li> List Items </li>
<a href="#">main</a>	The main tag is used to give the main information of a document. The content inside the <main> element should be unique for the document.	<main>Coontents</main>
<a href="#">mark</a>	The mark tag in HTML is used to define the marked text. It is used to highlight the part of the text in a paragraph.	<mark> Contents... </mark>
<a href="#">marquee</a>	The marquee tag in HTML is used to create scrolling text or images on a webpage. It scrolls either horizontally or vertically.	<marquee>Contents</marquee>
<a href="#">menuitem</a>	The menuitem tag is used to define a command or menu that the user can utilize from the popup item. Not supported in HTML5.	<menuitem label="" icon="" type> </menuitem>
<a href="#">meta</a>	The meta tag is regularly used to give watchwords, portrayals, author data, and other metadata that might be utilized by the program to deliver the document accurately or in simple words, it provides important information about a document.	<meta attribute-name=""value">

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Tags	Description	Syntax
<a href="#"><u>meter</u></a>	It is used to define the scale for measurement in a well-defined range and also supports a fractional value.	<code>&lt;meter attributes...&gt; &lt;/meter&gt;</code>
<a href="#"><u>nav</u></a>	The nav tag is used for declaring the navigational section in HTML documents. Websites typically have sections dedicated to navigational links, which enables users to navigate the site.	<code>&lt;nav&gt; Links... &lt;/nav&gt;</code>
<a href="#"><u>nobreak</u></a>	The no break tag is used to create a single line text, that does not matter how long the statement is, this tag is used with <code>&lt;wbr&gt;</code> tag.	<code>&lt;nobr&gt; Statement &lt;/nobr&gt;</code>
<a href="#"><u>noembed</u></a>	The noembed tag is used to show that the browser is not supported by <code>&lt;embed&gt;</code> tag.	<code>&lt;noembed&gt; Element &lt;/noembed&gt;</code>
<a href="#"><u>noscript</u></a>	The noscript tag in HTML is used to display the text for those browsers which does not support the script tag or the browsers disable the script by the user.	<code>&lt;noscript&gt; Contents... &lt;/noscript&gt;</code>
<a href="#"><u>object</u></a>	The object tag is an HTML tag used to display multimedia like audio, videos, images, PDFs, and Flash on web pages.	<code>&lt;object&gt;...&lt;/object&gt;</code>
<a href="#"><u>optgroup</u></a>	This tag is used to create a group of the same category options in a drop-down list.	<code>&lt;optgroup&gt;...&lt;/optgroup&gt;</code>
<a href="#"><u>option</u></a>	The option tag in HTML is used to choose an option from a Drop-Down menu.	<code>&lt;option&gt; Contents... &lt;/option&gt;</code>
<a href="#"><u>output</u></a>	The output tag in HTML is used to represent the result of a calculation performed by the client-side script such as JavaScript.	<code>&lt;output&gt; Results... &lt;/output&gt;</code>
<a href="#"><u>paragraphs</u></a>	The <code>&lt;p&gt;</code> tag in HTML defines a paragraph. These have both opening and closing tags.	<code>&lt;p&gt; Content &lt;/p&gt;</code>

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Tags	Description	Syntax
<a href="#">param</a>	The param tag in HTML is used to define a parameter for plug-ins which is associated with <object> element.	<param name="" value="">
<a href="#">phrase</a>	In HTML, phrase tag is used to indicate the structural meaning of a block of text.	<em> Text Content </em>
<a href="#">pre</a>	The pre tag in HTML is used to define the block of preformatted text which preserves the text spaces.	<pre> Contents... </pre>
<a href="#">progress</a>	It is used to represent the progress of a task. It is also defined how much work is done and how much is left to download a thing.	<progress attributes...> </progress>
<a href="#">q</a>	The q tag is a standard quotation tag and is used for short quotations.	<q> Contents... </q>
<a href="#">rp</a>	The rp tag in HTML is used to provide parentheses around a ruby main text which defines the information.	<rp>[</rp> Explanation... <rp>]</rp>
<a href="#">rt</a>	The rt tag in HTML is used to define the explanation of the ruby annotation which is a small text, attached to the main text.	<rt> Explanation... </rt>
<a href="#">ruby</a>	The ruby tag in HTML is used to specify the ruby annotation which is a small text, attached with the main text to specify the meaning of the main text.	<ruby attributes> Contents... </ruby>
<a href="#">s</a>	This tag is used to specify that the text content is no longer correct or accurate. This tag is similar but slightly different from <del> tag.	<s> Contents... </s>
<a href="#">samp</a>	It is a phrase tag used to define the sample output text from a computer program.	<samp> Contents... </samp>

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<a href="#">script</a>	The script tag in HTML is used to define the client-side script.	<code>&lt;script&gt; Script Contents... &lt;/script&gt;</code>
<a href="#">section</a>	Section tag defines the section of documents such as chapters, headers, footers, or any other sections.	<code>&lt;section&gt; Section Contents &lt;/section&gt;</code>
<a href="#">small</a>	The small tag in HTML is used to set small font sizes. It decreases the font size by one size (from medium to small, from x-large to large).	<code>&lt;small&gt; Contents... &lt;/small&gt;</code>
<a href="#">source</a>	The source tag in HTML is used to attach multimedia files like audio, video, and pictures.	<code>&lt;source src="" type=""&gt; &lt;/source&gt;</code>
<a href="#">spacer</a>	The spacer tag is used to create some white space. Not-supporte in HTML5 .	<code>&lt;spacer type="" size=""&gt;</code>
<a href="#">span</a>	The HTML span element is a generic inline container for inline elements and content.	<code>&lt;span class=""&gt;Some Text&lt;/span&gt;</code>
<a href="#">strike</a>	HTML strike tag, along with understanding its implementation through the example. The <code>&lt;strike&gt;</code> tag defines a strike or line through Text.	<code>&lt;strike&gt; Contents &lt;/strike&gt;</code>
<a href="#">strong</a>	The strong tag in HTML is the parsed tag and is used to show the importance of the text. Make that text bold.	<code>&lt;strong&gt; Contents... &lt;/strong&gt;</code>
<a href="#">style</a>	The style tag in HTML helps us to design the web page.	<code>&lt;tagname style="property:value;"&gt;</code>
<a href="#">sub and sup Tags</a>	<ul style="list-style-type: none"> <li>• The sub-tag is used to add a subscript text to the HTML document.</li> <li>• The <code>&lt;sup&gt;</code> tag is used to add superscript text to the HTML document.</li> </ul>	<code>&lt;sub&gt;subscript text&lt;/sub&gt;&lt;sup&gt;superscript text&lt;/sup&gt;</code>

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<a href="#">summary</a>	The <summary> tag in HTML is used to define a summary for the <details> element.	<summary> Content </summary>
<a href="#">svg</a>	HTML SVG Basics, & their implementation through the examples. SVG stands for Scalable Vector Graphics.	<svg height="" width="">
<a href="#">table</a>	HTML Table, various ways to implement it, & will also understand its usage through the examples. HTML Table is an arrangement of data in rows and columns, or possibly in a more complex structure.	<table>... </table>
<a href="#">tbody</a>	The tbody tag in HTML is used to make a group of the same type of content of the body element.	<tbody> // Table contents </tbody>
<a href="#">td</a>	The table data tag is used to define a standard cell in an HTML table.	<td>.....</td>
<a href="#">template</a>	The template tag in HTML is used to store the HTML code fragments, which can be cloned and inserted in an HTML document.	<template> Contents </template>
<a href="#">tfoot</a>	This tag is used in HTML table with header and body which is known as “thead” and “tbody”.	<tfoot> // Table footer contents... </tfoot>
<a href="#">th</a>	The table header tag in HTML is used to set the header cell of a table. Two types of cells in the HTML table Header & Standard.	<th> Contents... </th>
<a href="#">thead</a>	This tag is used in HTML tables as head and body which are known as thead and tbody.	<thead>Table head Contents...</thead>
<a href="#">time</a>	The time tag is used to display the human-readable date/time. It can also be used to encode dates and times in a machine-readable form.	<time attribute> Time... </time>

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Tags	Description	Syntax
<a href="#"><u>title</u></a>	The title tag in HTML is used to define the title of HTML document. It sets the title in the browser toolbar.	<code>&lt;title&gt; Title name &lt;/title&gt;</code>
<a href="#"><u>tr</u></a>	The table row tag is used to define a row in an HTML table. The <code>&lt;tr&gt;</code> element contains multiple <code>&lt;th&gt;</code> or <code>&lt;td&gt;</code> elements.	<code>&lt;tr&gt;.....&lt;/tr&gt;</code>
<a href="#"><u>track</u></a>	The tracking tag specifies text tracks for media components audio and video.	<code>&lt;track attribute&gt;</code>
<a href="#"><u>tt</u></a>	The tt tag is the abbreviation of teletype text. This tag is deprecated from HTML 5. It was used for marking Keyboard input.	<code>&lt;tt&gt; Contents... &lt;/tt&gt;</code>
<a href="#"><u>underline</u></a>	The underline tag in HTML stands for underline, and it's used to underline the text enclosed within the <code>&lt;u&gt;</code> tag.	<code>&lt;u&gt; Contents... &lt;/u&gt;</code>
<a href="#"><u>var</u></a>	It is a phrase tag used to specify the variable in a mathematical equation or in a computer program.	<code>&lt;var&gt; Contents... &lt;/var&gt;</code>
<a href="#"><u>video</u></a>	HTML5 Video, along with knowing the different ways to add the videos to the HTML page.	<code>&lt;video src="" controls&gt; &lt;/video&gt;</code>
<a href="#"><u>wbr</u></a>	The wbr tag is used to define the position within the text which is treated as a line break by the browser.	<code>&lt;wbr&gt;</code>
<a href="#"><u>xmp</u></a>	The XMP tag is used to create any content in letter format.	<code>&lt;xmp&gt; statement &lt;/xmp&gt;</code>

**<b> Tag:** This is a physical tag, which is used to bold the text written between it.

`<p> <b>Write Your First Paragraph in bold text.</b></p>`

**<strong> Tag:** This is a logical tag, which tells the browser that the text is important.

`<p><strong>This is an important content</strong>, and this is normal content</p>`

**<i> Tag:** This is a physical tag which is used to make text italic.

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<p> <i>Write Your First Paragraph in italic text.</i></p>

**<em> Tag:** This is a logical tag which is used to display content in italic.

<p><em>This is an important content</em>, which displayed in italic font.</p>

**<mark> Tag:** This tag is used to highlight text.

<h2> I want to put a <mark> Mark</mark> on your face</h2>

**<u> Tag:** This tag is used to underline text written between it.

<p> <u>Write Your First Paragraph in underlined text.</u></p>

**<sup> Tag:** It displays the content slightly above the normal line.

<p>Hello <sup>Write Your First Paragraph in superscript.</sup></p>

**<sub>Tag:** It displays the content slightly below the normal line.

<p>Hello <sub>Write Your First Paragraph in subscript.</sub></p>

**<del> Tag:** This tag is used to display the deleted content.

<p>Hello <del>Delete your first paragraph.</del></p>

**<ins> Tag:** This tag displays the content which is added.

<p> <ins>Write another paragraph.</ins></p>

**<big> Tag:** This tag is used to increase the font size by one conventional unit.

<p>Hello <big>Write the paragraph in larger font.</big></p>

**<small> Tag:** This tag is used to decrease the font size by one unit from base font size.

<p>Hello <small>Write the paragraph in smaller font.</small></p>

### HTML Text Formatting

HTML contains several elements for defining text with a special meaning.

Example:

```
<!DOCTYPE html>
<html>
<body>
<p><b>This text is bold</b></p>
<p><i>This text is italic</i></p>
<p>This is<sub> subscript</sub> and <sup>superscript</sup></p>
</body>
</html>
```

Output:

**This text is bold**

*This text is italic*

This is subscript and superscript

### HTML Formatting Elements

Formatting elements were designed to display special types of text:

- <b> - Bold text
- <strong> - Important text
- <i> - Italic text
- <em> - Emphasized text
- <mark> - Marked text
- <small> - Smaller text



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- `<del>` - Deleted text
- `<ins>` - Inserted text
- `<sub>` - Subscript text
- `<sup>` - Superscript text

### HTML `<b>` and `<strong>` Elements

The HTML `<b>` element defines bold text, without any extra importance.

Example:

```
<!DOCTYPE html>
<html>
<body>
<p>This text is normal.</p>
<p><b>This text is bold.</b></p>
</body>
</html>
```

The HTML `<strong>` element defines text with strong importance. The content inside is typically displayed in bold.

Example:

```
<!DOCTYPE html>
<html>
<body>
<p>This text is normal.</p>
<p><strong>This text is important!</strong></p>
</body>
</html>
```

### HTML `<i>` and `<em>` Elements

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

**Tip:** The `<i>` tag is often used to indicate a technical term, a phrase from another language, a thought, a ship name, etc.

Example:

```
<i>This text is italic</i>
```

The HTML `<em>` element defines emphasized text. The content inside is typically displayed in italic.

Tip: A screen reader will pronounce the words in `<em>` with an emphasis, using verbal stress.

Example:

```
<em>This text is emphasized</em>
```

### HTML `<small>` Element

The HTML `<small>` element defines smaller text:

Example:

```
<small>This is some smaller text.</small>
```

### HTML `<mark>` Element

The HTML `<mark>` element defines text that should be marked or highlighted:

Example:

```
<p>Do not forget to buy <mark>milk</mark> today.</p>
```

### HTML `<del>` Element

The HTML `<del>` element defines text that has been deleted from a document. Browsers will usually strike a line through deleted text:

Example:

```
<p>My favorite color is <del>blue</del> red.</p>
```

### HTML `<ins>` Element

The HTML `<ins>` element defines a text that has been inserted into a document. Browsers will usually underline inserted text:

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Example:

```
<p>My favorite color is <del>blue</del> <ins>red</ins>.</p>
```

### HTML <sub> Element

The HTML <sub> element defines subscript text. Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font. Subscript text can be used for chemical formulas, like H<sub>2</sub>O:

Example:

```
<p>This is <sub>subscripted</sub> text.</p>
```

### HTML <sup> Element

The HTML <sup> element defines superscript text. Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font. Superscript text can be used for footnotes, like WWW<sup>[1]</sup>:

Example:

```
<p>This is <sup>superscripted</sup> text.</p>
```

```
<!DOCTYPE html>
<html lang="en">
<head>

  <title>Tags</title>
</head>
<body>
  <p><b>This text is bold.</b></p>
  <p><strong>This text is important!</strong></p>
  <i>This text is italic</i>
  <em>This text is emphasized</em>
  <small>This is some smaller text.</small>
  <p>Do not forget to buy <mark>milk</mark> today.</p>
  <p>My favorite color is <del>blue</del> red.</p>
  <p>My favorite color is <del>blue</del> <ins>red</ins>.</p>
  <p>This is <sub>subscripted</sub> text.</p>
  <p>This is <sup>superscripted</sup> text.</p>
</body>
</html>
```

**This text is bold.**

**This text is important!**

*This text is italic* *This text is emphasized* This is some smaller text.

Do not forget to buy **milk** today.

My favorite color is ~~blue~~ red.

My favorite color is ~~blue~~ red.

This is subscripted text.

This is superscripted text.

### HTML Lists

HTML Lists are used to specify lists of information. All lists may contain one or more list elements.

A list is a record of short pieces of related information or used to display the data or any information on web pages in the ordered or unordered form. For instance, to purchase the items, we need to prepare a list that can either be ordered or unordered list which helps us to organize the data & easy to find the item.

**There are three different types of HTML lists**

-Ordered List or Numbered List (ol)

-Unordered List or Bulleted List (ul)

-Description List or Definition List (dl)

Note: We can create a list inside another list, which will be termed as nested List.

#### HTML Ordered List

HTML Ordered List or Numbered List displays elements in numbered format. An ordered list starts with the <ol> tag. Each list item starts with the <li> tag.

There can be different types of numbered list:

- Numeric Number (1, 2, 3)
- Capital Roman Number (I II III)
- Small Roman Number (i ii iii)
- Capital Alphabet (A B C)
- Small Alphabet (a b c)

Example:

```
<!DOCTYPE html>
<html>
<body>
  <h1>Welcome</h1>
  <h2>ordered List</h2>
  <p>List:</p>
  <ol>
    <li>HTML</li>
    <li>Java</li>
    <li>JavaScript</li>
    <li>SQL</li>
  </ol>
</body>
</html>
```

Output:

# Welcome

ordered List

List:

1. HTML
2. Java
3. JavaScript
4. SQL

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**ol type="I"**: Let's see the example to display list in roman number uppercase.

```
<!DOCTYPE html>
<html>
<body>
  <h1>Welcome</h1>
  <h2>ordered List</h2>
<p>List:</p>
<ol type="I">
<li>HTML</li>
<li>Java</li>
<li>JavaScript</li>
<li>SQL</li>
</ol>
</body>
</html>
```

Output:

# Welcome

ordered List

List:

- I. HTML
- II. Java
- III. JavaScript
- IV. SQL

**ol type="i"** : Display list in roman number Lowercase.

**ol type="A"** : Display list in alphabet uppercase.

**ol type="a"** : Display list in alphabet lowercase.

**Start Attribute:** The start attribute is used with ol tag to specify from where to start the list items.

**<ol type="1" start="5">**: It will show numeric values starting with "5".

**<ol type="A" start="5">**: It will show capital alphabets starting with "E".

**<ol type="a" start="5">**: It will show lower case alphabets starting with

**<ol type="I" start="5">**: It will show Roman upper case value starting with "V".

**HTML Unordered List:**

HTML Unordered List or Bulleted List displays elements in bulleted format. An unordered list starts with the <ul> tag. Each list item starts with the <li> tag.

There can be 4 types of bulleted list

- disc            - circle            - square            -None

**ul type="circle"**: Let's see the example to display list in circle bullet.

```
<ul type="circle">
<li>HTML</li>
<li>ava</li>
<li>JavaScript</li>
<li>SQL</li>
</ul>
```

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Output:

- HTML
- Java
- JavaScript
- SQL

**ol type="disc"** : This is the default style. In this style, the list items are marked with bullets.

Example:

```
<ul>
<li>HTML</li>
<li>Java</li>
<li>JavaScript</li>
<li>SQL</li>
</ul>
```

Output:

- HTML
- Java
- JavaScript
- SQL

**ol type= Square"** : In this style, the list items are marked with squares.

Example:

```
<!DOCTYPE html>
<html>
<body>
  <h1>Square </h1>
  <h2>Unordered List with Square Bullets</h2>
  <p> List:</p>
  <ul style="list-style-type: square">
    <li>laptop</li>
    <li>Sudo</li>
    <li>Game</li>
    <li>Gate</li>
    <li>Placement</li>
  </ul>
</body>
</html>
```

Output:

# Square

Unordered List with Square Bullets

List:

- laptop
- Sudo
- Game
- Gate

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- Placement

**ol type="none" :** In this style, the list items are not marked.

Example:

```
<!DOCTYPE html>
<html>
<body>
  <h1>Welcome</h1>
  <h2>Unordered List with No Bullets</h2>
  <p>List</p>
  <ul style="list-style-type: none">
    <li>Laptop</li>
    <li>Sudo</li>
    <li>Dell</li>
    <li>Gate</li>
    <li>Placement</li>
  </ul>
</body>
</html>
```

Output:

# Welcome

Unordered List with No Bullets

List

Laptop

Sudo

Dell

Gate

Placement

**Example:** Nested Unordered List, It is used to nest the list items i.e., a list inside another list.

```
<!DOCTYPE html>
<html>
<body>
  <h1>Welcome</h1>
  <h2>Nested Unordered List</h2>
  <p>List:</p>
  <ul>
    <li>DSA</li>
  </ul>
  <ul>
    <li>Array</li>
    <li>Linked List</li>
    <li>stack</li>
    <li>Queue</li>
  </ul>
  <li>Web designing</li>
</ul>
  <li>HTML</li>
  <li>CSS</li>
  <li>JavaScript</li>
</ul>
```

```
<li>Aptitude</li>
<li>Gate</li>
<li>Placement</li>
</ul>
</body>
</html>
Output:
```

# Welcome

Nested Unordered List

List:

- DSA
  - Array
  - Linked List
  - stack
  - Queue
- Web designing
  - HTML
  - CSS
  - JavaScript
- Aptitude
- Gate
- Placement

### HTML Description List

HTML Description List or Definition List displays elements in definition form like in dictionary. The <dl>, <dt> and <dd> tags are used to define description list.

The 3 HTML description list tags are given below:

**<dl> tag** defines the description list.

**<dt> tag** defines data term.

**<dd> tag** defines data definition (description).

**Syntax:**

```
<dl> content </dl>
```

```
<dt>content</dt>
```

```
<dd>content</dd>
```

Example:

```
<dl>
<dt>HTML</dt>
<dd>is a markup language</dd>
<dt>ava</dt>
<dd>is a programming language and platform</dd>
<dt>JavaScript</dt>
<dd>is a scripting language</dd>
<dt>SQL</dt>
```

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```
<dd>is a query language</dd>
</dl>
```

Output:

HTML

is a markup language

Java

is a programming language and platform

JavaScript

is a scripting language

SQL

is a query language

- Use the HTML <dl> element to define a description list
- Use the HTML <dt> element to define the description term
- Use the HTML <dd> element to describe the term in a description

### HTML Tables

HTML tables allow web developers to arrange data into rows and columns.

Example:

```
<!DOCTYPE html>
<html>
<head>
<style>
table {
font-family: arial, sans-serif;
border-collapse: collapse;
width: 100%;
}

td, th {
border: 1px solid #dddddd;
text-align: left;
padding: 8px;
}

tr:nth-child(even) {
background-color: #dddddd;
}
</style>
</head>
<body>
<h2>HTML Table</h2>
<table>
<tr>
<th>Company</th>
<th>Contact</th>
<th>Country</th>
</tr>
<tr>
<td>Alfreds Futterkiste</td>
<td>Maria Anders</td>
<td>Germany</td>
</tr>
<tr>
```



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```
<td>Centro comercial Moctezuma</td>
<td>Francisco Chang</td>
<td>Mexico</td>
</tr>
<tr>
<td>Ernst Handel</td>
<td>Roland Mendel</td>
<td>Austria</td>
</tr>
<tr>
<td>Island Trading</td>
<td>Helen Bennett</td>
<td>UK</td>
</tr>
<tr>
<td>Laughing Bacchus Winecellars</td>
<td>Yoshi Tannamuri</td>
<td>Canada</td>
</tr>
<tr>
<td>Magazzini Alimentari Riuniti</td>
<td>Giovanni Rovelli</td>
<td>Italy</td>
</tr>
</table>
</body>
</html>
```

### Define an HTML Table

A table in HTML consists of table cells inside rows and columns.

Example:

```
<table>
  <tr>
    <th>Company</th>
    <th>Contact</th>
    <th>Country</th>
  </tr>
  <tr>
    <td>Alfreds Futterkiste</td>
    <td>Maria Anders</td>
    <td>Germany</td>
  </tr>
  <tr>
    <td>Centro comercial Moctezuma</td>
    <td>Francisco Chang</td>
    <td>Mexico</td>
  </tr>
</table>
```

### Table Cells

Each table cell is defined by a <td> and a </td> tag.

**td stands for table data.**

Everything between <td> and </td> are the content of the table cell.

Example:

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```
<table>
  <tr>
    <td>Email</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
</table>
```

### Table Rows

Each table row starts with a `<tr>` and ends with a `</tr>` tag.

**tr stands for table row.**

Example:

```
<table>
  <tr>
    <td>Emil</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
  <tr>
    <td>16</td>
    <td>14</td>
    <td>10</td>
  </tr>
</table>
```

You can have as many rows as you like in a table; just make sure that the number of cells are the same in each row.

### Table Headers

Sometimes you want your cells to be table header cells. In those cases use the `<th>` tag instead of the `<td>` tag:

**th stands for table header.**

### Example

Let the first row be table header cells:

```
<table>
  <tr>
    <th>Person 1</th>
    <th>Person 2</th>
    <th>Person 3</th>
  </tr>
  <tr>
    <td>Emil</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
  <tr>
    <td>16</td>
    <td>14</td>
    <td>10</td>
  </tr>
</table>
```

### HTML Table Borders

HTML tables can have borders of different styles and shapes.

### How To Add a Border

To add a border, use the CSS border property on table, th, and td elements:

**Example:**

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```
table, th, td {  
  border: 1px solid black;  
}
```

### Collapsed Table Borders

To avoid having double borders like in the example above, set the CSS `border-collapse` property to `collapse`. This will make the borders collapse into a single border:

**Example:**

```
table, th, td {  
  border: 1px solid black;  
  border-collapse: collapse;  
}
```

### Style Table Borders

If you set a background color of each cell, and give the border a white color (the same as the document background), you get the impression of an invisible border:

**Example**

```
table, th, td {  
  border: 1px solid white;  
  border-collapse: collapse;  
}  
th, td {  
  background-color: #96D4D4;  
}
```

### Round Table Borders

With the `border-radius` property, the borders get rounded corners:

**Example:**

```
table, th, td {  
  border: 1px solid black;  
  border-radius: 10px;  
}
```

**Skip the border around the table by leaving out `table` from the css selector:**

**Example**

```
th, td {  
  border: 1px solid black;  
  border-radius: 10px;  
}
```

### Dotted Table Borders

With the `border-style` property, you can set the appearance of the border.

The following values are allowed:

- dotted
- dashed
- solid
- double
- groove
- ridge
- inset
- outset
- none

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- hidden

Example:

```
th, td {  
  border-style: dotted;  
}
```

### Border Color

With the border-color property, you can set the color of the border.

Example:

```
th, td {  
  border-color: #96D4D4;  
}
```

### HTML Table Sizes

HTML tables can have different sizes for each column, row or the entire table.

Use the style attribute with the width or height properties to specify the size of a table, row or column.

### HTML Table Width

To set the width of a table, add the style attribute to the <table> element:

#### Example

Set the width of the table to 100%:

```
<table style="width:100%">  
  <tr>  
    <th>Firstname</th>  
    <th>Lastname</th>  
    <th>Age</th>  
  </tr>  
  <tr>  
    <td>Jill</td>  
    <td>Smith</td>  
    <td>50</td>  
  </tr>  
  <tr>  
    <td>Eve</td>  
    <td>Jackson</td>  
    <td>94</td>  
  </tr>  
</table>
```

### HTML Table Column Width

To set the size of a specific column, add the style attribute on a <th> or <td> element:

#### Example

Set the width of the first column to 70%:

```
<table style="width:100%">  
  <tr>  
    <th style="width:70%">Firstname</th>  
    <th>Lastname</th>  
    <th>Age</th>  
  </tr>  
  <tr>  
    <td>Jill</td>  
    <td>Smith</td>  
    <td>50</td>  
  </tr>  
  <tr>  
    <td>Eve</td>
```

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```
<td>Jackson</td>
<td>94</td>
</tr>
</table>
```

### HTML Table Row Height

To set the height of a specific row, add the **style** attribute on a table row element:

#### Example

Set the height of the second row to 200 pixels:

```
<table style="width:100%">
<tr>
<th>Firstname</th>
<th>Lastname</th>
<th>Age</th>
</tr>
<tr style="height:200px">
<td>Jill</td>
<td>Smith</td>
<td>50</td>
</tr>
<tr>
<td>Eve</td>
<td>Jackson</td>
<td>94</td>
</tr>
</table>
```

### HTML Table Headers

Table headers are defined with **th** elements. Each **th** element represents a table cell.

#### Example

```
<table>
<tr>
<th>Firstname</th>
<th>Lastname</th>
<th>Age</th>
</tr>
<tr>
<td>Jill</td>
<td>Smith</td>
<td>50</td>
</tr>
<tr>
<td>Eve</td>
<td>Jackson</td>
<td>94</td>
</tr>
</table>
```

### Vertical Table Headers

To use the first column as table headers, define the first cell in each row as a **<th>** element:

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### Example

```
<table>
  <tr>
    <th>Firstname</th>
    <td>Jill</td>
    <td>Eve</td>
  </tr>
  <tr>
    <th>Lastname</th>
    <td>Smith</td>
    <td>Jackson</td>
  </tr>
  <tr>
    <th>Age</th>
    <td>94</td>
    <td>50</td>
  </tr>
</table>
```

### Align Table Headers

By default, table headers are bold and centered:

To left-align the table headers, use the CSS text-align property:

### Example

```
th {
  text-align: left;
}
```

### Header for Multiple Columns

You can have a header that spans over two or more columns.

To do this, use the colspan attribute on the <th> element:

### Example

```
<table>
  <tr>
    <th colspan="2">Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

### Table Caption

You can add a caption that serves as a heading for the entire table.

To add a caption to a table, use the <caption> tag:

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### Example

```
<table style="width:100%">
  <caption>Monthly savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
```

### HTML Table Padding & Spacing

HTML tables can adjust the padding inside the cells, and also the space between the cells.

#### HTML Table - Cell Padding

Cell padding is the space between the cell edges and the cell content.

By default the padding is set to 0.

To add padding on table cells, use the CSS padding property:

#### Example

```
th, td {
  padding: 15px;
}
```

To add padding only above the content, use the padding-top property.

And the others sides with the padding-bottom, padding-left, and padding-right properties:

#### Example

```
th, td {
  padding-top: 10px;
  padding-bottom: 20px;
  padding-left: 30px;
  padding-right: 40px;
}
```

#### HTML Table - Cell Spacing

Cell spacing is the space between each cell.

By default the space is set to 2 pixels.

To change the space between table cells, use the CSS border-spacing property on the table element:

#### Example:

```
table {
  border-spacing: 30px;
}
```

#### HTML Table Colspan & Rowspan

HTML tables can have cells that span over multiple rows and/or columns.

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### HTML Table - Colspan

To make a cell span over multiple columns, use the colspan attribute:

#### Example:

```
<table>
  <tr>
    <th colspan="2">Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>43</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>57</td>
  </tr>
</table>
```

### HTML Table - Rowspan

To make a cell span over multiple rows, use the rowspan attribute:

#### Example

```
<table>
  <tr>
    <th>Name</th>
    <td>Jill</td>
  </tr>
  <tr>
    <th rowspan="2">Phone</th>
    <td>555-1234</td>
  </tr>
  <tr>
    <td>555-8745</td>
  </tr>
</table>
```

### HTML Table Styling

Use CSS to make your tables look better.

#### HTML Table - Zebra Stripes

If you add a background color on every other table row, you will get a nice zebra stripes effect.

To style every other table row element, use the :nth-child(even) selector like this:

#### Example

```
tr:nth-child(even) {
  background-color: #D6EEEE;
}
```

#### HTML Table - Vertical Zebra Stripes

To make vertical zebra stripes, style every other *column*, instead of every other *row*.

Set the :nth-child(even) for table data elements like this:



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### Example

```
td:nth-child(even), th:nth-child(even) {  
  background-color: #D6EEEE;  
}
```

### Combine Vertical and Horizontal Zebra Stripes

You can combine the styling from the two examples above and you will have stripes on every other row and every other column.

If you use a transparent color you will get an overlapping effect.

Use an rgba() color to specify the transparency of the color:

### Example

```
tr:nth-child(even) {  
  background-color: rgba(150, 212, 212, 0.4);  
}
```

```
th:nth-child(even),td:nth-child(even) {  
  background-color: rgba(150, 212, 212, 0.4);  
}
```

### Horizontal Dividers

If you specify borders only at the bottom of each table row, you will have a table with horizontal dividers.

Add the border-bottom property to all tr elements to get horizontal dividers:

### Example

```
tr {  
  border-bottom: 1px solid #ddd;  
}
```

### Hoverable Table

Use the :hover selector on tr to highlight table rows on mouse over:

### Example

```
tr:hover {background-color: #D6EEEE;}
```

### HTML Table Colgroup

The <colgroup> element is used to style specific columns of a table.

### HTML Table Colgroup

If you want to style the two first columns of a table, use the <colgroup> and <col> elements.

The <colgroup> element should be used as a container for the column specifications.

Each group is specified with a <col> element.

The span attribute specifies how many columns that get the style.

The style attribute specifies the style to give the columns.

### Example

```
<table>  
  <colgroup>  
    <col span="2" style="background-color: #D6EEEE">  
  </colgroup>  
  <tr>  
    <th>MON</th>  
    <th>TUE</th>  
    <th>WED</th>
```

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```
<th>THU</th>
```

```
...
```

### Legal CSS Properties

There is only a very limited selection of CSS properties that are allowed to be used in the `colgroup`:

width property

visibility property

background properties

border properties

All other CSS properties will have no effect on your tables.

### Multiple Col Elements

If you want to style more columns with different styles, use more `<col>` elements inside the `<colgroup>`:

#### Example

```
<table>
  <colgroup>
    <col span="2" style="background-color: #D6EEEE">
    <col span="3" style="background-color: pink">
  </colgroup>
  <tr>
    <th>MON</th>
    <th>TUE</th>
    <th>WED</th>
    <th>THU</th>
  </tr>
</table>
```

### Empty Colgroups

If you want to style columns in the middle of a table, insert a "empty" `<col>` element (with no styles) for the columns before:

#### Example

```
<table>
  <colgroup>
    <col span="3">
    <col span="2" style="background-color: pink">
  </colgroup>
  <tr>
    <th>MON</th>
    <th>TUE</th>
    <th>WED</th>
    <th>THU</th>
  </tr>
</table>
```

### Hide Columns

You can hide columns with the `visibility: collapse` property:

#### Example

```
<table>
  <colgroup>
    <col span="2">
    <col span="3" style="visibility: collapse">
  </colgroup>
  <tr>
    <th>MON</th>
    <th>TUE</th>
    <th>WED</th>
  </tr>
</table>
```

```
<th>THU</th>
```

```
...
```

## HTML | <frame> Tag

HTML Frames are used to divide the web browser window into multiple sections where each section can be loaded separately.

A frameset tag is the collection of frames in the browser window.

**Creating Frames:** Instead of using body tag, use frameset tag in HTML to use frames in web browser. But this Tag is deprecated in HTML 5. The frameset tag is used to define how to divide the browser. Each frame is indicated by frame tag and it basically defines which HTML document shall open into the frame. To define the horizontal frames use row attribute of frame tag in HTML document and to define the vertical frames use col attribute of frame tag in HTML document.

**Example:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Frame Set </title>
</head>
  <frameset rows = "20%, 60%, 20%">
    <frame name = "top" src =
      "vitamin.png" />
    <frame name = "main" src =
      "vitaminC.png" />
    <frame name = "bottom" src =
      "vitaminE.png" />
    <noframes>
      <body>The browser you are working does
        not support frames.</body>
    </noframes>
  </frameset>
</html>
```

**Output:** The above example basically used to create three horizontal frames: top, middle and bottom using row attribute of frameset tag and the noframe tag is used for those browser who doesn't support noframe.

**Example:** This example illustrates the col attribute of frameset tag.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Frame Set </title>
</head>
  <frameset cols = "20%, 60%, 20%">
    <frame name = "top" src =
```

```
"vitamin.png" />
<frame name = "main" src =
"vitaminC.png" />
<frame name = "bottom" src =
"vitaminE.png" />
<noframes>
  <body>The browser you are working does
    not support frames.</body>
</noframes>
</frameset>
</html>
```

**Output:** The above example basically used to create three vertical frames: left, center and right using col attribute of frameset tag

### Attributes of Frameset tag:

- **cols:** The cols attribute is used to create vertical frames in web browser. This attribute is basically used to define the no of columns and its size inside the frameset tag.

The size or width of the column is set in the frameset in the following ways:

- Use absolute value in pixel

**Example:**

```
<frameset cols = "300, 400, 300">
```

- Use percentage value

**Example:**

```
<frameset cols = "30%, 40%, 30%">
```

- Use wild card values:

**Example:**

```
<frameset cols = "30%, *, 30%">
```

In the above example \* will take the remaining percentage for creating vertical frame.

- **rows:** The rows attribute is used to create horizontal frames in web browser. This attribute is used to define no of rows and its size inside the frameset tag.

The size of rows or height of each row use the following ways:

- Use absolute value in pixel

**Example:**

```
<frameset rows = "300, 400, 300">
```

- Use percentage value

**Example:**

```
<frameset rows = "30%, 40%, 30%">
```

- Use wild card values

**Example:**

```
<frameset rows = "30%, *, 30%">
```

In the above example \* will take the remaining percentage for creating horizontal frame.

### Attributes of Frame Tag:

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- **name:** This attribute is used to give names to the frame. It differentiates one frame from another. It is also used to indicate which frame a document should be loaded into.

### Example:

```
○ <frame name = "top" src = "vitamin.png" />
○ <frame name = "main" src = "vitaminC.png" />
○ <frame name = "bottom" src = "vitaminE.png" />
```

Here we use three frames with names as left center and right.

- **src:** This attribute in frame tag is basically used to define the source file that should be loaded into the frame. The value of src can be any url.

### Example:

```
<frame name = "left" src = "/html/left.htm" />
```

In the above example name of frame is left and source file will be loaded from “/html/left.htm” in frame.

- **marginwidth:** This attribute in frame tag is used to specify width of the spaces in pixels between the border and contents of left and right frame.

### Example:

```
<frame marginwidth="20">
```

- **marginheight:** This attribute in frame tag is used to specify height of the spaces in pixels between the border and contents of top and bottom frame.

### Example:

```
<frame marginheight="20">
```

- **scrollbar:** To control the appearance of scroll bar in frame use scrollbar attribute in frame tag. This is basically used to control the appearance of scrollbar. The value of this attribute can be yes, no, auto. Where the value no denotes there will be no appearance of scroll bar.

### Example:

```
<frame scrollbar="no">
```

### Advantages:

- It allows the user to view multiple documents within a single Web page.
- It loads pages from different servers in a single frameset.
- The older browsers that do not support frames can be addressed using the tag.

**Disadvantages:** Due to some of its disadvantages it is rarely used in web browser.

- Frames can make the production of website complicated.
- A user is unable to bookmark any of the Web pages viewed within a frame.
- The browser's back button might not work as the user hopes.
- The use of too many frames can put a high workload on the server.
- Many old web browsers don't support frames.

**Note:** This tag is not supported in HTML5.

## HTML Links - Hyperlinks

- HTML links are hyperlinks.
- You can click on a link and jump to another document.
- When you move the mouse over a link, the mouse arrow will turn into a little hand.

### HTML Links - Syntax

The HTML `<a>` tag defines a hyperlink. It has the following syntax:

```
<a href="url">link text</a>
```

The most important attribute of the `<a>` element is the `href` attribute, which indicates the link's destination. The *link text* is the part that will be visible to the reader.

Clicking on the link text, will send the reader to the specified URL address.

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### Example

This example shows how to create a link to education.com:

```
<a href="https://www.education.com/">Click on Education Site</a>
```

By default, links will appear as follows in all browsers:

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

### HTML Links - The target Attribute

By default, the linked page will be displayed in the current browser window. To change this, you must specify another target for the link.

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

The **target** attribute can have one of the following values:

- **\_self** - Default. Opens the document in the same window/tab as it was clicked
- **\_blank** - Opens the document in a new window or tab
- **\_parent** - Opens the document in the parent frame
- **\_top** - Opens the document in the full body of the window

### Example

Use target="\_blank" to open the linked document in a new browser window or tab:

```
<p><a href="https://www.education.com/" target="_blank">Click on Education Site</a></p>
```

### Absolute URLs vs. Relative URLs

Both examples above are using an **absolute URL** (a full web address) in the **href** attribute.

A local link (a link to a page within the same website) is specified with a **relative URL** (without the "https://www" part):

### Example:

```
<h2>Absolute URLs</h2>
<p><a href="https://www.manshikpuja.com/">Manshik Puja </a></p>
<p><a href="https://www.google.com/">Google</a></p>

<h2>Relative URLs</h2>
<p><a href="html_images.asp">HTML Images</a></p>
<p><a href="/css/default.asp">CSS Tutorial</a></p>
```

### HTML Links - Use an Image as a Link

To use an image as a link, just put the **<img>** tag inside the **<a>** tag:

### Example

```
<!DOCTYPE html>
<html>
<body>

<h2>Image as a Link</h2>

<p>The image below is a link. Try to click on it.</p>

<a href="https://www.facebook.com/"></a>

</body>
</html>
```

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### Link to an Email Address

Use **mailto:** inside the **href** attribute to create a link that opens the user's email program (to let them send a new email):

#### Example

```
<a href="mailto:someone@example.com">Send email</a>
```

### Button as a Link

To use an HTML button as a link, you have to add some JavaScript code.

JavaScript allows you to specify what happens at certain events, such as a click of a button:

#### Example:

```
<button onclick="document.location='default.asp'">HTML Tutorial</button>
```

### Link Titles

The **title** attribute specifies extra information about an element. The information is most often shown as a tooltip text when the mouse moves over the element.

Example:

```
<a href="https://www.website.com/html/" title="Go to website HTML section">Visit our HTML Tutorial</a>
```

Note:

- Use the **<a>** element to define a link
- Use the **href** attribute to define the link address
- Use the **target** attribute to define where to open the linked document
- Use the **<img>** element (inside **<a>**) to use an image as a link
- Use the **mailto:** scheme inside the **href** attribute to create a link that opens the user's email program

### HTML Links - Different Colors

An HTML link is displayed in a different color depending on whether it has been visited, is unvisited, or is active.

#### HTML Link Colors

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

You can change the link state colors, by using CSS:

#### Example

Here, an unvisited link will be green with no underline. A visited link will be pink with no underline. An active link will be yellow and underlined. In addition, when mousing over a link (**a:hover**) it will become red and underlined:

```
<!DOCTYPE html>
<head>
  <title>HTML link Color </title>
  <style>
    a:link {
      color: green;
      background-color: transparent;
      text-decoration: none;
    }

    a:visited {
      color: pink;
      background-color: transparent;
      text-decoration: none;
    }

    a:hover {
```

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```
color: red;
background-color: transparent;
text-decoration: underline;
}
a:active {
color: yellow;
background-color: transparent;
text-decoration: underline;
}
</style>

</head>
<html>
<body>

<h2>Image as a Link</h2>

<p>The image below is a link. Try to click on it.</p>

<a href="https://www.facebook.com/">Facebook Site</a>

</body>
</html>
```

### Link Buttons

A link can also be styled as a button, by using CSS:

Example:

```
<!DOCTYPE html>
<head>
  <title>HTML Button Color </title>
  <style>
a:link, a:visited {
background-color: #f44336;
color: white;
padding: 15px 25px;
text-align: center;
text-decoration: none;
display: inline-block;
}

a:hover, a:active {
background-color: red;
}

</style>

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



```
<h2>HTML Button Color</h2>

<p>The button below is a link. Try to click on it.</p>

<a href="https://www.facebook.com/">Facebook Site</a>

</body>
</html>
```

### HTML Links - Create Bookmarks

HTML links can be used to create bookmarks, so that readers can jump to specific parts of a web page.

#### Create a Bookmark in HTML

Bookmarks can be useful if a web page is very long.

To create a bookmark - first create the bookmark, then add a link to it.

When the link is clicked, the page will scroll down or up to the location with the bookmark.

#### Example

First, use the **id** attribute to create a bookmark:

```
<h2 id="C4">Chapter 4</h2>
```

Then, add a link to the bookmark ("Jump to Chapter 4"), from within the same page:

#### Example:

```
<a href="#C4">Jump to Chapter 4</a>
```

You can also add a link to a bookmark on another page:

```
<a href="html_demo.html#C4">Jump to Chapter 4</a>
```

Note:

- Use the **id** attribute (`id="value"`) to define bookmarks in a page
- Use the **href** attribute (`href="#value"`) to link to the bookmark

### HTML Images

we will know the **HTML Image**, how to add the image in HTML, along with knowing its implementation & usage through the examples. In earlier times, the web pages only contains textual contents, which made them appear quite boring and uninteresting. Fortunately, it wasn't long enough that the ability to embed images on web pages was added for users. we will know how to add images to the web page that will make the website attractive & various methods to insert the images.

There are 2 ways to insert the images into a webpage:

- By providing a full path or address (URL) to access an internet file.
- By providing the file path relative to the location of the current web page file.

We will first discuss inserting the image to the webpage & simultaneously, we will understand both the above approaches.

**Adding images on a webpage:** The `<img>` tag is used to add or embed the images to a webpage/website. The "img" tag is an empty tag, which means it can contain only a list of attributes and it has no closing tag. The addition of the images improves the quality along with enhancing the design structure, appearance of the webpage. Nowadays, a website does not directly add images to a web page, as the images are linked to web pages by using the `<img>` tag which holds space for the image.

#### Syntax:

```

```

**Attribute:** The `<img>` tag has following attributes:

- **src:** It is used to specify the path to the image.

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- **alt:** It is used to specify an alternate text for the image. It is useful as it informs the user about what the image means and also due to any network issue if the image cannot be displayed then this alternate text will be displayed.
- **crossorigin:** It is used to import images from third-party sites that allow cross-origin access to be used with canvas.
- **height:** It is used to specify the height of the image.
- **width:** It is used to specify the width of the image.
- **ismap:** It is used to specify an image as a server-side image map.
- **loading:** It is used to specify whether a browser should defer the loading of images until some conditions are met or load an image immediately.
- **longdesc:** It is used to specify a URL to a detailed description of an image.
- **referrerpolicy:** It is used to specify which referrer information to use when fetching an image i.e. no-referrer, no-referrer-when-downgrade, origin, origin-when-cross-origin, unsafe-url.
- **sizes:** It is used to specify image sizes for different page layouts.
- **srcset:** It is used to specify a list of image files to use in different situations.
- **usemap:** It is used to specify an image as a client-side image map.

**src:** The src stands for source. Every image has an src attribute which tells the browser where to find the image you want to display. The URL of the image provided points to the location where the image is stored. When the webpage loads for the first time, then the browser gets the image from a web server and inserts it into the page. If the image is not spotted by the browser then users will get a broken link icon. It might be possible if the file path is wrong or the image got deleted from that location.

**Example 1:** This simple example illustrates the use of the <img> tag in HTML that is used to embed the image into the webpage.

```
<!DOCTYPE html>
<html>
<head>
  <title>Image Tag</title>
</head>
<body>
  <h2>Welcome</h2>
  <p>This is the demo of <img> tag.</p>
  
</body>
</html>
```

**Example 2:** The example illustrates the use of the src attribute in the <img> tag.

**alt:** If the image cannot be displayed then the alt attribute acts as an alternative description for the image. The value of the alt attribute is a user-defined text. It generally happens when the user, for some reason, cannot view it due to a slow internet connection or an error in the src attribute, or if the user uses a screen reader.

```
<!DOCTYPE html>
<html>
<head>
  <title>Image Tag</title>
</head>
<body>
  <h2>Welcome</h2>
  <p>This is the demo of <img> tag.</p>
  
</body>
</html>
```

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**Example 3:** The example illustrates the use of the alt attribute in the <img> tag.

```
<!DOCTYPE html>
<html>
<head>
  <title>Image Tag</title>
</head>
<body>
  <h2>Welcome</h2>
  <p>This is the demo of <img> tag.</p>
  
</body>
</html>
```

**Setting width and height of Image:** The width and height attributes are used to specify the height and width of an image. The attribute values are specified in pixels by default. The width and height attributes are always declared in pixels.

**Example 4:** The example illustrates the use of the width & height attribute in the <img> tag.

```
<!DOCTYPE html>
<html>
<head>
  <title>Setting width and height of image</title>
</head>
<body>

  <p>inserted image using<img> tag:</p>

  
</body>
</html>
```

**Adding titles to Image:** Along with the images, titles can also be added to images to provide further information related to the inserted image. For inserting a title, the title attribute is used. Please refer to the [HTML | title Attribute article](#) for further details.

**Setting style to the Image:** In this example, we are using the border property to decorate the image. By default, every picture has a border around it. By using the border attribute, the thickness of the border can be changed. A thickness of “0” means that there will be no border around the picture. Please refer to the [HTML | <img> border Attribute](#) for further details.

**Example 6:** This example illustrates the use of style property inside the <img> tag in HTML.

```
<!DOCTYPE html>
<html>
<head>
  <title>Setting border to image</title>
</head>
<body>
  <p>inserted image using <img> tag:</p>
  <img src=
" https://pngimg.com/uploads/bmw_logo/bmw_logo_PNG19705.png "
  alt="BMW logo"
  width="200"
  height="200"
  border="5" />
</body>
</html>
```

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**Aligning an Image:** By default, an image is aligned on the left side of the page, but it can be aligned to the centre or right using the align attribute.

**Example 7:** This example illustrates the use of *align* property in the <img> tag whose value is set to right.

```
<!DOCTYPE html>
<html>
<head>
  <title>Aligning an image</title>
</head>
<body>
  <p>inserted image using <img> tag:</p>
  <img src= "smiley.gif"
    alt="Smily GIF" align="right" />
</body>
</html>
```

**Adding Image as a Link:** An image can work as a link with a URL embedded in it. It can be done by using the “img” tag inside an “a” tag. We need to specify the file path in order to render the image on the webpage. File paths are used to link external resources such as images, videos, style sheets, JavaScript, displaying other web pages, etc. To insert a file on a web page its source must be known.

File paths are of two types:

- **Absolute File Paths:** It always contains the root element along with the complete directory list required to locate the file.
- **Relative File Paths:** It is the hierarchical path representation that locates the file or folder on a file system beginning from the current directory.

**Example 8:** This example illustrates the use of link property in the <img> tag. Here, we have used the absolute path link in order to provide the link to the image.

```
<!DOCTYPE html>
<html>
<head>
  <title>Adding image as link</title>
</head>
<body>
  <p>inserted image using <img> tag:</p>
  <a href=" https://pngimg.com/uploads/bmw_logo/bmw_logo_PNG19705.png ">
  <img src= "https://images.unsplash.com/photo-1601362840469-51e4d8d58785?ixlib=rb-
4.0.3&ixid=M3wxMjA3fDB8MHxzZWZyY2h8OHx8Ym13JTlWY2FyYGVuZDB8fDB8fHww&w=1000&q=80"
    alt="BMW Car" />
  </a>
</body>
</html>
```

**Adding animated Image:** Animated images in .gif format can also be added using the “img” tag.

**Example 9:** This example explains the addition of an image in the GIF format in HTML.

```
<!DOCTYPE html>
<html>
<body>
  <h3>Adding a gif file on a webpage</h3>
  
```

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

**Common Image Format:** Here is the commonly used image file format that is supported by all the browsers.

<i>S.No.</i>	<i>Abbreviation</i>	<i>File Type</i>	<i>Extension</i>
1.	PNG	Portable Network Graphics.	.png
2.	JPEG.	Joint Photographic Expert Group image.	.jpg, .jpeg, .jif, .jpeg, .jpg
3.	SVG	Scalable Vector Graphics.	.svg.
4.	GIF	Graphics Interchange Format.	.gif
5.	ICO	Microsoft Icon.	.ico, .cur
6.	APNG	Animated Portable Network Graphics.	.apng

### What is Multimedia?

Multimedia comes in many different formats. It can be almost anything you can hear or see, like images, music, sound, videos, records, films, animations, and more.

HTML5 introduced 5 most popular media element tags i.e. <audio>, <video>, <source>, <embed>, <track>. These media element tags changed the entire development using HTML.

#### Media Tags:

- **<audio>**: It is an inline element that is used to embed sound files into a web page.
- **<video>**: It is used to embed video files into a web page.
- **<source>**: It is used to attach multimedia files like audio, video, and pictures.
- **<embed>**: It is used for embedding external applications which are generally multimedia content like audio or video into an HTML document.
- **<track>**: It specifies text tracks for media components audio and video.

**HTML Video:** The HTML <video> element is used to show a video on a web page.

Examples:

```
<video width= 320" height= 240" controls>  
<source src="movie.mp4" type="video/mp4 >  
<source src="movie.ogg" type="video/ogg">Your browser does not support the video tag.</video>
```

- The **controls attribute** adds video controls, like play, pause, and volume.

- It is a good idea to always include **weight and height** attributes. If height and width are not set, the page might flicker while the video loads.

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- The <source> element allows you to specify alternative video files which the browser may choose from. The browser will use the first recognized format.
- The text between the <video> and </video> tags will only be displayed in browsers that do not support the <video> element.

### HTML Audio:

- The attribute adds audio controls, like play, pause, and volume.
- The element allows you to specify alternative audio files which the browser may choose from. The browser will use the first recognized format.
- The text between the tags will only be displayed in browsers that do not support the <audio> element.

**Example:** <audio controls autoplay>

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

```
<source src="horse.mp3" type="audio/mpeg">
```

```
Your browser does not support the audio element.</audio>
```

<embed>: It is used as a container for embedding plug-ins such as flash animations.

### Syntax:

```
<embed attributes>
```

```
<embed src="audi.jpg">
```

<source>: As you can observe that <audio>, <video> elements contain the <source> element, the <source> tag is used to attach multimedia files.

### Syntax:

```
<source src="" type="">
```

```
...
```

```
</source>
```

<track>: It is used to specify subtitles, caption files, or different files containing text, that ought to be visible once the media is taking part in it. Thus it is a simple sector for the <audio> and <video> elements.

### Syntax:

```
<track Attribute>
```

## HTML Form

An HTML form is used to collect user input. The user input is most often sent to a server for processing.

The <form> Element: The HTML <form> element is used to create an HTML form for user input.

The <form> element is a container for different types of input elements, such as: text fields, check boxes, radio buttons, submit buttons, etc.

Syntax: <form> <!--form elements--></form>

Example:

```
<!DOCTYPE html>
<html>
<body>
<h2>HTML Forms</h2>
<form action="/action_page.php">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname" value="John"><br>
  <label for="lname">Last name:</label><br>
  <input type="text" id="lname" name="lname" value="Doe"><br><br>
  <input type="submit" value="Submit">
</form>
<p>If you click the "Submit" button, the form-data will be sent to a page.</p>
</body>
</html>
```

**Output:**

## HTML Forms

First name:

Last name:

If you click the "Submit" button, the form-data will be sent to a page.

### Form elements

These are the following HTML <form> elements:

- **<label>**: It defines label for <form> elements.

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

The <label> element also helps users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the <label> element, it toggles the radio button/checkbox.

The for attribute of the <label> tag should be equal to the id attribute of the <input> element to bind them together.

- **<input>**: It is used to get input data from the form in various types such as text, password, email, etc by changing its type.
- **<button>**: It defines a clickable button to control other elements or execute a functionality.
- **<select>**: It is used to create a drop-down list.
- **<textarea>**: It is used to get input long text content.
- **<fieldset>**: It is used to draw a box around other form elements and group the related data.
- **<legend>**: It defines a caption for field set elements.
- **<datalist>**: It is used to specify pre-defined list options for input controls.
- **<output>**: It displays the output of performed calculations.
- **<option>**: It is used to define options in a drop-down list.
- **<optgroup>**: It is used to define group-related options in a drop-down list.

The <Input> Element: The HTML <input> element is the most used form element.

An <input> element can be displayed in many ways, depending on the type attribute.

<input type="text"> Displays a single-line text input field.

<input type="radio"> Displays a radio button (for selecting one of many choices)

<input type="checkbox"> Displays a checkbox (for selecting zero or more of many choices)

<input type="submit"> Displays a submit button (for submitting the form)

<input type="button"> Displays a clickable button

### **Textbox in HTML Form**

In an HTML form, we use the <input> tag by assigning type attribute value to text to input single line input. To define type attribute see the below syntax.

Tip: The default value of the type attribute is "text".

#### **Syntax:**

<input type="text" />

Or shorthand for "text" type:

<input />

Password in an HTML Form

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We can change the type value text to password to get the input password

**Example:** This example shows the type password in html form.

```
<!DOCTYPE html>
<html>
<head>
  <title>Password HTML Form </title>
</head>
<body>
  <h2>Password HTML Form</h2>
  <form>
    <p>
      <label>Username : <input type="text" /></label>
    </p>
    <p>
      <label>Password : <input type="password" /></label>
    </p>
    <p>
      <button type="submit">Submit</button>
    </p>
  </form>
</body>
</html>
```

Output:

Welcome To html

Username :

Password :

### Radio Button in an HTML Form

To create a radio button, we use the <input> tag following by radio type to provide users to choose a limited number of choices.

#### Syntax:

```
<input type="radio" name="radio_button_name" value="radio_button_value" />
```

**Note:** The radio button must have shared the same name to be treated as a group.

**Note:** The value attribute defines the unique value associated with each radio button. The value is not shown to the user, but is the value that is sent to the server on “submit” to identify which radio button that was selected.

**Example:** In this example, we will create a radio button to choose your gender.

```
<!DOCTYPE html>
<html>
<head>
  <title>Radio Button </title>
</head>
<body>
  <h2>Select your gender</h2>
  <form>
    <label>Male<input type="radio"
```



```
        name="gender"
        value="male" />
    </label>
    <label>Female<input type="radio"
        name="gender"
        value="female" />
    </label>
</form>
</body>
</html>
```

Output:

Select your gender

Male  Female

### Checkbox in an HTML Form

To create a checkbox in an HTML form, we use the <input> tag followed by the input type checkbox. It is a square box to tick to activate this. It used to choose more options at a time.

#### **Syntax:**

```
<input type="checkbox" name="select_box_name" value="select_box_value" />
```

**Note:** the “name” and “value” attributes are used to send the checkbox data to the server.

**Example:** In this example, we use checkboxes to select language.

```
<!DOCTYPE html>
<html>
<head>
    <title>CheckBox</title>
</head>
<body>
    <h2>Choose Language</h2>
    <form>
        <ul style="list-style-type:none;">
            <li><input type="checkbox"
                name="language"
                value="hindi" />
                Hindi
            </li>
            <li><input type="checkbox"
                name="language"
                value="english" />
                English
            </li>
            <li><input type="checkbox"
                name="language"
                value="sanskrite" />
                Sanskrite
            </li>
```

```
</ul>
</form>
</body>
</html>
```

Output:

## Choose Language

- Hindi
- English
- Sanskrit

### Submit button in an HTML Form

In the HTML form, submit button is used to submit the details of the form to the form handler. A form handler is a file on the server with a script that is used to process input data.

#### Syntax:

```
<button type="submit">submit</button>
```

**Example:** In this example, we will create a submit button.

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>
<h2>Welcome</h2>
<form>
<p>
<label>Username: <input type="text" /></label>
<p>
<label>Password: <input type="password" /></label>
</p>
<p>
<button type="submit">submit</button>
</p>
</form>
</body>
</html>
```

Output:

## Welcome

Username:

Password:

### TextArea in an HTML Form

In the HTML form, a text area is used to add comments or reviews, or addresses to the form, in other words, the text area is a multi-line text input control. It contains an unlimited number of characters, the text renders in a fixed-width font, and the size of the text area is given by the <rows> and <cols> attributes. To create a text area in the form use the <textarea> tag.

#### Syntax:

```
<textarea name="textarea_name">content</textarea>
```

**Note:** the name attribute is used to reference the textarea data after it is sent to a server.

**Example:** In this example, we will create a textarea.

```
<!DOCTYPE html>
<html>
<head>
  <title>TextArea in an HTML Form</title>
</head>
<body>
  <h2>Welcome to text area in HTML form </h2>
  <form>
    <textarea name="welcomeMessage" rows="3"
      cols="40">
      Happiness is not by chance but by choice
    </textarea>
  </form>
</body>
</html>
```

Output:

## Welcome

Happiness is not  
by chance but by choice

### Create an HTML form to input the basic details of a student

In this example, we will take input such as Salutation, First Name, Last Name, Email, Phone, Gender, Date of Birth, and Address.

To create this form, we need to use the <legend> tag to define the caption, <select> tag for Salutation, <option> tag to define elements of Salutation, <input> tag for First Name, Last Name, Email, Phone, Date

## Notes, Question Bank & Assignment UNIT-2

of Birth by changing `<input>` tag type attribute, `<textarea>` to input address, the radio button for gender. After defining all these stuff, we will use a `<button>` to submit this form data.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Students Form Details </title>
</head>
<body>
  <form>
    <fieldset>
      <legend>Personal Details</legend>
      <p>
        <label>
          Salutation
          <br />
          <select name="salutation">
            <option>--None--</option>
            <option>Mr.</option>
            <option>Ms.</option>
            <option>Mrs.</option>
            <option>Dr.</option>
            <option>Prof.</option>
          </select>
        </label>
      </p>
      <p>
        <label>First name: <input name="firstName" /></label>
      </p>
      <p>
        <label>Last name: <input name="lastName" /></label>
      </p>
      <p>
        Gender :
        <label><input type="radio" name="gender"
          value="male" />
          Male
        </label>
        <label><input type="radio" name="gender"
          value="female" />
          Female
        </label>
      </p>
      <p>
        <label>Email:<input type="email">

```

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```
name="email" />
</label>
</p>
```

```
<p>
<label>Date of Birth:<input type="date"
name="birthDate">
</label>
</p>
```

```
<p>
<label>
Address :
<br />
<textarea name="address" cols="30"
rows="3">
</textarea>
</label>
</p>
```

```
<p>
<button type="submit">Submit</button>
</p>
```

```
</fieldset>
</form>
</body>
</html>
```

Output:

Personal Details

Salutation  
--None-- ▾

First name:

Last name:

Gender :  Male  Female

Email:

Date of Birth:

Address :

### HTML | controls Attribute

The **HTML controls Attribute** is used to specify that the audio and video controls must be displayed. It is a Boolean attribute and also new in HTML5. We can use this attribute in two tags `<audio>` and `<video>`. The controls attribute includes the following properties on `<audio>` tag:

- Play
- Pause
- Seeking
- Volume

The controls attribute includes the following properties on `<video>` tag:

- Play
- Pause
- Seeking
- Volume
- Fullscreen toggle (for video only)
- Captions/Subtitles (for video only, when available)
- Track (for video only, when available)

#### Syntax:

`<element controls>`

Below example illustrates the use of controls attribute in `<audio>` element.

```
<!DOCTYPE html>
<html>
<head>
```

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```
<title>
  HTML Audio controls Attribute
</title>
</head>
<body style="text-align: center">
  <h1 style="color: green">
    Audio Control
  </h1>
  <h2 style="font-family: Impact">
    HTML Audio controls Attribute
  </h2>
  <br>
  <audio id="Test_Audio" controls autoplay>
    <source src=
"https://media.geeksforgeeks.org/wp-content/uploads/20190531165842/Recording1514.ogg"
      type="audio/ogg">
    <source src=
"https://media.geeksforgeeks.org/wp-
content/uploads/20190531165842/Recording1514.mp3"
      type="audio/mpeg">
  </audio>
</body>
</html>
```

Below example illustrates the use of controls attribute in <video> element.

Example:

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML video controls Attribute</title>
</head>
<body>
  <center>
    <h1 style="color:green;">Video Controls Attribute </h1>
    <h3>HTML video controls Attribute</h3>
    <video width="400" height="200" controls >
      <source src=
"https://media.geeksforgeeks.org/wp-content/uploads/20190616234019/Canvas.move_.mp4"
        type="video/mp4">
      <source src=
"https://media.geeksforgeeks.org/wp-content/uploads/20190616234019/Canvas.move_.ogg"
        type="video/ogg">
    </video>
  </center>
</body>
</html>
```

### Question Bank

#### Section-A

## Notes, Question Bank & Assignment UNIT-2

Q1. Differentiate HTML and XHTML.

Q2. How will you create a password field in a HTML form?

Q3. Name the Elements of HTML.

Q4. What do you understand by the Hyperlinks in HTML?.

### Section-B

Q1. Discuss in detail about the following.

i) Working with Lists in HTML using an example.

ii) Tables and Frames in HTML using an example

Q2. Explain in detail about the following

i) Using Images and Multimedia in HTML using an example.

ii) Tables and Frames in HTML with the help of an example.

Q3. How to insert Images in a web page. Explain with help of example.

Q4. What do you mean by HTML. Explain at least ten tags of HTML.

Q5. What are the necessities of using HTML forms? What is the use of HTML Forms? Create a HTML Form page for Railway Registration Form.

Q6. How to create user interactive web pages using Form elements and Form objects? Develop a Student registration form using HTML Form elements. (Assume your own fields).

Q7. Explain the HTML tags: Table Frame and Forms with the help of suitable examples.

Q8. What is HTML? Discuss the basic structure of HTML document with the help of an example.

Q9. Create a HTML document for a company home page.

### Assignment-2

Q1. How to insert Images in a web page. Explain with help of example.

Q2. What do you understand by the Hyperlinks in HTML?.

Q3. Differentiate HTML and XHTML.

Q4. Explain the HTML tags: Table Frame and Forms with the help of suitable examples.

Q5. What do you mean by HTML. Explain at least ten tags of HTML.



