

UNIT-1

HTML

Introduction

HTML is a language for describing web pages.

- ◆ HTML stands for **Hyper Text Markup Language**
- ◆ HTML is not a programming language, it is a **markup language**
- ◆ A markup language is a set of **markup tags**
- ◆ HTML uses **markup tags** to describe web pages

HTML Tags

- ◆ HTML tags are keywords surrounded by **angle brackets** like <html>
- ◆ HTML tags normally **come in pairs** like and
- ◆ The first tag in a pair is the **start tag**, the second tag is the **end tag**

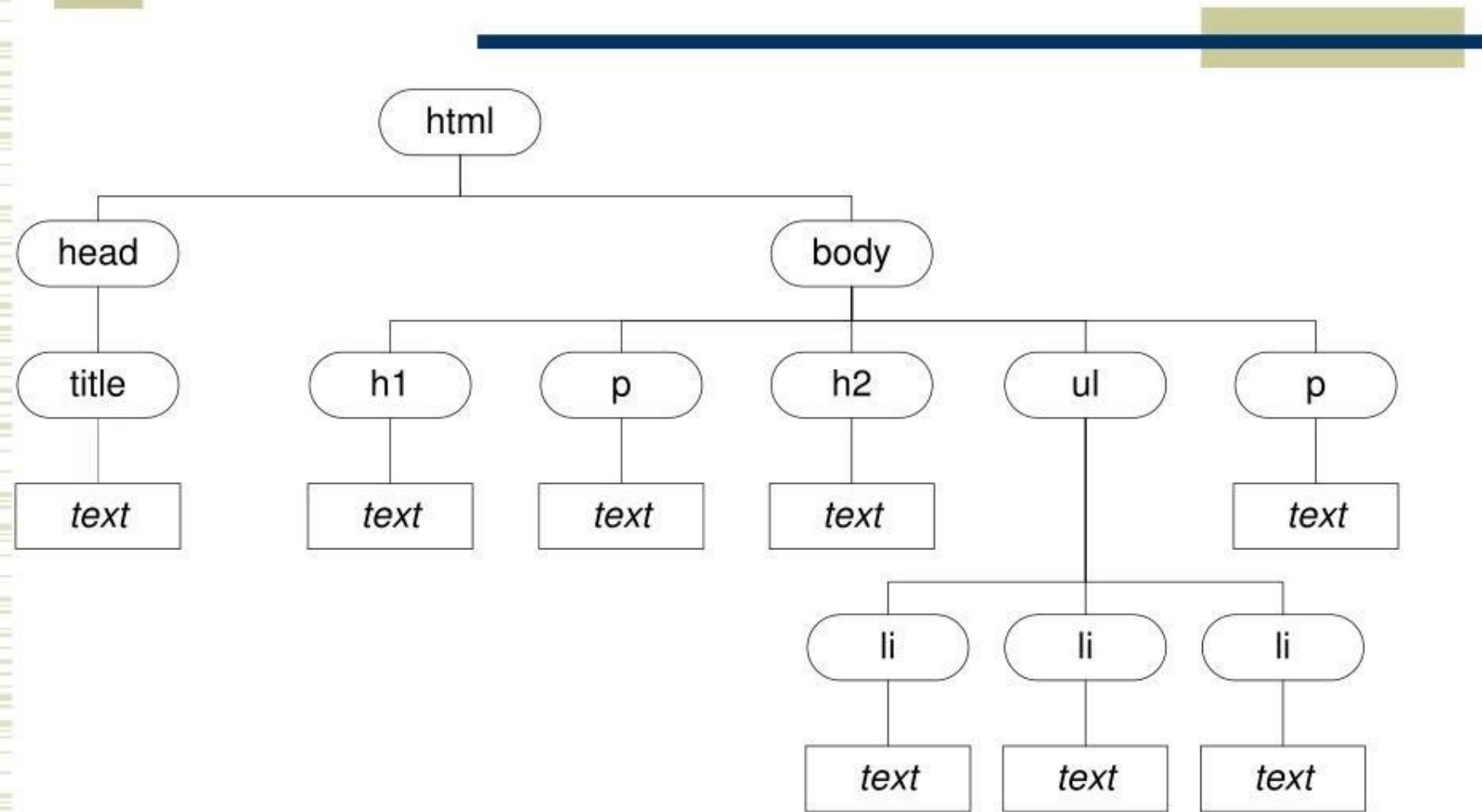
HTML Page Structure

```
<!DOCTYPE html>      ← Tells version of HTML
<html>      ← HTML Root Element
<head>      ← Used to contain page HTML metadata
  <title>Page Title</title>  ← Title of HTML page
</head>

<body>      ← Hold content of HTML
  <h2>Heading Content</h2>  ← HTML heading tag
  <p>Paragraph Content</p>  ← HTML paragraph tag
</body>

</html>
```

Web Page



HTML Basic Document

<html> ... </html>	Open and close HTML document
<head> ... </head>	Enclose document header
<title> ... </title>	Contain the document's assigned title.
<body> ... </body>	Contain the body of the HTML document.

```
<html>
<head>
<title>Title of document goes here</title>
</head>
<body>Visible text goes here...</body>
</html>
```

Example Explained

- ◆ The text between <html> and </html> describes the web page
- ◆ The text between <body> and </body> is the visible page content
- ◆ The text between <h1> and </h1> is displayed as a heading
- ◆ The text between <p> and </p> is displayed as a paragraph

Heading Elements

<h1>Largest Heading</h1>

<h2> . . . </h2>

<h3> . . . </h3>

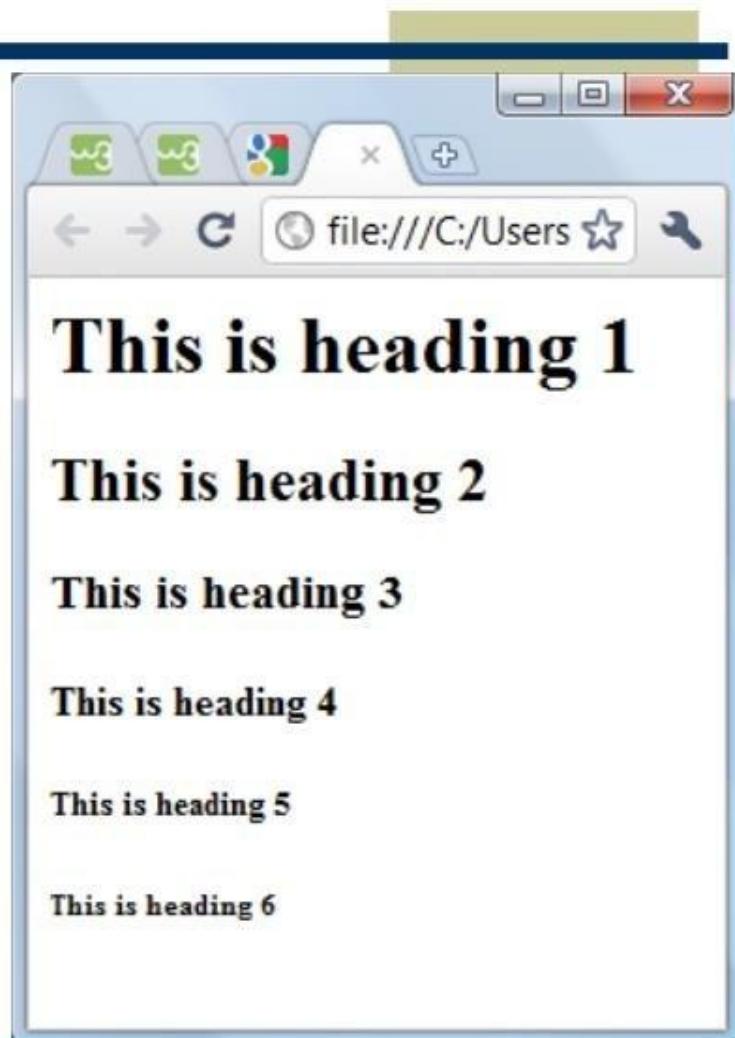
<h4> . . . </h4>

<h5> . . . </h5>

<h6>Smallest Heading</h6>

Heading Elements

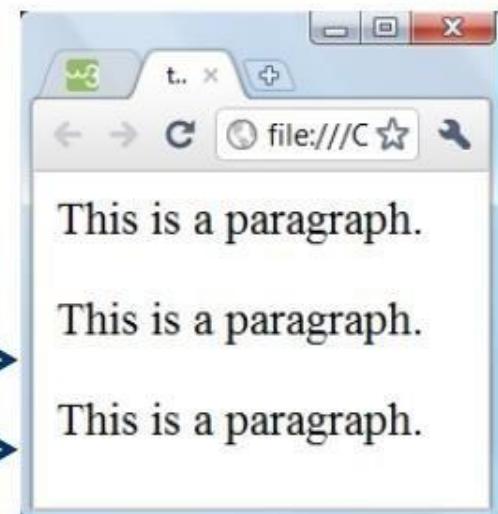
```
<html>
<body>
    <h1>This is heading 1</h1>
    <h2>This is heading 2</h2>
    <h3>This is heading 3</h3>
    <h4>This is heading 4</h4>
    <h5>This is heading 5</h5>
    <h6>This is heading 6</h6>
</body>
</html>
```



Paragraphs

Paragraphs are defined with the `<p>` tag.

```
<html>
<body>
  <p>This is a paragraph.</p>
  <p>This is a paragraph.</p>
  <p>This is a paragraph.</p>
</body>
</html>
```



HTML Line Breaks

- ◆ Use the `
` tag if you want a line break (new line) without starting a new paragraph
- ◆ **EXAMPLE**

```
<html>
<body>
  <p>Welcome in Hail </p>
  <p>Welcome<br />in <br />Hail</p>
</body>
</html>
```



HTML Links

HTML links are defined with the `<a>` tag.

The `href` attribute specifies the destination of a link.

EXAMPLE

```
<html>
  <body>
    <a href="http://www.w3schools.com">
      This is a link</a>
    </body>
</html>
```



Ahmed Youssef:: SWE444: **Internet and Web Application Development**

```
<button
  onclick="document.location='C:\Users\DELL\Desktop\1.jpg'">hello</button>
```

HTML Comments

- ◆ Comments can be inserted into the HTML code to make it more readable and understandable.
- ◆ Comments are ignored by the browser and are not displayed.
- ◆ Comments are written like this:

```
<!-- This is a comment -->
```

HTML Lines

- ◆ The `<hr />` tag creates a horizontal line in an HTML page.

```
<html>
```

```
  <body>
```

```
    <p>The hr tag defines a horizontal rule:</p>
```

```
    <hr />
```

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

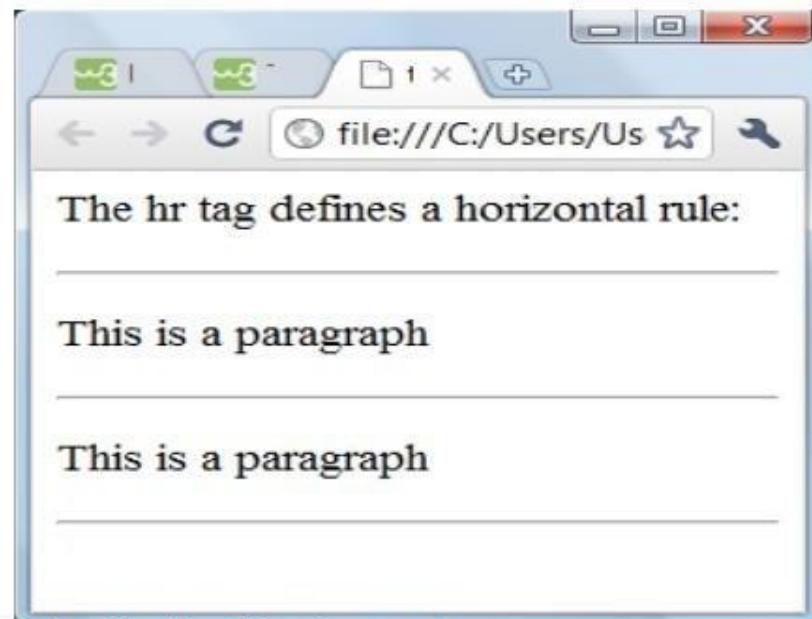
```
    <hr />
```

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

```
    <hr />
```

```
  </body>
```

```
</html>
```



HTML Text Formatting

Tag	Description
<u></u>	bold text
<u><big></u>	big text
<u><i></u>	italic text
<u><small></u>	small text
<u></u>	strong text
<u><sub></u>	subscripted text
<u><sup></u>	superscripted text

Exapmle

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



HTML Images

In HTML, images are defined with the `` tag.
To display an image on a page, you need to use
the `src` attribute.

```

```



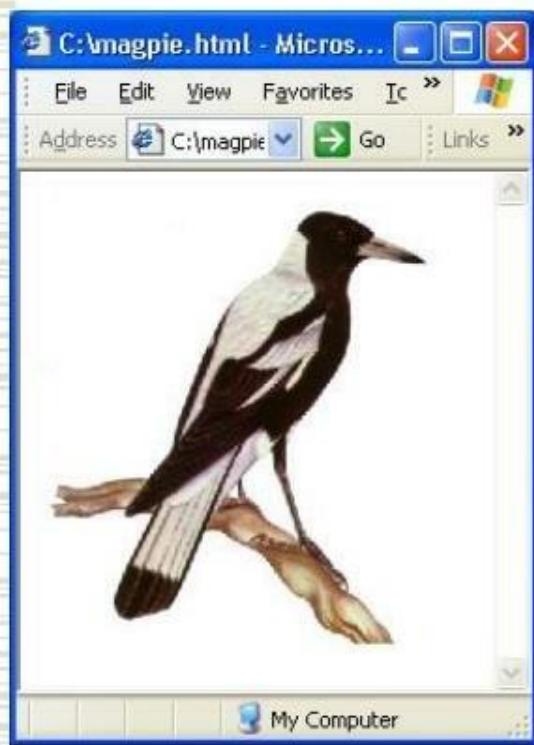
Images

- ◆ **WIDTH="..."** The width in pixels of an image.
- ◆ **HEIGHT="..."** The height in pixels of the image.
- ◆ **BORDER="..."** Creates a border around image.

```

```

(Relative) URL
of the binary
image file



width and/or height
attributes used to
scale the rendered
size of the image

Alternative text
to be displayed
if the image can't
be displayed

HTML Lists

Ordered list:

- 1.The first list item
- 2.The second list item
- 3.The third list item

Unordered list:

- List item
- List item
- List item

Definition Lists

list of items, with a description of each item.

Coffee

- black hot drink

Milk

- white cold drink

HTML List Tags

Tag	Description
<u></u>	Defines an ordered list
<u></u>	Defines an unordered list
<u></u>	Defines a list item
<u><dl></u>	Defines a definition list
<u><dt></u>	Defines an item in a definition list
<u><dd></u>	Defines a description of an item in a definition list

Lists

Unordered Lists

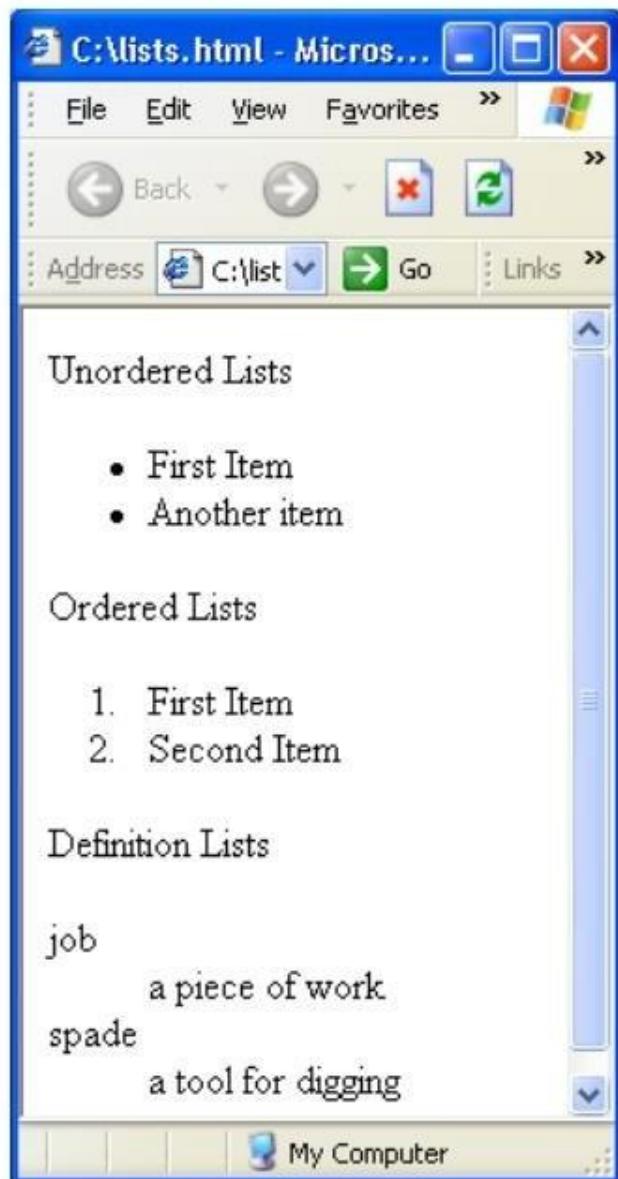
```
<ul>
    <li>First Item</li>
    <li>Another item</li>
</ul>
```

Ordered Lists

```
<ol>
    <li>First Item</li>
    <li>Second Item</li>
</ol>
```

Definition Lists

```
<dl>
    <dt>job</dt>
    <dd>a piece of work</dd>
    <dt>spade</dt>
    <dd>a tool for digging</dd>
</dl>
```



Numbered List

```
<html>
<body>
    <h4>Numbered list:</h4>
    <ol>
        <li>Apples</li>
        <li>Bananas</li>
        <li>Lemons</li>
        <li>Oranges</li>
    </ol>
</html>
</body>
```



```
<h4>Letters list:</h4>
```

```
<ol type="A">
```

```
    <li>Apples</li>
```

```
    <li>Bananas</li>
```

```
    <li>Lemons</li>
```

```
    <li>Oranges</li>
```

```
</ol>
```

```
<h4>Lowercase letters list:</h4>
```

```
<ol type="a">
```

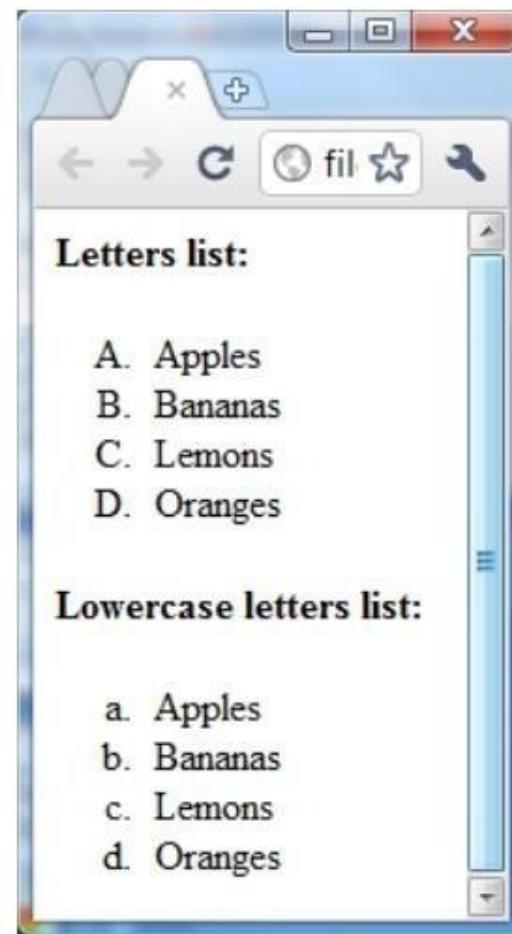
```
    <li>Apples</li>
```

```
    <li>Bananas</li>
```

```
    <li>Lemons</li>
```

```
    <li>Oranges</li>
```

```
</ol>
```



```
<h4>Roman numbers list:</h4>
```

```
<ol type="I">
```

```
    <li>Apples</li>
```

```
    <li>Bananas</li>
```

```
    <li>Lemons</li>
```

```
    <li>Oranges</li>
```

```
</ol>
```

```
<h4>Lowercase Roman numbers list:</h4>
```

```
<ol type="i">
```

```
    <li>Apples</li>
```

```
    <li>Bananas</li>
```

```
    <li>Lemons</li>
```

```
    <li>Oranges</li>
```

```
</ol>
```



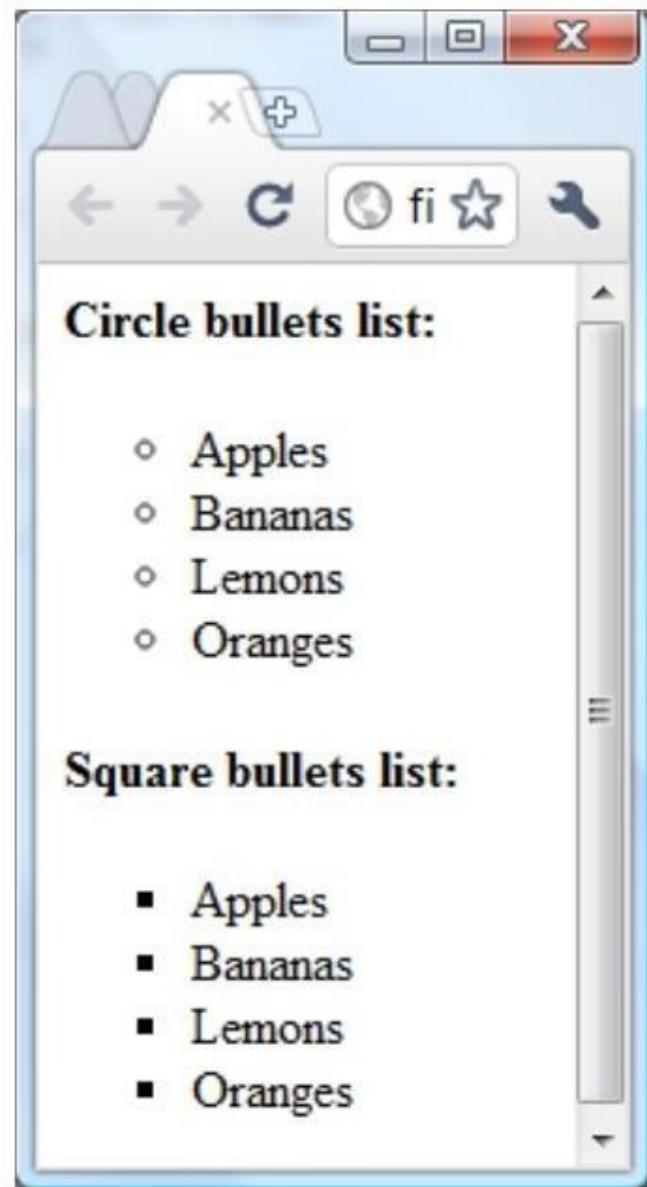
Different types of unordered lists

```
<html>
<body>
    <h4>Disc list:</h4>
    <ul type="disc">
        <li>Apples</li>
        <li>Bananas</li>
        <li>Lemons</li>
        <li>Oranges</li>
    </ul>
</html>
</body>
```



```
<h4>Circle bullets list:</h4>
<ul type="circle">
  <li>Apples</li>
  <li>Bananas</li>
  <li>Lemons</li>
  <li>Oranges</li>
</ul>
```

```
<h4>Square bullets list:</h4>
<ul type="square">
  <li>Apples</li>
  <li>Bananas</li>
  <li>Lemons</li>
  <li>Oranges</li>
</ul>
```



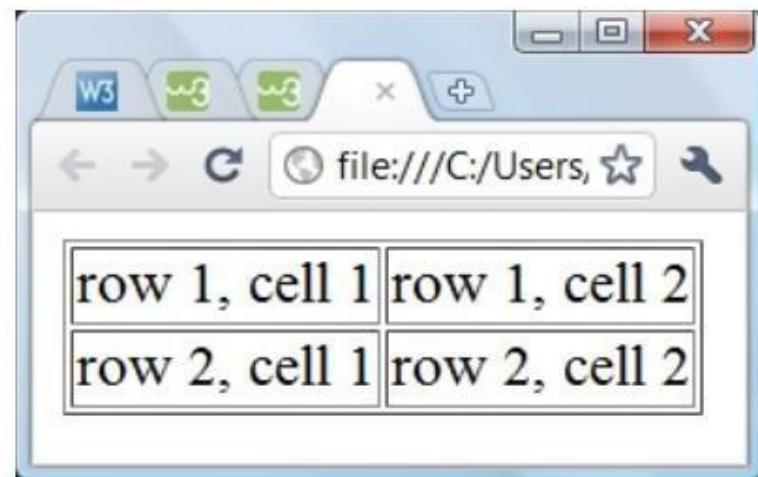
HTML Tables

- ◆ Tables are defined with the <table> tag.
- ◆ A table is divided into
 - rows (with the <tr> tag),
 - data cells (with the <td> tag). td stands for "table data," and holds the content of a data cell.
 - <td> tag can contain text, links, images, lists, forms, other tables, etc.

Tag	Description
<table>	It defines a table.
<tr>	It defines a row in a table.
<th>	It defines a header cell in a table.
<td>	It defines a cell in a table.
<caption>	It defines the table caption.
<colgroup>	It specifies a group of one or more columns in a table for formatting.
<col>	It is used with <colgroup> element to specify column properties for each column.
<tbody>	It is used to group the body content in a table.
<thead>	It is used to group the header content in a table.
<tfooter>	It is used to group the footer content in a table.

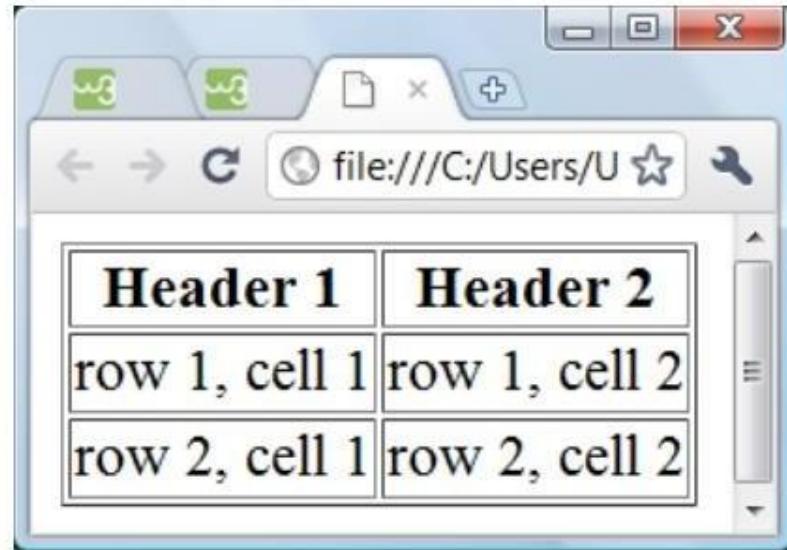
Example

```
<table border="1">  
<tr>  
    <td>row 1, cell 1</td>  
    <td>row 1, cell 2</td>  
</tr>  
<tr>  
    <td>row 2, cell 1</td>  
    <td>row 2, cell 2</td>  
</tr>  
</table>
```



HTML Table Headers

```
<table border="1">  
  <tr>  
    <th>Header 1</th>  
    <th>Header 2</th>  
  </tr>  
  <tr>  
    <td>row 1, cell 1</td>  
    <td>row 1, cell 2</td>  
  </tr>  
  <tr>  
    <td>row 2, cell 1</td>  
    <td>row 2, cell 2</td>  
  </tr>  
</table>
```



Vertical Headers

```
<table border="1">
  <tr>
    <th>First Name:</th>
    <td>Bill Gates</td>
  </tr>
  <tr>
    <th>Telephone:</th>
    <td>555 77 855</td>
  </tr>
</table>
```



```
<table border="2">
  <caption>Fruit Juice Drinks</caption>
  <tr>
    <th></th>
    <th> Apple </th>
    <th> Orange </th>
  </tr>
  <tr>
    <th> Breakfast </th>
    <td> 0 </td>
    <td> 1 </td>
  </tr>
  <tr>
    <th> Lunch </th>
    <td> 1 </td>
    <td> 2 </td>
  </tr>
</table>
```

Tables

A screenshot of a web browser window displaying a table titled "Fruit Juice Drinks". The browser interface includes a title bar with a close button, a toolbar with back, forward, and search icons, and a URL bar showing "file:///C:/Users/U:". The table has three columns: "Apple" (containing values 0 and 1), "Orange" (containing values 1 and 2), and a header row. The rows are labeled "Breakfast" and "Lunch".

	Apple	Orange
Breakfast	0	1
Lunch	1	2

HTML <colgroup> Tag

Set the background color of the three columns with the <colgroup> and <col> tags:

```
<!DOCTYPE html>
<html>
<head>
<style>table, th, td { border: 1px solid black;</style>
</head>
<body>
<h1>The colgroup element</h1>
<table>
  <colgroup>
    <col span="2" style="background-color:red">
    <col style="background-color:yellow">
  </colgroup>
  <tr>
    <th>ISBN</th>
    <th>Title</th>
    <th>Price</th>
  </tr>
  <tr>
    <td>3476896</td>
    <td>My first HTML</td>
    <td>$53</td>
  </tr>
</table>
</body>
</html>
```

The colgroup element

ISBN	Title	Price
3476896	My first HTML	\$53

The HTML <thead> tag is used for adding a header to a table.

The <tfoot> tag is used to create a table footer in HTML.

The HTML <tbody> tag is used for grouping table rows.

```
<body>
    <table border = "2">
        <thead>
            <tr>
                <td colspan="1" style="color: green">Table Header </td>
            </tr>
        </thead>
        <tfoot>
            <tr>
                <td colspan="2" style="color: red">Table Footer </td>
            </tr>
        </tfoot>
        <tbody>
            <tr>
                <td style = "color : orange">Body of the Table</td>
                <td>Cell 1 - part of tbody</td>
                <td>Cell 2 - part of tbody</td>
                <td>Cell 3 - part of tbody</td>
                <td>Cell 4 - part of tbody</td>
            </tr>
        </tbody>
    </table>
</body>
```

Table Header				
Body of the Table	Cell 1 - part of tbody	Cell 2 - part of tbody	Cell 3 - part of tbody	Cell 4 - part of tbody
Table Footer				

HTML Styles

The HTML **style** attribute is used to add styles to an element

The HTML **style** attribute has the following syntax:

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

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

- Use the **style** attribute for styling HTML elements
- Use **background-color** for background color
- Use **color** for text colors
- Use **font-family** for text fonts
- Use **font-size** for text sizes
- Use **text-align** for text alignment

HTML Styles - Background Color

```
<html>
  <body style="background-color:yellow">
    <h2 style="background-color:red">This
      is a heading</h2>
    <p style="background-color:green">This
      is a paragraph.</p>
  </body>
</html>
```



HTML Style Font, Color and Size

```
<h1 style="font-family:verdana">A heading</h1>
<p style="font-family:arial;color:red;font-
size:20;"> A paragraph.</p>
```



HTML Style - Text Alignment

```
<h1 style="text-align:center">This is a heading</h1>
<p>The heading above is aligned to the center </p>
```





HTML Frames

With frames, you can display more than one HTML document in the same browser window.

The HTML frameset Element

- ◆ The frameset element holds one or more frame elements.
- ◆ The frameset element states
 - HOW MANY columns or rows
 - HOW MUCH percentage/pixels of space will occupy each of them.

Attributes of Frame Tag:

•**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 = "C:/Users/dharam/Desktop/attr1.png" />

•**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.

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**: 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">

Attributes of Frameset tag:

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

- 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. 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.

•border: This attribute of frameset tag defines the width of border of each frames in pixels. Zero value is used for no border.

Example:<frameset border="4" frameset>

•frameborder: This attribute of frameset tag is used to specify whether the three-dimensional border should be displayed between the frames or not for this use two values 0 and 1, where 0 defines for no border and value 1 signifies for yes there will be border.

•framespacing: This attribute of frameset tag is used to specify the amount of spacing between the frames in a frameset. This can take any integer value as an parameter which basically denotes the value in pixel.

Example:<framespacing="20"> It means there will be 20 pixel spacing between the frames



frame_a.htm

```
<html>
  <body style="background-color: red" >
    <h3>Frame A</h3>
  </body>
</html>
```



frame_b.htm

```
<html>
<body style="background-color: green" >
    <h3>Frame B</h3>
</body>
</html>
```



frame_c.htm

```
<html>
  <body style="background-color: blue" >
    <h3>Frame C</h3>
  </body>
</html>
```

Vertical Frameset

```
<frameset cols="25%,50%,25%">  
    <frame src="frame_a.htm" />  
    <frame src="frame_b.htm" />  
    <frame src="frame_c.htm" />  
</frameset>
```

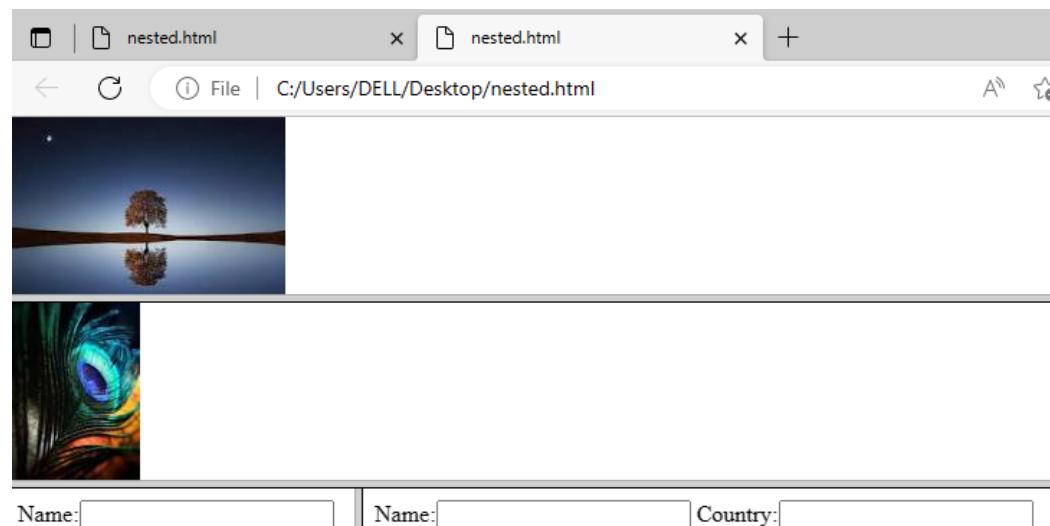
Horizontal Frameset

```
<frameset rows="25%, *, 25%">  
    <frame src="frame_a.htm" />  
    <frame src="frame_b.htm" />  
    <frame src="frame_c.htm" />  
</frameset>
```

Nested Framesets

```
<frameset rows="50%,50%">
    <frame src="frame_a.htm" />
    <frameset cols="25%,75%">
        <frame src="frame_b.htm" />
        <frame src="frame_c.htm" />
    </frameset>
</frameset>
```

```
<!DOCTYPE html>
<html>
<frameset rows="25%,25%,50%">
<frame src="C:\Users\DELL\Desktop\download.jpg" />
<frame src="C:\Users\DELL\Desktop\download1.jpg" />
<frameset cols="25%,75%">
<frame src="C:\Users\DELL\Desktop\a.html"/>
<frame src="C:\Users\DELL\Desktop\hidden.html"/>
</frameset>
</frameset>
</html>
```



HTML Multimedia Tags

HTML tags that fall under the category of "multimedia tags" are as follows:

- [HTML AUDIO Tag](#)
- [HTML VIDEO Tag](#)
- [HTML EMBED Tag](#)
- [HTML OBJECT Tag](#)

Introduction

- Multimedia can be almost anything we can hear or see, like images, music, sound, videos, records, films, animations, and more.
- Web pages often contain multimedia elements of different types and formats.
- HTML allows us to create standards-based video and audio players that don't require the use of any plugins.

Common Video Formats

- The MP4, WebM, and Ogg formats are supported by HTML.

FORMAT	FILE	DESCRIPTION
MPEG	.mpg .mpeg	MPEG Developed by the Moving Pictures Expert Group. Not supported anymore in HTML.
AVI	.avi	AVI (Audio Video Interleave). Plays well on Windows computers, but not in web browsers.
WMV	.wmv	WMV (Windows Media Video). Plays well on Windows computers, but not in web browsers.
Flash	.flv	Flash. Developed by Macromedia. Often requires an extra component (plug-in) to play in web browsers.
Ogg	.ogg	Theora Ogg. Supported by HTML.
WebM	.webm	WebM. Developed by Mozilla, Opera, Adobe, and Google. Supported by HTML.
MPEG-4 MP4	.mp4	MP4. Developed by the Moving Pictures Expert Group. Supported by all browsers

Common Audio Formats

- Only MP3, WAV, and Ogg audio are supported by the HTML standard.

FORMAT	FILE	DESCRIPTION
MIDI	.mid .midi	MIDI (Musical Instrument Digital Interface). Plays well on all computers and music hardware, but not in web browsers.
WMA	.wma	WMA (Windows Media Audio). Plays well on Windows computers, but not in web browsers.
AAC	.aac	Plays well on Apple computers, but not in web browsers.
WAV	.wav	WAV. Developed by IBM and Microsoft. Supported by HTML.
Ogg	.ogg	Supported by HTML.
MP3	.mp3	MP3 files are actually the sound part of MPEG files. MP3 is the most popular format for music players. Supported by all browsers.

HTML Video

- To embed video in HTML, we use the `<video>` tag. It contains one or more video sources at a time using `<source>` tag.

- Syntax:

```
<video>
```

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

```
</video>
```

- We can use `<source>` tag to specify media along with media type and many other attributes.

Video attribute specification

ATTRIBUTE	DESCRIPTION
autoplay	When the page is loaded, It specifies to play video as soon as possible.
controls	It displays video control such as play, pause, and stop.
loop	It will start the video again when it is finished.
muted	When the page is loaded, video will be automatically muted.
src	It specifies the URL of the video file.
width	It specifies the width of the video area. The default value of width is 'auto'.
height	It specifies the height of the video area.

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

<h1>The video element</h1>

<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>

</body>
</html>
```

The video element



HTML Audio

- To embed audio in HTML, we use the `<audio>` tag.
- Syntax:

```
<audio>
```

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

```
</audio>
```

- The HTML `<audio>` element is used to play an audio file on a web page.

Audio attribute specification

ATTRIBUTE	DESCRIPTION
autoplay	When the page is loaded, It specifies to play audio as soon as possible.
controls	It displays audio control.
loop	It will start the audio again when it is finished.
muted	When the page is loaded, audio will be automatically muted.
src	It specifies the URL of the audio file.

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

<h1>The audio element</h1>

<p>Click on the play button to play a sound:</p>

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

</body>
</html>
```

The audio element

Click on the play button to play a sound:



HTML <embed> tag

The <embed> tag in HTML is used for embedding external applications which are generally multimedia content like audio or video into an HTML document. It is used as a container for embedding plug-ins such as flash animations.

Attribute

Tag-specific attribute

Attribute	Value	Description
height	pixels	It specifies the height of the embedded content
src	URL	It defines the resource location of the embedded document.
type	media-type	It specifies the MIME type.
width	pixels	It determines the width of the embedded content.

```
<!DOCTYPE html>
<html>
<body>
<h1>The embed element</h1>
<embed type="image/jpg" src="pic_trulli.jpg"
width="300" height="200">
</body>
</html>
```

The embed element



```
<embed type="text/html" src="snippet.html" width="500" height="200">
```

The embed element

Alfreds Futterkiste
Berglunds snabbköp
Centro comercial Moctezuma

Berlin Germany
Luleå Sweden
México D.F. Mexico



The video element

```
<embed type="video/webm" src="movie.mp4"
width="400" height="300">
```



HTML object and param

The <object> tag is used for embedding media contents (such as images, Java applets, Flash, movie, audio, or even another HTML file) on a web page.

Attributes of the HTML object tag

The <object> tag supports the following attributes (along with: "id", "class", "style", "title"):

- **archive="URLs"** - Specifies a space-separated list of URLs for resources that are related to the object.
- **border="pixels"** - Defines a border around the object (*Deprecated*).
- **classid="classid_ID"** - Defines a class ID value as set in the Windows Registry or a URL.
- **codebase="URL"** - Defines where to find the code for the object. Used in case if the browser not support it.
- **codetype="MIME_type"** - The internet media type of the code referred to by the classid attribute.
- **data="URL"** - Specifies the address of the resource.
- **declare** (declare="declare" in XHTML) - Declares an object but restrains the browser from downloading and processing until need it.
- **height="pixels"** - Defines the height of the object, in pixels.
- **hspace="pixels"** - Sets a horizontal space around the object, in pixels (*Deprecated*).
- **name="text"** - Defines the name for an object (to use in scripts).
- **standby="message"** - Specifies a message to display while the object is loading.
- **type="MIME_type"** - Defines the media type of the resource specified in the "data" attribute.
- **usemap="URL"** - Specifies a URL of a image map to be used with the object.
- **vspace="pixels"** - Sets a vertical space around the object, in pixels (*Deprecated*).
- **width="pixels"** - Defines the width of the object, in pixels.

Attributes of the param tag

The <param> tag supports the following attributes:

- **id="text"** - Specifies a unique "id", it can be referenced from a script, or CSS style sheet.
- **name="text"** - Defines the name of the parameter (*Required*).
- **type="*MIME_type*"** - Specifies the media type of the resource only when the "valuetype" attribute is set to "ref".
- **value="value"** - Defines the value of the parameter.
- **valuetype="data / ref / object"** - Specifies the type of value:
 - **data** - indicates that the parameter's value is data (default)
 - **ref** - indicates that the parameter's value is a URL
 - **object** - indicates that the value is the URL of another object in the document

Embed a PDF document

```
<object type="application/pdf" data="dir/html_course.pdf" width="300"  
height="200">  
  
  
  
</object>
```

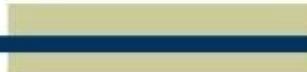
- Here the browser will show a PDF document if it supports the PDF format, otherwise it will show a JPG image (*html_course.jpg*).

Embedding audio MP3

```
<object type="audio/mpeg" data="audio/test.mp3" width="200" height="20">  
  
<param name="src" value="audio/test.mp3">  
  
<param name="autoplay" value="false" />  
  
<param name="autoStart" value="false" />  
  
Your system can't play audio/mpeg files.  
  
</object>
```



HTML Forms



- ◆ HTML forms are used to pass data to a server.
- ◆ A form can contain input elements like text fields, checkboxes, radio-buttons, submit buttons and more.
- ◆ A form can also contain select lists, textarea, fieldset, legend, and label elements.

HTML Form Tags

Tag	Description
<u><form></u>	Defines an HTML form for user input
<u><input /></u>	Defines an input control
<u><textarea></u>	Defines a multi-line text input control
<u><label></u>	Defines a label for an input element
<u><fieldset></u>	Defines a border around elements in a form
<u><select></u>	Defines a select list (drop-down list)
<u><option></u>	Defines an option in a select list
<u><button></u>	Defines a push button



HTML Forms



- ◆ The <form> tag is used to create an HTML form:

```
<form>
```

- .

- input elements*

- .

```
</form>
```

HTML Forms - The Input Element

- The input element is used to select user information.
- An input element can be of type
 - text field,
 - checkbox,
 - password,
 - radio button,
 - submit button,
 - and more.

**type = text | password | checkbox | radio | submit |
reset | button**

HTML Forms - The Input Element

- ◆ used to select user information.

**type = text | password | checkbox | radio |
submit | reset | button**

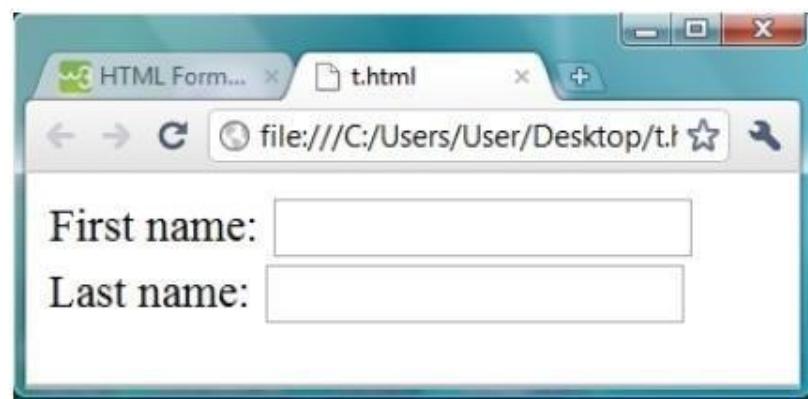
Text Field

<form>

First name: <input type="text"
name="firstname" />

Last name: <input type="text"
name="lastname" />

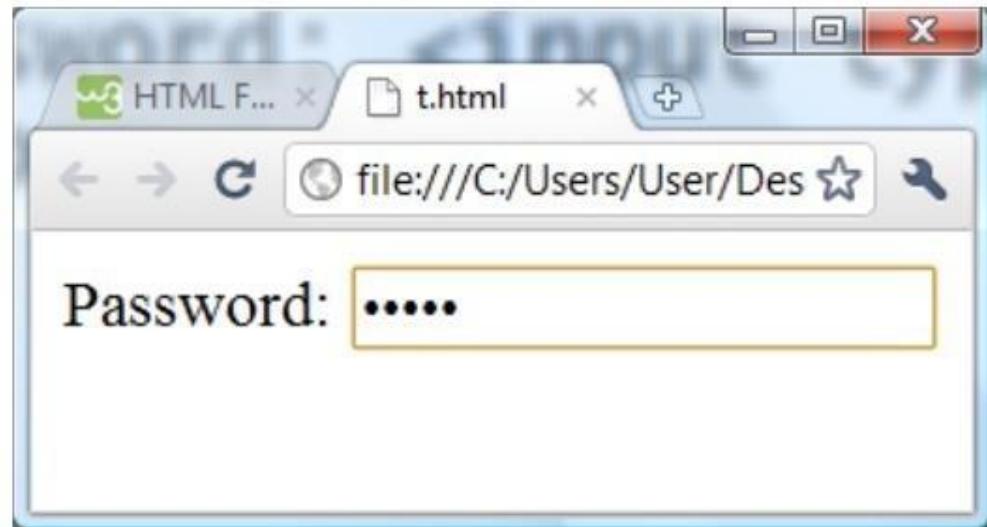
</form>



Sr.No	Attribute & Description
1	type Indicates the type of input control and for text input control it will be set to text .
2	name Used to give a name to the control which is sent to the server to be recognized and its value.
3	value This can be used to provide an initial value inside the control.
4	size Allows to specify the width of the text-input control in terms of characters.
5	maxlength Allows to specify the maximum number of characters a user can enter into the text box.

Password Field

```
<form>  
    Password: <input type="password"  
        name="pwd" />  
</form>
```



Sr.No	Attribute & Description
1	type Indicates the type of input control and for password input control it will be set to password .
2	name Used to give a name to the control which is sent to the server to be recognized and value.
3	value This can be used to provide an initial value inside the control.
4	size Allows to specify the width of the text-input control in terms of characters.
5	maxlength Allows to specify the maximum number of characters a user can enter into the text box.

Text-area

To create a multi-line text input control.

User can write an unlimited number of characters.

```
<textarea rows="10" cols="30">
```

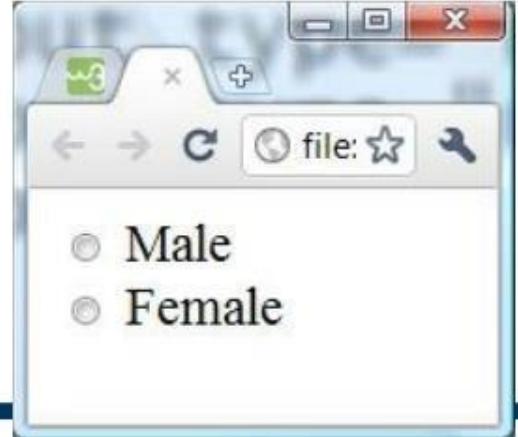
The cat was playing in the garden.

```
</textarea>
```

Text-area

Sr.No	Attribute & Description
1	name Used to give a name to the control which is sent to the server to be recognized and get value.
2	rows Indicates the number of rows of text area box.
3	cols Indicates the number of columns of text area box

Radio Buttons



<input type="radio" /> defines a radio button.

Radio buttons let a user select **ONLY ONE** of a limited number of choices:

```
<form>
<input type="radio" name="Gender" value="male" />
Male<br />
<input type="radio" name="Gender" value="female" />
Female
</form>
```

Sr.No	Attribute & Description
1	type Indicates the type of input control and for checkbox input control it will be set to radio.
2	name Used to give a name to the control which is sent to the server to be recognized and get value.
3	value The value that will be used if the radio box is selected.
4	checked Set to <i>checked</i> if you want to select it by default.

Checkboxes

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
    <title>Checkbox Control</title>
```

```
</head>
```

```
<body>
```

```
    <form>
```

```
        <input type = "checkbox" name = "maths" value = "on"> Maths
```

```
        <input type = "checkbox" name = "physics" value = "on"> Physics
```

```
    </form>
```

```
</body>
```

```
</html>
```



Maths Physics

Sr.No	Attribute & Description
1	type Indicates the type of input control and for checkbox input control it will be set to checkbox..
2	name Used to give a name to the control which is sent to the server to be recognized and get the value.
3	value The value that will be used if the checkbox is selected.
4	checked Set to <i>checked</i> if you want to select it by default.

Submit Button

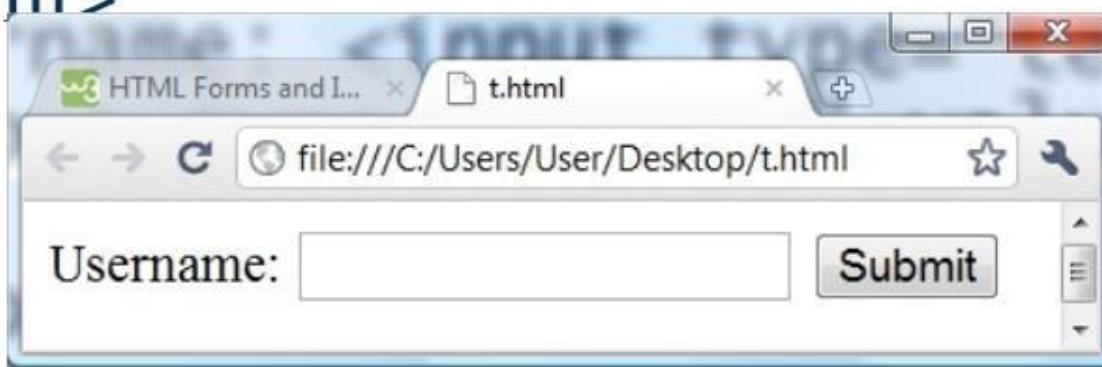
A submit button is used to send form data to a server.

```
<form>
```

```
    Username: <input type="text" name="user" />
```

```
    <input type="submit" value="Submit" />
```

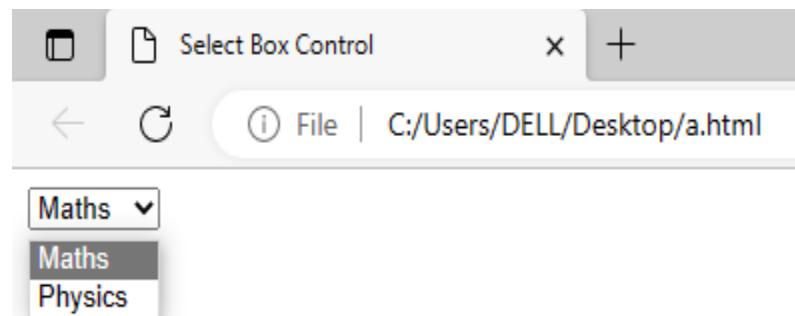
```
</form>
```



Select Box Control

A select box, also called drop down box which provides option to list down various options in the form of drop down list, from where a user can select one or more options.

```
<form>
  <select name = "dropdown">
    <option value = "Maths" selected>Maths</option>
    <option value = "Physics">Physics</option>
  </select>
</form>
```



Drop-Down List

```
<form>  
  <select name="cars">  
    <option value="volvo">Volvo</option>  
    <option value="saab">Saab</option>  
    <option value="fiat">Fiat</option>  
    <option value="audi">Audi</option>  
  </select>  
</form>
```

Drop-Down List

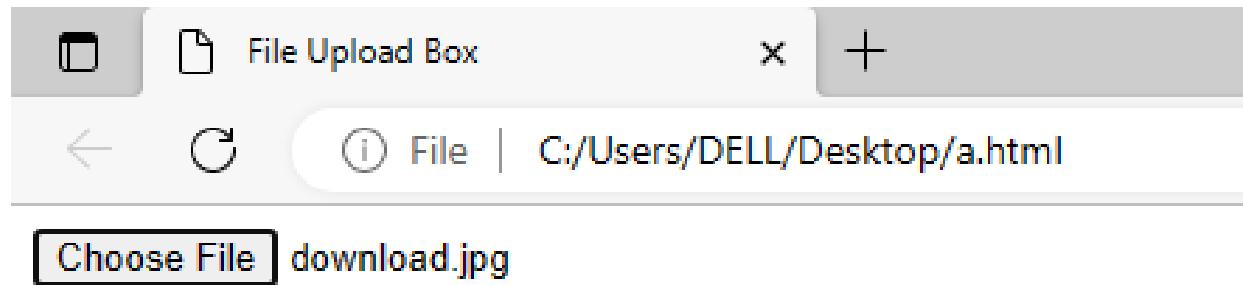
```
<form>  
  <select name="cars">  
    <option value="volvo">Volvo</option>  
    <option value="saab">Saab</option>  
    <option value="fiat">Fiat</option>  
    <option value="audi">Audi</option>  
  </select>  
</form>
```



File Upload Box

If you want to allow a user to upload a file to your web site, you will need to use a file upload box, also known as a file select box.

```
<form>
  <input type = "file" name = "fileupload" accept = "image/*" />
</form>
```

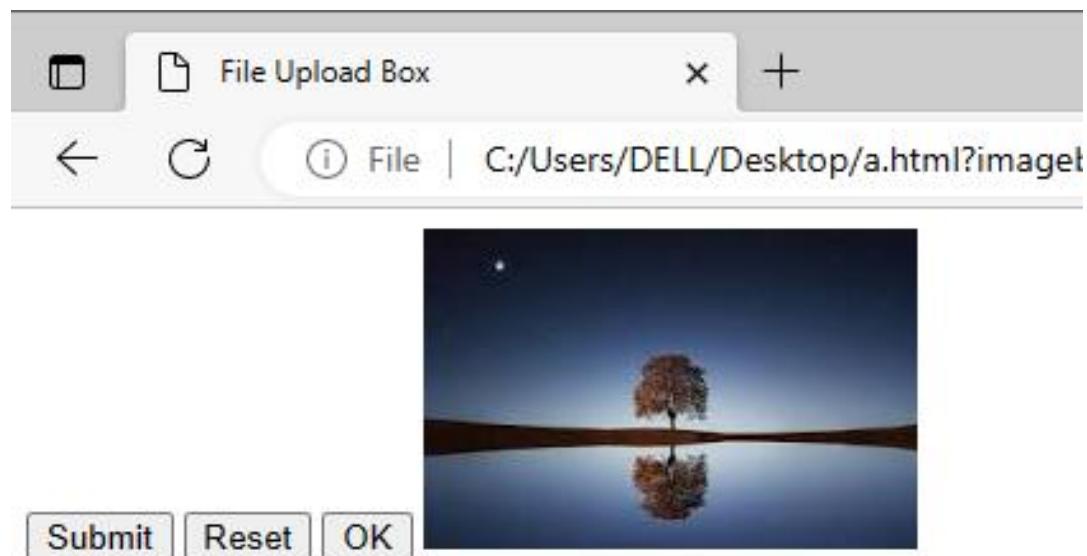


Button Controls

There are various ways in HTML to create clickable buttons.

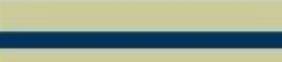
Sr.No	Type & Description
1	submit This creates a button that automatically submits a form.
2	reset This creates a button that automatically resets form controls to their initial values.
3	button This creates a button that is used to trigger a client-side script when the user clicks the button.
4	image This creates a clickable button but we can use an image as background of the button.

```
<form>
    <input type = "submit" name = "submit" value = "Submit" />
    <input type = "reset" name = "reset" value = "Reset" />
    <input type = "button" name = "ok" value = "OK" />
    <input type = "image" name = "imagebutton" src = "/html/images/logo.png" />
</form>
```





Fieldset



- ◆ Used to logically group together elements in a form.
- ◆ To draw a box around the related form elements.

Fieldset - Example

```
<form>
  <fieldset>
    Name: <input type="text" size="30" /><br />
    Email: <input type="text" size="30" /><br />
    Date of birth: <input type="text" size="10" />
  </fieldset>
</form>
```

Legend

Defines a caption for the fieldset element

```
<form>
<fieldset>
    <legend align="right">Information:</legend>
    Name: <input type="text" size="30" /><br />
    Email: <input type="text" size="30" /><br />
    Date of birth: <input type="text" size="10" />
</fieldset>
</form>
```

Information:

Name:

Email:

Date of birth:

Hidden Form Controls

Hidden – A hidden control stores the data that is not visible to the user on a web page. This control is used to submit some information, which can not be edited by user.

```
<input type="hidden">
```

```
<!DOCTYPE html>
<html>
<head>
<title>Insert the HTML Hidden Inputin the
Form Field Below.</title>
</head>
<body>
<form>
Name:<input type="text" name="name">
Country:<input type="text" name="country">
</form>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<head>
<title>Insert the HTML Hidden Inputin the
Form Field Below.</title>
</head>
<body>
<form>
Name:<input type="text" name="name">
<input type="hidden" name="country"
value="INDIA">
</form>
</body>
</html>
```

A screenshot of a browser window titled "Insert the HTML Hidden Inputin t". The address bar shows the file path "C:/Users/DELL/Desktop/hidden.html". The form contains two text input fields: "Name:" and "Country:". The "Country:" field has the value "INDIA" entered into it.

Name: Country:

A screenshot of a browser window titled "Insert the HTML Hidden Inputin t". The address bar shows the file path "C:/Users/DELL/Desktop/a.html". The form contains one text input field labeled "Name:".

Name: