INTERNET AND ITS APPLICATION

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HTML

- HTML is a language for describing web pages.
- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- 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** – file extension.
- HTML is **case insensitive.** for example, type TITLE or Title or title or even tItLE if you like.

HTML Tags

HTML markup tags are usually called 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**

- Start and end tags are also called **opening tags** and **closing tags**

HTML Documents = Web Pages

- HTML documents **describe web pages**
- HTML documents **contain HTML tags** and plain text
- HTML documents are also **called web pages**
- The purpose of a web browser (like Internet Explorer or Firefox) is to read HTML documents and display them as web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page.

Example

```
<html>
<head>
<title> Webpage </title>
</head>
<body>
    <h1>My First Heading</h1>
    <p>My first paragraph.</p>
</body>
</html>
```
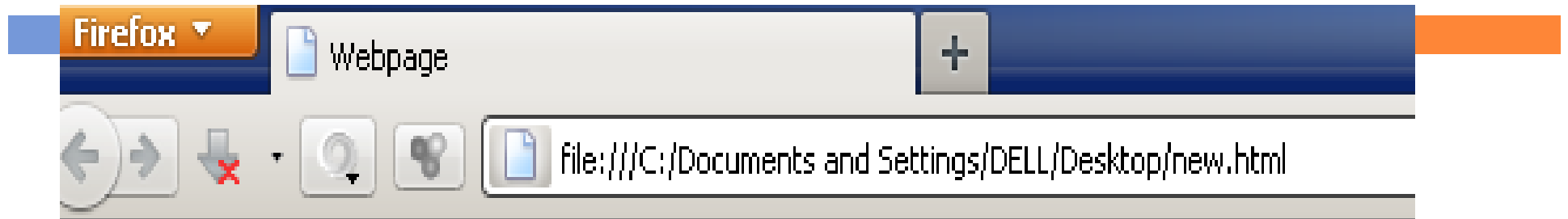
Output

My First Heading

My first paragraph.

HTML Headings

- HTML Headings
- HTML headings are defined with the <h1> to <h6> tags.

Example:

<h1>This is a heading</h1>

<h2>This is a heading</h2>

HTML Paragraphs

☐ HTML paragraphs are defined with the <p> tag.

Example

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

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

HTML Links

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

Example

This is a link

- Target=_blank -> The example below will open the linked document in a new browser window or a new tab

Visit W3Schools!

HTML Link: Email Link

- mailto – makes a link as an email link

- \ Send an email to Jay now! \

HTML Images

- HTML images are defined with the <img> tag.

Example

File in the local folder

File in the some other system

HTML Lines

- The <hr /> tag creates a horizontal line in an HTML page.
- The hr element can be used to separate content:

Example

<p>This is a paragraph</p>

<hr />

<p>This is a paragraph</p>

<hr />

<p>This is a paragraph</p>

HTML Line Breaks

- Use the <br /> tag if you want a line break (a new line) without starting a new paragraph:

Example

<p>This is
a para
graph with line breaks</p>

HTML Text Formatting

- ❑ `<b>`Defines bold text
- ❑ `<big>`Defines big text
- ❑ `<i>`Defines italic text
- ❑ `<small>`Defines small text
- ❑ `<strong>`Defines strong text
- ❑ `<sub>`Defines subscripted text
- ❑ `<sup>`Defines superscripted text

HTML Fonts

-
  This paragraph is in Arial, size 5, and in red text color.

HTML Table Tags

Tag	Description
\<table\>	Defines a table
\<th\>	Defines a table header
\<tr\>	Defines a table row
\<td\>	Defines a table cell

Example for Table

```
<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>
```

Header 1	Header 2
row 1, cell 1	row 1, cell 2
row 2, cell 1	row 2, cell 2

HTML Lists

- An unordered list starts
- An ordered list
- list

HTML Definition Lists

- A definition list is a list of items, with a description of each item.

- The <dl> tag defines a definition list.

- The <dl> tag is used in conjunction with <dt> (defines the item in the list) and <dd> (describes the item in the list)

- <dl>
  <dt>Coffee</dt>
  <dd>- black hot drink</dd>
  <dt>Milk</dt>
  <dd>- white cold drink</dd>
  </dl>

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.

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

Text Fields

- `<input type="text" />` defines a one-line input field that a user can enter text into:

```
<form>
  First name: <input type="text" name="firstname" />
<br />
  Last name: <input type="text" name="lastname" />
</form>
```

How the HTML code above looks in a browser:

First name: [   ]

Last name: [   ]

Password Field

<input type="password" /> defines a password field:

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

How the HTML code above looks in a browser:

Password: [   ]

Radio Buttons

- `<input type="radio" />` defines a radio button. Radio buttons let a user select ONLY ONE one of a limited number of choices:

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

How the HTML code above looks in a browser:

○ Male
○ Female

Checkboxes

- \<input type="checkbox" /> defines a checkbox. Checkboxes let a user select ONE or MORE options of a limited number of choices.

\<form\>
    \<input type="checkbox" name="vehicle"
    value="Bike" /> I have a bike\<br /\>
    \<input type="checkbox" name="vehicle"
    value="Car" /> I have a car
    \</form\>

How the HTML code above looks in a browser:

☐ I have a bike
☐ I have a car

Submit Button

- `<input type="submit" />` defines a submit button.

- A submit button is used to send form data to a server. The data is sent to the page specified in the form's action attribute. The file defined in the action attribute usually does something with the received input:

```
<form name="input" action="html_form_action.asp"
   method="get">
   Username: <input type="text" name="user" />
   <input type="submit" value="Submit" />
</form>
```

How the HTML code above looks in a browser:

Username: [   ] Submit

Reset Button

- \<input type="reset" /\> defines a reset button.

- Reset Button – to refresh the form.

\<input type="reset" value="Reset" /\>

Select Button

- Allow multiple selection in a drop-down list
- Size is used to display the number of option.

```
<select multiple="multiple" size="2">
    <option value="volvo">Volvo</option>
    <option value="saab">Saab</option>
    <option value="mercedes">Mercedes</option>
    <option value="audi">Audi</option>
</select>
```

HTML <textarea> Tag

- The <textarea> tag defines a multi-line text input control.

- A text area can hold an unlimited number of characters, and the text renders in a fixed-width font (usually Courier).

- Example

<textarea rows="2" cols="20">
   sample textarea

</textarea>

HTML Frames

- With frames, several Web pages can be displayed in the same browser window.

The disadvantages of using frames are:

- Frames are not expected to be supported in future versions of HTML

- Frames are difficult to use. (Printing the entire page is difficult).

- The web developer must keep track of more HTML documents

The HTML frame Element

- The frameset element holds one or more frame elements. Each frame element can hold a separate document.

- The frameset element states HOW MANY columns or rows there will be in the frameset, and HOW MUCH percentage/pixels of space will occupy each of them.

The HTML frame Element

- The <frame> tag defines one particular window (frame) within a frameset.

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

No Frames

- \<NOFRAMES>

- holds text that should be displayed for people who *don't* have frames. A large percentage of people on the web don't use browsers which can read frames.

Example of Noframes

- ```html
  <html>
  <frameset cols="25%,50%,25%">
    <frame src="frame_a.htm" />
    <frame src="frame_b.htm" />
    <frame src="frame_c.htm" />
    <noframes>
      Sorry, your browser does not handle frames!
    </noframes>
  </frameset>
  </html>
  ```

HTML Iframes

- An iframe is used to display a web page within a web page.

Syntax for adding an iframe:

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

Iframe - Set Height and Width

<iframe src="demo_iframe.htm" width="200" height="200"></iframe>

Iframe - Remove the Border

- The frameborder attribute specifies whether or not to display a border around the iframe.

- Set the attribute value to "0" to remove the border:

```
<iframe src="demo_iframe.htm"
    frameborder="0"></iframe>
```

HTML <pre> Tag

- The <pre> tag defines preformatted text.

- Text in a pre element is displayed in a fixed-width font (usually Courier), and it preserves both spaces and line breaks.

Example

```
<pre>
   Text in a pre element
   font, and it preserves
   both     spaces and
   line breaks
   </pre>
```