Build Your Web Site from Start to Finish

FUNDAMENTALS OF HTML

TOPIC SPECIFICATION

1. Introduction to HTML
2. Document Heading
3. HTML Text Formatting Tags
4. HTML List
5. HTML table
6. HTML links
7. Images and other page elements
8. Frames
9. Forms

1. INTRODUCTION TO HTML

- **What is HTML?**
  - Hyper Text Markup Language
  - To generate web document
  - Created by Tim Bernes-Lee at CERN, European Lab, Geneva.

History Of Markup Languages

Tim Berners Lee

Computer Scientist Gives the concept of
Making connection between simple huge text files or
D.Base files on the internet.

First markup language was created named **SGML**

SGML

Standard **G**eneralized **M**arkup **L**anguage

Supports Simple text, it don’t support Graphics Features

History Of Markup Languages

After *SGML*, **HTML** was generated By Tim Berners Lee .

HTML supports Graphics features.

Then

DHTML: **D**ynamic **H**ypertext **M**arkup **L**anguage.
Uses: **CSS** & **Java Script**

VRML: Virtual **R**eality **M**arkup **L**anguage.
Supports **3-D**

WML: **W**ireless **M**arkup **L**anguage
Used for Wireless Devices Like Cellular Phones .

XML Extensible **M**arkup **L**anguage

HTML Structure

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

HTML TAGS

TAGS Or FLAGS:

- Html use **<** Less Than and **>** Greater Than Signs For writing commands.
- All tags are CaSe InSeNsiTiVe
- In Html there are two types of Tags

1.Paired. -> requires a ending tag which ends with a **Slash /**

<html>….</html>

<body>….</body>

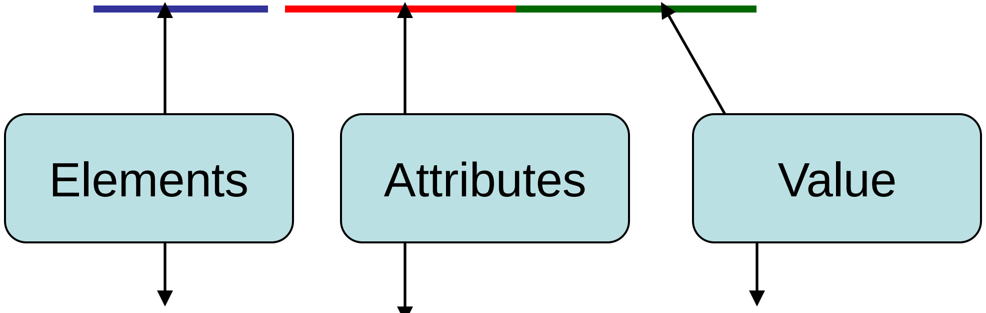
2.Single. -> No need to specify the ending tag.

<br> , <li> , <td>

HTML TAG Structure

Tags contains Elements, attribute and value:

<FONT COLOR=“Blue”>This is blue font</FONT>



<FONT COLOR=“Blue” SIZE=“+1”>This is blue and bigger than normal font</FONT>

- Tags may be nested

HTML PAGE PARTS

In Html the Page is divided into Two Parts

1. HEAD <head>
2. BODY <body>

Both these Tags are Paired Tags.

Start a Page

- <html>
  - Tells the browser to decipher code based on html rules.Describe to browser that this file contains HTML code.
- <head>
  - Mostly unseen code
  - Tells browser what other languages will be used
- <body>
  - Mostly visible code
  - Content of page

<head>

- Will contain the following tags
  - <title>
    - Tells browser what to put in the title bar of page
  - <script>
    - Tells browser what, if any, scripting language is being used
  - <meta>
    - Designates meta tags for search engines
  - <link>
    - Directs other pages appearance
  - <style>
    - Use in Cascading Style Sheet (CSS)

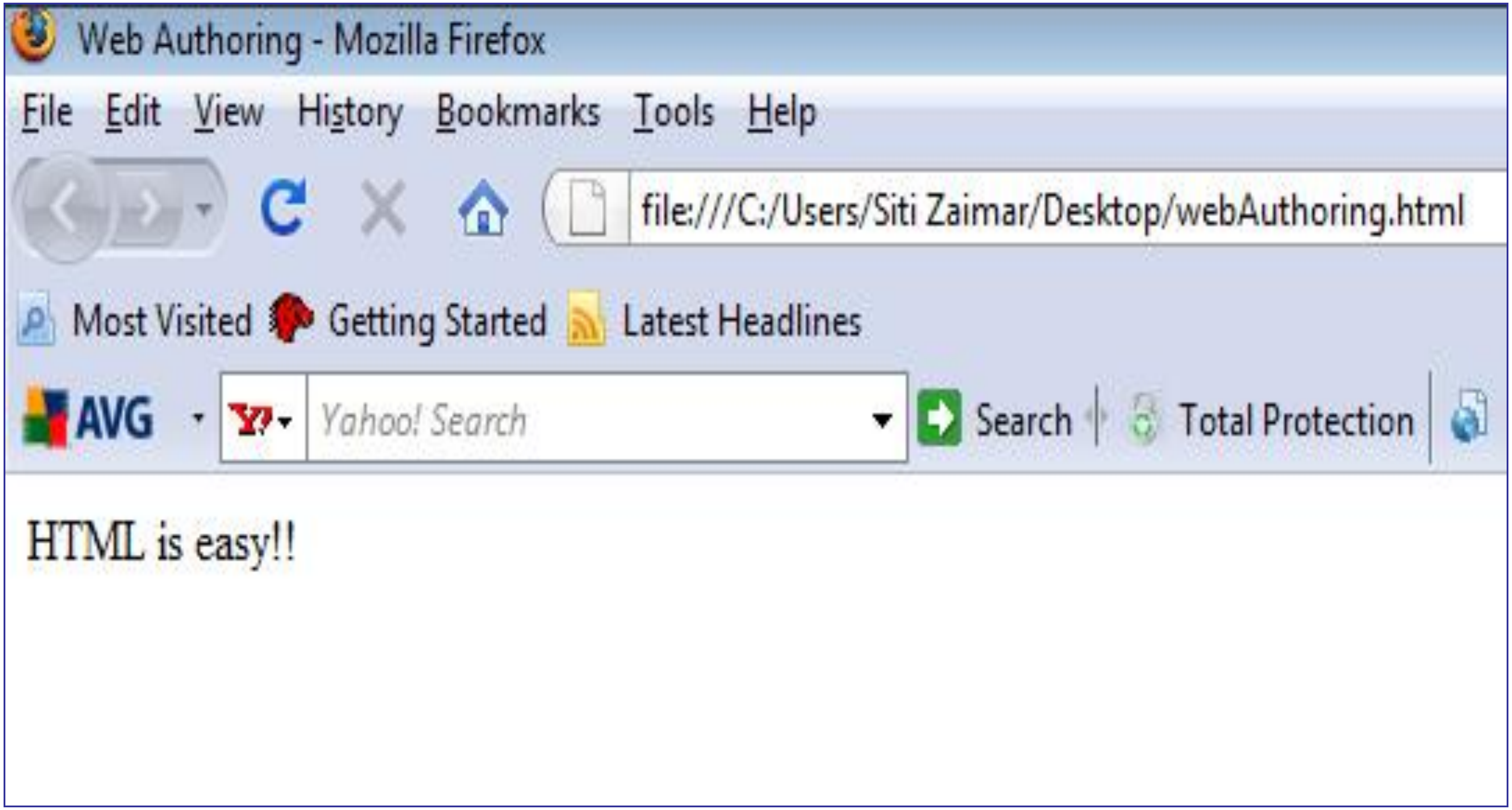
<body>

- All web page content that we want the viewer to see on the web page is written here
- Attributes like
  - <background>
  - <bgcolor>
  - <text>

- **Example:**

```
<html>
   <head>
      <title>Web Authoring</title>
   </head>

   <body>
      <p>HTML is easy!!</p>
   </body>
</html>
```

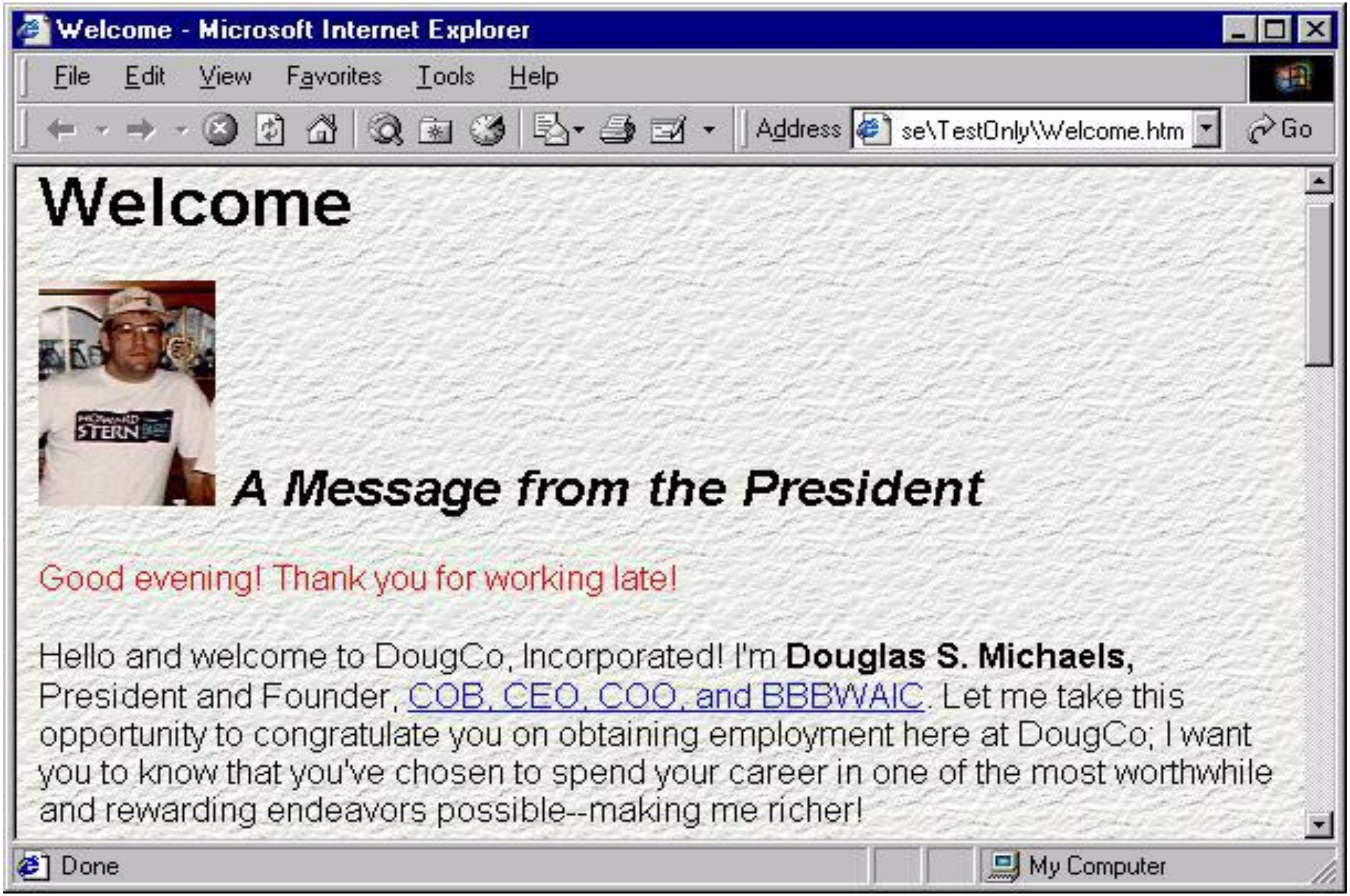

Web Authoring - Mozilla Firefox
File Edit View History Bookmarks Tools Help
file:///C:/Users/Siti Zaimar/Desktop/webAuthoring.html
Most Visited Getting Started Latest Headlines
AVG
Yahoo! Search
Search
Total Protection

HTML is easy!!

That’s How This

```
<HTML>
 <HEAD>
  <BODY background="slate.gif">
  <H1>Welcome</H1>
  <IMG SRC="DOUGLAS.GIF" WIDTH="80" HEIGHT="107" ALT="Our
  Founder" BORDER="0">
  <H2>A Message from the President </H2>
  <P><font color=red>Good evening! Thank you for working
  late!</font></P>
  <P>Hello and welcome to DougCo, Incorporated! I'm
  <b>Douglas S. Michaels,</b> President and Founder,
  <a href="acronyms.htm">COB, CEO, COO, and BBBWAIC</a>. Let
  me take this opportunity to congratulate you on obtaining
  employment here at DougCo; I want you to know that you've
  chosen to spend your career in one of the most worthwhile
  and rewarding endeavors possible --making me richer!</P>
. . .
```

….Turns into This



Welcome

A Message from the President

Good evening! Thank you for working late!

Hello and welcome to DougCo, Incorporated! I'm **Douglas S. Michaels,** President and Founder, COB, CEO, COO, and BBBWAIC. Let me take this opportunity to congratulate you on obtaining employment here at DougCo; I want you to know that you've chosen to spend your career in one of the most worthwhile and rewarding endeavors possible--making me richer!

Steps to creating a HTML Page

- Open a text editor like Notepad or Wordpad
- Create your HTML document
    - Head - not displayed with body
    - Body
- Save the HTML (extension of .htm or .html)
- Display your HTML document in Web browser (File -> Open or double click on File)
- Check your work and modify as necessary
- Place it on the Web…Then Finish the web Hosting.
- ***Web tools to create HTML pages:***

  Start from scratch: using Notepad (Windows), Emacs (UNIX), Simple Text (Macintosh).

  WYSIWYG: Adobe Dreamweaver, Microsoft Front page, Microsoft Visual Studio, Microsoft Publisher.

<body> tag Attributes

- Bgcolor : <body bgcolor=“red”>
- Background : <body background=“c:\imgs\flower.jpg”>
- Bottommargine : <body bottommargine=100>
- Topmargine : <body topmargine=100>
- Leftmargin : <body leftmargine=100>
- Rightmargine :<body rightmargine=100>
- Link : <body link=“blue”>
- Alink : <body alink=“black”>
- Vlink : <body vlink=“red”
- Scroll : <body scroll=yes/no>
- Text : <body text = “brown”>

Text Formatting Tags

- <b> : To apply **Bold** on the text
- <i> : To apply *italic* on the text.
- <u> : To apply the underline on the text.
- <center> : Display the text center.
- <strike> : Text will be strike
- <tt> : Displays teletype text. Usually rendered in *monospace* font.
- <big> : Displays the text larger than usual.
- <small> :Displays the text smaller than usual.
- <sub> : Displays the text as $_{\text{subscript}}$
- <sup> : Displays the text as $^{\text{superscript}}$

Advanced Text Formatting Tags

- <Address> : To display the address information.
- <code> : program code.
- <em> : Emphasized text
- <samp> : Sample output.
- <strong> : Strongly emphasized text
- <Abbr> : Abbreviated text
- <acronym> : Acronym text.

DOCUMENT HEADING

- Use as document header in HTML body.
- Starting and closing tags for header:

  <h1>……</h1>

- There are six levels of headings, from Heading 1 through Heading 6.
- Various types of header:

  <h1></h1>

  <h2></h2>

  <h3></h3>

  <h4></h4>

  <h5></h5>

  <h6></h6>

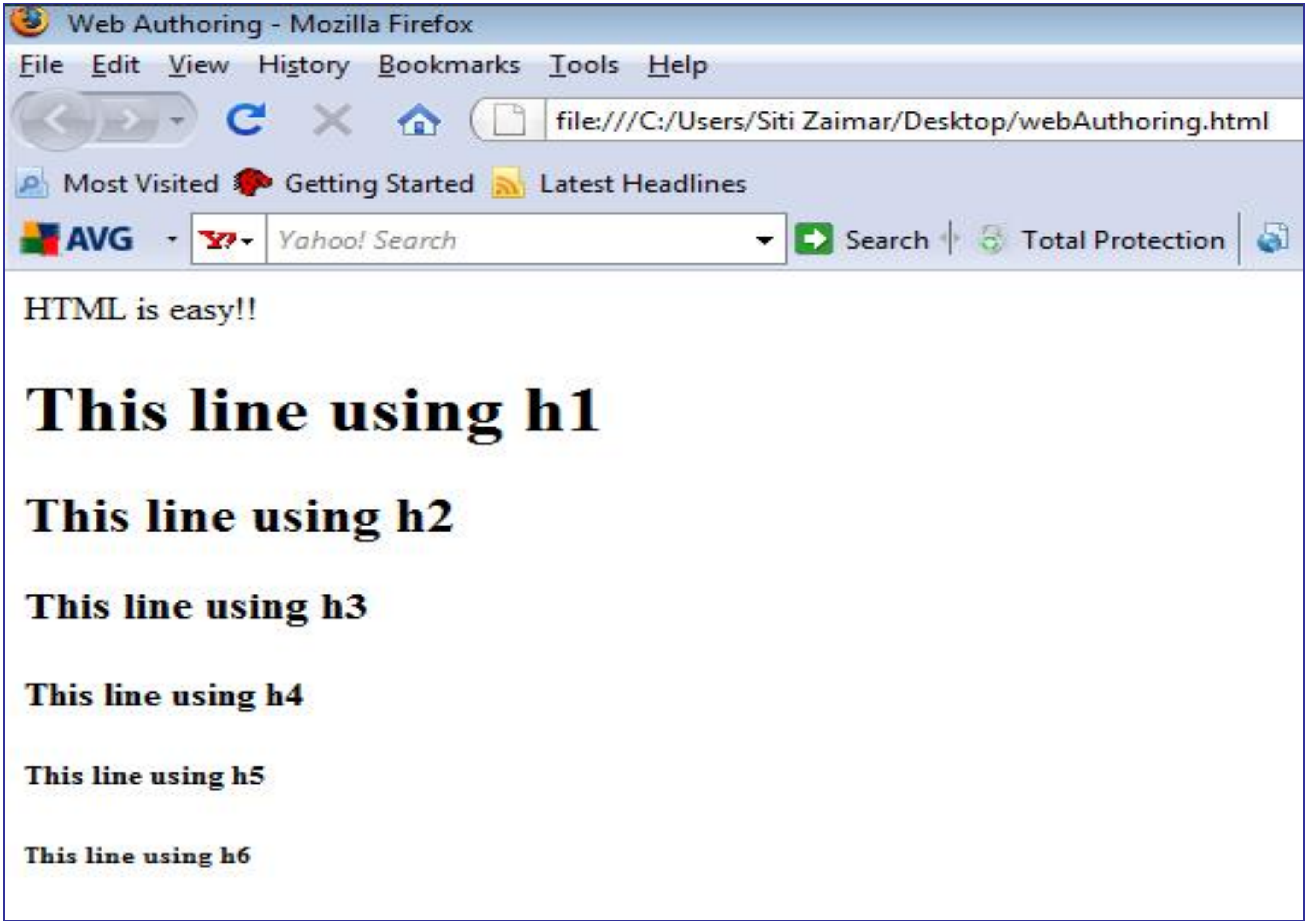
DOCUMENT HEADING

EXAMPLE:

```
<html>
   <head>
      <title>Web Authoring</title>
   </head>

   <body>
      HTML is easy!!
      <h1>This line using h1</h1>
      <h2>This line using h2</h2>
      <h3>This line using h3</h3>
      <h4>This line using h4</h4>
      <h5>This line using h5</h5>
      <h6>This line using h6</h6>
   </body>
</html>
```

DOCUMENT HEADING


Web Authoring - Mozilla Firefox
File Edit View History Bookmarks Tools Help
file:///C:/Users/Siti Zaimar/Desktop/webAuthoring.html
Most Visited Getting Started Latest Headlines
AVG Yahoo! Search Search Total Protection

HTML is easy!!

This line using h1

This line using h2

This line using h3

This line using h4

This line using h5

This line using h6

<br> and <hr> Tags

- <br> tag is a break tag. Used to break up the current line and cursor goes to next line.
- <hr> tag is used to display the horizontal line. Attributes of <hr> tag is
  - Align = left/right/center
  - Width – horizontal width of the line
  - Size – vertical size of the line

<font> tag

- Used to sets the font properties to the text on the webpage.
- Attributes:
  - Face : sets the font type like Arial,tahoma.
  - Size : Sets the size of the text. possible values are 1 through 7.
  - Color : Sets the color of the text.
  - Example :

<font face=“Arial” size=7 color=“red”> This is font tag </font>

<p> tag

- Formats the text into a paragraph and adds space before the paragraph.
- Attributes:
  - Align : sets the alignment of the text in the paragraph. Possible values are LEFT, RIGHT,CENTER,JUSTIFY

<marquee> tag

- Displays scrolling text in a marquee style.
- Attributes
  - Align: Sets the alignment of the text relative to marquee box. Possible values are TOP(default),MIDDLE,BOTTOM.
  - Behavior : Sets how the text in the marquee should move. Can be SCROLL,SLIDE,ALTERNATE.
  - Bgcolor : Sets the background color for the marquee box.
  - Direction : Sets the direction of the text should scroll. Can be LEFT(default),RIGHT,DOWN,UP.

<pre> - Displaying Preformatted Text

- Tells the browser that the enclosed text is preformatted and display it as it is on the browser.

```
<pre>
   preformatted text
</pre>
```

<DIV> - Formatting a block of text

- Used for putting the text in terms of blocks so we can apply the styles to individual blocks.
- Attributes
  - Align : Sets the horizontal alignment of the element in the page. Possible values are LEFT(default),RIGHT,CENTER,JUSTIFY.

Working with Images

<img> Tag

<img> - Adding an image to a web page

- Inserts an image into a webpage.
- Attributes
  - **Src** : should be required. Specifies the path of the actual image to display.
  - **Align** : Sets the alignment of the image relative to text. Can be LEFT,RIGHT,TOP, BOTTOM, MIDDLE.
  - **Alt** : Displays the text to be displayed in place of an image for browsers that can't handle the images.
  - **Border** : Sets the border size of the image . Set to 0 for no border or a positive integer pixel value.
  - **Height** : Specifies the height of the image. if we specify , can speed up the downloading of the image.
  - **Width** : Specifies the width of the image. if we specify , can speed up the downloading of the image.
  - **Hspace** : Sets the horizontal spacing (both right & left sides) around the image.
  - **Vspace** : Sets the vertical spacing (both top & bottom sides) around the image.

Working with Hyperlinks

<A> Anchor Tag

<A> - Creating a Hyperlink Document

- Refer to other sources such as HTML documents and images. Both text and images can act as hyperlinks.
- Attributes :
  - **Href** : Holds the target URL of the hyperlink. Either this attribute or NAME attribute must be used.
  - **Name** : Specifies an anchor name, the name we want to use is as the target of a hyperlink.
  - **Accesskey** : Assigns a keyboard shortcut to the hyperlink. Set to a single alphanumeric value.
  - **Tabindex** : Sets the tab sequence of hyperlinks in the page (pressing the tab key moves from one to the next hyperlink).
  - **Title**: Holds the text that will be displayed in tool tips when the mouse moves over the hyperlink.

<a href>

- To link to another page on same web
  - <a href=“PAGENAME.html”>
- To link to another web
  - <a href=http://www.WEBNAME.com>
- To link to another page in other web
  - <a href=http://www.WEBNAME.com/pagename.html>

Relative and Absolute URLs

- Specifying a page’s full address – Absolute URL.
  - http://www.jntu.ac.in/btech/results.html
  - http://www.jntu.ac.in/mca/results.html
  - http://www.jntu.ac.in/3rdbtech/syllabus.html
- Specifying a page’s URL relative to current page displaying on the web browser – Relative URL.
  - results.html
  - btech/results.html
  - btech/3rdyear/results.html
  - ../results.html
  - ../mca/results.html

Setting Hyperlink text colors

- In the <body> tag **link,alink** and **vlink** attributes specify the colors for the hyperlink text depending upon the visiting status.
  - Link : <body link="blue"> - color of the hyperlink that have not yet been visited.
  - Alink : <body alink="black"> - color of the hyperlinks as they are being clicked
  - Vlink : <body vlink="red"> - color of the hyperlink that have been visited.

Linking to a section of a Document

- The ***name*** attribute is used to create a named anchor. When using named anchors we can create links that can jump directly into a specific section on a page, instead of letting the user scroll around to find what he/she is looking for.

Syntax :-

<a name="label">Text to be displayed</a>

We can refer to that anchor as #label in <a> tag href attribute.

Syntax :-

<a href=“#label">Text to be displayed</a>

Emailing with Hyperlinks

- We can use an email hyperlink to let users do email, it opens their email program and creates an empty message addressed to receiver.
- We create an email hyperlink by using the hyperlink protocol “mailto” followed by receiver email address.
- Ex:

< a href=mailto:principal@gmail.com> contact Us </a>

Creating Lists

Types of Lists

- Lists may be used for a piece of information and for providing a straightforward index to the site.
- HTML provides three types of lists.
  - Unordered Lists - <ul>
  - Ordered Lists - <ol>
  - Definition Lists - <dl>

<li> .. </li>

- The ordered and unordered lists are each made up of sets of list items. Elements of a list may be formatted with <li> tag.

```
<li>Win98</li>
<li>Win XP</li>
<li>Windows Millennium</li>
<li>Windows Vista </li>
<li> Windows 7 </li>
```

Unordered Lists - <ul> Tag

- <ul> tag is used to create an unordered list. This list has a bullet in front of each list item. Every list item in <ul> tag must be encapsulated within <li>..</li> tag.
- Attributes
  - **Type** : Specifies the type of list item. For unordered list sets to DISC(solid bullet), SQUARE(solid square),CIRCLE(hollow bullet).
  - **Compact** : stand alone attribute specifying that compact rendering be used.

  eg : <ul compact>

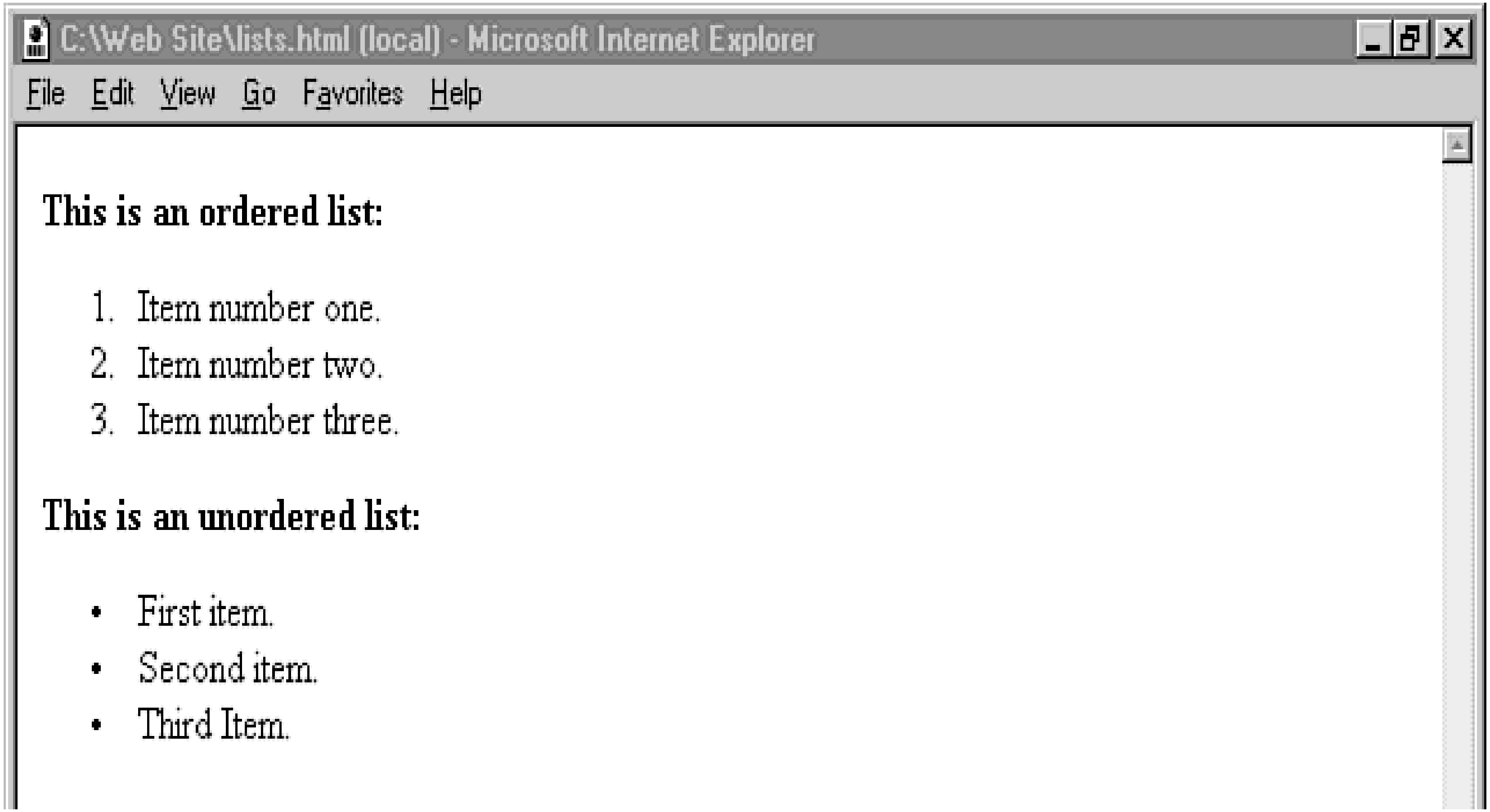
Ordered Lists - <ol> tag

- <ol> tag is used to Create an ordered list. This list has a sequence of numbers in front of each list item. Every list item in <ol> tag must be encapsulated within <li>..</li> tag.
- Attributes
  - **Type** : Specifies the type of list item. For ordered list sets to A, a, I, i ,1.
  - **Compact** : stand alone attribute specifying that compact rendering be used.

  eg : <ol compact>

Example

```
<b>This is an Ordered List:</b> <br>
<OL>
<LI> Item number one.
<LI> Item number two.
<LI> Item number three.
</OL>
<b>This is an Unordered List:</b> <br>
<UL>
<LI> First item.
<LI> Second item.
<LI> Third Item.
</UL>
```


C:\Web Site\lists.html (local) - Microsoft Internet Explorer
File Edit View Go Favorites Help

This is an ordered list:

1. Item number one.
2. Item number two.
3. Item number three.

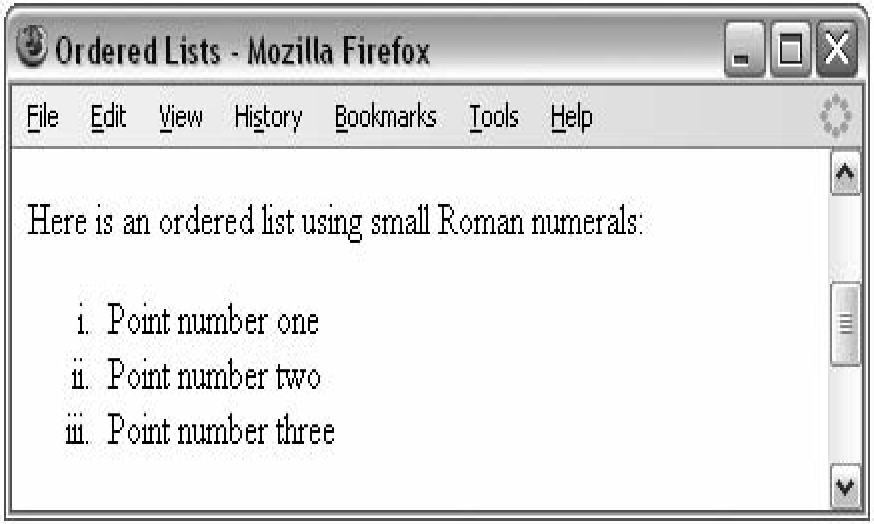
This is an unordered list:

- First item.
- Second item.
- Third Item.

Another Example

Here is an ordered list using small Roman values:

```
<ol type=”i”>
<li>Point number one </li>
<li>Point number two</li>
<li>Point number three</li>
</ol>
```



Here is an ordered list using small Roman numerals:

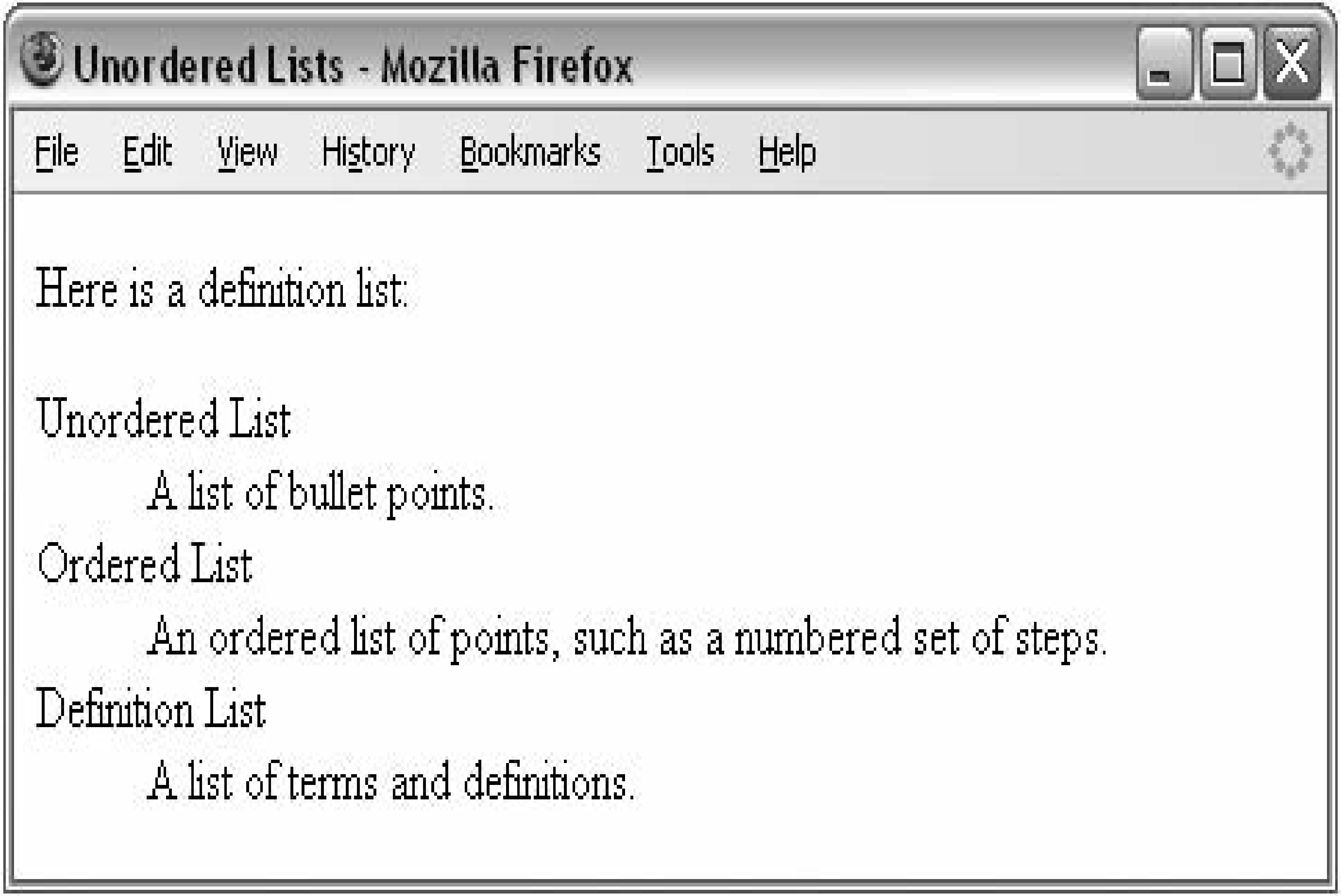
i. Point number one
ii. Point number two
iii. Point number three

Definition Lists - <DL> , <DT> , <DD>

- The definition list is a special kind of list for providing terms followed by a description for them.
- Definition lists are contained inside the <dl> element. The <dl> element then contains alternating <dt> and <dd> elements.
- The content of the <dt> element is the term we will be defining.
- The <dd> element contains the definition of the previous <dt> element

Example of Definition List

```
<h3> Here is a definition List </h3> <br>
<dl>
   <dt>Unordered List</dt>
        <dd>A list of bullet points.</dd>
   <dt>Ordered List</dt>
        <dd>An ordered list of points, such as a
                numbered set of steps.</dd>
   <dt>Definition List</dt>
        <dd>A list of terms and definitions.</dd>
</dl>
```



Here is a definition list:

Unordered List

A list of bullet points.

Ordered List

An ordered list of points, such as a numbered set of steps.

Definition List

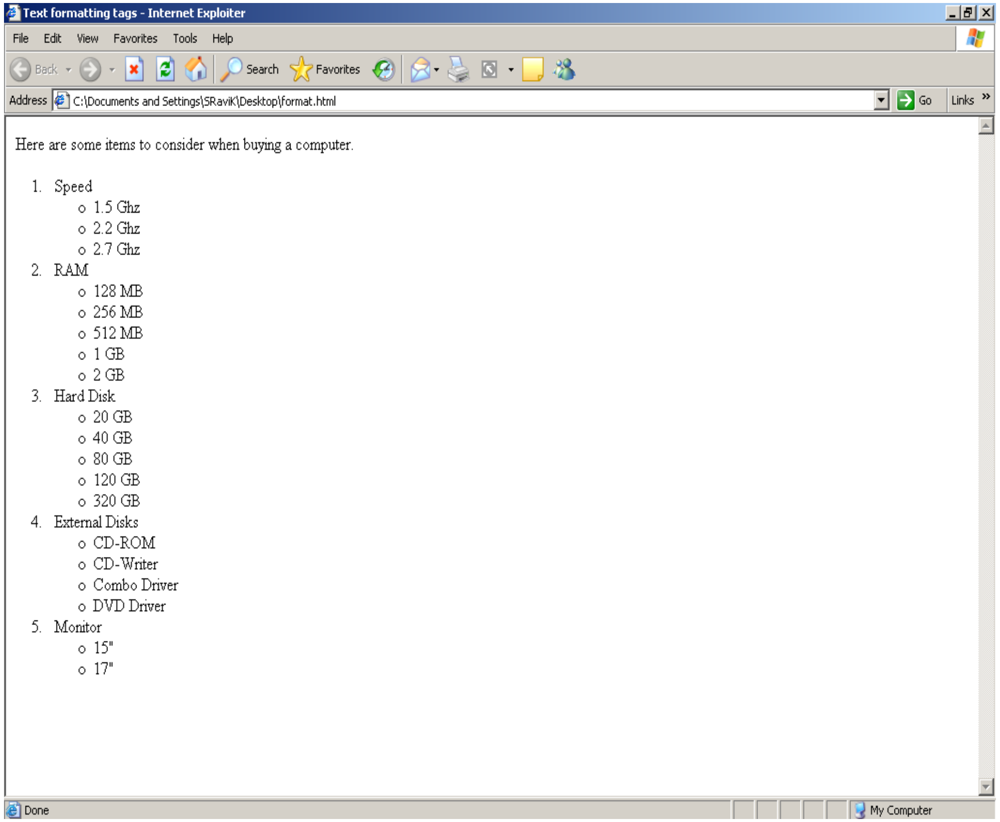
A list of terms and definitions.

Nesting Lists

- We can nest lists inside other lists.
- For example, we might want a numbered list with separate points corresponding to one of the list items. Each list will be numbered separately . And each new list should be placed inside a <li> element

Example

```
<ol>
<li>Speed
        <ul>
                <li>1.5 Ghz
                <li>2.2 Ghz
                <li>2.7 Ghz
        </ul>
<li>RAM
        <ul>
                <li>128 MB
                <li>256 MB
                <li>512 MB
                <li>1 GB
                <li>2 GB
        </ul>
<li>Hard Disk
        <ul>
                <li>20 GB
                <li>40 GB
                <li>80 GB
                <li>120 GB
                <li>320 GB
        </ul>
<li>External Disks
        <ul>
                <li>CD-ROM
                <li>CD-Writer
                <li>Combo Driver
                <li>DVD Driver
        </ul>
<li>Monitor
        <ul>
                <li>15"
                <li>17"
        </ul>
</ol>
```



C:\Documents and Settings\SRaviK\Desktop\format.html

Here are some items to consider when buying a computer.

1. Speed
    - 1.5 Ghz
    - 2.2 Ghz
    - 2.7 Ghz
2. RAM
    - 128 MB
    - 256 MB
    - 512 MB
    - 1 GB
    - 2 GB
3. Hard Disk
    - 20 GB
    - 40 GB
    - 80 GB
    - 120 GB
    - 320 GB
4. External Disks
    - CD-ROM
    - CD-Writer
    - Combo Driver
    - DVD Driver
5. Monitor
    - 15"
    - 17"

Working with Tables

<table> Tag

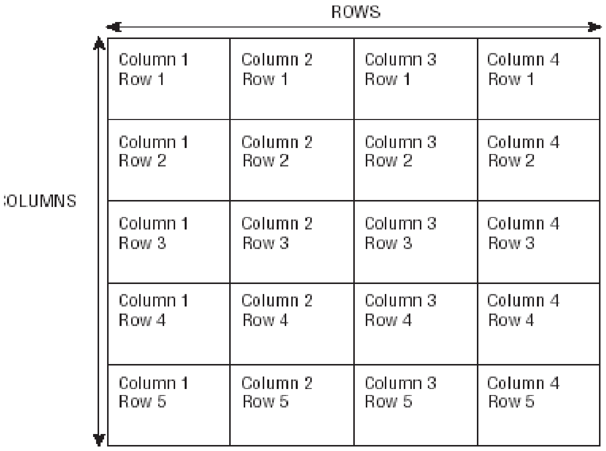
<TABLE> - Creating a Table

- The TABLE tag defines a table for multi-dimensional data arranged in rows and columns.
- Tables are commonly used to display all manner of data, such as timetables, financial reports, and sports results.
- In order to work with tables, we need to start thinking in *grid* of rectangles. Each rectangle is known as a ***cell***.
- A ***row*** is made up of a set of cells on the same line from left to right, while a ***column*** is made up of a line of cells going from top to bottom.

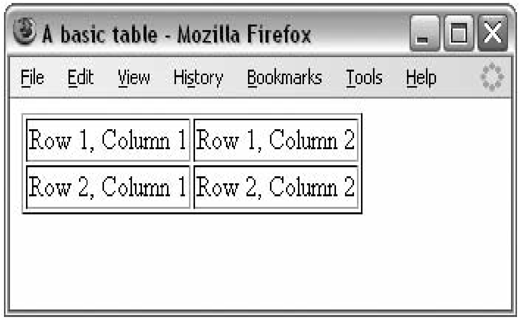
<TABLE> , <TR> , <TD>

- Inside the <table> element, the table is written out row by row. A row is contained inside a <tr> element — which stands for *table row*. And each cell is then written inside the row element using a <td> element — which stands for *table data*.

```
<table border=”1”>
<tr>
            <td>Row 1, Column 1</td>
            <td>Row 1, Column 2</td>
</tr>
<tr>
            <td>Row 2, Column 1</td>
            <td>Row 2, Column 2</td>
</tr>
</table>
```



Column 1 Row 1	Column 2 Row 1	Column 3 Row 1	Column 4 Row 1
Column 1 Row 2	Column 2 Row 2	Column 3 Row 2	Column 4 Row 2
Column 1 Row 3	Column 2 Row 3	Column 3 Row 3	Column 4 Row 3
Column 1 Row 4	Column 2 Row 4	Column 3 Row 4	Column 4 Row 4
Column 1 Row 5	Column 2 Row 5	Column 3 Row 5	Column 4 Row 5



Row 1, Column 1	Row 1, Column 2
Row 2, Column 1	Row 2, Column 2

<TABLE> Attributes

- ***BORDER :*** To display a table with borders, we will have to use the border attribute.
- ***CELLSPACING :*** This attribute allows control over the space used between cells in a table. The value should be a pixel value.
- ***CELLPADDING :*** This attribute allows control over the space inserted between the cell data and cell wall in a table. The value should be a pixel value.
- ***WIDTH :*** This attribute is used to describe the desired width of this table, either as an absolute width in pixels, or a percentage of document width.
- ***HEIGHT :*** This attribute describes the height of the table, either as a particular pixel value, or as a percentage of the display window.
- ***ALIGN :*** It allows a table to be aligned to the left or right of the page, allowing text to flow around the table.
- ***BGCOLOR :*** It allows the background color of the table to be specified, using either the specified color names, or a rrggbb hex triplet.
- ***BORDERCOLOR :*** This attribute used to set the border color of the table.

<TR> - Creating a Table Row

- Creates a row in a table. Contains multiple <TD> or <TH> elements.
- Attributes
  - **Align** : Specifies the horizontal alignment of the text in this table row. Set to LEFT, CENTER,RIGHT.
  - **Bgcolor** : Sets the background color of the table cells.
  - **Bordercolor** : Sets the external border color for the row.
  - **Valign** :Sets the vertical alignment of the data in this row. Sets to TOP,MIDDLE,BOTTOM.

<TD> - Creating Table Data

- Creates a table headings; just like table data but usually bold and centered vertically and horizontally.
- Attributes
  - **Align** : Specifies the horizontal alignment of the text in this table row. Set to LEFT, CENTER,RIGHT.
  - **Bgcolor** : Sets the background color of the table cells.
  - **Bordercolor** : Sets the external border color for the row.
  - **Valign** :Sets the vertical alignment of the data in this row. Sets to TOP,MIDDLE,BOTTOM.
  - **Width** : Specifies the width of the cell. Set to either pixel value or percentage of the display area.
  - **Height** : Specifies the height of the cell. Set to either pixel value or percentage of the display area.
  - **Colspan** : Indicates how many cell columns of the table this cell should span. Set to a positive integer.
  - **Rowspan** : Indicates how many rows of the table this cell should span. Set to a positive integer.
  - **Nowrap** : Specifies that data in the cell should not be wrapped by the browser , meaning the table cell will be made long enough to fit the contents without line breaks.

<TH> - Creating Table Headings

- Creates a table headings; just like table data but usually bold and centered vertically and horizontally.
- Attributes
  - **Align** : Specifies the horizontal alignment of the text in this table row. Set to LEFT, CENTER,RIGHT.
  - **Bgcolor** : Sets the background color of the table cells.
  - **Bordercolor** : Sets the external border color for the row.
  - **Valign** :Sets the vertical alignment of the data in this row. Sets to TOP,MIDDLE,BOTTOM.
  - **Width** : Specifies the width of the cell. Set to either pixel value or percentage of the display area.
  - **Height** : Specifies the height of the cell. Set to either pixel value or percentage of the display area.
  - **Colspan** : Indicates how many cell columns of the table this cell should span. Set to a positive integer.
  - **Rowspan** : Indicates how many rows of the table this cell should span. Set to a positive integer.
  - **Nowrap** : Specifies that data in the cell should not be wrapped by the browser , meaning the table cell will be made long enough to fit the contents without line breaks.

<CAPTION> - Creating a Table Caption

- Specifies the data for a table cell. Used inside the <TABLE> tag.
- Attributes
  - **Align**
  - **VAlign**

Working with Frames

<Frameset> , <Frame> Tag

Frames

- With frames, we can display more than one HTML document in the same browser window. Each HTML document is called a frame, and each frame is independent of the others.
- *Frames* divide a browser window into several separate pieces or panes, each pane containing a separate HTML page.
- One of the key advantages of frames is that we can load and reload individual panes without having to reload the entire contents of the browser window.
- A collection of frames in the browser window is known as a *frameset*.

<FRAMESET> Tag

- The <frameset> tag defines how to divide the window into frames each frameset defines a set of rows **or** columns. The values of the rows/columns indicate the amount of screen area each row/column will occupy.
- Attributes :
  - **Rows** : Sets the number of rows (horizontal frames) in the frameset. Separate the values assigned to this attribute with commas; each value represents the height of the row. Set to pixel value or percentages or use an asterisk to specify the remaining space.
  - **Cols** : Sets the number of cols (Vertical frames) in the frameset. Separate the values assigned to this attribute with commas; each value represents the height of the column. Set to pixel value or percentages or use an asterisk to specify the remaining space.
  - **Border *:***It accepts a pixel value, which determines the thickness of any borders used within the frame set.
- Example
  - **<FRAMESET ROWS="20%,60%,20%">**
  - **<FRAMESET COLS="100,*,100">**

<FRAME> Tag

- This tag defines a single frame in a frameset. Used inside the <FRAMESET> element.
- Attributes
  - **SRC*:*** The SRC attribute takes the URL of the document to be displayed in this particular frame. FRAMEs without SRC attributes are displayed as a blank space the size the frame would have been.
  - **NAME *:*** The NAME attribute is used to assign a name to a frame so it can be targeted by links in other documents. The NAME attribute is optional; by default all windows are unnamed.
  - **MARGINWIDTH** : Sets the size of the right and left margins used in the frame.
  - **MARGINHEIGHT :** Sets the size of the top and bottom margins used in the frame.
  - **NORESIZE** : Stand alone attribute indicating that the frame may not be resized. The default is that frames may be resized by dragging the border.
  - **SCROLLING** : Determines scrollbar action. Possible values are **AUTO,YES,NO.**

HTML Character Entities

- Some characters are reserved in HTML. For example, we cannot use the greater than or less than signs within your text because the browser could mistake them for markup.
- If we want the browser to actually display these characters we must insert character entities in the HTML source.
- A character entity looks like this: &*entity_name*; OR &#*entity_number*;
- To display a less than sign we must write: **&lt;** or **&#60;**

Result	Description	Entity Name	Entity Number
	non-breaking space	&nbsp;	&#160;
<	less than	&lt;	&#60;
>	greater than	&gt;	&#62;
&	ampersand	&amp;	&#38;
¢	cent	&cent;	&#162;
£	pound	&pound;	&#163;
¥	yen	&yen;	&#165;
€	euro	&euro;	&#8364;
§	section	&sect;	&#167;
©	copyright	&copy;	&#169;
®	registered trademark	&reg;	&#174;
"	quotation mark	&quot;	&#34;
'	apostrophe	&apos;	&#39;
™	trademark	&trade;	&#8482;

Working with Forms

<FORM> , <INPUT> Tags

What is a FORM?

- Forms provide a means of submitting information from the client to the server. Using Form , we will be able to handle HTML controls like textfields , buttons , textareas , checkboxes.

What is a FORM?

- HTML forms are used to create GUIs on Web pages
  - Usually the purpose is to ask the user for information
  - The information is then sent back to the server
- A form is an area that can contain form elements
  - The syntax is: <form *parameters*> *...form elements...* </form>
  - Form elements include: buttons, checkboxes, text fields, radio buttons, drop-down menus, etc
    - Other kinds of HTML tags can be mixed in with the form elements
  - A form usually contains a Submit button to send the information in he form elements to the server
  - The form’s *parameters* tell JavaScript how to send the information to the server.

<FORM> - Creating HTML Forms

- Creates an HTML form; used to enclose HTML controls like buttons and textfields.
- Attributes :
  - **Action** : Gives the URL that will handle the form data when the Submit button is clicked.
  - **Method** : Indicates a method or protocol for sending data to the target action URL. Possible values are GET(default) / POST.
  - **Name** : Gives a name to the form so we can reference it in code.

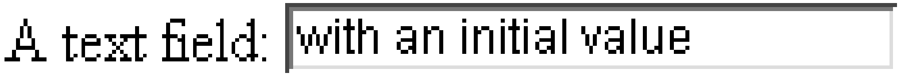
The <INPUT> tag

- Form elements use the input tag, with a type="..." attribute to tell which kind of element it is
  - type can be text, checkbox, radio, password, hidden, submit, reset, button, file, or image
- Other common input tag attributes include:
  - name: the name of the element
  - value: the “value” of the element; used in different ways for different values of type
  - disabled: the user can’t do anything with this element
  - Size : Sets the size of the control.

Text input

A text field:

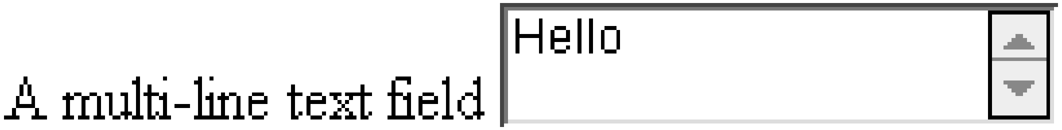
```
<input type="text" name="textfield" value="with an initial value">
```



A text field: with an initial value

A multi-line text field

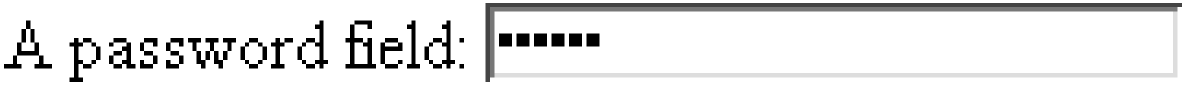
```
<textarea name="textarea" cols="24" rows="2">Hello</textarea>
```



A multi-line text field Hello

A password field:

```
<input type="password" name="textfield3" value="secret">
```

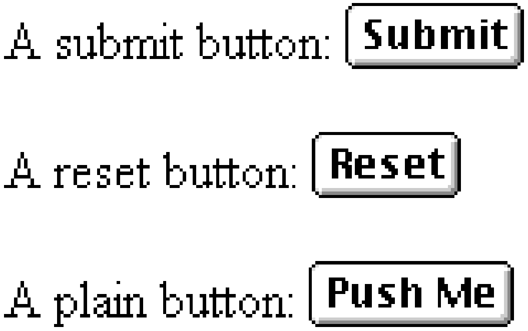


A password field: ■■■■■■

- Note that two of these use the input tag, but one uses textarea

Buttons

- A submit button:
  `<input type="submit" name="Submit" value="Submit">`
- A reset button:
  `<input type="reset" name="Submit2" value="Reset">`
- A plain button:
  `<input type="button" name="Submit3" value="Push Me">`

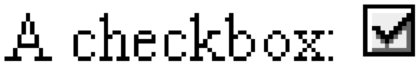


- submit: send data
- reset: restore all form elements to their initial state
- button: take some action as specified by JavaScript

Checkboxes

- A checkbox:

```
    <input type="checkbox" name="chkbx”
            value="checkbox" checked>
```

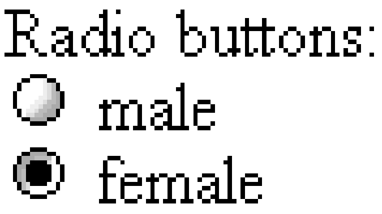


A checkbox: ☑

  - type: "checkbox"
  - name: used to reference this form element from JavaScript
  - value: value to be returned when element is checked
  - Note that there is *no text* associated with the checkbox—you have to supply text in the surrounding HTML

Radio buttons

```
Radio buttons:<br>
<input type="radio" name="radiobutton" value="myValue1">male <br>n
<input type="radio" name="radiobutton" value="myValue2" checked>female
```



Radio buttons:

○ male

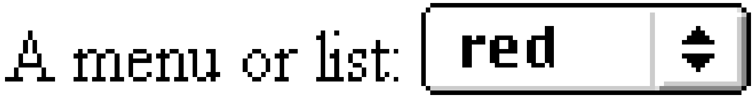
● female

- If two or more radio buttons have the same name, the user can only select one of them at a time
  - This is how you make a radio button “group”
- If you ask for the value of that name, you will get the value specified for the selected radio button
- As with checkboxes, radio buttons do not contain any text

Drop-down menu or list

- A menu or list:

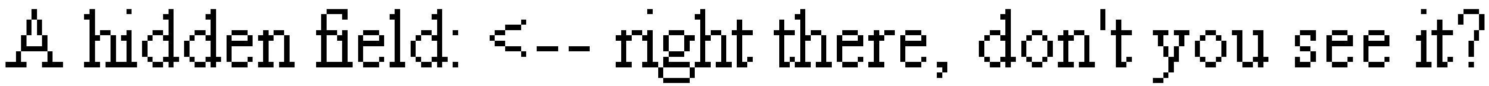
```
<select name="select">
    <option value="red">red</option>
    <option value="green">green</option>
    <option value="BLUE">blue</option>
</select>
```



- Additional arguments:
  - size: the number of items visible in the list (default is "1")
  - multiple: if set to "true", any number of items may be selected (default is "false")

Hidden fields

- <input type="hidden" name="hiddenField" value="nyah">&lt;-- right there, don't you see it?



A hidden field: <-- right there, don't you see it?

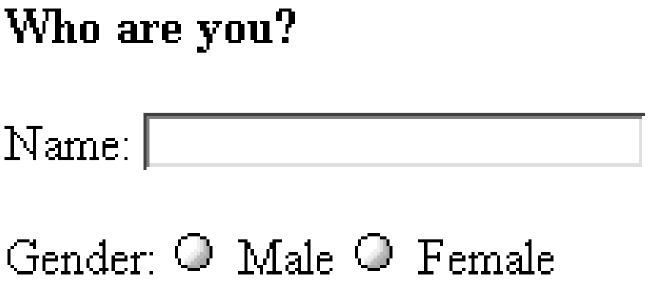
- What good is this?
  - All input fields are sent back to the server, including hidden fields
  - This is a way to include information that the user doesn’t need to see (or that you don’t want her to see)
  - The value of a hidden field can be set programmatically (by JavaScript) before the form is submitted

A complete example

```
<html>
<head>
<title>Get Identity</title>
</head>
<body>
<p><b>Who are you?</b></p>

<form method="post" action="">
  <p>Name:
    <input type="text" name="textfield">
  </p>
  <p>Gender:
    <input type="radio" name="gender" value="m">Male
    <input type="radio" name="gender" value="f">Female</p>
  </form>

</body>
</html>
```



Who are you?

Name:

Gender: ○ Male ○ Female