Introduction to HTML



Definitions

- W W W World Wide Web.
- HTML HyperText Markup Language The Language of Web Pages on the World Wide Web.
 - HTML is a text formatting language.
- URL Uniform Resource Locator.
- Browser A software program which is used to show web pages.

- "Normal text" surrounded by bracketed tags that tell browsers how to display web pages
- Pages end with ".htm" or ".html"
- HTML Editor A word processor that has been specialized to make the writing of HTML documents more effortless.

Tags

- Codes enclosed in brackets
- Usually paired
 - <TITLE>My Web Page</TITLE>
- Not case sensitive

Choosing Text Editor

- There are many different programs that you can use to create web documents.
- HTML Editors enable users to create documents quickly and easily by pushing a few buttons. Instead of entering all of the HTML codes by hand.
- These programs will generate the HTML Source Code for you.

Choosing Text Editor

For this Course, we will focus on using the standard Microsoft Windows text editors, NotePad. We may use also textpad.

Starting NotePad

- NotePad is the standard text editor that comes with the microsoft windows operating system. To start NotePad in windows 9x or XP follow the steps bellow:
- Click on the "Start" button located on your Windows task bar.
- Click on "Programs" and then click on the directory menu labeled "Accessories".
- Locate the shortcut "NotePad" and click the shortcut once.

HTML Page Creation & Editing

Steps Followed:

- 1. Choose a Text Editor.
- 2. Create a Basic Starting Document.
- 3. Understand and set Document Properties.
- 4. View Your Results in a Browser.

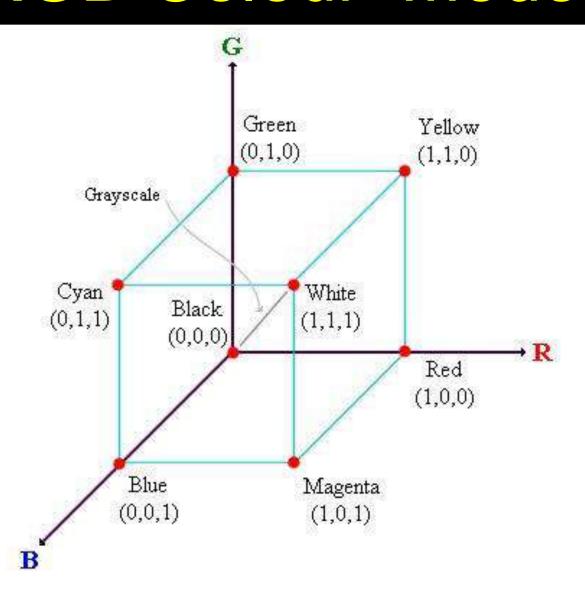
Creating a Basic Starting Document

```
<HTML>
<HEAD>
    <TITLE>KV KHAGAUL</TITLE>
</HEAD>
<BODY>
 This is what is displayed.
</BODY>
</HTML>
```

Creating a Basic Starting Document

- The HEAD of your document point to above window part. The TITLE of your document appears in the very top line of the user's browser. If the user chooses to "Bookmark" your page or save as a "Favorite"; it is the TITLE that is added to the list.
- The text in your TITLE should be as descriptive as possible because this is what many search engines, on the internet, use for indexing your site.

RGB Colour Model



16 Basic Colors

RGB Triplet	Hexadecimal	Color Name	RGB Triplet	Hexadecimal
(0,255,255)	00FFFF	Navy	(0,0,128)	000080
(0,0,0)	000000	Olive	(128,128,0)	808000
(0,0,255)	0000FF	Purple	(128,0,128)	800080
(255,0,255)	FF00FF	Red	(255,0,0)	FF0000
(128,128,128)	808080	Silver	(192,192,192)	C0C0C0
(0,128,0)	008000	Teal	(0,128,128)	008080
(0,255,0)	00FF00	White	(255,255,255)	FFFFFF
(128,0,0)	800000	Yellow	(255,255,0)	FFFF00
	(0,255,255) (0,0,0) (0,0,255) (255,0,255) (128,128,128) (0,128,0) (0,255,0)	(0,255,255) 00FFFF (0,0,0) 000000 (0,0,255) 0000FF (255,0,255) FF00FF (128,128,128) 808080 (0,128,0) 008000 (0,255,0) 00FF00	(0,255,255) 00FFFF Navy (0,0,0) 000000 Olive (0,0,255) 0000FF Purple (255,0,255) FF00FF Red (128,128,128) 808080 Silver (0,128,0) 008000 Teal (0,255,0) 00FF00 White	(0,255,255) 00FFFF Navy (0,0,128) (0,0,0) 000000 Olive (128,128,0) (0,0,255) 0000FF Purple (128,0,128) (255,0,255) FF00FF Red (255,0,0) (128,128,128) 808080 Silver (192,192,192) (0,128,0) 008000 Teal (0,128,128) (0,255,0) 00FF00 White (255,255,255)

Color Codes

- 1. WHITE
- 2. BLACK
- 3. RED
- 4. GREEN
- 5. BLUE
- 6. MAGENTA
- 7. CYAN
- 8. YELLOW
- 9. AQUAMARINE
- 10. BAKER'S CHOCOLATE
- 11. VIOLET
- 12. BRASS
- 13. COPPER
- 14. PINK
- 15. ORANGE

- #FFFFFF
- **4000000**
- 3. #FF0000
- 4. #00FF00
- 5. #0000FF
- 6. #FF00FF
- 7. #00FFFF
- 8. #FFFF00
- 9. #70DB93
- 10. #5**C**3317
- 11. #9F5F9F
- 12. #B5A642
- 13. #B87333
- 14. #FF6EC7
- 15. #FF7F00

Background Color

- It is very common to see web pages with their background color set to white or some other colors.
- To set your document's background color, you need to edit the <BODY> element by adding the BGCOLOR attribute. The following example will display a document with a white background color:

<BODY BGCOLOR="#FFFFFF"></BODY>

TEXT Color

The TEXT attribute is used to control the color of all the normal text in the document. The default color for text is black. The TEXT attribute would be added as follows:

<BODY BGCOLOR="#FFFFFF"
TEXT="#FF0000"></BODY>

In this example the document's page color is white and the text would be red.

LINK, VLINK, and ALINK

- These attributes control the colors of the different link states:
- 1. LINK initial appearance default = Blue.
- 2. VLINK visited link default = Purple.
- 3. ALINK –active link being clicked–default= Yellow.
- The Format for setting these attributes is:

```
<BODY BGCOLOR="#FFFFF" TEXT="#FF0000"
LINK="#0000FF"
VLINK="#FF00FF"</pre>
```

Using Image Background

- The BODY element also gives you ability of setting an image as the document's background.
- An example of a background image's HTML code is as follows:

<BODY BACKGROUND="hi.gif" BGCOLOR="#FFFFFF"></BODY>

Previewing Your Work

- Once you have created your basic starting document and set your document properties it is a good idea to save your file.
- To save a file, in NotePad, follow these steps:
- Locate and click on the menu called "File".
- Select the option under File Menu labeled "Save As".
- 3. In the "File Name" text box, type in the entire name of your file (including the extension name .html).

Headings, <Hx> </Hx>

- Inside the **BODY** element, heading elements **H1** through **H6** are generally used for major divisions of the document. Headings are permitted to appear in any order, but you will obtain the best results when your documents are displayed in a browser if you follow these guidelines:
- 1. H1: should be used as the highest level of heading, H2 as the next highest, and so forth.

Headings, <Hx> </Hx>

```
<HTML>
<HFAD>
<TITLE> Example Page</TITLE>
</HFAD>
<BODY>
<H1> Heading 1 </H1>
<H2> Heading 2 </H2>
<H3> Heading 3 </H3>
<H4> Heading 4 </H4>
<H5> Heading 5 </H5>
<H6> Heading 6 </H6>
</BODY>
</HTML>
```

Heading 1
Heading 2
Heading 3
Heading 4
Heading 5
Heading 6

Paragraphs, <P> </P>

Paragraphs allow you to add text to a document in such a way that it will automatically adjust the end of line to suite the window size of the browser in which it is being displayed. Each line of text will stretch the entire length of the window.

Paragraphs, <P> </P>

```
<HTML><HEAD>
<TITLE> Example Page</TITLE>
</HEAD>
<BODY></H1> Heading 1 </H1>
<P> Paragraph 1, ....</P>
<H2> Heading 2 </H2>
<P> Paragraph 2, ....</P>
<H3> Heading 3 </H3>
<P> Paragraph 3, ....</P>
<H4> Heading 4 </H4>
<P> Paragraph 4, ....</P>
<H5> Heading 5 </H5>
<P> Paragraph 5, ....</P>
<H6> Heading 6</H6>
<P> Paragraph 6, ....</P>
</BODY></HTML>
```

Heading 1

Paragraph 1,....

Heading 2

Paragraph 2,....

Heading 3

Paragraph 3,....

Heading 4

Paragraph 4,....

Heading 5

Paragraph 5,....

Heading 6

Paragraph 6,....

Break,

- Line breaks allow you to decide where the text will break on a line or continue to the end of the window.
- A
 is an empty Element, meaning that it may contain attributes but it does not contain content.
- The
 element does not have a closing tag.

Break,


```
<HTML>
<HEAD>
<TITLE> Example Page</TITLE>
</HEAD>
<BODY>
<H1> Heading 1 </H1>
<P>Paragraph 1, <BR>
Line 2 <BR> Line 3 <BR>....
</P>
</BODY>
</HTML>
```

Heading 1

Paragraph 1,....

Line 2

Line 3

. . . .

Horizontal Rule, <HR>

- The <HR> element causes the browser to display a horizontal line (rule) in your document.
- <HR> does not use a closing tag, </HR>.

Horizontal Rule, <HR>

Attribute	Description	Default Value	
SIZE	Height of the rule in pixels	2 pixels	
WIDTH	Width of the rule in pixels or percentage of screen width	100%	
NOSHADE	Draw the rule with a flat look instead of a 3D look	Not set (3D look)	
ALIGN	Aligns the line (Left, Center, Right)	Center	
COLOR	Sets a color for the rule (IE 3.0 or later)	Not set	

Horizontal Rule, <HR>

```
<HTML>
<HEAD>
<TITLE> Example Page</TITLE>
</HFAD>
<BODY>
<H1> Heading 1 </H1>
<P>Paragraph 1, <BR>
Line 2 <BR>
<HR>Line 3 <BR>
</P>
</BODY>
</HTML>
```

Heading 1

Paragraph 1,....

Line 2

Line 3

Bold, Italic and other Character Formatting Elements

- **** Two sizes bigger****
- The size attribute can be set as an absolute value from 1 to 7 or as a relative value using the "+" or "-" sign. Normal text size is 3 (from -2 to +4).
- Bold
- <U><u>Underline</u></U>
- Color = "#RRGGBB" The COLOR attribute of the FONT element. E.g., this text has color
- <PRE> Preformatted </PRE> Text enclosed by PRE tags is displayed in a mono-spaced font. Spaces and line breaks are supported without additional elements or special characters.

Bold, Italic and other Character Formatting Elements

- Emphasis Browsers usually display this as italics.
- STRONG Browsers display this as bold.
- <TT> TELETYPE </TT> Text is displayed in a mono-spaced font. A typewriter text, e.g. fixed-width font.
- <CITE> Citation </CITE> represents a document citation (italics). For titles of books, films, etc. Typically displayed in italics. (A Beginner's Guide to HTML)

Bold, Italic and other Character Formatting Elements

```
<P> <FONT SIZE="+1"> One
  Size Larger </FONT> - Normal
<FONT SIZE="-1"> One Size
  Smaller </FONT> <BR>
<B> Bold</B> - <I> italics</I> -
  <U>> Underlined </U> -
<FONT COLOR="#FF0000">
  Colored </FONT> <BR>
<EM> Emphasized</EM> -
  <STRONG> Strong
  </STRONG> - <TT> Tele Type
  </TT> <BR>
```

```
One Size Larger - Normal – One
Size Smaller
Bold - italics - <u>Underlined</u> -
Colored
Emphasized - Strong - Tele
Type
```

Alignment

- Some elements have attributes for alignment (ALIGN) e.g. Headings, Paragraphs and Horizontal Rules.
- The Three alignment values are: LEFT, RIGHT, CENTER.
- <CENTER></CENTER> Will center elements.

Additional Character Formatting Elements

- <STRIKE> strike-through text</STRIKE>
 DEL is used for STRIKE at the latest browsers
- <BIG> places text in a big font</BIG>
- <SMALL> places text in a small font</SMALL>
- _{places text in subscript position}
- **SUP>** places text in superscript style position **</SUP>**

Example

<P><STRIKE> strike-through text </STRIKE></BR>

<BIG>places text in a big font </BIG>

<SMALL> places text in a small font</SMALL>

_{places text in subscript position}

Normal

^{places text in superscript style position}
 </P>

Lists

Supported Basic List Types in HTML:

- Create an unordered list.
- Create an ordered list.
- Create a defined list.

List Elements

- HTML supplies several list elements. Most list elements are composed of one or more (List Item) elements.
- UL: Unordered List. Items in this list start with a list mark such as a bullet. Browsers will usually change the list mark in nested lists.

```
<UL><LI> List item ...</LI></LI></UL>List item ...
```

List item ...

List Elements

- You have the choice of three bullet types: disc(default), circle, square.
- These are controlled in Netscape Navigator by the "TYPE" attribute for the element.

```
<UL TYPE="square">
<LI> List item ...</LI>
<LI> List item ...</LI>
<LI> List item ...</LI>
</UL>

List item ...
```

- List item ...
- List item ...

OL: Ordered List. Items in this list are numbered automatically by the browser.

```
<OL>
<LI> List item ...</LI>
<LI> List item ...</LI>
<LI> List item ...</LI>
</OL>
1. List item ...
2. List item ...
3. List item
```

You have the choice of setting the TYPE Attribute to one of five numbering styles.

TYPE	Numbering Styles	
1	Arabic numbers	1,2,3,
а	Lower alpha	a, b, c,
Α	Upper alpha	A, B, C,
i	Lower roman	i, ii, iii,
I	Upper roman	I, II, III,

You can specify a starting number for an ordered list.

```
<OL TYPE ="i">
<LI> List item ...</LI>
<LI> List item ...</LI>
</OL>
<P> text ....</P>
<OL TYPE="i" START="3">
<LI> List item ...</LI>
</OL>
```

```
List item ...
   List item ...
Text ....
  List item ...
```

DL: Definition List. This kind of list is different from the others. Each item in a DL consists of one or more Definition Terms (DT elements), followed by one or more Definition Description (DD elements).

A human's best friend!

What will be the output?

```
<H1 ALIGN="CENTER">SAFETY TIPS FOR CANOEISTS</H1>
<OL TYPE="a" START="2">
<LI>Be able to swim </LI>
<LI>Wear a life jacket at all times </LI>
<LI>Don't stand up or move around. If canoe tips,
   <UL>
   <LI>Hang on to the canoe </LI>
   <LI>Use the canoe for support and </LI>
   <LI>Swim to shore
   </UL> </LI>
<LI>Don't overexert yourself </LI>
<LI>Use a bow light at night </LI>
</OI>
```

The output....

SAFETY TIPS FOR CANOEISTS

- b. Be able to swim
- c. Wear a life jacket at all times
- d. Don't stand up or move around. If canoe tips,
 - o Hang on to the canoe
 - o Use the canoe for support and
 - o Swim to shore
- e. Don't overexert yourself
- f. Use a bow light at night

```
<H1 ALIGN="CENTER">SAFETY TIPS FOR
CANOEISTS</H1>
<OL TYPE="a" START="2">
<LI>Be able to swim </LI>
<LI>Wear a life jacket at all times </LI>
<LI>Don't stand up or move around. If canoe tips,
<UL>
<LI>Hang on to the canoe </LI>
<LI>Use the canoe for support
<OL type="I" start="4">
<LI> Be careful </LI>
<LI> Do not look around</LI>
</LI> </OL>
<LI>Swim to shore
</UL> </LI>
<LI>Don't overexert yourself </LI>
<LI>Use a bow light at night </LI>
</OL>
```

What

be the

output?

will

The output....

SAFETY TIPS FOR CANOEISTS

- b. Be able to swim
- c. Wear a life jacket at all times
- d. Don't stand up or move around. If canoe tips,
 - o Hang on to the canoe
 - o Use the canoe for support
 - IV. Be careful
 - V. Do not look around
 - o Swim to shore
- e. Don't overexert yourself
- f. Use a bow light at night

lmages

- This element defines a graphic image on the page.
- Image File (SRC:source): This value will be a URL (location of the image) E.g. http://www.domain.com/dir/file.ext or /dir/file.txt.
- Alternate Text (ALT): This is a text field that describes an image or acts as a label. It is displayed when they position the cursor over a graphic image.
- Alignment (ALIGN): This allows you to align the image on your page.

lmages

- Width (WIDTH): is the width of the image in pixels.
- Height (HEIGHT): is the height of the image in pixels.
- Border (BORDER): is for a border around the image, specified in pixels.
- HSPACE: is for Horizontal Space on both sides of the image specified in pixels. A setting of 5 will put 5 pixels of invisible space on both sides of the image.
- VSPACE: is for Vertical Space on top and bottom of the image specified in pixels. A setting of 5 will put 5 pixels of invisible space above and bellow the image.

Some Examples on images

- 1)
- 2)
- 3)
- 4)
- 5) < IMG SRC =" jordan.gif" align="left"> blast blast blast blast

Anchors, URLs and Image Maps

- Insert links into documents.
- Define Link Types.
- Define URL.
- 4. List some commonly used URLs.
- Plan an Image Map.

HOW TO MAKE A LINK

- 1) The tags used to produce links are the <A> and . The <A> tells where the link should start and the indicates where the link ends. Everything between these two will work as a link.
- 2) The example below shows how to make the word Here work as a link to yahoo.

Click here to go to yahoo.

More on LINKs

```
<body LINK="#C0C0C0" VLINK="#808080"
ALINK="#FF0000">
```

LINK - standard link - to a page the visitor hasn't been to yet. (standard color is blue - #0000FF).
 VLINK - visited link - to a page the visitor has been to before. (standard color is purple - #800080).
 ALINK - active link - the color of the link when the mouse is on it. (standard color is red - #FF0000).

If the programmer what to change the color

 Click here to go to yahoo.

Internal Links

- Internal Links: Links can also be created inside large documents to simplify navigation. Today's world wants to be able to get the information quickly. Internal links can help you meet these goals.
- Select some text at a place in the document that you would like to create a link to, then add an anchor to link to like this:
 -
 - The Name attribute of an anchor element specifies a location in the document that we link to shortly. All NAME attributes in a document must be unique.
- Next select the text that you would like to create as a link to the location created above.
 - Go To Book Mark

E-Mail (Electronic Mail)

E.g. mailto:kv_khagaul@rediffmail.com

- The type of service is identified as the mail client program. This type of link will launch the users mail client.
- The recipient of the message is kv_dr@rediffmail.com

<A HREF="mailto:

kv_khagaul@rediffmail.com">Send me

More Information

TOPICS COVER:

- 1. Insert a table.
- 2. Explain a table's attributes.
- 3. Edit a table.
- 4. Add a table header.

- The <TABLE></TABLE> element has four sub-elements:
- 1. Table Row<TR></TR>.
- 2. Table Header <TH></TH>.
- 3. Table Data <TD></TD>.
- 4. Caption <CAPTION></CAPTION>.
- The table row elements usually contain table header elements or table data elements.

```
 Column 1 header 
 Column 2 header 
Row1, Col1 
Row1, Col2 
Row2, Col1 
Row2, Col2
```

Column 1 Header	Column 2 Header
Row1, Col1	Row1, Col2
Row2, Col1	Row2, Col2

Tables Attributes

- BGColor: Some browsers support background colors in a table.
- Width: you can specify the table width as an absolute number of pixels or a percentage of the document width. You can set the width for the table cells as well.
- Border: You can choose a numerical value for the border width, which specifies the border in pixels.
- CellSpacing: Cell Spacing represents the space between cells and is specified in pixels.

Table Attributes

- CellPadding: Cell Padding is the space between the cell border and the cell contents and is specified in pixels.
- Align: tables can have left, right, or center alignment.
- Background: Background Image, will be titled in IE3.0 and above.
- BorderColor, BorderColorDark.

Table Caption

 A table caption allows you to specify a line of text that will appear centered above or bellow the table.

<TABLE BORDER=1 CELLPADDING=2>

<CAPTION ALIGN="BOTTOM"> Label For My Table </CAPTION>

 The Caption element has one attribute ALIGN that can be either TOP (Above the table) or BOTTOM (below the table).

Table Header

 Table Data cells are represented by the TD element. Cells can also be TH (Table Header) elements which results in the contents of the table header cells appearing centered and in bold text.

Table Data and Table Header Attributes

- Colspan: Specifies how many cell columns of the table this cell should span.
- Rowspan: Specifies how many cell rows of the table this cell should span.
- Align: cell data can have left, right, or center alignment.
- Valign: cell data can have top, middle, or bottom alignment.
- Width: you can specify the width as an absolute number of pixels or a percentage of the document width.
- Height: You can specify the height as an absolute number of pixels or a percentage of the document height.

Basic Table Code

Spare Parts

Stock Number	Description	List Price
3476-AB	76mm Socket	45.00
3478-AB	78mm Socket	47.50
3480-AB	80mm Socket	50.00

Table Data and Table Header Attributes

```
<Table border=1 cellpadding =2>
  Column 1 Header 
Column 2 Header
  Row 1 Col 1 
 Row 2 Col 1
Row 2 Col2
  Row 3 Col2
```

Table Data and Table Header Attributes

Column 1 Header	Column 2 Header		
Row 1 Col 1			
Row 2 Col 1	Row 2 Col 2		
	Row 3 Col 2		

Special Things to Note

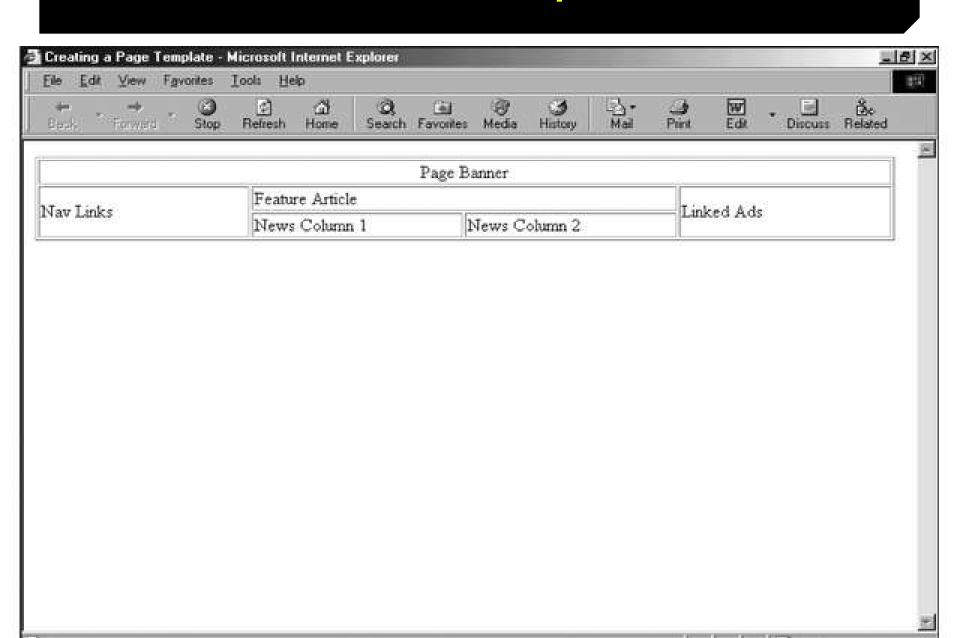
- TH, TD and TR should always have end tags.
- A default TABLE has no borders
 By default, tables are drawn without border lines. You need the BORDER attribute to draw the lines.
- By default, a table is flush with the left margin
 If you want centered tables, You can either: place the table inside
 a DIV element with attribute ALIGN="center".
 Most current browsers also supports table alignment, using the
 ALIGN attribute. Allowed values are "left", "right", or "center", for
 example: <TABLE ALIGN="left">. The values "left" and "right"
 float the table to the left or right of the page, with text flow
 allowed around the table. This is entirely equivalent to IMG
 alignment

What will be the output?

```
<TABLE BORDER width="750">
<TR> <TD colspan="4" align="center">Page
 Banner</TD></TR>
<TR> <TD rowspan="2" width="25%">New
 Links</TD><TD colspan="2">Feature
 Article</TD> <TD rowspan="2"
 width="25%">Linked Ads</TD></TR>
 <TR><TD width="25%">News Column 1 </TD>
 <TD width="25%"><News Column 2 </TD></TR>
```

</TABLE>

The Output



Frames

Objectives:

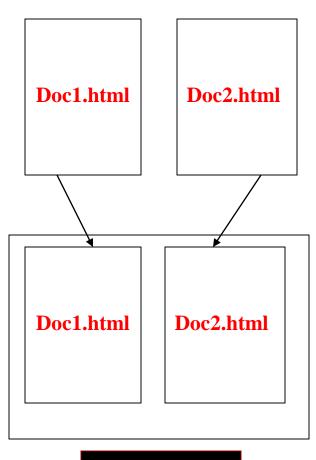
Upon completing this section, you should be able to:

- Create a Frame based page.
- Work with the Frameset, Frame, and Noframes elements.
- Use the attributes of the Frames elements to control the display.
- Set Targets appropriately.

Frames

- A framed page is actually made up of multiple HTML pages. There is one HTML document that describes how to break up the single browser window into multiple windowpanes. Each windowpane is filled with an HTML document.
- For Example to make a framed page with a windowpane on the left and one on the right requires three HTML pages. *Doc1.html* and *Doc2.html* are the pages that contain content. *Frames.html* is the page that describes the division of the single browser window into two windowpanes.

Frames



Frames.html

Frame Page Architecture

- A <FRAMESET> element is placed in the html document before the <BODY> element. The <FRAMESET> describes the amount of screen real estate given to each windowpane by dividing the screen into ROWS or COLS.
- The <FRAMESET> will then contain <FRAME>
 elements, one per division of the browser window.
- Note: Because there is no BODY container,
 FRAMESET pages can't have background images and background colors associated with them.

Frame Page Architecture

```
<HTML>
<HEAD>
<TITLE> Framed Page </TITLE>
<FRAMeSET COLS="23%,77%">
<FRAME SRC="Doc1.html">
<FRAME SRC="Doc2.html">
</FRAMeSET >
</HEAD>
</HTML>
```

The Diagram below is a graphical view of the document described above



FRAME

NAME=
left_pane
SRC=Doc1.h
tml

FRAME

NAME=right_pane SRC= Doc2.html

< FRAMESET > Container

- **<FRAMESET>**: The FRAMESET element creates divisions in the browser window in a single direction. This allows you to define divisions as either rows or columns.
- ROWS: Determines the size and number of rectangular rows within a <FRAMESET>. They are set from top of the display area to the bottom.

Possible values are:

- Absolute pixel units, I.e. "360,120".
- A percentage of screen height, e.g. "75%,25%".
- Proportional values using the asterisk (*). This is often combined with a value in pixels, e.g. "360,*".
- <Frameset cols="200,20%,*,2*">

Creating a Frames Page

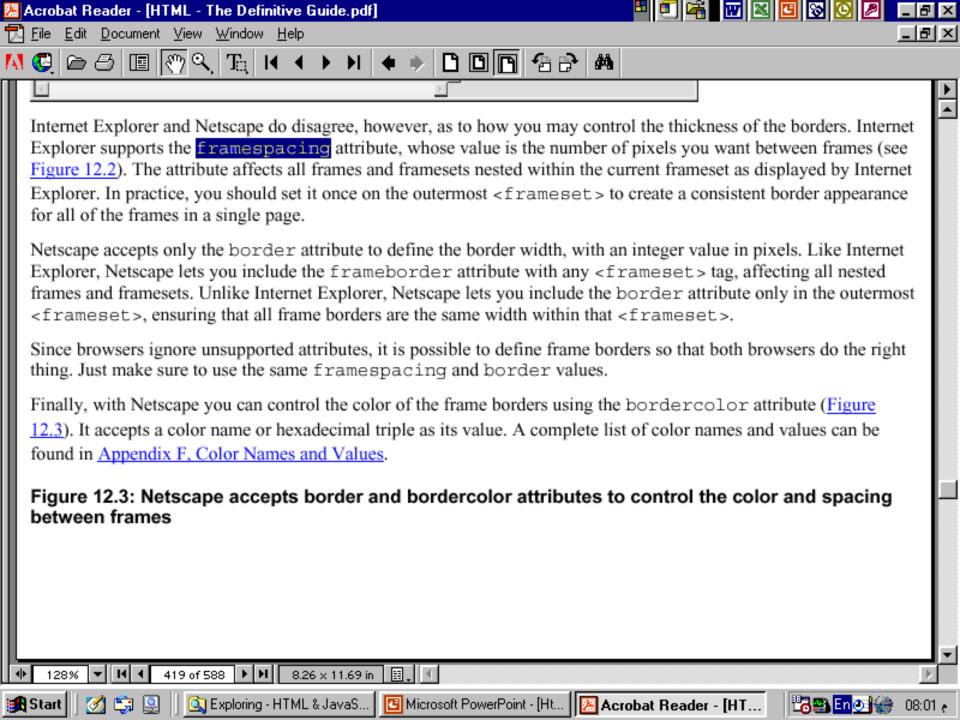
 COLS: Determines the size and number of rectangular columns within a <FRAMESET>. They are set from left to right of the display area.

Possible values are:

- Absolute pixel units, I.e. "480,160".
- A percentage of screen width, e.g. "75%,25%".
- Proportional values using the asterisk (*). This is often combined with a value in pixels, e.g. "480,*".

Creating a Frames Page

- FRAMEBORDER: Possible values 0, 1, YES, NO. A setting of zero will create a borderless frame.
- FRAMESPACING: This attribute is specified in pixels. If you go to borderless frames you will need to set this value to zero as well, or you will have a gap between your frames where the border used to be.
- BORDER(thickness of the Frame): This attribute specified in pixels. A setting of zero will create a borderless frame. Default value is 5.
- BORDERCOLOR: This attribute is allows you choose a color for your border. This attribute is rarely used.



<FRAME>

- <FRAME>: This element defines a single frame within a frameset. There will be a FRAME element for each division created by the FRAMESET element. This tag has the following attributes:
- SRC: Required, as it provides the URL for the page that will be displayed in the frame.
- NAME: Required for frames that will allow targeting by other HTML documents. Works in conjunction with the target attribute of the <A>, <AREA>, <BASE>, and <FORM> tags.

<FRAME>

- MARGINWIDTH: Optional attribute stated in pixels.
 Determines horizontal space between the
 <RAME> contents and the frame's borders.
- MARGINHEIGHT: Optional attribute stated in pixels. Determines vertical space between the <FRAME> contents and the frame's borders.
- SCROLLING: Displays a scroll bar(s) in the frame. Possible values are:
- Yes always display scroll bar(s).
- 2. No never display scroll bar(s).
- Auto browser will decide based on frame contents.

By default: scrolling is auto.

<FRAME>

• NORESIZE: Optional – prevents viewers from resizing the frame. By default the user can stretch or shrink the frame's display by selecting the frame's border and moving it up, down, left, or right.

<NOFRAMES>

NOFRAMES>: Frame – capable browsers ignore all HTML within this tag including the contents of the BODY element. This element does not have any attributes.

```
<HTML>
<HEAD>
<TITLE> Framed Page </TITLE>
</HEAD>
```

<NOFRAMES>

```
<FRAMESET COLS="23%,77%">
<FRAME SRC="" NAME="left_pane">
<FRAME SRC="" NAME="right_pane">
<NOFRAMES>
```

<P> This is a Framed Page. Upgrade your browser to support frames.

</NOFRAMES></FRAMESET>

Compound FRAMESET Divisions

- In this case a second FRAMESET element will be inserted in the place of the FRAME element that would describe the second row.
- The second FRAMESET element will divide the remaining screen real estate into 2 columns.
- This nested FRAMESET will then be followed by 2 FRAME elements to describe each of the subsequent frame divisions created.

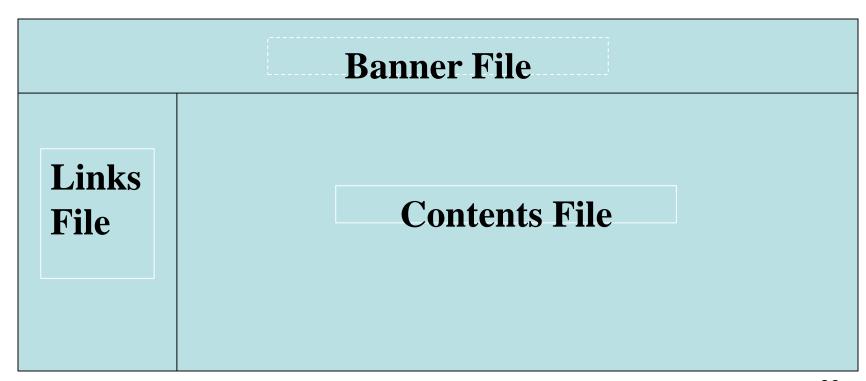
Compound FRAMESET Divisions

```
<html>
<head>
<title> Compound Frames Page</title>
</head>
<frameset rows="120,*">
<frame src="banner file.html"</pre>
  name"banner">
<frameset cols="120,*">
<frame src="links file.html"</pre>
  name="links">
<frame src="content file.html"</pre>
  name="content">
```

```
<noframes>
>
Default
 message
</noframes>
</frameset>
</frameset>
</head>
```

Compound FRAMESET Divisions

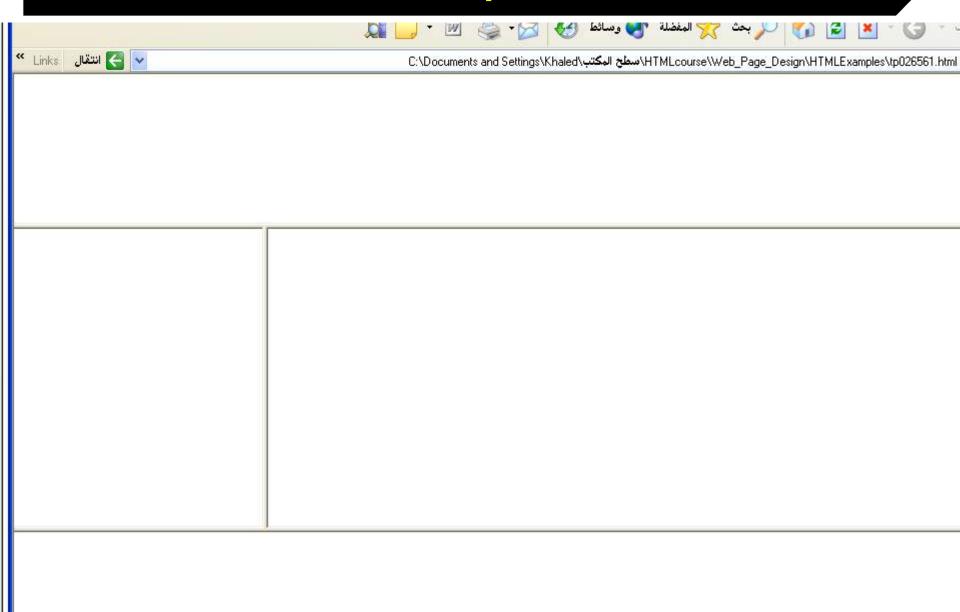
You may want to create a frames design with a combination of rows and columns.



Compound FRAMESET Divisions Example

```
<HEAD>
<FRAMESET ROWS="25%,50%,25%"
        <FRAME SRC="">
<FRAMESET COLS="25%,*">
             <FRAME SRC="">
             <FRAME SRC="">
                 </FRAMESET>
        <FRAME SRC="">
</FRAMESET>
</HEAD>
```

Output



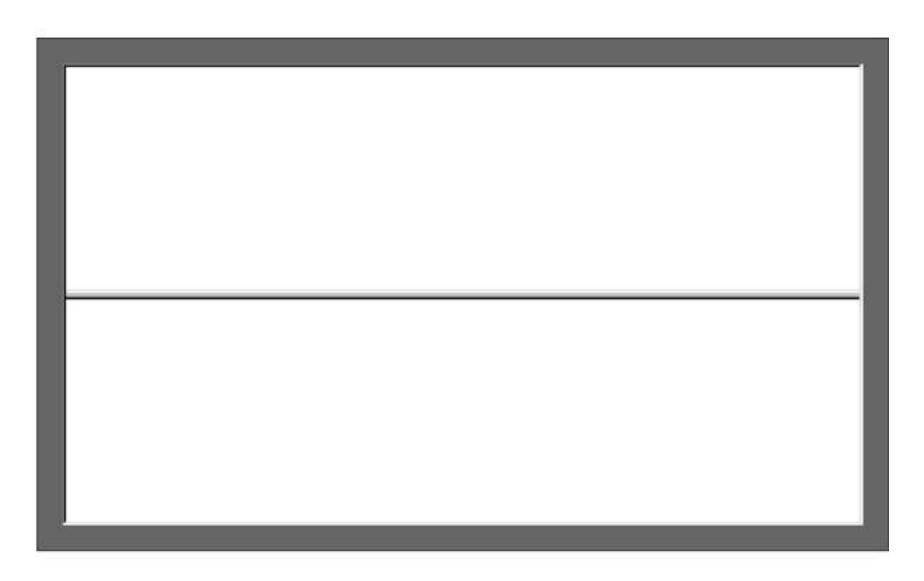


Figure 5-14: Frames created with <FRAMESET ROWS="50%, 50%">

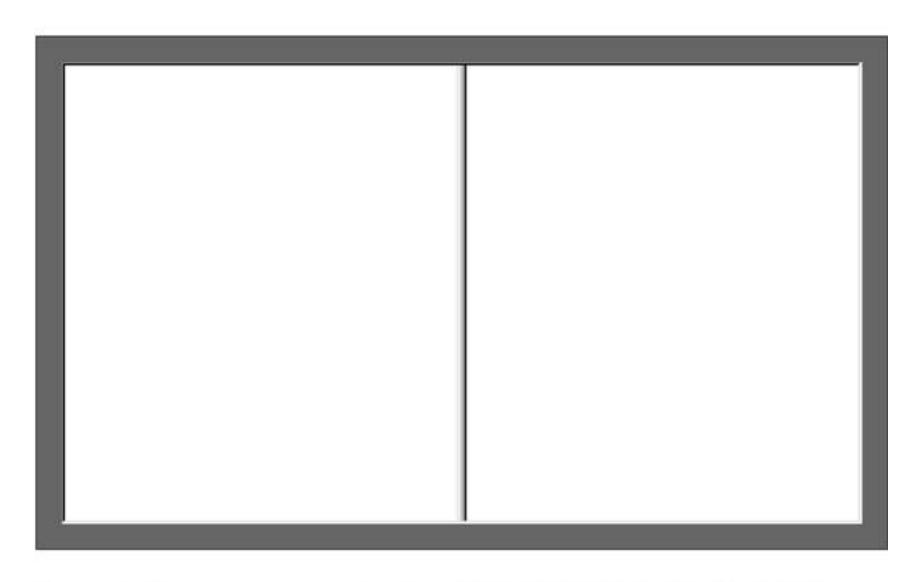


Figure 5-15: Frames created with <FRAMESET COLS="50%, 50%">

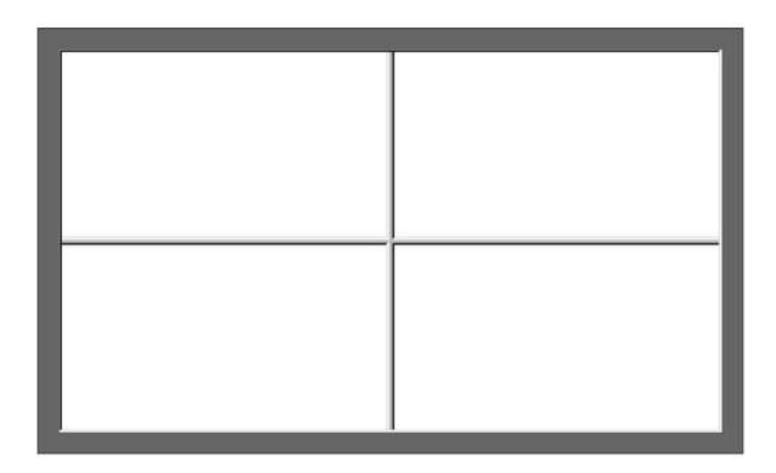


Figure 5-13: Frames created with <FRAMESET ROWS="50%, 50%" COLS="50%, 50%">

Frame Formatting

Example:

```
<frameset rows="20%, *, 20%">
    <frame src="header.html" noresize
    scrolling=no>
    <frame src="body.html">
    <frame src="navigationbar.html"
    noresize scrolling=no>
    </frameset>
```

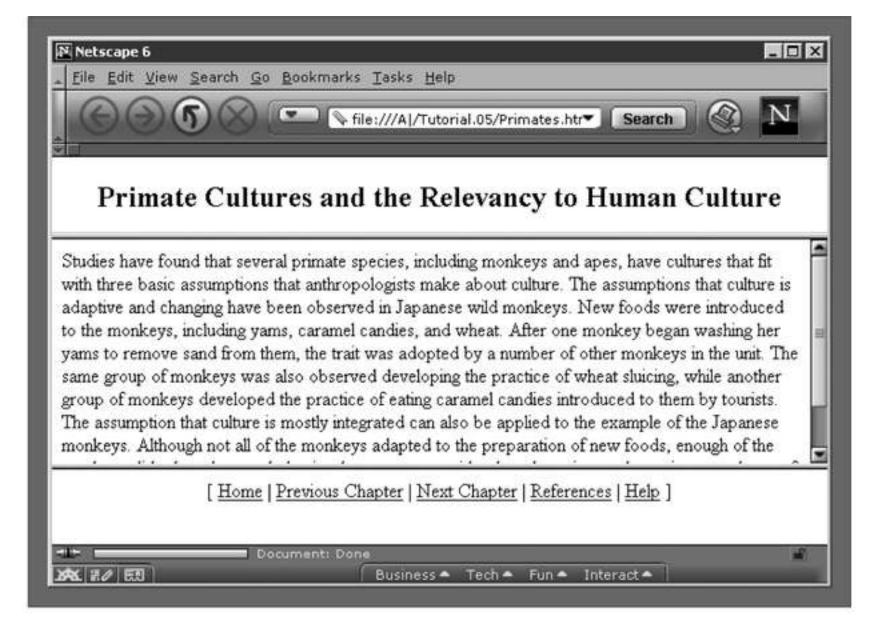


Figure 5-24: Output of program that includes NORESIZE and SCROLLING attributes

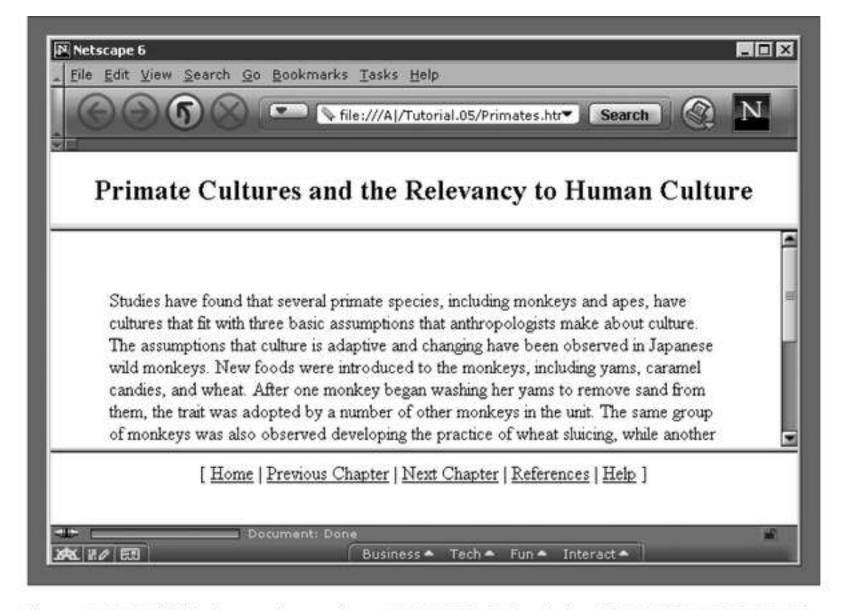


Figure 5-25: Middle frame changed to <FRAME SRC="body.html" MARGINHEIGHT=50

MARGINWIDTH=50>

What do the following mean?

1) <FRAMESET COLS="2*, 3*, 5*"> 2) <FRAMESET COLS="150, 20%, *, 3*"> So what are the space-allocation priorities? Absolute pixel values are always assigned space first, in order from left to right. These are followed by percentage values of the total space. Finally, proportional values are divided based upon what space is left.

Generic Frame Formula

- The <FRAME> tag has six associated attributes: SRC, NAME, MARGINWIDTH, MARGINHEIGHT, SCROLLING, and NORESIZE. Here's a complete generic FRAME:
- <FRAME SRC="url" NAME="window_name" SCROLLING=YES|NO|AUTO MARGINWIDTH="value" MARGINHEIGHT="value" NORESIZE>

What will be the Output?

```
<FRAMESET ROWS="*, 2*, *"
                          COLS="2*, *">
<FRAME SRC="">
<FRAME SRC="">
<FRAME SRC="">
<FRAME SRC="">
<FRAME SRC="">
<FRAME SRC="">
</FRAMESET>
```

Targets

- When you use links for use in a frames environment you will need to specify an additional attribute called TARGET.
- The TARGET attribute uses the NAME attribute of the FRAME element.
- If we were to place a link in doc1.html that linked to doc3.html and we wanted doc3.html to be displayed in the right windowpane; the HTML code would appear in doc1.html as follows:

Special Targets

- There are 4 special target names that cannot be assigned by the NAME attribute of the FRAME tag.
- 1. TARGET="_top": This loads the linked document into the full browser window with the URL specified by the HREF attribute. All frames disappear, leaving the new linked page to occupy the entire window. The back is turned on.
- 2. TARGET="_blank": Opens an unnamed new browser window and loads the document specified in the URL attribute into the new window (and your old window stays open). The back is turned off. Other windows remains on.
- **3.** TARGET="_self": Loads the document in the same window where the anchor was {Clicked}. This is the default setting for linking elements.
- 4. TARGET="_parent": the _parent frame is a prior frameset that the current frameset was "spawned" from. If there isn't one it is the browser window. The document is loaded into the area occupied by the columns or rows frameset containing the frame that contains the link. The back is turned on. All windows disappear.

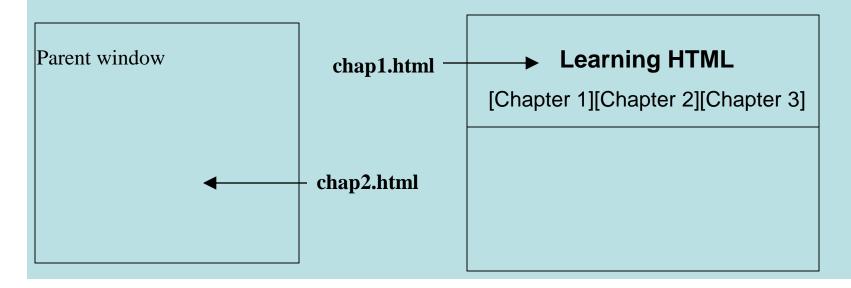
If a frame contains the following link, then clicking the link launches a new, unnamed browser display window that contains the content defined in stuff.HTM. This can be a simple HTML document, or an entirely new FRAMESET definition.

- 1.
 If a frame contains the following link, then clicking the link will simply cause the frame which contains the link to clear, and its content will be replaced with whatever is in stuff.htm.
- 2.
 If a frame contains the following link, the frameset that contains the frame that contains this link will be replaced by stuff.HTM.
- 3.
 Finally, if a frame contains the following link, clicking the link replaces the entire browser window with the contents of stuff.HTM.
- 4.

Targeting links to frames

The TARGET attribute allows you to specify the frame into which a page is to be loaded into in a frames setting.

```
<A HREF="chap1.html" TARGET="_self"> [Chapter 1]</a>
A HREF="chap1.html" TARGET="_parent"> [Chapter 2]</a>
```



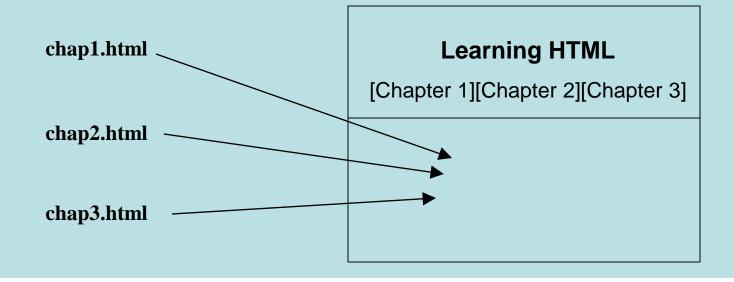
Targeting links to frames

The TARGET attribute allows you to specify the frame into which a page is to be loaded into in a frames setting.

```
<A HREF="chap1.html" TARGET="bottom"> [Chapter 1]
```

 [Chapter 2]

 [Chapter 3]



FORMS

Forms add the ability to web pages to not only provide the person viewing the document with dynamic information but also to obtain information from the person viewing it, and process the information.

Objectives:

Upon completing this section, you should be able to

- 1. Create a FORM.
- Add elements to a FORM.
- 3. Define CGI (Common Gateway Interface).
- 4. Describe the purpose of a CGI Application.
- 5. Specify an action for the FORM.
- Forms work in all browsers.
- Forms are Platform Independent.

FORMS

 To insert a form we use the <FORM></FORM> tags. The rest of the form elements must be inserted in between the form tags.

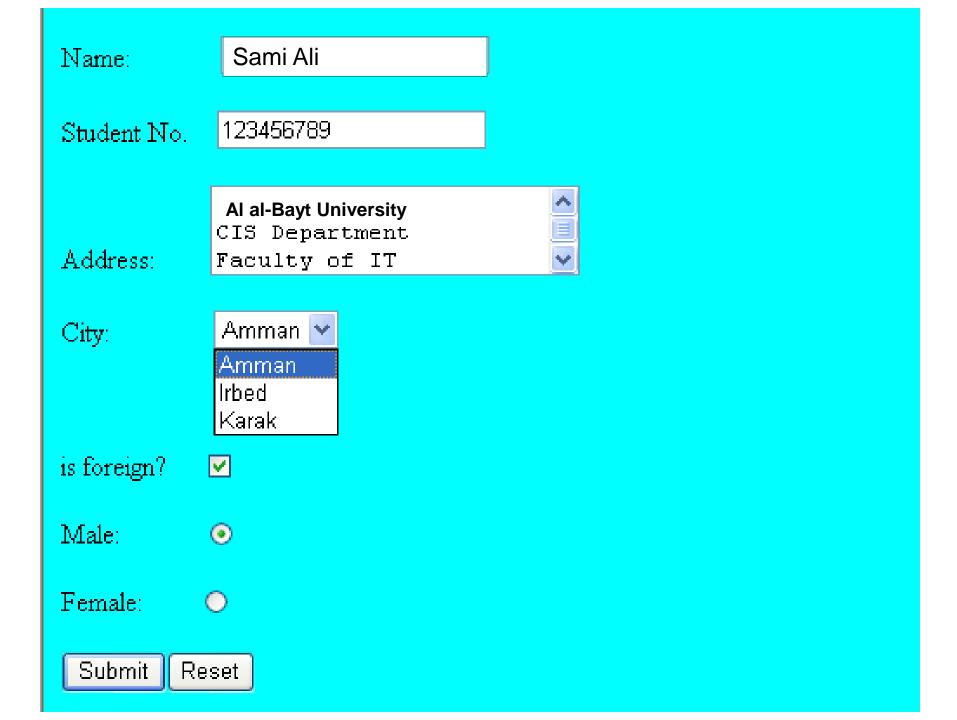
```
<HTML> <HEAD>
<TITLE> Sample Form</TITLE>
</HEAD>
<BODY BGCOLOR="FFFFFF">
<FORM ACTION = <a href="http://www.xnu.com/formtest.asp">http://www.xnu.com/formtest.asp</a>>
<P> First Name: <INPUT TYPE="TEXT" NAME="fname"
  MAXLENGTH="50"> </P>
<P> <INPUT TYPE="SUBMIT" NAME="fsubmit1" VALUE="Send Info">
   </P>
</FORM>
</BODY> </HTML>
```

<FORM> element attributes

- ACTION: is the URL of the CGI (Common Gateway Interface) program that is going to accept the data from the form, process it, and send a response back to the browser.
- METHOD: GET (default) or POST specifies which HTTP method will be used to send the form's contents to the web server. The CGI application should be written to accept the data from either method.
- NAME: is a form name used by VBScript or JavaScripts.
- TARGET: is the target frame where the response page will show up.

Form Elements

- Form elements have properties: Text boxes, Password boxes, Checkboxes, Option(Radio) buttons, Submit, Reset, File, Hidden and Image.
- The properties are specified in the TYPE Attribute of the HTML element <INPUT></INPUT>.



Form Elements

<INPUT> Element's Properties

TYPE= Type of INPUT entry field.

NAME = Variable name passed to CGI application

VALUE= The data associated with the variable name to be passed to the CGI application

CHECKED= Button/box checked

SIZE= Number of visible characters in text field

MAXLENGHT= Maximum number of characters accepted.

Text Box

Text boxes: Used to provide input fields for text, phone numbers, dates, etc.

```
<INPUT TYPE= " TEXT " >
```

Browser will display

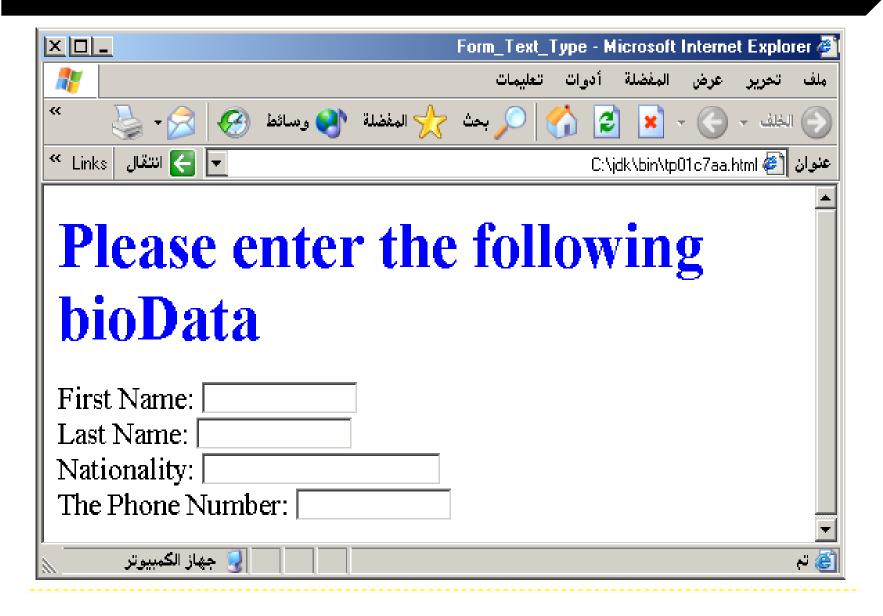
Textboxes use the following attributes:

- TYPE: text.
- SIZE: determines the size of the textbox in characters. Default=20 characters.
- MAXLENGHT: determines the maximum number of characters that the field will accept.
- NAME: is the name of the variable to be sent to the CGI application.
- VALUE: will display its contents as the default value.

Example on Text Box

```
<TITLE>Form_Text_Type</TITLE>
</HEAD> <BODY>
<h1> <font color=blue>Please enter the following
  bioData</font></h1>
<FORM name="fome1" Method= "get "Action= "URL" >
First Name: <INPUT TYPE="TEXT" NAME="FName"
SIZE="15" MAXLENGTH="25"><BR>
Last Name: <INPUT TYPE="TEXT" NAME="LName"
SIZE="15" MAXLENGTH="25"><BR>
Nationality: <INPUT TYPE="TEXT" NAME="Country"
SIZE="25" MAXLENGTH="25"><BR>
The Phone Number: <INPUT TYPE="TEXT" NAME="Phone"
SIZE="15" MAXLENGTH="12"><BR>
</FORM> </BODY> </HTML>
```

Output



Password

Password: Used to allow entry of passwords.

<INPUT TYPE= " PASSWORD " >

Browser will display

Text typed in a password box is starred out in the browser display.

Password boxes use the following attributes:

- TYPE: password.
- SIZE: determines the size of the textbox in characters.
- MAXLENGHT: determines the maximum size of the password in characters.
- NAME: is the name of the variable to be sent to the CGI application.
- VALUE: is usually blank.

Example on Password Box

```
<HTML><HEAD>
<TITLE>Form_Password_Type</TITLE></HEAD>
<BODY>
<h1> <font color=red>To Access, Please
enter:</font></h1>
<FORM name="fome2" Action="url" method="get">
User Name: <INPUT TYPE="TEXT" Name="FName"
SIZE="15" MAXLENGTH="25"><BR>
Password: <INPUT TYPE="PASSWORD"
NAME="PWord" value="" SIZE="15"
MAXLENGTH="25"><BR>
</FORM></BODY> </HTML>
```

Output



Hidden

 Hidden: Used to send data to the CGI application that you don't want the web surfer to see, change or have to enter but is necessary for the application to process the form correctly.

<INPUT TYPE="HIDDEN">

Nothing is displayed in the browser.

Hidden inputs have the following attributes:

- TYPE: hidden.
- NAME: is the name of the variable to be sent to the CGI application.
- VALUE: is usually set a value expected by the CGI application.

Check Box

 Check Box: Check boxes allow the users to select more than one option.

<INPUT TYPE="CHECKBOX">

Browser will display



Checkboxes have the following attributes:

- TYPE: checkbox.
- CHECKED: is blank or CHECKED as the initial status.
- NAME: is the name of the variable to be sent to the CGI application.
- VALUE: is usually set to a value.

```
<BODY>
<h1> <font color=green>Please check one of the
following</font></h1>
<FORM name="fome3" Action="url" method="get">
<font color=red> Select Country: </font><BR>
jordan:<INPUT TYPE="CheckBox" Name="country"
CHECKED><BR>
Yemen<INPUT TYPE="CheckBox" Name="country"><BR>
Qatar:<INPUT TYPE="CheckBox" Name="country"><BR>
<BR>
<font color=blue>Select Language:</font><BR>
Arabic:<INPUT TYPE="CheckBox" Name="language"
CHECKED><BR> English:<INPUT TYPE="CheckBox"
Name="language"><BR>
French:<INPUT TYPE="CheckBox" Name="language">
<BR></FORM> </BODY></HTML>
```

Output



Radio Button

Radio Button: Radio buttons allow the users to select only one option.

<INPUT TYPE="RADIO">

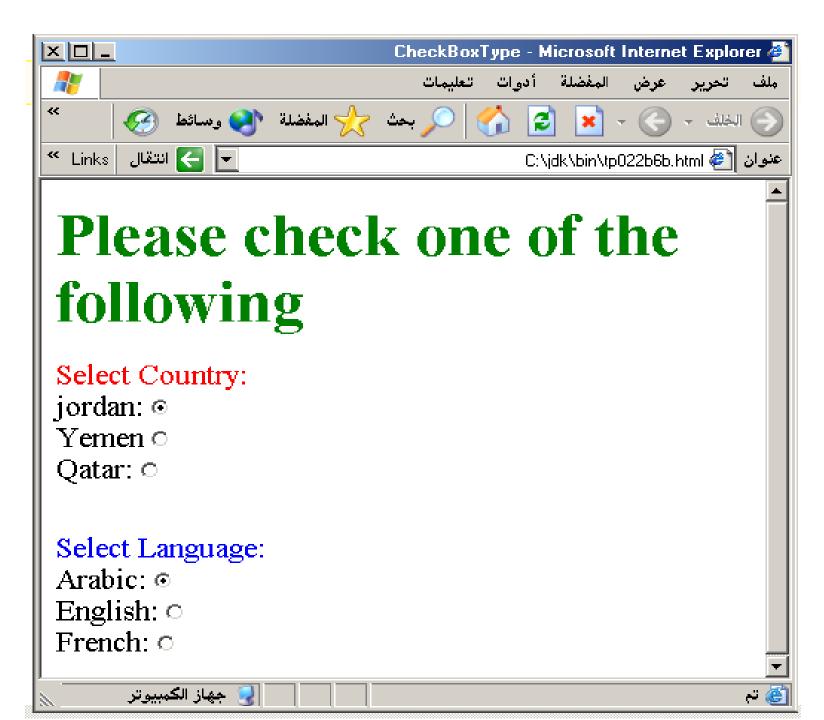
Browser will display



Radio buttons have the following attributes:

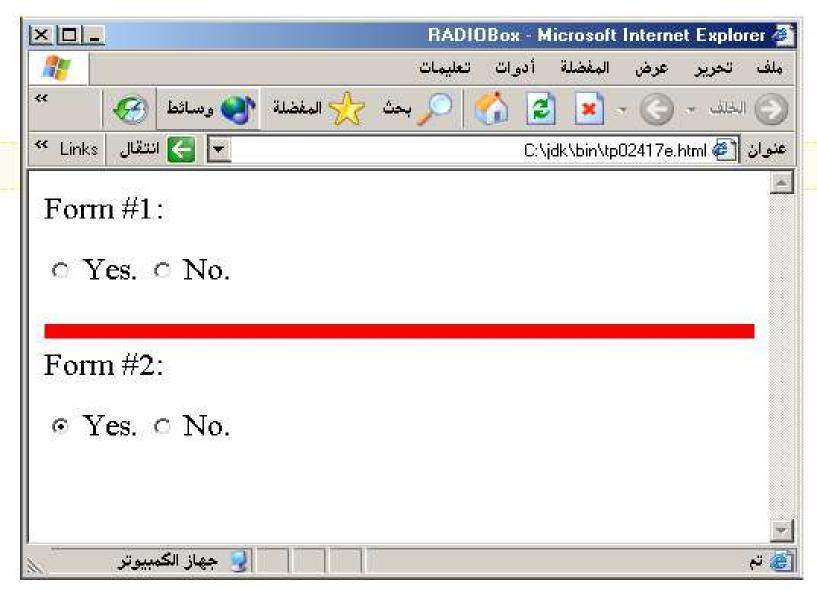
- TYPE: radio.
- CHECKED: is blank or CHECKED as the initial status. Only one radio button can be checked
- NAME: is the name of the variable to be sent to the CGI application.
- VALUE: usually has a set value.

```
<HTML> <HEAD><TITLE>CheckBoxType</TITLE> </HEAD>
<BODY>
<h1> <font color=green>Please check one of the
following</font></h1>
<FORM name="fome3" Action="url" method="get">
<font color=red> Select Country: </font><BR>
jordan:<INPUT TYPE= "RADIO" Name="country"
CHECKED><BR>
Yemen<INPUT TYPE="RADIO" Name="country"><BR>
Qatar:<INPUT TYPE="RADIO"
                          Name="country"><BR>
<BR>
<font color=blue>Select Language:</font><BR>
Arabic:<INPUT TYPE="RADIO" Name="language"
CHECKED><BR> English:<INPUT TYPE=" RADIO "
Name="language"><BR>
French:<INPUT TYPE=" RADIO " Name="language">
<BR></FORM> </BODY></HTML>
```



```
<HTML><HEAD>
<TITLE>RADIOBox</TITLE> </HEAD>
<BODY>
Form #1:
<FORM>
<INPUT TYPE="radio" NAME="choice" VALUE="one"> Yes.
 <INPUT TYPE="radio" NAME="choice" VALUE="two"> No.
</FORM>
<HR color=red size="10" >
Form #2:
<FORM>
   <INPUT TYPE="radio" NAME="choice" VALUE="three"
CHECKED> Yes.
 <INPUT TYPE="radio" NAME="choice" VALUE="four"> No.
</FORM>
</BODY></HTML>
```

Output



Push Button

Push Button: This element would be used with JavaScript to cause an action to take place.

<INPUT TYPE="BUTTON">

Browser will display



Push Button has the following attributes:

- TYPE: button.
- NAME: is the name of the button to be used in scripting.
- VALUE: determines the text label on the button.

```
<DIV align=center><BR><BR>
<FORM>
<FONT Color=red>
<h1>Press Here to see a baby crying:<BR>
<INPUT TYPE="button"
 VALUE="PressMe"><BR><BR>
<FONT Color=blue>
Click Here to see a baby shouting:<BR>
<INPUT TYPE="button" VALUE="ClickMe" >
 <BR><BR>
<FONT Color=green>
Hit Here to see a baby eating:<BR>
<INPUT TYPE="button" VALUE="HitME" > <BR><BR>
<FONT Color=yellow>
</FORM></DIV>
```



Submit Button

Submit: Every set of Form tags requires a Submit button. This is the element causes the browser to send the names and values of the other elements to the CGI Application specified by the ACTION attribute of the FORM element.

<INPUT TYPE="SUBMIT">

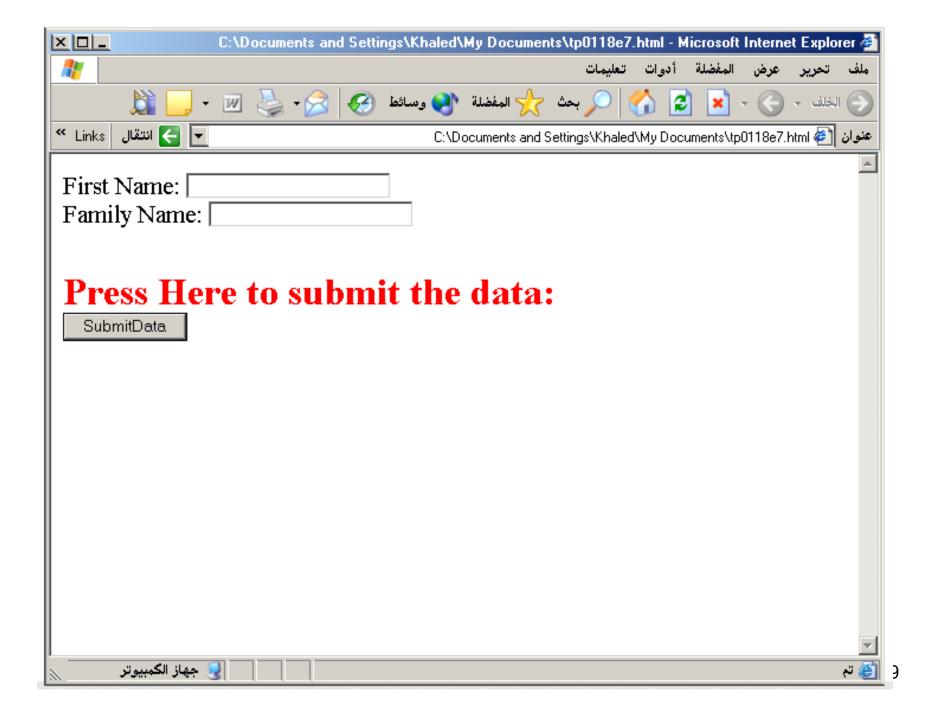
The browser will display

Submit Query

Submit has the following attributes:

- TYPE: submit.
- NAME: value used by the CGI script for processing.
- VALUE: determines the text label on the button, usually Submit Query.

```
<FORM Action="URL"
                         method="get">
First Name: <INPUT TYPE="TEXT" Size=25
name="firstName"><BR>
Family Name: <INPUT TYPE="TEXT" Size=25
name="LastName"><BR>
<BR>
<FONT Color=red>
Press Here to submit the data:<BR>
<INPUT TYPE="submit" VALUE="SubmitData " >
</FORM>
```



Reset Button

 Reset: It is a good idea to include one of these for each form where users are entering data. It allows the surfer to clear all the input in the form.

<INPUT TYPE="RESET">

Browser will display

Reset

•

- Reset buttons have the following attributes:
- TYPE: reset.
- VALUE: determines the text label on the button, usually Reset.

```
<FORM Action="URL"
                         method="get">
First Name: <INPUT TYPE="TEXT" Size=25
name="firstName"> <BR>
Family Name: <INPUT TYPE="TEXT" Size=25
name="LastName"><BR>
<BR>
<FONT Color = red>
<STRONG><font size=5>Press Here to submit
the data:</font></STRONG><BR>
<INPUT TYPE="submit" VALUE="SubmitData">
<INPUT TYPE="RESET" VALUE="Reset">
</FORM>
```

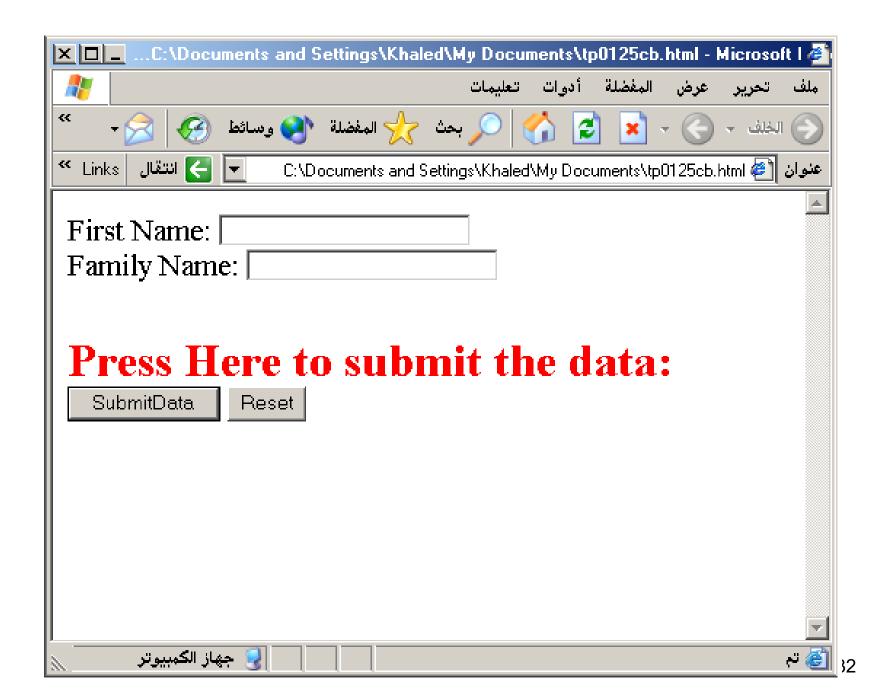


Image Submit Button

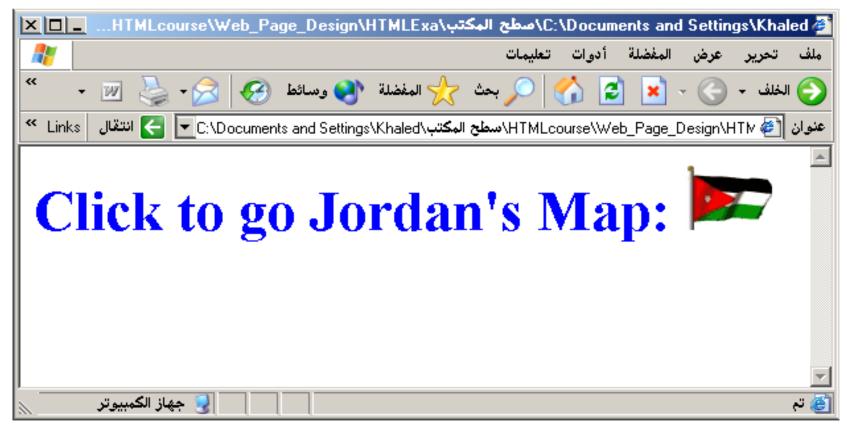
 Image Submit Button: Allows you to substitute an image for the standard submit button.

<INPUT TYPE="IMAGE" SRC="jordan.gif">

Image submit button has the following attributes:

- TYPE: Image.
- NAME: is the name of the button to be used in scripting.
- SRC: URL of the Image file.

```
<form>
<H1><font color=blue>
Click to go Jordan's Map:
<INPUT TYPE="IMAGE" SRC="jordan.gif">
</form>
```



File

- File Upload: You can use a file upload to allow surfers to upload files to your web server.
- <INPUT TYPE="FILE">
- Browser will display

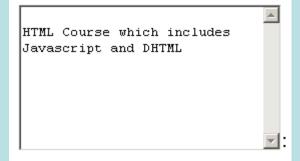
 Browse...

 Browse...
- File Upload has the following attributes:
- TYPE: file.
- SIZE: is the size of the text box in characters.
- NAME: is the name of the variable to be sent to the CGI application.
- MAXLENGHT: is the maximum size of the input in the textbox in characters.

```
<BODY bgcolor=lightblue>
<form>
<H3><font color=forestgreen>
Please attach your file here to for uploading to
My <font color =red>SERVER...<BR>
<INPUT TYPE="File" name="myFile"</pre>
 size="30">
<INPUT TYPE="Submit" value="SubmitFile">
</form>
</BODY>
```

<TEXTAREA></TEXTAREA>: is an element that allows for free form text entry.

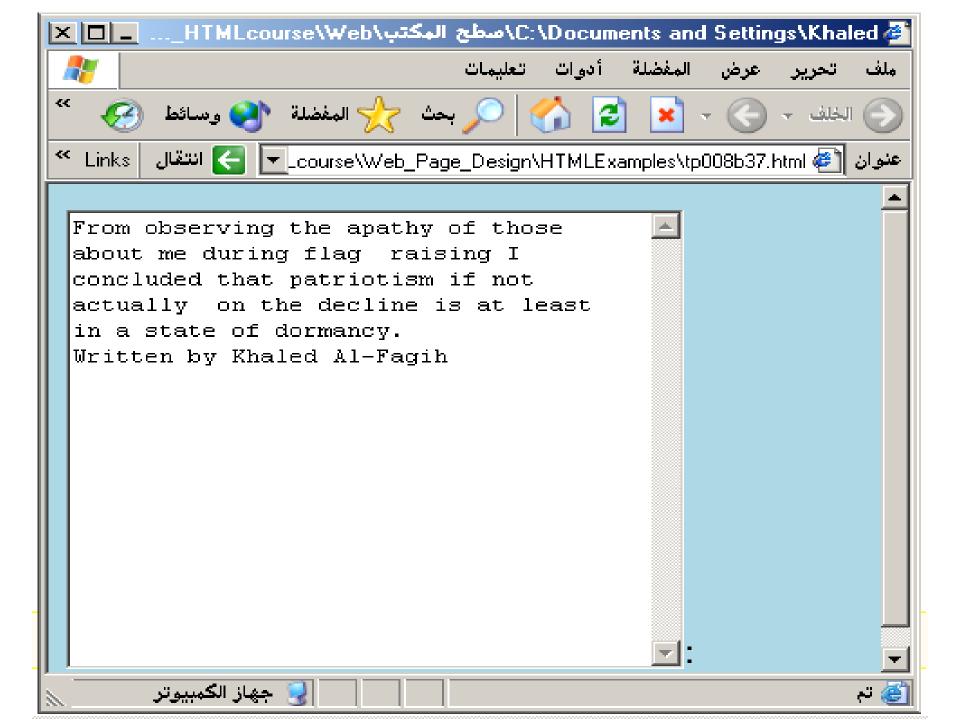
Browser will display



Textarea has the following attributes:

- NAME: is the name of the variable to be sent to the CGI application.
- ROWS: the number of rows to the textbox.
- COLS: the number of columns to the textbox.

```
<BODY bgcolor=lightblue>
<form>
<TEXTAREA COLS=40 ROWS=20
Name="comments" >
From observing the apathy of those
about me during flag raising I
concluded that patriotism if not
actually on the decline is at least
in a state of dormancy.
Written by Khaled Al-Fagih
</TEXTAREA>:
</form>
</BODY>
```



10.6.1.2 The wrap attribute

Normally, text typed in the text area by the user is transmitted to the server exactly as typed, with lines broken only where the user pressed the Enter key. Since this is often not the desired action by the user, you can enable word wrapping within the text area. When the user types a line that is longer than the width of the text area, the browser automatically moves the extra text down to the next line, breaking the line at the nearest point between words in the line.

With the wrap attribute set to virtual, the text is wrapped within the text area for presentation to the user, but the text is transmitted to the server as if no wrapping had occurred, except where the user pressed the Enter key.

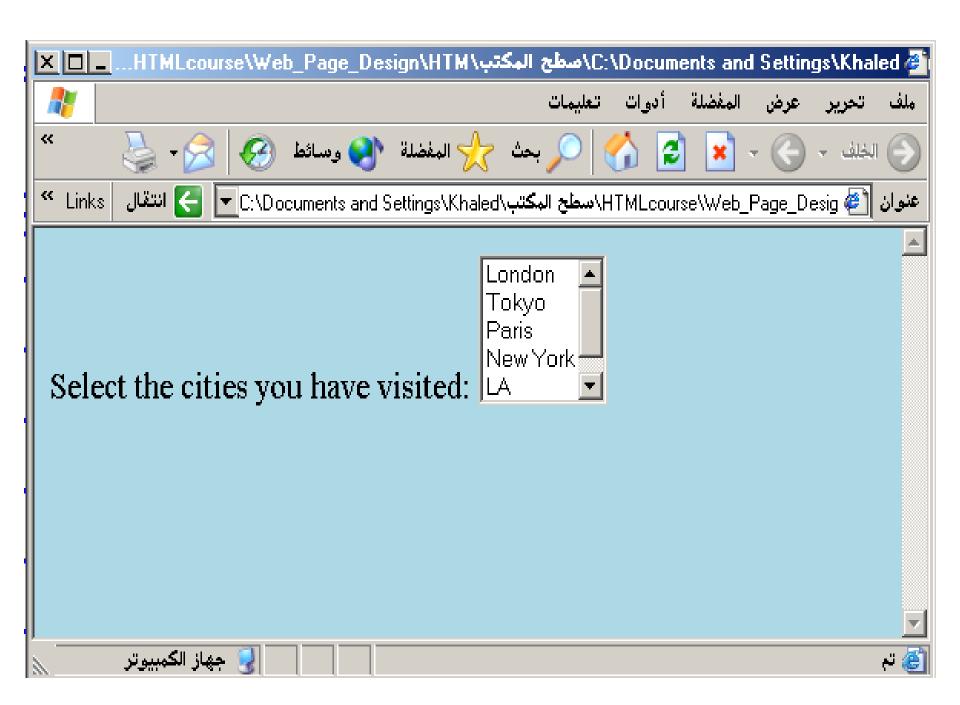
With the wrap attribute set to physical, the text is wrapped within the text area and is transmitted to the server as if the user had actually typed it that way. This the most useful way to use word wrap, since the text is transmitted exactly as the user sees it in the text area.

The two following examples are <SELECT></SELECT> elements, where the attributes are set differently.

The Select elements attributes are:

- NAME: is the name of the variable to be sent to the CGI application.
- SIZE: this sets the number of visible choices.
- MULTIPLE: the presence of this attribute signifies that the user can make multiple selections. By default only one selection is allowed.

```
<BODY bgcolor=lightblue>
<form>
Select the cities you have visited:
<SELECT name="list" size=5>
<option> London
<option> Tokyo
<option> Paris
<option> New York
<option> LA</option>
<option> KL</option>
</SELECT>
</form>
</BODY>
```



Drop Down List:



- Name: is the name of the variable to be sent to the CGI application.
- Size: 1.

List Box:



- Name: is the name of the variable to be sent to the CGI application.
- SIZE: is greater than one.

Option

The list items are added to the **<SELECT>** element by inserting **<OPTION></OPTION>** elements.

The Option Element's attributes are:

- SELECTED: When this attribute is present, the option is selected when the document is initially loaded. It is an error for more than one option to be selected.
- VALUE: Specifies the value the variable named in the select element.

```
</HEAD>
<BODY>
<h2><font color=blue>What type of Computer do you
  have?</font><h2>
<FORM>
<SELECT NAME="ComputerType" size=4>
  <OPTION value="IBM" SELECTED> IBM</OPTION>
  <OPTION value="INTEL"> INTEL</OPTION>
  <OPTION value=" Apple"> Apple</OPTION>
  <OPTION value="Compaq"> Compaq</OPTION>
</SELECT>
</FORM></BODY></HTML>
```



What type of Computer do you have?

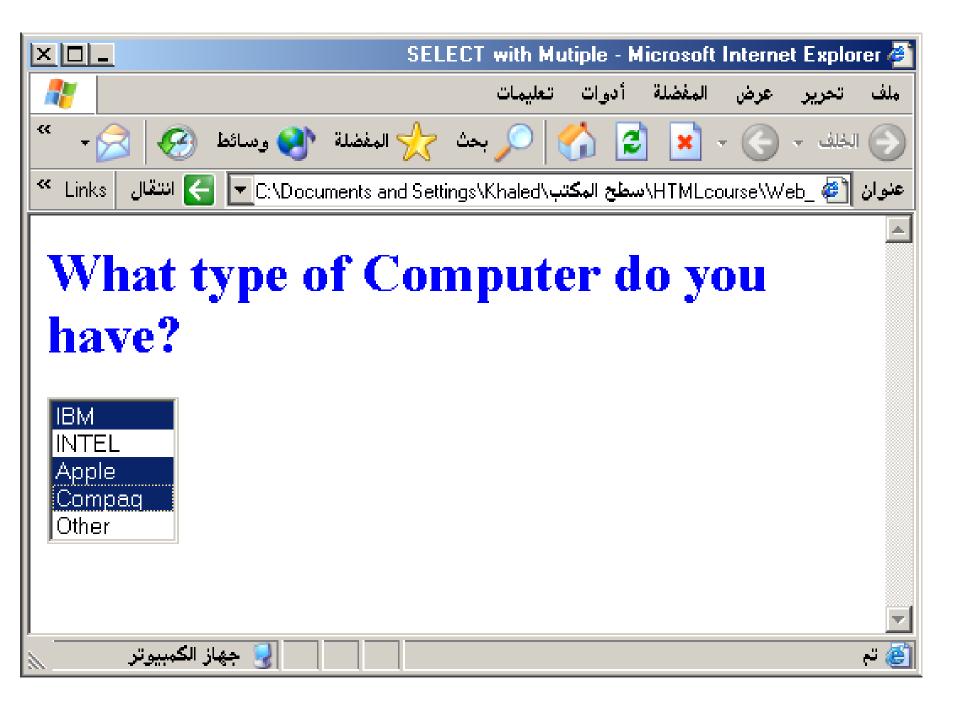


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```
<HEAD> <TITLE>SELECT with Mutiple </TITLE>
 </HEAD>
<BODY>
<h2><font color=blue>What type of Computer do you
 have?</font><h2>
<FORM>
<SELECT NAME="ComputerType" size=5 multiple>
 <OPTION value="IBM" > IBM</OPTION>
 <OPTION value="INTEL"> INTEL</OPTION>
 <OPTION value=" Apple"> Apple</OPTION>
 <OPTION value="Compaq" SELECTED>
 Compaq</OPTION>
 <OPTION value=" other"> Other</OPTION>
</SELECT>
</FORM></BODY></HTML>
```



There are eleven different types of form elements: Button Button Checkbox FileUpload Hidden Password فأعلماهاهاهاهاه Radio Reset Reset object Select object Submit Query Submit object Text Textarea