Introduction to Markup Languages

Markup

Markup is text that is added to the data of a document in order to convey information about it.

Markup indicates which part of document is heading, which parts are paragraphs, what belongs in a table and so on. This markup in turn allows a web browser to display your document properly.

A marked up document contains

- Data
- Information about the data.

HTML

Hypertext Markup Language
* It is a application of Standard generalized Markup Language(SGML).

Advantages
* Simple to learn and use
* Easy to parse

Disadvantages
* No standardization
* Much more of a presentation language than a structural language
* Too limited

example

```
<html>
<head>
     <title>My page</title>
</head>
<body>
<h1> heading</h1>
<p> a paragraph</p>
</body>
</html>
```
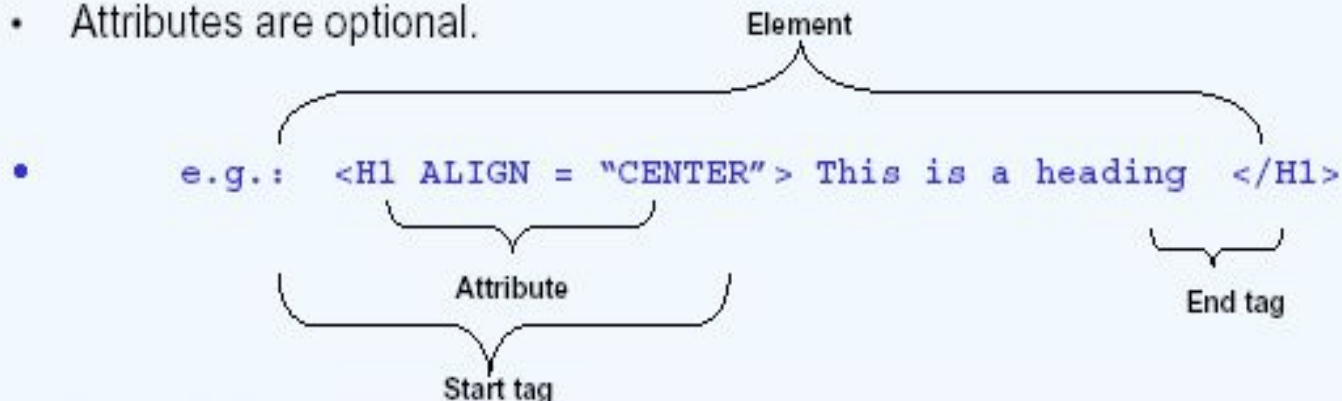
Different versions of HTML

- HTML 2.0 (Outdated)
- HTML 3.2 (font, tables, applets, subscript, superscript and more)
- HTML 4.0 (introduction to style sheet)
- HTML 4.0.1 (some bug fixes in HTML 4.0)
- XHTML 1.0 (reformulate HTML in XML)
- HTML 5 (header, footer,figure, video, audio etc)

HTML as Markup

Language-is a language for describing how pages of text, graphics and other information are organized, formatted and linked together.

HTML Tags and Attributes

- The HTML instructions are called tags, and look like
    - `<TAG> ….. Text here…….. </TAG>`

- Container tags :Tags that have starting as well as ending part.
    - e.g.: `<TITLE>Title of the Web Page </TITLE>`

- Empty tags : Tags that do not have the closing part.
    - e.g. `<BR> , <HR>`

- (HTML instructions + text to which the instructions apply)= HTML elements

- An attribute is an additional feature you can use to configure the element

- Attributes are optional.

- e.g.: `<H1 ALIGN = "CENTER"> This is a heading </H1>`

    Element

    Start tag

    Attribute

    End tag

```
1    <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
2                "http://www.w3.org/TR/html4/strict.dtd">
3    <html>
4
5    <!-- Fig. 2.1: main.html -->
6    <!-- Our first Web page  -->
7
8    <head>
9        <title>XML How to Program - Welcome</title>
10   </head>
11
12   <body>
13
14       <p>Welcome to Our Web Site!</p>
15
16   </body>
17   </html>
```

Document type (required) defines HTML version

html tag identifies page as HTML

Comments are ignored by browser but increase HTML readability.

head tag specifies page information

title tag assigns name to page; title generally displayed at top of browser.

body tag contains page contents.

Paragraph element formats paragraph text

HTML Document HEAD

- Enclosed in <HEAD> </HEAD> tag
- Tags that can go in the document head
  - <TITLE>Indicates the title of the document that is used as the window caption

  - <BASE> specifies the absolute URL address

  - <LINK> specifies the relationship between the current document and other documents.

  - <META> element can be used to specify name/value pairs describing various properties of the document

e.g: *<BASE HREF ="http://www.inf.com/file.html">*

Specifies the base URL of the document. This is used when dereferencing relative URLs in the page.

- **<META>** element uses name value pairs to provide meta information about the document. It often provides descriptive information that is targeted by search engines.

Eg: .

1. To have your page automatically reloaded every X seconds
   <META HTTP-EQUIV="REFRESH" CONTENT=X >   EXAMPLE

2. To have a different page automatically loaded after X seconds
   *<META HTTP-EQUIV="REFRESH" CONTENT="X; URL= http://address/file.html"*EXAMPLE

3. To specify an expiration date for the page so that it will be reloaded after a certain date.
   <META HTTP-EQUIV="Expires" CONTENT="Mon, 23 Sep 2001 01:21:00 GMT">

4. To specify keywords for certain search services to use.
   <META HTTP-EQUIV="Keywords" CONTENT="keyword1, keyword2, ...">

5. To specify a description of your page for certain search services to use
   <META HTTP-EQUIV="Description" CONTENT="Describe your site here...."

HTML Document- BODY

- Enclosed in <BODY> </BODY> tag.

- Some important attributes of the BODY tag
  - BGCOLOR = "color" / "#rrggbb"
  - BGPROPERTIES=FIXED
  - BACKGROUND = "url of the image"
  - TEXT = "color" / "#rrggbb"
  - LEFTMARGIN = n
  - LINK = "color" / "#rrggbb"
  - ALINK = "color" / "#rrggbb"
  - VLINK = "color" / "#rrggbb"
  - TOPMARGIN= n

Formatting The Web Page

<FONT> tag describes the display attributes of the text inside

- <FONT> tag
  - Allows you to specify the font face and font size.
  - Some common attributes are
    - FACE specifies the font style.
    - SIZE specifies the font size. Value can range from 1 to 7. The default is 3.
      SIZE can be set as a relative value using + or – .
    - COLOR- The color of a font can be specified using a hexadecimal number value six characters long.

  - E.g.: `<FONT FACE="Helvetica, Arial" SIZE="7" OLOR="#FF0000">
            The Written Word</FONT>`

Text Formatting Tags

- Header Tags
  - HTML has six level of headings.
  - Displayed in larger and bolder fonts.
  - Different level heading tags
    - <H1> Heading 1 </H1>
    - <H2> Heading 2 </H2>
    - <H3> Heading 3 </H3>
    - <H4> Heading 4 </H4>
    - <H5> Heading 5 </H5>
    - <H6> Heading 6 </H6>
- The font size of the heading will go on decreasing from H1 to H6.

Text Formatting Tags

It has ALIGN attribute—allowed values LEFT, RIGHT, CENTER, JUSTIFY

- Paragraphs
  - `<P> </P>` - used to create paragraphs.

- Line Breaks
  - `<BR>` - to insert returns or blank lines in the document.
  - e.g. :`<P>This <BR> is a para<BR>graph with line breaks</P>`

Attributes—size, width, align, noshade

- Horizontal Lines
  - `<HR>` - used to draw a horizontal line across the web page.
  - e.g: `<HR ALIGN = "right"   WIDTH = "50%"   NOSHADE >`

Text Formatting Tags

Tag	Description
<B>....</B>	- Bold
<I>......</I>	- Italic
<U>....</U>	- Underline
<STRIKE>...</STRIKE>	- Strikethrough
<TT>....</TT>	- Typewriter (monospaced)
<CENTER></CENTER>	- Centers the text on the screen.
_{....}	- Subscript
^{....}	- Superscript
<BIG>....</BIG>	- Bigger font (one font size bigger)
<SMALL>....</SMALL>	- Small font (one font size smaller)

Linking The Pages

- Used to Link Text with other documents
- `<A></A>`
  - HREF
  - NAME (bookmarks inside the page)
  - TITLE (balloon help in IE)
- e.g.:

  `<A href="next.html"> Click here </A>`
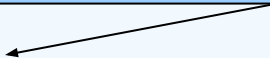
Additional attributes

ALINK -- specifies the color of the activated link
VLINK – specifies the color of visited link
LINK – specifies color of links

```
1    <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"

2              "http://www.w3.org/TR/html4/strict.dtd">

3    <html>

4

5    <!-- Fig. 2.4: contact.html  -->

6    <!-- Adding email hyperlinks -->

7

8    <head>

9       <title>XML How to Program - Contact Page</title>

10   </head>

11

12   <body>

13

14       <p>My email address is <a href =
"mailto:deitel@deitel.com">

15       deitel@deitel.com</a>. Click on the address and your
browser
16       will open an email message and address it to me.</p>

17

18   </body>

19   </html>
```
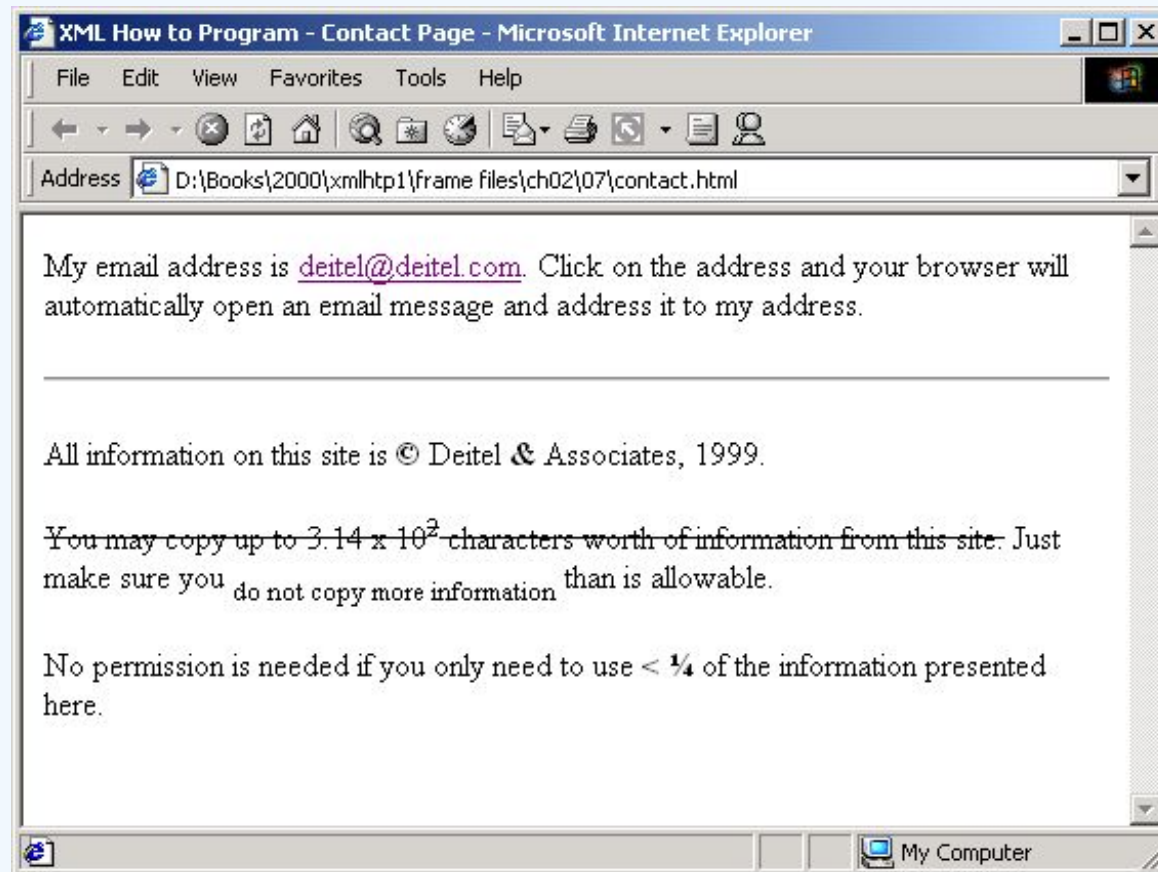
mailto: tells Web browser to load default email client with given address

example

Output

XML How to Program - Contact Page - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Address D:\Books\2000\xmlhtp1\frame files\ch02\07\contact.html

My email address is deitel@deitel.com. Click on the address and your browser will automatically open an email message and address it to my address.

All information on this site is © Deitel & Associates, 1999.

~~You may copy up to 3.14×10^2 characters worth of information from this site.~~ Just make sure you do not copy more information than is allowable.

No permission is needed if you only need to use < ¼ of the information presented here.

My Computer

Unordered Lists

- Unordered Lists
  - Element `ul`
    - Creates unordered list
      - Each line begins with bullet mark
    - Attributes

      TYPE –specifies type of bullet

      example FILLROUND, SQUARE
  - Element `li`
    - defines each List Entry

```html
1    <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"

2             "http://www.w3.org/TR/html4/strict.dtd">

3    <html>

4

5    <!-- Fig. 2.8: links.html              -->

6    <!-- Unordered list containing hyperlinks -->

7

8    <head>

9       <title>XML How to Program - Links</title>

10   </head>

11

12   <body>

13

14      <h1>Here are my favorite Internet Search
Engines</h1>
15
```

```
16

17      <p><strong>Click on the Search Engine address to go to
that
18          page.</strong></p>
```

Element **ul** begins the list, and
element **li** separates each list

```
19

20      <ul TYPE="FILLROUND">

21          <li><a href = "http://www.yahoo.com">Yahoo</a></li>

22

23          <li><a href =
"http://www.altavista.com">AltaVista</a></li>

24

25          <li><a href = "http://www.askjeeves.com">Ask
Jeeves</a></li>

26

27          <li><a href =
"http://www.webcrawler.com">WebCrawler</a></li>

28      </ul>

29

30  </body>

31  </html>
```

Special Characters

- Special Characters
  - Format: **&***code* **;**
    - code is abbreviated name or hex code
    - Examples:
      - `&` = &
      - `©` = ©

Nested and Ordered Lists

- Nested Lists
    - Improve Document structure
    - Display outline information
- Ordered Lists
    - Automatically assign rank to each element

Attributes Of Ordered Lists

TYPE attribute controls the numbering scheme
- TYPE = 1 | A | a | I

- START - Alters the numbering sequence. Can be set to any value
- VALUE - Can be set with the <LI >tag to changes the numbering sequence in the middle of an ordered list.

e.g.: <OL TYPE = "1" START =5>   O/P:

        <LI> Item 1   **5. Item 1**

         <LI VALUE =3> Item 2   **3. Item 2**

        <LI> Item 3   **4. Item 3**

  <OL>

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>My Nested List</title>
</head>

<body>
<ul>
<li>Computer Science</li>
<ul>
<li>Web Application Engineering</li>
    <ui>
    <li>HTML</li>
    <LI>php</LI>
    <li>Java Script</li>
    </ul>

<li>Operating System</li>
    <ul>
    <li>Kernel</li>
    <li>process management</li>
    <li>Embedded System</li>
    </ul>
    </ul>
</body>
</html>
```

rms ▼

stedlist.html

Code   Split   Design   Title: My Nested List

- Computer Science
  - Web Application Engineering
  - HTML
  - php
  - Java Script
- Operating System
  - Kernel
  - process management
  - Embedded System

ly>

100%   787 x 479   1K / 1 sec

Properties

mat None   Style None   CSS   **B** *I*   Link
ont Default Font   Size None   Target

Complex HTML elements

- Structures
  - Tables
    - Clear data presentation
  - Forms
    - Obtain input from user
- Navigation aids
  - Image maps
  - Internal linking
  - Frames

Tables

- Display data in a tabular format.

- Helps in positioning the contents of the page in a more structured way.

- <TABLE> ..... </TABLE> : define a table

- Some attributes
  - ALIGN = LEFT | RIGHT | CENTER
  - BORDER = n (Number of Pixels)
  - BGCOLOR = "color" | "#rrggbb"
  - CELLSPACING = n   (Number of Pixels)
  - CELLPADDING = n   (Number of Pixels)
  - WIDTH= % Of Parent | n (pixels)

Attribute	Description
ALIGN	Horizontal alignment can be set to LEFT, CENTER and RIGHT
BGCOLOR	Background color of the table.
BORDER	Decide the border width e.g. *BORDER=1 width is specified in pixels*
CELLSPACING	Specifies the amount of space between the cells in the table
CELLPADDING	Specifies the amount of space between the edges of the cell and the text inside.
HEIGHT	Can set the height e.g. HEIGHT=*100%*. It can also contain absolute values in pixels but percentages are preferred.
WIDTH	Can set the width e.g. WIDTH=100%. It can also contain absolute values in pixels but percentages are preferred.

Structure of the Table

```
<TABLE>          <!-- start of table definition -->
<CAPTION> caption contents </CAPTION>   <!--caption definition -->
 <TR>              <!-- start of header row definition -->
    <TH> first header cell contents </TH>
    <TH> last header cell contents </TH>
 </TR>             <!-- end of header row definition -->

<TR>              <!-- start of first row definition -->
    <TD> first row, first cell contents </TD>
    <TD> first row, last cell contents </TD>
</TR>             <!-- end of last row definition ->

</TABLE>          <!-- end of table definition -->      ->

    <TD> last row, last cell contents </TD>
```

Creating Tables

Simple sample table

Heading1	Heading2
Cell 1	Cell 2
Cell 3	Cell 4

```
<TABLE BORDER=1 CELLSPACING=1 CELLPADDING=1 WIDTH=30% >
<CAPTION> Simple sample table </CAPTION>
    <TR>
       <TH>Heading1</TH>
       <TH>Heading2</TH>
      </TR>
    <TR>
       <TD>Cell 1</TD>
       <TD>Cell 2</TD>
      </TR>
    <TR>
       <TD>Cell 4</TD>
       <TD>Cell 5</TD>
      </TR>
</TABLE>
```

Attributes of Cell

- Attribute **rowspan** of element **th** and **td**
  - Specifies row size
- Attribute **colspan** of element **th** and td
  - Specifies column size
- Attribute **valign** of element **th**, **td** and **tr**
  - Specifies vertical alignment of text
- Attribute **nowrap th**, **td** and **tr**
  - Deactivates automatic text wrap in the cell

Creating Tables

This cell spans 2 columns!		Cell
This cell spans 3 rows!!	Cell	Cell
	Cell	Cell
	Cell	Cell

```
<TABLE  WIDTH="100%" BORDER=1 BGCOLOR=gray>
   <TR ALIGN=CENTER >
       <TD COLSPAN=2>This cell spans 2 columns!</TD>
       <TD> Cell </TD></TR>
   <TR ALIGN=CENTER >
       <TD ROWSPAN=3>This cell spans 3 rows!!</TD>
       <TD> Cell </TD>
       <TD> Cell </TD></TR>
   <TR ALIGN=CENTER >
       <TD> Cell </TD>
       <TD> Cell </TD></TR>
   <TR ALIGN=CENTER >
       <TD> Cell </TD>
       <TD> Cell </TD>
   </TR>
</TABLE>
```

Internal Linking

- Internal Linking
    - Define anchors within a page
    - Allows hyperlinks to anchors

```
1    <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
2              "http://www.w3.org/TR/html4/strict.dtd">
3    <html>
4
5    <!-- Fig. 3.6: links.html  -->
6    <!-- Internal Linking     -->
7
8    <head>
9        <title>XML How to Program - List</title>
10   </head>
11
12   <body>
13
14       <!-- <a name = ".."></a> makes an internal hyperlink -->
15       <p><a name = "features"></a></p>
16       <h1>The Best Features of the Internet</h1>
17
18       <!-- An internal link's address is "xx.html#linkname" -->
19       <p><a href = "#ceos">Go to <em>Favorite CEOs</em></a></p>
20
21       <ul>
22           <li>You can meet people from countries around the
world </li>
23
```

Hyperlink causes browser to jump directly to **#ceos** anchor (at bottom of page)

```html
24          <li>You have access to new media as it becomes
25             <ul>
26                <li>New games</li>
27                <li>New applications
28                   <ul>
29                      <li>For Business</li>
30                      <li>For Pleasure</li>
31                   </ul>
32                </li>
33
34                <li>Around the Clock news</li>
35                <li>Search Engines</li>
36                <li>Shopping</li>
37                <li>Programming
38                   <ul>
39                      <li>HTML</li>
40                      <li>Java</li>
41                      <li>Dynamic HTML</li>
42                      <li>Scripts</li>
43                      <li>New languages</li>
44                   </ul>
45                </li>
46             </ul>
47          </li>
48
49       <li>Links</li>
50       <li>Keeping In touch with old friends</li>
51       <li>It is the technology of the future!</li>
52    </ul>
53
```

```
54

55        <p><a name = "ceos"></a></p>

56        <h1>My 3 Favorite <em>CEOs</em></h1>

57
```

Anchored position of **#ceos**

```
58        <p>

59            <a href = "#features">Go to <em>Favorite
Features</em></a>
60        </p>

61

62        <ol>

63            <li>Bill Gates</li>

64            <li>Steve Jobs</li>

65            <li>Michael Dell</li>

66        </ol>

67

68    </body>

69    </html>
```

example

Embedding Images

- <IMG> tag

  - SRC = "url"
  - ALIGN = "TOP | MIDDLE | BOTTOM "
  - BORDER = n
  - WIDTH=n (in pixels)
  - HEIGHT=n (in pixels)
  - ALT="Alternate Text"

- Supports BMP, JPG, GIF and PNG image formats.

Attributes Of Image Tag

Attribute	Description
ALIGN	Controls alignment of the text following the image.
BORDER	Sepicifies the size of the border to place around the image.
SRC	Specifies the image filename
ALT	Indicates the text to be displayed incase the browser is unable to display the image specified in the SRC attribute
HREF	
WIDTH	Specifies the width of the image in pixels
HEIGHT	Specifies the height of the image in pixels
HSPACE	Amount of space to the left and right of the image
VSAPCE	Amount of space to the right of the image.

Example

Working with Images - Microsoft Internet Explorer

File Edit View Favorites Tools Help

An image 🧑 in the text

Image without border 🧑 text aligned bottom

Image with border 🧑 text aligned middle

Image 🧑 with text aligned top

Will be coded as

An image `<IMG SRC ="joe.gif">` in the text

Image without border
`<IMG  SRC ="joe.gif"`
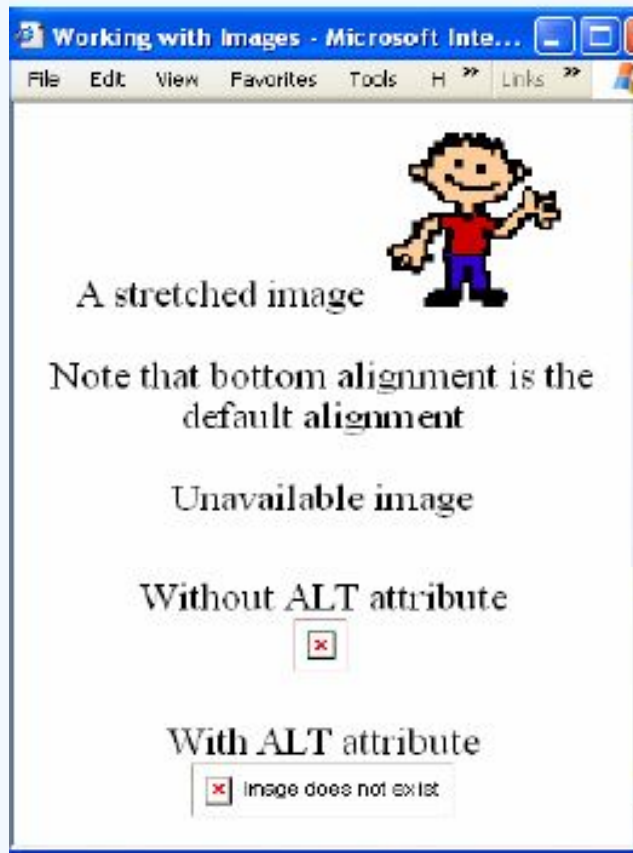`            ALIGN="bottom">`
text aligned bottom

Image with border
`<IMG SRC ="joe.gif`
`   BORDER =3   "ALIGN="middle">`
text aligned middle

Image `<IMG SRC ="joe.gif"`
`ALIGN="top">`
with text aligned top

Example

Will be coded as

A stretched image
```
<IMG SRC ="joe.gif"
WIDTH="100" HEIGHT="100">
```

With ALT attribute
```
<IMG SRC ="picture1.gif"
ALT="Image does not exist" >
```

Image As Link

- Images when put in the anchor tag act as hyperlinks

- ```
  <A HREF="Mypage.html">
   <IMG SRC="Littlejoe.jpg" > </A>
  ```

EXAMPLE

**The image will be displayed with a border
If you don't like the border, add BORDER=0 to the IMG
tag.**

Creating and using Image Maps

- Image mapping
  - Define image *hotspots*
    - Used as hyperlink anchors
  - Element `map`
    - Contains all image map elements
    - Attribute `name`
      - Defines map identifier

Creating and using Image Maps (cont.)

- Image Mapping
  - Element `area`
    - Defines hotspot
    - Attribute `href`
      - Assigns hyperlink URL
    - Attribute `shape`
      - Specifies shape of area
    - Attribute `cords`
      - Specifies hotspot location

```
1    <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
2                "http://www.w3.org/TR/html4/strict.dtd">
3    <html>
4
5    <!-- Fig. 3.7: picture.html        -->
6    <!-- Creating and Using Image Maps -->
7
8    <head>
9       <title>XML How to Program - Image Map</title>
10   </head>
11
12   <body>
13
14      <p>
15      <!-- <map> opens and names an image map formatting area -->
16      <!-- and to be referenced later -->
17      <map name = "picture">
18
19      <!-- The "shape = rect" indicates a rectangular area, with
20      <!-- coordinates of the upper-left and lower-right corners
21         <area href = "form.html" shape = "rect"
22            coords = "3, 122, 73, 143" alt = "Go to the feedback
23          <area href = "contact.html" shape = "rect"
24        coords = "109, 123, 199, 142" alt = "Go to the contact
25          <area href = "main.html" shape = "rect"
26            coords = "1, 2, 72, 17" alt = "Go to the homepage">
27          <area href = "links.html" shape = "rect"
28            coords = "155, 0, 199, 18" alt = "Go to the links
29
```

Define rectangles in each corner of image as links

```
30      <!-- The "shape        Create hexagon-shaped hotspot    cusotmizable
-->
31      <!-- shape, with the coordinates of every vertex listed
-->
32          <area href = "mailto:deitel@deitel.com" shape = "poly"
33              coords = "28, 22, 24, 68, 46, 114, 84, 111, 99, 56,
86. 13"
34              alt = "Email the Deitels">

35

36          <!-- The "shape = circle" indicates a circular area with
-->
37          <!-- center and radius listed
-->
38          <area href = "mailto:deitel@deitel.com" shape = "circle"
39              coords = "146, 66, 42" alt = "Email the Deitels">
40      </map>

41

42      <!-- <img src=... usemap = "#name"> says that the indicated
-->
43      <!-- image map will be used with this image
-->
44      <img src = "deitel.gif" width = "200" height = "144"
45          alt = "Harvey and Paul Deitel" usemap = "#picture">
46      </p>

47

48      </body>
49      </html>
```

Create circle-shaped hotspot

example

Assignment

1. Write a code for below output.

- Microsoft
    - Windows
    - Office
        - Microsoft Word
        - Microsoft Excel
- Adobe
    - Pagemaker
        - Nersion 7.0

Output

The Best Features of the Internet

- You can meet new people from countries around the world.
- You have access to new media as it becomes public:
  - New games
  - New applications
    - For business
    - For pleasure
  - Around the clock news
  - Search engines
  - Shopping
  - Programming
    - XML
    - Java
    - HTML
    - Scripts
    - New languages
- Links
- Keeping in touch with old friends
- It is the technology of the future!

My 3 Favorite *CEOs*

1. Bill Gates
2. Steve Jobs
3. Michael Dell

Assignment cont.. Q:3 Write code

example

Forms

- Set of fields that can record information

  To interact with the client *(like text fields, textarea fields, dropdown, menus, radio buttons, checkboxes, etc.)*

- FORM by itself really cannot do anything

- Forms become powerful when connected to a server application

- A single HTML page can have multiple forms.

Forms

• Can be designed using <FORM></FORM> tag

 NAME is used for future manipulation of data by scripting language

ACTION indicates a program on the server that will be executed when this form is submitted. Mostly it will be an ASP or a CGI script.

 METHOD indicates the way the form is submitted to the server
-popular options are GET/POST -->

<FORM NAME="form1" ACTION="abc.asp" METHOD=GET>
(form elements go here)
</FORM>

Form Elements

• <INPUT> tag is used to add elements to the form.

– NAME = "controlname"

– TYPE = text / password / checkbox / radio/ submit / reset / button / hidden

– VALUE

– MAXLENGTH

– SIZE

Text/Password

- A text field can be added to the form by typing

  – **<INPUT TYPE="TEXT" NAME="txtcompany" VALUE="INFOSYS" SIZE="10" MAXLENGTH="15">**

- A password field can be added to the form by typing
  – **<INPUT TYPE=PASSWORD NAME=pwdLogin SIZE=50 MAXLENGTH=12>**
  – Input to the field will not be reveled.

- Attributes are

  – VALUE is the default value loaded
  – SIZE sets the size of the field in no. of characters.
  – MAXLENGTH specifies max # of chars

Text Area

- Multiline text input

  – <**TEXTAREA NAME="feedback" ROWS=3 COLS=40> Default
    text goes here
    </TEXTAREA>**

- ROWS is the number of rows desired.

- COLS is the no of characters per line.

- Default text is optional

- It is not possible to set the default text using the VALUE attribute

- The default text is to be put into

<TEXTAREA> </TEXTAREA> tags

List Box

<SELECT NAME="Hobbies" MULTIPLE SIZE="3">

    <OPTION VALUE="TR">Travel
    <OPTION SELECTED>Reading
    <OPTION>Sleeping
    <OPTION>Walking

</SELECT>

- SIZE # of lines to display

- VALUE indicates what will be sent to the server

- SELECTED sets the default selected item

Check Box

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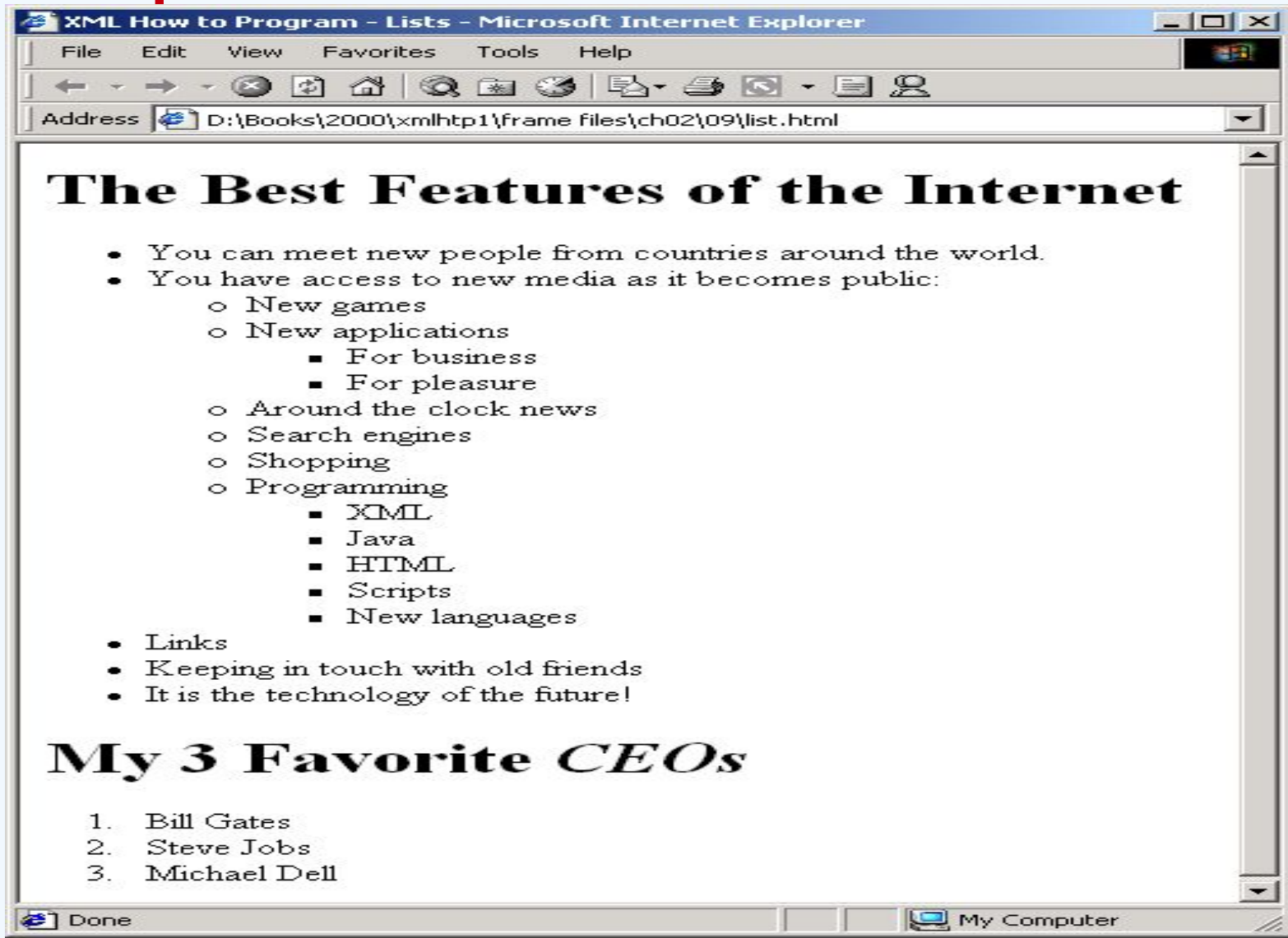<form>
<input type="checkbox" name="vehicle" value="Bike" /> I have a bike<br />
<input type="checkbox" name="vehicle" value="Car" /> I have a car
</form>
```

Radio Button

**<INPUT TYPE="radio" NAME="output" VALUE="screen"
SELECTED>Screen
<INPUT TYPE="radio" NAME="output" VALUE="printer">Printer**

- Radio buttons with the same NAME are grouped together.

- Only one button can be selected in a group.

- VALUE data to be sent to the server.

- SELECTED will preselect the button.

Radio Button

The second mechanism for selection is a set of radio buttons. In a set of radio
buttons only one can be selected at a time - to do this all the buttons
should be given the same value for the NAME attribute.

e.g.
<INPUT TYPE=RADIO NAME=rdbAgeGroup VALUE=1>
<INPUT TYPE=RADIO NAME=rdbAgeGroup VALUE=2>.

Hidden Text Fields

<INPUT TYPE="hidden" NAME="useinformation" VALUE ="form1">

• Can be used to transmit default or previously specified data.

• Can be used to pass data from one form to another.

• Cannot be modified by the user

• So it must have a VALUE attribute set

• VALUE data to be sent to the server.

Buttons

The Submit button
– Sends the form contents to the server when clicked
– **<INPUT TYPE=submit NAME=cmdsubmit VALUE ="Submit">**

The Reset button

– Resets all the form controls to the default state.
– **<INPUT TYPE=Reset NAME=cmdReset VALUE="Reset">.**

A button

– No predetermined action like submit or reset.
– Script should be written to make it work. (this will be covered in later chapters)
– **<INPUT TYPE=Button NAME=cmdAdd VALUE="Click Me">.**

Submit button

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

```
function OnSubmitForm()
{
  if(document.pressed == 'Insert')
  {
   document.myform.action ="insert.html";
  }
  else
  if(document.pressed == 'Update')
  {
    document.myform.action ="update.html";
  }
  return true;
}
</SCRIPT>

<FORM name="myform" onSubmit="return OnSubmitForm();">

<INPUT TYPE="SUBMIT" name="Operation" onClick="document.pressed=this.value"
VALUE="Insert">

<INPUT TYPE="SUBMIT" name="Operation" onClick="document.pressed=this.value"
VALUE="Update">

</FORM>
```

Form Example

Enter Your Name	Smith
Enter Your Password	•••••
Enter your Hobbies	Travel / Reading / Sleeping
Notify by email	☑
Output Device	○ Screen ○ Printer
Submit Query	Clear
Text Area	Default text goes here

example   example

```html
<HTML>
<BODY>
<FORM  ACTION="" METHOD=POST  NAME=form1>
<TABLE  BORDER=3 CELLPADDING=1 CELLSPACING=1 width="75%">
   <TR>    <TD>Enter Your Name</TD
 <TD><INPUT NAME="first_name" VALUE="Smith" SIZE="10" MAXLENGTH="15" ></TD></TR>
 <TR>    <TD>Enter Your Password</TD>
           <TD><INPUT name=password1 type=password></TD></TR>
  <TR>     <TD>Enter your Hobbies</TD>
           <TD><SELECT NAME="Hobbies" Multiple SIZE="2">
                <OPTION VALUE="TR">Travel
                <OPTION SELECTED>Reading
                <OPTION>Sleeping
     </SELECT></TD></TR>
  <TR>    <TD>Notify by email</TD>
           <TD><INPUT TYPE="checkbox" NAME="email" CHECKED></TD></TR>
  <TR>    <TD>Output Device </TD>
            <TD><INPUT TYPE="radio" NAME="output" VALUE="screen"> Screen
                 <INPUT TYPE="radio" NAME="output" VALUE="printer">Printer </TD>
    <TR>    <TD><INPUT TYPE="submit" value="Submit Query" id=submit1 name=submit1></TD>
            <TD><INPUT TYPE="reset" VALUE="Clear" id=reset1 name=reset1></TD></TR>
<TR>    <TD>Text Area</TD>
             <TD><TEXTAREA  name="feedback" ROWS =3 COLS= 40> Default text goes here
                 </TEXTAREA></TD></TR>
 </TABLE>
</FORM>
</BODY>
</HTML>
```