

HTML...

What is HTML?

- HTML stands for Hyper Text Markup Language .
- It is used to design and develop Web Pages.
- Tim Berners-Lee invented the World Wide Web and HTML
- HTML is
 - A Simple mark up language (NOT a programming language)
 - Browser/Platform Independent (plain ASCII text format)
 - Not Case Sensitive
 - HTML is Interpreted by browser (NOT compiled).
 - A medium for User Interface (GUI)

HTML-not a programming language

- Markup Language is used for adding extra features, like structure or presentation of the text, objects etc.
- Programming language is used for creating programs.
- HTML is interpreted by the browser, not like other programming languages..
- E.g:- in a car,
 - markup language would be the tools used to create the body and design
 - programming language - the tools used to build an engine

HTML tags and attributes

□ The HTML instructions are called tags, and look like

<TAG> Text here..... </TAG>

□ There are two types of markup tags:

▪ **Container tags** – Tags that have starting as well as ending part.

<TITLE>Title of the Web Page </TITLE>

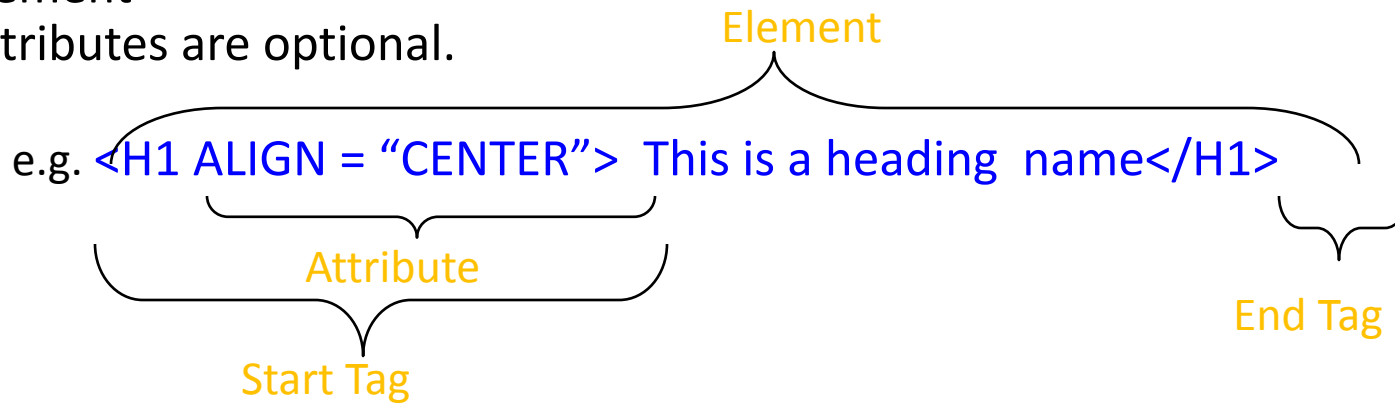
▪ **Empty tags** –: Tags that do not have the closing part.

**
 , <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.



Which of the following statements are TRUE about HTML

A

HTML is compiled by browser

FALSE

B

HTML is Case Sensitive

FALSE

C

used to design and develop Web Pages

TRUE

D

The HTML instructions are called Tags

TRUE

Structure of HTML Document

```
<HTML>
```

```
<HEAD> <!-- Head Section -->  
    <TITLE>Title of the Web Page </TITLE>  
</HEAD>
```

```
<BODY> <!-- Body Section -->  
    <!-- Contents on Web Page -->  
    <H1> Contents </H1>  
</BODY>
```

```
</HTML>
```

- An HTML file can be created by using a simple text editor viz notepad, textpad, Eclipse IDE editor
- HTML file must have an extension htm or html.

Main HTML Elements:-

DOCTYPE:-

- Document Type Declaration
- The `<!DOCTYPE>` declaration must be the very first thing in your HTML document, before the `<html>` tag.
- The `<!DOCTYPE>` declaration is not an HTML tag.
- It is an instruction to the web browser about what version of HTML the page is written in.
- This tag does not have an end tag.
- The `<!DOCTYPE>` declaration is NOT case sensitive.

Tip: Always add the `<!DOCTYPE>` declaration to your HTML documents, so that the browser knows what type of document to expect.

HTML Document - Head

□ Enclosed in `<HEAD> </HEAD>` tag

□ Tags that can go in the document head

a. `<TITLE>` Indicates the title of the document that is used as the window caption

b. `<STYLE>` To Include CSS (Cascading Style Sheet)

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

```
<head><link rel="stylesheet" type="text/css"
href="mystyle.css"></head>
```

d. `<SCRIPT>` specifies the client side script name which used to perform the client side validation

Structure of HTML Document

```
<!DOCTYPE html>
```

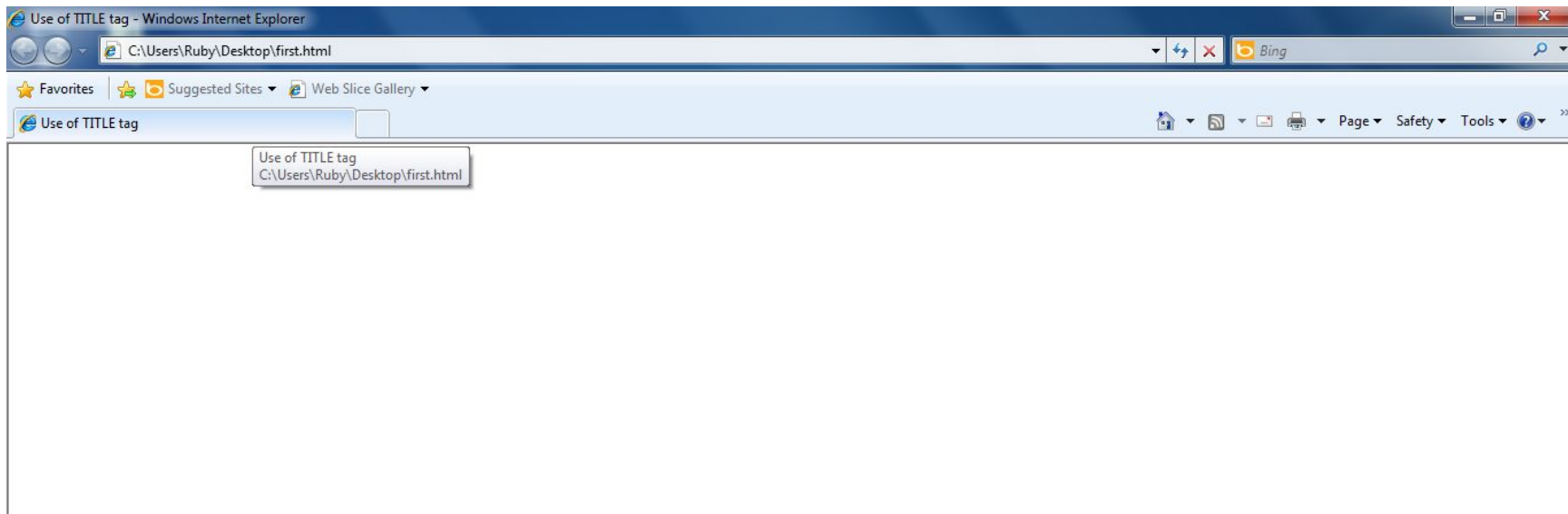
```
<html>
```

```
<head>
```

```
  <title>Use of TITLE tag </title>
```

```
</head>
```

```
</html>
```



```
<HTML>
<HEAD>
<TITLE>HEADINGS</TITLE>
</HEAD>
<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>
```

Using Font Tag and its attributes

Using Font Tag and its attributes

```
<HTML>  
<HEAD>  
<TITLE>FONT ATTRIBUTES</TITLE>  
</HEAD>  
<BODY>
```

```
<P>We have many kinds of <font size="5" color="red">fruits</font> and <font size="5"  
color="green">vegetables</font> in Sri Lanka <BR>  
They are very <font face="arial" color="#3300ff">delicious</font></P><BR>  
</BODY>  
</HTML>
```



Using Font Tag and its attributes

```
<HTML>
<HEAD>
<TITLE>FONT ATTRIBUTES-2</TITLE>
</HEAD>
<BODY>
```

```
<P><FONT SIZE="20"> FONT SIZE IS 20</FONT></P>
```

```
<P><FONT COLOR="BLUE"> FONT COLOR IS BLUE</FONT></P>
```

```
<P><FONT TYPE="VERDANA"> FONT TYPE IS VERDANA</FONT></P>
```

```
<P><U> UNDERLINE</U></P>
```

```
<P><B> BOLD TEXT</B></P>
```

```
<P><I> ITALIC TEXT</I></P>
```

```
<P><FONT TYPE="VERDANA" COLOR="RED" SIZE="25"> FONT ATTRIBUTES ARE TYPE,
COLOR AND SIZE... TYPE=VERDANA, COLOR=RED, AND SIZE=25</FONT></P>
```

```
</BODY>
</HTML>
```

Font size is 20

Font color is blue

Font type is verdana

Underline

bold text

italic text

Font attributes
Type=verdana,

Using IMAGE Tag and its attributes

```
<HTML>  
<HEAD>  
<TITLE>IMAGE INSERTING</TITLE>  
</HEAD>  
<BODY>
```



Go-ya is a very popular vegetable.
The color is green and its taste is a little bitter.
Most of the Okinawan people like Go-ya (some don't).



Go-ya is a very popular vegetable.
The color is green and its taste is a little bitter.
Most of the Okinawan people like Go-ya (some don't).

```
<IMG SRC="GOYA01.JPG" ALT="GO-YA" WIDTH="120" HEIGHT="120"> Go-ya is a very popular  
vegetable in Okinawa.<BR>  
The color is green and its taste is a little bitter. <BR>  
Most of the Okinawan people like Go-ya (some don't)  
<BR> <BR>
```

```
<IMG SRC="GOYA01.JPG" ALT="GO-YA" WIDTH="120" HEIGHT="120" ALIGN="LEFT"> Go-ya  
is a very popular vegetable in Okinawa.<BR>  
The color is green and its taste is a little bitter. <BR>  
Most of the Okinawan people like Go-ya (some don't)  
<BR CLEAR="ALL"> <BR>
```

```
</BODY>  
</HTML>
```

```

<HTML>
<HEAD>
<TITLE>table creation</TITLE>
</HEAD>
<BODY>
<TABLE BORDER="3">
  <CAPTION>Fruits and Vegetables</CAPTION>
  <TR>
    <TH ROWSPAN="3">Fruits</TH><TD>Banana</TD></TR>
    <TR><TD>Pineapple</TD></TR>
    <TR><TD>Mango</TD> </TR>
    <TR>
    <TH ROWSPAN="3">Vegetable</TH> <TD>Go-ya</TD></TR>
    <TR><TD>Papaya</TD></TR>
    <TR><TD>Carrot</TD></TR>
  </TABLE>

```

```

<TABLE BORDER="3">
  <CAPTION>Beverages</CAPTION>
  <TR>
    <TH ROWSPAN="2">Category</TH>
    <TH COLSPAN="2">Details</TH>
  </TR>
  <TR>
    <TH>Product Name</TH>
    <TH>Price</TH>
  </TR>
  <TH ROWSPAN="2">Beverage</TH>
  <TD>Sprite</TD><TD>RS 20.00</TD>
</TABLE>
</HTML>

```

| Fruits and Vegetables | | |
|-----------------------|--------------|----------|
| Fruits | Banana | |
| | Pineapple | |
| | Mango | |
| Vegetable | Go-ya | |
| | Papaya | |
| | Carrot | |
| Beverages | | |
| Category | Details | |
| | Product Name | Price |
| Beverage | Sprite | RS 20.00 |

HTML Document – Body

□ Enclosed in <BODY> </BODY> tag.

□ Some important attributes of the BODY tag:

- BACKGROUND :- Specifies an image to be tiled as background.

BACKGROUND = "url of the image"

`<body background="x.jpg">`

- BGCOLOR :- Specifies the background color

BGCOLOR = "color" / "#rrggbb"

`<body bgcolor="yellow">`

- TEXT :- Specifies the color of text in the page

TEXT = "color" / "#rrggbb"

`<body text="#FF0000">`

- LINK :- Specifies the link color.

LINK = "color" / "#rrggbb"

- ALINK = Specifies the active link color

ALINK = "color" / "#rrggbb"

- VLINK:- Specifies the visited link color.

VLINK = "color" / "#rrggbb"

□ Colors are defined using a hexadecimal notation for the combination of Red, Green, and Blue color values (RGB).

HTML Document – Body

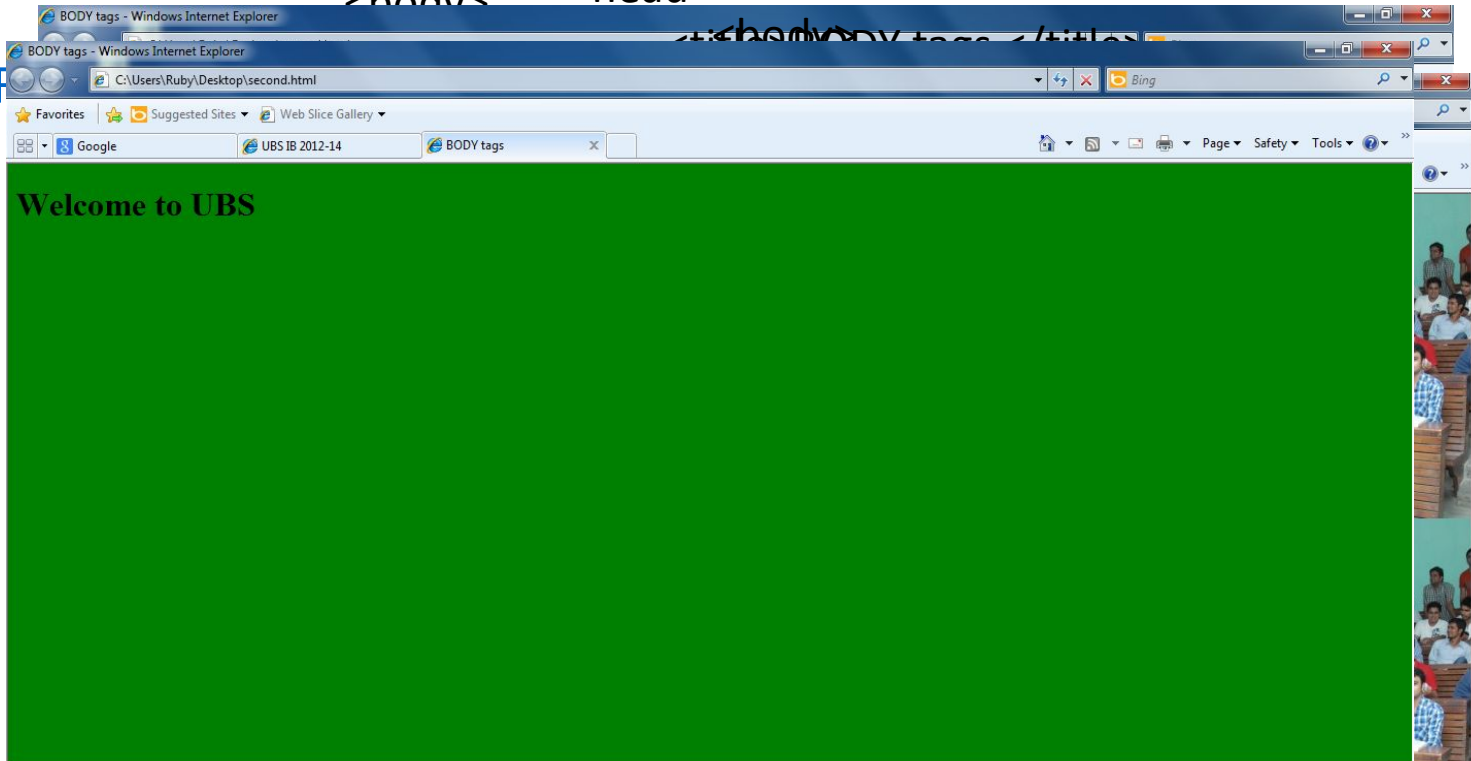
TEXT

```
<!DOCTYPE html>
<html>
<head>
  <title>BODY tags </title>
</head>
```

BACKGROUND

```
<!DOCTYPE html>
<html>
<body text="#FF0000">
  <h1>Welcome to UBS</h1>
</body>
```

BGCOLOP



Formatting the web page

- **** tag Allows you to specify the font face and font size.
 - Some common attributes are
 - FACE specifies the font type.
Defaults fonts like “Arial”, “Times New Roman”, and “Courier” are available in all Systems.
 - 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.

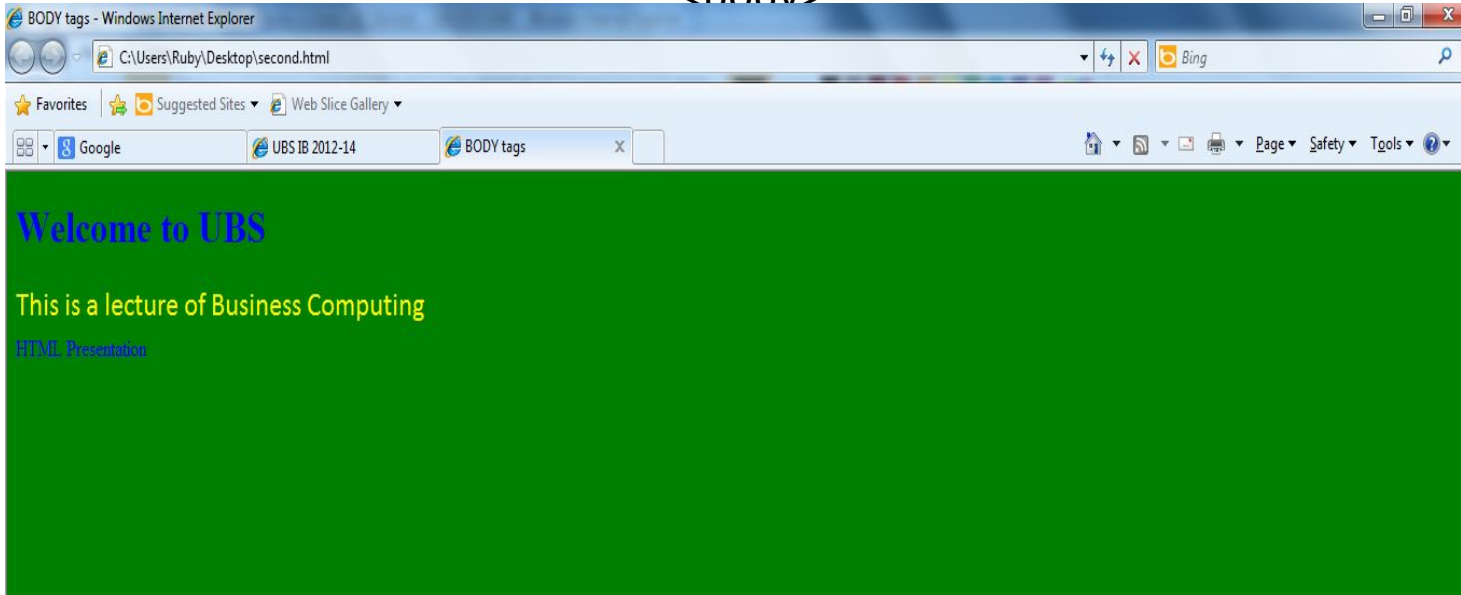
```
<FONT FACE="Arial" SIZE="7" COLOR="#FF0000"> The Written  
Word </FONT>
```

```
<FONT FACE="Courier" SIZE="+2" COLOR="#00FF00"> The Written  
Word </FONT>
```

Formatting the web page

FACE = calibri
SIZE = 5
COLOR = yellow

```
<!DOCTYPE html>
<html>
<head>
    <title>BODY tags </title>
</head>
<body bgcolor="green" text="blue">
    <h1>Welcome to UBS</h1>
    <font face="calibri"size="5" color="yellow">
This is a lecture of Business Computing<BR> </font>
HTML Presentation
</body>
```



Text Formatting tags

- Paragraphs

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

- Line Breaks

`
` - to insert blank lines in the document.

e.g. : `<P>This
 is a para
graph with line breaks</P>`

- Horizontal Lines

`<HR>` - used to draw a horizontal line across the web page.

- It is useful to separate different sections of a single page.

- Attributes:- Size,Width,Align

e.g: `<HR ALIGN = "right" WIDTH = "50%">`

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>` (This being the largest)

`<H2> Heading 2 </H2>`

`<H3> Heading 3 </H3>`

`<H4> Heading 4 </H4>`

`<H5> Heading 5 </H5>`

`<H6> Heading 6 </H6>`

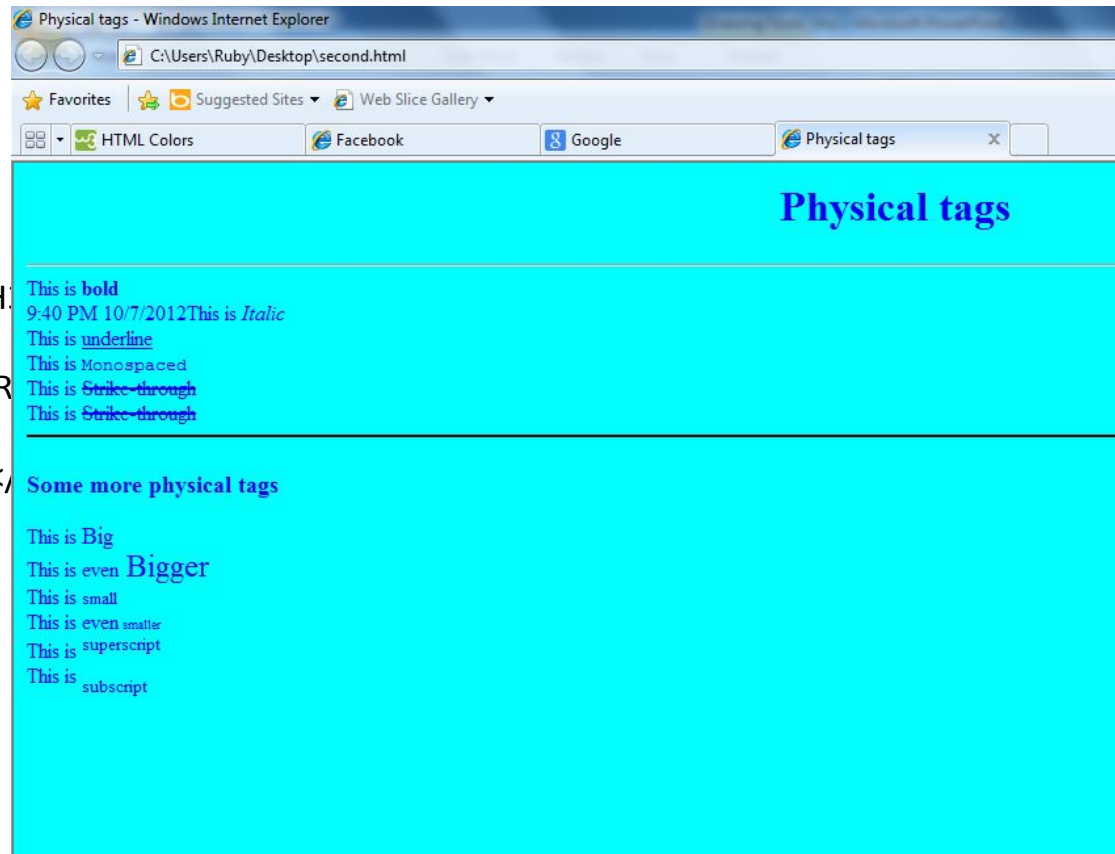
- The font size of the heading will go on decreasing from H1 to H6.

Text Formatting tags

| Tag | Description |
|---|--------------------------------------|
| ● <code>....</code> | - Bold |
| ● <code><I>.....</I></code> | - Italic |
| ● <code><U>....</U></code> | - Underline |
| ● <code><STRIKE>...</STRIKE></code> | - Strikethrough |
| ● <code><TT>....</TT></code> | - Typewriter (monospaced) |
| ● <code><CENTER></CENTER></code> | - Centers the text on the screen. |
| ● <code><SUB>....</SUB></code> | - Subscript |
| ● <code><SUP>....</SUP></code> | - Superscript |
| ● <code><BIG>....</BIG></code> | - Bigger font (one font size bigger) |
| ● <code><SMALL>....</SMALL></code> | - Small font (one font size smaller) |

Text Formatting tags

```
<HTML>
<HEAD>
<TITLE> HTML Presentation </TITLE>
</HEAD>
<BODY BGCOLOR="00FFFF" TEXT = "FF00FF">
<H1 ALIGN = "center"> Physical tags </H1>
<HR>
This is <B> bold </B> <BR>
9:40 PM 10/7/2012This is <I> Italic </I> <BR>
This is <U> underline</U> <BR>
This is <TT> Monospaced</TT> <BR>
This is <STRIKE> Strike-through</STRIKE> <BR>
This is <S>Strike-through</S> <BR>
<HR color = "black">
<H3 ALIGN = "Right">Some more physical tags</H3>
This is <BIG> Big</BIG> <BR>
This is even<BIG><BIG> Bigger </BIG></BIG> <BR>
This is <SMALL> small</SMALL> <BR>
This is even<SMALL><SMALL> smaller</SMALL><
This is <SUP> superscript</SUP> <BR>
This is <SUB> subscript</SUB> <BR>
</BODY>
</HTML>
```



Which of the following statements are TRUE about HTML

A

In **** tag FACE attribute specifies the font type

TRUE

B

<HR> tag is used to specify line breaks

FALSE

C

<P> tag is used to create paragraphs

TRUE

D

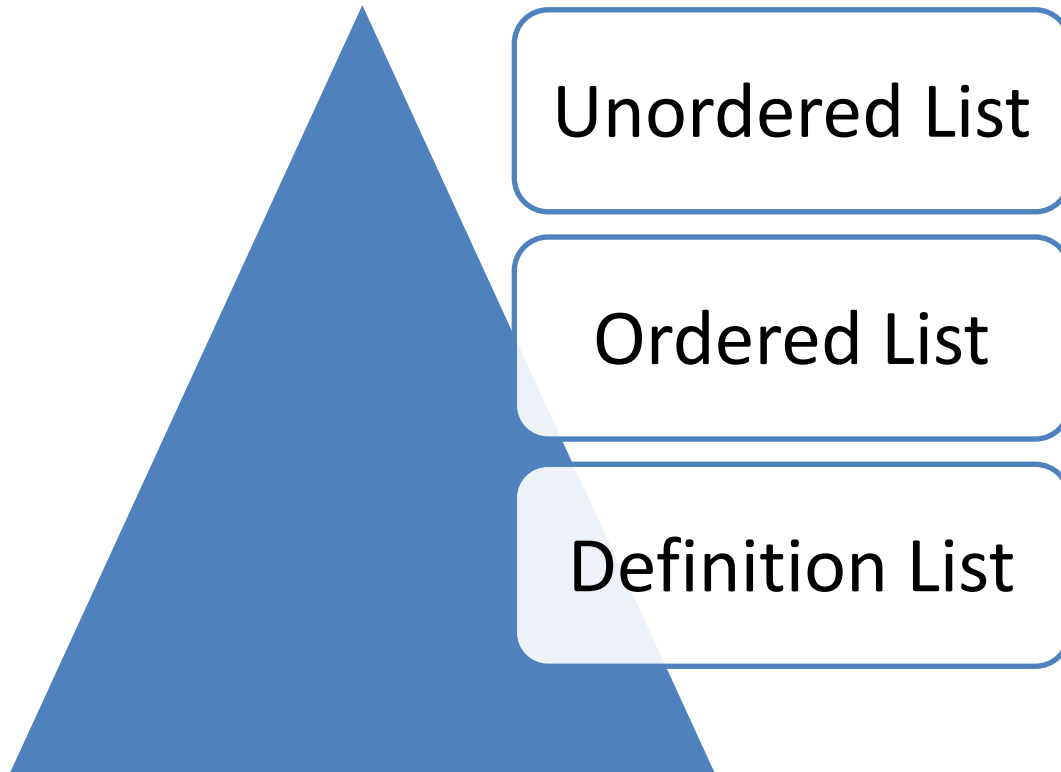
<H1> is the biggest heading element

TRUE



Lists

- Lists actually require two tags:
 - the list tag itself and
 - the tag or tags used to define individual list items



Lists-UnOrdered Lists

- An ordered list starts with the tag.
- Each list item starts with the tag.
- **TYPE** attributes specifies the type of bullet
- TYPE = "disc" | "circle" | "square"

```
<font size="5"
color="blue">
<UL TYPE = "circle">
    <LI>Savings
    <LI>Current
    <LI>Transactional
</UL>
</font>
```

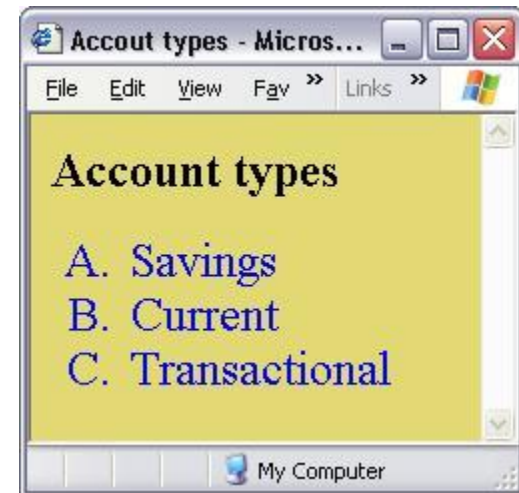


Lists-Ordered Lists

- An ordered list starts with the tag.
- Each list item starts with the tag.
- TYPE attribute controls the numbering scheme

TYPE = 1 | A | a | I | i

```
<font size="5"
color="blue">
<OL TYPE = "A">
  <LI>Savings
  <LI>Current
  <LI>Transactional
</OL>
</font>
```



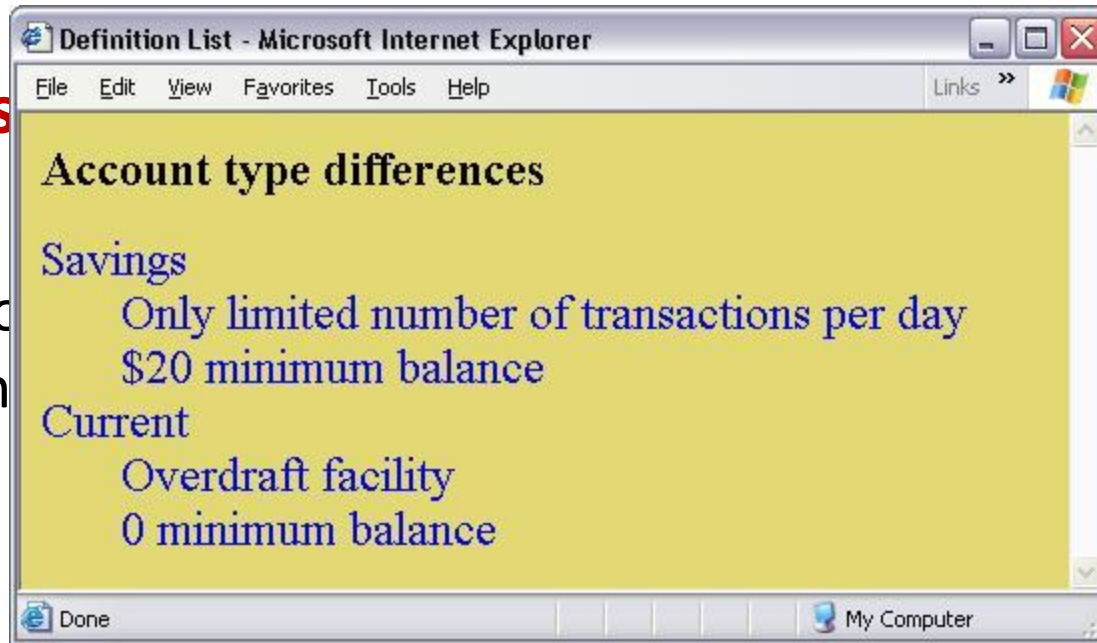
Lists

□ A definition

□ Definition

<dt>

<dd>



for each item.

```
<font size="5" color="blue">
<dl>
  <dt>Savings</dt>
  <dd>Only limited number of transactions per day</dd>
  <dd>$20 minimum balance</dd>
  <dt>Current</dt>
  <dd>Overdraft facility</dd>
  <dd>0 minimum balance</dd>
</dl>
</font>
```

Linking Pages

- A link is a unidirectional pointer from a source document that contains the link to some destination
- `<A>` Anchor tag
- A hyperlink (or link) is a word, group of words, or image that you can click on to jump to a new document or a new section within the current document.
- Link text with **other** documents by using the **href** attribute:-
 1. HREF (Hypertext Reference)
 2. NAME (bookmarks inside the page)
 3. TITLE
 4. TARGET (Define where the linked document will be opened)

e.g.: ` Click here `

- Link text with **same** documents, by using the **name** attribute

Create a link to the "Useful Tips Section" inside the same document
create a link to the "Useful Tips Section" from another page:

```
<BODY link="blue" alink="green" vlink="red">  
<a name="tips">Useful Tips Section</a>
```

```
.....  
<a href="http://www.w3schools.com/html_links.htm#tips"> Useful Tips Section</a>
```

Linking Pages – Contd.....

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<a href="http://www.computers.com" target="_blank">Com</a>
```

<p>If you set the target attribute to "_blank", the link will open in a new browser window/tab.</p>

```
</body>
```

```
</html>
```



Com

If you set the target attribute to "_blank", the link will open in a new browser window/tab.

Which of the following statements are TRUE about HTML

A

<A> tag used to create hyperlinks

TRUE

B

<link> tag used to create hyperlinks

FALSE

C

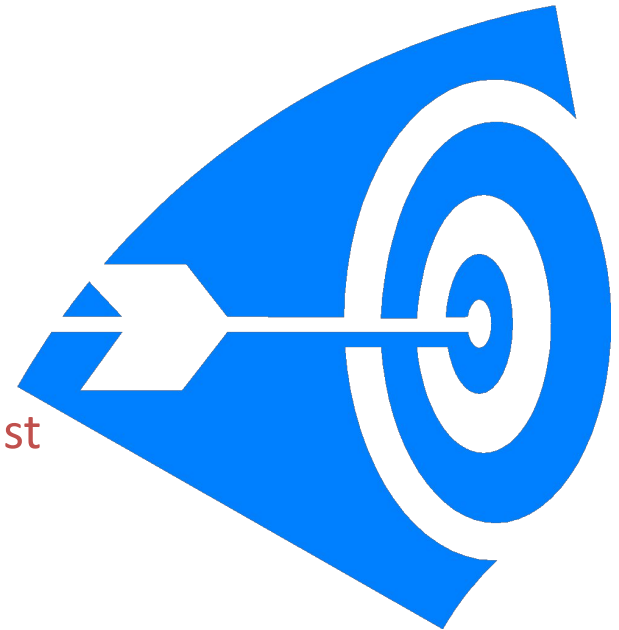
 tag used to create bulleted list

FALSE

D

 tag used to create numbered list

FALSE



Tables

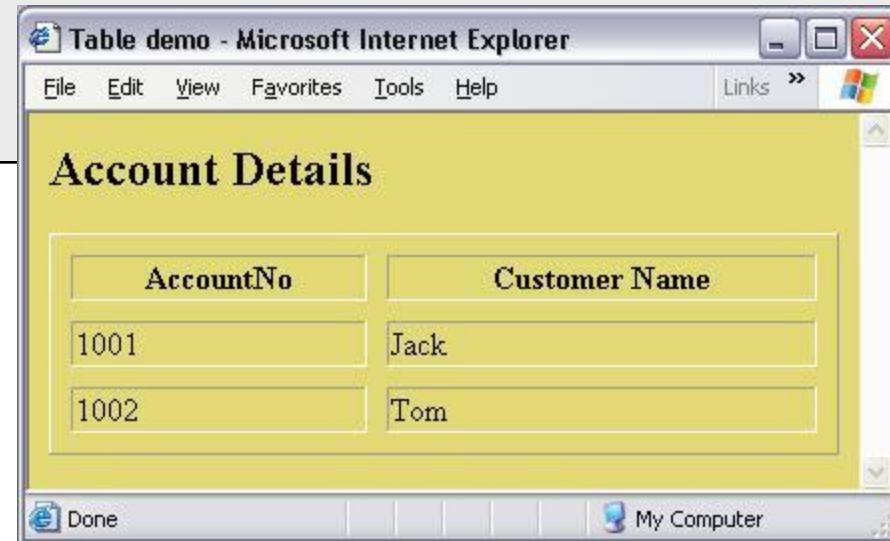
- Displays data in a tabular format
- A table is divided into rows (with the `<tr>` tag), and each row is divided into data cells (with the `<td>` tag).
- `<TABLE>..... </TABLE>` : define a table
- Some attributes
 - ALIGN = LEFT | RIGHT | CENTER
 - BORDER = n (Number of Pixels)
 - BGCOLOR = "color" | "#rrggbb"
 - CELLSPACING = n (Number of Pixels)
 - CELLPADDING = n (Number of Pixels)
 - WIDTH= % Of Parent | n (pixels)

Table structure

```
<TABLE BORDER=1> <!-- start of table 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 first row definition -->
<TR>      <!-- start of last row definition -->
  <TD> last row, first cell contents </TD>
  <TD> last row, last cell contents </TD>
</TR>      <!-- end of last row definition -->
</TABLE> <!-- end of table definition -->
```


Creating tables 1

```
<h2> Account details</h2>
<TABLE BORDER="1" CELSPACING="10" CELLPADDING="1" WIDTH="100%">
<TR>
    <TH>AccountNo</TH><TH>Customer Name</TH>
</TR>
<TR>
    <TD>1001</TD><TD>Jack</TD>
</TR>
<TR>
    <TD>1002</TD><TD>Tom</TD>
</TR>
</TABLE>
```



Creating tables 2

```
<TABLE BORDER=2 BGCOLOR="#B45F04"=>
  <TR ALIGN="CENTER">
    <TD COLSPAN=3>MINI STATEMENT</TD></TR>
  <TR>
    <TH>Account ID</TH>
    <TH>Date</TH>
    <TH>Amount</TH> </TR>
  <TR>
    <TD>54576989</TD>
    <TD>12-Jan-2009</TD>
    <TD>3000.00</TD> </TR>
  <TR>
    <TD>56783297</TD>
    <TD>27-Feb-2009</TD>
    <TD>500.00</TD> </TR>
</TABLE>
```



| MINI STATEMENT | | |
|----------------|-------------|---------|
| Account ID | Date | Amount |
| 54576989 | 12-Jan-2009 | 3000.00 |
| 56783297 | 27-Feb-2009 | 500.00 |

Creating tables 3

```
<!DOCTYPE html>
<html>
<body>
<h4>Cell that spans two rows:</h4>
<table border="1">
<tr>
  <th>First Name:</th>
  <td>Bill Gates</td>
</tr>
<tr>
  <th rowspan="2">Telephone:</th>
  <td>555 77 854</td>
</tr>
<tr>
  <td>555 77 855</td>
</tr>
</table>
</body>
</html>
```



Cell that spans two rows:

| | |
|--------------------|------------|
| First Name: | Bill Gates |
| Telephone: | 555 77 854 |
| | 555 77 855 |

Forms

- Used for creating Graphical User Interface (GUI)
- In a web application client interact through GUI.
- It is enclosed between the `<form>` and `</form>` tags.
 - `<form>`
 - *input elements*
 - `</form>`
- Forms become powerful when connected to a server application
- A single HTML page can have multiple forms.

Form elements

- **<INPUT>** tag is used to add elements to the form
 - NAME = “controlname”
 - TYPE = text / password / checkbox / radio/ submit / reset / button / hidden / file
 - VALUE
 - MAXLENGTH
 - SIZE
- All elements should be named by setting a unique value to the name attribute.
- The value attribute is used to set a default value for the control.

Forms

```
<FORM NAME="form1" ACTION="abc.jsp" METHOD=GET>
```

```
<!-- 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 JSP  
script.
```

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

```
(form elements go here)
```

```
</FORM>
```

Text Box/Password

- A text field can be added to the form by typing
 - `<INPUT TYPE="TEXT" NAME="txtcompany" VALUE="XYZ" SIZE="10" MAXLENGTH="15">`
- A password field can be added to the form by typing
 - `<INPUT TYPE="PASSWORD" NAME="pwdLogin" SIZE="50" MAXLENGTH="12">`
 - when the text is entered, stars appear instead of the typed letters
- Attributes are
 - VALUE is the default value loaded
 - SIZE sets the size of the field in no. of characters
 - MAXLENGTH specifies max number of characters that can be entered to the control

Radio Buttons:

- Radio buttons with the same NAME are grouped together
- `<input type="radio">`
- Radio buttons are used for Single selection
- Only one button can be selected in a group
- VALUE data to be sent to the server
- CHECKED will preselect the button

```
<INPUT TYPE="radio" NAME="output" VALUE="screen" checked>  
Screen  
<INPUT TYPE="radio" NAME="output" VALUE="printer">Printer
```


The Input Element.....contd!!!!

4.Checkboxes:-

- `<input type="checkbox">`
- Used for multiple selection
- `<INPUT TYPE="checkbox" NAME="contact" VALUE="email" CHECKED>` Notify by email
- `VALUE` indicates the value to be transmitted to the server
 - e.g: `contact=email` will be sent to the server
- `CHECKED` sets the checkbox to be selected by default
- Here "Notify by email" is visible to the user and the value "email" is not visible to the user

List Box (Drop-down box)

- SIZE number of lines to display
- VALUE indicates what will be sent to the server
- SELECTED sets the default selected item
- MULTIPLE will allow multiple selection of items

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

```
<SELECT NAME="Hobbies">
  <OPTION VALUE="T">Travel
  <OPTION VALUE="R" SELECTED>Reading
  <OPTION VALUE="S">Sleeping
  <OPTION VALUE="W">Walking
</SELECT>
```

Buttons

- The Submit button
 - Sends the form contents to the server when clicked
 - By default only submit button can invoke the action page and send data to server.
 - `<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">`.

Form examples

```
<!DOCTYPE html>
<html><body>
<form name="input" action="html_form_action.asp" method="get">

First name: <input type="text" name="FirstName" value="Ruby"><br>
Last name: <input type="text" name="LastName" value="Jindal"><br>

<input type="radio" name="sex" value="male">Male<br>
<input type="radio" name="sex" value="female" checked>Female<br>

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

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

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

<p>If you click the "Submit" button, the form-data will be sent to a
page called "html_form_action.asp"</p>

</body>
</html>
```

C:\Users\Ruby\Desktop\second.html - Windows Internet Explorer

C:\Users\Ruby\Desktop\second.html

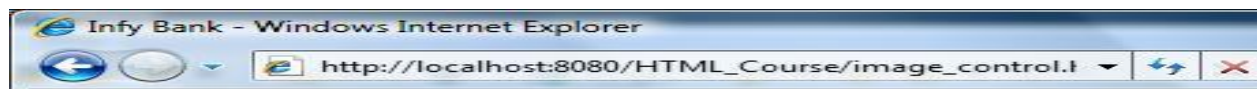
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File and Image

- The file control
 - Available from HTML 4.0
 - This form control is used to upload a file to the server
 - `<INPUT TYPE="file" NAME="load">`
 - It is possible to set maxlength and size values to file control
 - It's Not suggested because the path name might be larger than the size specified
 - The file form control is not supported by all browsers
- The image control
 - The image control creates a graphical version of submit button
 - `<INPUT TYPE="IMAGE" SRC="sub.gif" alt="submit to server"`
 - `NAME="fname">`

File and Image

```
<form name="Radio">
<h1 align="center"> Customer Registration </h1>
<table width="600" align="center">
<tr> <td> Customer Name :</td>
<td> <input type="text" name="uname"></td>
</tr>
<tr> <td> Gender :</td>
<td>
<input type="radio" name="output" value="Male" checked="checked">
<input type="radio" name="output" value="Female">Female
</td></tr>
<tr> <td>Upload your photo : </td>
<td><input type="file" name="datafile" size="40"></td>
</tr> <tr>
<td> <input type="image" src="submit.jpg" value="Send"> </td>
</tr>
</table>
</form>
```



How to specify the path for submitting the data from a html FORM to server side program

A

Using action attribute of <form>

TRUE

B

Using GET method

FALSE

C

Using POST method

FALSE

D

External CSS is reusable

TRUE

Summary

- HTML structure
- Different elements and attributes
- Creating tables
- Interaction with the client using forms.

Thank You

.....!!!!!!