

Syllabus of HTML

Introduction to Web Page Designing using HTML, Creating and saving an HTML document, accessing a web page using a web browser (Google Chrome, Internet Explorer, Mozilla Firefox, Opera, Apple Safari, Net scape Navigator); Elements in HTML: Container and Empty elements, Designing web pages using the following elements: HTML, HEAD, TITLE, BODY (Attributes: BACKGROUND, BGCOLOR, TEXT, LINK, ALINK, VLINK, LEFTMARGIN, TOPMARGIN), FONT(Attributes: COLOR, SIZE, FACE), BASEFONT(Attributes: COLOR, SIZE, FACE), CENTER, BR (Break), HR(Horizontal Rule,

Attributes: SIZE, WIDTH, ALIGN, NOSHADE, COLOR) inserting comments, H1..H6 (Heading), P (Paragraph), B (Bold), I (Italics), U (Underline), UL & OL (Unordered List & Ordered List Attributes: TYPE, START), LI (List Item) Insertion of images using the element IMG (Attributes: SRC, WIDTH, HEIGHT, ALT, ALIGN), Super Script SUP, Subscript SUB, Internal and External Linking between Web Pages: Significance of linking, A - Anchor Element (Attributes: NAME, HREF, TITLE, MAILTO).

CREATION OF TABLES WILL NOT BE TESTED IN THE FIRST TERM AND CONTENT HAS NOT BEEN INCLUDED IN THESE NOTES

Creating Table using the element TABLE (BACKGROUND, BGCOLOR, WIDTH, CELLPACING, CELLPADDING, BORDER), TR, TH, TD, ROWSPAN, COLSPAN,

CONTAINER AND EMPTY TAGS

Container Tags	Empty Tags
Container tags require a starting as well as an ending tag.	Empty tags require just a starting tag and not an ending tag.
<HTML>and </HTML>, <TITLE> and </TITLE> are examples of container tags.	 , are examples of empty tags.

Tag and Attribute

Tag	Attribute
A tag is a coded HTML command that defines the structure and appearance of a web page.	An attribute is a special word used inside tag to specify additional information about the tag such as color, alignment etc.
For e.g. <H1> is a tag that indicates browser to display the text in a bolder/ larger font than the normal text.	For e.g. <H1 align="center">. In this example, align is an attribute of H1. It indicates that the text inside the <H1> tag is to be displayed in the center.

<BODY> tag

The <BODY> tag is used to control the content of the web page. The following are the important attributes of the <body> tag:

Attribute	Description
Bgcolor	To specify the background color of the web page
Text	To specify the color of the text to be

	displayed on the web page
Background	To specify the relative or absolute path of the image file to be displayed as background of the web page.
Leftmargin, topmargin	To specify the amount of space to be left blank from the top and left margins of the web page. Its value is specified in pixels.
Link, alink, vlink	Attributes to assign colours to link, active link and visited link

e.g. <body bgcolor="pink" background="tiles.gif" text="red" leftmargin=100 topmargin=90>

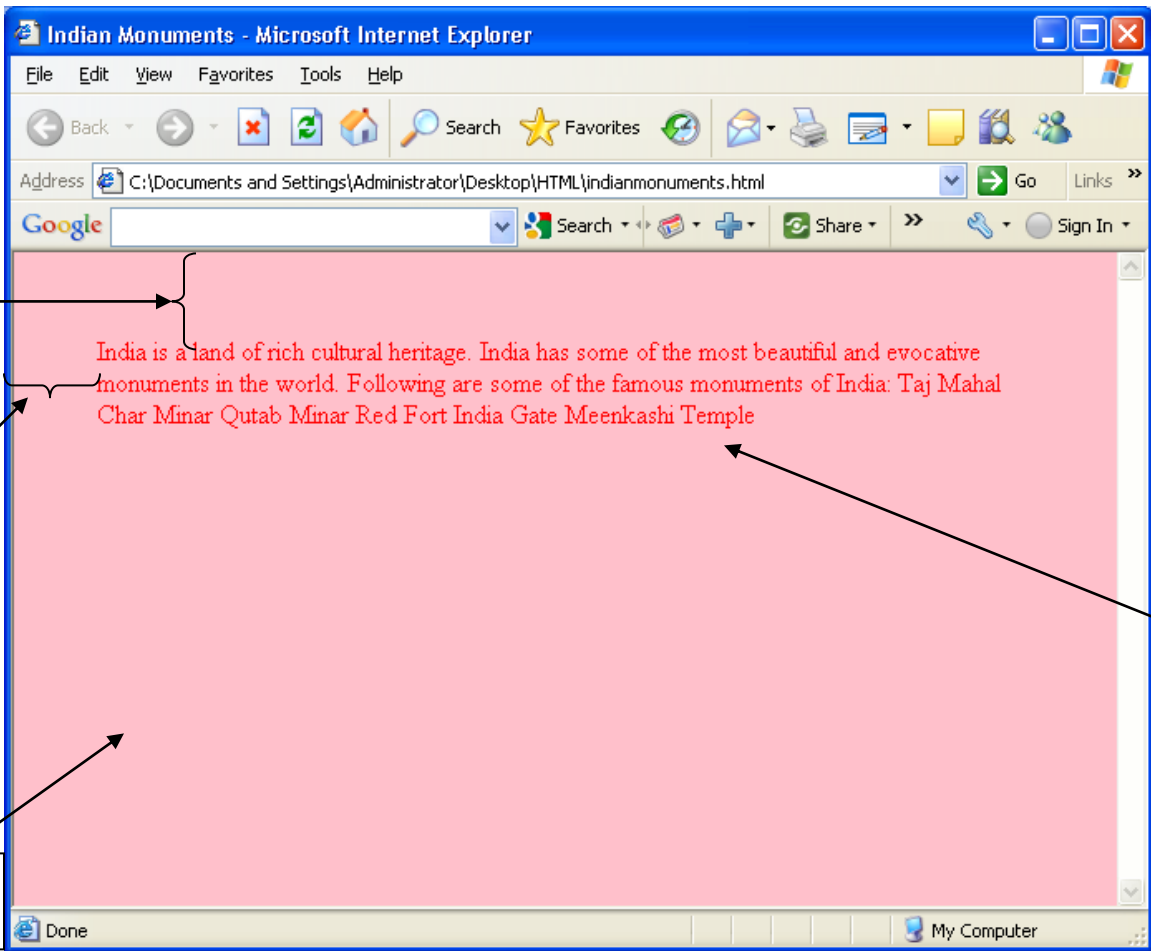
Let us consider an example to create a web page using different attributes of the <BODY> tag. Type the following code in the notepad window and save the file with the .html extension as shown below:

```

<HTML>
<HEAD>
<TITLE>Indian Monuments</TITLE>
</HEAD>
<BODY bgcolor=pink text=red leftmargin=50 topmargin=50>
India is a land of rich cultural heritage. India has some of the most
beautiful and evocative monuments in the world. Following are some of
the famous monuments of India:
Taj Mahal
Char Minar
Qutab Minar
Red Fort
India Gate
Meenkashi Temple
</BODY>
</HTML>

```

The output of the above HTML code in the browser window is:



Headings tags <H1>-<H6>

Heading tags display text in larger as well as bolder font than the normal body text. HTML provides six levels of headings: <H1> to <H6>, with 1 being the largest and 6 being the smallest. When heading tags are used, a blank line is automatically added before and after the heading.

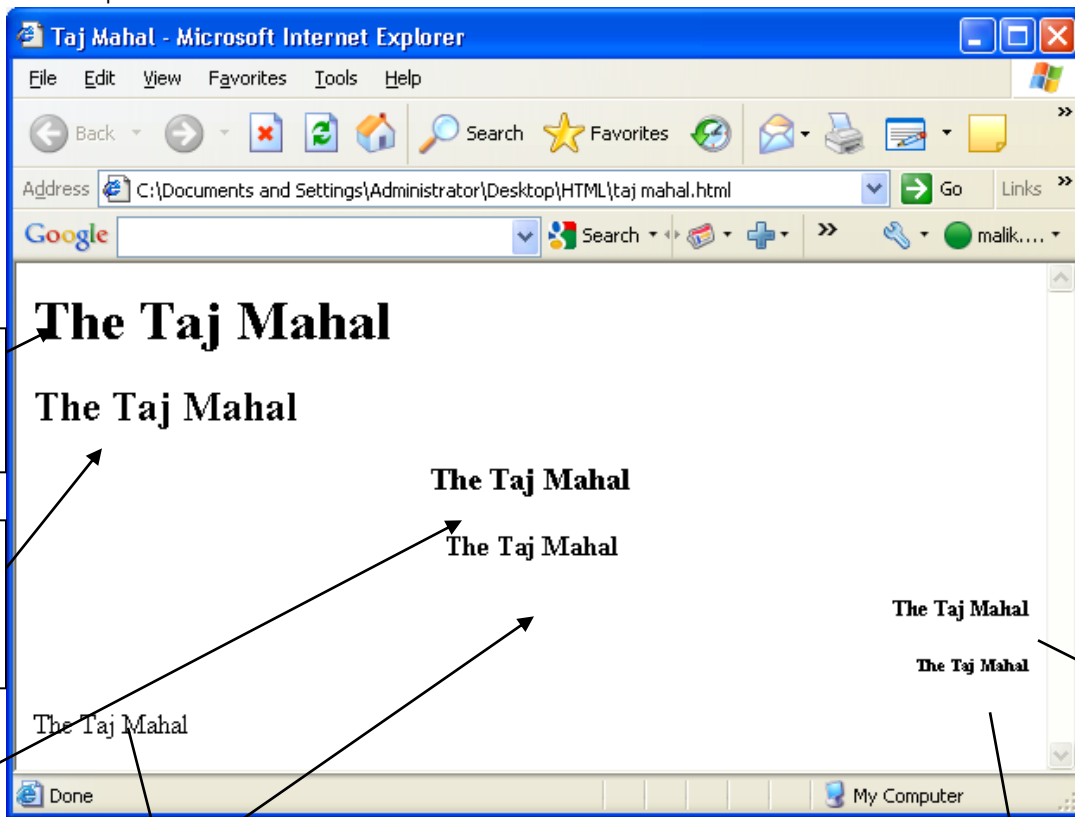
The heading tags have just one attribute called align.

Attribute	Description	Example
Align	To specify the placement of the heading text with respect to margins. The values that can be specified are: <ul style="list-style-type: none"> • Left • Right • Center 	<Hn align=center> where n stands for number between 1 to 6.

Type the following HTML code in the notepad window:

```
taj mahal.html - Notepad
File Edit Format View Help
<HTML>
<HEAD>
<TITLE>Taj Mahal</TITLE>
</HEAD>
<BODY>
<H1 align="left">The Taj Mahal</H1>
<H2 align="left">The Taj Mahal</H2>
<H3 align="center">The Taj Mahal</H3>
<H4 align="center">The Taj Mahal</H4>
<H5 align="right">The Taj Mahal</H5>
<H6 align="right">The Taj Mahal</H6>
The Taj Mahal
</BODY>
</HTML>
```

The output of the above HTML code is:



Level 1 heading aligned left

Level 2 heading aligned left

Level 3 heading aligned center

Level 4 heading aligned center

Normal body text

Level 5 heading aligned right

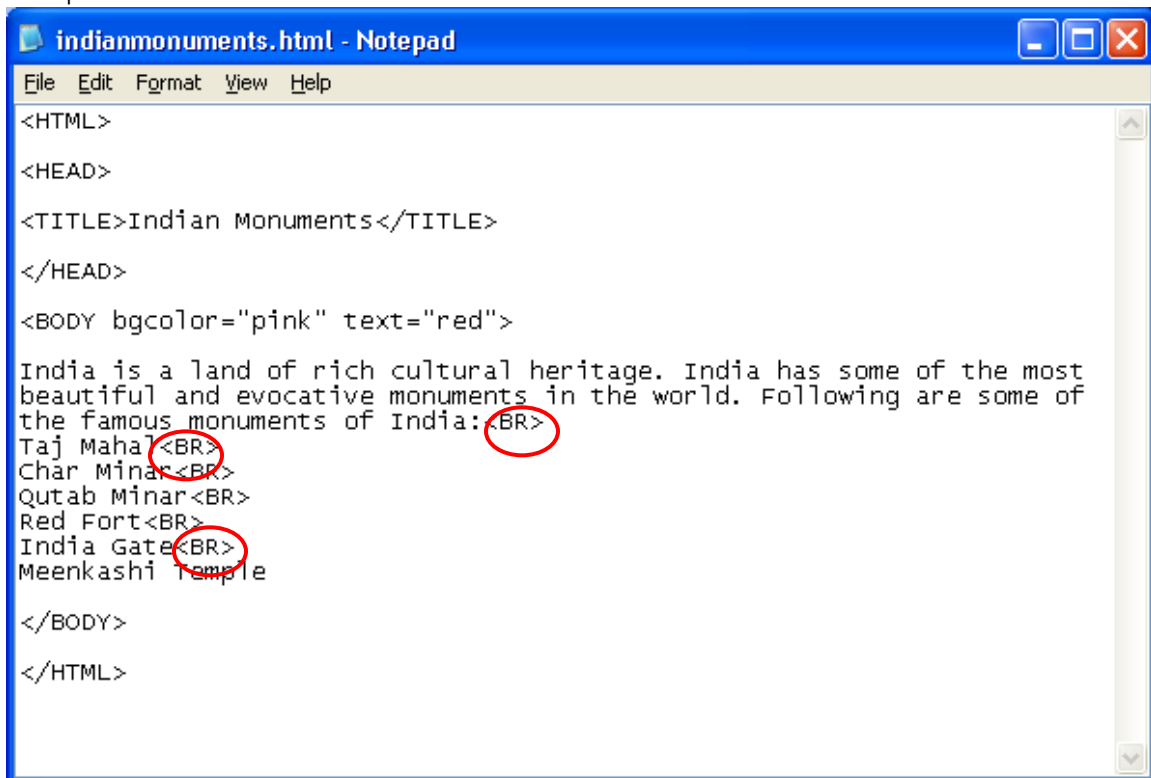
Level 6 heading aligned right

Line Break
 Tag

The browser does not recognize any line breaks given using the Enter key in the HTML code. To explicitly force a line break between two lines in the output, you use the
 tag.

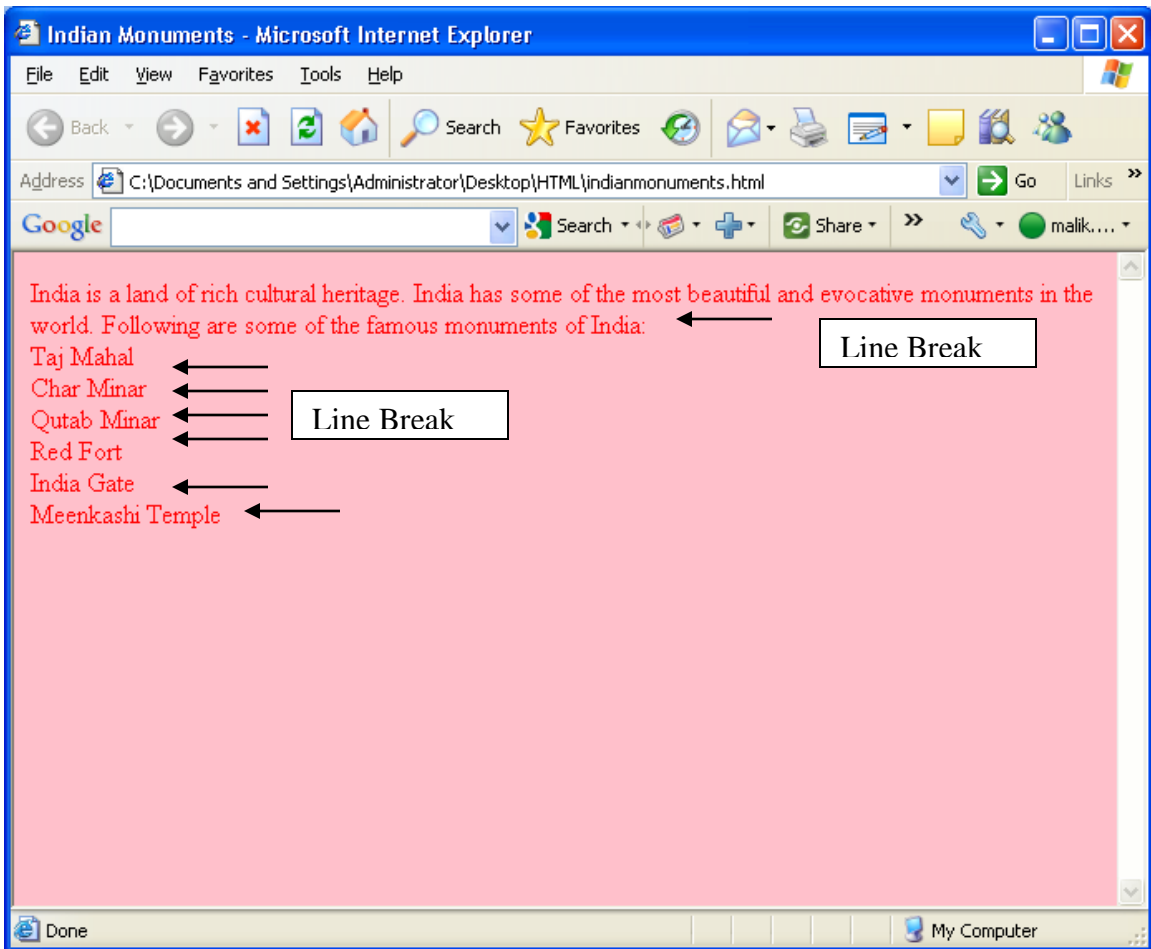
The
 tag shifts the text following it to the next line. It is an empty tag. It does not have any attributes.

Let us consider the same web page created before. You can display the names of monuments in different lines by including the
 tag as shown in the following notepad window:



```
indianmonuments.html - Notepad
File Edit Format View Help
<HTML>
<HEAD>
<TITLE>Indian Monuments</TITLE>
</HEAD>
<BODY bgcolor="pink" text="red">
India is a land of rich cultural heritage. India has some of the most
beautiful and evocative monuments in the world. Following are some of
the famous monuments of India:<BR>
Taj Maha<BR>
Char Minar<BR>
Qutab Minar<BR>
Red Fort<BR>
India Gate<BR>
Meenkashi Temple
</BODY>
</HTML>
```

The output of the above HTML code in the browser window is:



Paragraph <P> Tag

The Paragraph <P> tag marks the beginning of a paragraph. It is a container tag. When a text is included within the opening and closing <P> tag, a blank line is inserted before and after the enclosed text. It has only one attribute called align.

Attribute	Description	Example
Align	To specify the placement of the text enclosed within the <P> tag with respect to margins. The values that can be specified are: <ul style="list-style-type: none"> • Left • Right • Center 	<P align=center>

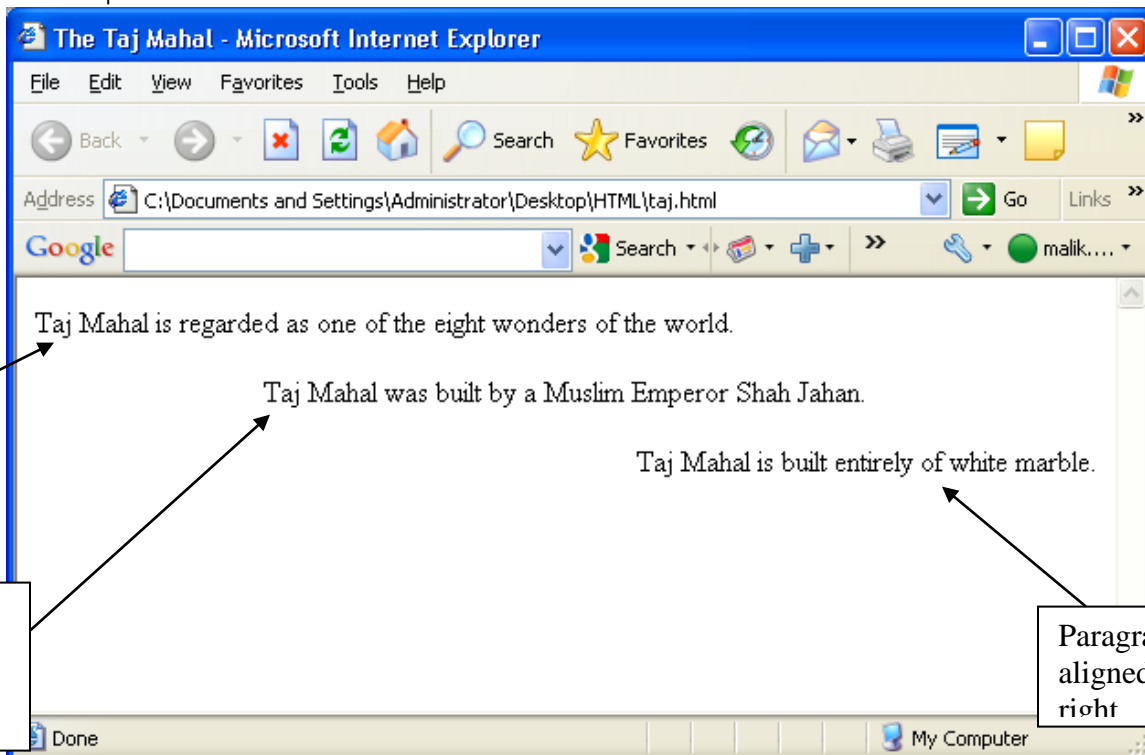
Type the following HTML code in the notepad window:

```

taj.html - Notepad
File Edit Format View Help
<HTML>
<HEAD>
<TITLE>The Taj Mahal</TITLE>
</HEAD>
<BODY>
<P align="left">Taj Mahal is regarded as one of the eight wonders of the
world.</P>
<P align="center">Taj Mahal was built by a Muslim Emperor Shah Jahan.</P>
<P align="right">Taj Mahal is built entirely of white marble.</P>
</BODY>
</HTML>

```

The output of the above HTML code in the browser window is:



Horizontal Line: <HR> tag

The <HR> tag stands for Horizontal Rule. This tag inserts a straight horizontal line across the web page. By default, horizontal line appears shaded and spans the width of the browser window. The attributes of <HR> tag are:

Attribute	Description	Example
Size	To specify the vertical size or	<HR size=5>

	thickness of the horizontal line. The value is given in pixels.	
Width	To specify the length of the horizontal line. The value can be given in pixels or in percentage of page width.	<HR width=500> OR <HR width=70%>
Align	To specify the placement of the horizontal line on the web page. The values that can be used are: <ul style="list-style-type: none"> • left • right • center 	<HR align=center>
Noshade	To specify that the horizontal line should appear as a solid stripe across the page, rather than a shaded stripe.	<HR noshade>
Color	To specify the color of the horizontal line.	<HR color=blue>

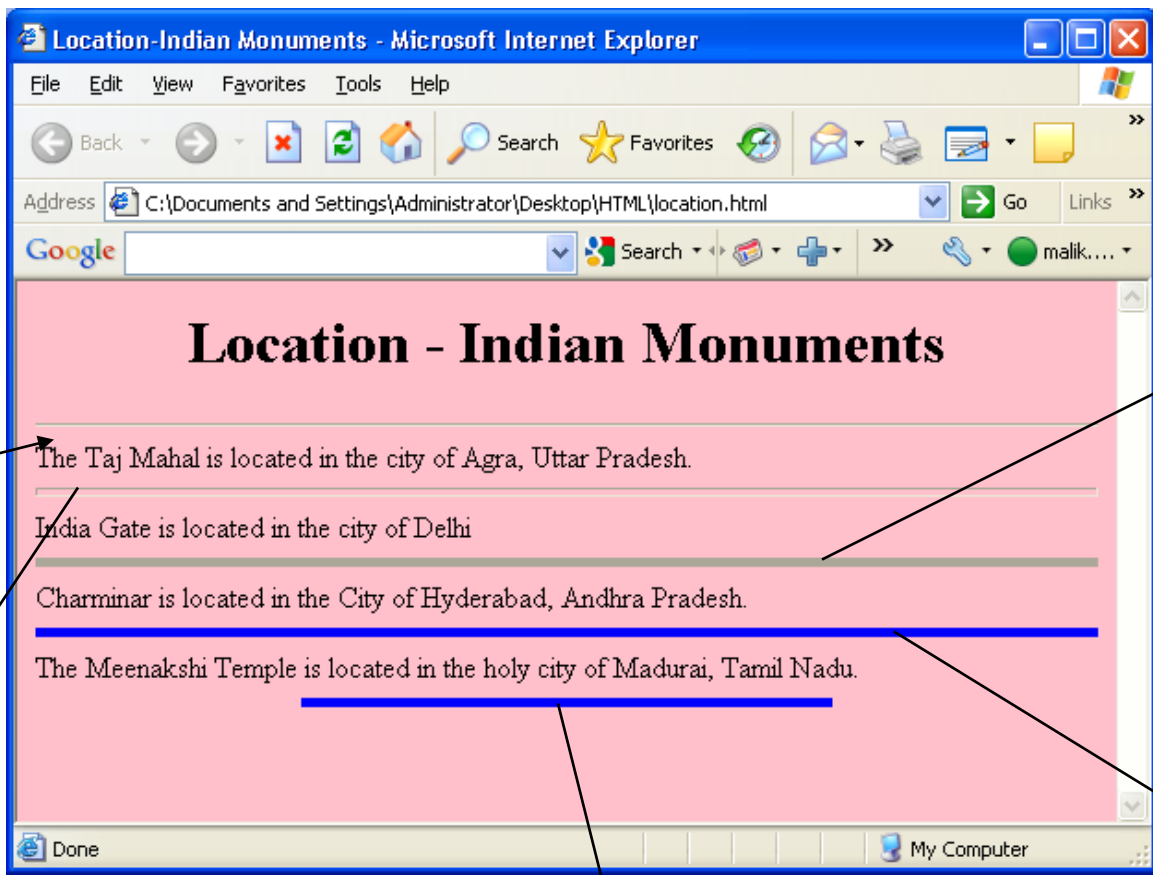
Type the following code in the notepad window:

```

location.html - Notepad
File Edit Format View Help
<HTML>
<HEAD>
<TITLE>Location-Indian Monuments</TITLE>
</HEAD>
<BODY bgcolor="pink">
<H1 align="center">Location - Indian Monuments</h1>
<HR>
The Taj Mahal is located in the city of Agra, Uttar Pradesh.<HR size=5>
India Gate is located in the city of Delhi
<HR noshade size=5>
Charminar is located in the City of Hyderabad, Andhra Pradesh.
<HR size=5 color=blue>
The Meenakshi Temple is located in the holy city of Madurai, Tamil Nadu.
<HR size=5 color=blue align=center width=50%>
</BODY>
</HTML>

```

The output of the HTML code in the browser window is:



Horizontal line with thickness 5

Default horizontal line

Horizontal line with thickness 5 and noshading

Horizontal line with thickness 5 and color blue

Horizontal line with thickness 5, color blue and length 50% of the page width

** tag**

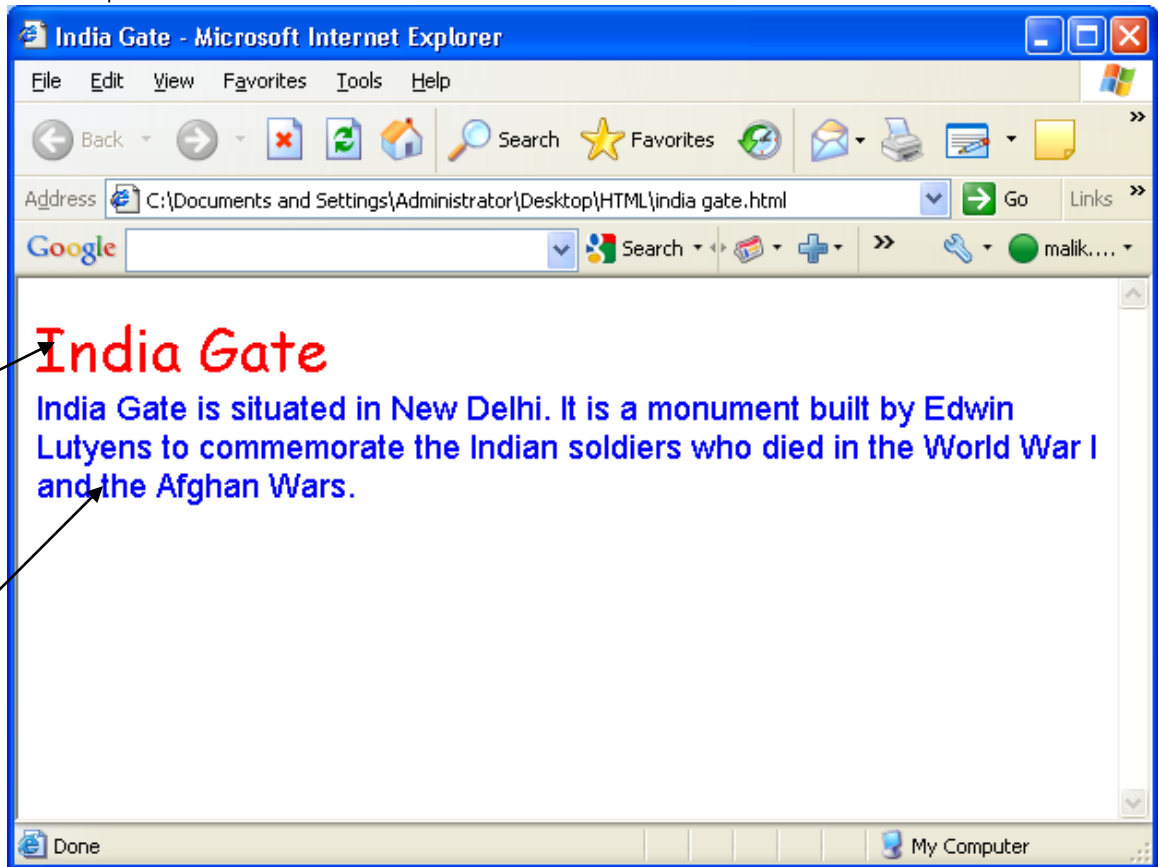
The tag is used to change the appearance of the text to be displayed on the web page. Using this tag, you can change the size, color, and style of the text. It is a container tag. The important attributes of tag are:

Attribute	Description	Example
Size	To specify the size of the text. The value of the size attribute lies between 1 to 7 with 1 being the smallest font size and 7 being the largest font size.	
Color	To specify the color to be used to display the text	
Face	To change the font type	

Type the following text in the notepad window:

```
india gate.html - Notepad
File Edit Format View Help
<HTML>
<HEAD>
<TITLE>India Gate</TITLE>
</HEAD>
<BODY>
<FONT face="Comic Sans ms" size=6 color=red>India Gate</FONT><BR>
<FONT face=arial size=4 color=blue>India Gate is situated in New Delhi. It is a
monument built by Edwin Lutyens to commemorate the Indian soldiers who died in
the world war I and the Afghan wars.
</FONT>
</BODY>
</HTML>
```

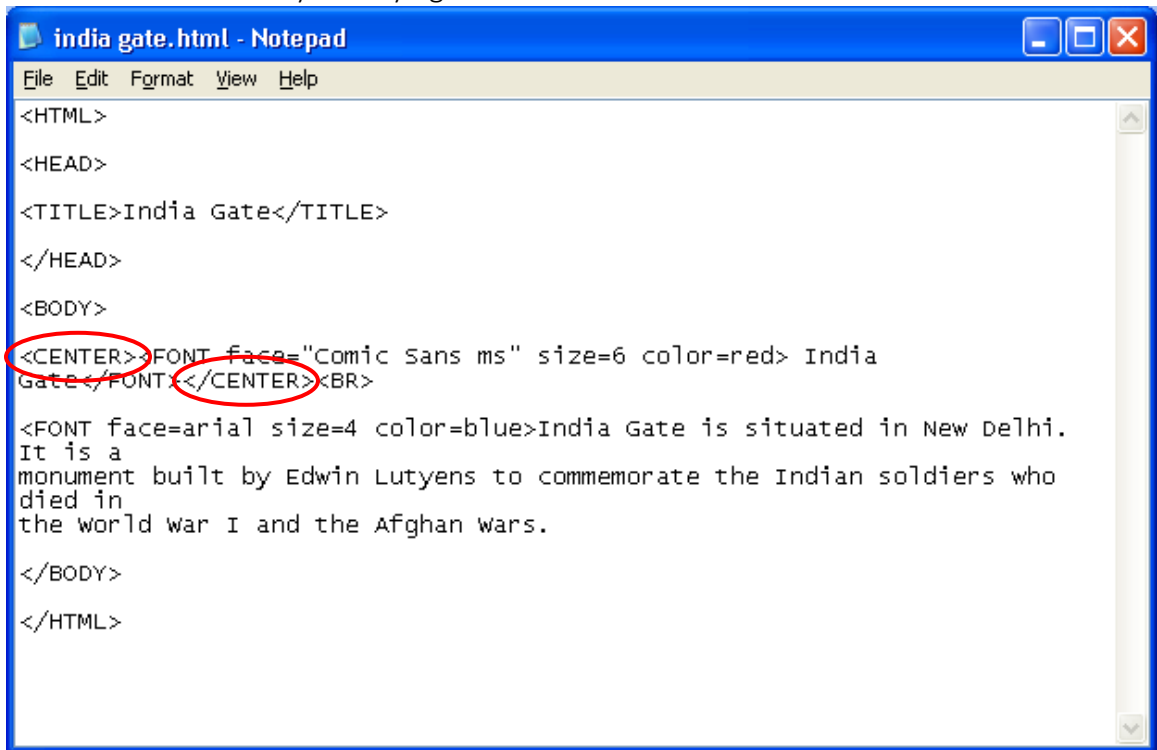
The output of the above HTML code is:



CENTER Tag

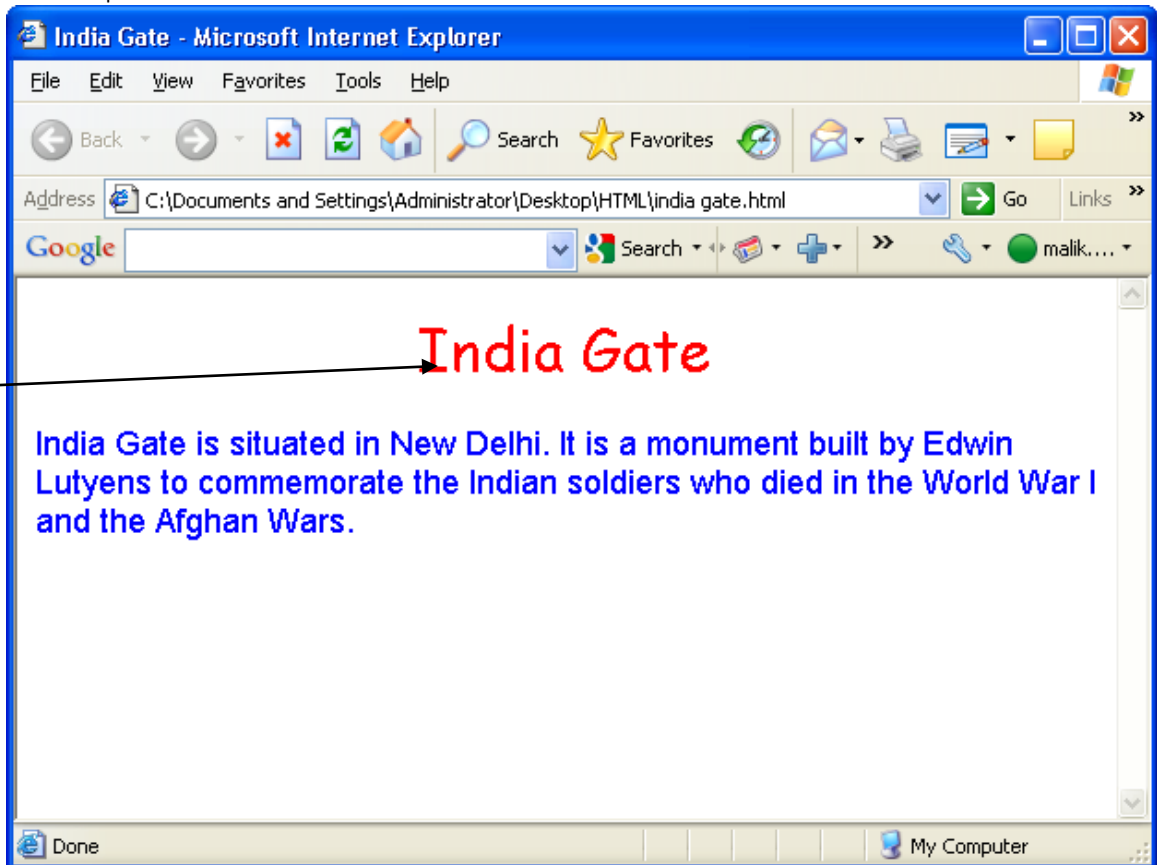
The <center> tag is a container tag. You can enclose the text or the image to be aligned in the center of the browser window within the opening and closing center tag.

Let us consider the above example to align the text 'India Gate' in the center of the browser window by modifying the HTML code:



```
india gate.html - Notepad
File Edit Format View Help
<HTML>
<HEAD>
<TITLE>India Gate</TITLE>
</HEAD>
<BODY>
<CENTER><FONT face="Comic sans ms" size=6 color=red> India
Gate</FONT></CENTER><BR>
<FONT face=arial size=4 color=blue>India Gate is situated in New Delhi.
It is a
monument built by Edwin Lutyens to commemorate the Indian soldiers who
died in
the world war I and the Afghan wars.
</FONT>
</BODY>
</HTML>
```

The output of the above HTML code in the browser window is:



Basefont tag

The <basefont> tag lets you define the basic size for the font, the browser will use to render normal document text, i.e., the text for which no other font-size information has been provided.

Attribute	Description
Size	The value for the size property can be specified either in absolute term (ranging from 1 to 7) or in relative term (using + or – sign).
Face	To specify the type of font to be used for the text.

```
<basefont size=5 face="comic sans ms">
```

OR

```
<basefont size=+2
```

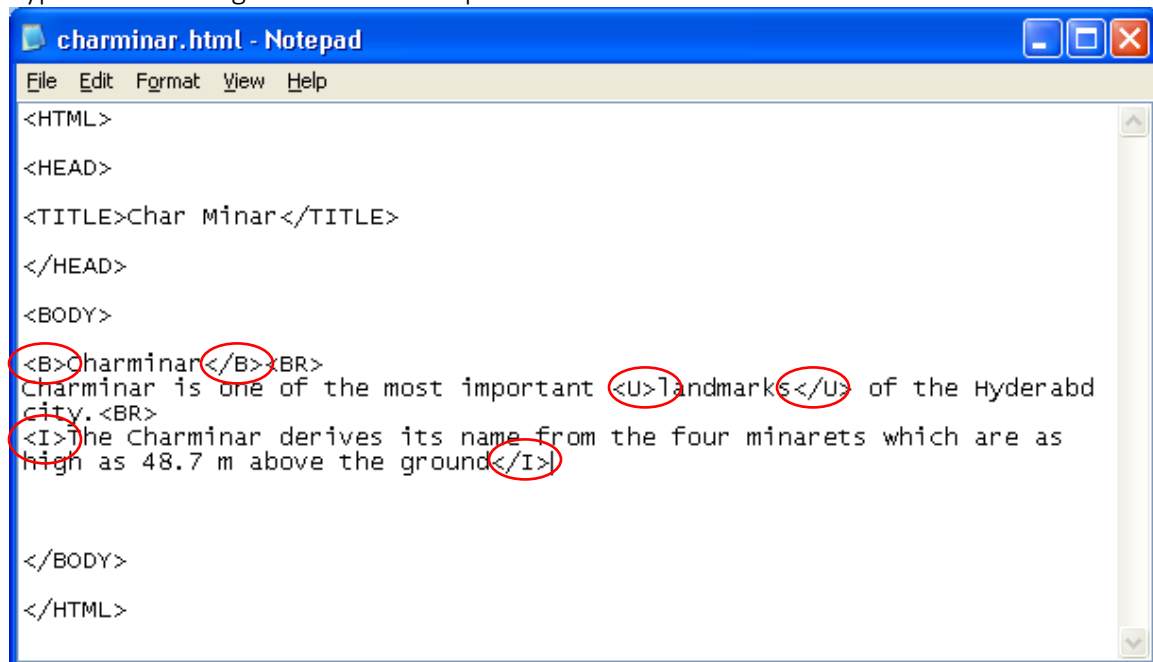
Bold, Italic, and Underline Tags

The tag is used to make the text appear in bolder font compared to the normal body text. It is a container tag.

The <I> tag is used to make the text appear italicized. It is a container tag.

The <U> tag is used to underline the given text. It is also a container tag.

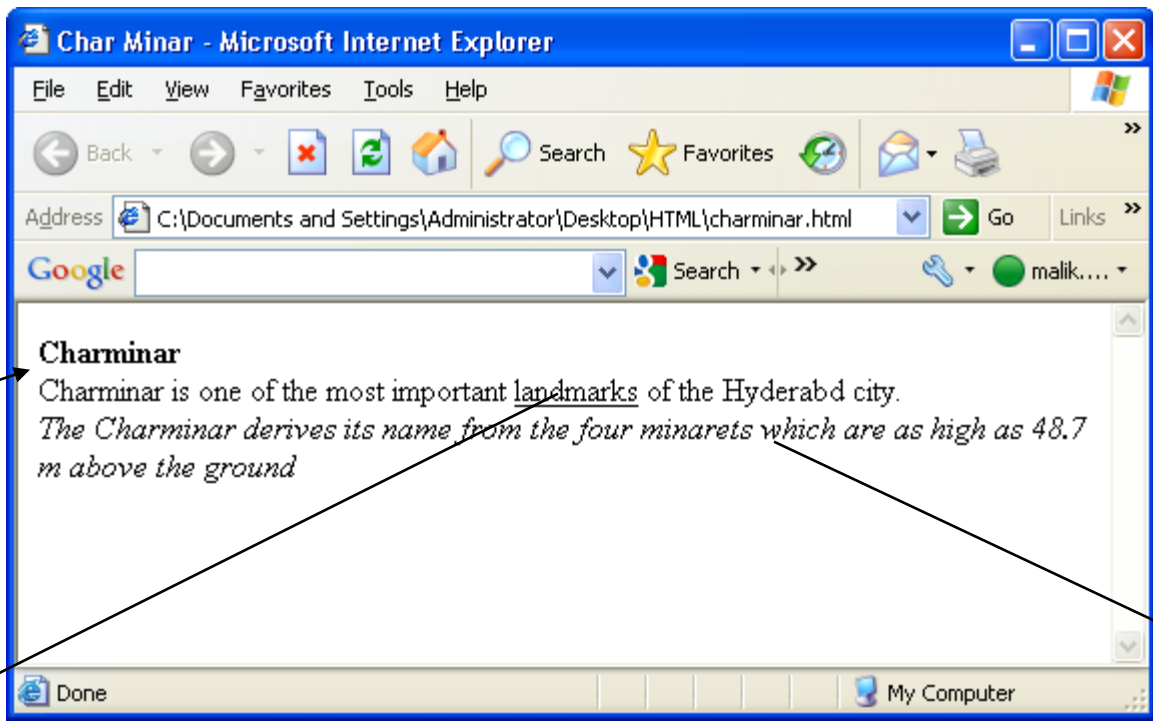
Type the following code in the notepad window:



```
charminar.html - Notepad
File Edit Format View Help
<HTML>
<HEAD>
<TITLE>Char Minar</TITLE>
</HEAD>
<BODY>
<B>Charminar</B><BR>
Charminar is one of the most important <U>landmarks</U> of the Hyderabd
city.<BR>
<I>The Charminar derives its name from the four minarets which are as
high as 48.7 m above the ground</I>

</BODY>
</HTML>
```

The output of the above HTML code is:



Listing tags

We can create the following types of lists using HTML

1. Unordered lists
2. Ordered lists

Unordered Lists

Unordered lists appear as a list of items with bullets in front of each list item. An Unordered list is contained within the and tags. Each item in the list is marked using the (List Item) tag. The important attributes of tag is:

Attribute	Description
Type	To specify the type of bullet to be placed in front of each item in the list. The values that are given to this attribute are: <ul style="list-style-type: none"> • Disc ▪ Square ○ Circle

e.g. <UL type="square">
 Vegetables
 Fruits
 Salads

Output:

- Vegetables
- Fruits
- Salads

Ordered Lists

Ordered lists are numbered list of items. By default, the browser numbers each successive list item starting with "1". An Ordered list is contained within the and tags. Each item in the list is marked using the (List Item) tag. The important attributes of tag is:

Attribute	Description
Type	To specify the type of numbering to be used in front of each item in the list. The values that are given to this attribute are: A, a, I, i, and 1(default).
Start	To specify a number to start the numbering from a different letter or a number.

e.g.

```
<OL type="A">
<LI> Vegetables
<LI> Fruits
<LI> Salads
</OL>
```

Output:

- A. Vegetables
- B. Fruits
- C. Salads

If you use the start attribute of the tag as shown below, the numbering would start from a different letter or number:

e.g.

```
<OL type="A" start="3">
<LI> Vegetables
<LI> Fruits
<LI> Salads
</OL>
```

Output:

- C. Vegetables
- D. Fruits
- E. Salads

The table given below outlines the output, which is displayed when you use the following values for the type and start attributes of the tag:

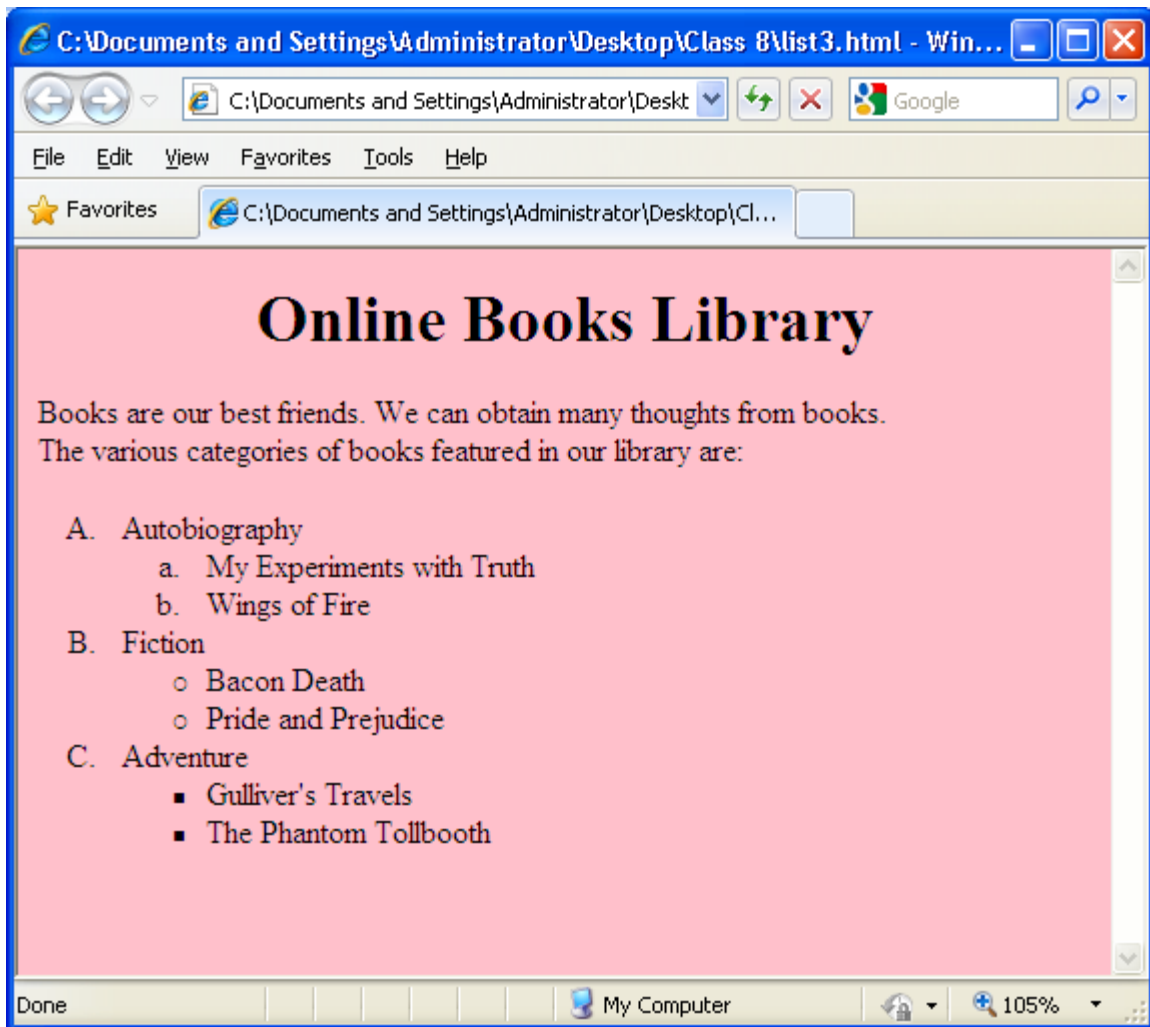
Type and Start Values	Output
<OL type=A start=1>	A. Vegetables B. Fruits

	C. Salads
<OL type=a start=1>	a. Vegetables b. Fruits c. Salads
<OL type=I start=2>	II. Vegetables III. Fruits IV. Salads
<OL type=i start=3>	iii. Vegetables iv. Fruits v. Salads
<OL type=1> OR (default)	1. Vegetables 2. Fruits 3. Salads

Nested Lists

Ordered and unordered lists can be nested within each other to form multilevel lists. The following HTML code displays the output as shown in figure :

```
<HTML>
<BODY bgcolor=pink>
<H1 align=center> Online Books Library</H1>
Books are our best friends. We can obtain many thoughts
from books.
<BR>
The various categories of books featured in our library
are:
<OL type=A>
<LI> Autobiography
  <OL type=a>
    <LI> My Experiments with Truth
    <LI> Wings of Fire
  </OL>
<LI> Fiction
  <UL type=circle>
    <LI> Bacon Death
    <LI> Pride and Prejudice
  </UL>
<LI> Adventure
  <UL type=square>
    <LI> Gulliver's Travels
    <LI> The Phantom Tollbooth
  </UL>
</OL>
</BODY>
<HTML>
```



Adding Comments on a web page

Comments are textual content that appear in the HTML source code of the web page but are not rendered on the web page.

Purpose: We insert comments on our web page to explain our source code, which may prove useful when we edit our source code at a later date.

There are two ways in which comments can be inserted on a web page:

- 1) Using the `<Comment>` and `</comment>` tag.
e.g. `<Comment> This is a comment</comment>`
- 2) Using the `<!--` and `-->` tags
e.g. `<!-- This is a comment -->`

Inserting Images (tag)

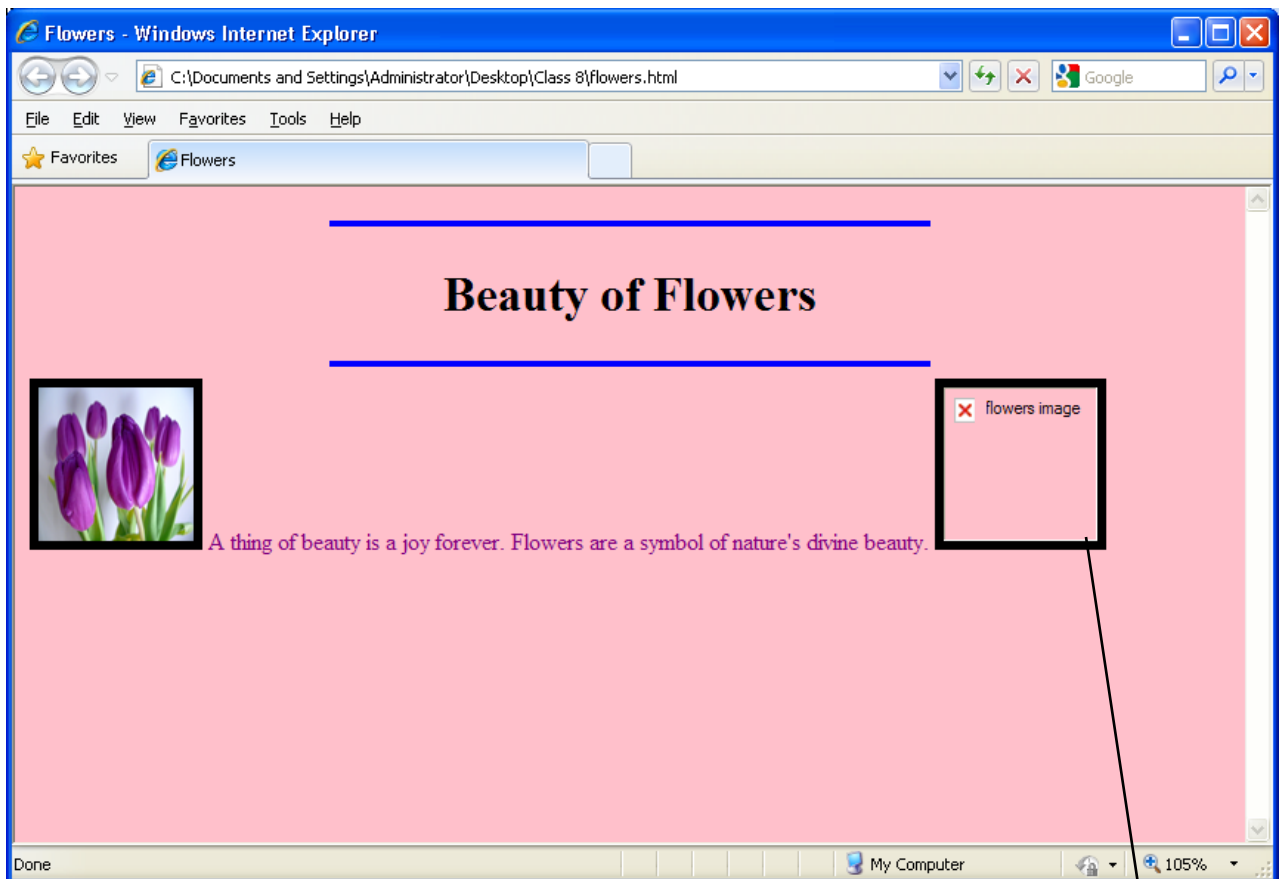
Images enhance the overall appearance of the web page. Images make the sites look interesting. When designing web pages, you should maintain a balance between the use of text and images. However, excessive use of images may slow down the download of a web page. The various image file formats supported by most of the web browsers include GIF, JPG, and PNG.

In HTML, you insert images using the tag. It is an empty tag. The following table lists the attributes of the tag:

Attribute	Description	Example
Src	To specify the URL or path of the image to be displayed	
Height, Width	To specify height and width of the image in pixels	
Align	To align the image with respect to margins or inline text <ul style="list-style-type: none"> • Use Left or Right value to align the image with respect to margins. • Use Top, Middle, Bottom to align the image with respect to inline text. 	
Alt	To specify the alternative text the browser may show if image cannot be displayed. If the image is available, the text appears as a tip when the mouse is moved over the surface of the image.	
Border	To specify the thickness of the border to be displayed around the image	

The following HTML code uses different attributes of the tag to display the output as shown in figure

```
<HTML>
<HEAD>
<TITLE> Flowers </TITLE>
<BODY bgcolor=pink>
<HR size=4 color=blue width=50%>
<H1 align=center> Beauty of Flowers</H1>
<HR size=4 color=blue width=50%>
<IMG src="tulips.jpg" height=100 width=100 border=6>
<FONT color=purple> A thing of beauty is a joy forever.
Flowers are a symbol of nature's divine beauty. </FONT>
<IMG src="sunflower.jpg" height=100 width=100 border=6
alt="Flowers image">
</BODY>
</HTML>
```



The text “flowers image” is the alternative text that gets displayed if the image is not available.

Using the align attribute of tag

The align attribute of the tag lets you specify the placement of image on the web page. To align the image with respect to margins, you use **left** or **right** as the attribute value as done in the following code:

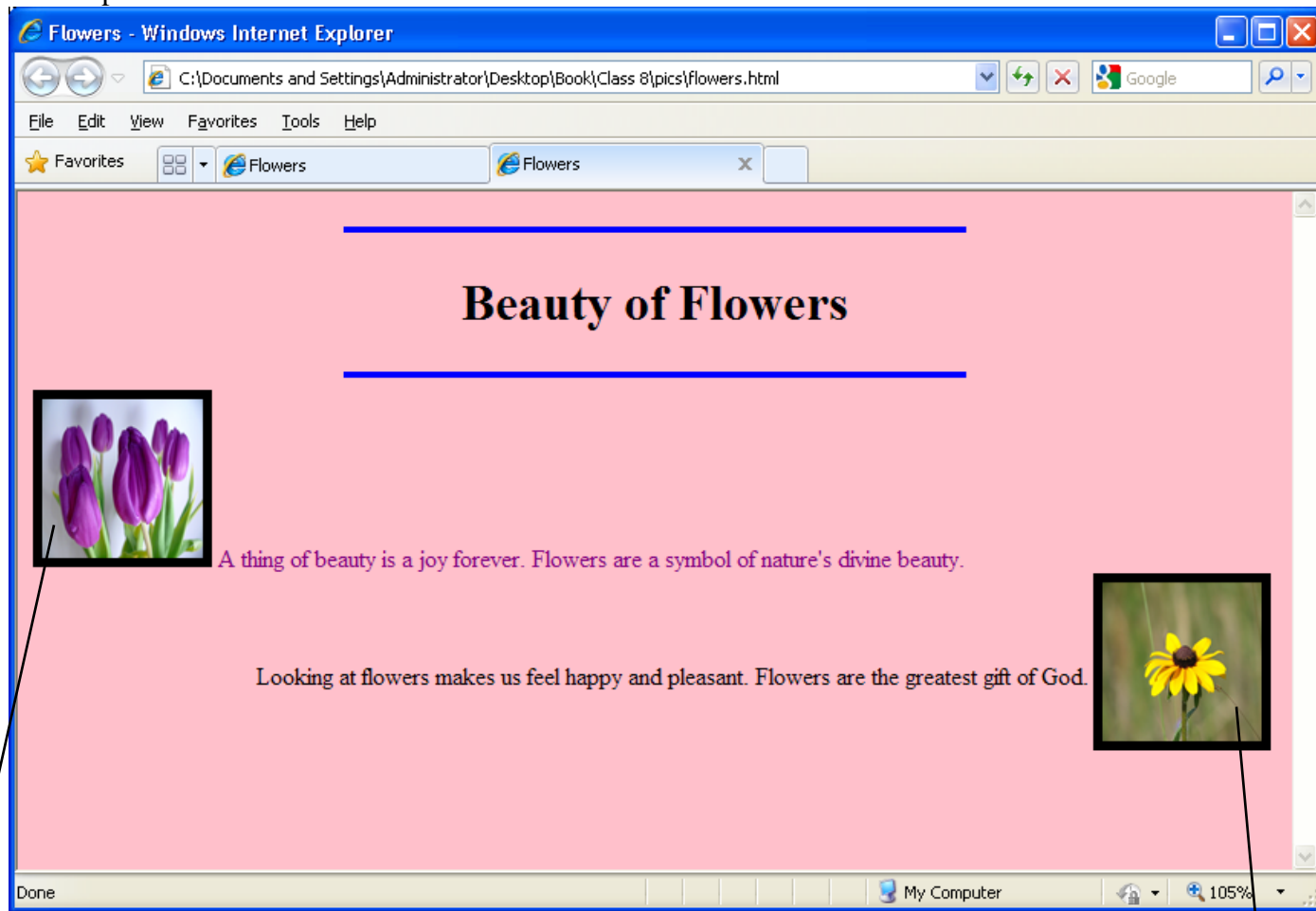
```
<HTML>
<HEAD>
<TITLE> Flowers </TITLE>
<BODY bgcolor=pink>
<HR size=4 color=blue width=50%>
<H1 align=center> Beauty of Flowers</H1>
<HR size=4 color=blue width=50%>
<IMG src="tulips.jpg" height=100 width=100 border=6
align=left>
<FONT color=purple> A thing of beauty is a joy forever.
Flowers are a symbol of nature's divine beauty.
<IMG src="sunflower.jpg" height=100 width=100 align=right
border=6>
<BR><BR><BR><BR>
```

```

<P align=right> Looking at flowers makes us feel happy and
pleasant.
Flowers are the greatest gift of God. </FONT></p>
</BODY>
</HTML>

```

The output of the above code is as follows:



Left alignment

Right alignment

The other three values that can be given to the align attribute are **top**, **middle**, and **bottom**. These values align the image with respect to text on the web page. The following code uses these attribute values to display the output as shown in fig :

```

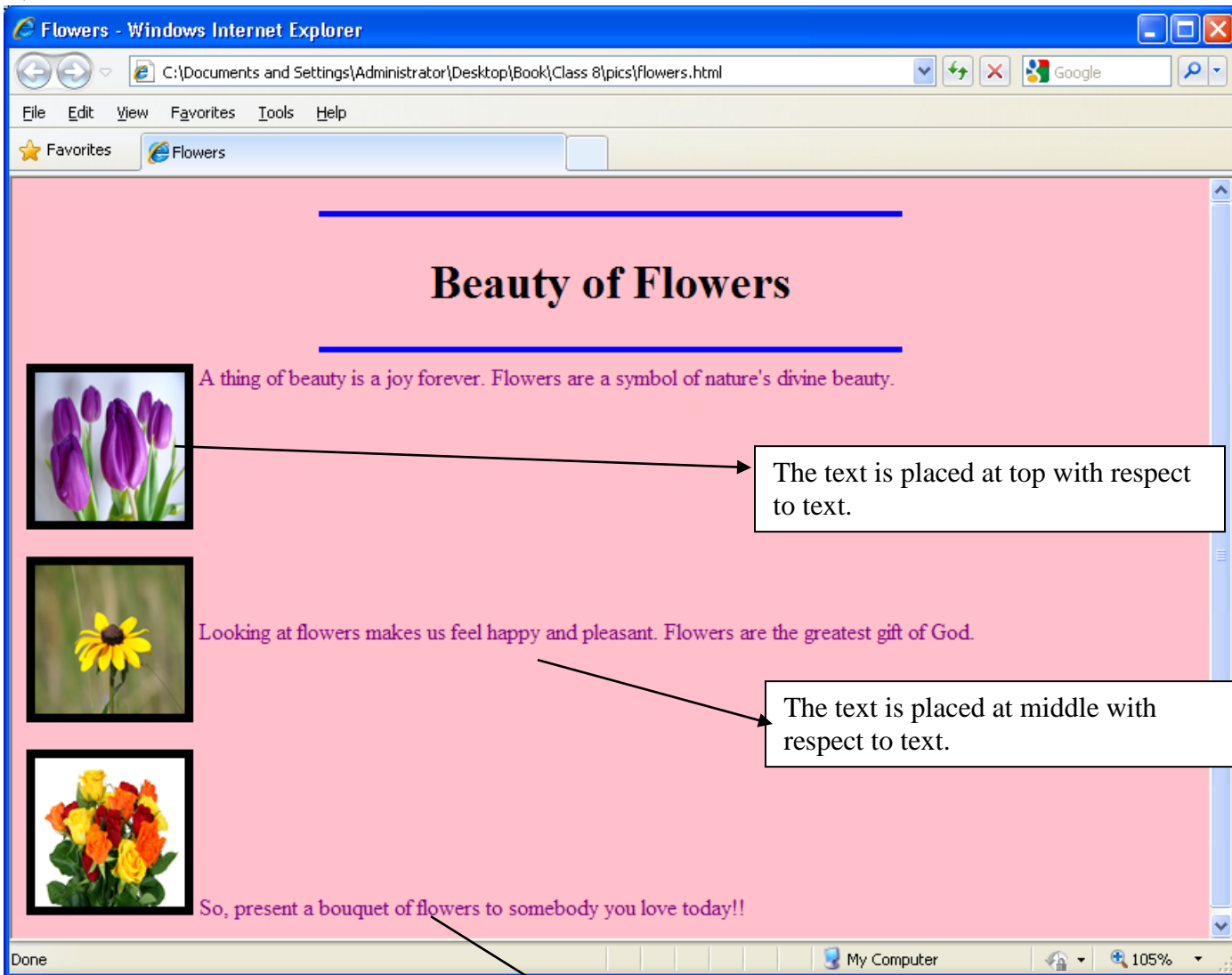
<HTML>
<HEAD>
<TITLE> Flowers </TITLE>
<BODY bgcolor=pink>
<HR size=4 color=blue width=50%>
<H1 align=center> Beauty of Flowers</H1>
<HR size=4 color=blue width=50%>
<IMG src="tulips.jpg" height=100 width=100 border=6
align=top>

```

```
<FONT color=purple> A thing of beauty is a joy forever.  
Flowers are a symbol of nature's divine beauty. <BR><BR>
```

```
<IMG src="sunflower.jpg" height=100 width=100 border=6  
align=middle>  
Looking at flowers makes us feel happy and pleasant.  
Flowers are the greatest gift of God.  
<BR><BR>
```

```
<IMG src="bouquet.jpg" height=100 width=100 border=6  
align=bottom>  
So, present a bouquet of flowers to somebody you love  
today!!</FONT>  
</BODY>  
</HTML>
```



Note:

To align the image in center with respect to margins, enclose the tag inside the <CENTER> tag as shown below:

<CENTER> </CENTER>

HYPERLINKS IN HTML

While surfing the Internet, you come across several text strings or images which when clicked opens a different web page for you. These text strings or images are called hyperlinks. Hyperlinks are the essence of World Wide Web. Hyperlinks interconnect web pages over the World Wide Web.

There are three types of linking:

1. External Linking: External linking involves linking different web pages, i.e. upon clicking a hyperlink, a new web page to which the hyperlink is linked is opened in the browser window.
2. Internal Linking: Internal linking involves linking various sections of the same web page, i.e. upon clicking a hyperlink, a different section of the same web page becomes visible in the browser window. This type of linking is useful when the content on a web page extend across multiple pages. It serves as a bookmark to go to a particular segment of the web page. For eg. Go to Top of the Page link on web pages
3. Email Linking: Email linking involves linking the text to an email address.

Anchor tag : <A> tag

The Anchor (<A>) tag is used to create hyperlinks on a web page. It is a container tag. Everything contained between the <A> and tag (Text or Image) is displayed as a hyperlink. The following are the some of the important attributes of the <A> tag:

Attribute	Description
Href	This attribute indicates the path of the file or the name of the section to which you want to link to.
Name	This attribute is used for linking sections on the same web page. It indicates the name of the section within a web page.
Target	You can use the target attribute of <A> tag to specify the name of the window where the linked page should be displayed. For example, setting the target attribute to _blank opens the link information in a new window. Click here

External Linking

External linking involves connecting two different web pages. You can link pages within the same directory or to a page over the Internet. Let us consider the following examples:

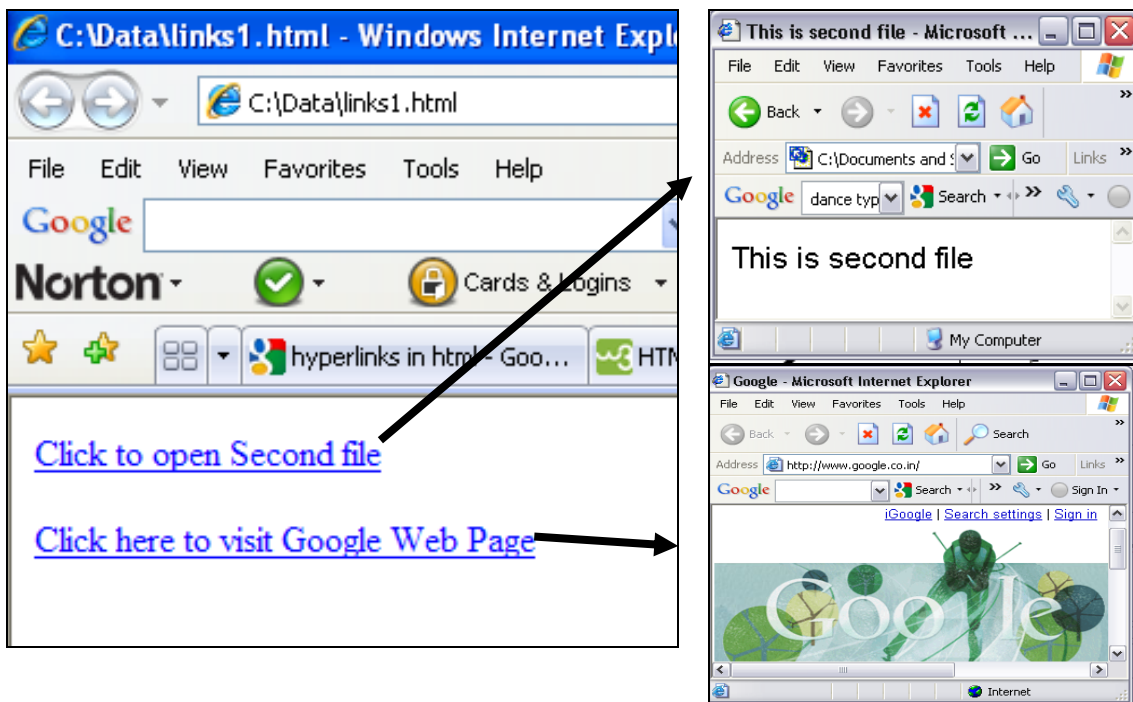
Linking pages within the same directory	Linking pages to pages over the Internet
---	--

<p>Link to</p> <p>first.html-----> second.html</p> <p>HTML source code in First.html Click to open Second file</p>	<p>link to</p> <p>first.html-----> Google Web Page</p> <p>HTML source code in First.html Click here to visit Google Web Page</p>
--	--

The following HTML code illustrates the use of <A> tag in the file, first.html, to link to different web pages:

```
<html>
<a href="second.html"> Click to open Second file </a><br><br>
<a href="http://www.google.com"> Click here to visit Google Web Page </a>
</html>
```

The output of the given code is as follows:



When you click the first link, the contents of the web page, second.html, is displayed in the browser window. When you click the second link, the home page of Google gets displayed in the browser window.

Internal Linking

Internal linking involves linking different sections of the same web page. It is a two step process:

- a) Use the **name** attribute of the <A> tag to give a name to the section to be linked to.
E.g. You will be linked here
- b) Use the **href** attribute of the <A> tag to refer to the named section preceded by the # symbol.
E.g. You will be taken to the linked section

The following HTML code demonstrates the use of name and href attributes of <A> tag to link the text 'Go to top' to the top of the page.

```
<A name="top"><h1>Introduction</h1></A>
```

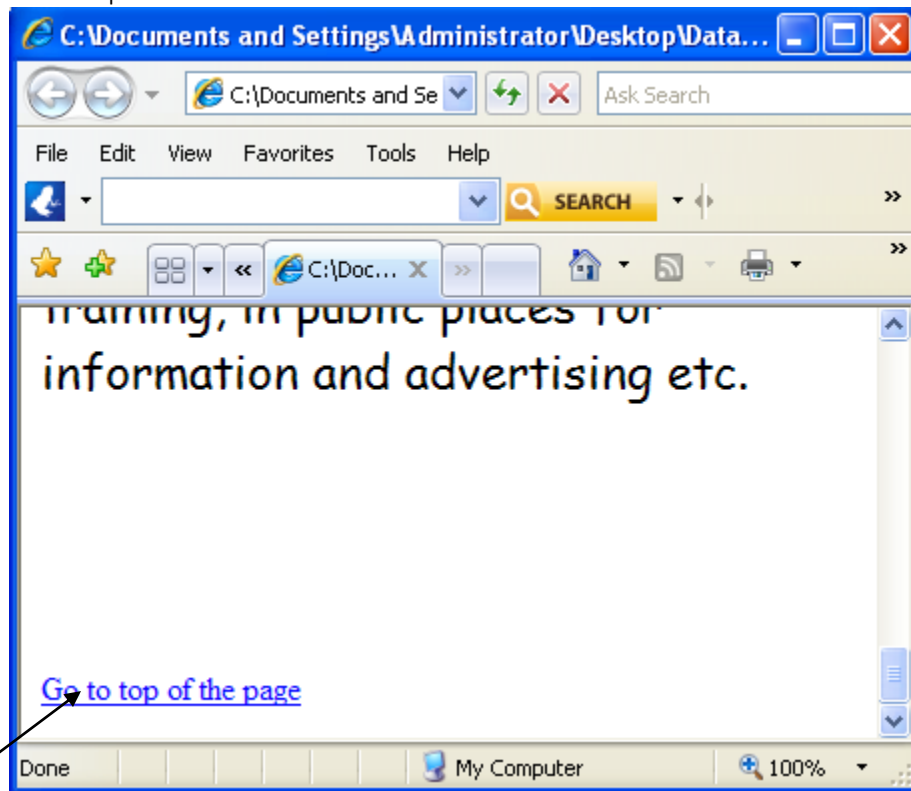
```
<font face="comic sans ms" size="5">
```

Multimedia is any combination of text, graphic art, sound, animation and video delivered to the user by means of a computer or other electronic media. An effective multimedia presentation not only presents information in a dazzling and entertaining manner, but is also more effective in holding attention and interest of the viewer and it improves information retention.
This makes multimedia a very effective communication tool in a variety of areas such as in business as a presentation and sales tool, in home for entertainment and games, in education for teaching and training, in public places for information and advertising etc.

```
<br><br><br><br><br>
```

```
<A href="#top"> Go to top of the page </A>
```

The output of the above code is as follows:



This link connects to the top of the page.

Email Linking: Linking to an email address

To link a text to an email address, you use the **mailto:** keyword before the address in the **href** attribute of the <A> tag. For example, to link the text 'Send an Email' to the email address 'maria_joseph@gmail.com', you can write the following HTML code:

```
<a href="mailto:maria_joseph@gmail.com">Send an Email</a>
```

LINK Attributes of <BODY> tag

The <BODY> tag has the following link attributes:

Link	To specify the color of the links that have not been visited or clicked by the user
Vlink	To specify the color of the recently visited links
Alink	To specify the color of the link on which the mouse is pressed and not yet released.

e.g. <body bgcolor="pink" link="green" vlink="yellow" alink="blue">