

Lecture 1: Introduction to Internet Technology and Basic HTML

The Internet



- Wikipedia: <http://en.wikipedia.org/wiki/Internet>
- a connection of computer networks using the Internet Protocol (IP)
- layers of communication protocols: IP → TCP/UDP → HTTP/FTP/POP/SMTP/SSH...

Web servers and browsers

- **web server:** software that listens for web page requests
 - Apache
 - Microsoft Internet Information Server (IIS) (part of Windows)
- **web browser:** fetches/displays documents from web servers
 - Mozilla Firefox
 - Microsoft Internet Explorer (IE)
 - Apple Safari
 - Google Chrome
 - Opera

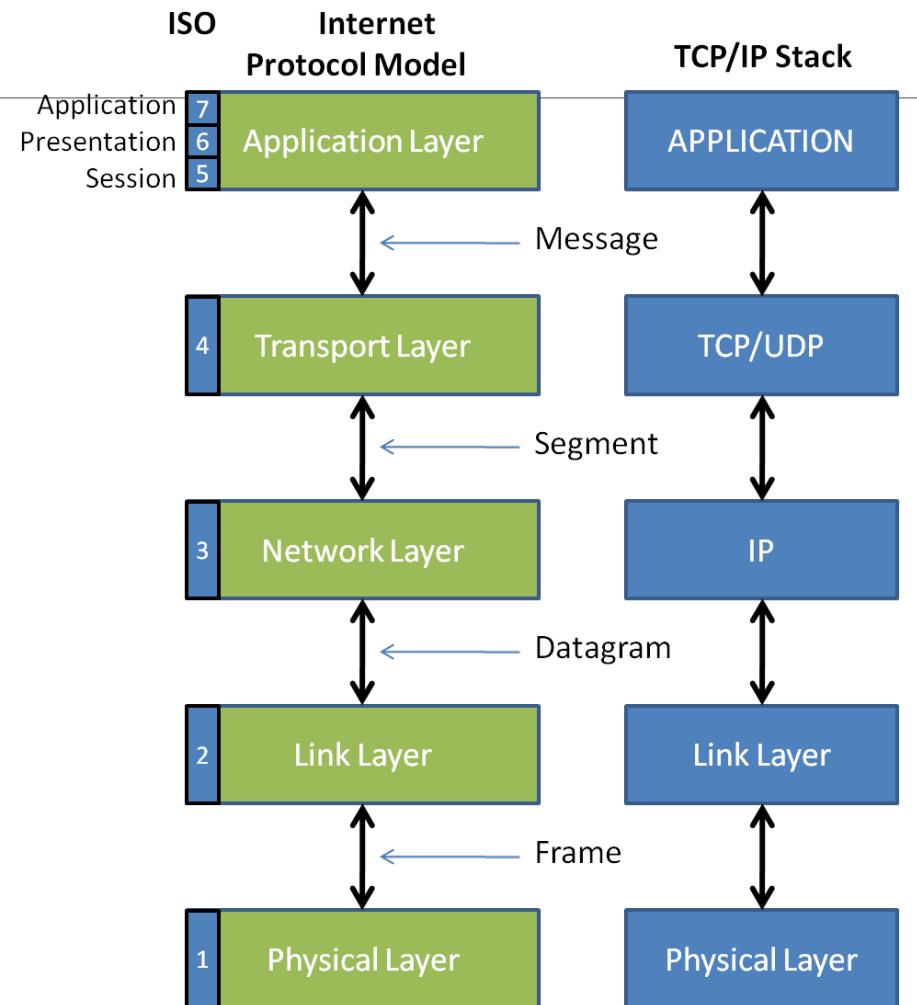
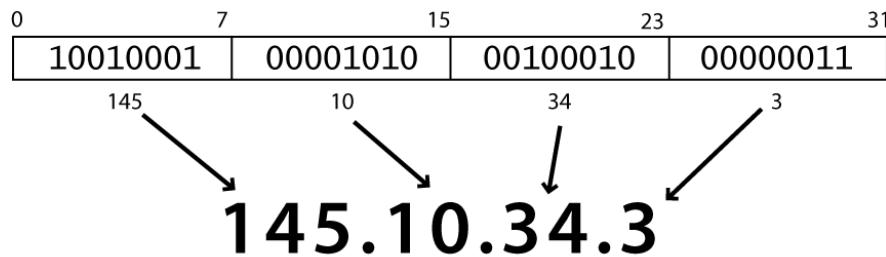


Layers of protocol

Protocol:

a set of rules governing the format of data sent

IP address:



How do web addresses work?

DNS:

- a set of servers that map written names to IP addresses
 - Example: `www.cs.washington.edu` → `128.208.3.88`
 - many systems maintain a local cache called a [hosts file](#)

URL:

- a basic URL:`http://www.aw-bc.com/info/regesstepp/index.html`
~~~~~ ~~~~~~ ~~~~~~  
protocol host path

# Who "runs" the internet?

---

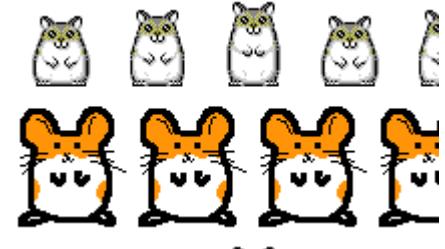
- Internet Engineering Task Force ([IETF](#)): internet protocol standards
- Internet Corporation for Assigned Names and Numbers ([ICANN](#)): decides top-level [domain names](#)
- World Wide Web Consortium ([W3C](#)): web standards



# Brief History

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- began as a US Department of Defense network called [ARPANET](#) (1960s-70s)
- initial services: electronic mail, file transfer
- opened to commercial interests in late 80s
- WWW created in 1989-91 by [Tim Berners-Lee](#)
- popular web browsers released: Netscape 1994, IE 1995
- Amazon.com opens in 1995; Google January 1996
- [Hamster Dance](#) web page created in 1999



# Web languages / technologies

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- Hypertext Markup Language ([HTML](#)): used for writing web pages
- Cascading Style Sheets ([CSS](#)): stylistic info for web pages
- PHP Hypertext Processor ([PHP](#)): dynamically create pages on a web server
- JavaScript: interactive and programmable web pages
- Asynchronous JavaScript and XML ([Ajax](#)): accessing data for web applications
- eXtensible Markup Language ([XML](#)): metalanguage for organizing data
- Structured Query Language ([SQL](#)): interaction with databases

# Introduction to HTML

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# HTML

**HTML is the "mother tongue" of your browser.**

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□ The term “hypertext” was first introduced by **Nelson** in **1965**.

HTML was invented in **1990** by a scientist called **Tim Berners-Lee**.

The purpose was to make it easier for scientists at different universities to gain access to each other's research documents.

The project became a bigger success. By inventing HTML he laid the foundation for the web as we know it today.

HTML is a language, which makes it possible to present information (e.g. scientific research) on the Internet.

# HTML

H-T-M-L are initials that stand for [Hypertext Markup Language](#) .

---

→ **Hyper** is the opposite of linear. It used to be that computer programs had to move in a linear fashion. This before this, this before this, and so on.

HTML does not hold to that pattern and allows the person viewing the [World Wide Web](#) page to go anywhere, any time they want.

→ **Text** is what you will use. Real, honest to goodness English letters.

→ **Mark up** is what you will do. You will write in plain English and then mark up what you wrote.

→ **Language** it's a language -- but the language is plain English.

## **What can I use HTML for?**

---

If you want to make websites, there is no way around HTML.

Even if you're using a program to create websites, such as Dream weaver, a basic knowledge of HTML can make life a lot simpler and your website a lot better.

The good news is that HTML is easy to learn and use.

# HTML

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*Hyper Text Markup Language*

A markup language designed for the creation of web pages and other information viewable in a browser

The basic language used to write web pages

File extension: **.htm, .html**

# Creating a HTML File

1. Open Notepad
2. Click on File -> Save as...
3. In the File name pull-down box, type in webpage.html
4. Click on Save
5. Type in content for your file
6. Once you finished the content, click on File -> Save

```
<html>
<body>
<table>
<tr valign="top">

    <td>
        <p>Freshwater fish can contain parasites and must be frozen if to be eaten raw. Frozen fish (slightly thawed) is also easier to slice thinly.</p>
        <p>The only way to bake the apple chips is with a silicone mat. The chips will stick to anything else. A mandoline is excellent for slicing the apples, but a really sharp knife will do also.</p>
        <p>Instead of the cider, you could use dry white wine, dry vermouth or even red wine with the mussels. Be sure to cook the mussels only until the shells have just opened. Long cooking will make the mussels tough.
        </p>
    </td>

    <td>
        <div>
            <p>Apple chips</p>
            <p>    1
                apple
            </p>
            <p>    1
                lemon, juice of
            </p>
            <p>    1/2 dl
                sugar
            </p>
            <p>    1/2 l
                water
            </p>
        </div>
    </td>
</tr>
</table>
</body>
</html>
```

# HTML Tags

Tags are labels you use to mark up the beginning and end of an element.

- Tag usually goes with pair: an **open tag** and an **end tag**.
- All tags have the same format: they begin with a less-than sign "<" and end with a greater-than sign ">".

| Effect | Code | Code Used     | What It Does  |
|--------|------|---------------|---------------|
| Bold   | B    | <B>Bold</B>   | <b>Bold</b>   |
| Italic | I    | <I>Italic</I> | <i>Italic</i> |

- There are two kinds of tags -
  - Opening tags: <html>
  - Closing tags: </html>
- The only difference between an opening tag and a closing tag is the forward slash "/".  
You label content by putting it between an opening tag and a closing tag.
- Single tag: <hr>,<br>
- Tags are NOT case sensitive

# HTML Document Structure

```
<html>
  <head>
    <title> Page Title Goes Here </title>
  </head>

  <body>
    content goes here
  </body>
</html>
```

# Basic Tags

`<html> </html>` :-- The entire web page is enclosed within `<html> </html>` tags.

---

Within these tags two distinct sections are created using

-- `<head> </head>`

-- `<body> </body>`

`<head> </head>` :-- Information placed within the `<head> </head>` tags is not displayed in the browser.

`<title> </title>` :-- It is used to give the title of the web page.

`<body> </body>` :-- This tag used to indicate the start and end of the main body of textual information.

# Structure of an HTML page

---

```
<!DOCTYPE html>
<html>
  <head>
    information about the page
  </head>
  <body>
    page contents
  </body>
</html>
```

# Page title: <title>

---

*describes the title of the web page*

<title>Chapter 2: HTML Basics</title>

- placed within the head of the page
- displayed in the web browser's title bar and when bookmarking the page

# HTML

# Objectives

- Getting Started With HTML
  - ✓ Introducing HTML
  - ✓ How Web pages work
  - ✓ Introduction to Tags
  - ✓ Structure of HTML page
- Creating a Web Page
  - ✓ Introduction table, tr, td tags.
  - ✓ Paragraphs and Line breaks
  - ✓ Headings
  - ✓ Creating Ordered and Unordered List
- Text Formatting And Alignment
  - ✓ Boldfaces and Italics
  - ✓ Font Size, Color and Typeface
  - ✓ Special Characters

# Objectives

- Using Links & Images
- Style Sheet
  - ✓ Purpose of Style Sheet
  - ✓ Style Rules
  - ✓ Attaching Style Sheet
  - ✓ Defining classes
  - ✓ Div tag, Span Tag
  - ✓ Using Span
- Developing Forms
  - ✓ Introducing Forms
  - ✓ Using Standard Form Controls

# What is World Wide Web?

- The *World Wide Web (Web)* is a network of information resources. The Web relies on three mechanisms to make these resources readily available to the widest possible audience:
  - ✓ A uniform naming scheme for locating resources on the Web (e.g., URIs).
  - ✓ Protocols, for access to named resources over the Web (e.g., HTTP).
  - ✓ Hypertext, for easy navigation among resources (e.g., HTML).

# Introducing HTML

## What is HTML

To publish information for global distribution, one needs a universally understood language, a kind of publishing mother tongue that all computers may potentially understand. The publishing language used by the World Wide Web is HTML (from HyperText Markup Language).

# Introducing HTML

## What is HTML

HTML contains special markers, or tags, which define the style and structure of the page.

Tags are  
also referred  
to as  
elements.

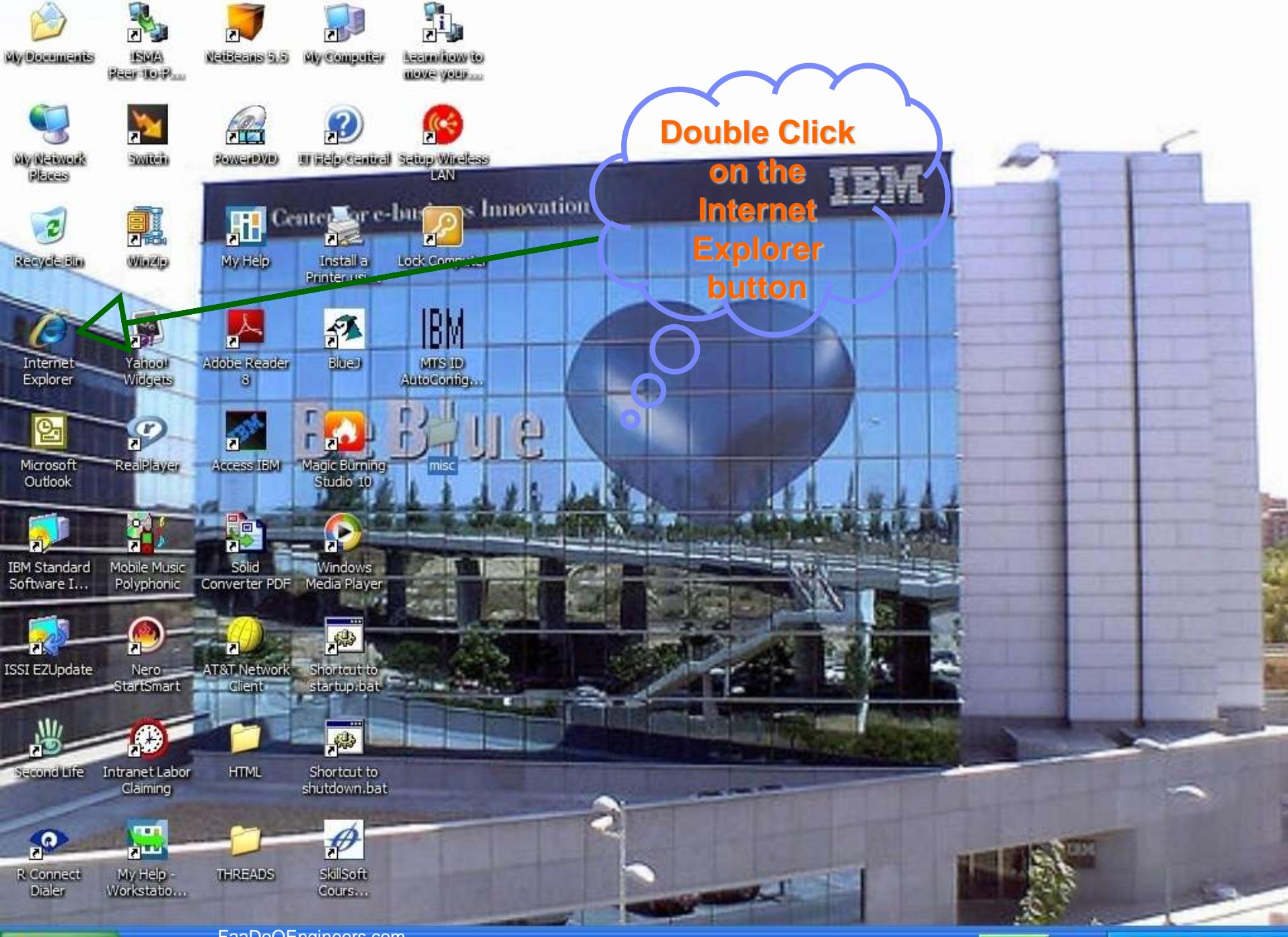
# Introducing HTML

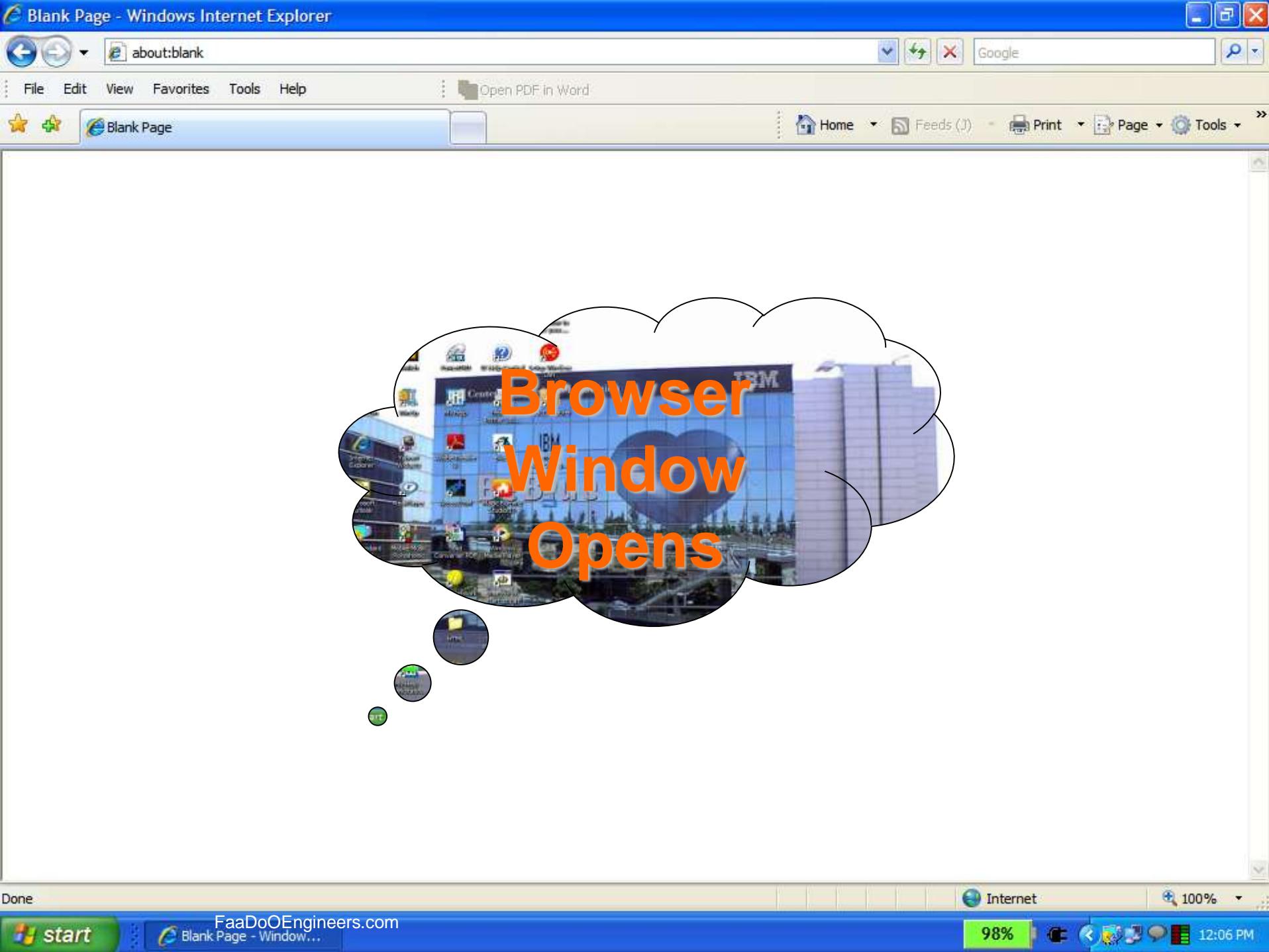
## Uses of HTML

- Publish online documents with headings, texts, tables, lists, photos, etc.
- Retrieve online information via hypertexts links.
- Design forms for conducting transactions with remote services, for use in searching for information, making reservations, ordering products, etc.
- Include spread-sheets, video clips, sound clips, and other applications directly in their documents.

## How To Access An Web Page

Click To  
Proceed With  
The Steps

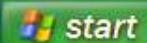




Done

Internet

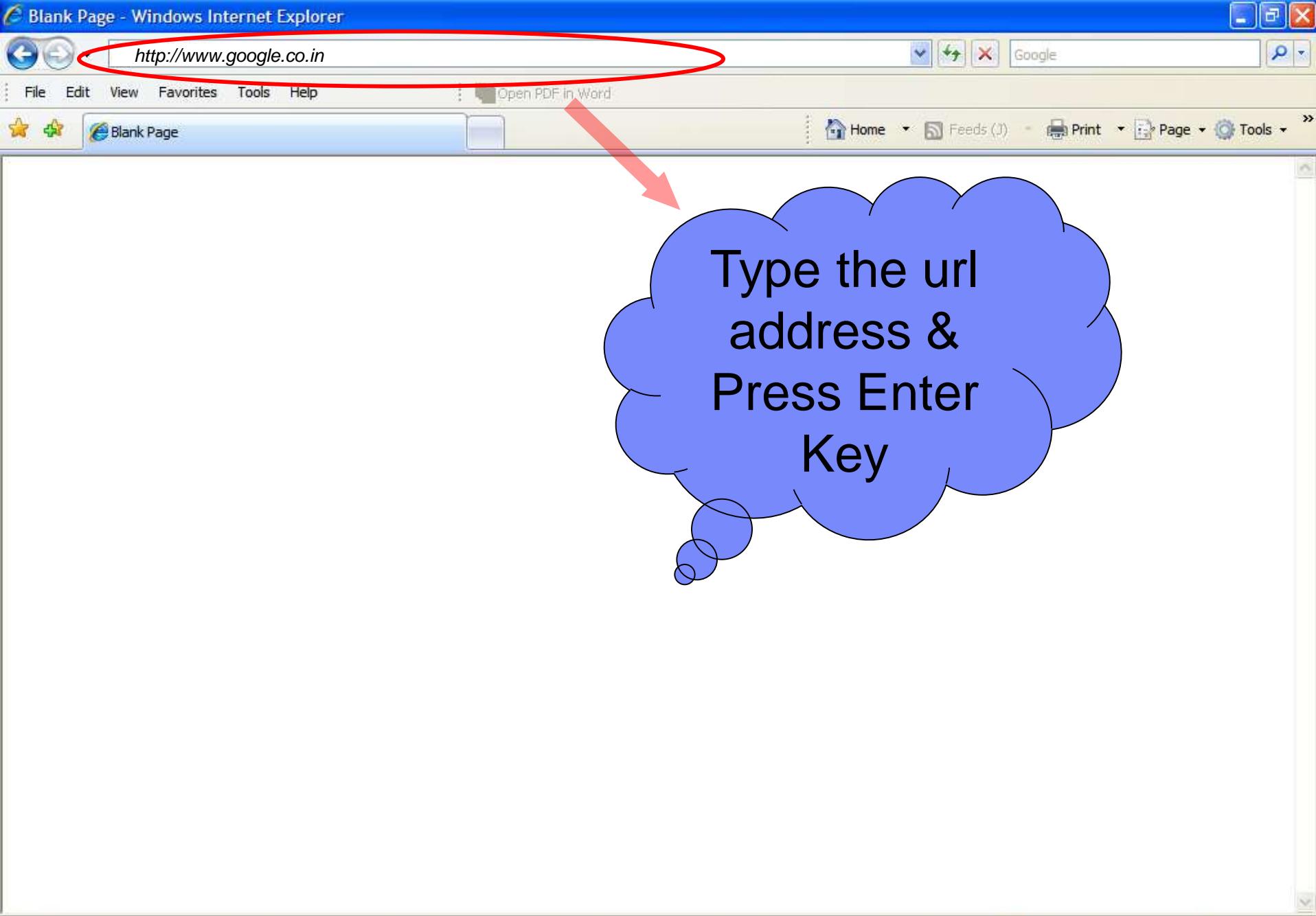
100% 12:06 PM



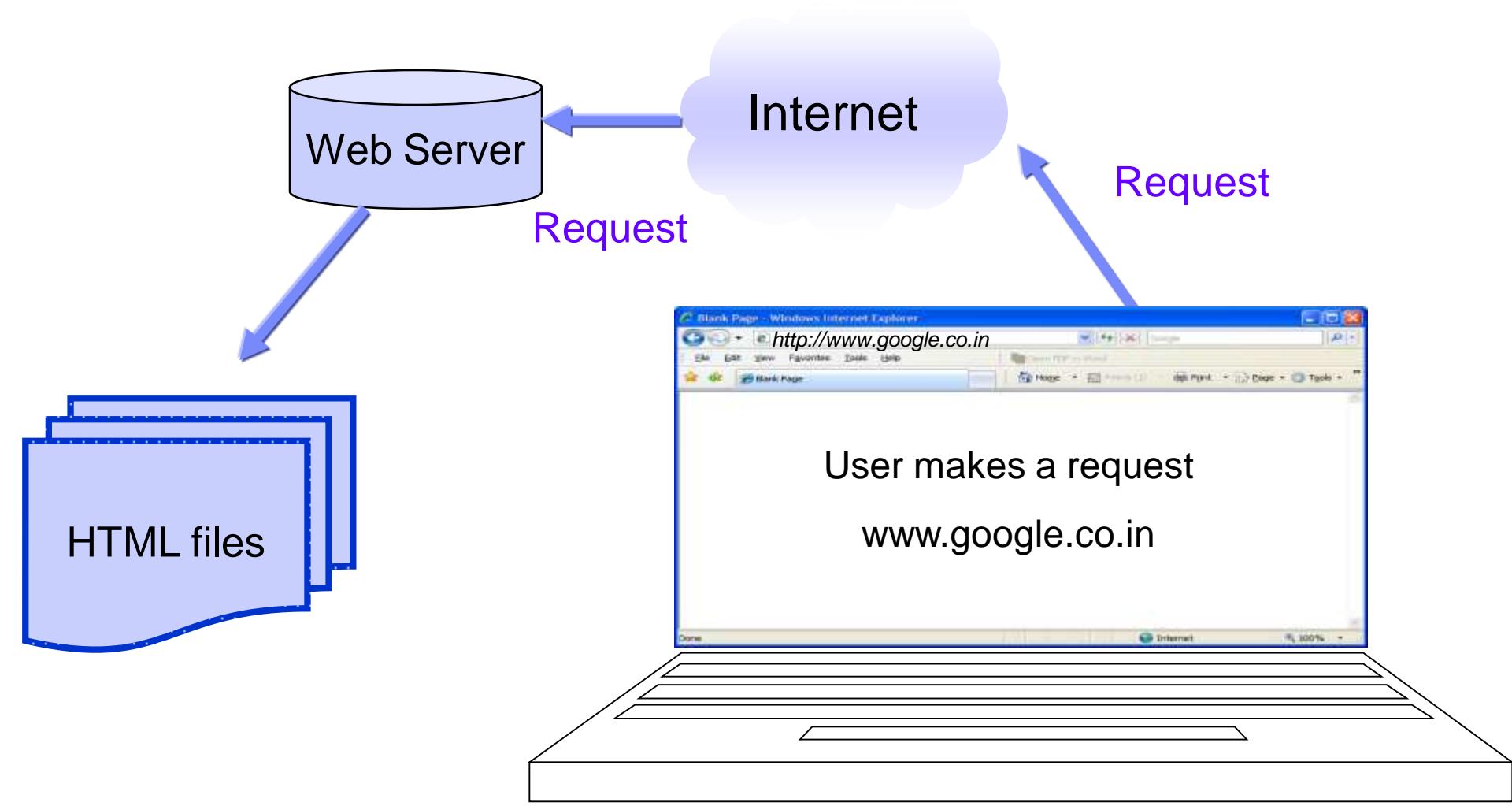
FaaDoOEngineers.com  
Blank Page - Window...

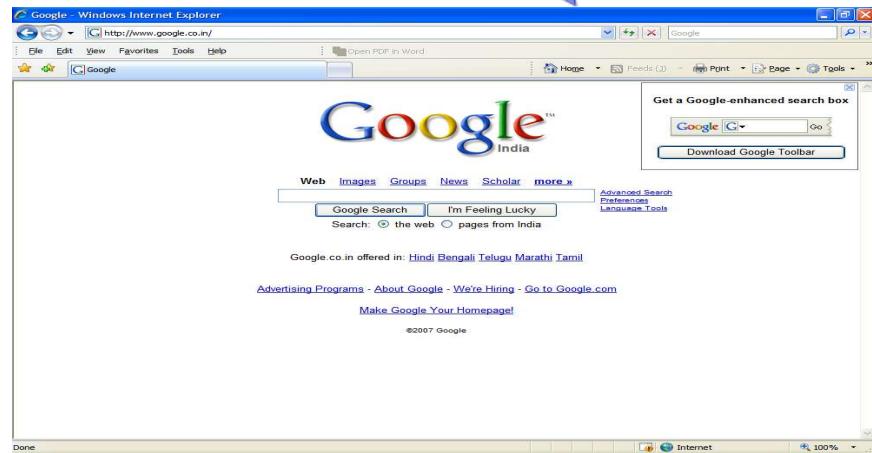
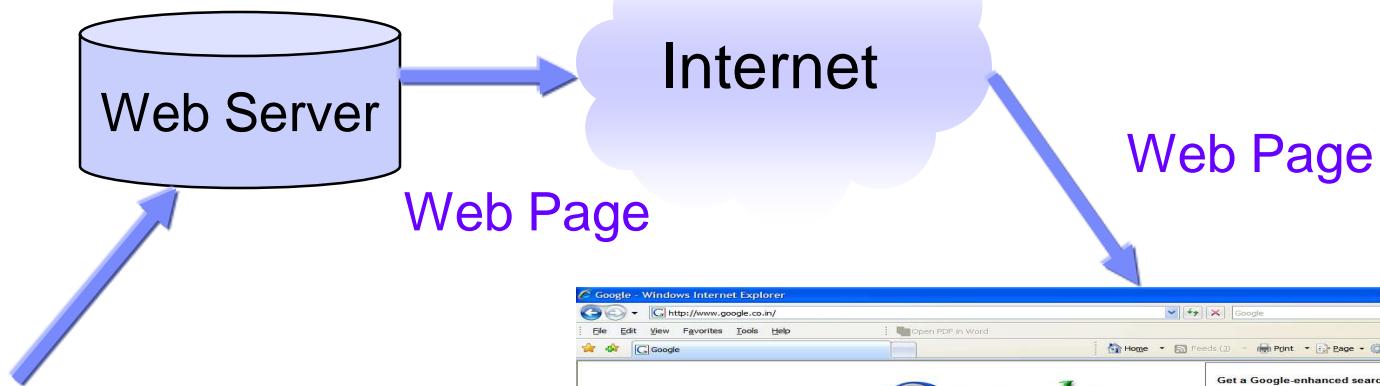
98%





Type the url  
address &  
Press Enter  
Key





Google page is returned from the Web Server



[Back] [Forward] [Stop] [Address Bar: http://www.google.co.in/] [Search Bar: Google]

File Edit View Favorites Tools Help

Open PDF in Word

[Down] [Left] [Right] [X]

[Star] [New Tab] [Google]

[Home] [Feeds] [Print] [Page] [Tools]



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# Introducing HTML

## What is a Tag

A tag is a reference in an HTML document which describes the style and structure of the document.

All tag start with < (less than symbol) and end with  
> (greater than symbol)

Tags which mark a beginning have no / (front slash).  
Tags which mark an ending have a / immediately after <,  
as in </.

# Introducing HTML

## Example on Tag

Sample Tags

<HTML>, <BODY>, <TITLE> Starting tags / elements

</HTML>, </BODY>, </TITLE> Ending tags / elements

# Introducing HTML

## Explanation of the HTML code

```
<HTML>
<HEAD>
<TITLE> My Home Page </TITLE>
</HEAD>
<!-- Written by Manas K Sahoo -->
<!-- Created: 30-May-2007 -->
<!-- Organization: IBM -->
<BODY>This is where the text goes.
</BODY>
</HTML>
```

# Introducing HTML

## Explanation of the HTML code



Start of an HTML document.

**<HTML>**

```
<HEAD>
<TITLE> My Home Page </TITLE>
</HEAD>
<!-- Written by Manas K Sahoo -->
<!-- Created: 30-May-2007 -->
<!-- Organization: IBM -->
<BODY>This is where the text goes.
</BODY>
</HTML>
```

# Introducing HTML

## Explanation of the HTML code



Indicates to the browser that this is an HTML document.

**<HTML>**

```
<HEAD>
<TITLE> My Home Page </TITLE>
</HEAD>
<!-- Written by Manas K Sahoo -->
<!-- Created: 30-May-2007 -->
<!-- Organization: IBM -->
<BODY>This is where the text goes.
</BODY>
</HTML>
```

# Introducing HTML

## Explanation of the HTML code



HTML document is divided into two sections.

1. <HEAD> .... </HEAD>

```
<HTML>
<HEAD>
<TITLE> My Home Page </TITLE>
</HEAD>
<!-- Written by Manas K Sahoo --&gt;
<!-- Created: 30-May-2007 --&gt;
<!-- Organization: IBM --&gt;
&lt;BODY&gt;This is where the text goes.
&lt;/BODY&gt;
&lt;/HTML&gt;</pre>
```



# Introducing HTML

## Explanation of the HTML code



HTML document is divided into two sections.  
2. <BODY> .... </BODY>

```
<HTML>
<HEAD>
<TITLE> My Home Page </TITLE>
</HEAD>
<!-- Written by Manas K Sahoo -->
<!-- Created: 30-May-2007 -->
<!-- Organization: IBM -->
<BODY>This is where the text goes.
</BODY>
</HTML>
```

# Introducing HTML

## Explanation of the HTML code



Shows the contents in the browser title bar.  
Generally placed inside Head tag.

```
<HTML>
<HEAD>
<TITLE> My Home Page </TITLE>
</HEAD>
<!-- Written by Manas K Sahoo --&gt;
<!-- Created: 30-May-2007 --&gt;
<!-- Organization: IBM --&gt;
&lt;BODY&gt;This is where the text goes.
&lt;/BODY&gt;
&lt;/HTML&gt;</pre>
```

# Introducing HTML

## Explanation of the HTML code



Indicates comment tag. Can be placed anywhere in the document.

```
<HTML>
<HEAD>
<TITLE> My Home Page </TITLE>
</HEAD>
<!-- Written by Manas K Sahoo -->
<!-- Created: 30-May-2007 -->
<!-- Organization: IBM -->
<BODY>This is where the text goes.
</BODY>
</HTML>
```

# Introducing HTML

## Explanation of the HTML code



Signal the end of HTML document.

```
<HTML>
<HEAD>
<TITLE> My Home Page </TITLE>
</HEAD>
<!-- Written by Manas K Sahoo -->
<!-- Created: 30-May-2007 -->
<!-- Organization: IBM -->
<BODY>This is where the text goes.
</BODY>
</HTML>
```

# Introducing HTML

## Kinds of Tags

### 1. Range / Container tags

They are called so because they cover a range of text.

Example : <HTML>, <HEAD>, <BODY>, <TITLE>

### 2. Standalone / Point tags

Those tags which do not need an ending.

Example: <HR>, <BR>

# Paragraphs & Line Breaks

# Line Separators

- Tags used for separating one line with other can be classified as follows:-

1. <P> tag
2. <BR> tag
3. <HR> tag

# The <P> Tag

- Normally all text in an HTML document is treated like one long paragraph. Indented or blank lines which normally indicate start of paragraphs in text are ignored.
- To separate your text into paragraphs use the <P> tag.
- The <P> tag forces an end of line and forces a blank line before the next paragraph.

# Requirement Analysis

C:\Documents and Settings\Administrator\Desktop\HTML\para.htm - Windows Internet Explorer

C:\Documents and Settings\Administrator\Desktop\HTML\para.htm Google

File Edit View Favorites Tools Help

Home Feeds Print Page Tools

This is should be the end of my first paragraph in HTML.

This should be the start of my second paragraph in HTML.

And this is should be my third paragraph in HTML.

Done My Computer 100%

## Code Snippet To Fulfill the Requirement

```
<p>This is should be the end of my first  
paragraph in HTML.</p>
```

```
<p>This should be the start of my second paragraph in  
HTML.</p>
```

```
<p>And this is should be my third paragraph in  
HTML.</p>
```

< p > tag forces an end of line and forces a blank line before the next paragraph.



< p > This is should be the end of my first paragraph in HTML.</p>

< p > This should be the start of my second paragraph in HTML.</p>

< p > And this is should be my third paragraph in HTML.</p>

< p > tag forces an end of line and forces a blank line before the next paragraph.

< p > This is should be the end of my first paragraph in HTML. </ p >

< p > This should be the start of my second paragraph in HTML. </ p >

< p > And this is should be my third paragraph in HTML. </ p >



Ends the paragraph tag.

# The <BR> Tag

- Used to control the line breaks.
- Use single spacing among the lines unlike <p> tag that uses double spacing among the paragraph.
- Does not have a closing braces.

# Requirement Analysis

This screenshot shows a Windows Internet Explorer window displaying a local HTML file named 'linebreak.htm'. The title bar reads 'C:\Documents and Settings\Administrator\Desktop\HTML\linebreak.htm - Windows Internet Explorer'. The address bar shows the same file path. The menu bar includes 'File', 'Edit', 'View', 'Favorites', 'Tools', and 'Help'. The toolbar includes standard buttons for Back, Forward, Stop, Refresh, Home, Print, Page, and Tools. The main content area displays three paragraphs of text:

```
This is should be the end of my first paragraph in HTML.  
This should be the start of my second paragraph in HTML.  
And this is should be my third paragraph in HTML.
```

The status bar at the bottom shows 'Done' on the left, 'My Computer' with a small icon in the center, and '100%' on the right.

## Code Snippet To Fulfill the Requirement

This is should be the end of my first paragraph in HTML.<br>

This should be the start of my second paragraph in HTML.<br>

<p>And this is should be my third paragraph in HTML.<br>

Forces line break with one line spacing between two lines.

This is should be the end of my first paragraph in HTML.<br>

This should be the start of my second paragraph in HTML.<br>

<p>And this is should be my third paragraph in HTML.<br>

# The <HR> tag

- The <HR> tag draws a horizontal line across the page.
- It acts a paragraph break.
- There is no need to use the <BR> before or after the <HR> tag.

# Requirement Analysis

The screenshot shows a Windows Internet Explorer window displaying the content of a file named 'hr.htm' located at 'C:\Documents and Settings\Administrator\Desktop\HTML\hr.htm'. The browser interface includes a title bar, a toolbar with various icons, and a menu bar with File, Edit, View, Favorites, Tools, and Help. The main content area contains three paragraphs of text:

This is should be the end of my first paragraph in HTML.

This should be the start of my second paragraph in HTML.

And this is should be my third paragraph in HTML.

The browser's status bar at the bottom shows 'Done' and 'My Computer'.

## Code Snippet To Fulfill the Requirement

This is should be the end of my first paragraph in HTML.<hr>

This should be the start of my second paragraph in HTML.<hr>

And this is should be my third paragraph in HTML.<hr>

Draws a horizontal line across the page.

This is should be the end of my first paragraph in HTML. **<hr>**



This should be the start of my second paragraph in HTML. **<hr>**



And this is should be my third paragraph in HTML. **<hr>**



# <HR> tag Attributes

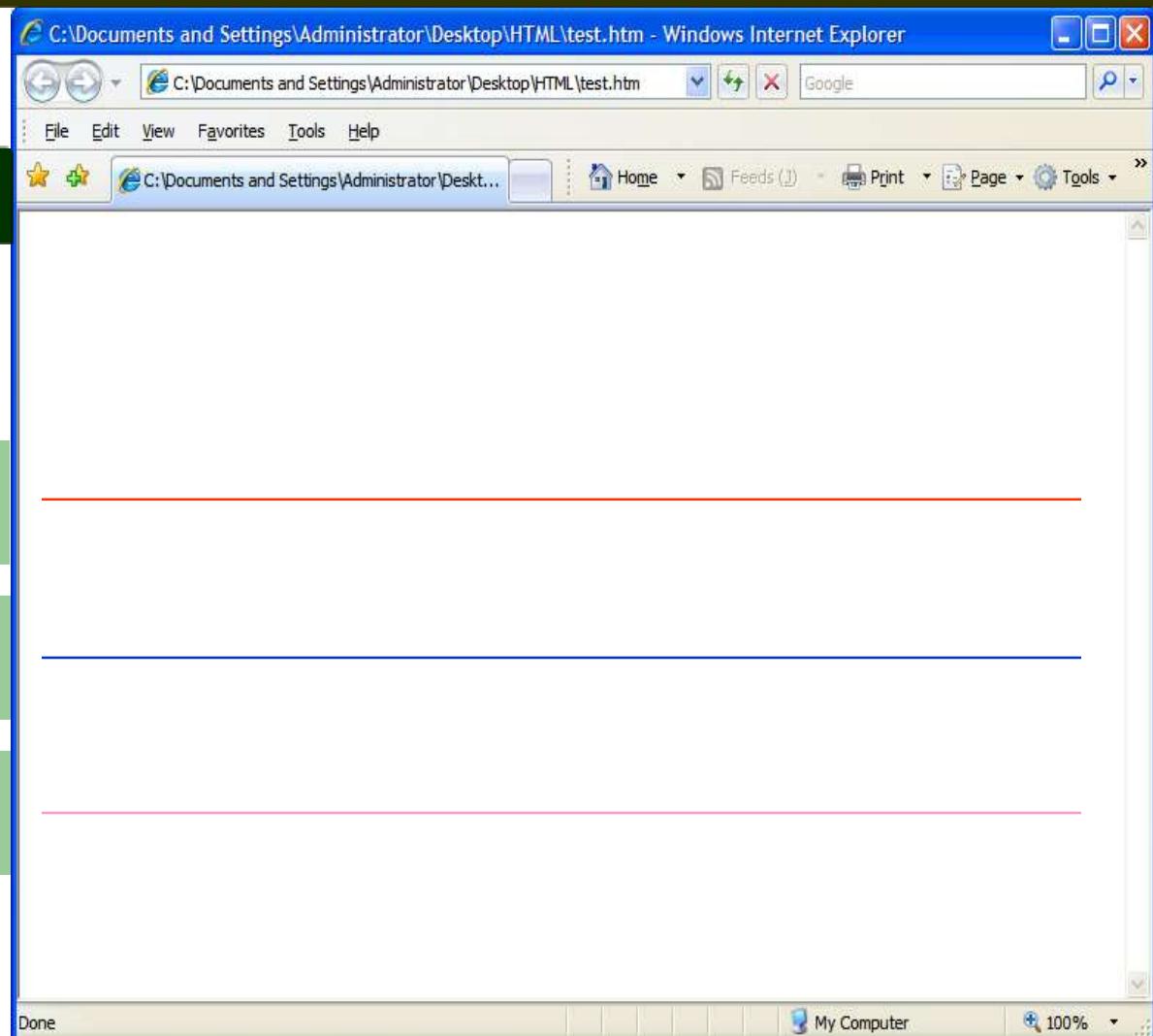
## 1. Color Attribute

How To  
Use

```
<hr color="red">
```

```
<hr color="blue">
```

```
<hr color="pink">
```



# <HR> tag Attributes

2.

## Width Attribute

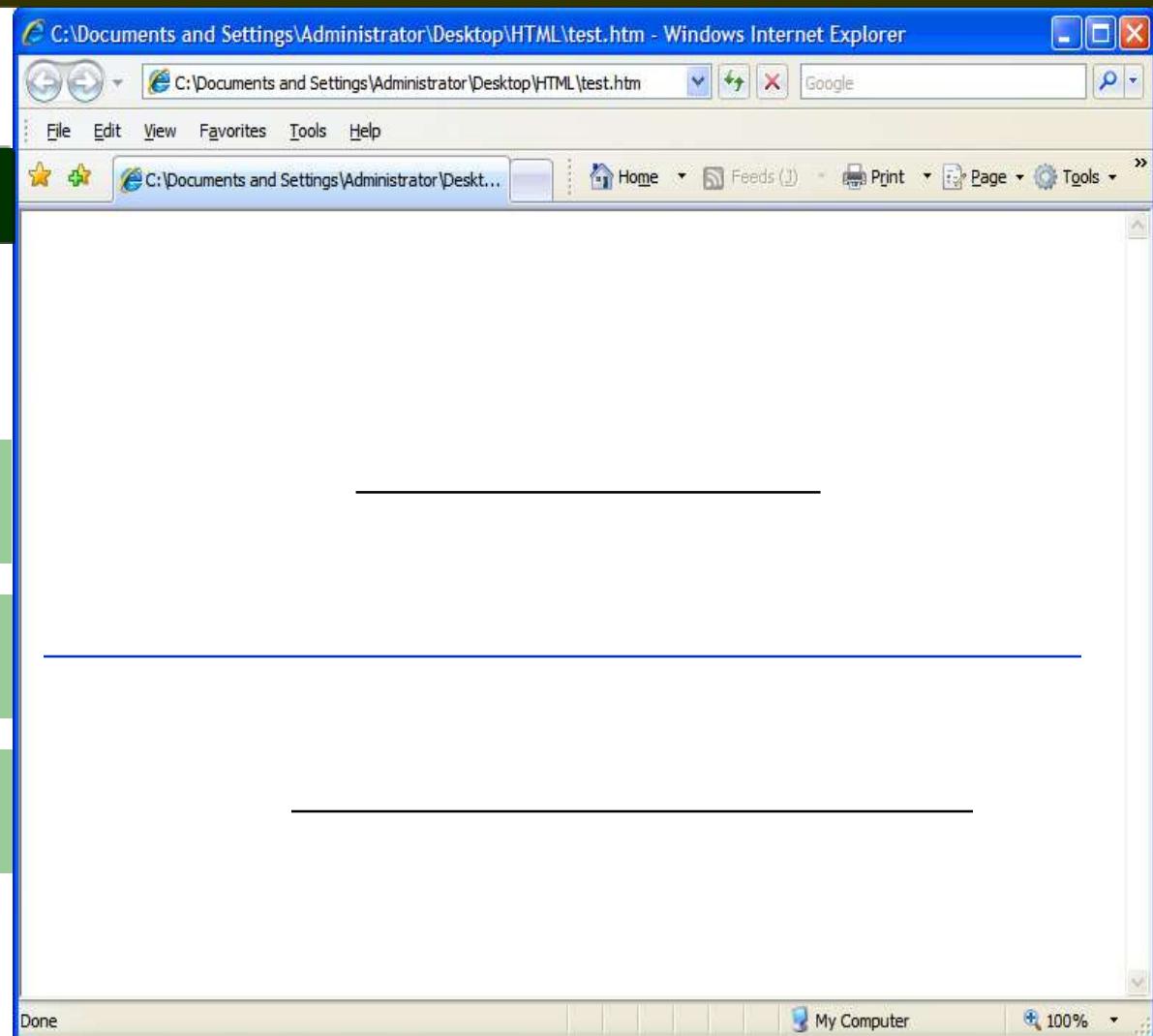
How To  
Use

```
<hr width="50%">
```

```
<hr color="blue" width="100%">
```

```
<hr width="500">
```

Default alignment  
of HR is center.



# <HR> tag Attributes

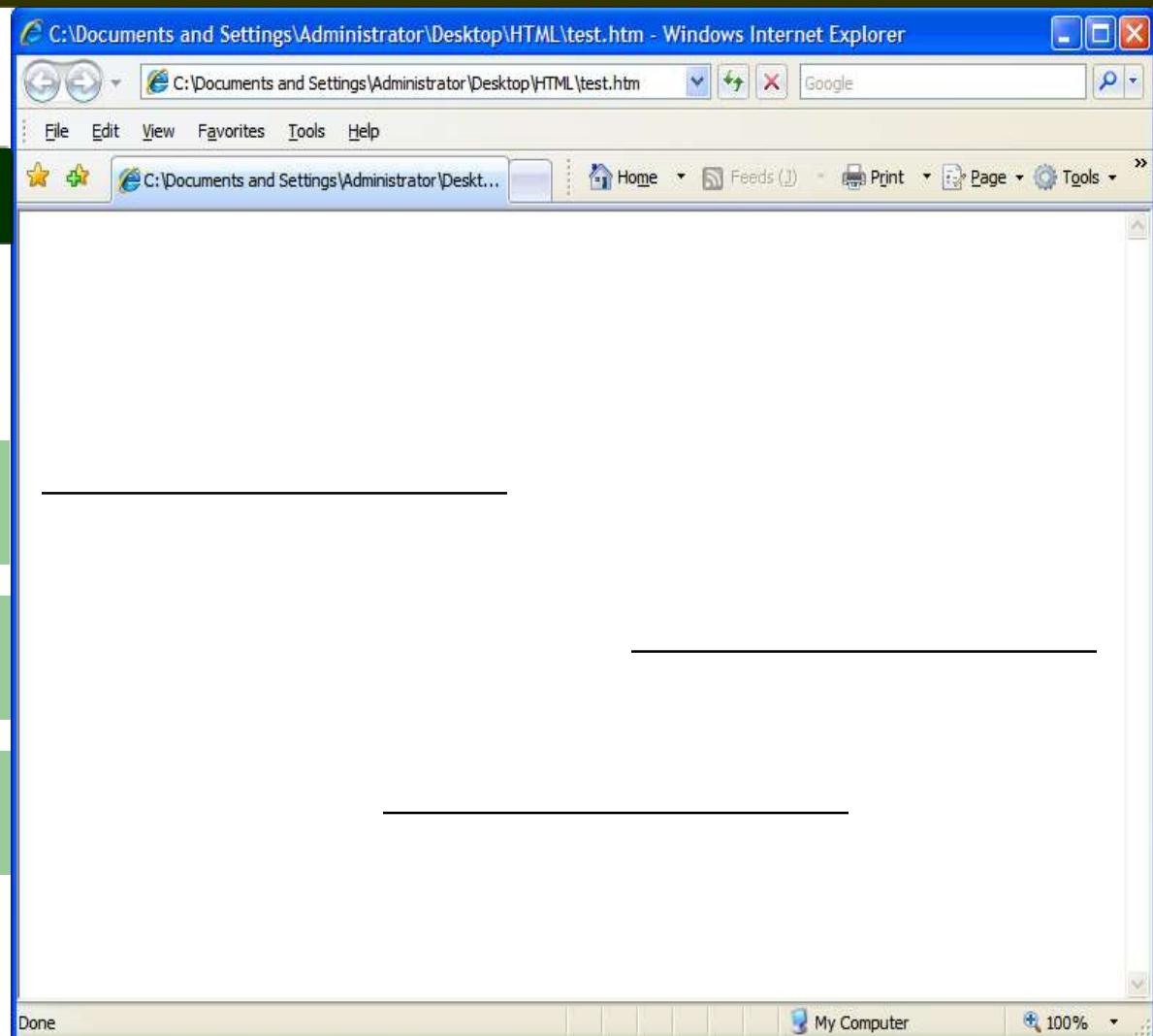
## 3. Align Attribute

How To  
Use

```
<hr align="left" width="50%">
```

```
<hr align="right" width="50%">
```

```
<hr align="center"  
width="50%">
```



# <HR> tag Attributes

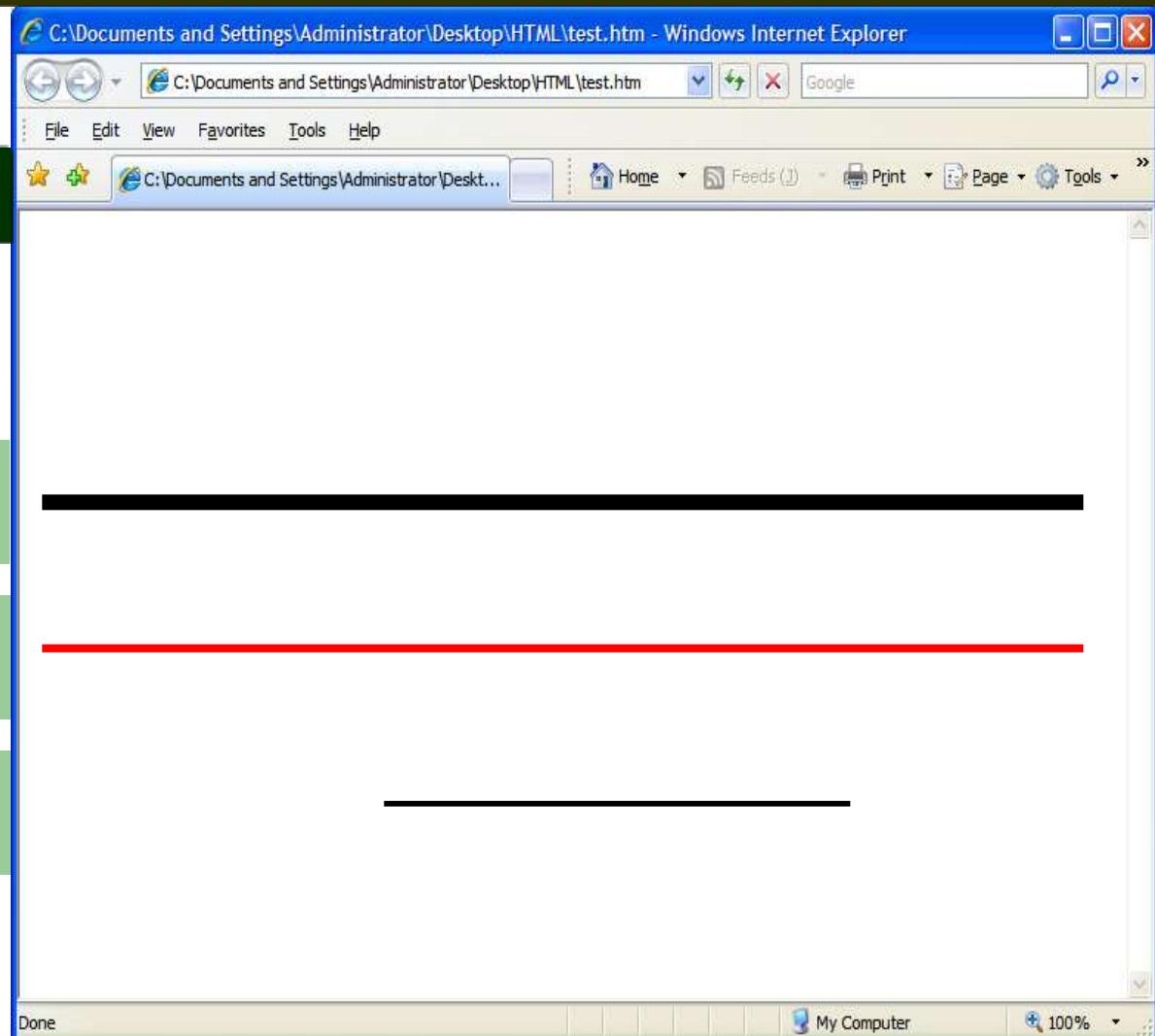
## 4. Size Attribute

How To  
Use

```
<hr size="5">
```

```
<hr size="3" color="red">
```

```
<hr align="center" width="50%"  
size="2">
```



# The Headings Tags

- To add headings in the HTML document use `<Hn>` tag where, n represent number from 1 to 6.

`<H1> Some text here </H1>`

`<H2> Some text here </H2>`

`<H3> Some text here </H3>`

`<H4> Some text here </H4>`

`<H5> Some text here </H5>`

`<H6> Some text here </H6>`

# Listings In HTML

- A common applications of HTML is to display the list of items.
- The most popular types of lists that can be created using HTML are:
  - ✓ Unordered List
  - ✓ Ordered List

# Unordered List

- When the list of contents that you want to display don't have to follow any sequence then you can use Unordered list.
- Each item in the unordered list is indented.

For Example, while creating list of Electronic products, where sequence of occurrence does not matter.



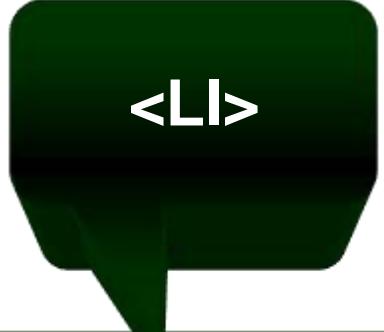
<UL>

tag is used to create a Unordered list.

# Unordered List

- When the list of contents that you want to display don't have to follow any sequence then you can use Unordered list.
- Each item in the unordered list is indented.

For Example, while creating list of Electronic products, where sequence of occurrence does not matter.



<LI>

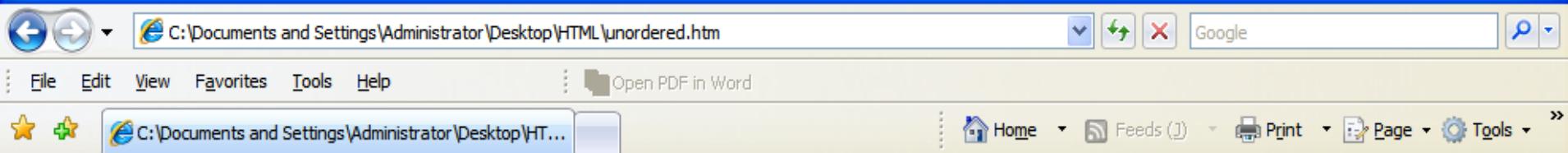
tag identifies a item in the list.

# Unordered List

```
<HTML>
<BODY>
<H3>List of Electronic Items</H3>
<UL>
<LI>T.V.</LI>
<LI>VCD</LI>
<LI>DVD</LI>
<LI>REFRIGERATOR</LI>
<LI>WASHING MACHINE</LI>
<LI>MICRO OVEN</LI>
</UL>
</BODY>
</HTML>
```



Check Out An Example



## List of Electronic Products

- T.V.
- VCD
- DVD
- REFRIGERATOR
- WASHING MACHINE
- MICRO OVEN

Check Out The  
Output

# Ordered List

- When the list of contents that you want to display have to follow a sequence.
- Each item in the ordered list is indented.
- For Example, creating a list of students based on their merit.



<OL>

tag is used to create a Ordered list.

# Ordered List

```
<HTML>
<BODY>
<H3>List of Fortune 500  
Equipment Year 2000</H3>
<OL>
<LI>IBM</LI>
<LI>HP</LI>
<LI>Dell</LI>
<LI>NEC</LI>
<LI>Fujitsu</LI>
<LI>Canon</LI>
</OL>
</BODY>
</HTML>
```

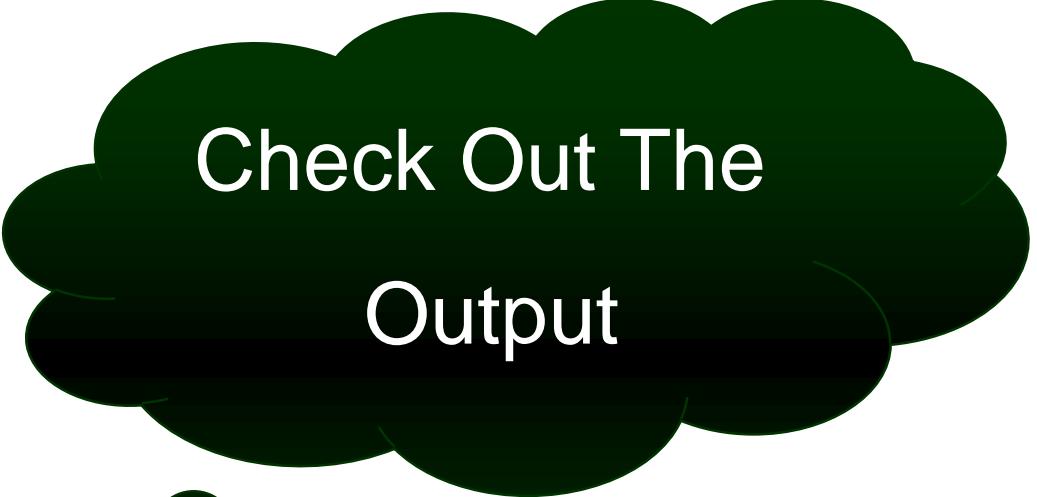


Check Out An Example

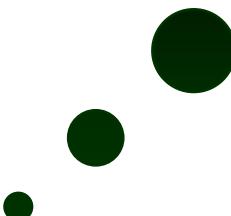


## List of Fortune 500 Companies – Industry: Computers, Office Equipment Year 2006 Survey

1. IBM
2. HP
3. Dell
4. NEC
5. Fujitsu
6. Canon



Check Out The  
Output



# Text Formatting and Alignment

# Text Formatting

## Character Styles

1. <PRE> tag
2. <BLOCKQUOTE> tag
3. <ADDRESS> tag
4. Logical Character Highlighting tags
5. Physical Character Highlighting tags

# Text Formatting (Contd.)

## Character Styles

### 1. <PRE> tag

- It is used to include preformatted text into your HTML document.
- Text will appear exactly as typed including, tabs and returns.

# Text Formatting (Contd.)

## Character Styles

### 1. <PRE> tag

#### Sample Code

```
<pre>  
This is should be the end of my first paragraph in HTML.
```

```
This should be the start of my second  
paragraph in HTML.</pre>
```

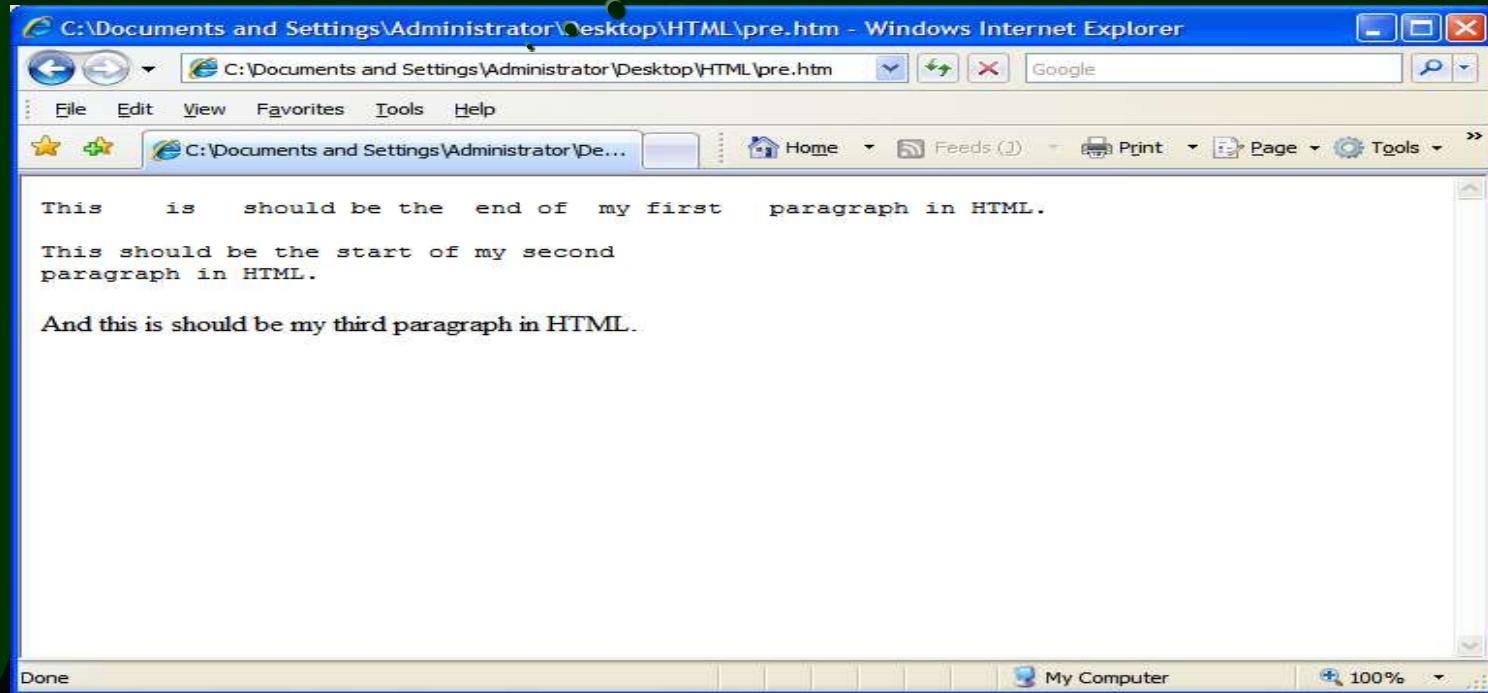
```
And this is should be my third paragraph in HTML.
```

# Text Formatting (Contd.)

## Character Styles

### 1. <PRE> tag

#### Sample Output



## Text Formatting (Contd.)

### Character Styles

#### 2. <BLOCKQUOTE> tag

- Used to include indented text in a document.
- Both the right and left margin are indented.

# Text Formatting (Contd.)

## Character Styles

### 2. <BLOCKQUOTE> tag

#### Sample Code

Most Popular Quote of Shakespeare :

```
<BLOCKQUOTE>
```

To Be, Or Not To Be: That Is The Question

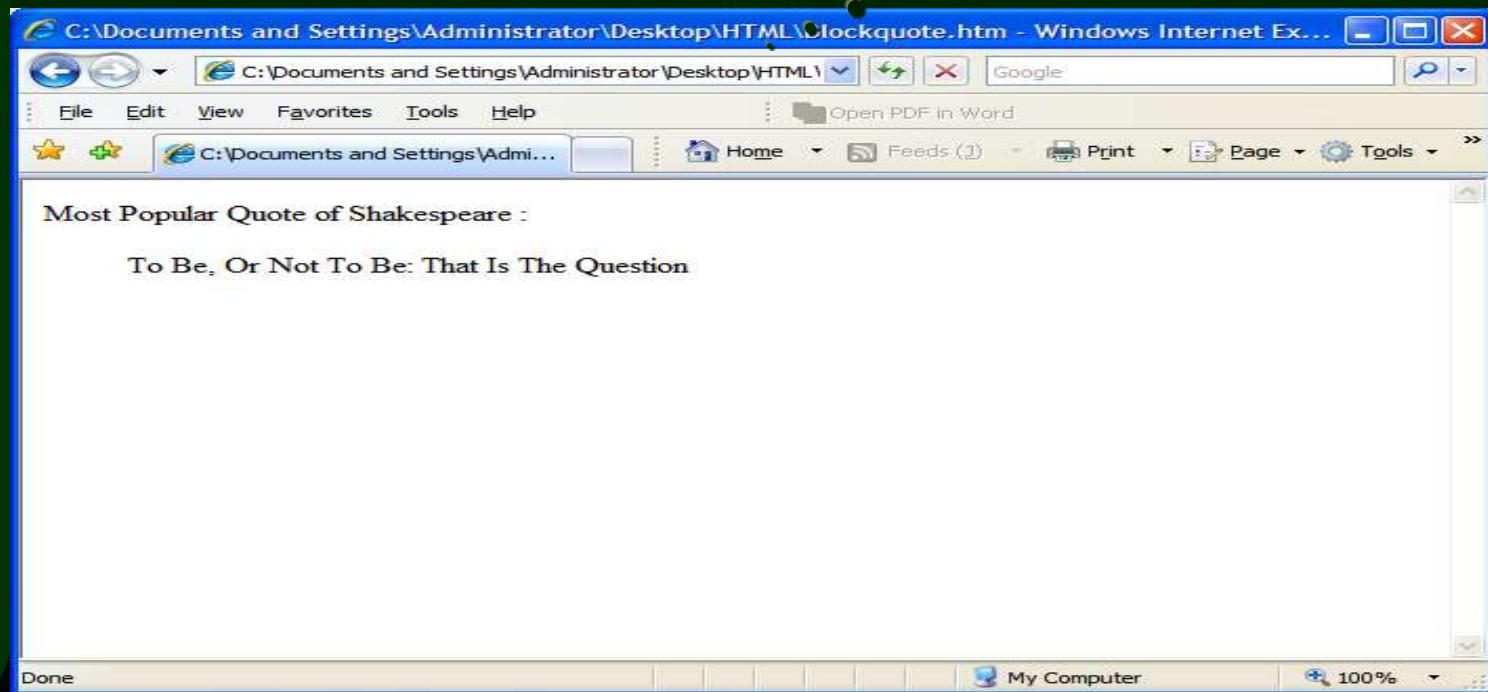
```
</BLOCKQUOTE>
```

# Text Formatting (Contd.)

## Character Styles

### 2. <BLOCKQUOTE> tag

### Sample Output



## Text Formatting (Contd.)

### Character Styles

#### 3. <ADDRESS> tag

- It defines text that gives an address or other contact information.
- It is displayed in italic.
- Generally, displayed in the bottom of the page.

# Text Formatting (Contd.)

## Character Styles

### 3. <ADDRESS> tag

#### Sample Code

IBM stands for International Business Machines.

<hr color="blue">

The HeadQuarter is located at:

<ADDRESS>

IBM Armonk, <BR>New York, USA.

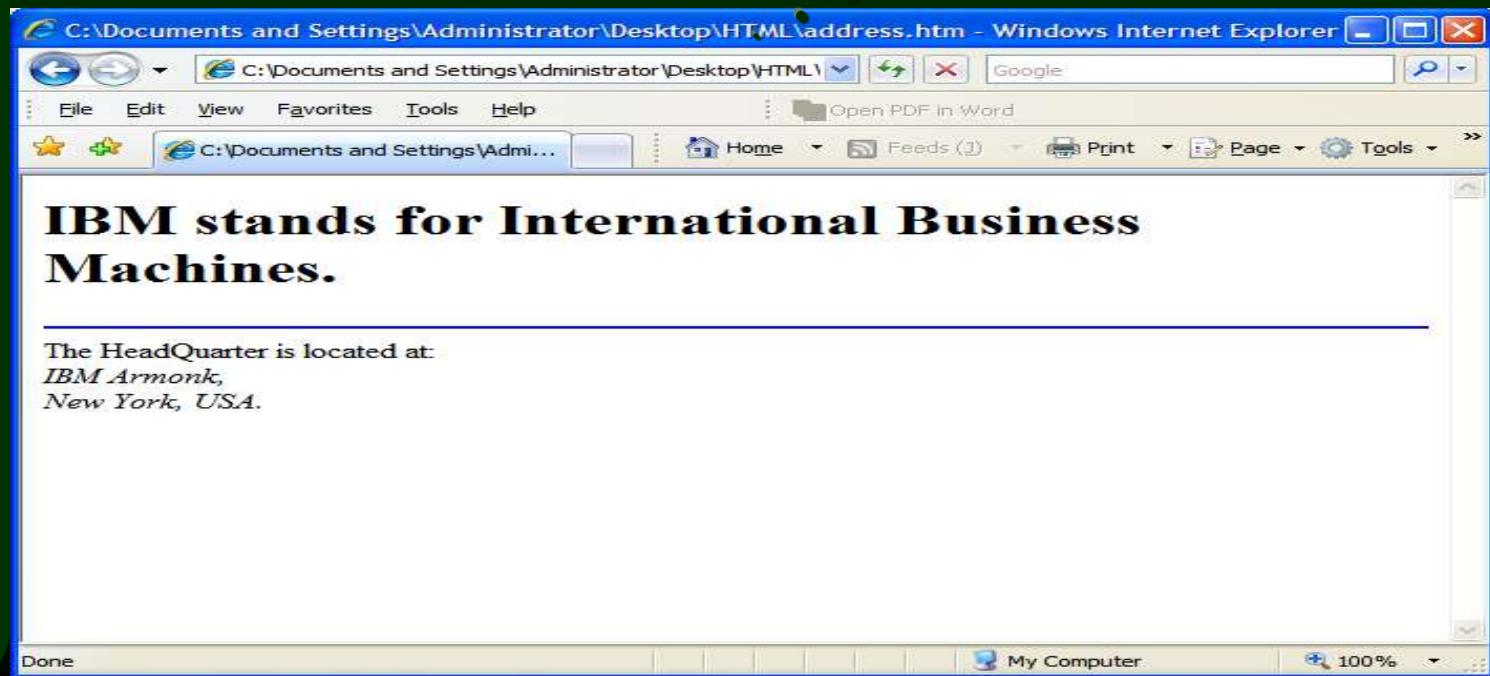
</ADDRESS>

## Text Formatting (Contd.)

### Character Styles

#### 3. <ADDRESS> tag

#### Sample Output



# Text Formatting (Contd.)

## Character Styles

### 4. Logical Character Highlighting tags

- Logical Character Highlighters are also known as **Idiomatic styles** tags.
- The purpose of logical tags is to convey the basic semantic meaning of a piece of text rather than the absolute appearance.
- It is used to give your text a different look when displayed by browsers.
- Browser handle the look and feel of the logical tag.

# Text Formatting (Contd.)

## Character Styles

### 4. Logical Character Highlighting tags

| Name | Tag | Example |
|------|-----|---------|
|      |     |         |
|      |     |         |
|      |     |         |
|      |     |         |
|      |     |         |

# Text Formatting (Contd.)

## Character Styles

### 5. Physical Character Highlighting tags

- Physical Character Highlighters are also known as **Typographical styles tags**.
- It is used to give your text a different look but exacting look.
- Not all browsers support physical styles.

## Text Formatting (Contd.)

# Character Styles

## 5. Physical Character Highlighting tags

## Text Formatting (Contd.)

### Font Tag

- It is used to change the **font color**, **fontSize**,  
**font face** of text in an HTML document.

# Text Formatting (Contd.)

## Attributes of Font Tag

1. Size

2. Color

3. Face

# Text Formatting (Contd.)

## Attributes of Font Tag

### 1. Size

The primary <FONT> attribute is SIZE=x, where x is an absolute value ranging from 1 to 7 or a relative vale (+/-).

Default font size is 3.

Largest font size can be set is 7.

Smallest is 1.

# Text Formatting (Contd.)

## Attributes of Font Tag

### 1. Size

| Html Code                        | Output      |
|----------------------------------|-------------|
| <FONT SIZE=4>HTML is Fun</FONT>  | HTML is Fun |
| <FONT SIZE=+1>HTML is Fun</FONT> | HTML is Fun |
| <FONT SIZE=1>HTML is Fun</FONT>  | HTML is Fun |
| <FONT SIZE=-2>HTML is Fun</FONT> | HTML is Fun |

# Text Formatting (Contd.)

## Attributes of Font Tag

### 2. Color

There are 3 different methods to set color.

i. Generic Coloring System

ii. RGB Coloring System

iii. Hexadecimal Coloring System

# Text Formatting (Contd.)

## Attributes of Font Tag

### 2. Color

#### i. Generic Coloring System

Generics colors are preset HTML coded colors where the value is simply the name of each color.

# Text Formatting (Contd.)

## Attributes of Font Tag

### 2. Color

#### i. Generic Coloring System

Sample  
Generic  
Basic Colors

|        |       |       |      |      |        |         |       |
|--------|-------|-------|------|------|--------|---------|-------|
|        | Black |       | Gray |      | Silver |         | White |
| Yellow |       | Lime  |      | Aqua |        | Fuchsia |       |
| Red    |       | Green |      | Blue |        | Purple  |       |
| Maroon |       | Olive |      | Navy |        | Teal    |       |

# Text Formatting (Contd.)

## Attributes of Font Tag

### 2. Color

#### ii. RGB Coloring System

RGB stands for **R**ed, **G**reen, **B**lue. Each can have a value from 0 (none of that color) to 255 (fully that color).

The format for RGB is – RGB (Red, Green, Blue)

# Text Formatting (Contd.)

## Attributes of Font Tag

### 2. Color

#### ii. RGB Coloring System

Example

Output

|                                                                         |            |
|-------------------------------------------------------------------------|------------|
| <code>&lt;font color=RGB(255,0,0)&gt;Confidence&lt;/font&gt;</code>     | Confidence |
| <code>&lt;font color=RGB(255,255,0)&gt;Confidence&lt;/font&gt;</code>   | Confidence |
| <code>&lt;font color=RGB(0,0,255)&gt;Confidence&lt;/font&gt;</code>     | Confidence |
| <code>&lt;font color=RGB(255,255,255)&gt;Confidence&lt;/font&gt;</code> | Confidence |

# Text Formatting (Contd.)

## Attributes of Font Tag

### 2. Color

#### iii. Hexadecimal Coloring System

A hexadecimal is a 6 digit representation of a color.

**XX**

Red

**XX**

Green

**XX**

Blue

# Text Formatting (Contd.)

## Attributes of Font Tag

### 2. Color

iii.

Hexadecimal Coloring System

Example

Output

|                                                                  |            |
|------------------------------------------------------------------|------------|
| <code>&lt;font color="#FF0000"&gt;Confidence&lt;/font&gt;</code> | Confidence |
| <code>&lt;font color="#FFFF00"&gt;Confidence&lt;/font&gt;</code> | Confidence |
| <code>&lt;font color="#0000FF"&gt;Confidence&lt;/font&gt;</code> | Confidence |
| <code>&lt;font color="#FFFFFF"&gt;Confidence&lt;/font&gt;</code> | Confidence |

# Text Formatting (Contd.)

| Color  | Color Name | Hexadecimal Value | Color  | Color Name | Hexadecimal Value |
|--------|------------|-------------------|--------|------------|-------------------|
| Black  | Black      | #000000           | Green  | Green      | #008000           |
| Silver | Silver     | #c0c0c0           | Lime   | Lime       | #00ff00           |
| Gray   | Gray       | #808080           | Olive  | Olive      | #808000           |
|        | White      | #ffffff           | Yellow | Yellow     | #ffff00           |
| Maroon | Maroon     | #800000           | Navy   | Navy       | #000080           |
| Red    | Red        | #ff0000           | Blue   | Blue       | #0000ff           |
| Purple | Purple     | #800080           | Teal   | Teal       | #008080           |
| Fushia | Fushia     | #ff00ff           | Aqua   | Aqua       | #00ffff           |

## Text Formatting (Contd.)

### Attributes of Font Tag

#### 3. Face

The font face attribute is used to specify the font name.

# Text Formatting (Contd.)

## Attributes of Font Tag

### 3. Face

Example

Code  
Snippet

Output

|                                                 |                   |
|-------------------------------------------------|-------------------|
| <font face="Serif">Confidence</font>            | Confidence        |
| <font face="Courier">Confidence</font>          | Confidence        |
| <font face="Palatino">Confidence</font>         | Confidence        |
| <font face="Monotype Corsiva">Confidence</font> | <i>Confidence</i> |

# Text Formatting (Contd.)

## Special Characters

Exempl

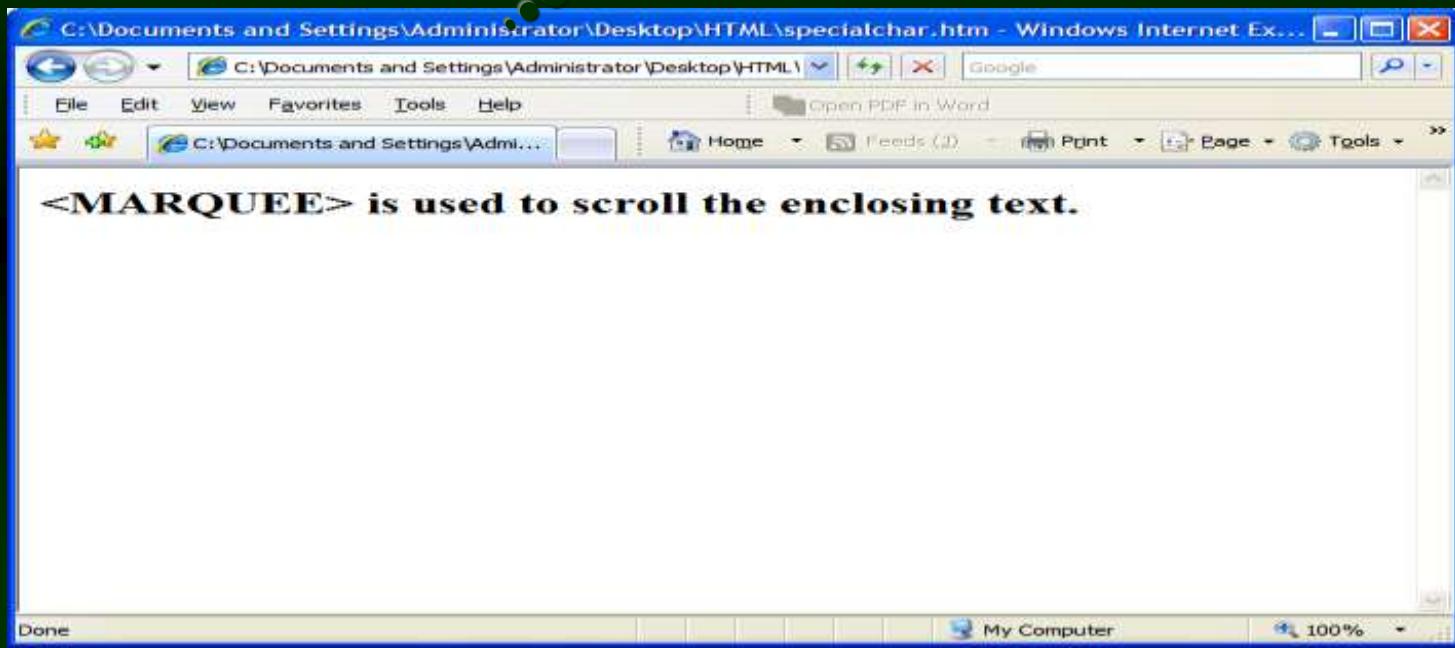
e

```
<html>  
<body>  
<h2><b>&lt;MARQUEE&gt;</b> is used to scroll the  
enclosing text.</h2>  
</body>  
</html>
```

## Text Formatting (Contd.)

### Special Characters

Output



# Using Links & Images

# Using Links

- The Anchor Tag
  - ✓ HTML uses the `<a>` (anchor) tag to create a link to another document.
  - ✓ Attributes of `<a>`(anchor) tag
    - `href` : is used to address the document to link to, and the words between the open and close of the anchor tag will be displayed as a hyperlink.

Syntax:

```
<a href="url">Text to be displayed</a>
```

## Using Links (Contd.)

### ✓ Attributes of (anchor) tag

- **target** : The target attribute defines where the linked document will be opened.

Syntax:

```
<a href="http://w3.ibm.com" target="where to place the  
document">Text to be displayed</a>
```

- **name** :The name attribute is used to create a named anchor. When using named anchors we can create links that can jump directly into a specific section on a page.

Syntax

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

# Example of a Hyperlink

```
<html>  
<head>  
<title>Example of a  
Hyperlink</title>
```

```
<head>  
<body>  
<a href="http://w3.IBM.com">  
IBM</a>
```

```
<a href="http://w3.IBM.com"  
target="_blank">IBM</a>
```

---- other information within body  
tag-----

```
</body>  
</html>
```

The word IBM will be highlighted , and on clicking IBM the user will be taken to the w3 pages of IBM, the page will be opened on the same window

The word IBM will be highlighted , and on clicking IBM the user will be taken to the w3 pages of IBM, the page will be opened on a new window.

## Example of Naming a link and accessing it

<html>

<body>

<a name="locations">  
locations</a>

Kolkata, Bangalore, Hyd, Pune,  
Chandigarh, Gurgoan

----- other information

-----  
<a href="#locations">IBM  
Location In India</a>

</body>

</html>

On Clicking on IBM Location in India you  
will be linked to the section which has  
been named as locations

# Embedding Images

- The image tag
    - ✓ In Html images are defined by using the `<img>` tag
    - ✓ The `<img>` tag is a open tag ( does not have a `</img>`)
    - ✓ Attributes of `<img>` tag
      - `src` : To display an image on a page, you need to use the `src` attribute . The value of the `src` is the url of the image to be displayed
      - Syntax
- ``

## Embedding images ( contd.)

### ✓ Attributes of <img> tag

- **alt** :The alt attribute is used to define an "alternate text" for an image. The value of the alt attribute is an author-defined text:

- Syntax

```

```

- **width & height** : the size of the image can be controlled by using the width and height attributes

- Syntax

```

```

## Embedding images(contd.)

### ✓ Attributes of <img> tag

- **align** : An image can be aligned with the surrounding text by using the align attribute

- Syntax

```

```

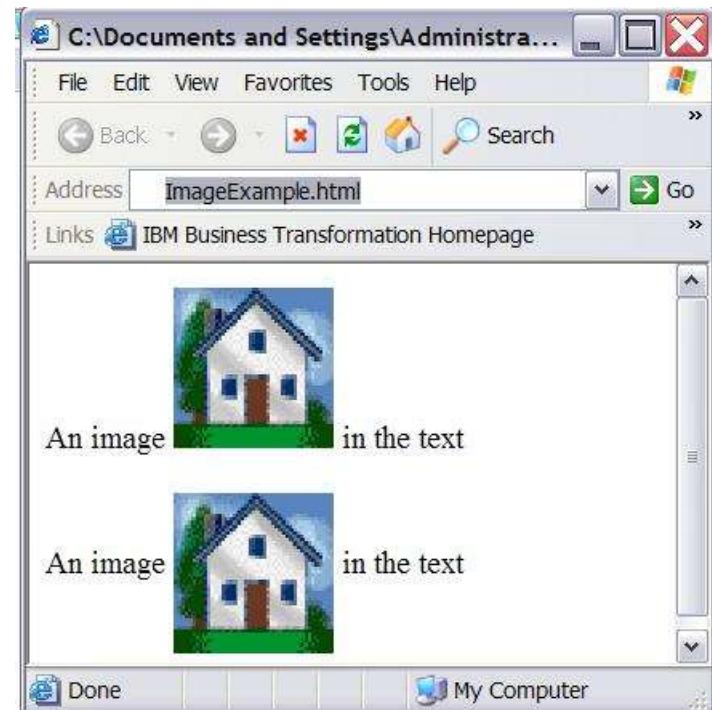
- Images can be used as hyperlinks also.

```
<a href="http://w3.ibm.com"> </a>
```

# Example of an embedded image

```
<html>
<body>
<p>
An image

in the text
</p>
<p>
An image
<img src = "home.gif"
align="middle" width="48" height="48">
in the text
</p> </body> </html>
```



# HTML Table

- Table allows to organize and present data in an orderly and concise manner.
- Tabular structures were introduced with HTML 3.2.
- A table can contain a wide variety of information, such as headers, anchors, lists, paragraphs, forms, images, preformatted text and even nested tables.
- HTML tables are composed of rows and columns.

# Requirement Analysis

C:\Documents and Settings\Administrator\Desktop\HTML\sample.htm - Windows Internet Explorer

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File Edit View Favorites Tools Help

IBM Strategic Business Unit

| Unit Name | Description                   |
|-----------|-------------------------------|
| BCS       | Business Consultancy Services |
| SWG       | Software Group                |

Done My Computer 100%

## Code Snippet To Fulfill the Requirement

```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<th>Unit Name</th>
<th>Description</th>
</tr>
<tr>
<td>BCS</td>
<td>Business Consultancy Services</td>
</tr>
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```

## For starting a table



```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<th>Unit Name</th>
<th>Description</th>
</tr>
<tr>
<td>BCS</td>
<td>Business Consultancy Services</td>
</tr>
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```

It is an attribute of table tag to specify the thickness of the border of the table in pixels.



```
<html>
<body>
<table border="1"

```
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```


```

C:\Documents and Settings\Administrator\Desktop\HTML\sample.htm - Windows Internet Explorer

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IBM Strategic Business Unit

| Unit Name | Description                   |
|-----------|-------------------------------|
| BCS       | Business Consultancy Services |
| SWG       | Software Group                |

Table Border set to 1

Done My Computer 100%

C:\Documents and Settings\Administrator\Desktop\HTML\sample.htm - Windows Internet Explorer

C:\Documents and Settings\Administrator\Desktop\HTML\sample.htm Google

File Edit View Favorites Tools Help

IBM Strategic Business Unit

| Unit Name | Description                   |
|-----------|-------------------------------|
| BCS       | Business Consultancy Services |
| SWG       | Software Group                |

If Table Border set to 5

Done My Computer 100%

## For starting a table

The diagram illustrates the structure of an HTML table. It features a large orange L-shaped bracket on the left side, pointing upwards and to the right, which encompasses the opening `<table border="1">` tag and its corresponding closing tag `</table>`. To the right of this bracket, the code continues with the table's content. The entire code block is contained within a white rectangular area.

```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<th>Unit Name</th>
<th>Description</th>
</tr>
<tr>
<td>BCS</td>
<td>Business Consultancy Services</td>
</tr>
```

The diagram illustrates the structure of an HTML table. It features a large orange L-shaped bracket on the left side, pointing upwards and to the right, which encompasses the opening `<table border="1">` tag and its corresponding closing tag `</table>`. To the right of this bracket, the code continues with the table's content. The entire code block is contained within a white rectangular area.

```
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```

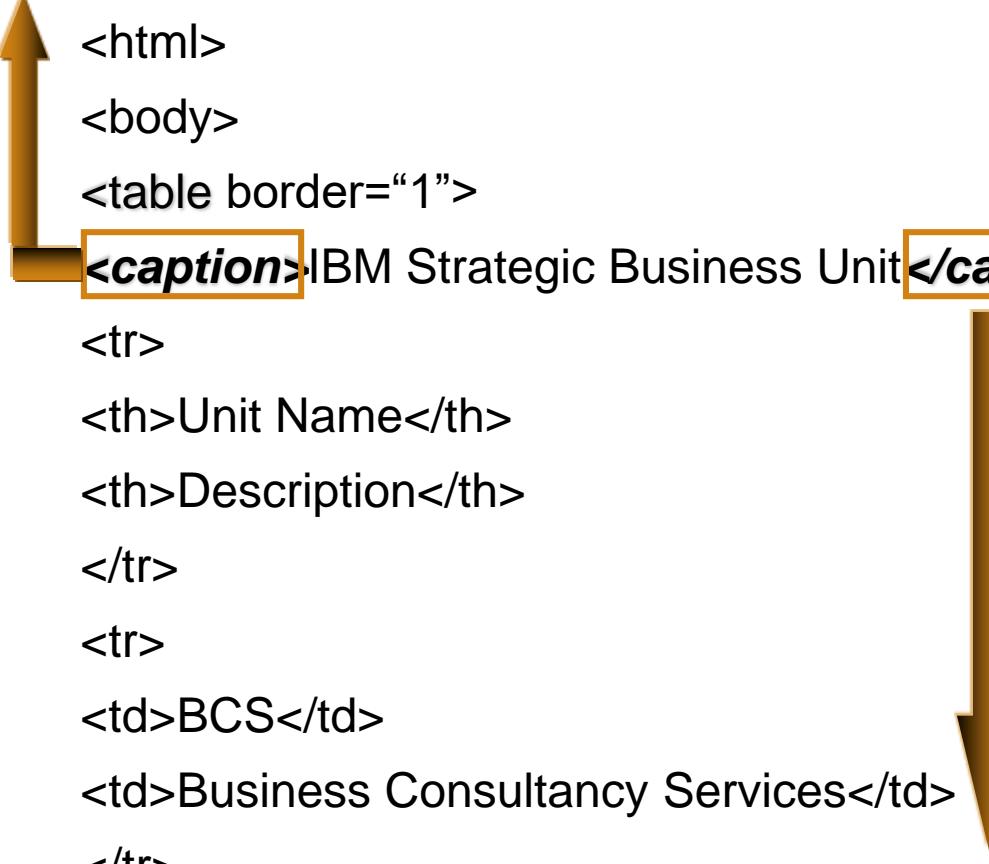
## For ending a table

For starting a table caption, It is like a title which resides outside the border of the table. It is an optional attribute.



```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<th>Unit Name</th>
<th>Description</th>
</tr>
<tr>
<td>BCS</td>
<td>Business Consultancy Services</td>
</tr>
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```

For starting a table caption, It is like a title which resides outside the border of the table. It is an optional attribute.



```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<th>Unit Name</th>
<th>Description</th>
</tr>
<tr>
<td>BCS</td>
<td>Business Consultancy Services</td>
</tr>
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```

For ending a table caption

C:\Documents and Settings\Administrator\Desktop\HTML\sample.htm - Windows Internet Explorer

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IBM Strategic Business Unit → Table Caption

| Unit Name | Description                   |
|-----------|-------------------------------|
| BCS       | Business Consultancy Services |
| SWG       | Software Group                |

Done My Computer 100%

## For starting a table row



```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<th>Unit Name</th>
<th>Description</th>
</tr>
<tr>
<td>BCS</td>
<td>Business Consultancy Services</td>
</tr>
```

```
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```

For starting a table row

The diagram features two vertical orange arrows. A long arrow on the left points upwards from the bottom of the page towards the opening of the first table row. A shorter arrow on the right points downwards from the end of the first table row towards the opening of the second table row.

```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<th>Unit Name</th>
<th>Description</th>
</tr>
<tr>
<td>BCS</td>
<td>Business Consultancy Services</td>
</tr>
```

```
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```

For ending a table row.

C:\Documents and Settings\Administrator\Desktop\HTML\sample.htm - Windows Internet Explorer

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IBM Strategic Business Unit

| Unit Name | Description                   |
|-----------|-------------------------------|
| BCS       | Business Consultancy Services |
| SWG       | Software Group                |

Row 1

Row 2

Done My Computer 100%

For providing a table heading. By default the header cell will appear in bolder type and the default alignment is center.



```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<b><th>Unit Name</th></b>
<th>Description</th>
</tr>
<tr>
<td>BCS</td>
<td>Business Consultancy Services</td>
</tr>
```

| <b>Unit Name</b> | Description                   |
|------------------|-------------------------------|
| BCS              | Business Consultancy Services |

```
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```

For providing a table heading. By default the header cell will appear in bolder type and the default alignment is center.

```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<th>Unit Name</th>
<th>Description</th>
</tr>
<tr>
<td>BCS</td>
<td>Business Consultancy Services</td>
</tr>
```

```
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```

For ending a table heading.

C:\Documents and Settings\Administrator\Desktop\HTML\sample.htm - Windows Internet Explorer

C:\Documents and Settings\Administrator\Desktop\HTML\sample.htm Google

File Edit View Favorites Tools Help

IBM Strategic Business Unit

Unit Name Description

| Unit Name | Description                   |
|-----------|-------------------------------|
| BCS       | Business Consultancy Services |
| SWG       | Software Group                |

Table Heading

Done My Computer 100%

For providing the table data. By default the alignment is left.



```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<th>Unit Name</th>
<th>Description</th>
</tr>
<tr>
<td>BCS</td>
<td>Business Consultancy Services</td>
</tr>
<tr>
<td>SWG</td>
<td>Software Group</td>
</tr>
</table>
</body>
</html>
```

For providing the table data. By default the alignment is left.

```
<html>
<body>
<table border="1">
<caption>IBM Strategic Business Unit</caption>
<tr>
<th>Unit Name</th>
<th>Description</th>
</tr>
<tr>
<td>BCS </td>
<td>Business Consultancy Services</td>
</tr>
```

<tr>

<td>SWG</td>

<td>Software Group</td>

</tr>

</table>

</body>

</html>

For ending a table data tag.

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File Edit View Favorites Tools Help

IBM Strategic Business Unit

Unit Name Description

| Unit Name | Description                   |
|-----------|-------------------------------|
| BCS       | Business Consultancy Services |
| SWG       | Software Group                |

Table Data

Done My Computer 100%

The screenshot shows a Microsoft Internet Explorer window displaying an HTML file named 'sample.htm'. The page title is 'IBM Strategic Business Unit'. Below the title is a table with two columns: 'Unit Name' and 'Description'. The table has three rows: a header row with the column names, and two data rows. The first data row contains 'BCS' in the 'Unit Name' column and 'Business Consultancy Services' in the 'Description' column. The second data row contains 'SWG' in the 'Unit Name' column and 'Software Group' in the 'Description' column. An oval shape highlights the second data row. A blue arrow points from this highlighted row to the text 'Table Data' located on the right side of the page. The browser interface includes standard menu items like File, Edit, View, Favorites, Tools, and Help, as well as toolbar icons for Back, Forward, Stop, Refresh, Home, Print, and Page.

# Requirement Analysis

C:\Documents and Settings\Administrator\Desktop\HTML\rowspan.htm - Windows Internet Explorer

File Edit View Favorites Tools Help

Home Feeds Print Page Tools

### ROWSPAN Example

| Group Name | SubGroup Name | Group Name | SubGroup Name |
|------------|---------------|------------|---------------|
| Group 1    | 1a            | Group 2    | 2a            |
|            | 1b            |            | 2b            |
|            | 1c            |            | 2c            |
|            | 1d            |            | 2d            |

Done My Computer 100%

## Code Snippet To Fulfill the Requirement

```
<table border="1">
<caption>ROWSPAN Example</caption>
<tr><th>Group Name</th>
<th>SubGroup Name</th>
<th>Group Name</th>
<th>SubGroup Name</th>
</tr>
<TR>
<td ROWSPAN="4"> Group 1</td> <td>1a</td>
<td ROWSPAN="4"> Group 2</td><td>2a</td>
</tr>
```

```
<tr>
<td>1b</td>
<td>2b</td>
</tr>
<tr>
<td>1c</td>
<td>2c</td>
</tr>
<tr>
<td>1d</td>
<td>2d</td>
</tr>
</table>
```

This attribute is used to span cell more than one row. In this case it will span the 1<sup>st</sup> column into four rows including the current row.



```
<table border="1">
<caption>ROWSPAN Example</caption>
<tr><th>Group Name</th>
<th>SubGroup Name</th>
<th>Group Name</th>
<th>SubGroup Name</th>
</tr>
<TR>
<td ROWSPAN="4"> Group 1</td> <td>1a</td>
<td ROWSPAN="4"> Group 2</td><td>2a</td>
</tr>
```

```
<tr>
<td>1b</td>
<td>2b</td>
</tr>
<tr>
<td>1c</td>
<td>2c</td>
</tr>
<tr>
<td>1d</td>
<td>2d</td>
</tr>
</table>
```

C:\Documents and Settings\Administrator\Desktop\HTML\rowspan.htm - Windows Internet Explorer

File Edit View Favorites Tools Help

Home Feeds (J) Print Page Tools

### ROWSPAN Example

| Group Name | SubGroup Name | Group Name | SubGroup Name |
|------------|---------------|------------|---------------|
| Group 1    | 1a            | Group 2    | 2a            |
|            | 1b            |            | 2b            |
|            | 1c            |            | 2c            |
|            | 1d            |            | 2d            |

This cell is spanned to 4 rows

The 3<sup>rd</sup> column is spanning more 4 rows including the current row..



```
<table border="1">
<caption>ROWSPAN Example</caption>
<tr><th>Group Name</th>
<th>SubGroup Name</th>
<th>Group Name</th>
<th>SubGroup Name</th>
</tr>
<TR>
<td ROWSPAN="4"> Group 1</td> <td>1a</td>
<td ROWSPAN="4"> Group 2</td><td>2a</td>
</tr>
```

```
<tr>
<td>1b</td>
<td>2b</td>
</tr>
<tr>
<td>1c</td>
<td>2c</td>
</tr>
<tr>
<td>1d</td>
<td>2d</td>
</tr>
</table>
```

C:\Documents and Settings\Administrator\Desktop\HTML\rowspan.htm - Windows Internet Explorer

C:\Documents and Settings\Administrator\Desktop\HTML\rowspan.htm Google

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Home Feeds (J) Print Page Tools

### ROWSPAN Example

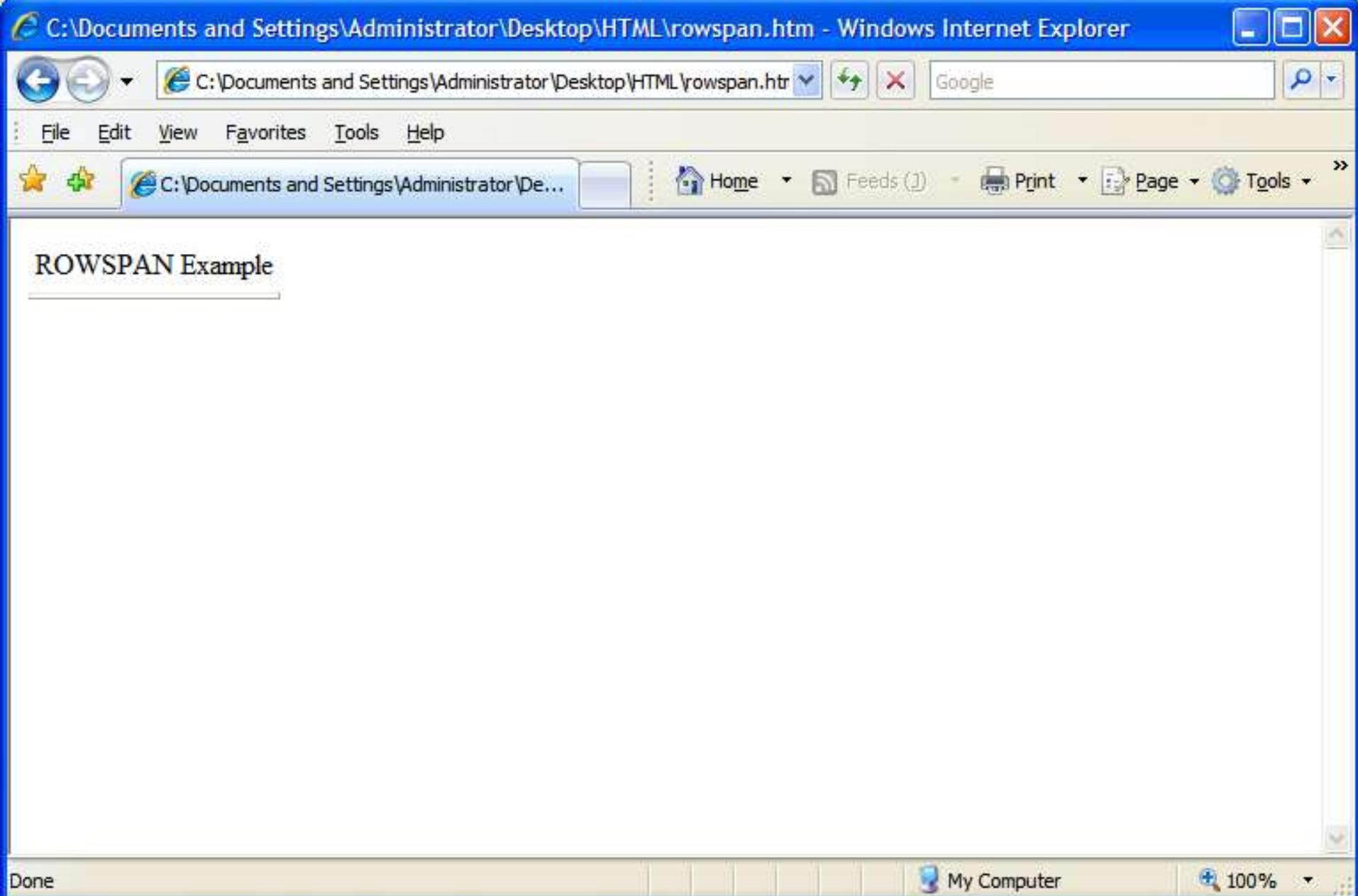
| Group Name | SubGroup Name | Group Name | SubGroup Name |
|------------|---------------|------------|---------------|
| Group 1    | 1a            |            | 2a            |
|            | 1b            |            | 2b            |
|            | 1c            |            | 2c            |
|            | 1d            |            | 2d            |

This cell is spanned to 4 rows

Done My Computer 100%

# Analyzing The Code

```
<table border="1">  
<caption>ROWSPAN Example</caption>
```



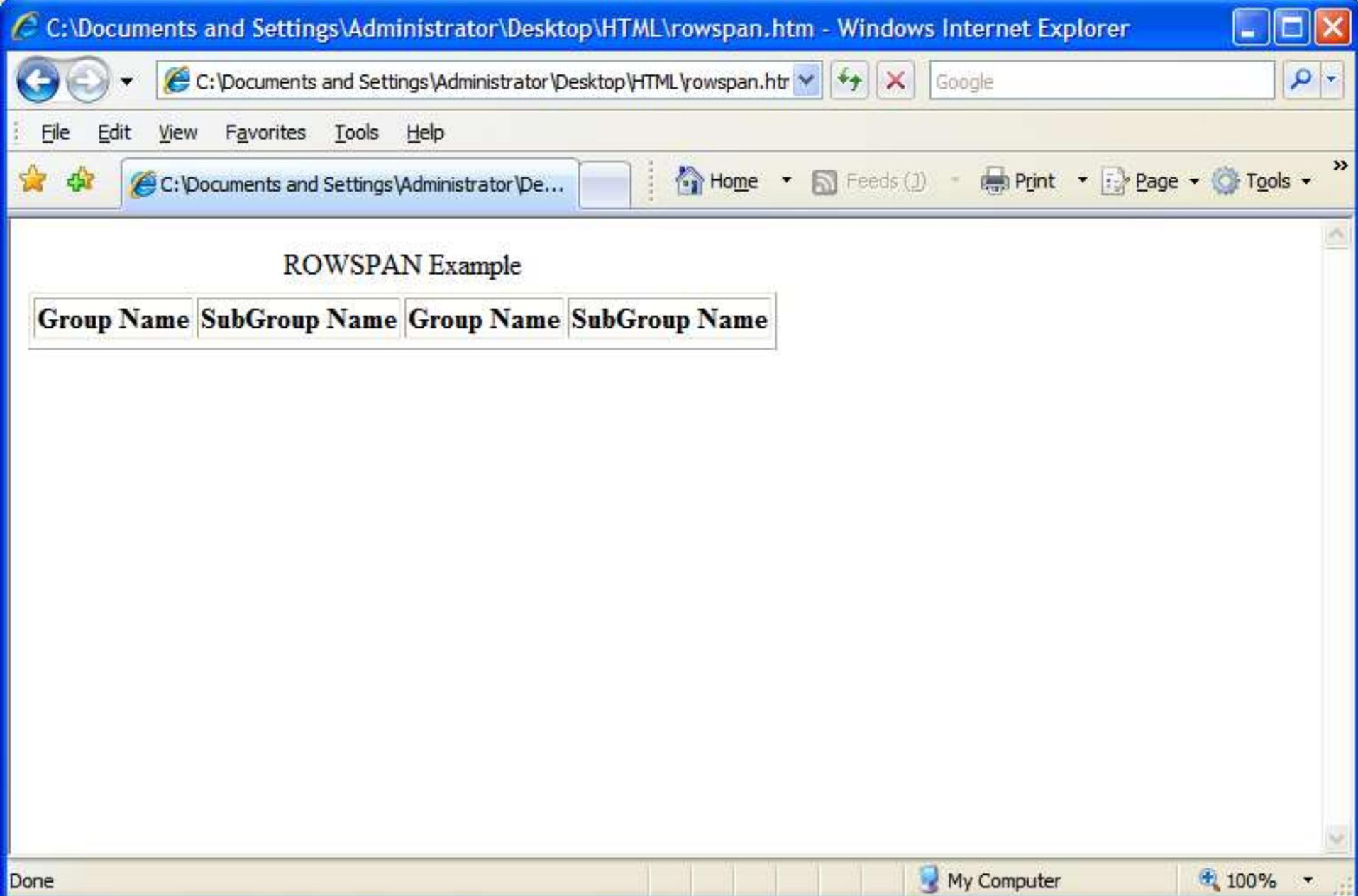
Done

My Computer

100%

# Analyzing The Code

```
<table border="1">
<caption>ROWSPAN Example</caption>
<tr><th>Group Name</th>
<th>SubGroup Name</th>
<th>Group Name</th>
<th>SubGroup Name</th>
</tr>
```



# Analyzing The Code

```
<table border="1">
<caption>ROWSPAN Example</caption>
<tr><th>Group Name</th>
<th>SubGroup Name</th>
<th>Group Name</th>
<th>SubGroup Name</th>
</tr>
<TR>
<td ROWSPAN="4"> Group 1</td> <td>1a</td>
<td ROWSPAN="4"> Group 2</td><td>2a</td>
</tr>
```

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### ROWSPAN Example

| Group Name | SubGroup Name | Group Name | SubGroup Name |
|------------|---------------|------------|---------------|
| Group 1    | 1a            | Group 2    | 2a            |

Done My Computer 100%

# Analyzing The Code

```
<table border="1">
<caption>ROWSPAN Example</caption>
<tr><th>Group Name</th>
<th>SubGroup Name</th>
<th>Group Name</th>
<th>SubGroup Name</th>
</tr>
<TR>
<td ROWSPAN="4"> Group 1</td> <td>1a</td>
<td ROWSPAN="4"> Group 2</td><td>2a</td>
</tr>
```

```
<tr>
<td>1b</td>
<td>2b</td>
</tr>
```

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### ROWSPAN Example

| Group Name | SubGroup Name | Group Name | SubGroup Name |
|------------|---------------|------------|---------------|
| Group 1    | 1a            | Group 2    | 2a            |
|            | 1b            |            | 2b            |

Done My Computer 100%

# Analyzing The Code

```
<table border="1">
<caption>ROWSPAN Example</caption>
<tr><th>Group Name</th>
<th>SubGroup Name</th>
<th>Group Name</th>
<th>SubGroup Name</th>
</tr>
<TR>
<td ROWSPAN="4"> Group 1</td> <td>1a</td>
<td ROWSPAN="4"> Group 2</td><td>2a</td>
</tr>
```

```
<tr>
<td>1b</td>
<td>2b</td>
</tr>
<tr>
<td>1c</td>
<td>2c</td>
</tr>
```

C:\Documents and Settings\Administrator\Desktop\HTML\rowspan.htm - Windows Internet Explorer

File Edit View Favorites Tools Help

Home Feeds Print Page Tools

### ROWSPAN Example

| Group Name | SubGroup Name | Group Name | SubGroup Name |
|------------|---------------|------------|---------------|
| Group 1    | 1a            | Group 2    | 2a            |
|            | 1b            |            | 2b            |
|            | 1c            |            | 2c            |

Done My Computer 100%

# Analyzing The Code

```
<table border="1">
<caption>ROWSPAN Example</caption>
<tr><th>Group Name</th>
<th>SubGroup Name</th>
<th>Group Name</th>
<th>SubGroup Name</th>
</tr>
<TR>
<td ROWSPAN="4"> Group 1</td> <td>1a</td>
<td ROWSPAN="4"> Group 2</td><td>2a</td>
</tr>
```

```
<tr>
<td>1b</td>
<td>2b</td>
</tr>
<tr>
<td>1c</td>
<td>2c</td>
</tr>
<tr>
<td>1d</td>
<td>2d</td>
</tr>
</table>
```

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### ROWSPAN Example

| Group Name | SubGroup Name | Group Name | SubGroup Name |
|------------|---------------|------------|---------------|
| Group 1    | 1a            | Group 2    | 2a            |
|            | 1b            |            | 2b            |
|            | 1c            |            | 2c            |
|            | 1d            |            | 2d            |

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# Requirement Analysis

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C:\Documents and Settings\Administrator\Desktop\HTML\colspan.htm

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### COLSPAN Example

| Product Description |              |       |     |
|---------------------|--------------|-------|-----|
| Product Code        | Product Name | Price |     |
|                     |              | Rs.   | Ps. |
| A001                | AAA          | 150   | 00  |
| B002                | BBB          | 120   | 99  |
| C002                | CCC          | 250   | 00  |

Done My Computer 100%

## Code Snippet To Fulfill the Requirement

```
<table border="1">
<caption>COLSPAN Example</caption>
<tr>
<th colspan="5"> Product Description</th>
</tr>
<tr>
<th> Product Code</th>
<th> Product Name</th>
<th colspan="2"> Price</th>
</tr>
<tr>
<td
colspan="2">&nbsp;</td><td>Rs.</td><td>Ps.</td>
</tr>
```

```
<tr>
<td>A001</td><td>AAA</td>
<td>150</td><td>00</td>
</tr>
<tr>
<td>B002</td><td>BBB</td>
<td>120</td><td>99</td>
</tr>
<tr>
<td>C002</td><td>CCC</td>
<td>250</td><td>00</td>
</tr>
</table>
```

This attribute is used to span cell more than one column. In this case it will span the 1st column into five more nested columns.

```
<table border="1">
<caption>COLSPAN Example</caption>
<tr>
<th colspan="5"> Product Description</th>
</tr>
<tr>
<th> Product Code</th>
<th> Product Name</th>
<th colspan="2"> Price</th>
</tr>
<tr>
<td colspan="2">&ampnbsp</td><td>Rs.</td><td>Ps.</td>
</tr>
```

```
<tr>
<td>A001</td><td>AAA</td>
<td>150</td><td>00</td>
</tr>
<tr>
<td>B002</td><td>BBB</td>
<td>120</td><td>99</td>
</tr>
<tr>
<td>C002</td><td>CCC</td>
<td>250</td><td>00</td>
</tr>
</table>
```

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### COLSPAN Example

| Product Description |              |       |     |  |
|---------------------|--------------|-------|-----|--|
| Product Code        | Product Name | Price |     |  |
|                     |              | Rs.   | Ps. |  |
| A001                | AAA          | 150   | 00  |  |
| B002                | BBB          | 120   | 99  |  |
| C002                | CCC          | 250   | 00  |  |

This cell is spanned to 5 columns

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It will span the 3<sup>rd</sup> column into two more nested columns.

```
<table border="1">
<caption>COLSPAN Example</caption>
<tr>
<th colspan="5"> Product Description</th>
</tr>
<tr>
<th> Product Code</th>
<th> Product Name</th>
<th colspan="2" style="background-color: #ccc;">Price</th>
</tr>
<tr>
<td colspan="2" style="text-align: right;">&ampnbsp&ampnbsp&ampnbsp&ampnbsp&ampnbsp
<td>Rs.</td>
<td>Ps.</td>
</tr>
```

```
<tr>
<td>A001</td>
<td>150</td>
</tr>
<tr>
<td>B002</td>
<td>120</td>
</tr>
<tr>
<td>C002</td>
<td>250</td>
</tr>
</table>
```

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### COLSPAN Example

| Product Description |              |        |
|---------------------|--------------|--------|
| Product Code        | Product Name | Price  |
| A001                | AAA          | 150 00 |
| B002                | BBB          | 120 99 |
| C002                | CCC          | 250 00 |

Rs. Ps.

This cell is spanned to 2 columns

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It will span the 3<sup>rd</sup> row 1st column into two columns. In other words, it will merge the 1<sup>st</sup> two columns of the 3<sup>rd</sup> row.

```
<table border="1">
<caption>COLSPAN Example</caption>
<tr>
<th colspan="5"> Product Description</th>
</tr>
<tr>
<th> Product Code</th>
<th> Product Name</th>
<th colspan="2"> Price</th>
</tr>
<tr>
<td colspan="2">&nbsp;</td><td>Rs.</td><td>Ps.</td>
</tr>
```

```
<tr>
<td>A001</td><td>AAA</td>
<td>150</td><td>00</td>
</tr>
<tr>
<td>B002</td><td>BBB</td>
<td>120</td><td>99</td>
</tr>
<tr>
<td>C002</td><td>CCC</td>
<td>250</td><td>00</td>
</tr>
</table>
```

# Non-breaking Space

- A commonly used entity in HTML is the non-breaking space: **&ampnbsp**;
- A non-breaking space is a space that will not break into a new line.
- Two words separated by a non-breaking space will stick together (not break into a new line).

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Star Home Feeds Print Page Tools

### COLSPAN Example

| Product Description |              |         |
|---------------------|--------------|---------|
| Product Code        | Product Name | Price   |
|                     |              | Rs. Ps. |
| A001                | AAA          | 150 00  |
| B002                | BBB          | 120 99  |
| C002                | CCC          | 250 00  |

**This cell is spanned to 2 columns**

Done My Computer 100%

## Some More Attributes of Table tag

- Cellspacing - The **CELLSPACING** attribute **creates a space, or border**, of the specified number of pixels, between each cell.
- Cellpadding - The **CELLPADDING** attribute **separates text of the cell from the cell border** with a padding with the specified number of pixels.
- Width - specify the **width of the table**

# USING CELLSPECING ATTRIBUTE

```
<html>
<body>
<table cellspacing="25" border="1">
<tr><th>Table Heading 1</th>
<th>Table Heading 2</th>
</tr>
<tr><td>Table Contents 1</td>
<td>Table Contents 2</td>
</tr>
</body>
</html>
```

# USING CELLSPECING ATTRIBUTE

```
<html>
<body>
<table cellspacing="25" border="1">
<tr><th>Table Heading 1</th>
<th>Table Heading 2</th>
</tr>
<tr><td>Table Contents 1</td>
<td>Table Contents 2</td>
</tr>
</body>
</html>
```

C:\Documents and Settings\Administrator\Desktop\HTML\cellspacing.htm - Windows Internet Explorer

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Table Heading 1 Table Heading 2

Table Contents 1 Table Contents 2

Vertical Cell spacing

Horizontal Cell spacing

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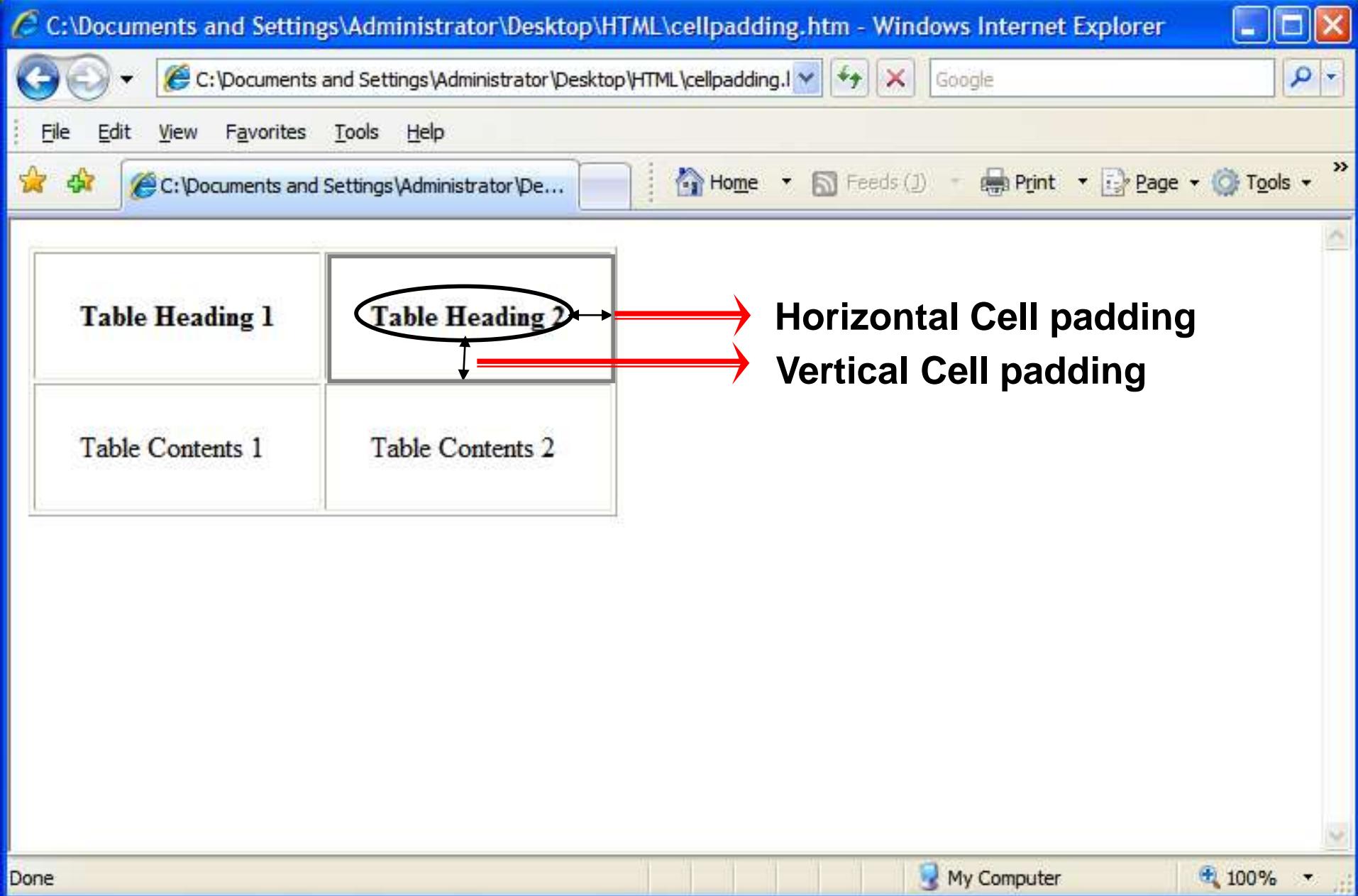
The screenshot shows a Microsoft Internet Explorer window displaying a 2x2 table. The top row contains two cells labeled 'Table Heading 1' and 'Table Heading 2'. The bottom row contains two cells labeled 'Table Contents 1' and 'Table Contents 2'. A red double-headed vertical arrow between the top row's cells indicates 'Vertical Cell spacing'. A red double-headed horizontal arrow between the bottom row's cells indicates 'Horizontal Cell spacing'.

# USING CELLPADDING ATTRIBUTE

```
<html>
<body>
<table cellpadding="25" border="1">
<tr><th>Table Heading 1</th>
<th>Table Heading 2</th>
</tr>
<tr><td>Table Contents 1</td>
<td>Table Contents 2</td>
</tr>
</body>
</html>
```

# USING CELLPADDING ATTRIBUTE

```
<html>
<body>
<table cellpadding="25" border="1">
<tr><th>Table Heading 1</th>
<th>Table Heading 2</th>
</tr>
<tr><td>Table Contents 1</td>
<td>Table Contents 2</td>
</tr>
</body>
</html>
```

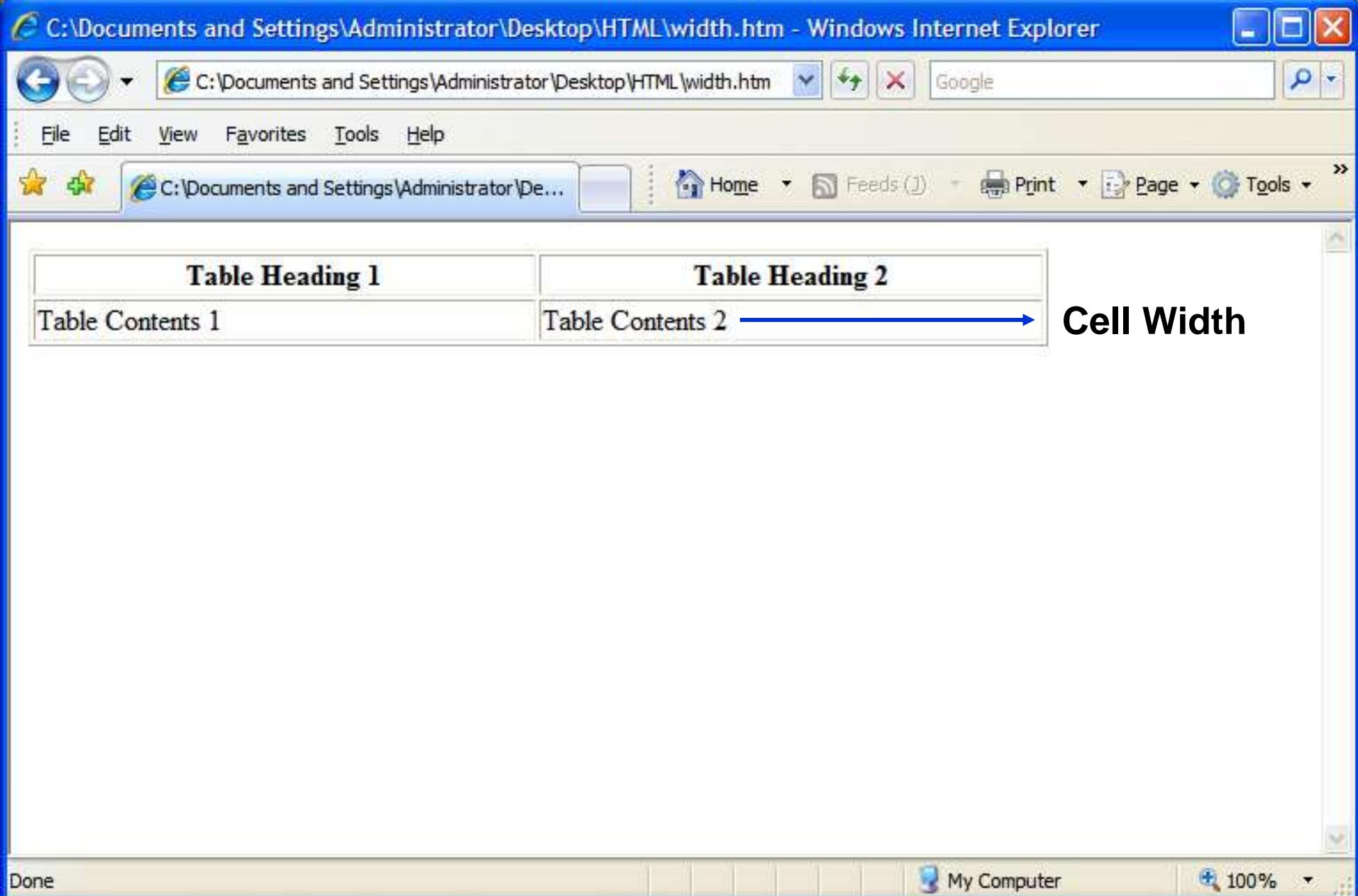


# USING WIDTH ATTRIBUTE

```
<html>
<body>
<table width="80%" border="1">
<tr><th>Table Heading 1</th>
<th>Table Heading 2</th>
</tr>
<tr><td>Table Contents 1</td>
<td>Table Contents 2</td>
</tr>
</body>
</html>
```

# USING WIDTH ATTRIBUTE

```
<html>
<body>
<table width="80%" border="1">
<tr><th>Table Heading 1</th>
<th>Table Heading 2</th>
</tr>
<tr><td>Table Contents 1</td>
<td>Table Contents 2</td>
</tr>
</body>
</html>
```



C:\Documents and Settings\Administrator\Desktop\HTML\width.htm - Windows Internet Explorer

File Edit View Favorites Tools Help

Home Feeds (J) Print Page Tools

Table Heading 1 Table Heading 2

Table Contents 1 Table Contents 2

if Cell Width = 20%

Done My Computer 100%

# Table Alignment Related Attribute

- HTML tables can be aligned on the page, and cell content can be aligned within the cell.

This attribute use to align HORIZONTALLY is **ALIGN**

Attribute values are

- LEFT
- CENTER
- RIGHT

This attribute use to align VERTICALLY is **VALIGN**

Attribute values are

- TOP
- MIDDLE
- BOTTOM

**The blinking attribute value is the default value for VALIGN.**

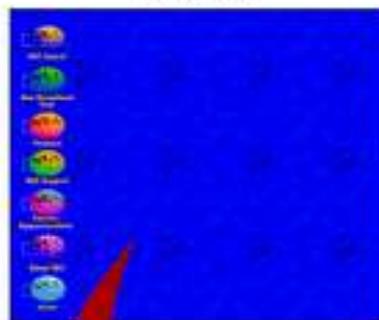
# Table Alignment

| ALIGN="left"          | ALIGN="center" | ALIGN="right" |
|-----------------------|----------------|---------------|
| VALIGN="top">Cell1    | Cell2          | Cell3         |
| VALIGN="middle">Cell4 | Cell5          | Cell6         |
| VALIGN="bottom">Cell7 | Cell8          | Cell9         |

# Frames

- Frames allow **more than one Web page** at a time to be **displayed within the browser window**
- When frames are used, the **page opened** in the browser **contains instructions** about
  - **how the browser window is to be divided into separate regions**
  - **which page** should be initially **displayed** into each region.

Toolbar.html



Products.html



- [3D Graphics Accelerators/PowerVR™](#)
- [Access Products](#)
- [ASICs](#)
- [ATM Products for Corporate Networks](#)
- [ATM Products for Public Networks](#)
- [Automated Fingerprint Identification](#)
- [Automotive Electronics](#)
- [Capacitors](#)
  - [NEOCAPACITOR®](#)
  - [E-Series Double Chip Capacitor](#)
- [CCD Camera](#)
- [CD-ROM](#)
- [Color Telephone](#)
- [Computer Systems](#)
  - [Desktop](#)
  - [Network PC](#)
  - [Notebooks](#)
  - [Server](#)
  - [Workstations](#)
- [Data Communications Products](#)
  - [CSU/DSU](#)
  - [Modem 28800 V.34 Modem/2mm](#)
- [Disk Drives](#)
- [Displays](#)
  - [Electron Injection Backlight \(ELB\)](#)
  - [Plasma Display Panel](#)
  - [TFT Color LCD Panels](#)



Both files are joined into a single page using frames

# Good things about frames

- **Elements that the user should always see**, such as control bars, copyright notices, and title graphics can be **placed in a static frame**. As the user navigates the site in "live" frames, the static frame's contents remain fixed
- **Table of contents** are more functional
- Frames side-by-side design allows **queries to be posed and answered on the same page**, with one frame holding the query form, and the other presenting the results.

# Bad things about frames

- Not all browsers support frames
- Search engines don't deal well with frames
- Printing become more difficult
- Creating browser bookmarks may not work
- Saving pages may be more complicated

Many of these problems are technology issues. Once a solution (and a standard) is found, frames may become more attractive.

# Examples

**Sites that use frames:**

- [BMW](#)
- [Microsoft Library](#)
- [DePaul University calendar](#)

**Some sites that moved to a frame-free design:**

- [Amazon.com](#)
- [CTI](#)
- [Gap.com](#)

## 7. FRAMES

### INTRODUCTION TO FRAMES

Until now each web page when opened takes over the entire browser screen. The browser screen could not be split into separate (unique) sections, showing different but related information.

The HTML tags that divide a browser screen into two or more HTML recognizable unique regions is the **<FRAMESET>** **</FRAMESET>** tags. Each unique region is called a frame. Each frame can be loaded with a different document and hence, allow multiple HTML documents to be seen concurrently.

The HTML frame is a powerful feature that enables a web page to be broken into different unique sections that, although related, operate independently of each other.

#### The **<FRAMESET>** Tag

The splitting of a browser screen into frames is accomplished with the **<FRAMESET>** and **</FRAMESET>** tags embedded into the HTML document. The **<FRAMESET> ... </FRAMESET>** tags require one of the following two attributes depending on whether the screen has to be divided into rows or columns.

|             |                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Rows</b> | This attribute is used to divide the screen into multiple rows. It can be set equal to a list of values. Depending on the required size of each row. The values can be:<br><input type="checkbox"/> A number of pixels<br><input type="checkbox"/> Expressed as a percentage of the screen resolution<br><input type="checkbox"/> The symbol *, which indicates <i>the remaining space</i> .       |
| <b>Cols</b> | This attribute is used to divide the screen into multiple columns. It can be set equal to a list of values. Depending on the required size of each column. The values can be:<br><input type="checkbox"/> A number of pixels<br><input type="checkbox"/> Expressed as a percentage of the screen resolution<br><input type="checkbox"/> The symbol *, which indicates <i>the remaining space</i> . |

Table 7.1

#### Example:

```
<FRAMESET Rows="33%,33%,33%">  
  <FRAMESET Cols="50%,50%">  
    </FRAMESET>  
    <FRAMESET Cols="50%,50%">  
      </FRAMESET>  
    </FRAMESET>  
</FRAMESET>
```

-- Divides the browser screen into 3 equal Horizontal sections.  
-- Splits the 1<sup>st</sup> Horizontal Section into 2 equal Vertical sections.  
-- Splits the 2<sup>nd</sup> Horizontal section into 2 equal Vertical sections

#### The **<FRAME>** Tag

Once the browser screen is divided into rows (Horizontal Sections) and columns (Vertical Sections), each unique section defined can be loaded with different HTML documents. This is achieved by using the **<FRAME>** tag, which takes in the following attributes:

|                         |                                                                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>src="url"</b>        | Indicates the URL of the document to be loaded into the frame.                                                                    |
| <b>marginheight="n"</b> | Specifies the amount of white space to be left at the top and bottom of the frame.                                                |
| <b>marginwidth="n"</b>  | Specifies the amount of white space to be left along the sides of the frame.                                                      |
| <b>Name="name"</b>      | Gives the frame a unique name so it can be targeted by other documents. The name given must begin with an Alphanumeric character. |
| <b>Noresize</b>         | Disables the frames resizing capability.                                                                                          |
| <b>scrolling</b>        | Controls the appearance of horizontal and vertical scrollbars in a frame. This takes the values YES / NO / AUTO.                  |

Table 7.2

#### Example 1:

```
<HTML>
  <FRAMESET Rows = "30%, *">
    <FRAMESET Cols = "50%, 50%">
      <FRAME Src="file1.html">
      <FRAME Src="file2.html">
    </FRAMESET>
    <FRAMESET Cols="50%, 50%">
      <FRAME Src="file3.html">
      <FRAME Src="file4.html">
    </FRAMESET>
  </FRAMESET>
</HTML>
```

#### Output For Example 1:

#### Targeting Named Frames

Whenever a hyperlink, which loads a document in a frame is created, the file referenced in the hyperlink will be opened and will replace the current document that is in the frame.

In a situation where the new document needs to be opened in a different frame while keeping the document from which the new document was navigated open in a different frame, a simple HTML coding technique must be used.

Since the hyperlink must open an HTML file in another frame, the frame in which the HTML file is to be opened needs to be named. This is done by using the NAME attribute of the **<FRAME> ... </FRAME>** tags. The NAME takes one parameter, which is its frame name.

The hyperlink tag will have to be supplied with the following information

1. The *filename.htm* file that has to be opened (*navigated to*).
2. The name of the frame where the *filename.htm* file has to be opened.

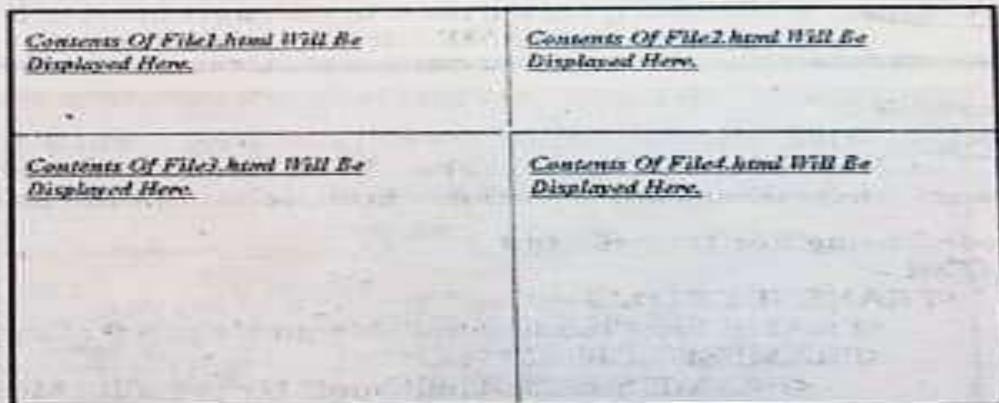


Diagram 7.1

# HTML Frames

- When frames are used, the HTML document has a different structure. There is no <BODY> tag, since a frame display the content of other pages.

<HTML>

<HEAD><TITLE></TITLE><HEAD>

<FRAMESET> (How many frames you will use)

<FRAME SRC="URL"> (The page to be displayed in the first frame)

<FRAME SRC="URL">

</FRAMSET>

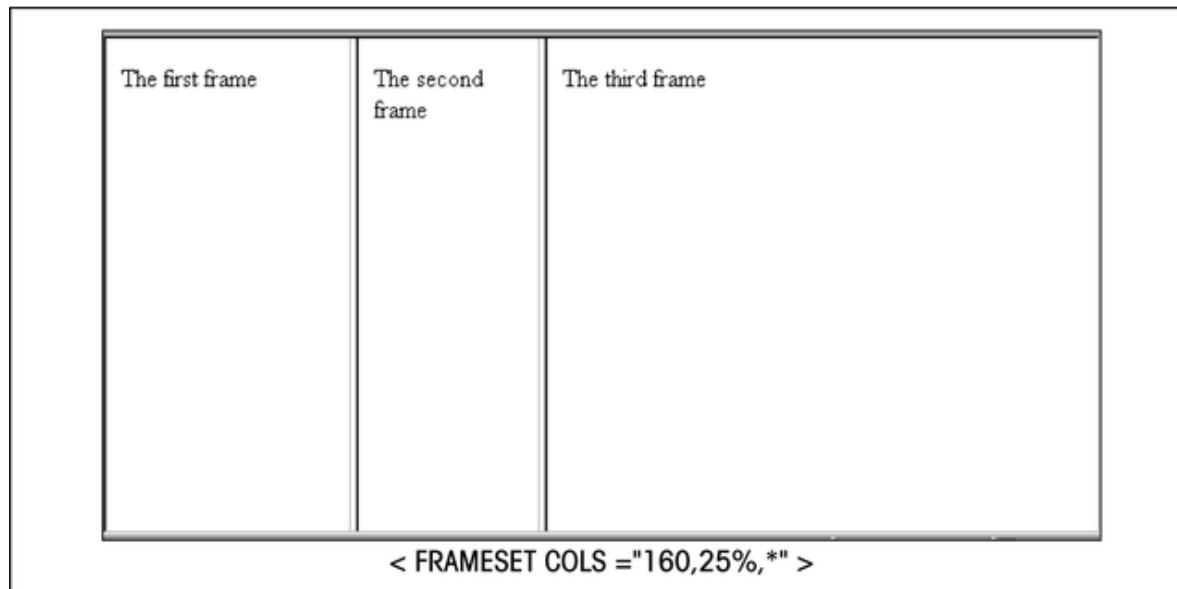
</HTML>

# <FRAMESET> Attributes

- **COLS=“160,25%,\*”>** a 3 columns frameset.
  - The 1<sup>st</sup> is 160pixels wide
  - The 2<sup>nd</sup> is 25% of the width of the display area
  - The 3<sup>rd</sup> covers the remaining space
- **ROW=“row height 1, row height 2 ..”>**

# The <FRAME> tag

- <FRAME SRC="URL"> URL is the name of the page to be displayed in this frame. If you have a 3 columns frameset you need 3 <FRAME SRC>



# <FRAME> Attributes

- **FRAMEBORDER = 1 | 0>**
  - 1: draws a separator between this frame and every adjoining frame, default value
  - 0: no separator between this frame and every adjoining frame
- **SCROLLING = auto | yes | no>**
  - Set to "no" to prevent scroll bars
- **NORESIZE >**
  - prevents user from resizing the frames

# More <FRAME> Attributes

- **NAME = frame\_name**
  - Identifies each frame in the frameset
  - Is used to identify that frame when we want to display a page within that frame.

**<A HERF="URL" TARGET= frame\_name>**

- **Frame\_name** can be any single word except the following

# Reserved TARGET names

- **TARGET = “\_blank”** loads page in a new blank browser window (no frame)
- **TARGET = “\_self”** loads page in the same frame as anchor element. The default.
- **TARGET = “\_parent”** loads page in the parent FRAMESET
- **TARGET = “\_top”** loads page in the full browser window. This should be the choice for external links

The attribute, via which the frame name is specified is the **Target** attribute, which is a part of the **<A>...</A>** tag. This information is given as:  
**Target = "<Frame\_Name>"**

The attribute, via which the HTML file name is specified is the **HRef** attribute which is a part of the **<A>...</A>** tag. This information is given as:  
**<A HRef="index.html" Target="Main">Visit us</A>**

#### **Example:**

##### Frame Identification:

```
<FRAMESET Cols = 30%, 70%>
    <FRAME Name="Part">
        <FRAME Name="Main">
</FRAMESET>
```

The above command will divide the browser screen into two vertical frames the first frame called **Part** that will occupy 30% of the browser area and the second frame called **Main** will occupy 70% of the browser area.

##### Hyperlink Specification:

```
<A HRef="Index.html" Target="Main">Visit us</A>
```

Here, an HTML file called **Index.html** is loaded into the frame named **Main** when the hyperlink Visit us is clicked.

#### **Note**



While specifying the name of the target frame in the **TARGET** attribute, the case must be same as specified in the **NAME** attribute of the **<A> </A>** tag.

#### **Example 2:**

The following example divides the browser screen into 3 frames. The need is to give information about SCT staff. The startup file is **frames.html**, which loads three different documents in the three different frames. These documents are **header.html**, **sctfamil.html** and **desc.html**.

##### **Code Listing For frames.html**

```
<HTML>
    <FRAMESET ROWS = "70, *">
        <FRAME Src="header.html" MarginHeight=0 MarginWidth=0 Name="FRAME1">
        <FRAMESET Cols="35%, *">
            <FRAME Src="sctfamil.html" Name="FRAME2">
            <FRAME Src="desc.html" Name="FRAME3">
        </FRAMESET>
    </FRAMESET>
</HTML>
```

#### **Note**



When **<FRAMESET>** is being coded within an HTML document, the **<BODY> </BODY>** tags are not used.

**Code Listing For header.html**

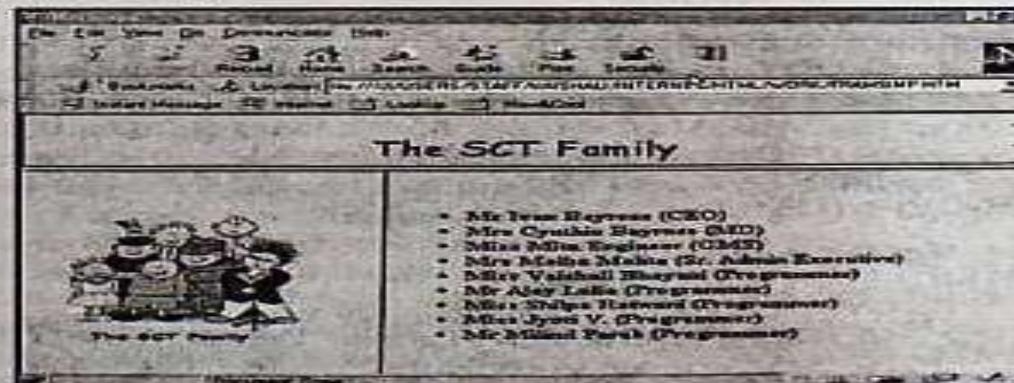
```
<HTML>
  <BODY Background = "../images/texture1.gif">
    <FONT Face = "Comic Sans MS"><BR>
      <CENTER><H2>The SCT Family</H2></CENTER>
    </BODY>
</HTML>
```

**Code Listing for sctfamil.html**

```
<HTML>
  <BODY Background = "../images/texture1.gif"><BR><BR>
    <CENTER><IMG Height=175 Src="../images/sctfamil.gif" Width=150></CENTER>
  </BODY>
</HTML>
```

**Code Listing for desc.html**

```
<HTML>
  <BODY Background = "../images/texture1.gif"><BR><BR>
    <B><UL>
      <LI>Mr Ivan Bayross (CEO)
      <LI>Mrs Cynthia Bayross (MD)
      <LI>Miss Mita Engineer (GMS)
      <LI>Mrs Melba Mehta (Sr. Admin Executive)
      <LI>Miss Vaishali Bhayani (Programmer)
      <LI>Mr Ajay Lulia (Programmer)
      <LI>Miss Shilpa Ratwani (Programmer)
      <LI>Miss Jyoti V. (HR Manager)
      <LI>Mr Milind Parab (Marketing Executive)
    </UL></B>
  </BODY>
</HTML>
```

**Output For Example 2:****Diagram 7.2****FOCUS**

The DEPL site will now have a starting page as a brief introduction of the company, consisting of Logo Name and what the company does in a few words.

The starting page should provide hyperlinks, which give more detailed information about a topic. The Company Logo, Name and the site index must always be visible when the site is navigated through.

## Marquee Tag: <marquee> </marquee>

If you want your text to move within the screen, use this tag.

Example :

<marquee> This text will move </marquee>

The text in between the tags will move horizontally.

## Marquee .....Attribute: bgcolor Attribute: height, width

- **bgcolor** This sets the background color for marquee path  
Example :  
`<marquee bgcolor=orange> Moving Text </marquee>`
- **width** :The attribute width sets the width of marquee area  
**height:** The attribute height sets the height of marquee area  
Example :  
`<marquee bgcolor=orange width=100 height=20> Moving Text </marquee>`

## Marquee ..... Attribute: direction

- This sets the direction for the text.
- It takes values  
**LEFT or RIGHT or UP or DOWN**

Example :

```
<marquee bgcolor=orange width=100  
height=20 direction=right> Text will Move  
</marquee>
```

## **Marquee ..... Attribute: behavior**

This sets the background color for marquee path.

It takes values

**BEHAVIOR=SCROLL**, which is the default, indicates that the content should scroll off the edge of the marquee area, then reappear on the other side:

**BEHAVIOR=SLIDE**, is almost the same, except that it indicates that when the leading part content reaches the left edge it should stop without scrolling off.

**BEHAVIOR= ALTERNATE**, makes the content bounce back and forth, all of it remaining visible all the time

**Example:**

```
<marquee bgcolor=orange width=200 height=20  
direction=right behavior=alternateText</marquee>
```

## Marquee ..... Attribute: LOOP

- LOOP sets how many times the marquee should loop.
- The default value (i.e. if you don't put a LOOP attribute at all) is INFINITE, which means that the marquee loops endlessly.
- This code creates a marquee that loops twice:

Example: <MARQUEE LOOP=2> Moving text </MARQUEE>

- One of the problems with LOOP is that the content disappears after the last loop.
- To set the marquee so that the content is visible when the looping is done set BEHAVIOR SLIDE:
- Example:  
<MARQUEE LOOP=2 BEHAVIOR=SLIDE> Moving text  
</MARQUEE>

## Marquee ..... Attribute: scrollamount

- This controls the amount of movement (in pixels) between the successive displays that give the impression of animation.

Example :

```
<marquee bgcolor = orange width=200  
height=20 direction=right behavior=alternate  
scrollamount = 5> Moving Text </marquee>
```

## Marquee ..... Attribute: scrollDelay

- This controls the delay (in milliseconds) between the successive displays that give the impression of animation.

Example :

```
<marquee bgcolor=orange width=200 height=20  
direction=right behavior=alternate scrolldelay =  
5> Scrolling Text Tag </marquee>
```

# HTML FORMS

# Client-side Web Application Development Forms

 Jackson  
Electronics

## Registration Form

|                                                                                        |                                                                                                                                                                                             |            |                                                |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------|
| First Name:                                                                            | <input type="text"/>                                                                                                                                                                        | Last Name: | <input type="text"/>                           |
| Address #1:                                                                            | <input type="text"/>                                                                                                                                                                        |            |                                                |
| Address #2:                                                                            | <input type="text"/>                                                                                                                                                                        |            |                                                |
| City:                                                                                  | <input type="text"/>                                                                                                                                                                        | State:     | <input type="text"/> Zip: <input type="text"/> |
| Country:                                                                               | <input type="text" value="United States"/>                                                                                                                                                  |            |                                                |
| Product:                                                                               | <input type="text" value="ScanMaster"/> <input checked="" type="checkbox"/>                                                                                                                 |            |                                                |
| Date Purchased:                                                                        | <input type="text"/>                                                                                                                                                                        |            |                                                |
| Serial #:                                                                              | <input type="text"/>                                                                                                                                                                        |            |                                                |
| Used for:                                                                              | <input type="radio"/> Home<br><input checked="" type="radio"/> Business<br><input type="radio"/> Government<br><input type="radio"/> Educational Institution<br><input type="radio"/> Other |            |                                                |
| System (check all that apply):                                                         | <input type="checkbox"/> Windows<br><input type="checkbox"/> Macintosh<br><input type="checkbox"/> UNIX<br><input type="checkbox"/> Other                                                   |            |                                                |
| Comments?                                                                              | <input type="text"/>                                                                                                                                                                        |            |                                                |
| <input type="button" value="Send Registration"/> <input type="button" value="Cancel"/> |                                                                                                                                                                                             |            |                                                |

# How do forms work?

- Forms are used on the Web to collect information from users
- The information is then sent to a program running on the Web server called **CGI** script (**C**ommon **G**ateway **I**nterface)
- The CGI script receives the data from the Web page, then acts on that data to perform a certain task

# What are forms?

- <form> is just another kind of HTML tag
- HTML forms are used to create (rather primitive) GUIs on Web pages
  - Usually the purpose is to ask the user for information
  - The information is then sent back to the server
- A form is an area that can contain form elements
  - The syntax is: <form **parameters**> ...**form elements...** </form>
  - Form elements include: buttons, checkboxes, text fields, radio buttons, drop-down menus, etc
    - Other kinds of HTML tags can be mixed in with the form elements
  - A form usually contains a **Submit** button to send the information in the form elements to the server
  - The form's **parameters** tell JavaScript how to send the information to the server (there are two different ways it could be sent)
  - Forms can be used for other things, such as a GUI for simple programs

# Forms/CGI script interaction

The Web page form is completed  
and sent to the Web server ...

Jackson  
Electronics

Registration Form

First Name:

Last Name:

Address #1:

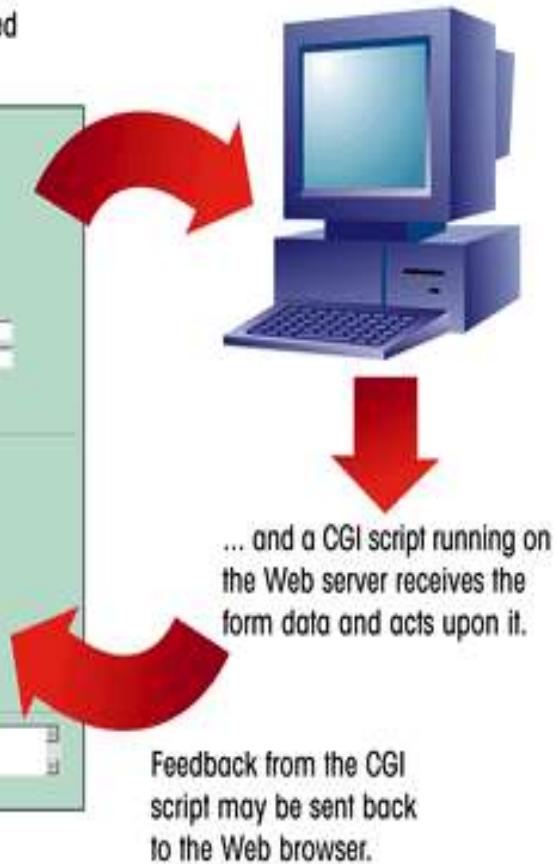
Address #2:

City:  State:  Zip:

Product:  Client  Business  Government  Educational Institution  Other

Employment Status:  Full-time  Part-time  Contract  Intern  Other

Comments:

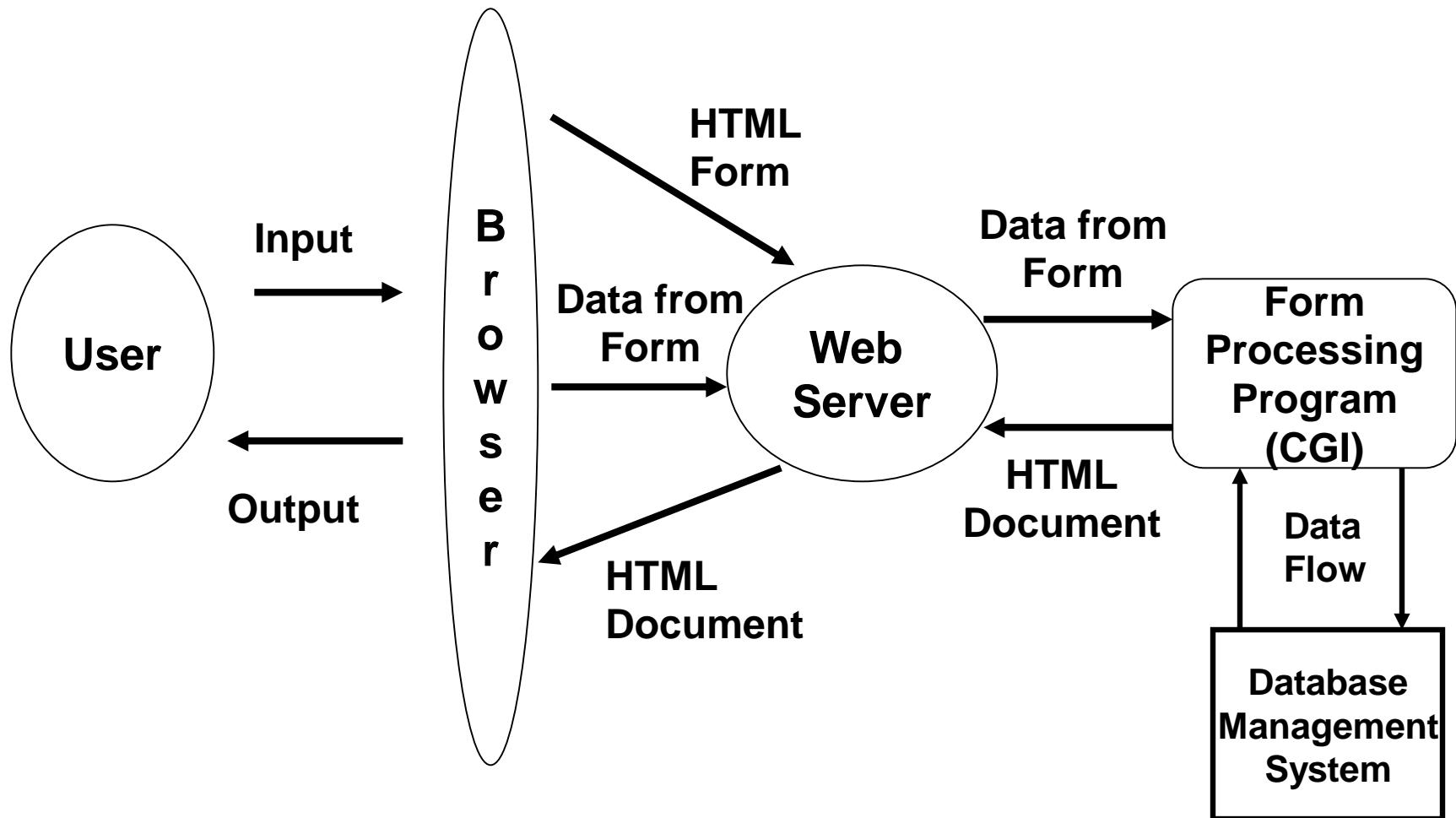


## CGI script languages

- AppleScript
- C/C++
- Perl
- The Unix shell
- Visual Basic
- ASP

# USER INTERACTIONS: FORMS

# Form Processing



Flow of Information for Forms

Figure 6-3

## PARTS OF A FORM

The diagram illustrates a registration form with various input fields and their corresponding labels:

- input box:** First Name: [Input Box], Last Name: [Input Box]
- drop-down list box:** City: [Input Box], State: [Input Box], Zip: [Input Box]
- radio buttons:** Country: [Input Box] (Country is grouped with the dropdown list)
- check boxes:** Product: [Input Box] (Product is grouped with the dropdown list)
- radio buttons:** Date Purchased: [Input Box] (Date Purchased is grouped with the dropdown list)
- radio buttons:** Used for:
  - Home
  - Business
  - Government
  - Education
  - Other
- check boxes:** System (check all that apply):
  - Windows
  - Macintosh
  - UNIX
  - Other
- text area:** Comments?: [Text Area]
- reset button:** [Reset Button]
- submit button:** Send Registration [Submit Button] | Cancel [Submit Button]

# Forms and JavaScript

- The JavaScript language can be used to make pages that “do something”
  - You *can* use JavaScript to write complete programs, but...
  - Usually you just use snippets of JavaScript here and there throughout your Web page
  - JavaScript code snippets can be attached to various form elements
    - For example, you might want to check that a `zipcode` field contains a 5-digit integer before you send that information to the server
- Microsoft sometimes calls JavaScript “active scripting”
- HTML forms can be used without JavaScript, and JavaScript can be used without HTML forms, but they work well together

# Forms

- HTML Forms are used to select different kinds of user input.
- A form is an area that can contain form elements.
- **Field:** Each element in which user can enter information
- **Field value:** Data entered in a field
- **<FORM> ...</FORM>:** Encloses the form elements and layout tags
- **<INPUT>:** For each field you have to specify the type of input (input box, radio button etc)

# The <form> tag

- The <form **arguments**> ... </form> tag encloses form elements (and probably other HTML as well)
- The arguments to **form** tell what to do with the user input
  - **action="url"** (required)
    - Specifies where to send the data when the **Submit** button is clicked
  - **method="get"** (default)
    - Form data is sent as a URL with **?form\_data** info appended to the end
    - Can be used *only* if data is all ASCII and not more than 100 characters
  - **method="post"**
    - Form data is sent in the body of the URL request
    - Cannot be bookmarked by most browsers
  - **target="target"**
    - Tells where to open the page sent as a result of the request
    - **target=\_blank** means open in a new window
    - **target=\_top** means use the same window

# Form structure

```
<FORM>
```

```
  <TABLE>
```

```
    <TR>
```

```
      <TD>First Name: </TD>
```

```
      <TD> <INPUT NAME=FirstName> </TD>
```

```
    </TR>
```

```
    <TR>
```

```
      <TD>Address: </TD>
```

```
      <TD> <INPUT NAME=Address> </TD>
```

```
    </TR>
```

```
  </TABLE>
```

```
</FORM>
```

First Name:

Address:

# <FORM> Attributes

```
<FORM NAME=text ACTION=URL METHOD=GET/POST>
```

- **NAME**: Identifies the form
- **ACTION**: Identifies the CGI script that will process the form
- **METHOD**: Controls how the browser sends data to the Web server for the CGI Script.
  - **GET**: Packages the form data by appending it to the end of the URL: specified in the ACTION property
  - **POST**: Send form information in a separate data stream

# The <input> tag

- Most, but not all, form elements use the `input` tag, with a `type="..."` argument to tell which kind of element it is
  - `type` can be `text`, `checkbox`, `radio`, `password`, `hidden`, `submit`, `reset`, `button`, `file`, or `image`
- Other common `input` tag arguments include:
  - `name`: the name of the element
  - `value`: the “value” of the element; used in different ways for different values of `type`
  - `readonly`: the value cannot be changed
  - `disabled`: the user can’t do anything with this element
  - Other arguments are defined for the `input` tag but have meaning only for certain values of `type`

# Text input

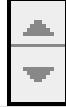
A text field:

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

A text field:

A multi-line text field

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

A multi-line text field   


A password field:

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

A password field:

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

# <INPUT> attributes

```
<INPUT NAME=text VALUE=text/# SIZE=#  
      MAXLENGTH=# TYPE=predefined>
```

- **NAME**: Identifies the field
- **SIZE**: Of the input box, in characters, default is 20, does **not** limit the input
- **VALUE**: Default text or number that will appear in the field
- **MAXLENGTH**: Max # of characters user can input
- **TYPE**: text box is the default

## <INPUT TYPE = >

- **PASSWORD**: Characters typed by user are displayed as bullets or asterisk
- **HIDDEN**: used to pass hidden information to the CGI script (like the email of the person that should receive the form).
  - The user does not see the content of the field
  - The user is not allowed to change the value of the hidden field
  - Usually all hidden fields are placed right after the <FORM> tag

# Radio buttons

```
<INPUT TYPE=RADIO NAME=text VALUE=value CHECKED>
```

- Display a list of choices from which the user makes a selection
- **NAME**: the field containing the radio button. The same may be used for many buttons.
- **VALUE**: the value sent to the CGI script
- **CHECKED**: makes the particular radio button the default choice

# Check Boxes

```
<INPUT TYPE=CHECKBOX NAME=text VALUE=value CHECKED>
```

- It is either selected or not. There is only one check box per field
- **NAME**: the field containing the check box
- **VALUE**: the value sent to the CGI script if the check box is selected (yes/no)
- **CHECKED**: makes the particular check box the default choice

# Text area

```
<TEXTAREA NAME=text COLS/ROWS=value WRAP=option>  
    Default text    </TEXTAREA>
```

- Allows users to enter comments
- **NAME**: the field containing the text area
- **ROWS**: number of available lines
- **COLS**: number of characters in each line
- **WRAP**:
  - OFF: turns off text wrapping
  - SOFT (VIRTUAL): turn text wrapping on

# Selection lists

```
<SELECT NAME=text SIZE=value MULTIPLE>
    <OPTION> Option 1
    <OPTION> Option 2
</SELECT>
```

- A list box from which the user selects a particular (set of ) value(s). (Drop-down menus)
- **SIZE**: # of items the list displays in the form
- **MULTIPLE**: using the CTR or SHFT key the user can select more than one item

# Form Buttons

```
<INPUT TYPE="text" VALUE="text">
```

- Form fields that perform an action when activated (by the user clicking)
- **VALUE**: text that appears on the button
- **TYPE=**
  - **SUBMIT**: Submits the form to the CGI script
  - **RESET**: Cancels or resets the appearance of a form
  - **BUTTON**: Performs an action within the page by running a script

# HTML FORMS

# Developing HTML Forms

## Form

- An HTML form is a section of a document containing normal content, markup, special elements called *controls* (checkboxes, radio buttons, menus, etc.), and labels on those controls.
- Users generally "complete" a form by modifying its controls (entering text, selecting menu items, etc.), before submitting the form to an agent for processing (e.g., to a Web server, to a mail server, etc.)<sup>3</sup>

## Form (Contd.)

- A form is defined with the `<form>` tag.



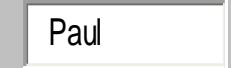
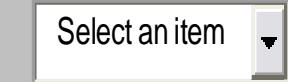
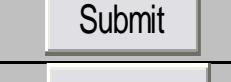
# Form Controls

- TextField:
  - Are used to accept user input. It is a single line input control.
- CheckBox
  - Checkboxes are used when you want the user to select one or more options of a limited number of choices.
- RadioButton
  - Radio Buttons are used when you want the user to select one of a limited number of choices.
- Select
  - Are used when you want users to choose options from a selectable lists.
- TextArea
  - Are used to accept user input. TextArea allows entry of multiple lines.

## Form Controls (Contd.)

- PushButton
  - Each push button may have client side script associated with the element's event attributes. When an event occurs (e.g., the user presses the button, releases it, etc.), the associated script is triggered.
- Submit Button
  - When activated, a submit button submits a form. A form may contain more than one submit button.
- Reset Button
  - When activated, a reset button resets all controls to their initial values.

# Form Controls (Contd)

| Form Component | Tag        | Attribute |      |       | Usage                                                               | Output                                                                                |
|----------------|------------|-----------|------|-------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| TextField      | <input>    | type      | name | value | <input type="text" name="t1" value="Paul">                          |    |
| Checkbox       | <input>    | type      | name | value | <input type="checkbox" name="c1" value="v1">                        | <input checked="" type="checkbox"/>                                                   |
| RadioButton    | <input>    | type      | name | value | <input type="radio" name="r1" value="v2">                           | <input type="radio"/>                                                                 |
| ComboBox       | <select>   | name      |      |       | <select name="s1"><option value="v1">Display item</option></select> |    |
|                | <option>   | value     |      |       |                                                                     |                                                                                       |
| TextArea       | <textarea> | row       | col  | name  | <textarea name="n1" row="5" col="20">                               |    |
| PushButton     | <input>    | type      | name | value | <input type="button" name="b1" value="Click">                       |    |
|                |            |           |      |       | <input type="submit" name="s1" value="Submit">                      |   |
|                |            |           |      |       | <input type="reset" value="Reset">                                  |  |

# Example of a Form

```
<html>
<head>
<title>
Form Example</title>
</head>
<body bgcolor=pink >
<center>
<h3> Data Entry Form</h3>
<form>
<table>
<tr><td>Name</td><td> <input
    type="text" name="t1"> </td></tr>
<tr><td>Gender</td><td> <input
    type="radio" name="r1" value="m">
Male
<input type="radio" name="r1"
    value="f">Female</td></tr>
<tr><td>Qualification</td><td><select
    name="s">
<option >Select</option>
<option value="M.Sc">M.Sc</option>
<option value="M.A.">MA</option>
<option
    value="other">other</option></sele
ct>
</td></tr>
<tr><td> <input type="submit"
    value="submit"> </td>
<td> <input type="reset" value="reset">
</td></tr>
</table>
</center>
</form>
</body>
</html>
```

# Output of the Form

The screenshot shows a Microsoft Internet Explorer window titled "Form Example - Microsoft Internet Explorer". The address bar contains "Form.html". The main content area displays a "Data Entry Form" with the following fields:

- Name: An input text field.
- Gender: A radio button group with options "Male" and "Female".
- Qualification: A dropdown menu labeled "Select".
- Action buttons: "submit" and "reset".

The browser interface includes standard toolbar icons for Back, Forward, Stop, Refresh, Home, Search, Favorites, and Print. The status bar at the bottom shows "Done" and "My Computer".

## Fieldset & Legend Tag

- The fieldset tag is used to group the form elements whilst the legend tag provides a label for the fieldset.
- The HTML legend tag is used for labelling the fieldset element.
- By using the fieldset tag and the legend tag, you can make your forms much easier to understand for your users.

# Output Required

C:\Documents and Settings\Administrator\Desktop\HTML\legend.htm - Windows Internet Explorer

File Edit View Favorites Tools Help

Open PDF in Word

Home Feeds Print Page Tools

**Address Details**

Favorite Address

Least Favorite Address

Current Address

Your Next Address

**Personal Info**

Name :  Age :  Gender :  Male  Female

Done My Computer 100%

## Code Snippet

```
<html>
<body>
<fieldset style="text-align:right;">
<legend><b>Address Details</b></legend>
Favorite Address <input type="text" /><br/>
Least Favorite Address <input type="text" /><br/>
Current Address <input type="text" /><br/>
Your Next Address <input type="text" /><br/>
</fieldset>
<br>
```

```
<fieldset align="left">
<legend>Personal Info</legend>
Name : <input type="text">
Age : <input type="text">
Gender :
<input type="radio"
name="r1">Male
<input type="radio"
name="r1">Female
</fieldset>
</body>
</html>
```

## <fieldset> tag is used to group the form elements

```
<html>
<body>
<fieldset style="text-align:right;">
<legend><b>Address Details</b></legend>
Favorite Address <input type="text" /><br/>
Least Favorite Address <input type="text" /><br/>
Current Address <input type="text" /><br/>
Your Next Address <input type="text" /><br/>
</fieldset>
<br>
```

```
<fieldset align="left">
<legend>Personal Info</legend>
Name : <input type="text">
Age : <input type="text">
Gender :
<input type="radio"
name="r1">Male
<input type="radio"
name="r1">Female
</fieldset>
</body>
</html>
```

**<legend>** tag is used give a suitable label to the group.

```
<html>
<body>
<fieldset style="text-align:right;">
<legend><b>Address Details</b></legend>
Favorite Address <input type="text" /><br/>
Least Favorite Address <input type="text" /><br/>
Current Address <input type="text" /><br/>
Your Next Address <input type="text" /><br/>
</fieldset>
<br>
```

```
<fieldset align="left">
<legend>Personal Info</legend>
Name : <input type="text">
Age : <input type="text">
Gender :
<input type="radio"
name="r1">Male
<input type="radio"
name="r1">Female
</fieldset>
</body>
</html>
```

C:\Documents and Settings\Administrator\Desktop\HTML\legend.htm - Windows Internet Explorer

File Edit View Favorites Tools Help

Open PDF in Word

Home Feeds ( ) Print Page Tools

**Address Details**

Given a Label using legend tag

**Personal Info**

Name :  Age :  Gender :  Male  Female

Favorite Address   
Least Favorite Address   
Current Address   
Your Next Address

Created groups using fieldset tag

Done My Computer 100%

# Form Controls using Attributes:

## ***INPUT Attribute definitions***

- type = text|password|checkbox|radio|submit|reset|file|hidden|image|button
  - This attribute specifies the ‘type of control’ to create. The default value for this attribute is "text".
- name = *cdata*
  - This attribute assigns the ‘control name’.
- value = *cdata*
  - This attribute specifies the ‘initial value’ of the control. It is optional except when the ‘type’ attribute has the value "radio" or "checkbox".
- size = *cdata*
  - This attribute tells the initial width of the control. The width is given in pixels except when ‘type’ attribute has the value "text" or "password". In that case, its value refers to the (integer) number of characters.

# Form Controls using Attributes:

## ***INPUT Attribute definitions (Contd ...)***

- *maxlength = number*
  - When the 'type' attribute has the value "text" or "password", this attribute specifies the maximum number of characters the user may enter. This number may exceed the specified 'size' , in which case the user should offer a scrolling mechanism. The default value for this attribute is an unlimited number.
- *Checked*
  - When the 'type' attribute has the value "radio" or "checkbox", this boolean attribute specifies that the button is on.
- *src = uri*
  - When the 'type' attribute has the value "image", this attribute specifies the location of the image to be used to decorate the graphical submit button.

# Form Controls using Attributes:

## ***SELECT Attribute definitions***

- ***name = cdata***
  - This attribute assigns the control name.
- ***size = number***
  - If a SELECT element is presented as a scrolled list box, this attribute specifies the number of rows in the list that should be visible at the same time.
- **Multiple**
  - If set, this boolean attribute allows multiple selections. If not set, the SELECT element only permits single selections.

# Pre – Selected Options:

- Zero or more choices may be pre-selected for the user. Users should determine which choices are pre-selected as follows:
  - If no ‘OPTION’ element has the ‘selected’ attribute set, the initial state has the first option selected.
  - If one ‘OPTION’ element has the ‘selected’ attribute set, it should be pre-selected.
  - If the ‘SELECT’ element has the ‘multiple’ attribute set and more than one ‘OPTION’ element has the ‘selected’ attribute set, they should all be pre-selected.
  - It is considered an error if more than one ‘OPTION’ element has the ‘selected’ attribute set and the ‘SELECT’ element does not have the ‘multiple’ attribute set.

# Summary

- HTML is used for publishing web page.
- A tag is a reference in an HTML document which describes the style and structure of the document.
- <TABLE> with <TR>,<TH>,<TD> tags are used to construct a tabular structure in HTML.
- To create a List of items in HTML, tags used are <OL>and <UL>.
- Tags that separate from one line to others are <P>, <BR>, <HR>.
- It is used to include preformatted text into your HTML document.
- <BLOCKQUOTE> tag is used to include indented text in a document.
- The purpose of Logical Character Style tags is to convey the basic semantic meaning of a piece of text rather than the absolute appearance.
- Physical Character Style tags is used to give your text a different look but exacting look.
- <Font> tag is used to change the font size, color and face in a document.

## Summary (Contd.)

- Special characters are those that has a special meaning in HTML and those are not found on English keyboards.
- HTML uses the <a> (anchor) tag to create a link to another document.
- In Html images are defined by using the <img> tag
- The <img> tag is a open tag ( does not have a </img>)
- Web style sheets are a form of separation of presentation and content for web design .
- CSS syntax is made up of three parts: Selector, property and value
- Internal style sheets are used when a unique style is required for a document.
- Internal style are defined in the <head> tag section by using the <style> tag

## Summary (Contd.)

- Internal style sheets are used when a unique style is required for a document.
- Internal style are defined in the `<head>` tag section by using the `<style>` tag
- With the class selector you can define different styles for the same type of HTML element
- `<Span>` is a inline tag.
- Span is used to format small chunks of data within another element. An HTML form is a section of a document containing normal content, markup, special elements called controls.
- Some of the common controls are checkboxes, radio buttons, Textfields, etc.
- Fieldset & Legend tags are used for grouping form elements and giving a suitable name to the group respectively.

## Test Your Understanding

1. Select the correct option for making a hyperlink?

- a. `<a href="http://www.w3schools.com">W3Schools</a>`
- b. `<a url="http://www.w3schools.com">W3Schools.com</a>`
- c. `<a>http://www.w3schools.com</a>`
- d. `<a name="http://www.w3schools.com">W3Schools.com</a>`

2. Style Sheet can decide presentation of a web page

- a. false
- b. true

## Test Your Understanding (Contd.)

3. The <style> tag should be embedded within:
- a. <body>
  - b. <form>
  - c. <head>
  - d. <img>
4. With the \_\_\_\_\_ selector you can define different styles for the same type of HTML element.
- a. Form
  - b. Button
  - c. Span
  - d. class

## Test Your Understanding (Contd.)

5. The \_\_\_\_\_ attribute of table tag separates text from the cell border

- a. CELLPADDING
- b. CELLSPECING
- c. BORDERSPACING
- d. TABLESPACING

6. What is the default font size in a web page.

- a. 1
- b. 2
- c. 3
- d. 5

## Test Your Understanding (Contd.)

Match Group A with B

Group A

|               |
|---------------|
| a. <TR>       |
| b. <SPAN>     |
| c. <STRONG>   |
| d. <FIELDSET> |
| e. <HR>       |

Group B

|      |                                         |
|------|-----------------------------------------|
| i.   | Emphasizes the text enclosed within it. |
| ii.  | Used to group the form elements.        |
| iii. | Creates a horizontal rule.              |
| iv.  | Creates a new row in a table            |
| v.   | Used to format small chunks of data.    |

# Web StyleSheets

# Cascading Style Sheet

- Web style sheets are a form of separation of presentation and content for web design .
- Style sheet can decide the presentation of web pages.
- Style sheet takes care of all the layout, fonts, colors and overall *look* of the site.

## Cascading Style Sheet (contd..)

- Principal means of Styling a document using Cascading style sheets are:

Inline style Sheet

Embedded style Sheet

External style Sheet

## Benefits of a Cascading Style Sheet

- Pages download faster.
- Page contains less code, and the pages are shorter and neater.
- The look of the site is kept consistent throughout all the pages that work off the same stylesheet.
- Updating the design and general site maintenance are made much easier.

# Parts of a Cascading Style Sheet

- CSS syntax is made up of three parts:

Selector

HTML tag that you wish to change

Property

The attribute that you wish to change

Value

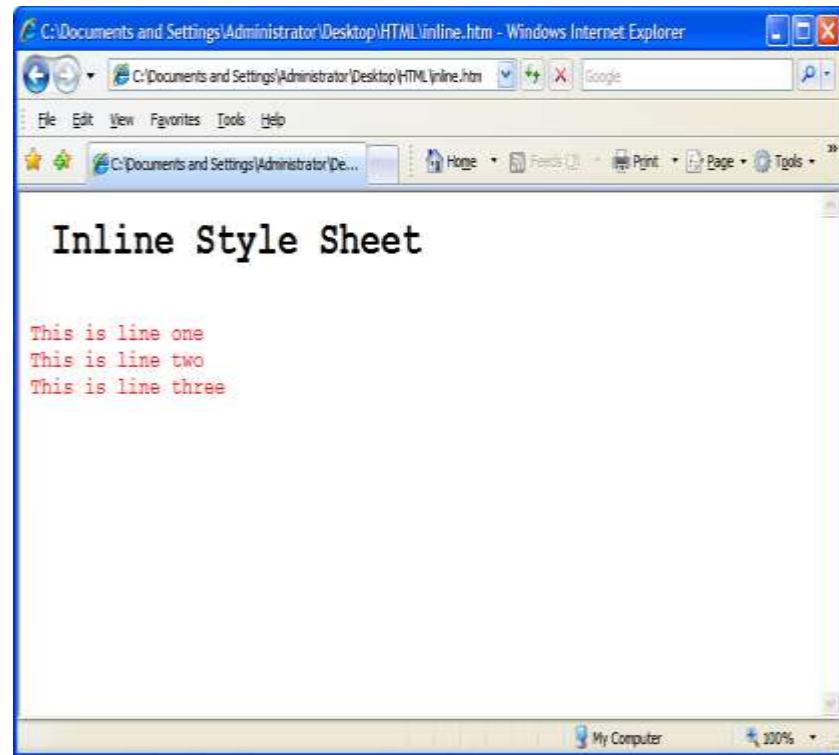
Each property can take a value

# Inline Style Sheet

- Inline style sheets are applied by coding style properties and values inside the tags to which they apply.
- An inline style sheet can appear inside any tag to directly set its style. All that is required is to enclose the applicable style properties and values inside a quoted style attribute.
- Syntax
  - ✓ <tag style="property:value [;property:value]...">

## Inline Style Sheet(contd.)

```
<html>
<body>
<pre>
<h1> Inline Style Sheet</h1>
<p style="font-size: 12pt; color: red">
This is line one
This is line two
This is line three
</p>
</body>
</html>
```



## Embedded Style sheet

- Embedded style sheets are used when a unique style is required for a document.
- Embedded style are defined in the `<head>` tag section by using the `<style>` tag
- When a large number of style settings are used on a Web page, there is convenience in packaging the settings together in one place as an embedded style sheet, rather than having them scattered as inline style sheets throughout the document.

# Syntax of Style sheet

**selector {property: value}**

Example

**p {color: green}**

If the value consist of more than one word the value has to be embedded within quotes.

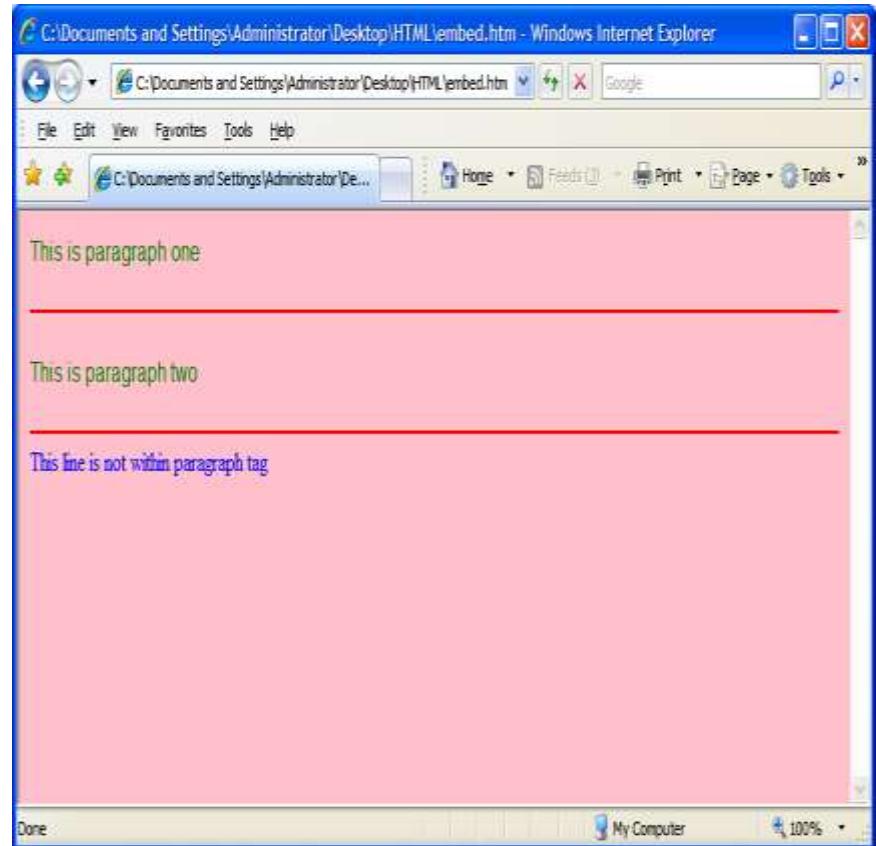
**p {font-family: “sans-serif”}**

If more than one property needs to be defined then the properties need to be separated by semi colon.

**p {font-family: “sans-serif” ; color: green}**

## Example of an Embedded Style sheet

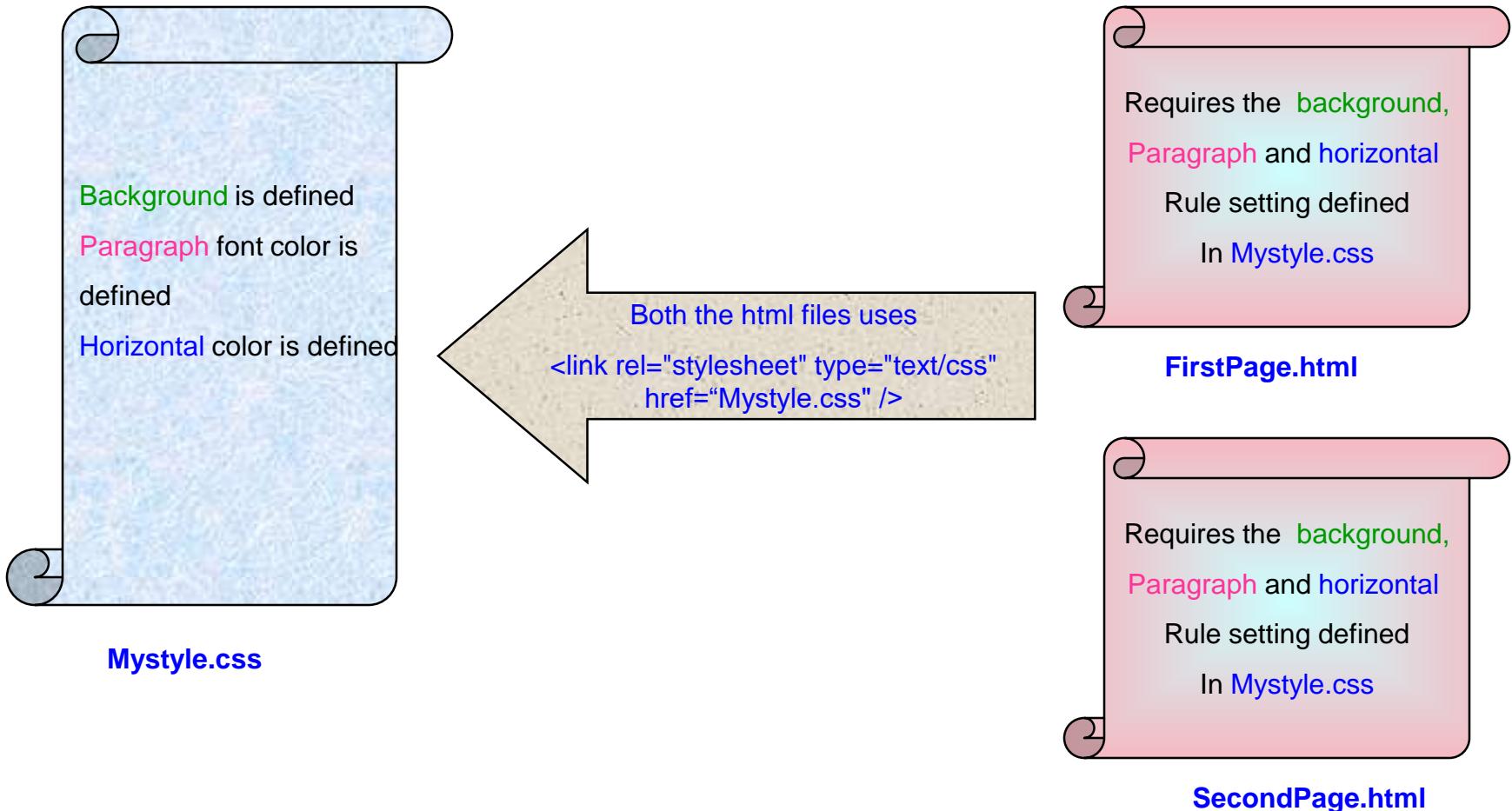
```
<html>
<head>
<style type="text/css">
p {font-family:"sans-serif"; color: green}
hr {color: red}
body {color:blue; background-color:pink}
</style>
</head>
<body>
<p>This is paragraph one</p>
<hr>
<p> This is paragraph two</p>
<hr>
This line is not within paragraph tag
</body>
</html>
```



## External Style Sheet

- Internal style sheets are used when a unique style is required for a document.
- Internal style are defined in the `<head>` tag section by using the `<style>` tag
- The different selectors, their properties and values should be defined within the external style sheet.
- The external style sheet should be saved within a file, with an extension of .css

# External Style sheet



## Example of External style sheet

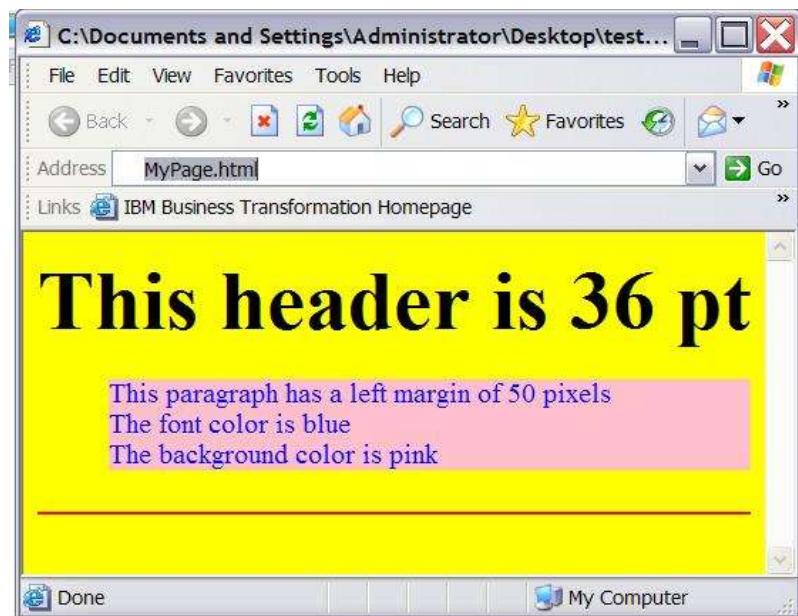
```
body {background-color: yellow}
```

```
h1 {font-size: 36pt}
```

```
p {margin-left: 50px; background:  
pink; color:blue}
```

```
hr {color: red}
```

MyPage.html is using styles  
defined in Mystyle.css



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

```
<body>  
<h1> This header is 36 pt </h1>
```

```
<p> This paragraph has a left margin of  
50 pixels<br>
```

The font color is blue<br>

The background color is pink

```
</p>
```

```
<hr>
```

```
</body>
```

```
</html>
```

MyPage.html

# Multiple Style sheet

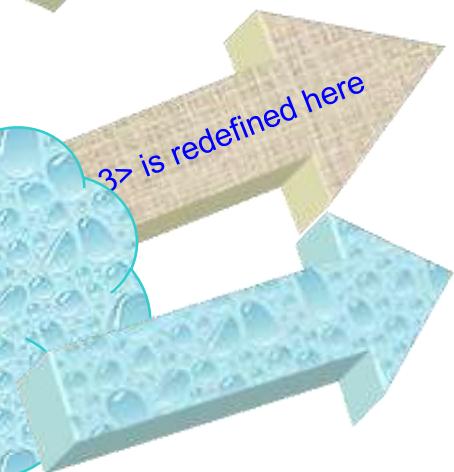
```
h3 { color: red;  
text-align: left;  
font-size: 8pt }
```

Mystyle.css

What will be  
the Font size

Of <h3>

8pt or 20 pt??



<html>

<head>

<link rel="stylesheet" type="text/css"  
href="Mystyle.css">

<style type="text/css">

h3 {font-size: 20pt}

</style>

</head>

<body>

<h3> This is a header </h3>

---more text---

</body>

</html>

MyPage.html

# Multiple Style sheet Continued

- If some properties have been set for the same selector in different style sheets, the values will be inherited from the more specific style sheet .

```
h3 { color: red;  
text-align: left;  
font-size: 8pt }
```

Mystyle.css

Color: Red  
Text-align-left  
Font-size- 20pt

The HTML will inherit the  
Font color and alignment  
From Mystyle.css

```
<html>  
<head>  
<link rel="stylesheet" type="text/css"  
href="Mystyle.css">  
<style type="text/css">  
h3 {font-size: 20pt}  
</style>  
</head>  
<body>  
<h3> This is a header </h3>  
---more text---  
</body>  
</html>
```

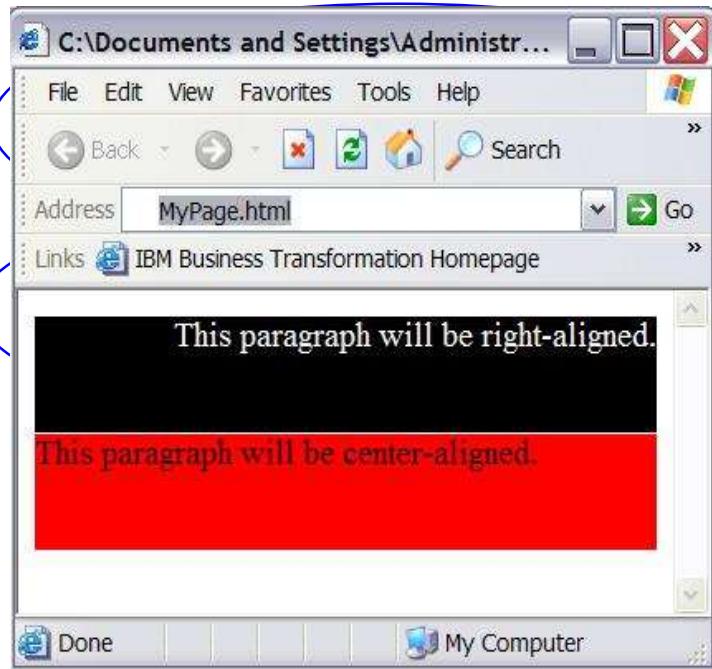
MyPage.html

# Some common selectors and attributes

| Selector      | property                                                                                     |
|---------------|----------------------------------------------------------------------------------------------|
| H1,H2,H3..... | font-size,Font-family,font-style , font-weight<br>Color, margin                              |
| P             | font-size,Font-family,font-style , font-weight<br>Color, Background-color,text-align, margin |
| HR            | color                                                                                        |
| body          | Background-color, font-size,Font-family,font-style , font-weight, margin                     |

# Class Selector

- With the class selector you can define different styles for the same type of HTML element.



<html>

<head>

<link rel="stylesheet" type="text/css" href="Mystyle.css">

</head>

<body>

<p class="one">This paragraph is Right aligned </p>

<p class="two">This paragraph is Left aligned</p>

</body>

</html>

MyPage.html

# Uses of <DIV> Tag

## <DIV> tag

1. <DIV> tag is a container for other tags.
2. DIV elements are block elements and work behind the scenes grouping other tags together.

Some of the attributes of <DIV> tag are:

- > id
- > width
- > height
- > title
- > style

# Uses of <DIV> Tag

## <DIV> tag

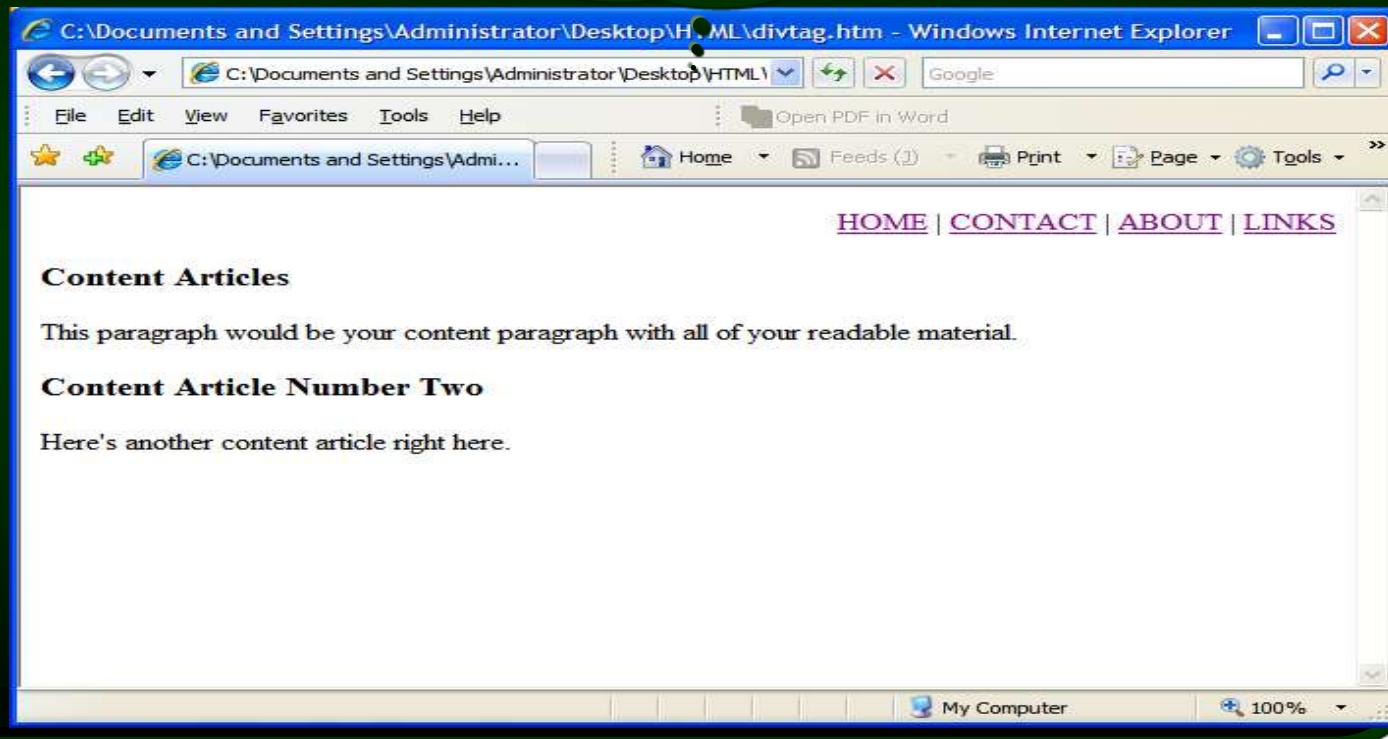
### Example

```
<div id="menu" align="right">
<a href="">HOME</a> | <a href="">CONTACT</a> | <a
href="">ABOUT</a> | <a href="">LINKS</a></div>
<div id="content" align="left" >
<h5>Content Articles</h5>
<p>This paragraph would be your content paragraph
with all of your readable material.</p>
<h5 >Content Article Number Two</h5>
<p>Here's another content article right here.</p>
</div>
```

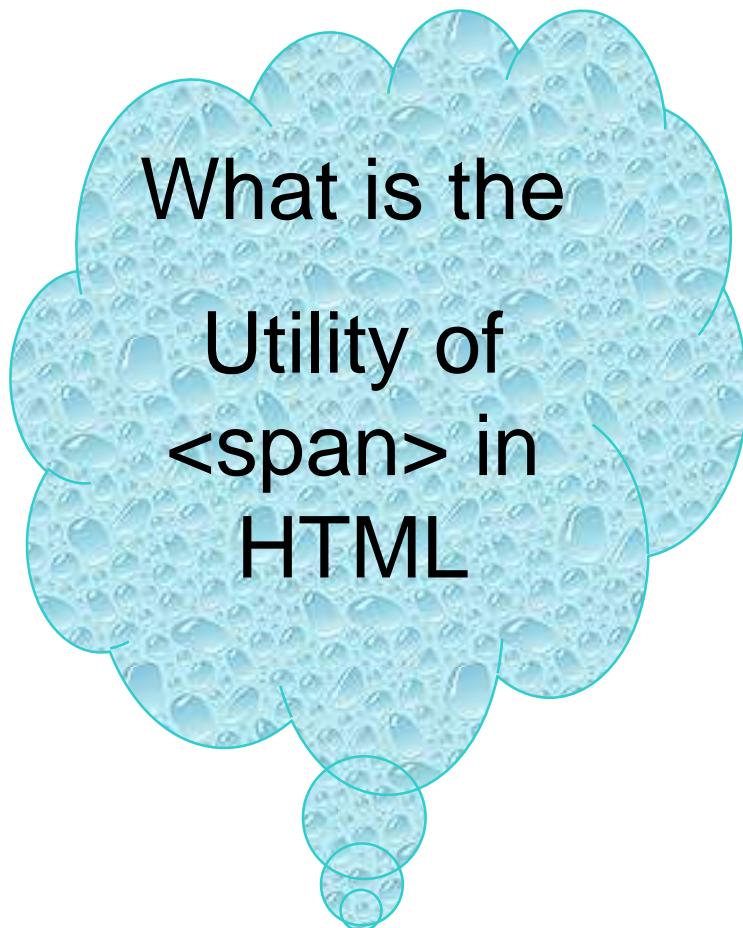
# Uses of <DIV> Tag

<DIV> tag

Output

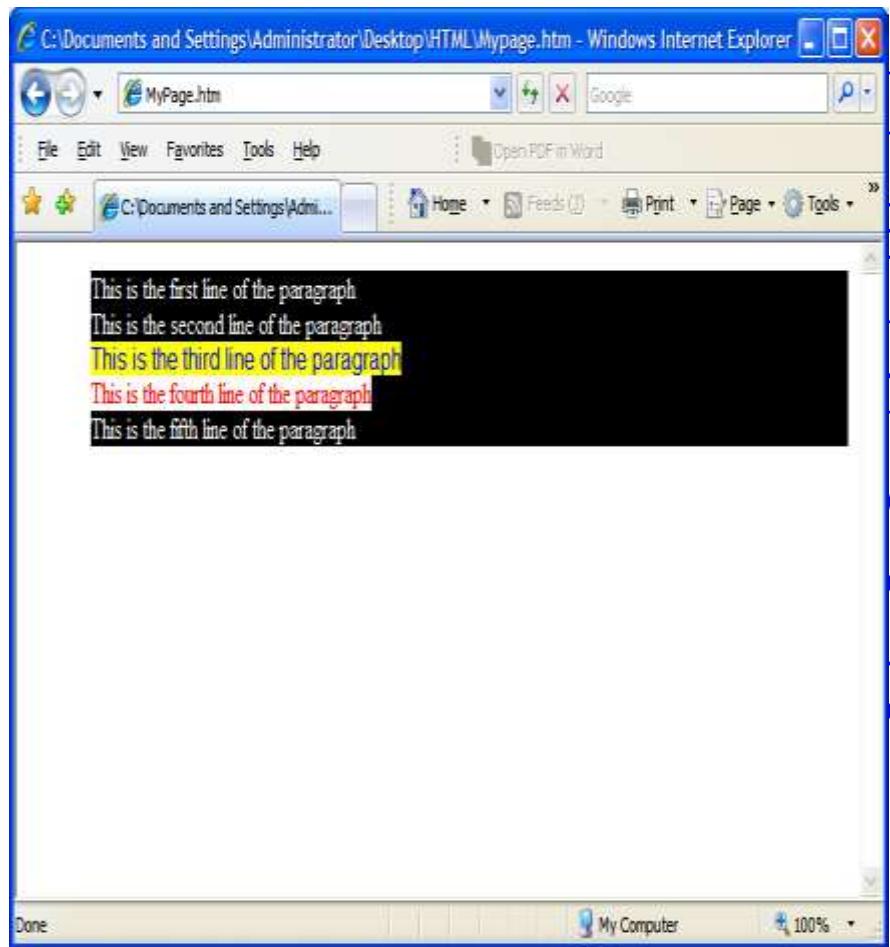


## Using <span> in CSS



- SPAN is a inline tag.
- It is used to format small chunks of data within another element.
- Combining <span> tag with CSS allows us to create custom tags.

## Using <span> in CSS (contd.)



```
<html>
<head>
<link rel="stylesheet"
      type="text/css" href="Mystyle.css" />
</head>
<body>
<p>
    This is the first line of the
    paragraph<br>
    This is the second line of the
    paragraph<br>
    This is the
    third line of the paragraph<br>
</span>
    This is the
    fourth line of the paragraph<br>
</span>
    This is the fifth line of the paragraph
</p>
</body>
</html>
```

MyPage.html

# Developing HTML Forms

# Form

- An HTML form is a section of a document containing normal content, markup, special elements called *controls* (checkboxes, radio buttons, menus, etc.), and labels on those controls.
- Users generally "complete" a form by modifying its controls (entering text, selecting menu items, etc.), before submitting the form to an agent for processing (e.g., to a Web server, to a mail server, etc.)

## Form (Contd.)

- A form is defined with the `<form>` tag.



# Form Controls

- TextField:
  - ✓ Are used to accept user input. It is a single line input control.
- CheckBox
  - ✓ Checkboxes are used when you want the user to select one or more options of a limited number of choices.
- RadioButton
  - ✓ Radio Buttons are used when you want the user to select one of a limited number of choices.
- Select
  - ✓ Are used when you want users to choose options from a selectable lists.
- TextArea
  - ✓ Are used to accept user input. TextArea allows entry of multiple lines.

## Form Controls (Contd.)

- PushButton
  - ✓ Each push button may have client side script associated with the element's event attributes. When an event occurs (e.g., the user presses the button, releases it, etc.), the associated script is triggered.
- Submit Button
  - ✓ When activated, a submit button submits a form. A form may contain more than one submit button.
- Reset Button
  - ✓ When activated, a reset button resets all controls to their initial values.

# Form Controls (Contd)

| <b>Form Component</b> | <b>Tag</b> | <b>Attribute</b> |      |       | <b>Usage</b>                                                        | <b>Output</b>                                                                                                                                     |
|-----------------------|------------|------------------|------|-------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| TextField             | <input>    | type             | name | value | <input type="text" name="t1" value="Paul">                          | <input type="text" value="Paul"/>                                                                                                                 |
| Checkbox              | <input>    | type             | name | value | <input type="checkbox" name="c1" value="v1">                        | <input checked="" type="checkbox"/>                                                                                                               |
| RadioButton           | <input>    | type             | name | value | <input type="radio" name="r1" value="v2">                           | <input checked="" type="radio"/>                                                                                                                  |
| ComboBox              | <select>   | name             |      |       | <select name="s1"><option value="v1">Display item</option></select> | <input type="button" value="Select an item"/>                                                                                                     |
|                       | <option>   | value            |      |       |                                                                     |                                                                                                                                                   |
| TextArea              | <textarea> | row              | col  | name  | <textarea name="n1" row="5" col="20">                               | <input style="height: 50px; width: 200px; border: none; border-top: 1px solid black; border-bottom: 1px solid black; padding: 5px;" type="text"/> |
| PushButton            | <input>    | type             | name | value | <input type="button" name="b1" value="Click">                       | <input type="button" value="Click"/>                                                                                                              |
|                       |            |                  |      |       | <input type="submit" name="s1" value="Submit">                      | <input type="button" value="Submit"/>                                                                                                             |
|                       |            |                  |      |       | <input type="reset" value="Reset">                                  | <input type="button" value="Reset"/>                                                                                                              |

# Example of a Form

```
<html>
<head>
<title>
Form Example</title>
</head>
<body bgcolor=pink >
<center>
<h3> Data Entry Form</h3>
<form>
<table>
<tr><td>Name</td><td> <input
    type="text" name="t1"> </td></tr>
<tr><td>Gender</td><td> <input
    type="radio" name="r1" value="m">
Male
<input type="radio" name="r1"
    value="f">Female</td></tr>
<tr><td>Qualification</td><td><select
    name="s">
<option >Select</option>
<option value="M.Sc">M.Sc</option>
<option value="M.A.">MA</option>
<option
    value="other">other</option></select
    >
</td></tr>
<tr><td> <input type="submit"
    value="submit"> </td>
<td> <input type="reset" value="reset">
    </td></tr>
</table>
</center>
</form>
</body>
</html>
```

# Output of the Form

**Form Example - Microsoft Internet Explorer**

File Edit View Favorites Tools Help

Back    Search  Favorites    Go

Address Form.html

Links  IBM Business Transformation Homepage  IBM Standard Software Installer

**Data Entry Form**

Name

Gender  Male  Female

Qualification

Done  My Computer

A screenshot of Microsoft Internet Explorer version 6.0 displaying a simple HTML form titled "Data Entry Form". The browser window has a title bar "Form Example - Microsoft Internet Explorer", a menu bar with File, Edit, View, Favorites, Tools, and Help, and a toolbar with Back, Forward, Stop, Refresh, Home, Search, Favorites, and other links. The address bar shows "Form.html". The form itself has a pink background and contains fields for Name (text input), Gender (radio buttons for Male and Female), Qualification (button labeled "Select"), and two buttons at the bottom labeled "submit" and "reset". At the bottom of the browser window, there are links for "Done" and "My Computer".

## Fieldset & Legend Tag

- The **fieldset** tag is used to group the form elements whilst the **legend** tag provides a label for the fieldset.
- The HTML legend tag is used for labelling the fieldset element.
- By using the fieldset tag and the legend tag, you can make your forms much easier to understand for your users.

# Output Required

C:\Documents and Settings\Administrator\Desktop\HTML\legend.htm - Windows Internet Explorer

File Edit View Favorites Tools Help

Open PDF in Word

Home Feeds Print Page Tools

**Address Details**

Favorite Address

Least Favorite Address

Current Address

Your Next Address

**Personal Info**

Name :  Age :  Gender :  Male  Female

Done My Computer 100%

# Code Snippet

```
<html>
<body>
<fieldset style="text-align:right;">
<legend><b>Address Details</b></legend>
Favorite Address <input type="text" /><br/>
Least Favorite Address <input type="text" /><br/>
Current Address <input type="text" /><br/>
Your Next Address <input type="text" /><br/>
</fieldset>
<br>
```

```
<fieldset align="left">
<legend>Personal Info</legend>
Name : <input type="text">
Age : <input type="text">
Gender :
<input type="radio"
name="r1">Male
<input type="radio"
name="r1">Female
</fieldset>
</body>
</html>
```

## <fieldset> tag is used to group the form elements

```
<html>
<body>
<b><fieldset style="text-align:right;">
<legend><b>Address Details</b></legend>
Favorite Address <input type="text" /><br/>
Least Favorite Address <input type="text" /><br/>
Current Address <input type="text" /><br/>
Your Next Address <input type="text" /><br/>
</fieldset>
<br>
```

```
<fieldset align="left">
<legend>Personal Info</legend>
Name : <input type="text">
Age : <input type="text">
Gender :
<input type="radio"
name="r1">Male
<input type="radio"
name="r1">Female
</fieldset>
</body>
</html>
```

**<legend>** tag is used give a suitable label to the group.

```
<html>
<body>
<fieldset style="text-align:right;">
<b><legend>Address Details</legend></b>
Favorite Address <input type="text" /><br/>
Least Favorite Address <input type="text" /><br/>
Current Address <input type="text" /><br/>
Your Next Address <input type="text" /><br/>
</fieldset>
<br>
```

```
<fieldset align="left">
<b><legend>Personal Info</legend></b>
Name : <input type="text" />
Age : <input type="text" />
Gender :
<input type="radio" name="r1">Male
<input type="radio" name="r1">Female
</fieldset>
</body>
</html>
```

C:\Documents and Settings\Administrator\Desktop\HTML\legend.htm - Windows Internet Explorer

File Edit View Favorites Tools Help

Open PDF in Word

Home Feeds Print Page Tools

**Address Details**

Given a Label using legend tag

Favorite Address  
Least Favorite Address  
Current Address  
Your Next Address

**Personal Info**

Name :  Age :  Gender :  Male  Female

Created groups using fieldset tag

Done My Computer 100%

# Form Controls using Attributes:

## ***INPUT Attribute definitions***

- type = text|password|checkbox|radio|submit|reset|file|hidden|image|button
  - ✓ This attribute specifies the 'type of control' to create. The default value for this attribute is "text".
- name = *cdata*
  - ✓ This attribute assigns the 'control name'.
- value = *cdata*
  - ✓ This attribute specifies the 'initial value' of the control. It is optional except when the 'type' attribute has the value "radio" or "checkbox".
- size = *cdata*
  - ✓ This attribute tells the initial width of the control. The width is given in pixels except when 'type' attribute has the value "text" or "password". In that case, its value refers to the (integer) number of characters.

# Form Controls using Attributes:

## ***INPUT Attribute definitions (Contd ...)***

- ***maxlength = number***
  - ✓ When the 'type' attribute has the value "text" or "password", this attribute specifies the maximum number of characters the user may enter. This number may exceed the specified 'size' , in which case the user should offer a scrolling mechanism. The default value for this attribute is an unlimited number.
- ***Checked***
  - ✓ When the 'type' attribute has the value "radio" or "checkbox", this boolean attribute specifies that the button is on.
- ***src = uri***
  - ✓ When the 'type' attribute has the value "image", this attribute specifies the location of the image to be used to decorate the graphical submit button.

# Form Controls using Attributes:

## ***SELECT Attribute definitions***

- ***name = cdata***
  - ✓ This attribute assigns the control name.
- ***size = number***
  - ✓ If a SELECT element is presented as a scrolled list box, this attribute specifies the number of rows in the list that should be visible at the same time.
- ***Multiple***
  - ✓ If set, this boolean attribute allows multiple selections. If not set, the SELECT element only permits single selections.

## Pre – Selected Options:

- Zero or more choices may be pre-selected for the user. Users should determine which choices are pre-selected as follows:
  - ✓ If no ‘OPTION’ element has the ‘selected’ attribute set, the initial state has the first option selected.
  - ✓ If one ‘OPTION’ element has the ‘selected’ attribute set, it should be pre-selected.
  - ✓ If the ‘SELECT’ element has the ‘multiple’ attribute set and more than one ‘OPTION’ element has the ‘selected’ attribute set, they should all be pre-selected.
  - ✓ It is considered an error if more than one ‘OPTION’ element has the ‘selected’ attribute set and the ‘SELECT’ element does not have the ‘multiple’ attribute set.

## Summary

- HTML is used for publishing web page.
- A tag is a reference in an HTML document which describes the style and structure of the document.
- <TABLE> with <TR>,<TH>,<TD> tags are used to construct a tabular structure in HTML.
- To create a List of items in HTML, tags used are <OL>and <UL>.
- Tags that separate from one line to others are <P>, <BR>, <HR>.
- It is used to include preformatted text into your HTML document.
- <BLOCKQUOTE> tag is used to include indented text in a document.
- The purpose of Logical Character Style tags is to convey the basic semantic meaning of a piece of text rather than the absolute appearance.
- Physical Character Style tags is used to give your text a different look but exacting look.
- <Font> tag is used to change the font size, color and face in a document.

## Summary (Contd.)

- Special characters are those that has a special meaning in HTML and those are not found on English keyboards.
- HTML uses the `<a>` (anchor) tag to create a link to another document.
- In Html images are defined by using the `<img>` tag
- The `<img>` tag is a open tag ( does not have a `</img>`)
- Web style sheets are a form of separation of presentation and content for web design .
- CSS syntax is made up of three parts: Selector, property and value
- Internal style sheets are used when a unique style is required for a document.
- Internal style are defined in the `<head>` tag section by using the `<style>` tag

## Summary (Contd.)

- Internal style sheets are used when a unique style is required for a document.
- Internal style are defined in the `<head>` tag section by using the `<style>` tag
- With the class selector you can define different styles for the same type of HTML element
- `<Span>` is a inline tag.
- Span is used to format small chunks of data within another element. An HTML form is a section of a document containing normal content, markup, special elements called controls.
- Some of the common controls are checkboxes, radio buttons, Textfields, etc.
- Fieldset & Legend tags are used for grouping form elements and giving a suitable name to the group respectively.

# Test Your Understanding

1. Select the correct option for making a hyperlink?

- a. `<a href="http://www.w3schools.com">W3Schools</a>`
- b. `<a url="http://www.w3schools.com">W3Schools.com</a>`
- c. `<a>http://www.w3schools.com</a>`
- d. `<a name="http://www.w3schools.com">W3Schools.com</a>`

2. Style Sheet can decide presentation of a web page

- a. false
- b. true

## Test Your Understanding (Contd.)

3. The <style> tag should be embedded within:

- a. <body>
- b. <form>
- c. <head>
- d. <img>

4. With the \_\_\_\_\_ selector you can define different styles for the same type of HTML element.

- a. Form
- b. Button
- c. Span
- d. class

## Test Your Understanding (Contd.)

5. The \_\_\_\_\_ attribute of table tag separates text from the cell border
- a. CELLPADDING
  - b. CELLSPACING
  - c. BORDERSPACING
  - d. TABLESPACING
6. What is the default font size in a web page.
- a. 1
  - b. 2
  - c. 3
  - d. 5

## Test Your Understanding (Contd.)

### Match Group A with B

| Group A |            | Group B |                                         |
|---------|------------|---------|-----------------------------------------|
| a.      | <TR>       | i.      | Emphasizes the text enclosed within it. |
| b.      | <SPAN>     | ii.     | Used to group the form elements.        |
| c.      | <STRONG>   | iii.    | Creates a horizontal rule.              |
| d.      | <FIELDSET> | iv.     | Creates a new row in a table            |
| e.      | <HR>       | v.      | Used to format small chunks of data.    |

# References

- <http://www.pierobon.org/iis/url.htm>
- <http://w3schools.com/html>
- <http://www.ology.org/tilt/cgh/> - Things to consider while developing web page using HTML.
- <http://www.tizag.com/htmlT>
- <http://www.1stsitefree.com>
- <http://www.quackit.com/html>