- Warez: a site designed to host and let users download copyrighted materials illegally.
- Web portal: a site is vehicle that provides a gateway to other resources on the Internet or an intranet.

Web Pages

A web page or webpage is a Document or information resource that is suitable for the world wide Web and can be accessed through a web browser and displayed on a computer display or mobile device. This information is usually in HTML or XHTML format, and may provide navigation bar to other web pages via Hyper text Hyper link. Web pages frequently subsume other resources such as Cascading Style Sheet, Client-side-scripting and Images into their final presentation.

Web pages may be retrieved from a local computer or from a remote Web server. The web server may restrict access only to a private network, e.g. a corporate Intranet or it may publish pages on the World Wide Web. Web pages are requested and served from web. Web server using Hypertext Transfer Protocol (HTTP).

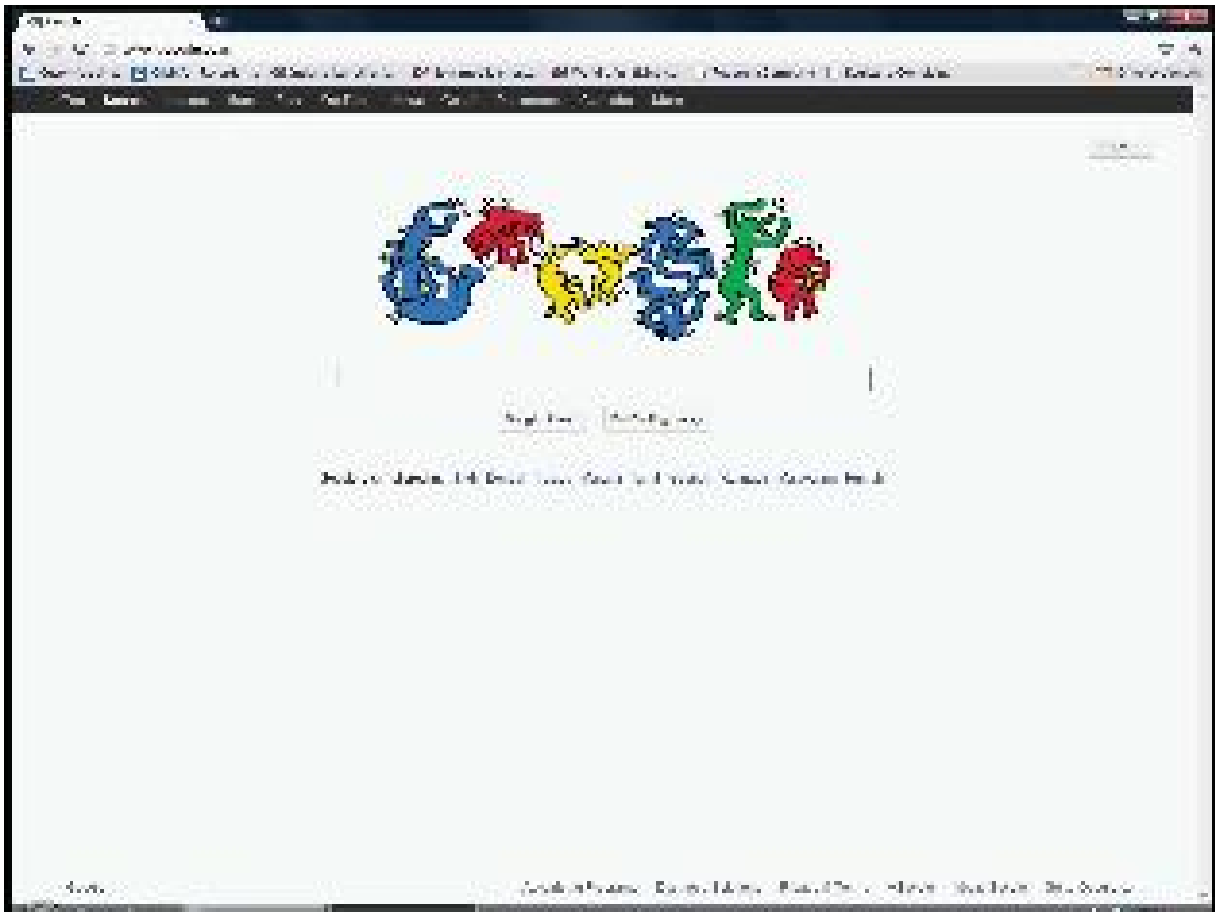
Web pages may consist of files of static text and other Web content stored within the Web server 's file system(Static Web page), or may be constructed by Server-side scripting when they are requested (Dynamic web page). Client-side scripting can make web pages more responsive to user input once on the client browser.

Web Browser

A Web browser can have a Graphical User Interface, like Internet Explorer, Mozilla Firefox, Google Chrome and Opera (web browser), or can be Command Line Interface, like Lynx (web browser) (Fig 1) or Links (web browser). Web users with disabilities often use assistive technologies and adaptive strategies to Web accessibility web pages. Users may be colour blind, may or may not want to use a mouse perhaps due to repetitive stress injury or motor-neurone problems, may be deaf and require audio to be captioned, may be blind and using a Screen reader or display, may need screen magnification, etc. Disabled and able-bodied users may disable the download and viewing of images and other media, to save time, network bandwidth or merely to simplify their browsing experience.

Users of mobile devices often have restricted displays and bandwidth. Anyone may prefer not to use the fonts, font sizes, styles and colour schemes selected by the web page designer and may apply their own CSS styling to the page. The World Wide Web Consortium (W3C) and Web Accessibility Initiative (WAI) recommend that all web pages should be designed with all of these options in mind.

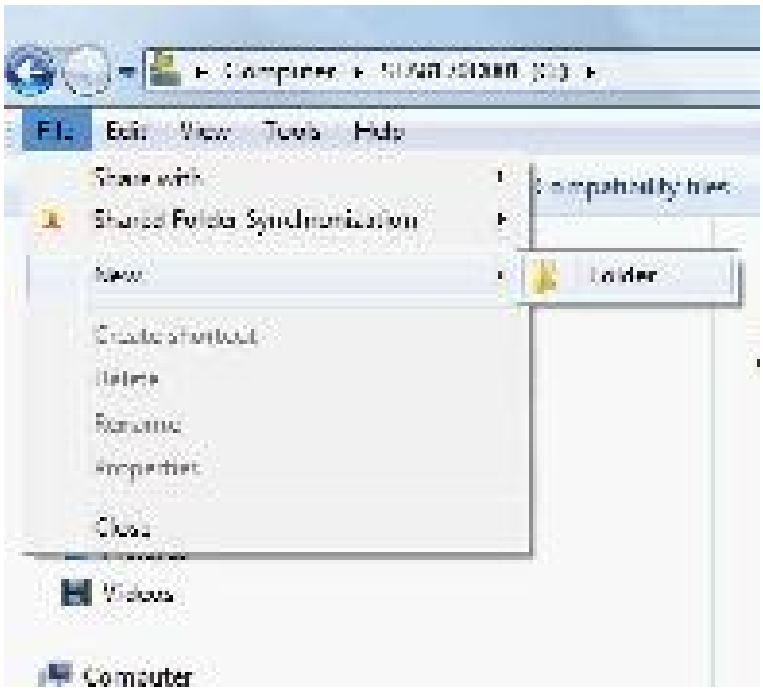
Fig 1



Downloading a Software from Internet

1 Create a Temporary Files folder by opening My Computer, double click on your hard drive (typically the C: drive), then select File/New/Folder as on Fig 2.

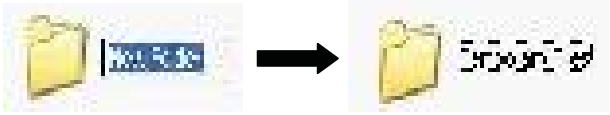
Fig 2



2 Type "Temporary File" and name it as on Fig 3.

3 Type "My SQL 5. 1 free download " from freeware software website on internet.

Fig 3



Note: As an example Choose "http:// dev.mysql.com/downloads/" select "My SQL Community server" in download from the opened site as on Fig 4

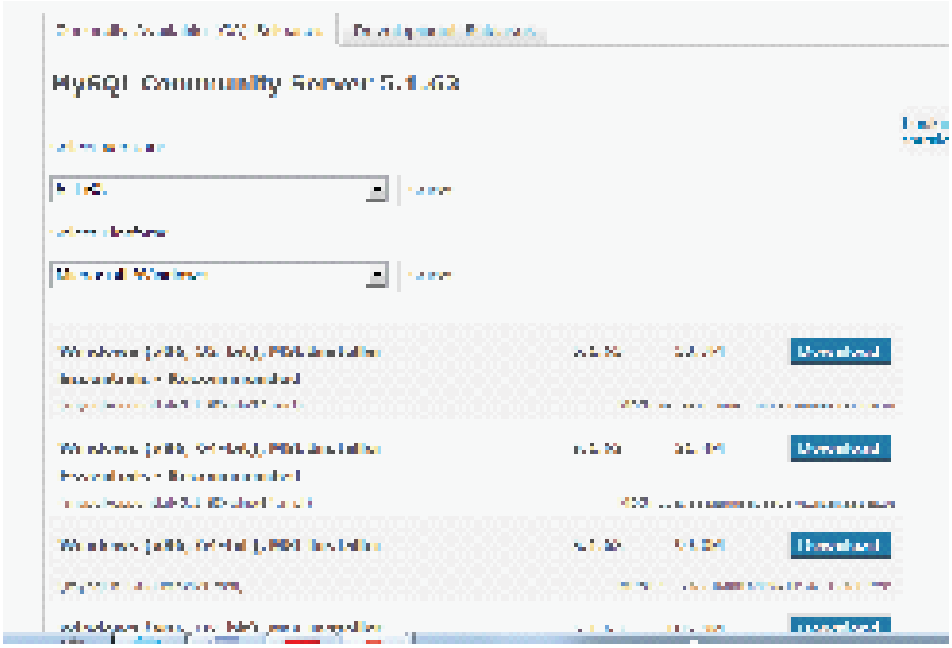
Fig 4

4 Click "MySQL Community Server 5.1 " from looking for previous version option as on Fig 5

Fig 5

5 Choose "Windows (x86, 32-bit), MSI Installer Essentials - Recommended" and click download (Fig.6).

Fig 6



Note: Save the "My SQL 5.1.63" in the created Folder name " Temporary Folder"

6 Burn the Downloaded "My SQL 5.1.63" in a CD ROM for Installation.

WEB LANGUAGES

Web languages are called as Markup languages are designed for the processing, definition and presentation of text. The language specifies code for formatting, both the layout and style, within a text file. The code used to specify the formatting are called tags

Four Types of Markup languages

1 BML

2 HTML

3 DHTML

4 XML

BML (Better markup language)

BML is essentially a simple macro language. Macros are called blocks in BML. Blocks are defined in look files, and are invoked in BML files. Blocks accept parameters and are divided into several types, according to how parameters are transmitted and how the definition of the block is able to make use of them.

HTML (Hyper text markup Language)

HTML or HyperText Markup Language is the language of the web. All web pages are written in HTML. HTML defines the way that images, multimedia, and text are displayed in web browsers. It includes elements to connect the documents (hypertext) and make web documents interactive (such as with forms).

HTML is a defined standard markup language. That standard was developed by the World Wide Web Consortium (W3C). It is based upon SGML (Standard Generalized Markup Language). It is a language that uses tags to define the structure of your text. Elements and tags are defined by the < and > characters.

DHTML

Dynamic HTML is not really a new specification of HTML, but rather a new way of looking at and controlling the standard HTML codes and commands.

When thinking of dynamic HTML, we need to remember the qualities of standard HTML, especially that once a page is loaded from the server, it will not change until another request comes to the server. Dynamic HTML give more control over the HTML elements and allows them to change at any time, without returning to the Web server.

There are four parts to DHTML:

- Document Object Model (DOM) (definition)
- Scripts
- Cascading Style Sheets (CSS)
- XHTML

DOM

The DOM is allows to access any part of Web page to change it with DHTML. Every part of a Web page is specified by the DOM and using its consistent naming conventions can access them and change their properties.

Scripts

Scripts written in either JavaScript or ActiveX are the two most common scripting languages used to activate DHTML. You use a scripting language to control the objects specified in the DOM.

Cascading Style Sheets

CSS is used in DHTML to control the look and feel of the Web page. Style sheets define the colors and fonts of text, the background colors and images, and the placement of objects on the page. Using scripting and the DOM, we can change the style of various elements.

XHTML

XHTML or HTML 4.x is used to create the page itself and build the elements for the CSS and the DOM to work on. There is nothing special about XHTML for DHTML - but having valid XHTML is even more important, as there are more things working from it than just the browser.

Features of DHTML

There are four primary features of DHTML:

1 Changing the tags and properties

2 Real-time positioning

3 Dynamic fonts (Netscape Communicator)

4 Data binding (Internet Explorer)

Changing the tags and properties

This is one of the most common uses of DHTML. It allows to change the qualities of an HTML tag depending on an event outside of the browser (such as a mouse click, time, or date, and so on). we can use this to preload information onto a page, and not display it unless the reader clicks on a specific link.

Real-time postioning

Objects, images, and text moving around the Web page. This can allow we to play interactive games with the readers or animate portions of the screen.

Dynamic Fonts

This is a Netscape only feature. Netscape developed this to get around the problem designers had with not knowing what fonts would be on a reader's system. With dynamic fonts, the fonts are encoded and downloaded with the page, so that the page always looks how the designer intended it to.

Data binding

This is an IE only feature. Microsoft developed this to allow easier access to databases from Web sites. It is very similar to using a CGI to access a database, but uses an ActiveX control to function.

XML

Extensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format that is bothhuman-readable and machine-readable. It is defined in the XML 1.0 Specification produced by the W3C, and several other related specifications, all gratis open standards. The design goals of XML emphasize simplicity, generality, and usability over the Internet. It is a textual data format with strong support via Unicode for the languages of the world. Although the design of XML focuses on documents, it is widely used for the representation of arbitrary data structures, for example in web services

Creating an HTML document

Before start writing code to write a web page, it is a good practice to plan ahead the appearance of the web page. An HTML document has two elements:

1 Document Content

2 Tags

Document content is the information on a web page that the user will see. That information could be text or graphics.

Tags are the HTML codes that control how the document content will appear. The tags, in other words, will determine whether the text will be bold, black or blue, or of font type Time New Roman or Airal.

Start Notepad

To start Notepad go to:

Start

All Programs

Accessories

Notepad

Edit Your HTML with Notepad (Fig 7)

Type your HTML code into your Notepad:

Save Your HTML

Fig 7

Select Save as.. in Notepad's file menu.

When you save an HTML file, you can use either the .htm or the .html file extension.

Save the file in a folder that is easy to remember

Run the HTML in Your Browser

Start your web browser and open your html file from the File, Open menu, or just browse the folder and double-click your HTML file.

The result should look much like this: (Fig 8)

Fig 8

Structure of Markup Language

An HTML document has two* main parts:

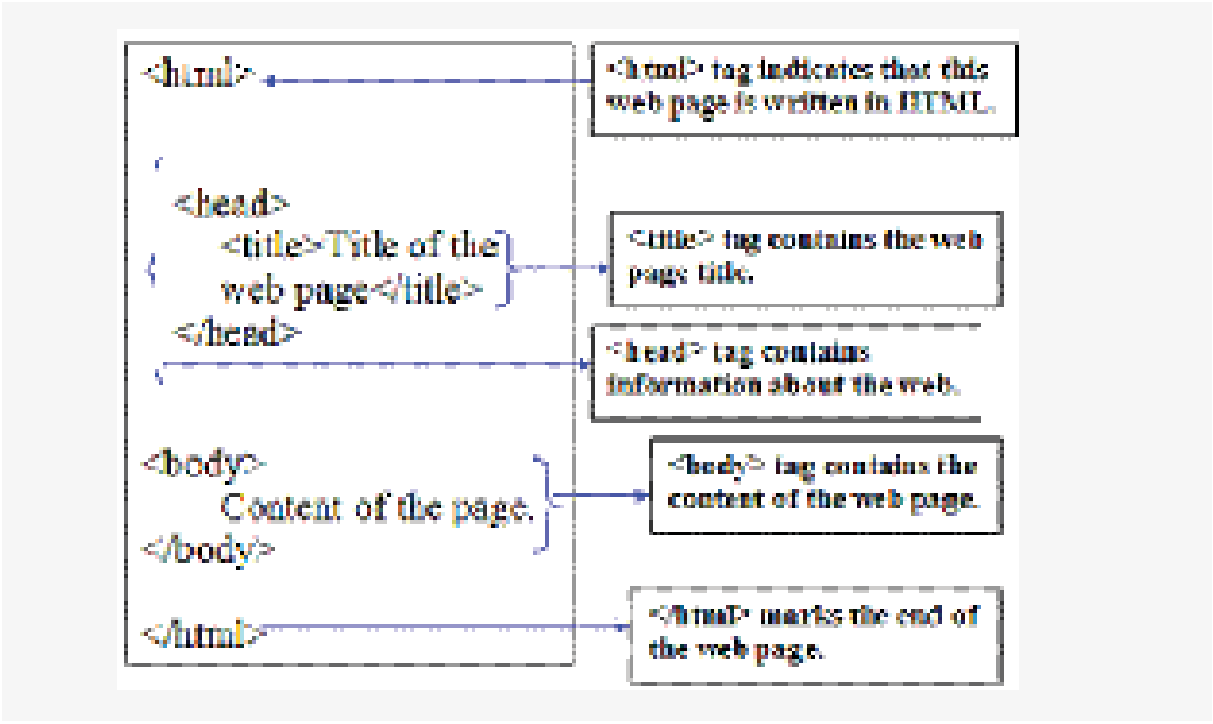
1 head. The head element contains title and meta data of a web document.

2 body. The body element contains the information that you want to display on a web page.

To make your web pages compatible with HTML 4, you need to add a document type declaration (DTD) before the HTML element. Many web authoring software add DTD and basic tags automatically when you create a new web page.

In a web page, the first tag (specifically, <html>) indicates the markup language that is being used for the document. The <head> tag contains information about the web page. Lastly, the content appears in the <body> tag. (Fig 9)

Fig 9



The <!DOCTYPE> Declaration

There are many different documents on the web. A browser can only display a document correctly, if it knows what kind of document it is.

There are also many different versions of HTML, and a browser can only display an HTML page 100% correctly if it knows the exact HTML version used in the page. This is what <!DOCTYPE> is used for.

<!DOCTYPE> is not an HTML tag. It is an information (a declaration) to the browser about what version the HTML is written in.

The HTML <head> Element

The <head> element is a container for all the head elements. Elements inside <head> can include scripts, instruct the browser where to find style sheets, provide meta information, and more.

The following tags can be added to the head section: <title>, <base>, <link>, <meta>, <script>, and <style>.

The HTML <title> Element

The <title> tag defines the title of the document.

The title element is required in all HTML/XHTML documents.

The title element:

- Defines a title in the browser toolbar.
- Provides a title for the page when it is added to favorites.
- Displays a title for the page in search-engine results.

HTML Element Syntax

- An HTML element starts with a start tag / opening tag
- An HTML element ends with an end tag / closing tag
- The element content is everything between the start and the end tag
- Some HTML elements have empty content
- Empty elements are closed in the start tag
- Most HTML elements can have attributes

HTML Headings

HTML headings are defined with the <h1> to <h6> tags.

Examples

```
<html>
<body>
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>
</body>
</html>
```

Result

This is heading 1

This is heading 2

This is heading 3

This is heading 4

This is heading 5

This is heading 6

HTML Paragraphs

HTML paragraphs are defined with the <p> tag.

```
<html>
<body>
<p>This is a paragraph.</p>
<p>This is a paragraph.</p>
<p>This is a paragraph.</p>
</body>
</html>
```

Examples

This is a paragraph.

This is a paragraph.

This is a paragraph.

HTML Links

HTML links are defined with the <a> tag.

```
<html>
<body>
<a href="http://www.facebook.com">
This is a link</a>
</body>
</html>
```

Result

This is a link

By clicking the link it shows the facebook login page

HTML Images

HTML images are defined with the <img> tag.

```
<html>
<body>
<img src="w3schools.jpg" width="104" height="142" />
</body>
</html>
```

Result (Fig 10)

Fig 10

HTML Attributes

- HTML elements can have attributes
- Attributes provide additional information about an element
- Attributes are always specified in the start tag
- Attributes come in name/value pairs like: name="value"

Attribute Example

HTML links are defined with the <a> tag. The link address is specified in the href attribute:

```
<html>
<body>
<a href="http://www.yahoo.com">
This is a link</a>
</body>
</html>
```

Result

This is the link

By clicking the link yahoo home page appears (Fig 11).

Formatting

Create Line Breaks - The
 Element:

Whenever the <br /> element, anything following it starts on the next line. This tag is an example of an empty element, where you do not need opening and closing tags, as there is nothing to go in between them.

Fig 11

Example:

Hello

You come most carefully upon your hour.

Thanks

Mahnaz

Result

Hello

You come most carefully upon your hour.

Thanks

Mahnaz

To Become

Centring Content - The Element:

You can use tag to put any content in the center of the page or any table cell.

Example:

This is not in the center.

This is in the center.

This will produce following result:

This is not in the center.

This is in the center.

Soft Hyphens:

Occasionally, you will want to allow a browser to hyphenate long words to better justify a paragraph. For example, consider the following code and its resulting output.

```
<p style="text-align: justify;"> The morbid fear of the number 13, or triskaidekaphobia, has plagued some important historic figures like Mahamiya and Nanao.</p>
```

This will produce following result:

Example for soft hyphen - The morbid fear of the number 13, or triskaidekaphobia, has plagued some important historic figures like Mahamiya and Nanao.

Preserve Formatting - The <pre> Element:

Sometimes you want your text to follow the exact format of how it is written in the HTML document. In those cases, you can use the preformatted tag (<pre>).

Any text between the opening <pre> tag and the closing </pre> tag will preserve the formatting of the source document.

<pre>

function testFunction(strText){

alert (strText)

}

</pre>

This will produce following result:

function testFunction(strText){

alert (strText)
}

Horizontal Rules - The <hr /> Element

Horizontal rules are used to visually break up sections of a document. The <hr> tag creates a line from the current position in the document to the right margin and breaks the line accordingly.

For example you may want to give a line between two paragraphs as follows:

This is paragraph one and should be on top

<hr />

This is paragraph two and should be at bottom

This will produce following result:

This is paragraph one and should be on top

This is paragraph two and should be at bottom

Again <hr /> tag is an example of an empty element, where you do not need opening and closing tags, as there is nothing to go in between them.

Note: The <hr /> element has a space between the characters hr and the forward slash. If you omit this space, older browsers will have trouble rendering the line break, while if you miss the forward slash character and just use <hr> it is not valid XHTML

Presentational Tags:

If you use a word processor, you are familiar with the ability to make text bold, italicized, or underlined; these are just three of the ten options available to indicate how text can appear in HTML and XHTML.

Bold Text - The Element:

Anything that appears in a ... element is displayed in bold, like the word bold here:

```
<p>The following word uses a <b>bold</b> typeface.</p>
```

This will produce following result:

The following word uses a bold typeface.

Italic Text - The Element:

Anything that appears in a ... element is displayed in italicized, like the word italicized here:

```
<p>The following word uses a <i>italicized</i> typeface.</p>
```

This will produce following result:

The following word uses a italicized typeface.

Underlined Text - The <u> Element:

Anything that appears in a <u>...</u> element is displayed with underline, like the word underlined here:

```
<p>The following word uses a <u>underlined</u> typeface.</p>
```

This will produce following result:

The following word uses a underlined typeface.

Strike Text - The <strike> Element:

Anything that appears in a <strike>...</strike> element is displayed with strikethrough, which is a thin line through the text:

```
<p>The following word uses a <strike>strikethrough</strike> typeface.</p>
```

This will produce following result:

The following word uses a strikethrough typeface.

Monospaced font - The <tt> Element:

The content of a <tt> element is written in monospaced font. Most fonts are known as variable-width fonts because different letters are of different widths (for example, the letter m is wider than the letter i). In a monospaced font, however, each letter is the same width.

```
<p>The following word uses a <tt>monospaced</tt> typeface.</p>
```

This will produce following result:

The following word uses a monospaced typeface.

Superscript Text - The <sup> Element:

The content of a <sup> element is written in superscript; the font size used is the same size as the characters surrounding it but is displayed half a character.s height above the other characters.

```
<p>The following word uses a <sup>superscript</sup> typeface.</p>
```

This will produce following result:

The following word uses a superscript typeface.

Subscript Text - The <sub> Element:

The content of a <sub> element is written in subscript; the font size used is the same as the characters surrounding it, but is displayed half a character.s height beneath the other characters.

```
<p>The following word uses a <sub>subscript</sub> typeface.</p>
```

This will produce following result:

The following word uses a subscript typeface.

Larger Text - The <big> Element:

The content of the <big> element is displayed one font size larger than the rest of the text surrounding it.

```
<p>The following word uses a <big>big</big>
typeface.</p>
```

This will produce following result:

The following word uses a big typeface.

Smaller Text - The <small> Element:

The content of the <small> element is displayed one font size smaller than the rest of the text surrounding it.

```
<p>The following word uses a <small>small</
small> typeface.</p>
```

This will produce following result:

The following word uses a small typeface.

Styling HTML with CSS

CSS was introduced together with HTML 4, to provide a better way to style HTML elements.

CSS can be added to HTML in the following ways:

- Inline - using the style attribute in HTML elements
- Internal - using the <style> element in the <head> section
- External - using an external CSS file

<html>

<body style="background-color:PowderBlue;">

<h1>Look! Styles and colors</h1>

This text is in Verdana and red

This text is in Times and green

This text is 30 pixels high

</body>

</html>

Result:

Look! Styles and colors

This text is in Verdana and red

This text is in Times and green

This text is 30 pixels high

HTML Hyperlinks (Links)

A hyperlink (or link) is a word, group of words, or image that you can click on to jump to a new document or a new section within the current document.

When you move the cursor over a link in a Web page, the arrow will turn into a little hand.

Links are specified in HTML using the <a> tag.

The <a> tag can be used in two ways:

1 To create a link to another document, by using the href attribute

2 To create a bookmark inside a document, by using the name attribute

The HTML code for a link is simple. It looks like this:

Link text

The href attribute specifies the destination of a link.

Visit yahoo

which will display like this: Visit yahoo.com

Clicking on this hyperlink will send the user to Yahoo homepage.

The "Link text" doesn't have to be text. It can be an image or any other HTML element.

HTML Links - The target Attribute

The target attribute specifies where to open the linked document.

The example below will open the linked document in a new browser window or a new tab:

Example

Visit yahoo !

<html>

<body>

Visit yahoo.com!

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

</body>

</html>

Result

Visit yahoo.com!

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

HTML Images - The <img> Tag and the Src Attribute

In HTML, images are defined with the <img> tag.

The <img> tag is empty, which means that it contains attributes only, and has no closing tag.

To display an image on a page, you need to use the src attribute. Src stands for "source". The value of the src attribute is the URL of the image you want to display.

Syntax for defining an image:

The URL points to the location where the image is stored. An image named "bamboo. gif", located in the "images" directory on "www.w3schools.com" has the URL: http://www.backgroundlabs.com/index.php?search=bamboo.

The browser displays the image where the <img> tag occurs in the document. If you put an image tag between two paragraphs, the browser shows the first paragraph, then the image, and then the second paragraph.

HTML Images - The Alt Attribute

The required alt attribute specifies an alternate text for an image, if the image cannot be displayed.

The value of the alt attribute is an author-defined text:

The alt attribute provides alternative information for an image if a user for some reason cannot view it (because of slow connection, an error in the src attribute, or if the user uses a screen reader).

HTML Images - Set Height and Width of an Image

The height and width attributes are used to specify the height and width of an image.

The attribute values are specified in pixels by default:

Note: It is a good practice to specify both the height and width attributes for an image. If these attributes are set, the space required for the image is reserved when the page is loaded. However, without these attributes, the browser does not know the size of the image. The effect will be that the page layout will change during loading (while the images load).

If an HTML file contains ten images - eleven files are required to display the page right. Loading images takes time, so my best advice is: Use images carefully.

When a web page is loaded, it is the browser, at that moment, that actually gets the image from a web server and inserts it into the page. (Fig 12) Therefore, make sure that the images actually stay in the same spot in relation to the web page, otherwise your visitors will get a broken link icon. The broken link icon is shown if the browser cannot find the image.

Fig 12

```
<html>
<body>
<h2>Friendship Card</h2>
<img border="0" src="/images/Rose.jpg" alt="Rose" width="304" height="228" />
</body>
</html>
```

HTML Tables

Tables are defined with the <table> tag.

A table is divided into rows (with the <tr> tag), and each row is divided into data cells (with the <td> tag). td stands for "table data," and holds the content of a data cell. A <td> tag can contain text, links, images, lists, forms, other tables, etc.

Table Example

```
<table border="1">
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td>row 2, cell 2</td>
</tr>
</table>
```

How the HTML code above looks in a browser:

row 1, cell 1 row 1, cell 2

row 2, cell 1 row 2, cell 2

HTML Tables and the Border Attribute

If you do not specify a border attribute, the table will be displayed without borders. Sometimes this can be useful, but most of the time, we want the borders to show.

To display a table with borders, specify the border attribute:

```
<table border="1">
<tr>
<td>Row 1, cell 1</td>
<td>Row 1, cell 2</td>
</tr>
</table>
```

HTML Table Headers

Header information in a table are defined with the <th> tag.

All major browsers display the text in the <th> element as bold and centered.

```
<table border="1">
<tr>
<th>Header 1</th>
<th>Header 2</th>
</tr>
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td>row 2, cell 2</td>
</tr>
</table>
```

How the HTML code above looks in your browser:

Header 1	Header 2
row 1, cell 1	row 1, cell 2
row 2, cell 1	row 2, cell 2

HTML Unordered Lists

An unordered list starts with the <ul> tag. Each list item starts with the <li> tag.

The list items are marked with bullets (typically small black circles).

```
<ul>
<li>Coffee</li>
<li>Milk</li>
</ul>
```

How the HTML code above looks in a browser:

- Coffee
- Milk

HTML Ordered Lists

An ordered list starts with the <ol> tag. Each list item starts with the <li> tag.

The list items are marked with numbers.

```
<ol>
<li>Coffee</li>
<li>Milk</li>
</ol>
```

How the HTML code above looks in a browser:

1 Coffee

2 Milk

HTML Definition Lists

A definition list is a list of items, with a description of each item.

The <dl> tag defines a definition list.

The <dl> tag is used in conjunction with <dt> (defines the item in the list) and <dd> (describes the item in the list):

<dl>

<dt>Coffee</dt>

<dd>- black hot drink</dd>

<dt>Milk</dt>

<dd>- white cold drink</dd>

</dl>

How the HTML code above looks in a browser:

Coffee - black hot drink

Milk- white cold drink

Note : Inside a list item you can put text, line breaks, images, links, other lists, etc.

HTML List Tags

Tag	Description
	Defines an ordered list
	Defines an unordered list
	Defines a list item
<dl>	Defines a definition list
<dt>	Defines an item in a definition list
<dd>	Defines a description of an item in a definition list

HTML elements can be grouped together with and

HTML Block Elements

Most HTML elements are defined as block level elements or as inline elements.

Block level elements normally start (and end) with a new line when displayed in a browser.

Examples: <h1>, <p>, <ul>, <table>

HTML Inline Elements

Inline elements are normally displayed without starting a new line.

Examples: , <td>, <a>, <img>

The HTML Element

The HTML element is a block level element that can be used as a container for grouping other HTML elements.

The element has no special meaning. Except that, because it is a block level element, the browser will display a line break before and after it.

When used together with CSS, the element can be used to set style attributes to large blocks of content.

Another common use of the element, is for document layout. It replaces the "old way" of defining layout using tables. Using tables is not the correct use of the <table> element. The purpose of the <table> element is to display tabular data.

The HTML Element

The HTML element is an inline element that can be used as a container for text.

The element has no special meaning.

When used together with CSS, the element can be used to set style attributes to parts of the text.

HTML Grouping Tags

Tag	Description
	Defines a div
	Defines a span

HTML Layout

Website Layouts

Most websites have put their content in multiple columns (formatted like a magazine or newspaper).

Multiple columns are created by using or <table> elements. CSS are used to position elements, or to create backgrounds or colorful look for the pages.

HTML Layouts - Using Elements

The div element is a block level element used for grouping HTML elements.

The following example uses five div elements to create a multiple column layout, creating the same result as in the previous example:

Example

<!DOCTYPE html>

<html>

<body>

<h1 style="margin-bottom:0;">Main Title of Web Page</h1>

Menu

HTML

CSS

JavaScript

```
<div id="content" style="background-color:#EEEEEE;height:200px;width:400px;float:left;">
Content goes here</div>
<div id="footer" style="background-color:#FFA500;clear:both;text-align:center;">
</div>
</div>
</body>
</html>
```

Result (Fig 13)

Fig 13

HTML Forms

HTML forms are used to pass data to a server.

A form can contain input elements like text fields, checkboxes, radio-buttons, submit buttons and more. A form can also contain select lists, textarea, fieldset, legend, and label elements.

The <form> tag is used to create an HTML form:

```
<form>.
input elements.
</form>
```

HTML Forms - The Input Element

The most important form element is the input element.

The input element is used to select user information.

An input element can vary in many ways, depending on the type attribute. An input element can be of type text field, checkbox, password, radio button, submit button, and more.

The most used input types are described below.

Text Fields

<input type="text" /> defines a one-line input field that a user can enter text into:

```
<form>
First name: <input type="text" name="firstname" /><br />
Last name: <input type="text" name="lastname" />
</form>
```

How the HTML code above looks in a browser:

First name:

Last name:

Note: The form itself is not visible. Also note that the default width of a text field is 20 characters.

Password Field

<input type="password" /> defines a password field:

```
<form>
Password: <input type="password" name="pwd" />
</form>
```

How the HTML code above looks in a browser:

Password:

Note: The characters in a password field are mased (shown as asterisks or circles)

Radio Buttons

<input type="radio" /> defines a radio button. Radio buttons let a user select ONLY ONE of a limited number of choices:

<form>

<input type="radio" name="sex" value="male" /> Male

<input type="radio" name="sex" value="female" /> Female

</form>

How the HTML code above looks in a browser:

☐ Male

☐ Female

Checkboxes

<input type="checkbox" /> defines a checkbox. Checkboxes let a user select ONE or MORE options of a limited number of choices.

<form>

<input type="checkbox" name="vehicle" value="Bike" /> I have a bike

<input type="checkbox" name="vehicle" value="Car" /> I have a car

</form>

How the HTML code above looks in a browser:

☐ I have a bike

☐ I have a car

Submit Button

<input type="submit" /> defines a submit button.

A submit button is used to send form data to a server. The data is sent to the page specified in the form's action attribute. The file defined in the action attribute usually does something with the received input:

<form name="input" action="html_form_action.asp" method="get">

Username: <input type="text" name="user" />

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

</form>

How the HTML code above looks in a browser:

Username: [ ] Submit

If you type some characters in the text field above, and click the "Submit" button, the browser will send your input to a page called "html_form_action.asp". The page will show you the received input.

HTML Iframes

Syntax for adding an iframe:

<iframe src="URL"></iframe>

The URL points to the location of the separate page.

Iframe - Set Height and Width

The height and width attributes are used to specify the height and width of the iframe.

The attribute values are specified in pixels by default, but they can also be in percent (like "80%").

Example

<!DOCTYPE html>

<html>

<body>

<iframe src="demo_iframe.htm" width="200" height="200"></iframe>

</body>

</html>

It will appear as shown in Fig 14.

Iframe - Remove the Border

The frameborder attribute specifies whether or not to display a border around the iframe.

Set the attribute value to "0" to remove the border:

Example

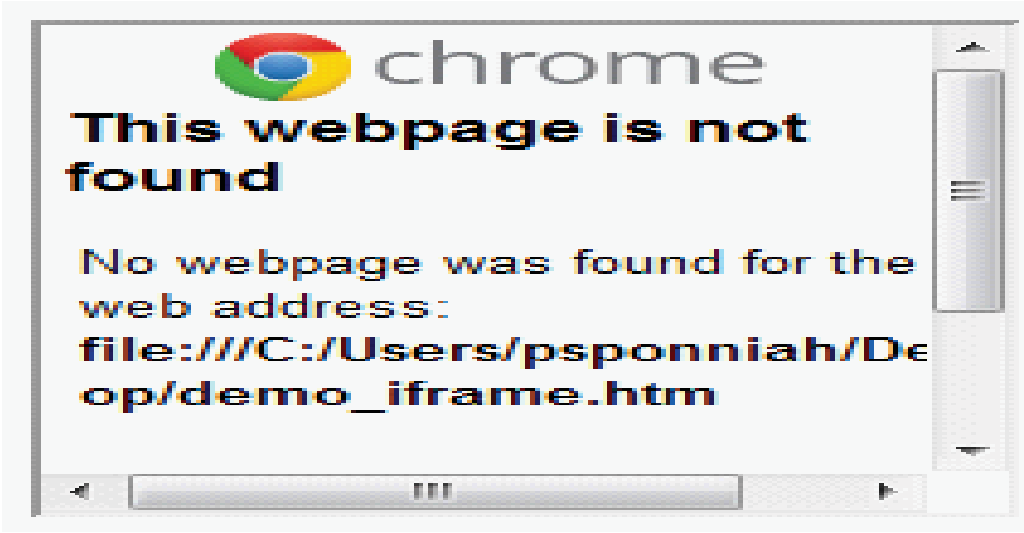
<iframe src="demo_iframe.htm" frameborder="0"></iframe>

Use iframe as a Target for a Link

An iframe can be used as the target frame for a link.

The target attribute of a link must refer to the name attribute of the iframe:

Fig 14



Example

<iframe src="demo_iframe.htm" name="iframe_a"></iframe>

< p > < a h r e f = " h t t p : / / w w w . y a h o o . c o m " target="iframe_a">yahoo.com

HTML iframe Tag

Tag	Description
<iframe>	Defines an inline sub window (frame)

HTML Colour

Color Values

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

The lowest value that can be given to one of the light sources is 0 (in HEX: 00). The highest value is 255 (in HEX: FF).

HEX values are specified as 3 pairs of two-digit numbers, starting with a # sign.

Color Values (Fig 15)

Fig 15

Color	Color HEX	Color RGB
	#000000	rgb(0,0,0)
	#FF0000	rgb(255,0,0)
	#00FF00	rgb(0,255,0)
	#0000FF	rgb(0,0,255)
	#FFFF00	rgb(255,255,0)
	#00FFFF	rgb(0,255,255)
	#FF00FF	rgb(255,0,255)
	#C0C0C0	rgb(192,192,192)
	#FFFFFF	rgb(255,255,255)

<!DOCTYPE html>

<html>

<body>

Color set by using hex value

Color set by using rgb value

Color set by using color name

</body>

</html>

Result

Color set by using hex value

Color set by using rgb value

Color set by using color name

DHTML

The HTML script Element

The <script> tag is used to define a client-side script, such as a JavaScript.

The script element either contains scripting statements or it points to an external script file through the src attribute.

The required type attribute specifies the MIME type of the script.

Common uses for JavaScript are image manipulation, form validation, and dynamic changes of content.

The script below writes Hello World! to the HTML output:

Example

<script type="text/javascript">

document.write("Hello World!")

</script>

The HTML noscript Element

The <noscript> tag is used to provide an alternate content for users that have disabled scripts in their browser or have a browser that doesn't support client-side scripting.

The noscript element can contain all the elements that you can find inside the body element of a normal HTML page.

The content inside the noscript element will only be displayed if scripts are not supported, or are disabled in the user's browser:

Example

<!DOCTYPE html>

<html>

<body>

<script type="text/javascript">

document.write("Hello World!")

</script>

<noscript>Sorry, your browser does not support JavaScript!</noscript>

A browser without support for JavaScript will show the text in the noscript element.

</body>

</html>

Result

Hello World!

A browser without support for JavaScript will show the text in the noscript element.

HTML Script Tags

Tag	Description
<script>	Defines a client-side script
<noscript>	Defines an alternate content for users that do not support client-side scripts

HTML Entities

Some characters are reserved in HTML.

It is not possible to use the less than (<) or greater than (>) signs in your text, because the browser will mix them with tags.

To actually display reserved characters, we must use character entities in the HTML source code.

A character entity looks like this:

&entity_name;

OR

&#entity_number;

Non-breaking Space

A common character entity used in HTML is the non-breaking space ( ).

Browsers will always truncate spaces in HTML pages. If you write 10 spaces in your text, the browser will remove 9 of them, before displaying the page. To add spaces to your text, you can use the   character entity.

HTML Useful Character Entities

Note: Entity names are case sensitive!

HTML Uniform Resource Locators

A **URL** is another word for a web address.

Result	Description	Entity Name	Entity Number
	non-breaking space		
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
¢	cent	¢	¢
£	pound	£	£
¥	yen	¥	¥
•	euro	€	€
§	section	§	§
©	copyright	©	©
®	registered trademark	®	®
™	trademark	™	™

A URL can be composed of words, such as "w3schools.com", or an Internet Protocol (IP) address: 192.68.20.50. Most people enter the name of the website when surfing, because names are easier to remember than numbers.

URL - Uniform Resource Locator

When you click on a link in an HTML page, an underlying <a> tag points to an address on the world wide web.

A Uniform Resource Locator (URL) is used to address a document (or other data) on the world wide web.

Explanation:

- **Scheme** - defines the **type** of Internet service. The most common type is http
- **Host** - defines the **domain host** (the default host for http is **www)**
- **Domain** - defines the Internet **domain name,** like w3schools.com
- **Port** - defines the **port number** at the host (the default port number for http is **80**)
- **Path** - defines a **path** at the server (If omitted, the document must be stored at the root directory of the web site)
- **Filename** - defines the name of a document/resource

Common URL Schemes

The table below lists some common schemes:

Scheme	Short for....	Which pages will the scheme be used for...
http	HyperText Transfer Protocol	Common web pages starts with http://. Not encrypted
https	Secure HyperText Transfer Protocol	Secure web pages. All information exchanged are encrypted
ftp	File Transfer Protocol	For downloading or uploading files to a website. Useful for domain maintenance
file		A file on your computer

URL Encoding

URLs can only be sent over the Internet using the ASCII character-set.

Since URLs often contain characters outside the ASCII set, the URL has to be converted into a valid ASCII format.

URL encoding replaces non ASCII characters with a "%" followed by two hexadecimal digits.

URLs cannot contain spaces. URL encoding normally replaces a space with a + sign.

XML Structure

The XML structure including the document parts, the prologue, and provides a simple XML example document.

Document Parts

- Prolog
- Document Element (root element)

The Prologue

The prologue, equivalent to the header in HTML, may include the following:

- An XML declaration (optional) such as:

  <?xml version="1.0"?>

- A DTD or reference to one (optional). An example reference to an external DTD file:

  <!DOCTYPE LANGLIST SYSTEM "langlist.dtd">

- Processing instructions - An example processing instruction that causes style to be determined by a style sheet:

  < ? x m l - s t y l e s h e e t t y p e = " t e x t / c s s " href="xmlstyle.css"?>

An XML Example

Therefore a complete well formed XML document may look like:

```
<?xml version="1.0"?>

<LAND>
  <FOREST>
    <TREE>Oak</TREE>
    <TREE>Pine</TREE>
    <TREE>Maple</TREE>
  </FOREST>
  <MEADOW>
    <GRASS>Bluegrass</GRASS>
    <GRASS>Fescue</GRASS>
    <GRASS>Rye</GRASS>
  </MEADOW>
</LAND>
```

The LAND element, above, is the root element.

Result

Oak Pine Maple Bluegrass Fescue Rye

Web Elements

A web page, as an information set, can contain numerous types of information, which is able to be seen, heard or interact by the End-user

Web Hosting

A web hosting service is a type of Internet hosting service that allows individuals and organizations to make their Website accessible via the World Wide Web. Web hosts are companies that provide space on a Server (computing) owned or leased for use by clients, as well as providing Internet connectivity, typically in a data centre. Web hosts can also provide data centre space and connectivity to the Internet for other servers located in their data centre, called Collocation.

TYPES OF Web Hosting

There are four types of Web hosting

1 Free hosting

2 Dedicated hosting

3 Shared (Virtual) hosting

4 Collocated Hosting

Free hosting

Free web hosting is best suited for small sites with low traffic, like personal sites. It is not recommended for high traffic or for real business. Technical support is often limited, and technical options are few.

Dedicated Hosting

With dedicated hosting, your web site is hosted on a dedicated server. Dedicated hosting is the most expensive option. This option is best suited for large web sites with high traffic, and web sites that use special software. Dedicated hosting to be very powerful and secure, with almost unlimited software solutions.

Shared (Virtual) Hosting

Shared hosting is very cost effective.

With shared hosting, your web site gets its own domain name, and is hosted on a powerful server along with maybe 100 other web sites. Shared solutions often offer multiple software solutions like e-mail, database, and different editing options. Technical support tends to be good.

Collocated Hosting

Collocation means "co-location". Collocated hosting lets place own web server on the premises (locations) of a service provider. This is pretty much the same as running own server in your own office, only that it is located at a place better designed for it. Most likely an ISP will have dedicated resources like high-security against fire and vandalism, regulated backup power, dedicated Internet connections and more.

Web Server

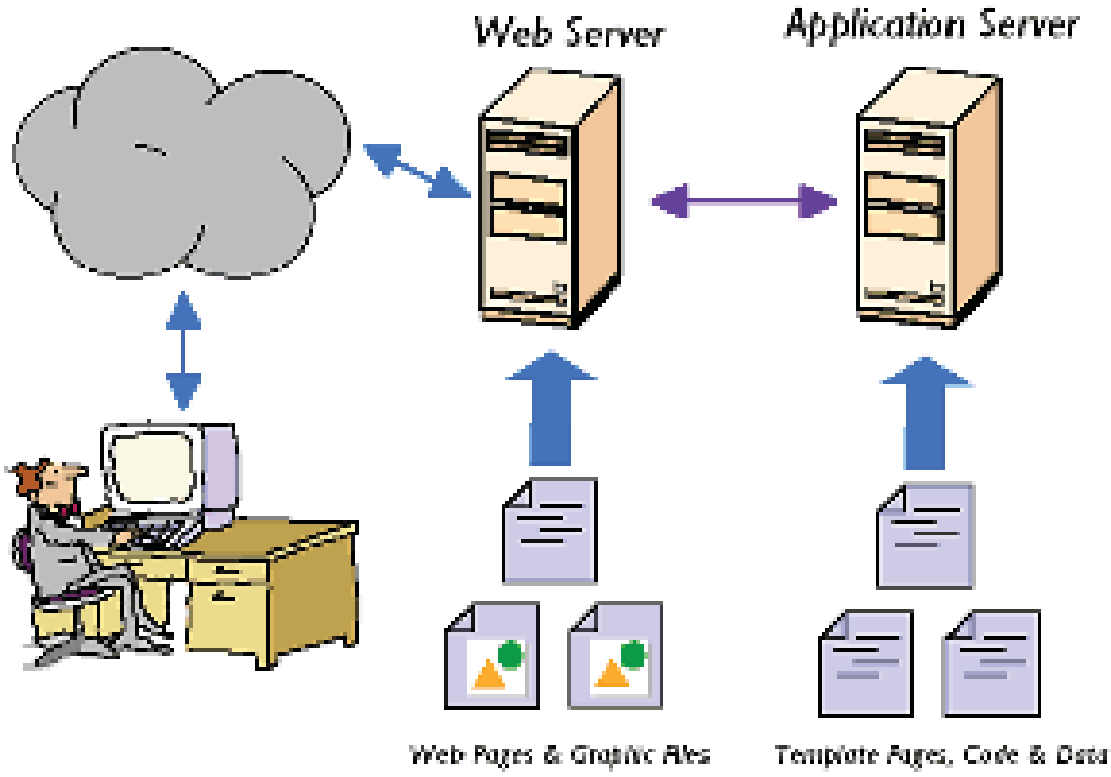
A Web server is a program that, using the client server model and the World Wide Web's Hypertext Transfer Protocol (HTTP), serves the files that form Web pages to Web users (whose computers contain HTTP clients that forward their requests). Every computer on the Internet that contains a Web site must have a Web server program. Two leading Web servers are Apache, the most widely-installed Web server, and Microsoft's Internet Information Server (IIS). Other Web servers include Novell's Web Server for users of its Netware operating system and IBM's family of Lotus Domino servers, primarily for IBM's OS390 and AS-400 customers.

Web servers often come as part of a larger package of Internet- and intranet-related programs for serving e-mail, downloading requests for File Transfer Protocol (FTP) files, and building and publishing Web pages. Considerations in choosing a Web server include how well it works with the operating system and other servers, its ability to handle server-side programming, security characteristics, and publishing, search engine, and site building tools that may come with it.

Application Server

Also called an appserver, and application server (Fig 16) is a program that handles all application operations between users and an organization's backend business applications or database. An application server is typically used for complex transaction-based applications. To support high-end needs, an application server has to have built-in redundant, monitor for high-availability, high-performance distributed application services and support for complex database access.

Fig 16



Database Server

Database server (Fig 17) is the term used to refer to the back-end system of a database application using client-server architecture. The back-end, sometimes called a database server, performs tasks such as data analysis, storage, data manipulation, archiving, and other non-user specific tasks.

Fig 17