# 2

# Designing your Web site

$I$t is important to plan and outline the design on which you are going to base your work. Like any other work, Web page designing and publishing also needs a design layout and some planning.

If you just go ahead and start putting your random thoughts or ideas then your Web site will be very difficult to navigate through and it will not be understood by the users. It does not take too much effort to design and plan your Web site. In fact, it becomes much easier to expand such a site later.

In this section we will go through some important points on Web site design and planning issues. I am sure that you may be getting impatient to begin with actual HTML coding of Web pages, but trust me; these tips will help you in developing a very good Web site.

## THE WEB FLOW

In the previous chapter you read about the role of a Web browser and Web server. In this section we will go into more details about the Web flow of information (Fig. 2.1). This will give you a very clear picture of how information will flow from your Web site to the Web. These terms will also be very useful to you, as we will be referring to them throughout the development process on the Web.

We have discussed the Web server before, but we will again summarize it in short, as it will help you in understanding the Web flow. A *Web server* is a computer on the Internet that contains one or more Web sites. Each Web site on the Internet is stored on a Web server computer. After you have learned how to develop a Web site you will learn how to publish your Web site on a Web server. Now, what does a Web server contain. It contains—Web Sites.
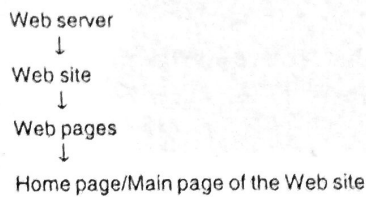
```
Web server
    ↓
Web site
    ↓
Web pages
    ↓
Home page/Main page of the Web site
```

Fig. 2.1 *Flow of Web Information.*

A *Web site* is a collection of Web pages that are linked with each other to form one single body of information. A Web site can offer information about the object that it aims to describe using text, graphics, audio or maybe in some cases video.

Within a Web site we have Web pages. A *Web page* is a single file of a Web site. It is referred to by the Web server by its filename and displayed to the user by a Web browser. A Web page can be of any length and can contain text, graphic, audio or video.

Amongst all the Web pages in a Web site there is a key Web page generally called the *home page* or the *main page* of the Web site. It is the entry point of the Web site. Using this page the users get access to the Web site. It is the first page that the people will see when they try to access a site.

For example, if you go to the Microsoft Web site then the page that opens up is the main entry page shown in Fig. 2.2. This page is the home page of the site,



Screen Courtesy: http://www.microsoft.com
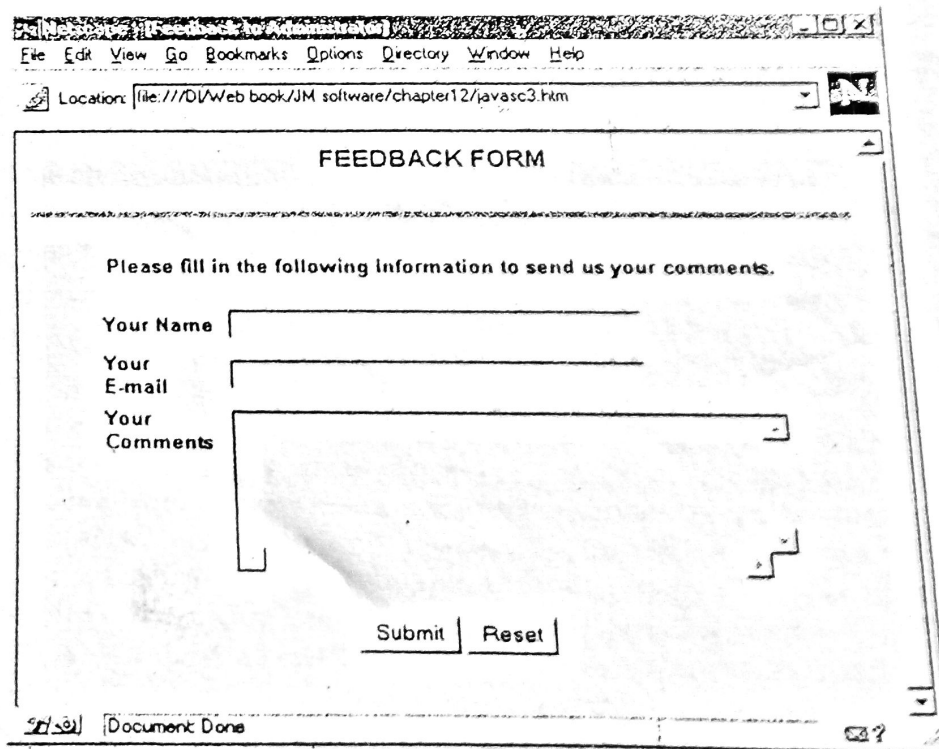
Fig. 2.2 *The Main Web page in the Microsoft Web site.*

i.e. it links you to the other pages on the site and gives you a complete and concise view of the contents of the site.

Since this page is the very first page that the visitors to a site will see, the basic design and planning components become very important.

If you have had the chance to browse on the Web you must have seen that most of the Web sites are woven around a certain theme or subject. This theme is called the content of the Web site.

Web sites vary from personal/hobby pages to online shopping Web sites, which do selling of flowers, books amongst others using the Internet. There are also online education, information and publication Web sites. Basically a Web site content can be almost anything. It all depends on the developer's creativity and design.

It may be possible that at the onset you may not be sure as to what you want to publish in your Web site. I recommend that you browse the Web and spend some time looking at various types of Web sites. This will not only help you in deciding your Web content but also give you some very useful inputs in terms of design and layout features of Web designing.

## OBJECTIVE OF THE WEB SITE

The term *objective* here means the main role or the reason behind the existence of a Web site. Let us try to find answers for the three questions listed below:

- Why do you or your company need a Web site?
- Who is your target audience?
- How best can you get their attention and how can a Web site improve your business or meet the other goals of your organization?

Web sites are designed keeping in mind a particular set of audience or clients. But with the incredible reach of this medium it has become necessary to keep in mind the global audience. The chance of a site being visited by not just its target audience is increasing by the day. A very common design technique is to design the Web site in such a manner that it reflects the image of the person, the company or the product. One such site is `http://www.coke.com/cokecard/home.html`, shown in Fig. 2.3.

Well, it is not necessary that your site must reflect what you or your company does, you could have a totally different Web site layout. It all depends on what you want to do with your site. The bottom line is how do you get the attention of a Web surfer. There are some Web surfers who are regular users and are very comfortable with the Web, on the other hand, there are not so regular surfers and novice users who are not so comfortable navigating the Web and are still discovering the Web. And you never know what may attract a visitor to your Web site—it can be good content, or a very good layout and graphics. Against all these odds you have to make a Web site that not only gets a visitor to the site but also satisfies their need.

Basically you have to decide on your primary Web audience and then depending on that create your site. If you just want to put your personal information or

Screen Courtesy: http://www.coke.com
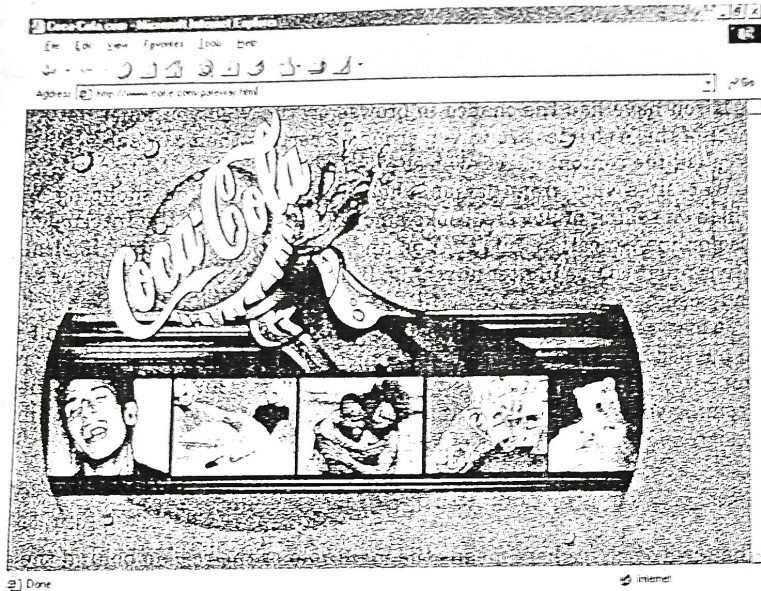
**Fig. 2.3**   *Web site of the Coca-Cola Company.*

hobby page on the Web, then you can develop a site that shows just that—a personal information page containing your hobbies, your pictures and everything else that you would like others to know about you.

If you are making a Web page for a company then, you will be primarily addressing the market audience. In such a case your site will be containing company profile, job openings, product information and other such features. Another similar example is of the online shopping stores on the Web. If you intend creating an online store for selling books then the book reader becomes your main audience.

Whether your target audience is a student, a teacher, an artist or a businessman, your site is still open to the world at large. At no point of time is it restricted to any one type of audience. Once your Web site is on the Internet it can be viewed by anyone in the world. Keeping this in mind you have to develop and design your Web site.

Another important issue when it comes to global audience is the language of the Web site. It is possible that the user may not be able to read English language. Then you can bridge this gap by providing translations for at least the key pages of your site in other popular languages such as French, Spanish or

German. Adding this feature means qu[...] in making your Web site truly global th[...]

There are also sites that are accesse[...] cated in the **Intranet**. Intranet sha[...] Internet, the only difference is that acc[...] more private in nature. They are used [...] tions within an organization by sharin[...]

Intranet is something like an inte[...] the confines of a company, university [...]

Whew! I am sure you must be find[...] once you get into active design and d[...] very challenging and interesting. An[...] sites need continuous updating and n[...]

## BASIC INTERFACE DESIGN

The users of the Internet prefer to v[...] but have an equally attractive visual [...] has these features is not too diffic[...] documents or books since they are [...] pages need to have more intuitive c[...]

You can use graphic icons as na[...] Web site attractive. Since, the Inte[...] graphics used have to be not only a[...] the later chapters, you will read ab[...]

Bandwidth is the rate at which [...] ured in kilobytes per second (kbps[...]

All Web pages must have a clea[...] in locating information, These title[...] er's browser, giving some idea as [...] page title is that if the user book[...] bookmark title as well. A bookma[...] browsers. It is used to mark a doc[...] the user can retrieve it later. It s[...] a Web site so that you can easil[...] browser they are called **Book**[...] **Favorites**. Therefore, your pag[...] going to save it in the bookmar[...]

The other important feature [...] updated date for a particular pa[...] the information. Web pages tha[...] mation, personnel manuals or [...] have this feature incorporated [...]

Figure 2.4 is an example o[...] Warner Brothers (http://warn[...]

German. Adding this feature means quite a lot of work but if you are interested in making your Web site truly global then it is worth the effort.

There are also sites that are accessed by a pre-defined audience and are located in the *Intranet*. Intranet shares most of the characteristics of the Internet, the only difference is that access to Intranet is reserved or rather it is more private in nature. They are used to improve productivity and communications within an organization by sharing information with its employees.

Intranet is something like an internal Internet designed to be used within the confines of a company, university or organization.

Whew! I am sure you must be finding all this very demanding. Don't worry once you get into active design and development of a Web site, you will find it very challenging and interesting. And remember it is not a one-time job. Web sites need continuous updating and maintenance in order to be meaningful.

## BASIC INTERFACE DESIGN

The users of the Internet prefer to view sites that are not only rich in content but have an equally attractive visual interface and design. To create a site which has these features is not too difficult. Web pages are different from printed documents or books since they are based on hypertext links. Therefore Web pages need to have more intuitive design.

You can use graphic icons as navigation and interaction aids to make the Web site attractive. Since, the Internet faces the constraint of bandwidth, the graphics used have to be not only attractive but also small in their file size. In the later chapters, you will read about making Web-efficient graphics.

Bandwidth is the rate at which data travels across the network. It is measured in kilobytes per second (kbps).

All Web pages must have a clear and precise page title, which helps the user in locating information. These titles are the first things that appear on the user's browser, giving some idea as to the page content. The other advantage of a page title is that if the user bookmarks the page then it goes on to become his bookmark title as well. A bookmark is a feature that is present in nearly all the browsers. It is used to mark a document or a specific place in a document so that the user can retrieve it later. It saves the address or the link to a Web page or to a Web site so that you can easily access the page at a later time. In Netscape browser they are called **Bookmarks**, while in Internet Explorer browser **Favorites**. Therefore, your page title has to be very meaningful as the user is going to save it in the bookmark.

The other important feature while making the page is incorporating the last updated date for a particular page. This tells the user how current or updated is the information. Web pages that deal with product information, corporate information, personnel manuals or other technology-intensive pages should always have this feature incorporated in their design.

Figure 2.4 is an example of a very attractive graphic oriented Web site of Warner Brothers (http://warnerbros.com/frame_moz3_night.html)

Screen Courtesy: http://www.warnerbros.com
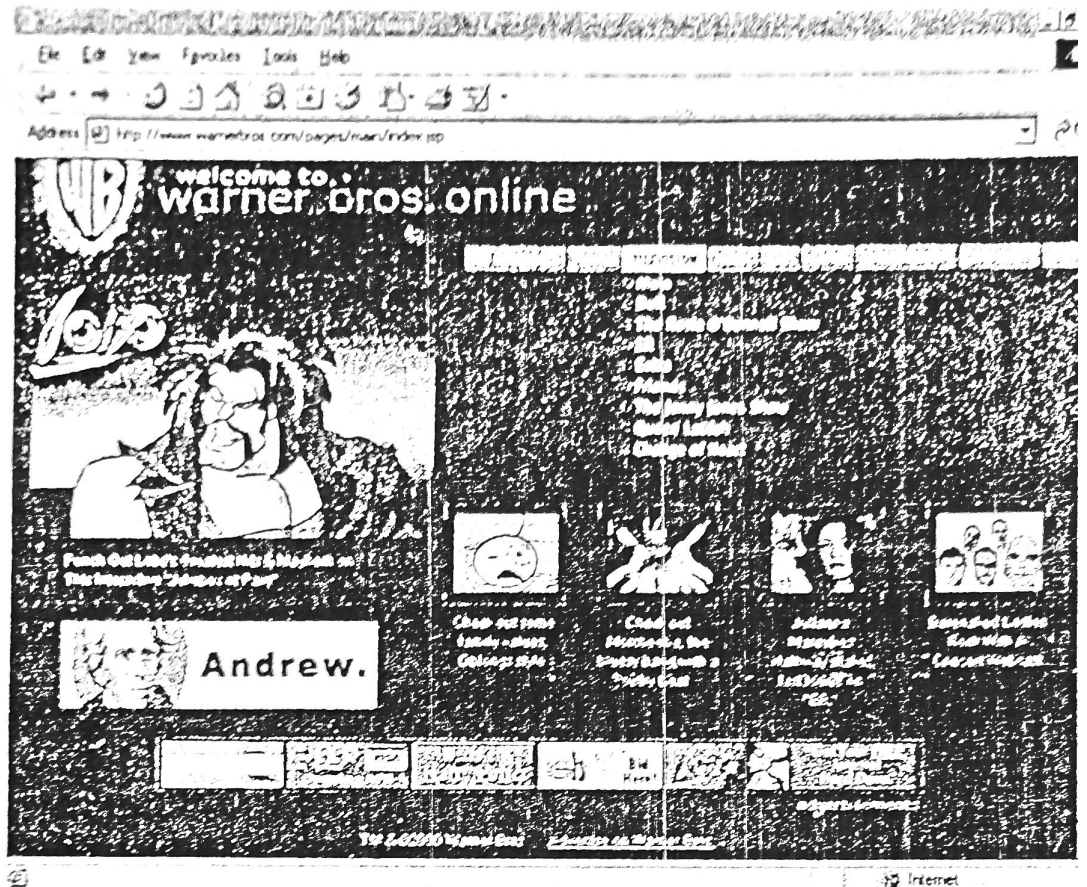
Fig. 2.4 The Homepage of Warner Bros.

A significant aspect of designing user interface is providing a link to the r
page of the Web site, i.e. the opening page. The World Wide Web is a h
network of computers and often while browsing you have no clue from whe
certain page originates and to where you may go on your next mouse clic
order to minimize this you should include a *HOME* link to your main site
so that the user knows the origin or the starting point of the particular
site. This link can be a graphic icon or simple text link, it largely depends or
complete page design. Using these features in your interface you can give
user a very helpful and efficient Web interface.

## DEVELOPING A STORYBOARD FOR THE WEB SITE

A storyboard helps you to plan your Web site and decide what goes where be
you actually start constructing. In this way, you end up creating an outli
the Web site much before you actually start developing.

This storyboard should contain all the information of the site, which incl
the function of the site, it's target audience, the graphic layout and des
navigation within the site and the overall functionality of the site. If the s

small and simple, then you may find this not so essential. But where the Web site is complex and involves more than two or three people, there you should definitely consider using storyboard. In large Web site development, storyboard not only saves time but also avoids a lot of unnecessary confusion and mistakes.

Storyboarding can be done on sheets of paper or by using special software packages. The best software utilities for doing this are those that also help in Web site management. These packages give you a graphical view of the entire Web site with hyperlinks and also the provision for modifying. A popular software for Web site planning and development is Microsoft's FrontPage Explorer, which shows you the complete site design on one single page with all links and options displayed. Change in one link automatically gets reflected in other relevant pages. SiteMan, is another software, very user-friendly and allows the user to check the site offline and has the provision of making site-wide changes. Then there is NetObjects Fusion also used for site administration and management purposes.

## NAVIGATION AND LINKS WITHIN THE SITE

It is always helpful if you divide your site into sections and then list down the broad goals for each section. Something like the following objective or goal list made for the company JM Software. Since it is an organization dealing with software development and marketing so the sections broadly could be something like:

For example, consider the case of JM software, an organization dealing with software development and marketing. It may list its objectives under various areas as:

### JM Software Web site objectives

*Software development*

- Company Information
- The platform of the software development
- Hardware specification
- Customized development
- Client List

*Marketing*

- Complete information of the products
- Online sale of products
- Product Updates

*Feedback or Customer Support*

- Encourage customers to give meaningful feedback
- Customer support
- FAQ (Frequently Asked Questions)
- Search engine for the site to help in locating information
- Contact Address and Company Address

Once you have made the broad categories you need to work towards site navigation and organization. As you know that most of the user interaction with

Web pages on a site is done using navigating hypertext links. The most common interface problem arises when the user gets lost in the site. This problem can be solved if proper and clear graphics, icons or text based navigation help is included in the Web page.

Most of the sites on the Web give these links as a bar of buttons or text that are present in all pages in the site. This navigation bar also goes on to form a standard identity for the page. For instance, in the Microsoft site you will notice the navigation bar, shown in Fig. 2.5, on top of every page enabling the user to browse freely through the site without the possibility of getting lost.

Screen Courtesy: http://www.microsoft.com

**Fig. 2.5** *Navigation bar of the Microsoft Web site at http://www.microsoft.com*

*(Graphic has been reduced from the original size due to the limitation of page size.)*

Providing this kind of your own navigation bar gives your site a concrete design. While creating the graphic do keep in mind that the navigation bar doesn't take up too much place on the screen as then you may loose space for your page content. Another tip, it is safer to use the terms **previous** and **next** as the navigating terms for moving within the site and using **Home** button to take the user to the home or the main page of your Web site. An alternate way of representing navigation is shown in Fig. 2.6, notice the use of the arrow keys as navigating symbols.
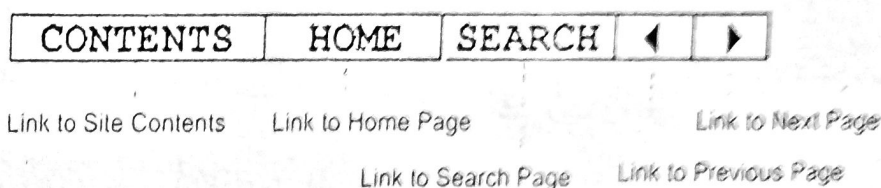
| CONTENTS | HOME | SEARCH | ◄ | ► |

Link to Site Contents   Link to Home Page         Link to Next Page

              Link to Search Page    Link to Previous Page

**Fig. 2.6** *A Sample Navigation Bar with Minimum Options for the Web Pages*

Using these navigation bars you help the user in understanding your Web site layout. If these navigation bars are not included in the design then the user is totally dependent on the Web browser buttons of 'Back' and 'Forward' which have the possibility of taking him out of your web site.

## CHECKLIST FOR DESIGNING

### User Friendly Interface

While designing the site you should try to minimize the information in few direct links and not have too many nested links. The term nested here means

link within another link. Your site design should have a very efficient and appealing interface. The term efficient in this context relates to small graphics that do not take too long to download. The interface could have main section presented as main menu and they in turn contain links to sub menus. Try to keep all the main options on one single page, preferably on one single menu bar.

## Bandwidth

The pages should be so designed that the user does not have to wait for a long time. It is a well known fact that most users get impatient if the page takes too long to come on the screen and so they move on to some other site. Web users have different types of Internet connection and machine configurations so the site has to be such that it is efficient on all type of user machines. For instance, if the user is connecting through a 28.8 kbps dial-up phone line connection it will not be a very good idea to incorporate huge graphics into the Web page. The choice is entirely yours depending on your audience priority and design issues.

## Simple and Consistent Design

Web page should be designed with a consistency and the site layout should be simple and yet interesting. You must not forget that most of the users come looking for some specific information. The language, the graphics and the overall site design should be very logical and meaningful to the user. It should essentially be very comfortable in its appeal. To achieve maximum site functionality your site design should be consistent in layout in all sections within the site. All the Web pages within the Web site should ideally share more or less almost the same page layout, graphic styles, and linking and navigation pattern. The user once into the site should be able to get control of navigating and exploring the site. Using a particular graphic depiction style you can convey to him continuity of a particular theme.

One of our favorite site on the Internet as per the design consistency and appeal is the http://www.adobe.com site, shown in Fig. 2.7. It has all the features, which not only makes it an attractive looking site but also a site with user-friendly features.

## Search and Feedback Service

Your Web site can be very useful if you include search facility and feedback facility within the site. This specially helps those users who come to your site looking for some specific information. The user can use the feedback option to make inquiries or just give a feedback on the site or the product. The feedback service should be a link to the 'Webmaster' or 'Webmistress' of the site. They are the persons who are responsible for the site and it's contents. These features also help to get you closer to users all over the world and they are especially very helpful to business oriented Web sites.

Screen Courtesy: http://www.adobe.com
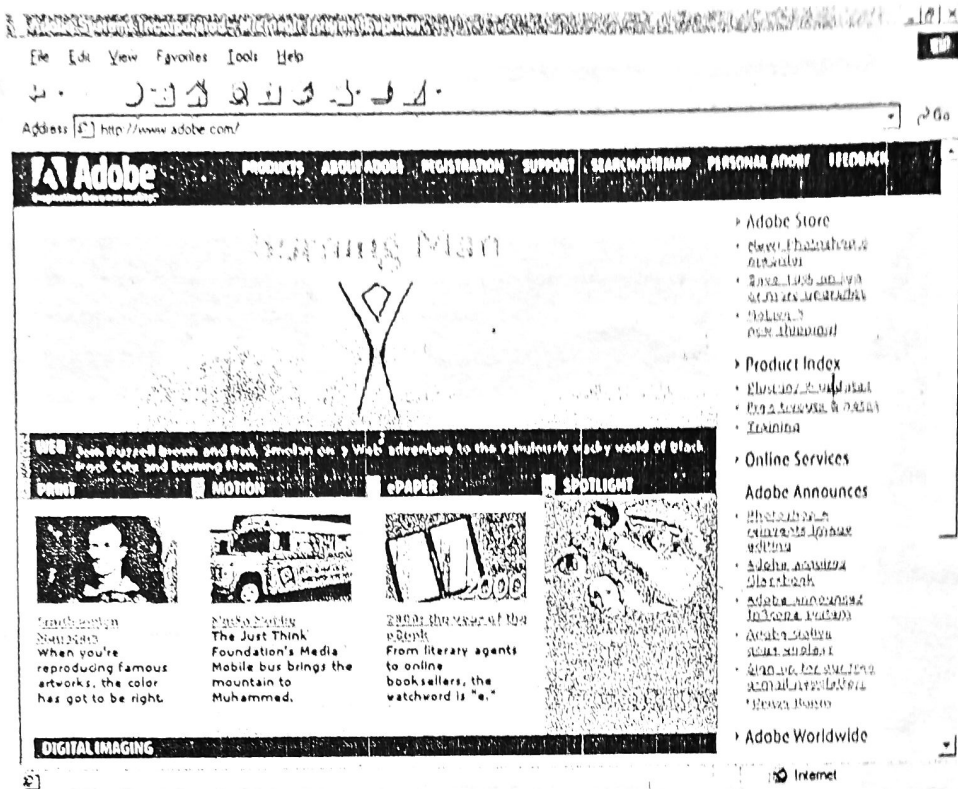
Fig. 2.7 *The Web site of Adobe Systems Incorporated.*

## Designing for Non-graphic Visitors

It is important to keep in mind that there are many users who use the UNIX shell account for browsing on the Internet. So, it is important for you to keep this factor in mind while designing your site. One key advantage of Web pages is that in the same document you can incorporate capabilities that will allow a shell account user to go through your site as effectively as for a graphic capable connection. You will learn about this feature in detail when we begin to learn to create Web pages.

# SUMMARY

*In this chapter you learned how to plan and design your Web site. You covered some important aspects of Web publishing, like, what to present, whom to present, how to organize and storyboard the content. Having covered all the basics of Web publishing, in the next chapter you will begin creating Web pages.*

# 3
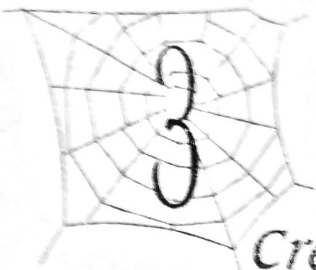
# Creating a Web Page with HTML—The Basics

## ABOUT HTML

I am sure you are getting impatient to create your first Web page. Your wait is over. We will be concentrating only on Web page creation from now onwards. In this chapter we will discuss what is HTML and what are it's strength and limitations.

### The HTML Language

HTML stands for Hypertext Markup Language. HTML was developed specifically for use on the World Wide Web. As you know, Hypertext has the ability to be connected to other texts, and it can be navigated by a system of links, which can be non-sequential in order.

Vannevar Bush is credited with describing the first hypermedia system, named memex. He wrote about it in his 1945 article "As We May Think". You can read the plain text and HTML versions of the article at the site http://www.isg.sfu.ca/~duchier/misc/vbush/. In 1965, Ted Nelson coined the term hypertext to describe his proposed system called Xanadu.

The features which led to the popularity of HTML were it's simplicity, the ability to link and portability. It is possible to create HTML files on any computer platform. These files can be viewed on any computer that has Web-browsing software. If you have Web browser software and a connection to the Internet, you can view any HTML files available on the World Wide Web.

As suggested by the definition of HTML, it is not a programming language. It is a marking up language used for linking one piece of information to another. The aim of HTML is to indicate the structure of your document and give a

layout to it. Therefore, it is important to organize information meaningfully with a clear and precise content.

### Some Facts and Features about HTML

Using a Markup Language means that you can add tags to the words in your document and web enable them. A tag is a set of descriptive formatting codes used in HTML documents that instruct a Web browser how to display text and graphics on a Web page. For example, to make text bold, the tag <B> is used at the beginning and </B> at the end of the text. Moreover, there is a possibility that some HTML tags may produce different effect on different browsers.

HTML 2.0 is the first standard of HTML specification, released in 1996. HTML 3.2 was the next specification to be developed. It was the result of a joint effort of many software companies like Microsoft, IBM, Netscape Communications, Sun Microsystems, Novell and others. All these companies joined the W3 Consortium to assist in the development of this version of HTML. HTML 3.2 includes features like tables, applets and is also compatible with the other features of HTML 3.0.

Next came HTML 4.0 in 1997 with features, which gave the developer much more control over the Web document. Like the other HTML versions this too came from the W3 Consortium. This version came out with the cascading style sheets and dynamic HTML features. Only those browsers which support HTML 4.0 can view these features. A detailed specification of all these versions is maintained by the W3 Consortium and is available at their site http://www.w3.org.

Most Web browsers also offer some browser specific features, which the user can view only if he/she uses that specific browser. The web developes must been in mind the issue of compatibility of the Web browsed and the browsed specific features, while designing a Web page. The developer faces the main problem due to all these versions and browser compatibility issues. As a Web developer you have to standardize your page across different browsers Although it requires quite a lot of effort to make your document compatible with different browsers and at the same time not compromise on the design and layout, it is definitely not an impossible task.

### Programs to Help write HTML

For writing HTML there are two possible ways, either you use a text editor or an HTML editor. There are a lot of programs in the software market to assist you in writing HTML files, for example, the Microsoft Word editor with menus and icons assist, you in developing Web pages. All you need to do is type in the document and mark the area where you want the tags inserted. By using these programs you don't really need to know the tag itself as the editor does the work for you. There are some word processors, which convert a text document into a Web page, like Microsoft's Word 97.

In situations where you have to convert existing text files into Web documents these programs are very useful. But you have to be careful since a lot of these programs add their own tags and then to rectify that you need to go through the document in a text editor, like Notepad. This can be a very painstaking task.

We recommend that, while learning HTML from this book, try to use a text editor like Notepad, Microsoft Write or DOS edit. This will give you a good understanding of the HTML tags. On Macintosh the simple text application that comes along with the system or the more advanced shareware Bbedit can be used. On UNIX systems, the vi, emacs can be used. On the other hand, if you use a word processor program then be careful to save the document as *Text Only*, *Text Only with Line Breaks* or *DOS* Text.

## BASIC ELEMENTS

HTML files are plain text files, which means that they are program and platform independent. HTML files are composed of elements.

> Elements in an HTML document include headings, titles, paragraphs, and other features

An element in this language is *delimited*, or set off, by *tags*. Most elements start with a tag that has angle brackets around it, for example, <TAG> this is called start tag. Some elements often end with a tag such as </TAG>, which is called the end tag. For example,

`<Tag Name>`Text over here`</Tag Name>`

The opening tag starts the effect that the tag is supposed to have on the text and the closing tag, indicated by the / closes the effect. Thus, the tag <B> will make the text bold and when it encounters the </B> tag, the effect will terminate.

There are some tags that do not have a beginning and an end. These are of two types *empty* and *container*.

Any element that has both a start tag and an end tag can carry contents between the tags. Such an element is called a *container* element. An example of this *container* element would be the <B> start tag which ends with </B> and has content in between. Container elements may have other elements nested inside them, and they always have content within them.

Elements that don't have an end tag are called *empty* elements. An example of an empty element is the <HR> tag, which just adds a horizontal line to the web page. It has no end tag like </HR> HTML tags are not case sensitive. A uppercase <B> is same as <b>. You can mix upper and lower case and even then the document will be valid. What is more important is to remember to put the *angle brackets* and the / where applicable. Since, a missing angle bracket or / can change the entire display of your web page. Usually, HTML tags are written in uppercase, as they can be then easily distinguished from the content of the Web page.

## Your First HTML Page-The Basic Structure

If you recall, in Chapter 2 we made the storyboard of JM Software company. We will now start converting this storyboard into our Web site. Apart from a simple text editor, you only need a Web browser to view your Web pages. A Web Server and Internet connection will be needed much later when your site is ready to go live on the Web.

## The <HTML> and </HTML> Element

This is the first tag in every HTML document. This tag indicates that the content of the file is in the HTML language. The entire Web document is placed between the <HTML> and </HTML> start and end tags.

```
<HTML>
...Your content comes here....
</HTML>
```

## The <HEAD> and </HEAD> Element

The <HEAD> element includes information about the document itself. No information given within the <HEAD> element is displayed as part of the Web page content.

This tag makes your document appear more structured. For instance, you could type the date and place at which this HTML document was created. It is typically used to carry the <TITLE> Tag, which contains the page title.

```
<HTML>
  <HEAD>
      <TITLE>Your Page Title</TITLE>
  </HEAD>
  ...
</HTML>
```

## The <TITLE> and </TITLE> Element

The <TITLE> element plays a very important role in the Web page. As discussed earlier it goes on to become the text of a visitor's bookmark. The text enclosed within the <TITLE>...</TITLE> element indicates the page content. It is displayed in the title bar of graphical browsers such as Microsoft Internet Explorer and Netscape Navigator.

Try to keep this text as precise as possible as this is the first bit of information that a Web user will be reading. The <TITLE> tag is always placed inside the <HEAD> tag (see Fig. 3.1).

```
<HTML>
  <HEAD>
     <TITLE>JM Software </TITLE>
  </HEAD>
</HTML>
```
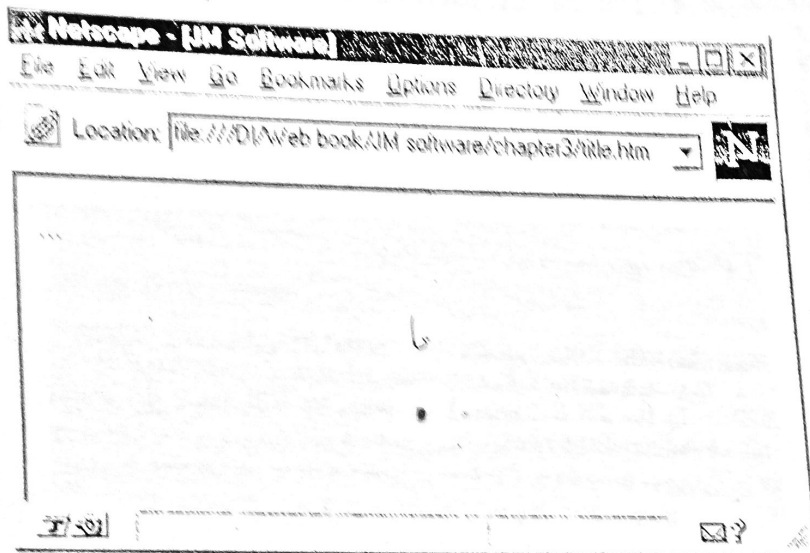
```
<HTML>
  <HEAD>
     <TITLE> JM Software </TITLE>
  </HEAD>
  <BODY>
     JM Software House.
     We deal in...
     Software development, Marketing and Customer Support.
  </BODY>
</HTML>
```
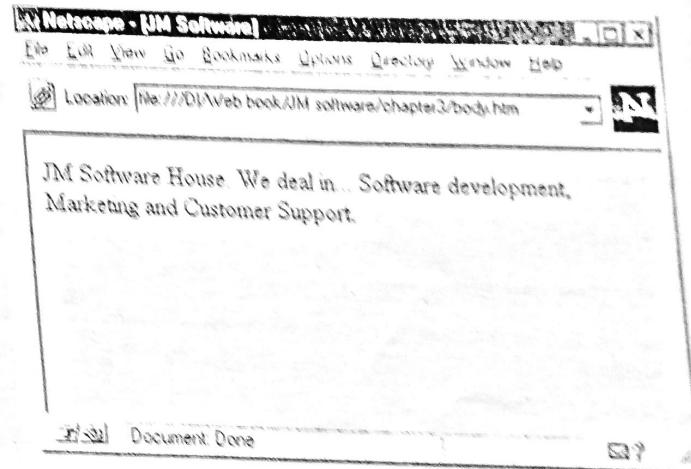
Web Page Title

**Fig. 3.1** *The Title Tag.*

**Fig. 3.2** *A Simple HTML Page.*

You will notice that all the HTML tags are nested. The <BODY> and </BODY> tag are inside the <HTML> and </HTML> tag and the same goes for <HEAD> and <TITLE> tags. You have to take care not to overlap the tags, they should be always nested in proper sequence (see Fig. 3.3).

## The <BODY> and </BODY> Element

A <HEAD> element is followed by the <BODY> element, which ends with < /BODY> closing tag. All the main content of the HTML document are written within the tag <BODY>... </BODY> tag.

We will now create a very simple page (shown in Fig. 3.2). It is always helpful to create a directory on your hard disk drive for your Web page documents. This way managing and making changes to files becomes very easy. Following is a simple HTML file that includes the HTML, HEAD, TITLE and BODY elements.

| Incorrect sequence of tags | Correct sequence of tags |
|---|---|
| <HTML> | <HTML> |
| <HEAD> | <HEAD> |
| <BODY> | </HEAD> |
| </HEAD> | <BODY> |
| </BODY> | </BODY> |
| </HTML> | </HTML> |

**Fig. 3.3** *Sequence Tags.*

After keying in the above HTML code save it in a separate new folder on your machine. Make sure that the extension of your document is *.htm* or *.html*. If you're using Windows 3.1, you're limited to the .htm extension. With Windows 95, UNIX, and Macintosh platforms, you can use either .htm or .html.

While saving an HTML file, you should restrict the filename to letters and/or numbers for the filename. Using spaces, extended characters or punctuation marks in your filenames might not work on some platforms. In Windows 3.1, your filename is restricted to eight letters, but you can use longer and meaningful filenames on Windows 95, UNIX, and Macintosh.

It is also wise to adopt the convention of keeping the filenames either in lowercase or uppercase, although this is not necessary. It is safer because many Web servers like the UNIX are *case-sensitive*.

Let us give some format to the HTML page shown in the above example, by giving it a proper heading. How do we do that? We will take each component of the page at a time, so let's begin with the heading of the Web page.

## Headings in an HTML Page

The use of headings in your HTML file gives more clarity to the content. HTML has six levels of headings shown in Fig. 3.4. The heading tag is given as follows:

```
<H1>My First Web Page</H1>
```

The number in the heading tag indicates the different level of headings. For example:

```
<H1> <H2>, ... <H6>
    <HTML>
    <HEAD>
        <TITLE>Headings</TITLE>
    </HEAD>
    <BODY>
        <H1>This is a Heading</H1>
        <H2>This is a Heading</H2>
        <H3>This is a Heading</H3>
        <H4>This is a Heading</H4>
        <H5>This is a Heading</H5>
        <H6>This is a Heading</H6>
    </BODY>
</HTML>
```

Headings can be of any length and can be given anywhere in the document. Headings are displayed as bold text so that they are distinguished from the content of the Web page. You can use the heading tag to format your text meaningfully, mainly the title of the page or a section. Try not to use the heading tag to emphasize your text to the viewer. It may appear fine on your browser but there is no guarantee that when viewed through a different browser, it will
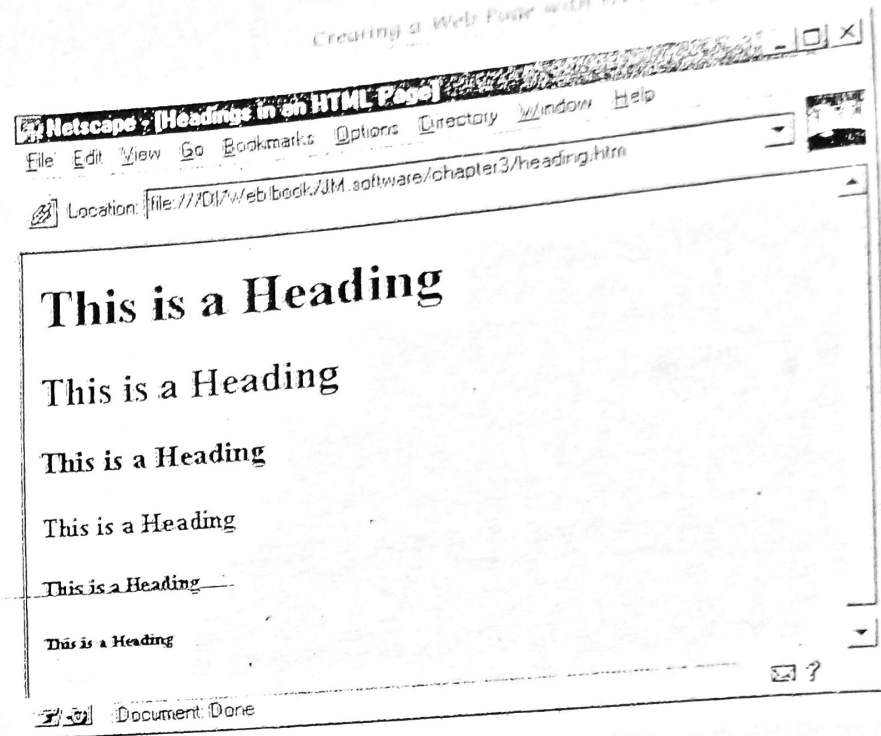


Fig. 3.4    *The Heading Tag.*

show the same results. The result may be very different and your document may appear far different from what you might have designed.

In the JM Software Web page, we will apply the heading tag for the main heading of the page.

```
<HTML>
    <HEAD>
        <TITLE> JM Software </TITLE>
    </HEAD>
    <BODY>
        <H3>JM Software House.</H3>
        We deal in... Software development, Marketing and Customer Support.
    </BODY>
</HTML>
```

Notice the use of <H3>. Whenever you use the heading tag, your criteria for the heading size should ideally be dependent on the page layout. Your page heading should not stand out in the page; it should blend well with the page content and design (Fig. 3.5).
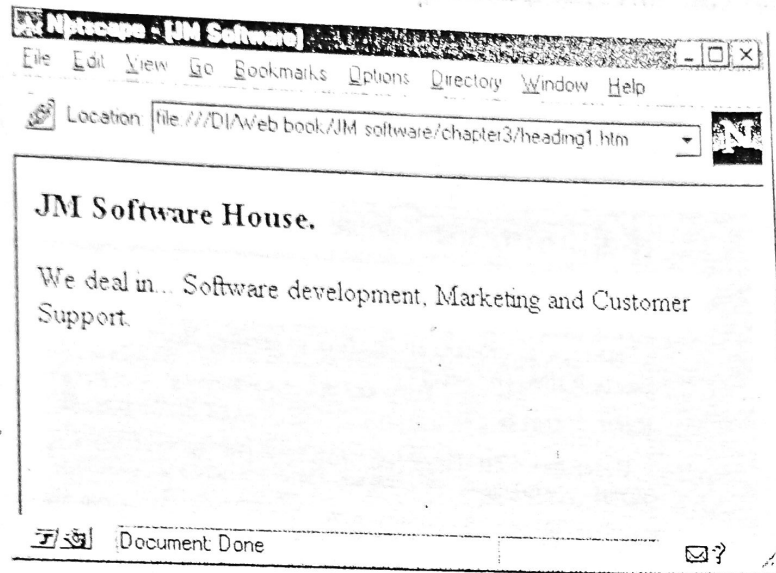
Fig. 3.5   *The Heading Tag.*



Fig. 3.6   *The <P> Tag.*

## Paragraphs in an HTML Page

The paragraph <P> tag tells the browser what text in your document constitutes a paragraph. The paragraph element is nested inside the <BODY> element, and it cannot be placed within any other elements.

This tag is very useful in formatting text and displaying it meaningfully. The paragraph tag starts with a <P>.... </P>. The closing tag </P> is optional. It is a very good practice to use <P> while creating Web pages as it spaces out text making it more readable and clear. But be careful when you do so as inserting too many <P> tags causes the text to be much too spread out resulting in a lot of scroll effort by the user.

Let's apply it to our client's page.

```
<HTML>
  <HEAD>
      <TITLE> JM Software </TITLE>
  </HEAD>
  <BODY>
      <H3>JM Software House. </H3>
      <P>We deal in...</P>
      <P>Software development, Marketing and Customer Support. </P>
  </BODY>
</HTML>
```
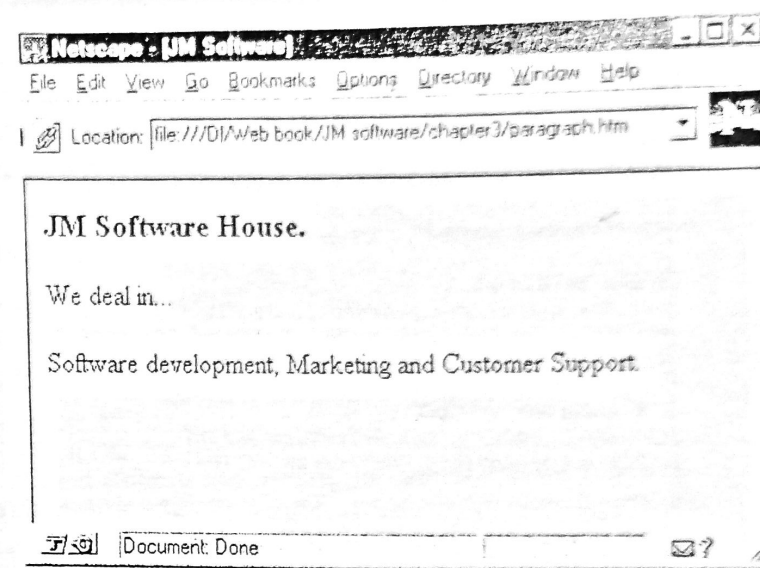
The result of the above instructions is shown in Fig. 3.6.

## Comments in an HTML Page

Inserting comments into your HTML code is a good practice. Comments are written into HTML documents to describe something about the page. Comments are never displayed in the browser window. They are written so that anybody who goes through the code can understand what the HTML page contains. The comments are written in the following format:

```
<!-- This is comment -->
```

In Fig. 3.7 you can see how the comment tag has been used to indicate from where the feedback form section starts.

## LISTS

Using a List tag you can give more style and formatting to your Web document. They are of the following three types:

- Ordered/Numbered lists are displayed in the number sequence.
- Unordered/Bulleted lists are displayed as bulleted text. Something like this bulleted text that you are reading.
- Glossary/Definition lists are a little different from the ones discussed so far. In this type of list, each item is assigned a term and definition. This helps in highlighting that particular item.

```
feedback - Notepad                                    _ □ ×
File  Edit  Search  Help
<HTML>
<HEAD>
   <TITLE>Feedback</TITLE>
</HEAD>
<BODY LINK="#FF0000" VLINK="#FF0000" ALINK="#FF0000">

<!--Feedback form starts from here-->

<FORM method=post
action="http://www.postman.com/scripts/sendmail.cgi">
<CENTER><TABLE BORDER=0 CELLSPACING=0 CELLPADDING=2
with="300" >

<TR BGCOLOR="#FFCCFF">
<TD><FONT FACE="Arial,Helvetica"><FONT
SIZE=-1>Name </FONT></FONT></TD>

<TD cospan2><INPUT type=text size=25 name="Name"></TD>
```

**Fig. 3.7** *The Comment Tag.*

There are some lists elements, which are called *deprecated*. A deprecated tag is one, which is being currently supported by browsers but is in the process of being eased out and become obsolete in future versions of HTML. They are also mainly those tags that are involved in Web page formatting and styling. Style sheets in HTML 4.0 specification have replaced the deprecated tags.

Some of the deprecated tags are:

### <BODY>...</BODY>

All desired attributes for the <BODY> can also be implemented using style sheets.

### <APPLET>...</APPLET>

The <APPLET>...</APPLET> tag enabled the running of a Java applet. The <OBJECT>...</OBJECT> tag is the new substitute.

### <CENTER>...</CENTER>

The <CENTER>...</CENTER> tag, used to center text or images, is deprecated in favor of <DIV> tag.

### <FONT>...</FONT>

<FONT>...</FONT> allowed the specification of font sizes, colors, and faces. Now, style sheets rather than HTML code, have taken over these formatting.

### <BASEFONT>...</BASEFONT>

<BASEFONT>...</BASEFONT> set a base font size that could then be referenced for size increases or decreases. Style sheets are now used to set and reference relative font sizes.

### <STRIKE>...</STRIKE> and <S>...</S>

Both <STRIKE>...</STRIKE> and <S>...</S> create strike through characters. Style Sheets is now used to do this formatting.

<U>...</U>creates underlined characters. Style Sheets can now be used to do this.

<B>...</B> creates bold characters. Again here you can use Style Sheets to create bold text.

<I>...</I> creates characters in italics. Here too Style Sheets can be used to create italicized text.

### <DIR>...</DIR>

Describes a directory list. You can use <UL>...</UL> list instead of this tag.
### <MENU>...</MENU>

Describes single-column menu lists. They also gave way to <UL> lists.

However, you can use these tags if there is a possibility of the users using older browsers that recognize HTML 3.2, like Netscape Navigator 3.0 or Microsoft Internet Explorer 3.0. We will be covering the style sheet tags later in the book. Coming back to List tags, let's read about how they help in formatting our Web page.

## Ordered/Numbered List

Numbered list or the ordered List can be created by giving the <OL>...</OL> tags. Within the ordered list tag each item is enclosed in the <LI> tag.

The OL stands for Ordered List and the LI for List Item

The </LI> tag here is optional. While using the numbered list you don't have to bother numbering your text content, all you have to do is to enclose it within the numbered list tag.

The numbered lists are used more often in situations where certain information has to be strictly executed in a sequence. For example, for installing a software program.

```
<P>Installing Mousepaint Program</P>
  <OL>
        <LI>Choose Run from the Start menu of your Windows 95/98.
        <LI>Type your the drive letter. For example a:setup.exe
        <LI>Press the Enter key.
        <LI>Follow the setup instructions of the program.
```

```
<LI>Restart your computer after completing the Setup.
</OL>
```

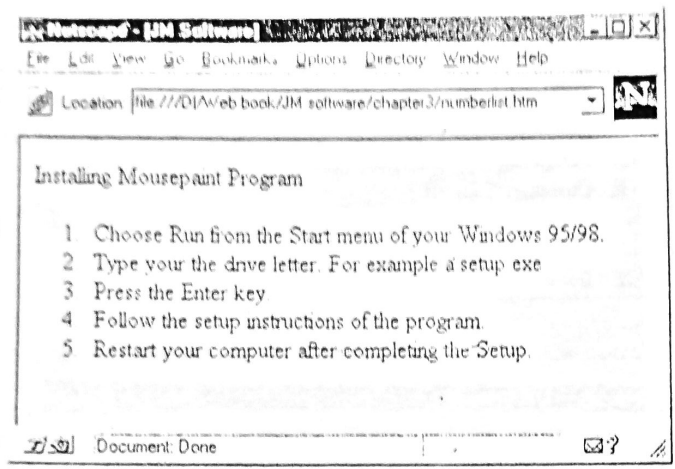On the screen, it will appear as shown in Fig. 3.8.



**Fig. 3.8**   *Ordered/Numbered List.*

Let's see how it appears if we apply it to our client's JM Software's Web page. It will appear as in Fig. 3.9.
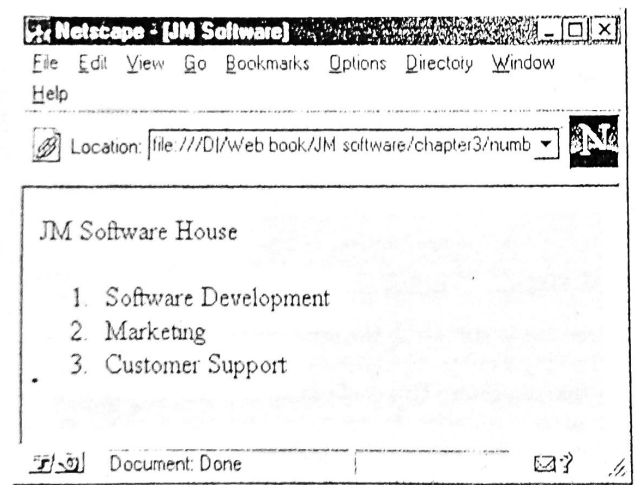


**Fig. 3.9**   *Ordered/Numbered List.*

Don't you think that the numbered list seems more suitable for the former example of installing Mousepaint program? It certainly looks like that, but this does not restrict you from using on our client's page or pages of similar kind. Finally, it is all your design preference.

Ordered Lists has the TYPE attribute, which gives the user more options of formatting the list. It allows you to format the ordered by allowing you to specify the kind of numbering that you want, for example, Roman numerals and Arabic numerals. Along with the numbering scheme you can also specify from which number to start the list, for instance, you may want to start with 5 instead of the usual number 1.

### Attributes are additional functions of a particular HTML tag. They give more options to an HTML tag

In HTML 4.0 this TYPE attribute has been deprecated to give way to Style Sheet elements that perform the same task. If you will recall *deprecated* tags are the ones which are not part of the future versions of HTML. But, again there may be browsers that still support HTML 3.2, in that case you may have to use these attributes. This does not mean that browsers using HTML 4.0 will not show the result of this attribute. Remember all new versions of browsers are backward compatible.

Using the TYPE attribute of numbered list you can control the numbering options of the list and also from which number you want the list to begin.

```
TYPE = " 1/A/a/I/i "
```

This optional attribute enables you to select one of the following forms of numbering, where TYPE=1 is the default.

| | |
|---|---|
| 1 | 1, 2, 3, ... (Standard Arabic numerals ) |
| A | A, B, C, ... (Uppercase letters) |
| a | a, b, c, ... (Lowercase letters) |
| I | I, II, III, ... (Uppercase Roman numerals) |
| i | i, ii, iii, ... (Lowercase Roman numerals) |

To specify the TYPE tag in the numbered list, you have to write it in the following manner.

```
<OL TYPE="A">
```

Let's see how it appears in the browser.

```
<P> JM Software House
<OL TYPE="A">
   <LI>Software development</LI>
   <LI>Marketing</LI>
   <LI>Customer Support</LI>
</OL>
</P>
```
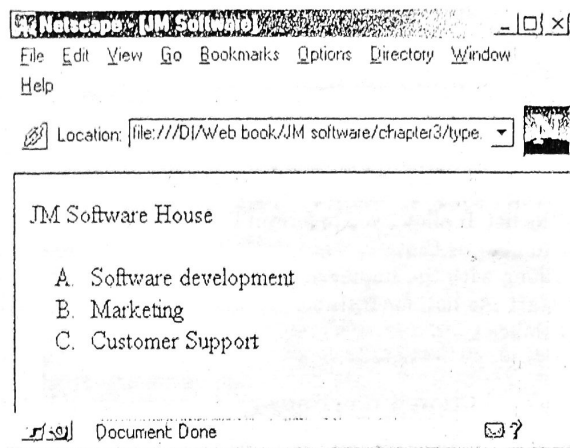
**Fig. 3.10**  *Numbered List using TYPE Attribute.*

**Fig. 3.11**  *The START attribute in Numbered List.*

You can use the START attribute to specify from what number or letter you want to start the list.

In this also the default value is 1. The syntax for using this attribute is:

`<OL START=5>`, this will start the list with number 5. In case you specify the TYPE as A, i.e,

`<OL TYPE="A" START=5>` then the numbering of the list will start with the alphabet E and from there onwards move in sequence.

```
<P> JM Software House
   <OL TYPE="A" START=3>
        <LI>Software development</LI>
        <LI>Marketing</LI>
        <LI>Customer Support</LI>
   </OL>
</P>
```

Similar to TYPE attribute is yet another attribute called the VALUE attribute using which you can change the value of a list item at any point in the numbered list. You can do this by using the VALUE attribute in the <LI> tag. So, if you want to give an element a value of say, 45 you can do it using this attribute.

```
<P> JM Software House
   <OL>
        <LI>Software development
        <LI>Marketing
        <LI VALUE=45>Customer Support
   </OL>
</P>
```
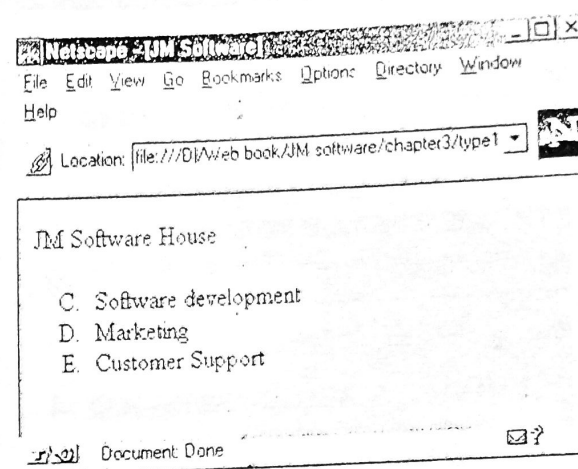
**Fig. 3.12**  *The VALUE Attribute of Ordered List.*
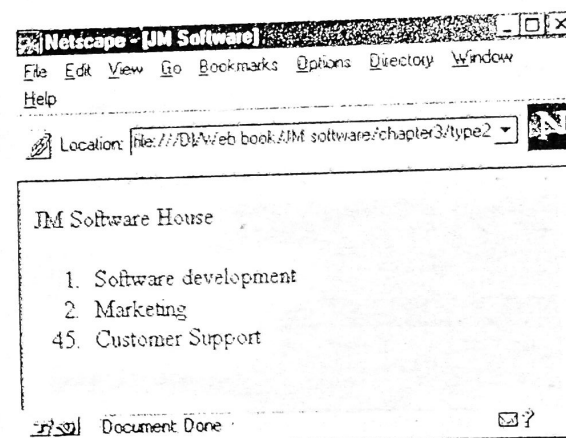
## Unordered/Bulleted Lists

An, unordered list is similar to the ordered list only there is no order in the text displayed. The tag used is <UL>...</UL> Similar to ordered list the <LI> tag is used to separate the list items. The </LI> is again an optional end tag.

In place of the number or alphabet sequence used in ordered list the unordered list uses bullets or other symbols.

The UL stands for Unordered List and the LI for List Item

Any text that you want to convert to a list tag has to be enclosed within the start tag and closing tag. For example, `<UL>...</UL>`. I would also like to recommend that when you write text to be displayed as a list item, write it in such a way that each item in the list is on a new line. For instance, if you write list code in the following manner, then it is easier to read and understand

```
<P> JM Software House
<UL>
    <LI>Software development</LI>
    <LI>Marketing</LI>
    <LI>Customer Support</LI>
</UL>
</P>
```

than writing all in a single line.

`<P> JM Software House <UL><LI> Software Development</LI><LI> Marketing </LI><LI> Customer Support </LI> </UL></P>`

As you can see in Fig. 3.13, the default symbol icons shown in the browser are the bullet symbols.
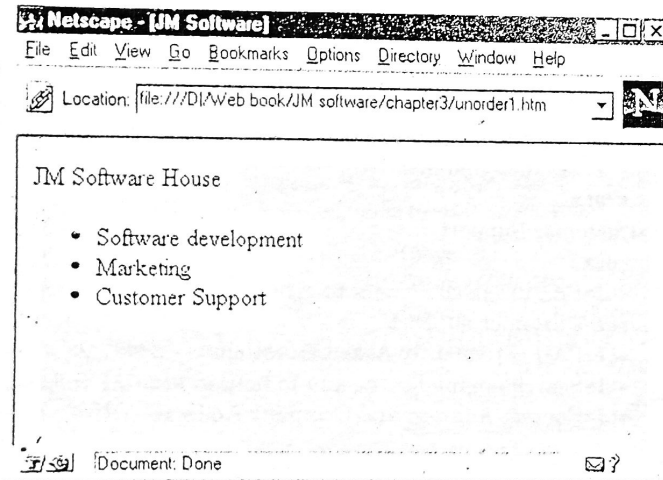


**Fig. 3.13** *The <UL> List Tag.*

The use of TYPE attribute will allow you to change the bullet to be displayed. The TYPE attribute takes the following three values:

`<UL TYPE ="CIRCLE|DISC|SQUARE">`

Let us put them all together and see how they appear in the browser (Fig. 3.14).

```
<P>JM Software House </P>
<P>Software development </P>
    <UL TYPE="circle">
        <LI> Company Information
        <LI>The platform of the software development
        <LI>Hardware specification
        <LI>Customized development
        <LI>Client List
</UL>
<P> Marketing</P>
    <UL TYPE="square">
        <LI>Complete information of the products
        <LI>Online sale of products
        <LI>Product Updates
    </UL>
<P> Customer Support</P>
    <UL TYPE="disc">
        <LI>Encourage customers to give meaningful f
        <LI>Customer support
        <LI>FAQ (Frequently Asked Questions)
        <LI>Search engine for the site to help in locati
        <LI>Contact Address and Company Address
    </UL>
```
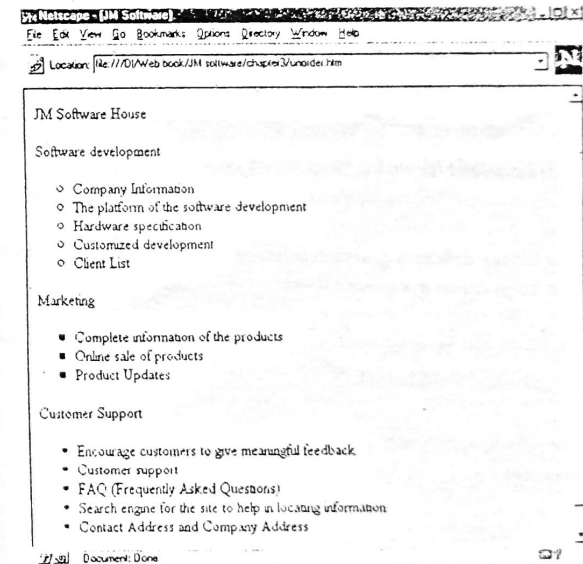


**Fig. 3.14** *Unordered List with TYPE Attribute.*

## Glossary/Definition List

Glossary lists has two parts in them, a term and a definition. For the term in the glossary list the tag is <DT> and for its definition <DD>. Both these tags are one-sided. The entire list is enclosed within the <DL>..</DL> tags.

In the screen shown in Fig. 3.15, you can see how a glossary list appears in a browser.

```
<HTML>
   <HEAD>
<TITLE>Glossary/Definition Lists</TITLE>
   </HEAD>
     <BODY>
       <P>Glossary/Definition Lists</P>
       <DL>
          <DT>dl<DD>This list tag defines a glossary/definition list and uses
          the internal tags dt and dd to define the terms.
          <DT>dt<DD>This definition term tag must come inside a dl tag. It
          defines the terms of the glossary/definition list.
          <DT>dd<DD>The dd tag must come inside a dt tag. It is the descrip-
          tion of the definition.
       </DL>
     </BODY>
</HTML>
```

```
Netscape - [JM Software]                                    _ □ ×
File  Edit  View  Go  Bookmarks  Options  Directory  Window  Help

Location: file:///D|/Web book/JM software/chapter3/glossary.htm    ▼

Glossary/Definition Lists

dl
        This list tag defines a glossary/definition list and uses the internal tags dt
        and dd to define the terms.
dt
        This definition term tag must come inside a dl tag. It defines the terms of
        the glossary/definition list.
dd
        The dd tag must come inside a dt tag. It is the description of the
        definition.

Document Done                                              ☑?
```
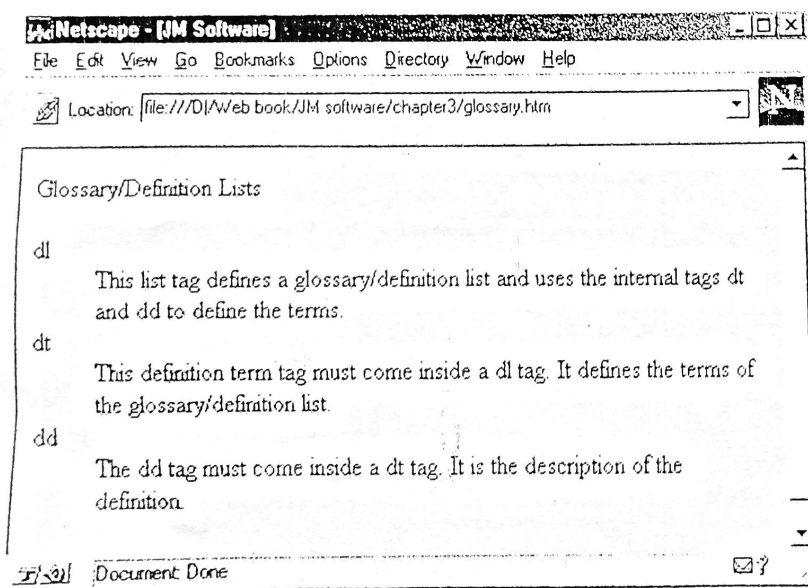
**Fig. 3.15**  *Glossary List.*

## Nesting Lists

Nesting of lists is nothing but placing of one list within another. They can be used to present information as a menu or if the document has to be indented to show some kind of relationship.

For example:

```
<HTML>
   <HEAD>
<TITLE>JM Software </TITLE>
   </HEAD>
     <BODY>
<P>JM Software House</P>
<UL>
   <LI>Software development
       <UL>
       <LI>Company Information
       <LI>The platform for the software development
       <LI>Hardware specification
       <LI>Customized development
       <LI>Client List
       </UL>
   <LI>Marketing
       <UL>
       <LI>Complete information of the products
       <LI>Online sale of products
       <LI>Product Updates
       </UL>
   <LI>Customer Support
       <UL>
       <LI>Encourage customers to give meaningful feedback
       <LI>Customer support
       <LI>FAQ (Frequently Asked Questions)
       <LI>Search engine for the site to help in locating information
       <LI>Contact Address and Company Address
       </UL>
</UL>
   </BODY>
</HTML>
```
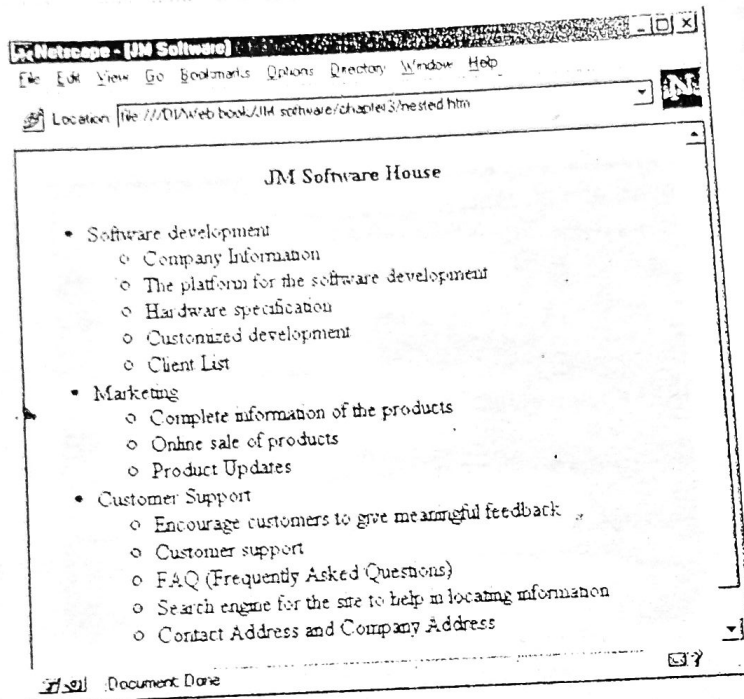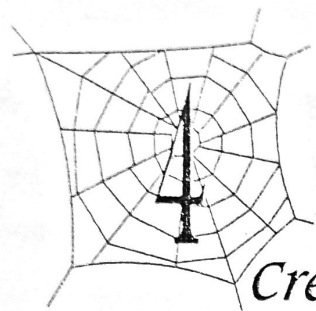
Figure 3.16 shows a nested list.

**Fig. 3.16**   *Nested List.*

# SUMMARY

*In this chapter you covered the basic HTML language. You also learned about the various tags and their attributes. The following table sums it up for you.*

| Tag | Attribute | Usage |
|-----|-----------|-------|
| <HTML>...</HTML> | | Entire HTML page. |
| <HEAD>...</HEAD> | | Head of the HTML page. |
| <BODY>...</BODY> | | Covers the body of the HTML page. |
| <TITLE>...</TITLE> | | Gives the title to the HTML page. |
| <H1>...</H1> | | First level heading |
| <H2>...</H2> | | Second level heading. |
| <H3>...</H3> | | Third level heading. |
| <H4>...</H4> | | Fourth level heading |
| <H5>...</H5> | | Fifth level heading. |
| <H6>...</H6> | | Sixth level heading. |
| <P>...</P> | | Paragraph |
| <!--... --> | | Comments |
| <OL> ... </OL> | | Ordered list and item of the list starts with <LI>. |
| | TYPE | This attribute is deprecated in HTML 4.0. It defines the kind of numbering to be used in an ordered list. |

# Creating a Web Page with HTML—Linking

All the text that you give within the opening and closing tag is visible as an underlined hyperlink text to the user. The <A> tag requires a HREF attribute, which specifies the target URL it should follow when the link is clicked on. Figure 4.1 shows the tag for creating a hyperlink and Fig. 4.2 shows a simple linked page.
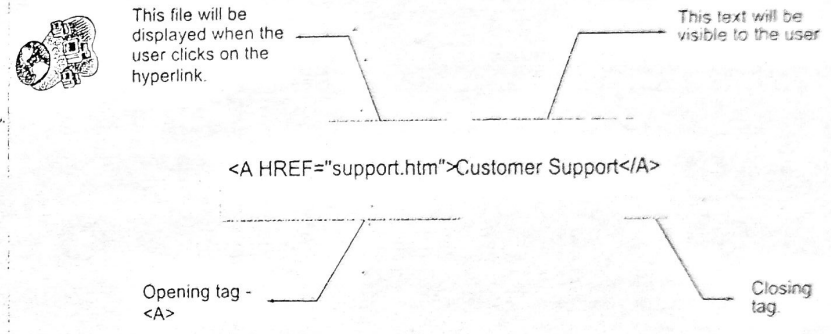
This file will be displayed when the user clicks on the hyperlink.

This text will be visible to the user

<A HREF="support.htm">Customer Support</A>

Opening tag - <A>

Closing tag.

**Fig. 4.1**  *Chart Showing Links.*

## LINKING HTML PAGES

The real power of the Internet lies in it's ability of creating hyperlinks. Hyperlink information can be in any from—text, graphics, audio or video. These hypertext links, are usually visible as blue underlines and are technically known as anchors. You can change the hypertext link color to any color of your choice either while creating the page or by customizing settings in your Web browser. Most browsers have options for customizing the hyperlink color. Browsers like Internet Explorer and Netscape Navigator by default show blue as the hyperlink color. We will cover changing hyperlink color using HTML in the next chapter. In this chapter you will learn to include hyperlinks into a Web page.

### Creating Links in HTML Page

Creating a link or hyperlink from your page is a very simple task. All you need is
- The name or the URL of the file to which you want to create a hyperlink. (*In the earlier chapters we have already discussed the addressing scheme known as URLs (Uniform Resource Locators) which direct us to the hyperlinks on the web.*)
- The text that will serve as the hyperlink.

### The Link Tag

To create a hyperlink you will use the <A>...</A> anchor tag. The <A> tag is mainly used for creating links to other Web pages or within the same Web page.

**Netscape - [JM Software]**

File Edit View Go Bookmarks Options Directory Window Help

Location: file:///D|/Web book/JM software/chapter4/index.htm

**JM Software House**

- Software development
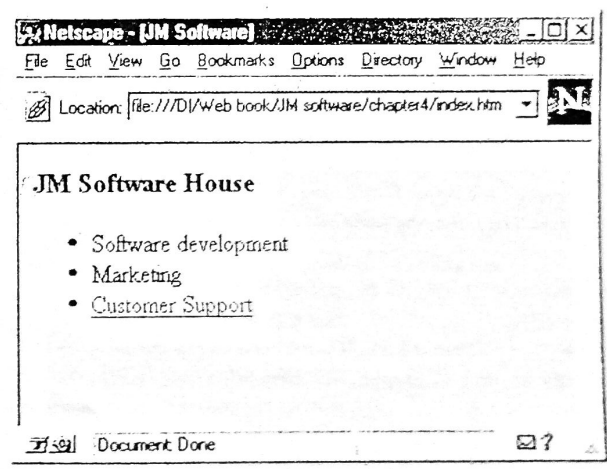- Marketing
- Customer Support

Document Done

**Fig. 4.2**  *A Simple Linked Page.*

### Kinds of Linking

The example that you just now saw is of a very simple linking situation. Let's explore some other linking situations. We will elaborate the above example and create two pages and try to link them to each other.

## Linking Two or More Web Pages

You can create these pages in a text editor and then navigate them using a browser. We have created two files, *index.htm*, which is the main file and is linked to *support.htm*. You can go ahead and try out the example by cutting and pasting the code given below. Remember to save the files in the same folder or directory. (*In Windows, directories are often called "folders"; we will use the two terms as synonyms.*)

The HTML code for *index.htm* is:

```
<HTML>
   <HEAD>
<TITLE>JM Software</TITLE>
   </HEAD>
      <BODY>
         <P><H3>JM Software House</H3>
         <UL TYPE="square">
            <LI>Software development
            <LI>Marketing
            <LI><A HREF="support.htm">Customer Support</A>
         </UL>
         </P>
      </BODY>
</HTML>
```

The HTML for the second file, *support.htm* is:

```
<HTML>
<HEAD>
   <TITLE>Customer Support-JM Software</TITLE>
</HEAD>
<BODY>
   <H3>Customer Support</H3>
   <P>We aim to provide support to all those businesses and individuals who are
      using our software products. Our customer support services are divided
      into the following main sections:</P>
   <UL>
      <LI><A HREF="online.htm">Online support</A>
      <LI><A HREF="adress.htm">Support offices and phone numbers</A>
      <LI><A HREF="knbase.htm">Knowledge Base</A>
      <LI><A HREF="faq.htm">FAQ on Products</A>
      <LI><A HREF="download.htm">Troubleshooting downloads</A>
      <LI><A HREF="feedback.htm">Your feedback</A>
   </UL>
   <P><A HREF="index.htm">Back to home page</A></P>
</BODY>
</HTML>
```
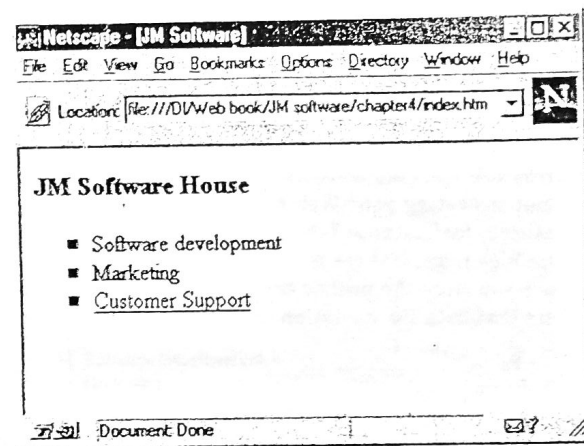


**Fig. 4.3**  *The Index.htm File as viewed in the Browser.*

When you click on the "Customer Support" hyperlink you will be able to view the page—*support.htm*. Your *support.htm screen* should look something like Fig. 4.4.
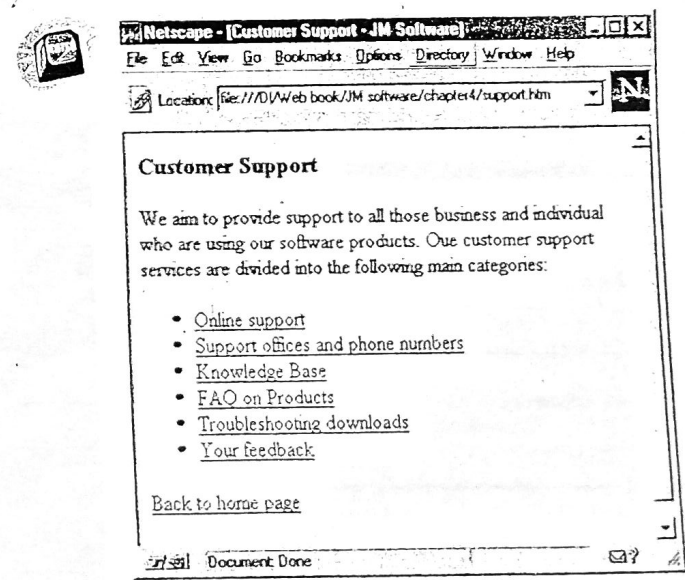


**Fig. 4.4**  *The Support.htm File.*

As you browse through these pages, the flexibility and importance of linking Web pages will become cleare to you. While creating pages you may face problem like links not working. Chances of this happening increase as your site grows. In such situations, check for the following elements:

- Make sure that the filename that you write in the <A HREF> tag matches with the filename of the actual file on your system. HTML tags by themselves are not case-sensitive. But it may be possible that the Web server that is hosting your Web site runs on an operating system that is case-sensitive, for instance UNIX. In such cases you may not be able to view your Web page, if there is any mis-match.
- Make sure you close the anchor tag by using the </A> closing tag.
- Make sure that both the quotation marks are present around the filename.

## Linking within a Web Page

Local linking is very useful in situations where you may have to link menu sections within one Web page itself. To do this, you need to set marks within the document. This is done using the <A NAME>..</A> tag.

```
<A NAME="software"><B>Software Development</B></A>
```

Once you have marked a section you have to now direct your hyperlink to that section and that is done using the same old <A HREF>...</A> tag. While doing linking within a Web page you have to write the hash(#) symbol along with the name of the section.

```
<A HREF="#software">Software development</A>
```

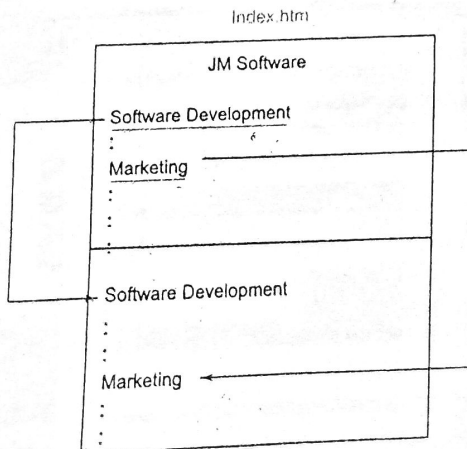Figure 4.5 should help you in understanding how internal linking works.



**Fig. 4.5**  *Internal Linking.*

The HTML code given below will further help you in understanding the functions of the <A NAME> tag. So try it out. Copy this code on to a file and then view it in your browser. Try to add a **Back to Main Menu** hyperlink, which should take you to the main menu.

```
<HTML>
  <HEAD>
      <TITLE>JM Software </TITLE>
  </HEAD>
  <BODY>
      <P><B>JM Software House</B></P>
      <HR>
      <P>
      <UL>
        <LI><A HREF="#software">Software development</A>
            <UL>
            <LI>Company Information
            <LI>The platform for the software development
            <LI>Hardware specification
            <LI>Customized development
            <LI>Client List
            </UL>
        <LI>Marketing
            <UL>
            <LI>Complete information of the products
            <LI>Online sale of products
            <LI>Product Updates
            </UL>
        <LI>Customer Support
            <UL>
            <LI>Encourage customers to give meaningful feedback
            <LI>Customer support
            <LI>FAQ (Frequently Asked Questions)
            <LI>Search engine for the site to help in locating information
            <LI>Contact Address and Company Address
            </UL>
      </UL>
      </P>
      <HR>
      <P><A NAME="software"><B>Software Development</B></A></P>
      <P>We offer a wide array of software solutions for organizations, with a high degree of flexibility to suit your specific requirements. We make software for Windows and UNIX Platforms.</P>
      <P>Some of our strengths are:</P>
      <P>E-commerce Solutions</P>
      <P>Client-Server applications</P>
```

<P>Web site designs</P>
<P>Intelligent Systems</P>
<P>Computer Based Training Packages</P>
<P>Multimedia Systems</P>
<P>Kiosk applications</P>
<P>We have strong relationships with key vendors and our capability ensures that we are in the position to bring to you the best in technology. We are well equipped in our experience of building eCommerce sites that handle large amount of data. And this makes us unique in IT handling solutions. Our processes are ISO certified and that is the reason why are developers world class software professionals.</P>
</BODY>
</HTML>

## Linking to a Specific Point in Another Web Page

In real time Web development there may be situations where you may have to create a hyperlink to a specific point in another Web page. In this case you are not only hyperlinking to an external Web page but also to a specific point in that page as shown in Fig. 4.6.

You have to follow the same procedure as you did while hyperlinking within the same Web page. So, for linking to the Singapore address from the file support.htm to office.htm, you will define the <A NAME> tag in office.htm.

<A NAME="singapore">JM Software, Singapore</A>

The only difference is when you use the <A HREF> tag in support.htm, you will have to specify the filename first and then the name of the anchor tag.

<A HREF="office.htm#singapore">Singapore</A>

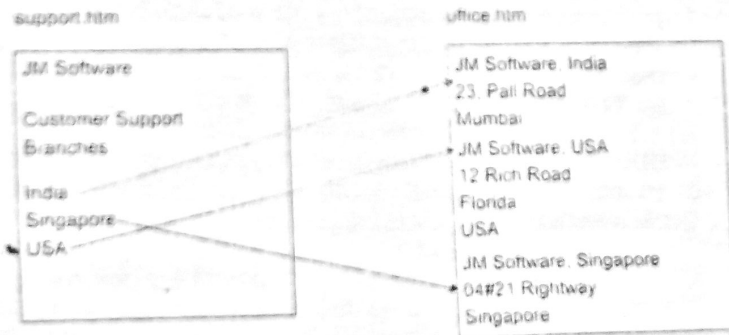To be more comfortable with the concept, it is best to try out the example shown above.



Fig. 4.6  External Linking

## Linking to External Web Pages

There will be pages where you may need to call external Web sites. For instance, you may like to include some Web sites that offer free software or contain some other information relevant to your Web site. The scenario could be something like shown in Fig. 4.7, where you are providing a hyperlink to an external site.
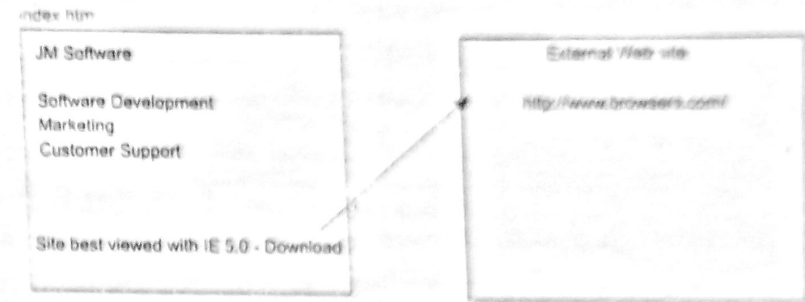


Fig. 4.7  Linking to External Web Sites.

For doing this your HTML code remains exactly the same that you used for linking two HTML files in your local hard disk. The anchor tag remains the same; the only thing that changes is the way you call that Web site. Instead of just the filename you have to mention the complete URL or the address of the Web site that you want to hyperlink to.



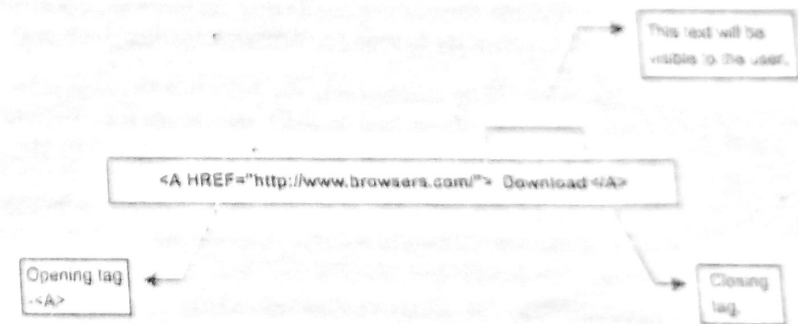<A HREF="http://www.browsers.com/"> Download </A>

Fig. 4.8

The next logical step after hyperlinking is the path to be given to reach a particular hyperlink. In order to develop the simplest of Web pages, it is useful to know the basics of how to specify paths between directories and files.

## Paths

The term 'path' can be confusing to a new Web user. However, it is really a simple concept. Any file or directory on the computer can be reached only by following a particular path. Giving pathname is something like giving directions to reach a specific file or directory.
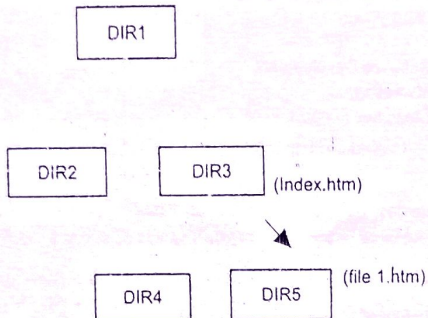


Fig. 4.9

From Fig. 4.9, what will be the path from the file *index.htm to file1.htm*?

The file *index.htm* is in *DIR3* while the *file1.htm* in *DIR5*, so we have to first go to *DIR5*, which is a sub-directory to *DIR3*. The path will be **DIR5/file1.htm**. Therefore, the path to a file that lies in a sub-directory of your present or current directory is specified by giving the order in the directories have to be passed to reach that particular file.

*Relative Path*    It may be possible that the file is not in a sub-directory of your present directory. So how do you approach the file? Look at the diagram given in Fig. 4.10.

The figure shows that to get to the *DIR6 (file2.htm)* from the directory *DIR3 (index.htm)*, we must go back to *DIR1*, then to it's sub-directory *DIR2* and then to it's sub-directory *DIR6*. So, the relative location of *file2.htm* will be **../DIR2/DIR6/file2.htm**

It is called relative address because it is "relative to our present location" which in the above example is *DIR3*. The notation (..) is used to move one directory up from the current working directory.

*Absolute Path*    A pathname that begins at the root directory is called an Absolute pathname. An absolute pathname provides the full path or address of a
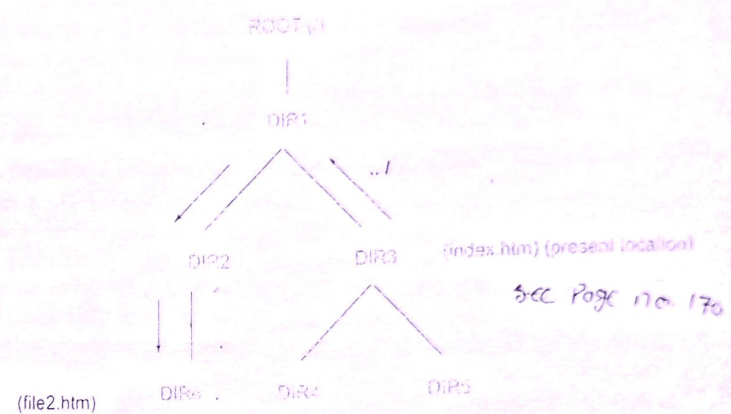


Fig. 4.10

file, including the directories and subdirectories. Consider the above example, in which we could give the complete path to the *file2.htm* as.

/DIR1/DIR2/DIR6/file2.htm, where the initial "/" stands for root.

While writing pathnames on Web pages the directories are separated by a front slash (/). But if you do not have access to any Web Server to try out your Web pages then for your local machine you need to use the back slash (\). For example, the absolute path would then be written as   D:\DIR1\DIR2\ DIR6\file2.htm while the relative path would be ..\ DIR2\DIR6\file2.htm.

In case you are unable to get access to a Web Server then you can try installing Microsoft's Personal Web Server on your machine to test your site in actual Web environment. PWS comes along with Windows 95/98 operating system. You can also download it from the http://www.microsoft.com Web site.

*Which path to use? Absolute or Relative!*    The advantage of an absolute pathname would be visible if the file *index.htm* is moved to any other directory; the path would be still true (refer Fig. 4.9). But if a new directory is introduced then the absolute path will become invalid. In Fig. 4.11 a new directory called *NEW1* has been introduced after the *ROOT* directory.

The absolute path to access the file *file2.htm* from *index.htm* - /DIR1/DIR2/ DIR6/file2.htm would now invalid because of the new folder called NEW1. But the relative path (../DIR2/DIR6/file2.htm) will still be valid. This is because the reference to the file (*file2.htm*) using a relative path does not involve the root directory structure.

So why use absolute paths at all? Absolute paths are very useful if you are using CGI scripts to process and store data on the hard disk of the Server. In such cases you have to mention the exact directory for file input/output in the scripts.

```
        ┌──────────┐
        │ ROOT (/) │
        └────┬─────┘
             │
        ┌────┴─────┐
        │  NEW1    │
        └────┬─────┘
             │
        ┌────┴─────┐
        │  DIR1    │
        └────┬─────┘
       ┌─────┴──────┐
   ┌───┴───┐    ┌───┴───┐
   │ DIR2  │    │ DIR3  │  (index.htm) (present location)
   └───┬───┘    └───┬───┘
       │        ┌───┴────┐
   ┌───┴───┐┌───┴──┐ ┌───┴───┐
   │ DIR6  ││ DIR4 │ │ DIR5  │
   └───────┘└──────┘ └───────┘
(file2.htm)
```
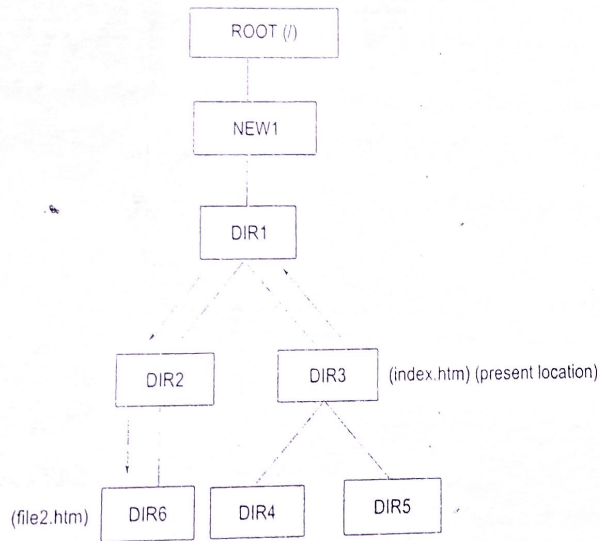
Fig. 4.11

Largely it is advisable to make addresses to files relative. Then, if the directories containing your Web pages are moved to another machine the links among these files should still work properly. If instead the files are specified by their absolute addresses, the links to files in your directories will often become invalid when you move the files, because the absolute addresses will generally change. Editing all the effected files can be a very tedious task, as you will have to open each file and edit the hyperlinks. Invalid links are also referred as broken links.

## LINKING TO URLs

We have discussed URLs in the introductory chapters; we will now read about some different kinds of URL and how they are hyperlinked. By now you know that a typical URL consists of a protocol, a site name followed by the directory and filename.

| Protocol | Site address | Directory and Filename |

In the above example HTTP is the protocol, which the Web browser will be using to access the Web page. Similarly in the case of an FTP site the browser will use FTP protocol. These protocols are stored in an information server on the Web server. In short, to use FTP or HTTP their respective protocols have to be installed on the Web server. The browser then detects the protocol and accordingly presents the information to you. Therefore if the FTP protocol is not installed on the Web server then the browser will not be able to open an FTP request. This stands true for other type of URLs too.

### Kinds of URL

#### FTP

In chapter one you read about the FTP sites, the anonymous and restricted FTP sites. You also know that the FTP URL is usually used as a fast method for file transfer. A typical FTP URL looks like this,

```
ftp://ftp.cdrom.com
```

or if you are accessing a site that is restricted than something like the following:

```
ftp://username:password@ftp.good.com/home/goodies/lucky.htm
```

The advantage with FTP is that you can either retrieve a particular file or a directory without going through numerous Web pages. The following URL ftp:/ /ftp.good.com/home/goodies will display all the files in the *goodies* directory. On the other hand, ftp://ftp.good.com/home/goodies/lucky.htm will retrieve only the file *lucky.htm* file from the *goodies* directory.

When you hyperlink to an FTP site in your page, you have to just replace the HTTP protocol with FTP protocol.

```
<A HREF="ftp://ftp.cdrom.com">Link to a FTP Site</A>
```

Even though the browser is using FTP information to retrieve your page, it will still display it in an HTML format like it would have done for the HTTP URL. For the Web browser all that matters is the HTML format of the file. In case it encounters a different format then it simply prompts for saving the file on to your hard disk.

### Usenet Newsgroups

To point your URL to a newsgroup, the URL would be,

```
<A HREF="news:sci.physics">Physics information</A>
```

The Usenet news URL will present you with all the list of articles available in the Newsgroup. It is important to know that these news information have an expiry time and are deleted when they are no more relevant.

You can link to a specific news article too. This is done on the basis of the unique ID, which each news article is given in the Usenet. It will appear something like **news:message_id**, that is news:monicaJD68js.MJC@dream.com

Along with the browser you must have the news reading software on your machine. This news reading software is usually bundled with Internet Explorer and Netscape Navigator browsers. A small advice news URLs are generally used for just reading news and not for providing links in Web pages.

## Mailto

The Mailto function is a convenient way to allow users to communicate with you via e-mail. However, it is important to know that it may not work for some users. Though Netscape and Internet Explorer support the tag, it is a safe to display the e-mail address as a readable text as well as part of the hyperlink. Something like shrewdjackal@hotmail.com

When a Mailto capable browser interprets the tag, it opens a separate e-mail form for the user to fill. This e-mail form is opened from the e-mail software installed on the user's machine, say, if you have Microsoft's Outlook installed then it will open the e-mail window of the software. This form is then sent to the e-mail address specified in the hyperlink.

Try out the example given below. If the example doesn't work properly for you, the reasons could be that your browser is not compatible with the tag or you do not have the e-mail software on your machine.

```
<P>
```

Send your feedback to **<A HREF** = "mailto:monikas@hotmail.com?SUBJECT ='Feedback on your site' ">monikas@hotmail.com</A>

```
</P>
```

You can also add a subject to your e-mail by adding **"?SUBJECT='Subject line for message'"** towards the end of the tag as shown in the above example. Browsers then insert this subject into the email window. If you want to mail to a list of people all you have to do is separate the e-mail addresses by using semi-colons.

```
<P>
```

Send your feedback to **<A HREF** = "mailto:monikas@hotmail.com;shrewdjackal @hotmail.com;juded@yahoo.com?SUBJECT='Feedback on your site' ">monikas@hotmail.com, shrewdjackal@hotmail.com, juded@yahoo.com</A>

```
</P>
```

Your e-mail screen will be similar to the one shown in Fig. 4.12.

While trying out this tag if you get the error "Error while looking up host" then you should check for the mail server address in your Browser's setting options.
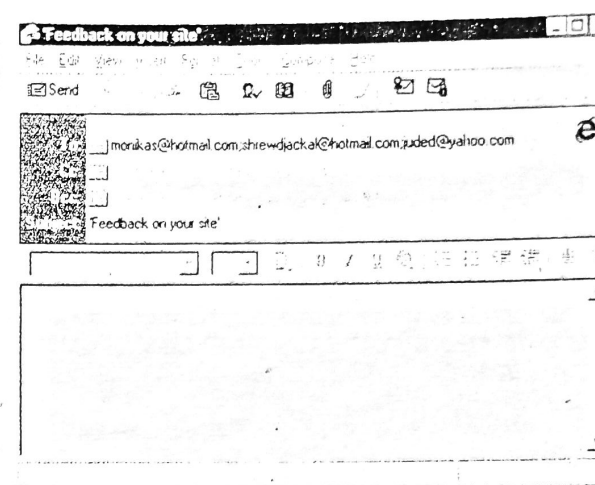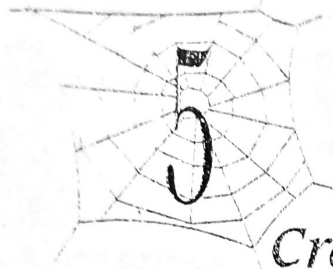


**Fig. 4.12**  *The Mailto Function.*

# SUMMARY

*In this section we covered all about linking Web pages on the Internet, the different kinds of linking and their scope. We covered the features of relative pathnames and absolute pathnames and their importance while hyperlinking Web pages. We also read about linking to some commonly used and important URL types. In the next chapter we will cover the text formatting features of HTML which will help you to create a complete Web page.*

# PRACTICAL

1. *Create a Menu or a Table of Content Web page. Each menu item or section of the Table of Content should load a different Web page. For example, if the user clicks on* **Menu One** *or* **Section 1** *then the link should take him to respective* **menu1.htm** *or* **section1.htm** *and so on.*

2. *Use the pages that you created for Dairy Food Web site. From the opening page of your site start hyperlink sections to their respective files.*

3. *Try out the examples discussed in the absolute and relative path section by creating the specified directory structures and the files.*

# Creating a Web Page with HTML—Text Formatting

```
<H3 ALIGN=CENTER>Customer Support</H3>
<H4 ALIGN=RIGHT><A HREF="online.htm">Online support</A></H4>
<H4 ALIGN=RIGHT><A HREF="adress.htm">Support offices and phone numbers</A></H4>
<H4 ALIGN=RIGHT><A HREF="knbase.htm">Knowledge Base</A></H4>
<H4 ALIGN=RIGHT><A HREF="faq.htm">FAQ on Products</A></H4>
<H4 ALIGN=RIGHT><A HREF="download.htm">Troubleshooting downloads</A></H4>
<H4 ALIGN=RIGHT><A HREF="feedback.htm">Your feedback</A></H4>
<H4 ALIGN=CENTER><A HREF="index.htm">Back to home page</A></H4>
```
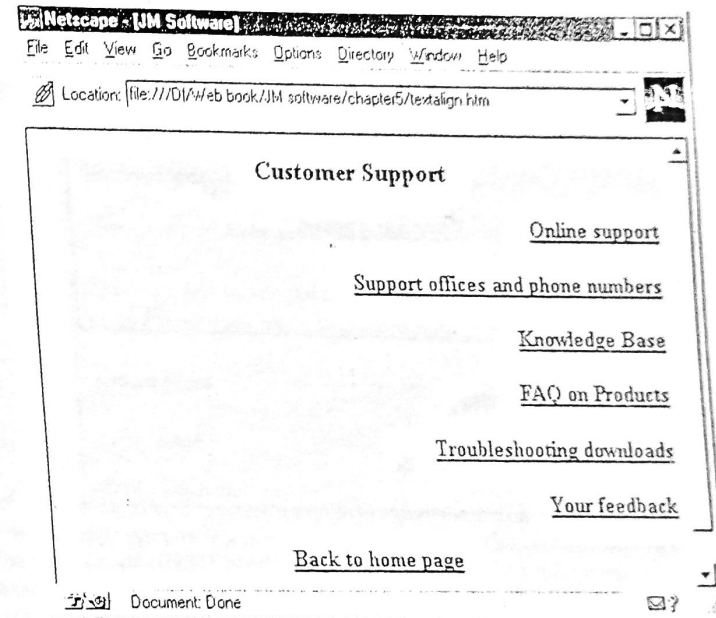
## TEXT FORMATTING

So far we have covered essentially the very basics of Web page designing. You will now learn features, which will help you in formatting your pages. After going through this chapter you should be able to format your text, say make it bold, italic or underlined, align your text to right, left or center and you will also be able to manipulate the fonts used in the Web page. You will also learn how to include line breaks and special characters into your Web document.

## TEXT ALIGNMENT

Text alignment feature was introduced in HTML 3.2. This feature allows you to align text against the left margin, right margin or center. All the major browsers support the text and element alignment attributes. It is also supported by HTML 4.0, but with the coming of style sheets most of the alignment is now being done using style sheets. We will cover style sheets later in the book.

### Alignment of Individual Elements

The **ALIGN** attribute is used to align individual heading or text. It has only three values, **LEFT**, **RIGHT** and **CENTER**. In Fig. 5.1 CENTER and RIGHT values have been used. Use the LEFT value and compare the layouts. Which one is more suitable for this kind of menu based screen? Always remember to keep in mind your Web page design before using any tag and it's attribute.

**Fig. 5.1** *Alignment of Elements.*

### Block Alignment

Block alignment of text is done using the <DIV> tag. This tag stands for division and has many attributes associated with it. The <DIV> tag is used to align a block of text, and all that comes within the <DIV> and </DIV> is affected by this element. Using the <DIV> tag you can align i.e., paragraph, images and headings. A major advantage of this tag is that by using it once you are able to align a whole lot of text unlike the ALIGN tag. You can align <DIV> tag to the values of **LEFT**, **RIGHT** and **CENTER** by using **ALIGN** within the <DIV> tag as shown in Fig. 5.2.

```
<H3>JM Software House</H3>
<DIV ALIGN=CENTER>
  <H4><A HREF="software.htm">Software Development</A></H4>
  <H4><A HREF="market.htm">Marketing</A></H4>
  <H4><A HREF="support.htm">Customer Support</A></H4>
</DIV>
```
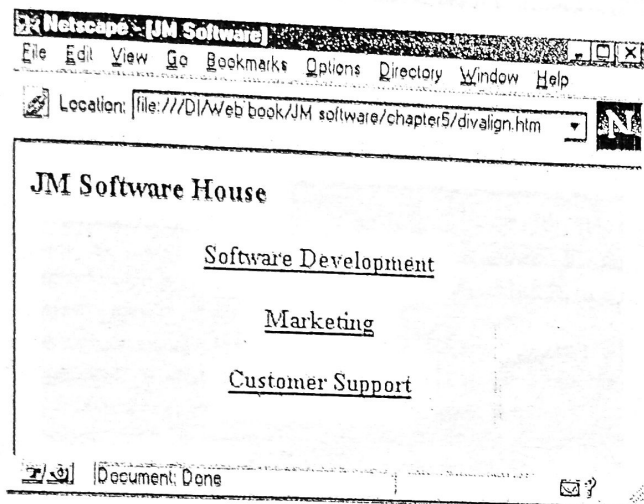
**Netscape - [JM Software]**

File  Edit  View  Go  Bookmarks  Options  Directory  Window  Help

Location: file:///D|/Web book/JM software/chapter5/divalign.htm

## JM Software House

### Software Development

### Marketing

### Customer Support

Document: Done

**Fig. 5.2**  *Block Alignment.*

## CHARACTER STYLES

At this stage of your knowledge of Web authoring, it is important to know what are character styles and how they are used in a Web page. Character style tags are those which are used to display text within HTML elements. For example, to make text bold or underlined. You can manipulate text appearance using either logical style or physical style. Let's begin with logical style tags.

### Logical Styles

Logical style text tags are used to define the way the text is to be used in a particular context. They are mostly used where the developer needs to display a quote, a definition or emphasize on a word.

If the text using a logical tag appears normal in your browser then it means that the browser does not support that logical style tag. Each browser may interpret these tags very differently. Due to this unpredictable nature of the logical tags it is wise not to depend on them.

Following is the table containing logical style tags. All the logical tags discussed below are part of HTML 2.0, only the **<DFN>** tag is a part of HTML 3.2 and 4.0 specifications.

**Table 5.1**  *Logical Style Tags*

| Tag | Example | Meaning |
|---|---|---|
| <STRONG> | <P>Can you arrange for my air ticket, by <STRONG>tomorrow</STRONG></P> | Using this tag the characters are emphasized in bold. |
| <DFN> | <P><DFN>HTML is the language used for creating Web pages.</DFN></P> | This tag is used basically where you define a word. It is used to explain a definition. |
| <EM> | <P><EM>Taj Mahal</EM> is a beautiful monument.</P> | This tag is used to emphasize text and is displayed in italics. |
| <CODE> | <P><CODE> Private Sub Form_Load() </CODE></P> | This tag is used to display code samples. It displays the code sample in Courier font. |
| <SAMP> | <P><SAMP>(Abort, Retry, Fail)? </SAMP></P> | This is usually used for displaying computer output or status messages. |
| <VAR> | <P><CODE>showform</CODE> <VAR>name_of_form</VAR> </P> | This value is displayed as italic or underline and it indicates the name of a variable. It is used in situations where the reader will need to replace a variable with a value. |
| <CITE> | <P>The brain is a wonderful organ. It starts working the moment you get up in the morning and doesn't stop until you get into the office.</P> <P><CITE>Robert Frost</CITE></P> | You can use this tag for displaying a quote or citation in your Web page. |
| <KBD> | <P><KBD>Your name</KBD></P> | This tag is used when the user is asked to type in a word or letter. |

The screen in Fig. 5.3 shows how the logical tags discussed above appear in the browser.

```
<HTML>
<HEAD>
<TITLE> Logical Style Tags </TITLE>
</HEAD>
<HTML>
<BODY>
  <H3 ALIGN=CENTER>Logical Style Tags</H3>
    <P>Can you arrange for my air ticket, by <STRONG>tomorrow</STRONG></P>
```

```
<P><DFN>Logical style</DFN> text tags are used to define the way
the text is to be used </P>
<P><EM>Taj Mahal</EM> is a beautiful monument. </P>
<P><CODE> Private Sub Form_Load() </CODE></P>
<P>My favorite search engine is <SAMP>www.yahoo.com</SAMP></P>
<P><VAR>Dim name_of_form as String</VAR>
<P><CITE>The brain is a wonderful organ. It starts working the
moment you get up in the morning and doesn't stop until you get
into the office. </P>
<P><CITE>Robert Frost</CITE></P>
<P><KBD>Your name</KBD></P>
</BODY>
</HTML>
```
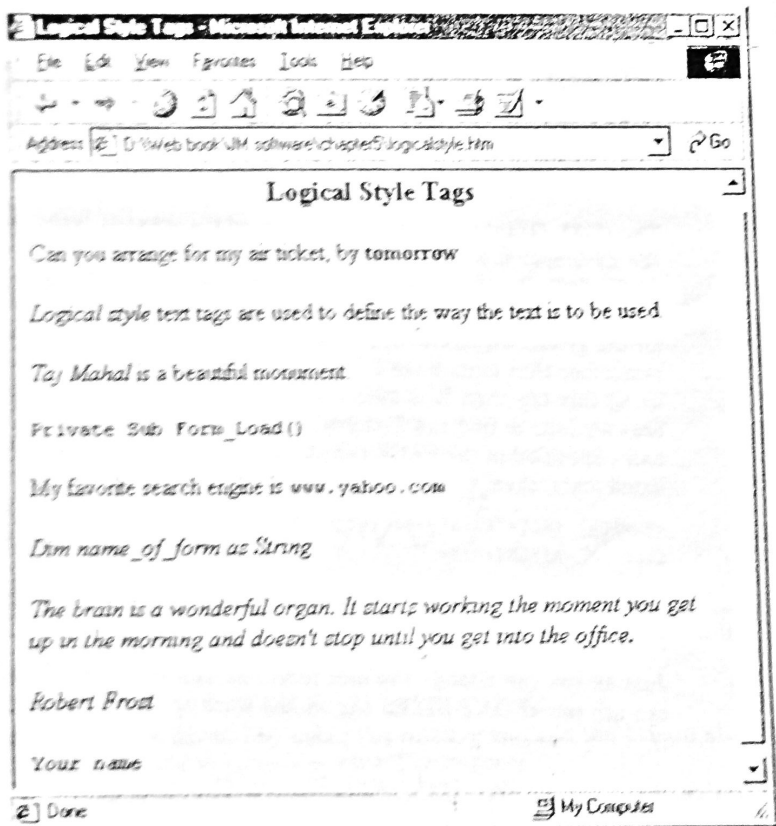

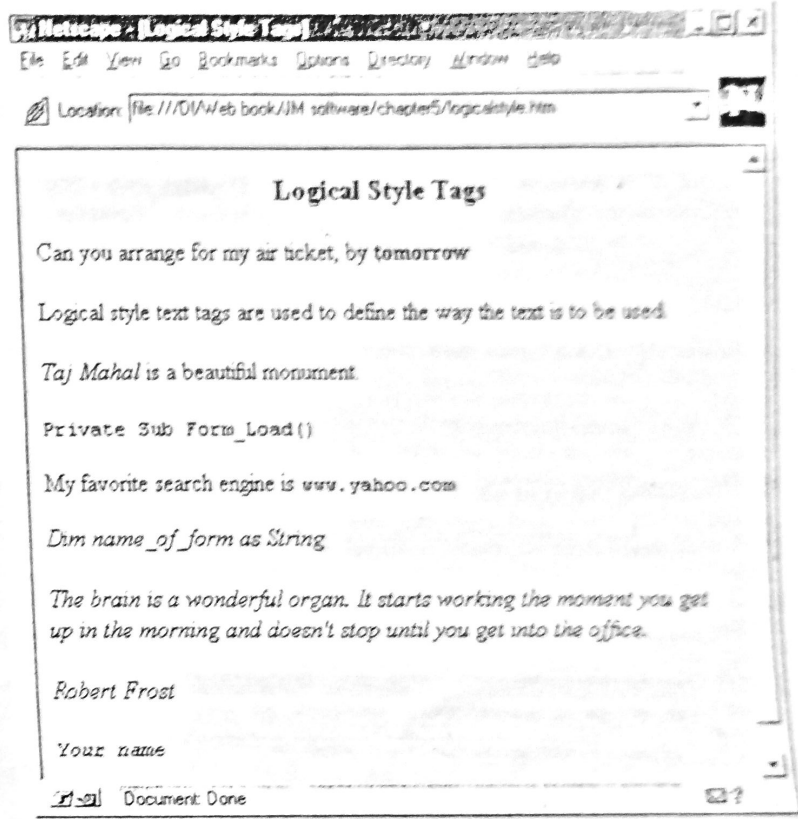
Fig. 5.3  *Logical Style Tags as viewed in Internet Explorer.*



Fig. 5.4  *Logical Style Tags as viewed in Netscape.*

The screenshots given in Figs 5.3 and 5.4 display the same code as given above in IE browser and Netscape. Notice that the <DFN> tag is displayed differently by these two browsers.

## Physical Styles

Physical tags are mainly used for formatting text like displaying text as bold, underline or italic. Unlike the logical tags they are much more stable since they are not browser dependent. They are displayed exactly as you define them while writing your HTML code. The following table will help you understand the format of these physical tags. Figure 5.5 shows the physical style tags as viewed in Netscape.

Table 5.2    *Physical Tags*

| Tag | Example | Meaning |
|---|---|---|
| | The following three tags were introduced in the standard HTML 2.0 version. | |
| \<B\> | \<P\>\<B\>Good Morning Sir!\</B\>\</P\> | Makes the text or the word bold. |
| \<I\> | \<P\>\<I\>Have a nice day\</I\>\</P\> | Makes the text or the word italic. |
| \<TT\> | \<P\>\<TT\>Text will appear as if it was typed using a typewriter.\</TT\>\</P\> | Gives the text or the word mono-spaced typewriter font. |
| | The following tags were introduced in HTML 3.2 version. | |
| \<U\> | \<P\>\<U\>Section One\</U\>\</P\> | Gives the text or the word underline. |
| \<S\> | \<P\>There is a delay of \<S\>20\</S\> min. for the departure of the train. \</P\> | Strikeouts the text or the word. |
| \<BIG\> | \<P\>Buy 2 get 1 \<BIG\>Free\</BIG\> Calculator.\</P\> | Gives a big font for the text or word within the tag. |
| \<SMALL\> | \<P\>\<SMALL\>This line will be displayed in small letters\</SMALL\>\</P\> | Gives a small font for the text or word within the tag. |
| \<SUB\> and \<SUP\> | \<P\>Can you get me \<SUP\>1\</SUP\>/ \<SUB\>2\</SUB\>a dozen of eggs from the market.\</P\> | They are used to display subscript and superscript fonts. |

```
<HTML>
<HEAD>
<TITLE>Physical Style Tags</TITLE>
</HEAD>
```



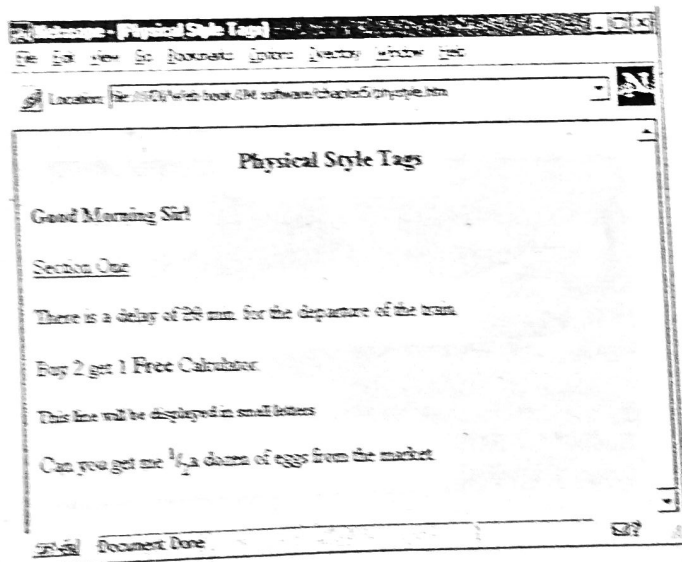Fig. 5.5    *Physical Style Tags as viewed in Netscape.*

```
<BODY>
<H3 ALIGN=CENTER>Physical Style Tags</H3>
<P><B>Good Morning Sir! </B></P>
<P><U>Section One</U></P>
<P>There is a delay of <S>20</S> min. for the departure of the train. </P>
<P>Buy 2 get 1 <BIG>Free</BIG> Calculator. </P>
<P><SMALL>This line will be displayed in small letters</SMALL></P>
<P>Can you get me <SUP>1</SUP>/ <SUB>2</SUB>a dozen of eggs from the market.
</P>
</BODY>
</HTML>
```

What you have covered so far will enable you to display text in various styles. We will now move on to assigning fonts and setting font size for the text.

## FONTS AND FONT SIZES

The \<FONT\> tag was introduced as part of HTML 3.2 and is also supported by HTML 4.0

Using this tag you can control the font, font size and color of your text. Let's begin with changing the font face.

### Changing the Font Face

The \<FONT FACE="font name"\> tag changed the scene of Web designing as it gave the developer a lot of options in terms of controlling text display. Using the \<FONT FACE\> tag you can specify the font name between the quotation marks. When the browser encounters a page with \<FONT FACE\>, it searches the system for the given font names and then displays the text in that font. You must also remember that fonts have different names on different systems. So, if you are using this tag then it is safe to give two or three font names, as in case the browser fails to find the first one, it goes on to check the second and third font name specified in the FACE tag. And if the browser is unable to find any of the listed fonts, then it displays the text in the default browser font.

```
<P><FONT FACE="Arial, Helvetica, Comic Sans MS">This is the font face
section. </FONT></P>
```

### Changing the Font Size

Just as you can change the font face, you can also manipulate font sizes. You can use the \<FONT SIZE\> tag on one word or a whole paragraph. The syntax is:

```
<FONT SIZE=2>Your text comes here.</FONT>
```

The value for **SIZE** can be from 1 to 7, where number 3 is the default font size.

```
<P><FONT SIZE=1>This is font size 1</FONT></P>
<P><FONT SIZE=2>This is font size 2</FONT></P>
<P><FONT SIZE=3>This is font size 3</FONT></P>
<P><FONT SIZE=4>This is font size 4</FONT></P>
<P><FONT SIZE=5>This is font size 5</FONT></P>
<P><FONT SIZE=6>This is font size 6</FONT></P>
<P><FONT SIZE=7>This is font size 7</FONT></P>
```
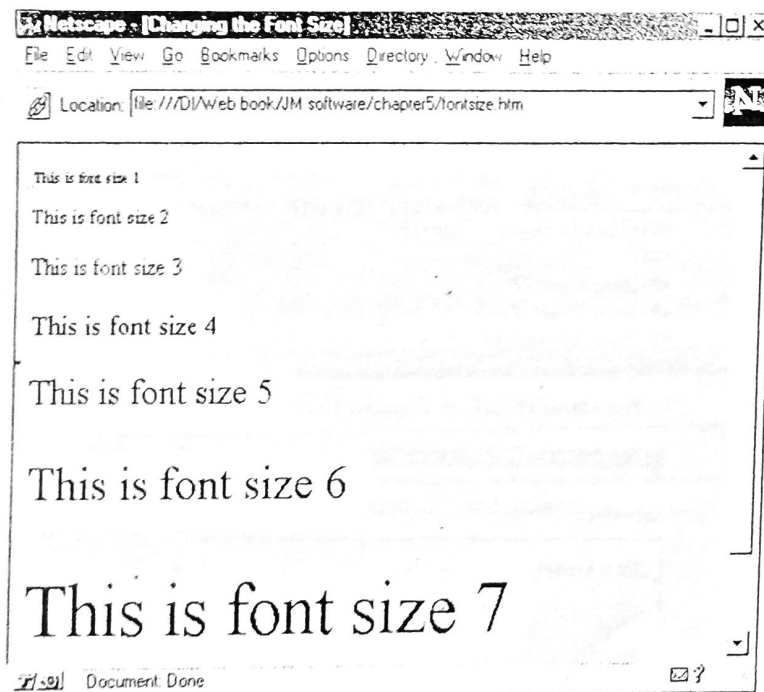
The screen will appear in the browser as shown in Fig. 5.6.



**Fig. 5.6**   *Font Size as Displayed in Netscape.*

Font size is also defined by using the relative value to the default size of 3. This is done by using the + or – symbol. For instance,

```
<P><FONT SIZE=+3>Changing font size using the relative value. </FONT></P>
```

will mean that the font will be three times larger than the default font.

## Changing the Font Color

Changing the font color definitely makes the Web document more attractive, but again you have to use this feature judiciously. The syntax is,

```
<P><FONT COLOR="#FF0000">This is red color text. </FONT></P>
```

As far as changing the font color goes, that's all you have to do. But I am sure you must be wondering what is that weird looking six-digit number. Don't worry you will get to know about the color code in the following section.

## USING COLORS FOR THE WEB

The use of colors can really brighten up your web pages. In this section we are going to cover how we can use the color tags to change the text and background color of the Web document.

To change the color in your document you need to know the color name or the hexadecimal value representing that color.

How does one get the hexadecimal value of a particular color?

Using an image-editing program like Paint Shop Pro 4.12 you can get the hexadecimal value of a particular color. When you open Paint Shop Pro go to option **File/Preferences/General Program Preferences** and select the option **Palettes/hexadecimal display**. Now select the tool called the **Color Picker**. When you will move the mouse on the color palette then you can see the hexadecimal value of that color right below the palette. There are a lot of freeware and shareware paint programs available that help in getting the hexadecimal values for Web documents. Some popular ones are ColorFinder and HTML Color Reference for Windows.

Hexadecimal values are 6 digit numbers, for instance the value for color white would be #FFFFFF and for color black #000000. You can use the color names like, Red, Blue, White, Navy, Teal and others, these are supported by Netscape and Internet Explorer. Well, they may easy to remember but they have a major disadvantage over display consistency on browsers. This may result in a very different layout of your Web page from what you might have conceived.

## Background Color

After you have decided on a color, all you have to do is to apply that to your Web page using the attribute **BGCOLOR** in the `<BODY>` tag.
`<BODY BGCOLOR="#000000">` and if you intend to use color name then the syntax would be
`<BODY BGCOLOR=red>`

## Text Color

Just as you can change the background color of your web page, you can also change the text and hyperlink and visited hyperlink colors. You can do this by specifying the colors in the <BODY> tag of your Web page.

```
<BODY BGCOLOR="#0000FF" TEXT="#000000" LINK="#FF0000" VLINK="#FF9933"
ALINK="#000000">
```

BGCOLOR will set the background color of your Web page.
TEXT will set the color for all the text in the document, this includes headings as well. The only thing that it will not effect will be the hyperlink color.
LINK will set the color for the normal blue colored hyperlinks that you see on Web pages by default. It will only change the color of the unvisited hyperlink.
VLINK will set the color of visited hyperlinks.
ALINK will set the activated link color. This is the color that you see when the mouse is pressed on a link but not released.
You can also change text color by giving the color code with the font tag. Something like,

```
<FONT COLOR="#FF0000"> This will make text Red in color</FONT>
```

Using all the above tags you can make a very attractive Web page. It all is finally dependent on your creativity.

## PREFORMATTED TEXT

The <PRE>...</PRE> is used for displaying a pre-formatted text *'as it is'* in a Web browser. While creating text for the <PRE> tag it is safe not to use the tab key, as some browsers do not support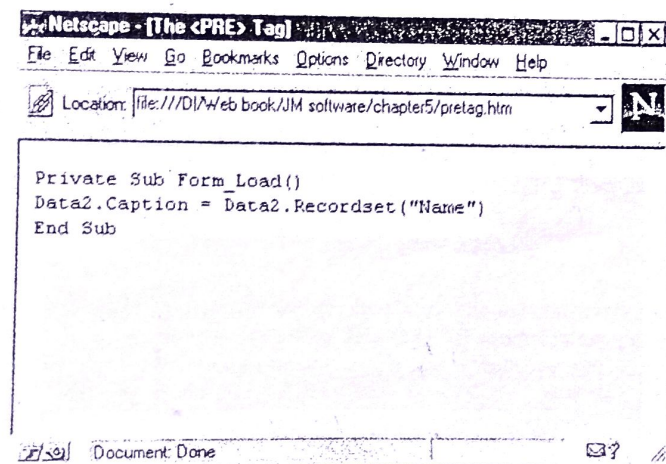 tab key within the <PRE> tag. You should instead use the space characters to format your text, which you intend to display using the <PRE> tag. For this reason, the pre-formatted text is displayed using a mono-spaced font.

Pre-formatted text is printed to the browser window in exactly the same format as it is placed in your HTML document. But this tag has some limitations. If you put any whitespace or blank space within the text then it will be visible in the final output as well. The preformatted text is usually shown in the regular Courier font. It is ideal for displaying code samples.

```
<PRE>
Private Sub Form_Load()
Data2.Caption = Data2.Recordset("Name")
End Sub
</PRE>
```

## HORIZONTAL LINES

The <HR> tag is used for giving horizontal lines into a Web document. This tag has no closing tag and has no text associated with it. It is basically used for creating sections into the Web page, which also helps in increasing the readability of the page.

```
<H3>This is Section One</H3>
<HR>
<P>Item One</P>
<P>Item Two</P>
<P>Item Three</P>
<HR>
```

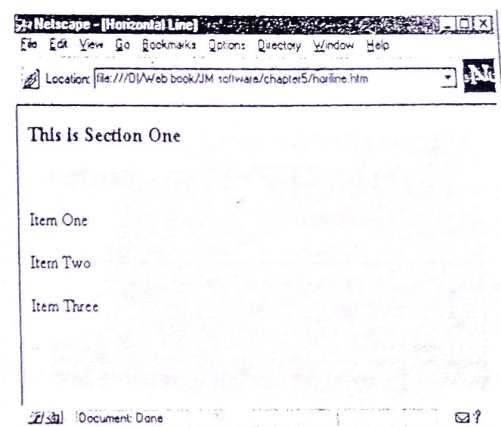The above HTML will appear in the browser as shown in Fig. 5.8.



Fig. 5.7   *Preformatted Text as seen in Netscape.*



Fig. 5.8   *The Use of Horizontal Line in your Web Document.*

The <HR> tag also has some attributes attached to it. There is the SIZE attribute, which gives a lot of control on the layout of the horizontal bars. The smallest and the default value of the SIZE attribute is 2.

The other attribute is ALIGN, which as you know by now, allows the creator to align the bar to LEFT, RIGHT or CENTER. Another attribute is the NOSHADE. This gives a plain horizontal bar instead of the default three-dimensional bar.

Let's look at a complete example, which includes all three attributes of the horizontal bar (see Fig. 5.9).

*see page no. 58*

```
<HTML>
  <HEAD>
  <TITLE>Horizontal Bar with attributes</TITLE>
  </HEAD>
  <BODY>
      <HR ALIGN="CENTER" SIZE="3" WIDTH="300">
      <HR ALIGN="CENTER" SIZE="3" WIDTH="500">
      <H2 ALIGN="CENTER">Our Dreams</H2>
      <HR ALIGN="CENTER" SIZE="3" WIDTH="300" NOSHADE>
      <HR ALIGN="CENTER" SIZE="3" WIDTH="500" NOSHADE>
</BODY>
</HTML>
```
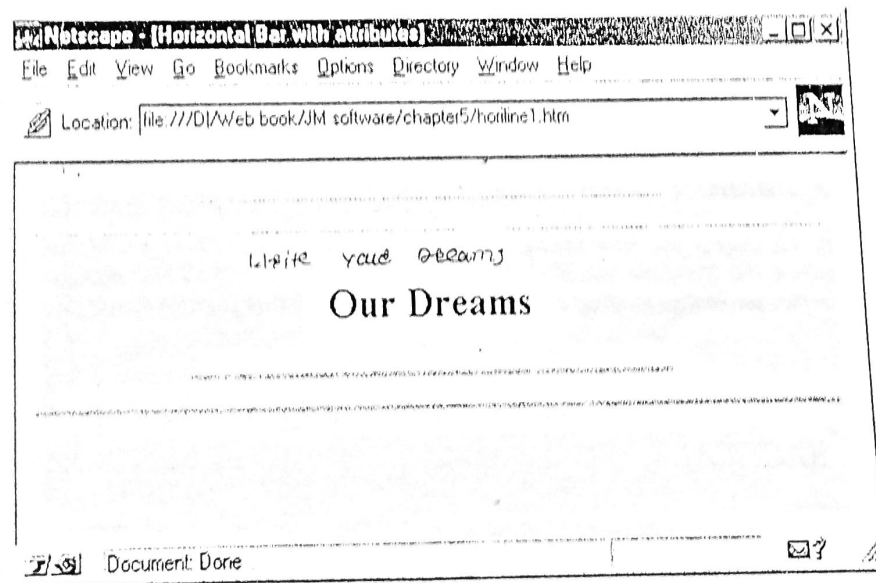


**Fig. 5.9** *The Horizontal Bar Attributes as viewed Inside Netscape.*

## LINE BREAK

*see Page No. 133*

The Line Break tag <BR> is a very useful tag for formatting text and placing images and in doing various other formatting tasks in a Web page. The <BR> tag essentially breaks the line of text or graphic that it encounters and brings it to a new line, at the left margin. It does not effect the font or the spacing of your document all it does is bring the text to a new line.

The following example shows the use of the <BR> tag.

```
<HTML>
<HEAD>
<TITLE>The <BR> tag</TITLE>
</HEAD>
<BODY>
      The flowers are blooming<BR>
      Their fragrance is in the air,<BR>
      It brings me memories of my beloved one<BR>
      Certainly the best of the fair.<BR><BR>
```
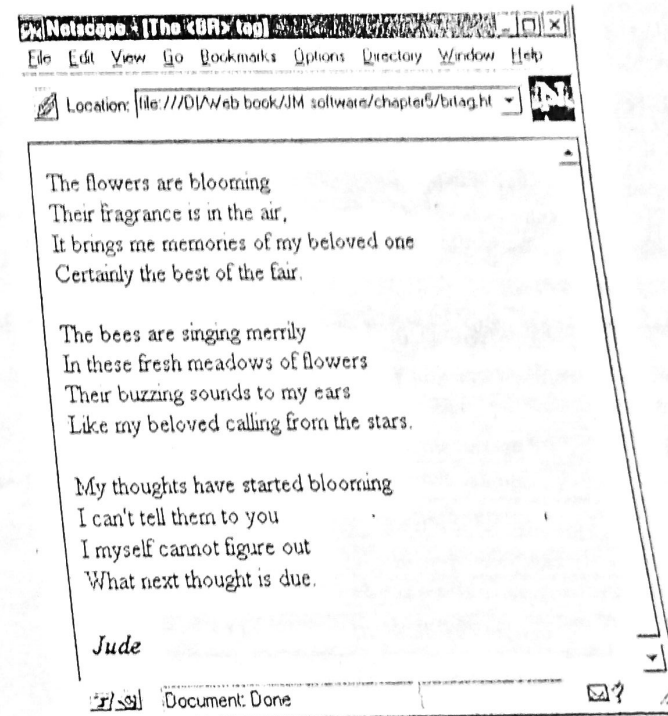


**Fig. 5.10** *Use of Line Break in the Web Documents.*

```
The bees are singing merrily<BR>
In these fresh meadows of flowers<BR>
Their buzzing sounds to my ears<BR>
Like my beloved calling from the stars.<BR><BR>
My thoughts have started blooming<BR>
I can't tell them to you<BR>
I myself cannot figure out<BR>
What next thought is due.<BR><BR>
<B><I>Jude</I></B><BR>
</BODY>
</HTML>
```

Figure 5.10 shows the above code when translated into screen.

## DISPLAYING SPECIAL CHARACTERS

There are some special characters, which have to be presented in a particular format so that they can be conveyed meaningfully over the Internet. If we do not use this special way of representing these characters then they may appear in a very different manner and may confuse the reader.

Special Characters are basically of two type, named entities and numbered entities. Named entities begin with (&) and end with a (;) Within this lies the short form of the character that you want to display. These names are case-sensitive, for example

&quot; (will display a quote character in your Web page)
  (will give a blank space in your Web page)

The numbered entities also start with an (&) and end with (;). The only difference is that they contain a number and a (#) sign.

The best example for this would be the word re'sume', to represent this in HTML format, you would have to write it in the following manner.

R&#233;sum&#233;

Some commonly used special characters are given in Table 5.1 below.

**Table 5.1** *Representation of Commonly Used Special Characters.*

| | | |
|---|---|---|
| &lt; | special character for | < |
| &gt; | special character for | > |
| &amp; | special character for | & |
| &quot; | special character for | " |
| &#64; | special character for | @ |
| &copy; | special character for | © |
| &#reg; | special character for | ® |

```
<HTML>
<HEAD>
<TITLE>JM Software </TITLE>
</HEAD>
  <BODY>
  <P><FONT FACE="Arial" SIZE="2">&copy; JM Software House
  </FONT></P>
</BODY>
</HTML>
```
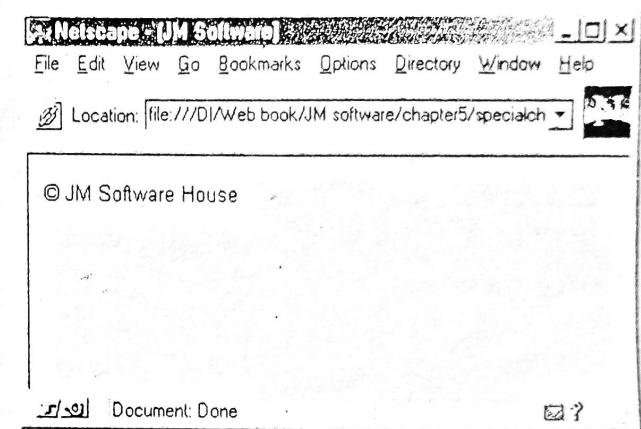
Figure 5.11 shows the above example in the browser.



**Fig. 5.11** *Special Character as viewed Inside Netscape.*

## SUMMARY

*In this chapter you have read about the various tags that will help you in making a very presentable Web page. You have read about text also formatting and layout tags. In the next section you will be reading about incorporating images into your Web page. So, read on.*

## PRACTICAL

1. *Since you have covered quite a lot of HTML. It will be a good exercise for you to use these tags in the page that you created for the Dairy Food Web site. You will*