Unit 3 Browsers

3.0 Introduction

Browser is the software, which allows us to easily display web pages and navigate the web. There are many flavors of Web browsers, but they can be grouped into two basic categories: Text-only and graphical.
A text only browser such as Lynx allows you to visit web pages without showing art or page structure. Essentially, you look at ASCII text on the screen. The advantage of a text-only browser is that it displays web pages very fast. The reason for fast display is that it need not transfer images, voice and other media that occupy large amount of memory.

If we want to display the complete web pages along with multimedia, we must use a graphical browser such as Netscape Navigator or Internet Explorer. Graphical browser can show pictures, play sounds and even run video clips. The disadvantage is that multimedia files, particularly graphics, often take a long time to download. Graphical browsers tend to be significantly slower than the text-only counter parts. And this waiting time can be stretched even further with slow connections or heavy online traffic.

The browsers that are currently in use are Netscape Gold and Microsoft's Internet Explorer. In this unit, the features of Netscape Navigator Gold, Microsoft Internet Explorer and NCSA Mosaic are described. Also the method of searching for the web pages whose addresses are not known to you is described.
The Technology is changing at a rapid pace. So, few of the features which are described in this unit might have changed by the time you practice on machine.

3.1 Objectives

After going through this unit, you are able to

Define what is a browser and different types of browsers

Discuss about different search engines

List advantages and disadvantages of different browsers.

3.2 Netscape Navigator

Netscape Navigator is a WWW graphical browser. It is available for downloading free of cost at the site with the URL http://home.netscape.com. The following figure shows the schematic of Netscape Navigator browser.

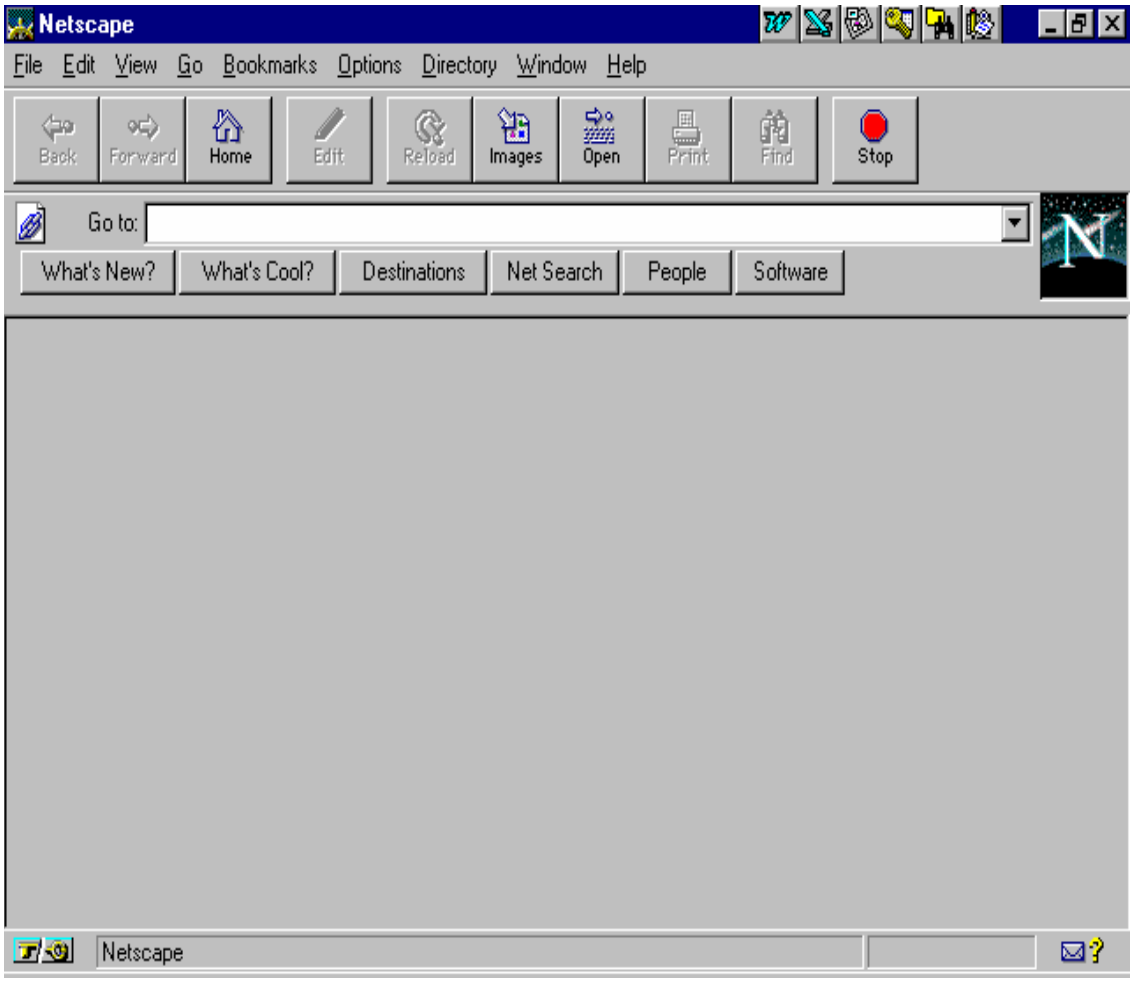

Figure 1

Let us discuss various menu items available in NETSCAPE for browsing the Internet. The main menu items are File, Edit, View, Go, Bookmarks, Options, Directory, Window, and Help.

File

New Web Browser: A new window of Netscape Navigator will be opened.

New Document: There were three submenu items in this menu. They are:

Blank: Opens a blank document in the Netscape editor.

From Template: It will start a new document using Netscape's Template page

or page we set in preferences.

From Wizard: It will open the New Document Wizard at Netscape's web

site.

Edit Document: Using this menu item, we can open a document in the Netscape Editor or we can open a remote document.

New Mail Message: We can open a new letter for mailing it using the integrated mail facility of Netscape.

Mail Document: Mail the current document to the address specified in TO box.

Open Location: We can switch onto a particular web site.

Open File in Browser: We can open a file, which is residing in our machine's

main memory or secondary memory in Netscape browser.

Open File in Editor: We can open a local document in the Netscape editor.

Save as: We can save the current page in the browser as a file in our machine's

memory.

Upload file: It sends a file to this FTP directory.

Page Setup: We can change the printing options.

Print: We can print the current active document.

View

Reload: the current document is reloaded from the address from where it has been loaded initially. This is necessary when the "transfer is interrupted".

Reload frame: The active frame in the current document is reloaded from the address from where it has been loaded initially. This is necessary when the "transfer is interrupted".

Load Images: Usually, the images will be embedded in the E-mail messages. These icons which represent images have to be expanded. This can be done with this menu item.

Refresh: This will clean the RAM. So, the browser window will look blank.

Document Source: The activation of this menu item will display the HTML source code of the web page displayed currently in the editor of the browser. The following figure shows the document source of the home page of web site name JAVA CORNER.

Figure 2

Document information: This will contain the information about the current document, which includes the structure of the document along with the HTML files associated with them. The following figure shows the document information of the home page of the web site name JAVA CORNER.

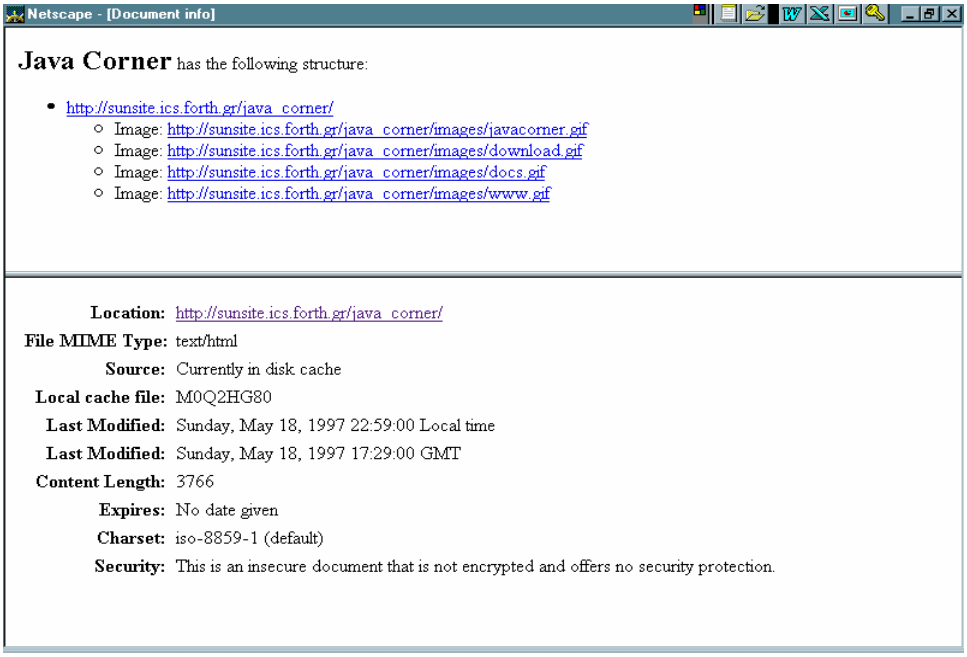

Figure 3

Frame Source: A single page on the web can be divided into subpages. Then, each subpage is called a frame and each frame will have its own scroll bar etc. For example, consider the home page of Satyam Computer Services limited as shown in the following figure.

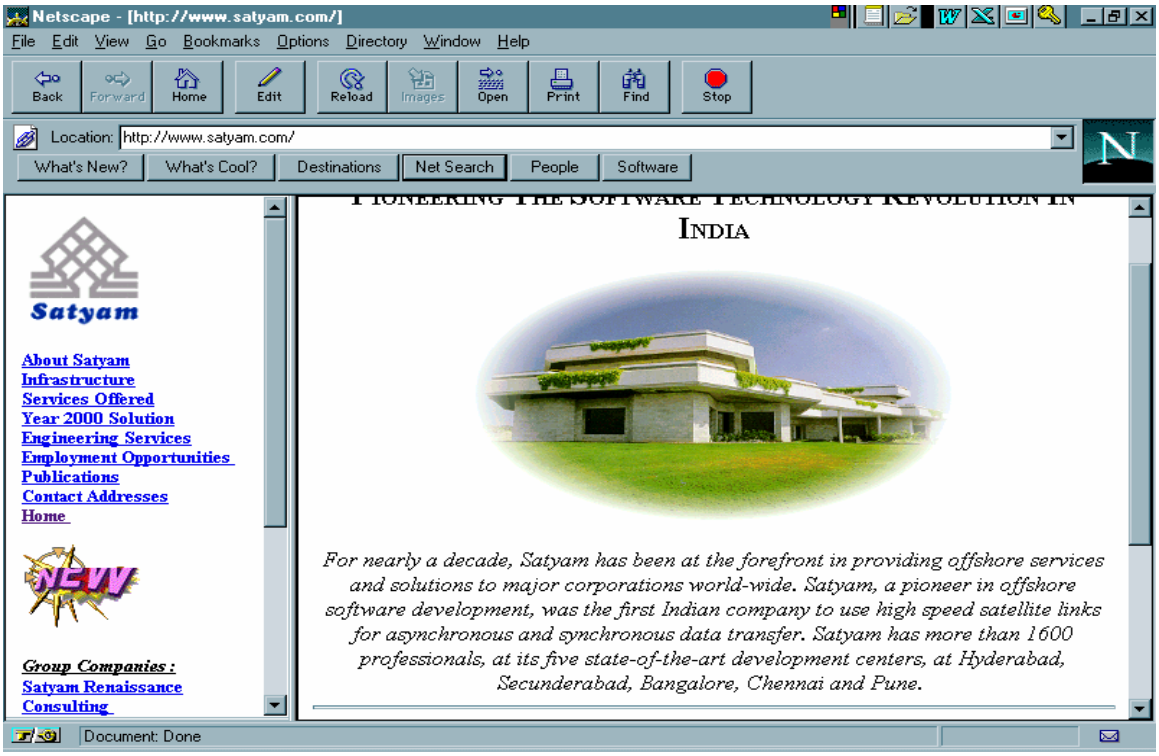

Figure 4
It contained two frames.

The activation of this menu item will display the source code of the currently active frame in the editor window. This is illustrated in the following figure.

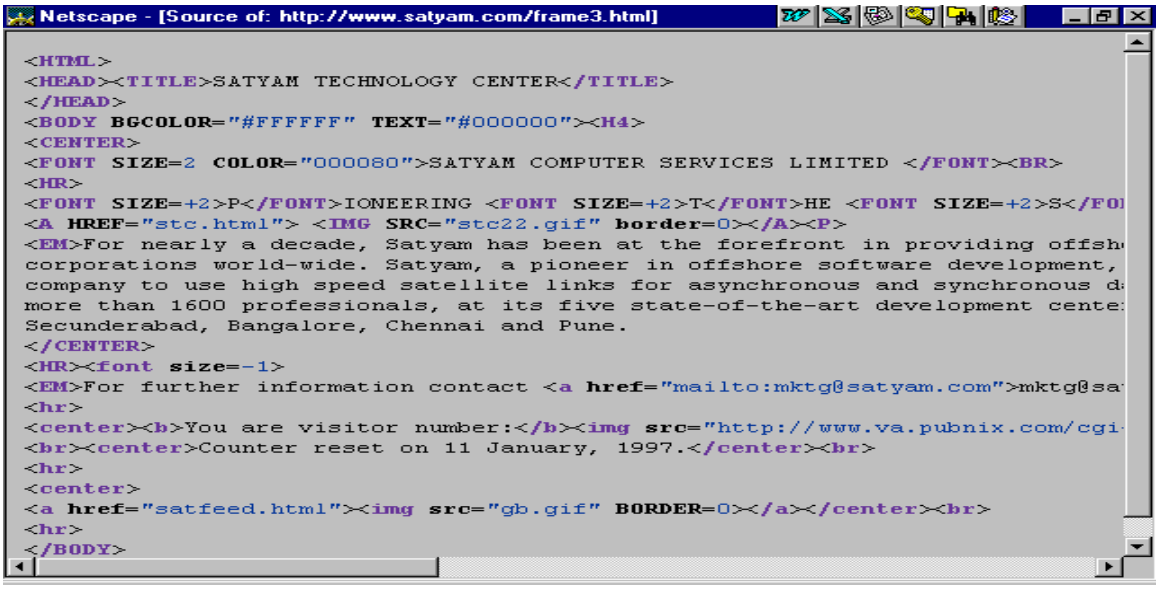

Figure 5

Go

Back: The previous page is loaded into the browser window.

Forward: The page that has been viewed after the current page previously (i.e. you have already viewed the page previously) will be loaded into the browser window.

Home: loads the page, which was set in the preferences.

Stop loading: interrupts the current transfer.

Default publishing location: go to your default publishing location to view your web site.

Bookmarks

Add Bookmark: Add the name of the current web page to the bookmark list so that we need not remember its address if we want to load that web page in future.

Go to Bookmarks: View the list of Bookmarks. Now, we can choose one of the bookmarks and click. Then, the browser will load that web page from the concerned server.

Options

General preferences: Modifies, the general program configuration. The configuration includes appearance, fonts, colour, images, applications, helpers and language.

Editor preferences: Modifies the editor configuration. The configuration includes general appearance, publish options.

Mail and News preferences: Modifies mail and news configuration. The preferences include appearance, composition, servers, identity and organization.

Network preferences: Modifies the networking configuration. The preferences include cache. A cache is used to keep local copies of frequently accessed documents and thus reduce time connected to the network.
The reload button will always compare the cached document to the network document and show the most recent one. In this, we can set Memory cache, Disk cache, Disk cache directory and others.

Connections: Netscape can open more than one connection at a time to an Internet server. This allows it to simultaneously bring in text and images. More connections mean more simultaneous files, but can slow down the speed of each individual connection size.

The network buffer size determines the amount of data that can be received in a network data transmission. Larger buffers mean more data, but can also saturate the computer.

Proxies: A network proxy is a conduit between your computer and the Internet and is used to access the Internet through a firewall. If you have a direct connection to the Internet, you need not configure proxies.

Protocols: Protocols are technical customs or guide lines that govern the exchange of signal transmission and reception between companies.

Languages: Using the option, we can enable JAVA or JAVASCRIPT so that if we include the code, which uses this language, the browser can understand and execute it.

Security preferences: The preferences include passwords, personal certificates and site certificates.

Show toolbar: If this menu item is not checked, then the toolbar will disappear. This has been illustrated by the following figure.

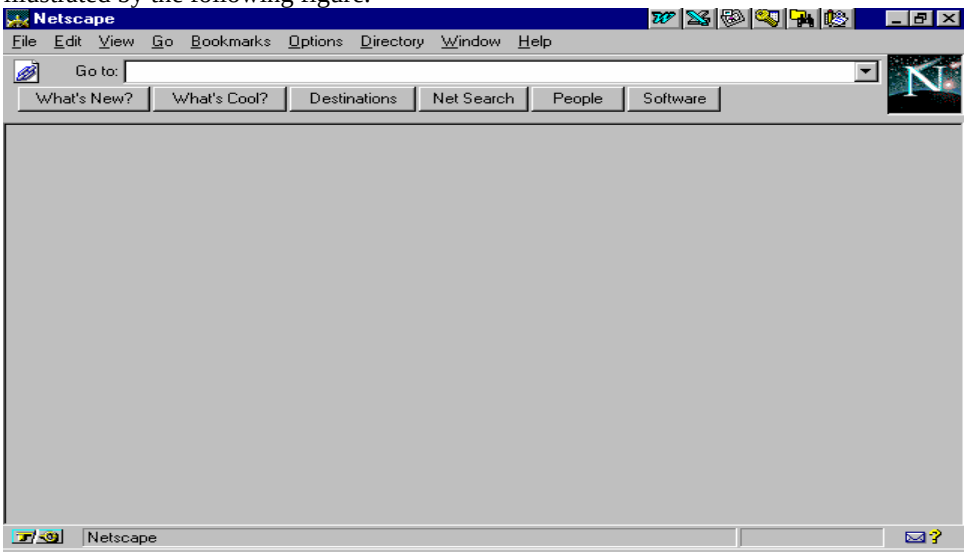

Figure 6

Show location: If this menu is not checked, then the location bar will disappear. This has been illustrated by the following figure.

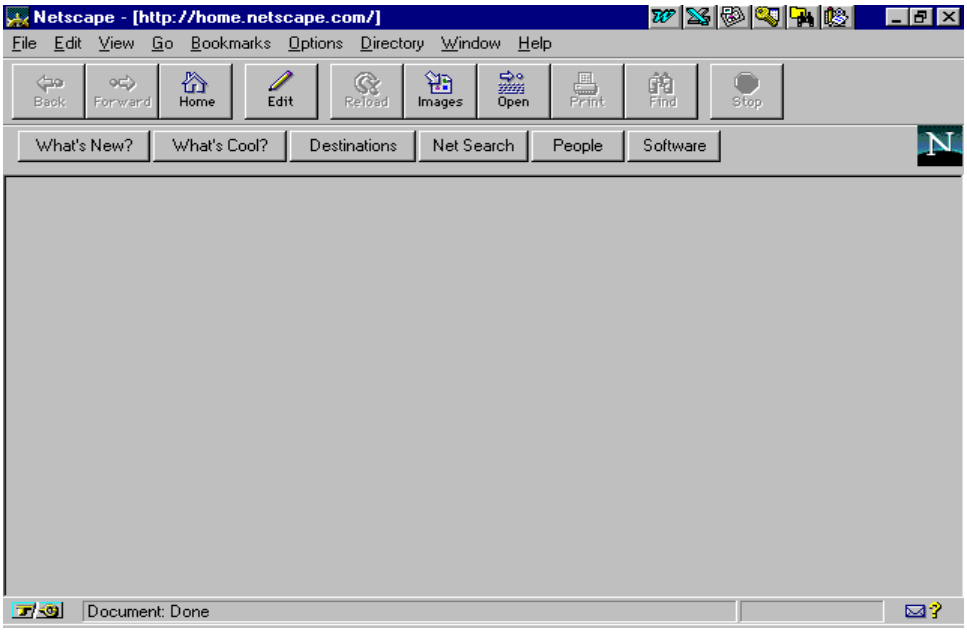

Figure 7

Show directory button: If this menu item is not checked, then the directory buttons will disappear. This has been illustrated by the following figure.

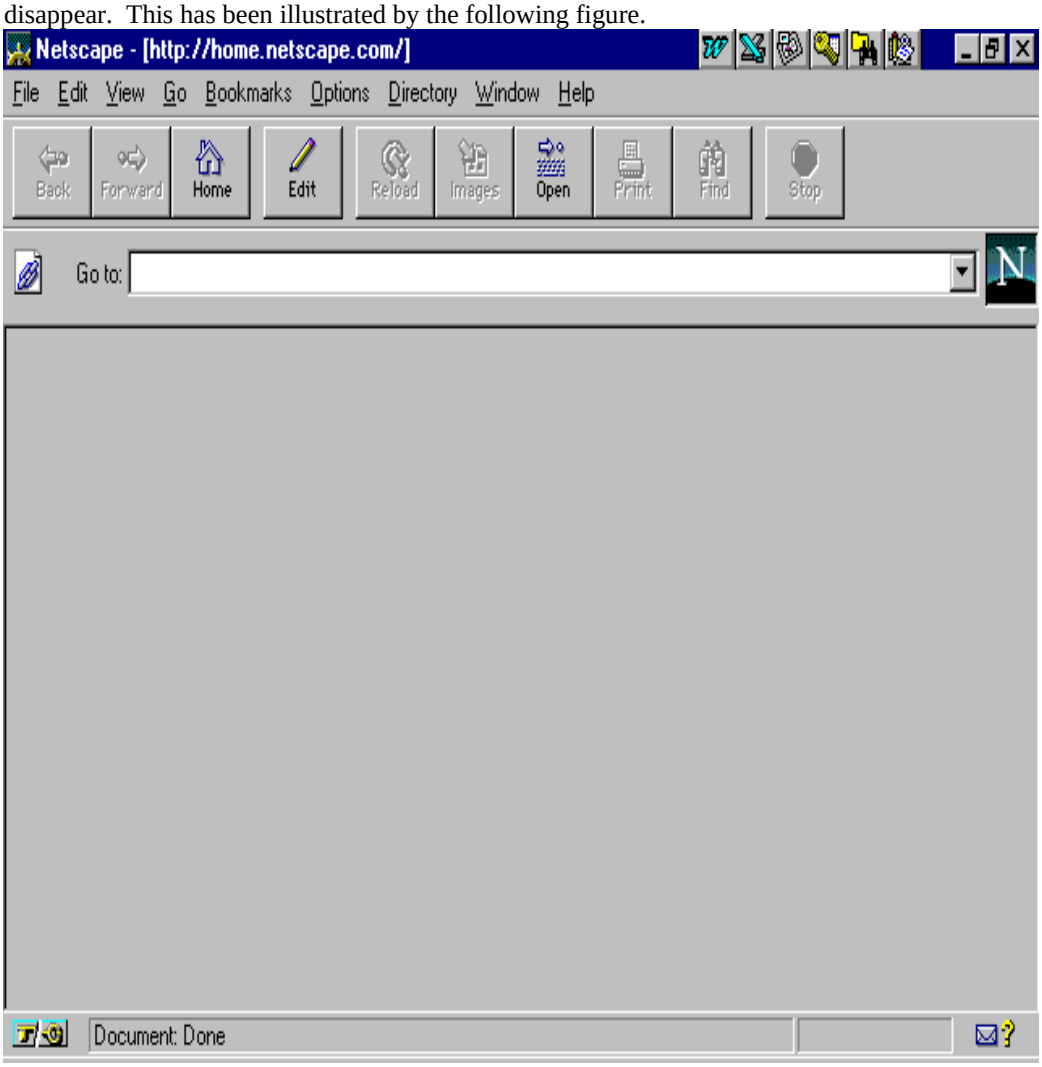

Figure 8

Auto load images: automatically loads inline images. If this menu item is not checked, then the web pages are displayed with icons representing the images in that page. Then, we have to click on the icon to load that image. If this menu item is checked, then a page is loaded along with the images in it.

Directory

Netscape's home: This will open Netscape corporation's home page.

What's new: Displays the items, which are new on the net.

What's cool: Displays the cool sites on the network. From here, we can switch on to the sites relating to the music, recreation, food, culture, movies etc.

Customer showcase: This features companies that are using Netscape servers to promote their businesses.

Netscape destination: contains directories on different areas like Business, Computers, etc.

Internet search: Using this, we can search the web using different search engines like yahoo, altavista, lycos, infoseek, smart search and web crawler.

People: will switch on you to the yellow pages of Internet from where you can find the e-mail addresses of individuals.

About Internet: will switch on you to the sites where you can learn about Internet.

Window

Netscape mail: Opens the mail reading window. This has been illustrated by the following figure.

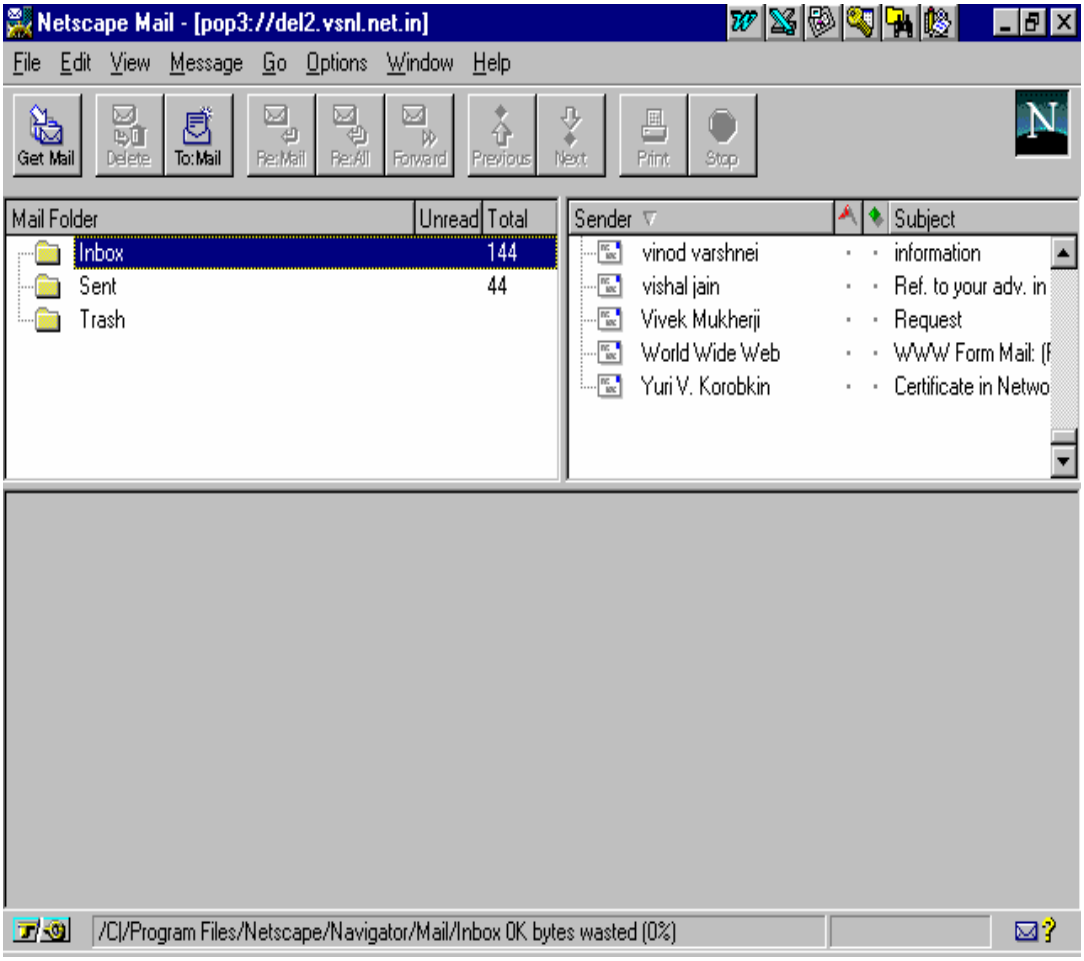

Figure 9

Netscape news: Opens the news reading window. From here, we can obtain the information regarding new users who had Internet connection etc.

Address book: Opens the address book. From here, we can directly open the mail window with the address automatically appearing in the TO box.

Bookmark: Opens the bookmark window.

History: Pops up the history list.

Help

About Netscape: Displays program verification, version number and copyright.

About plug-ins: contains information about plug-ins. These are special packages meant for special purpose.

Registration information: contains product registration and support information.

Software: information about Netscape software and upgrades.

Web page starter: information and links to resources for new web publishers.

Handbook: Online version of the manual.

Releases notes: information about version of Netscape we are running.

Frequently asked questions: answers to common questions relating to Netscape.

On security: information about Netscape's security.

How to give feedback: information about how to give feedback about Netscape.

How to get support: instructions on getting support from Netscape.

How to create web services: The guide to creation of web services.

3.3 Search Engines

The address of oracle corporation's web site is http://www.oracle.com

Usually the address of any web site will be of the above form. As there are thousands of web sites, it will be very difficult to remember these addresses. Also, as everyday, good numbers of organisations are having there own web pages on Internet, it will not be possible to keep track of all these addresses. So, to overcome this problem, Internet has search engines. Search engines are programs, which accept a string as input and will output all the URL's whose pages contain related information to the string. There are numerous search engines. A few of the search engines are DOGPILE, EXCITE, INFOSEEK, LOOKSMART, LYCOS, WEBCRAWLER and YAHOO.

So, if you want to find the address of an organisation or you want to know the addresses of all organisations that contain information on the subject in which you have interest, you can use these search engines for the desired addresses. Now, the use of YAHOO in NETSCAPE NAVIGATOR is demonstrated. The schematic of YAHOO is as follows:

Figure 10

Suppose that you want to know about computer courses being offered in Stanford University. But you don't know the URL (address of web site) of Stanford University. Then, the site of Stanford University using YAHOO can be accessed as follows.

The first step is to click on the Net Search option of NETSCAPE NAVIGATOR's directory button. Then, one of the search engines will be loaded. But still you have the option to choose any other search engine. Choose the YAHOO among them. Then, the screen will look similar to that of the above figure. Then enter the string "Stanford University" in the search window of YAHOO and click on the search option as shown in the following figure.

Figure 11

Then YAHOO will search the web for those sites, which contain information relating to Stanford University and list those addresses. In this case, it has found 7 category and 682 site matches for Stanford University. It also displayed them along with a synopsis of the content of the

information present in those sites. Now, we can click on any of these links and then the concerned page will be transferred from the concerned server.

A category match is one, which contain subcategories. So, if we choose any of these links, YAHOO will ask for another search string and also lists the subcategories it found. Then, we can enter a search string in the box and again search. In this way, you can narrow down your search to the concerned page. The schematic is as shown in the following figures.

Figure **12**

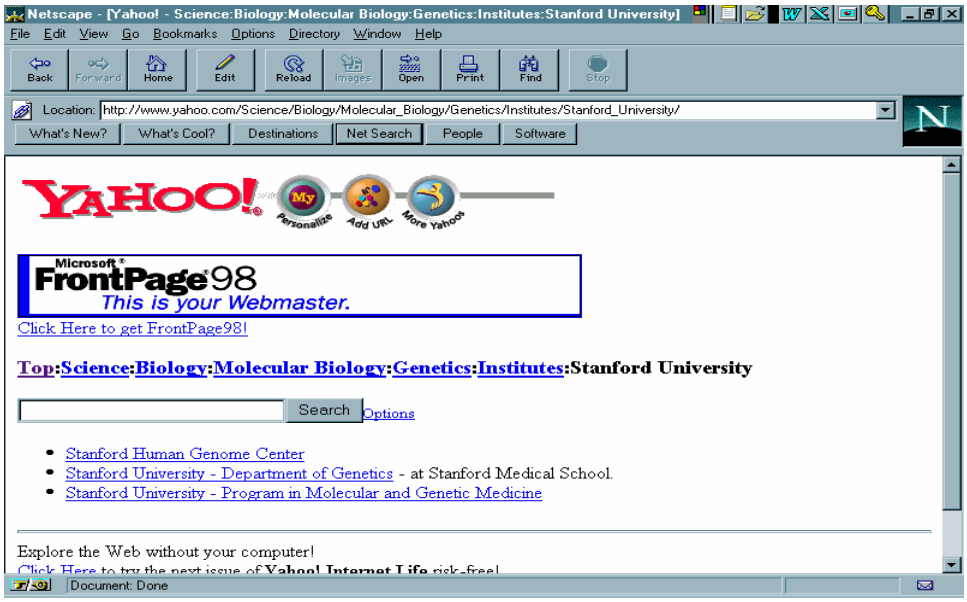

Figure 13

If we click on a site match, it will transfer that page from the concerned host server and will display its home page on the screen. YAHOO will list all the category matches as a group and all the site matches as a group. This has been illustrated by the following figures.

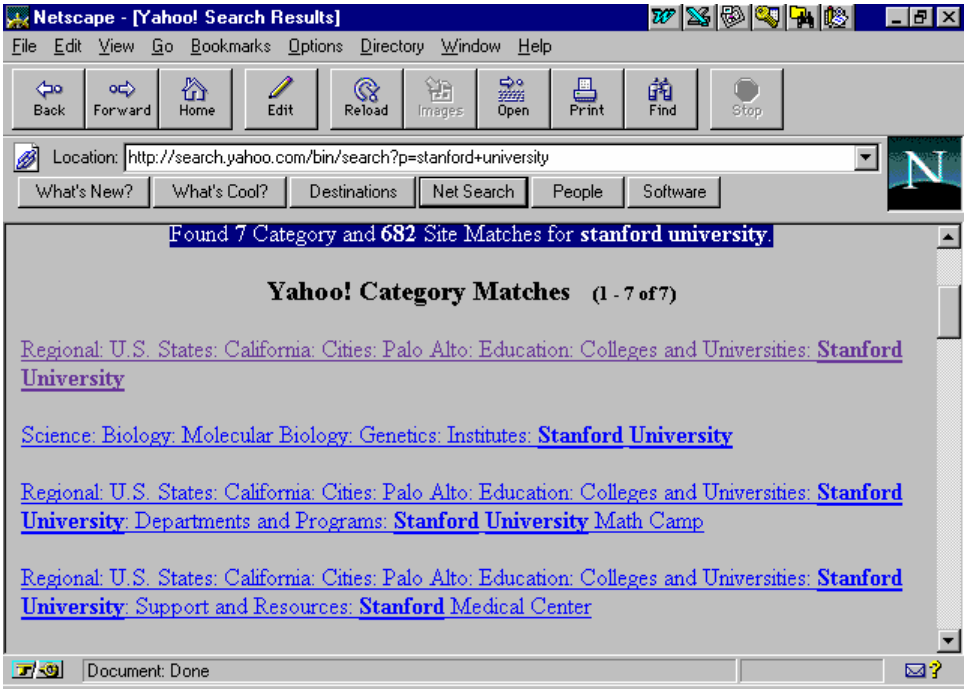

Figure 14

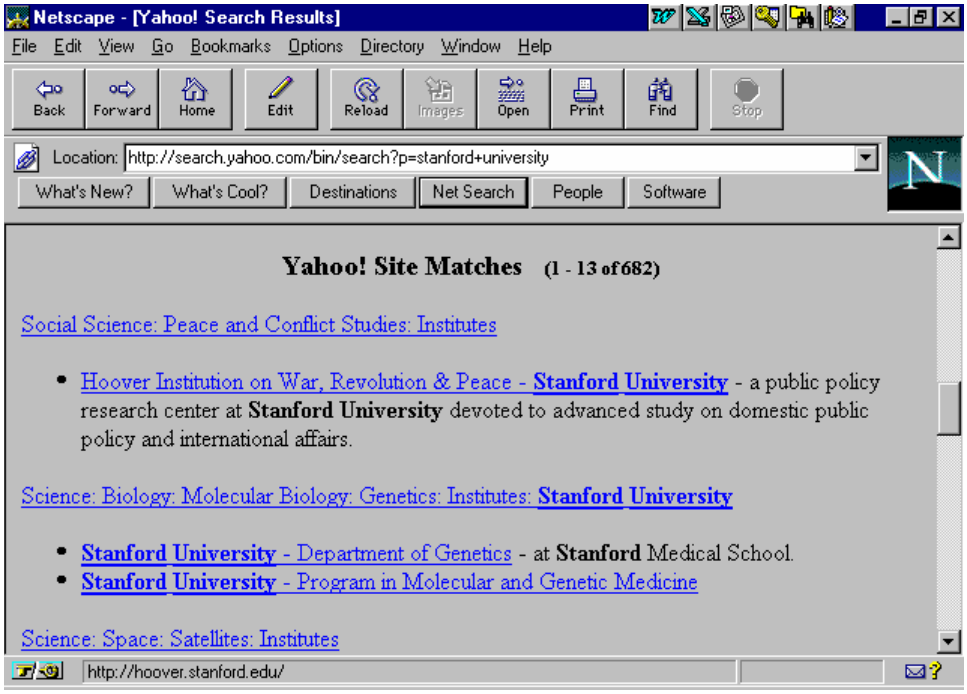

Figure 15

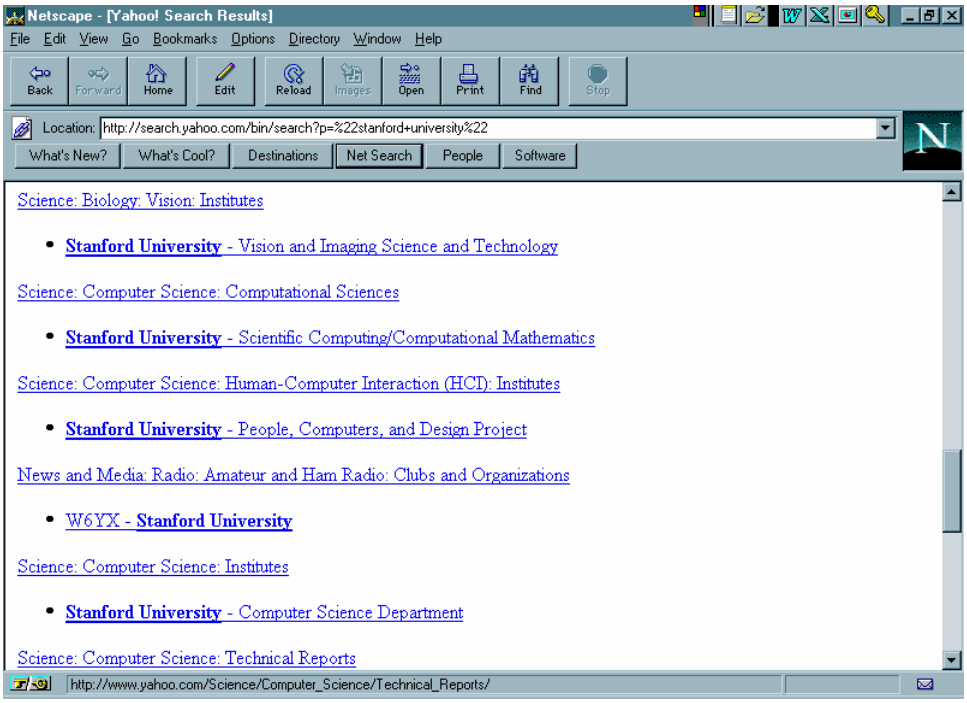

Figure 16

Now, I want to know the information about the HUMAN-COMPUTER INTERACTION. So, I click on that link. Then, YAHOO will transfer the concerned page from the concerned host server and display it on our computer screen. This has been illustrated by the following figure. So, this is the way we search for the information we need, using the browser and search engines.

Figure 17

3.4 NCSA Mosaic

Mosaic is a World Wide Web browser that has been developed at the National Centre for Super Computing Application on the campus of the University of the Illinois in Urbane Champaign. NCSA Mosaic is an Internet navigation and data retrieval tool. It makes access to network information as easy as clicking a mouse button. These services provide search capabilities in

database environments. NCSA Mosaic is designed to operate under the following Microsoft Windows environments: Windows 3.1x, Windows for Workgroups 3.1x, Windows 95 and Windows NT3.5x.

NCSA Mosaic browser contains the following menus: File, Edit, Options, Navigate and Hotlists. The schematic of the browser is as shown in the following figure:

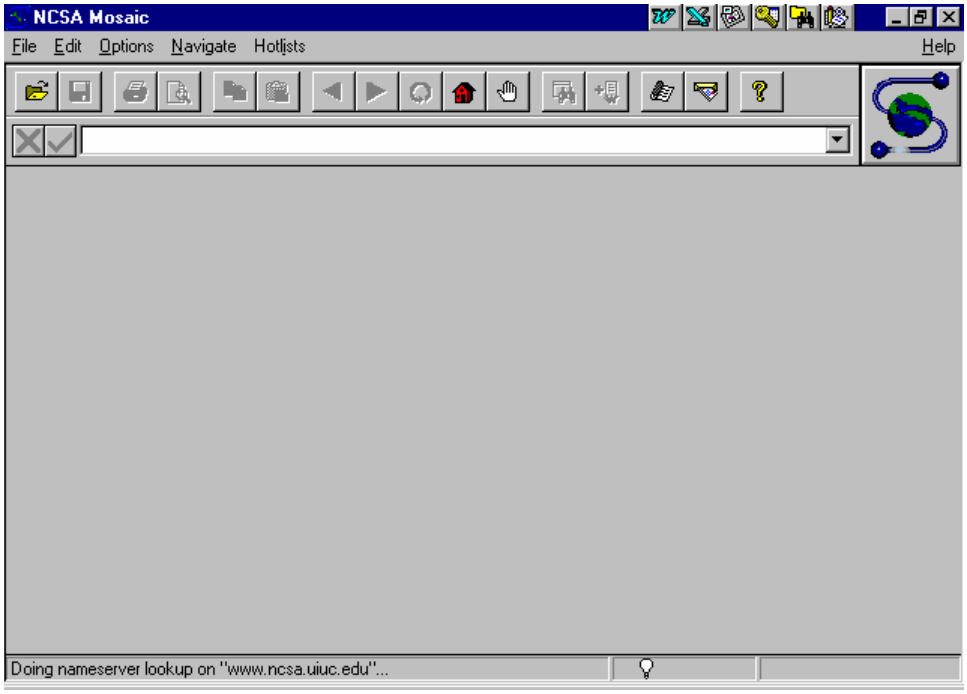

Figure 18

File

Open Document: Using this, we can edit any Web Page. We have to input its URL.

Open Local File: This edits a file present in machine's memory in browser window.

Save as Text: The current document is saved as the text file.

Print: The current document in the browser window is printed.

Print Setup: sets the name, status, type of printer to which the machine is connected.

News Groups: It searches the web for the sites relating to the news such as Times of India, The Hindu, The Washington Post etc.

Send Mail

Send Mail: This will edit a new empty mail window on which we can type our letter, insert messages, include URLs etc. It is illustrated in the following figure.

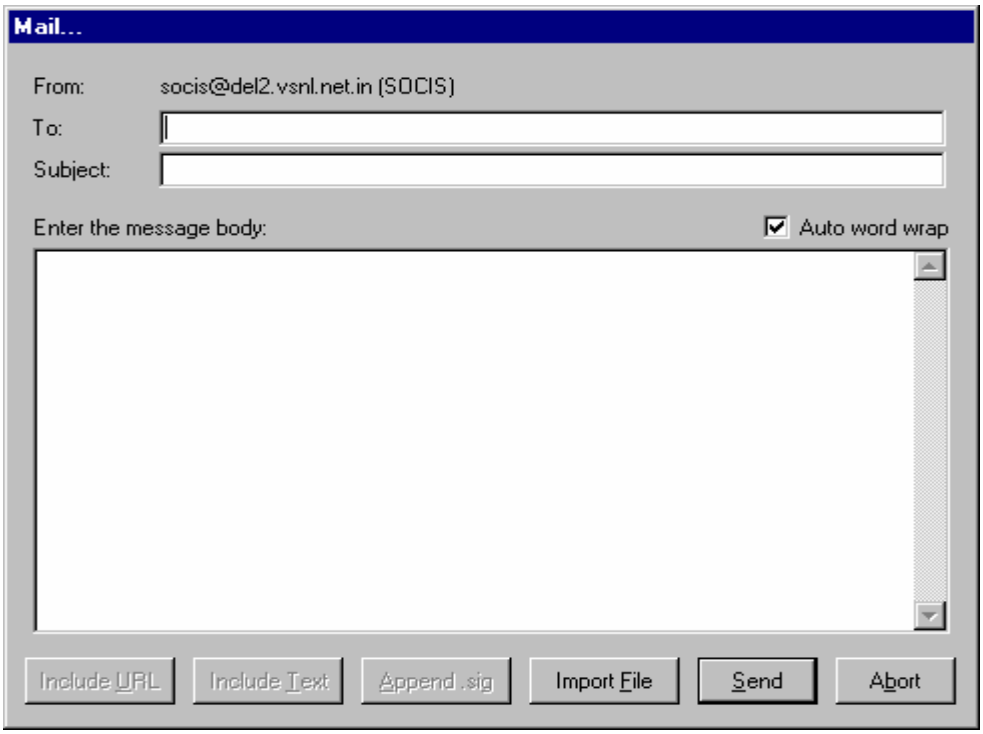

Figure 19
Collaborate: starts a session.

Document Source: Using this, we can view the HTML code of the current document.

Options

Show Toolbar: Show or Hide the toolbar.

Show Status bar: Show or Hide the status bar.

Show Location bar: Show or Hide the current URL.

Preferences: Edit Mosaic user preferences. These include Proxy, Services, Tables, Viewers, Window, Anchors, Audio, Cache, Directories, Fonts, News, and Printing.

Navigate

Back: Go to previous page.
Forward: Go to next page.
Reload: Load the current document again.
Home: Load the home page of Mosaic.
Stop Transfer: Interrupt the current transfer.
Session History: Displays the history window. It contain the URL's which are previously viewed.
Add current to hot list: Add the current document to selected folder. It is similar to the bookmarks column of NETSCAPE.

Advanced Hot List Manager: Display the Hot list manager.

Mosaic Auto Surf: It starts a search engine with the help of which one can find the addresses of all sites of his own interests.

Hot Lists

Open the list of bookmarks.

3.5 Microsoft Internet Explorer

Microsoft Internet Explorer is another popular browser of Internet other than Netscape Navigator of Netscape Communication inc. Internet Explorer has been developed by Microsoft Corporation, Redmond park, Washington, USA. The schematic is as shown in the following figure:

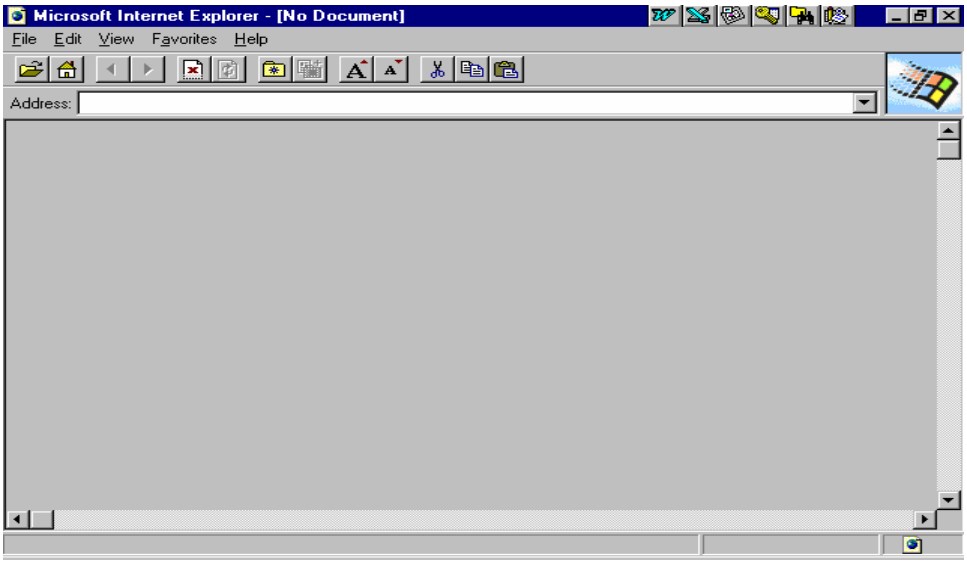

Figure 20

It contains the following menus. They are File, Edit, View, Go, Favourites, Tools and Help.

File

Create Shortcut: Create a shortcut to the current web page. So, whenever we click on this shortcut, the Internet Explorer will be automatically opened and connects to this site.

Delete: deletes a document from the local memory.

Rename: renames the document.

Properties: It has the following submenus:

History: shows the URL's of the recently browsed web pages.

Browse Offline: show web pages without fetching from the host server.

Close: closes the browser.

Edit

Cut: stores the highlighted text in the clipboard.

Copy: copies the data in the clipboard to the position of cursor.

View

Toolbar: shows or hides toolbar

Status bar: shows or hides the status bar.

Refresh: reloads the current document from the host server.

Options: enables us to change the settings of Internet Explorer.

Go

Back: loads the previous page onto the screen.

Forward: load the page, which has been viewed after the current page previously will be loaded onto the screen.

Up one level: goes up by one level i.e. closes a window, which is open.

Home Page: opens the home page of the web sites whose URL has been set in the configuration which will be loaded as the start page of the browser.

Search: opens and closes the search bar.

Best of the web page: opens the best site like top 100 sites.

Mail: opens the e-mail window of Microsoft Exchange of Microsoft Outlook from where we can send e-mail.

News: opens the Internet's newsreader program. From here, we can switch onto the icon, which represents the sites of new corporations.

Contacts: opens the address book, which is the part of Microsoft Outlook.

Calendar: opens the calendar so that we can fix our own schedules.

Tasks: lists the appointments.

Internet Call: connects to the Internet.

Favourites

It lists the bookmarks we added when we are browsing the Internet.

Tools

Find: switches on to the search sites and prompts for the search string.

sMap network drive: maps the drive to another drive.

Help

It contains the information about Internet Explorer.

3.6 Summary

In this unit, the features of three Internet browsers namely Netscape Navigator, Microsoft Internet Explorer and NCSA Mosaic are described. We can access any information using Internet with the help of search engines if we don't know the address of the site, which contains the information of our interest. For this, we can use any of the search engines available on the web. Then, we can choose the proper category match or site match after reading the information relating to that particular link. If we know the address of any web site, we can view its home page by just entering its address in the location bar and clicking the mouse. Then, from the home page, we can obtain the desired information using the links available on the home page. Home page is the first page of any web site.

3.7 Review Questions

1. View the home page of SUN MICROSYSTEMS, USA.
2. List all the site addresses where you can obtain the information relating to Internet commerce.
3. Send e-mail to your friend using Netscape's integrated mail facility.
4. List the advantages and disadvantages of different browsers.