
UNIT 4 INTRODUCTION TO INTERNET

Structure

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- 4.2 Internet Architecture
- 4.3 Internet Tools
- 4.4 How to use the Internet?
- 4.5 Microsoft Outlook Express
- 4.6 Let Us Sum Up
- 4.7 Check Your Progress Exercise
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4.1 INTRODUCTION

Computers were not developed a few decades ago as they are today. One of the main reasons of this rapid development is the Internet. Internet itself has been growing from a handful to millions of computers in only a few years.

ARPANET (Advance Research Project Agency Networks), the seed of Internet emerged out in 1957 from the U.S. Department of Defense as a fault-tolerance computer network, one that would survive a nuclear attack. Within a decade, it became the largest network.

Internet is not a mere connection of hardware through wires; it involves software too, which are discussed later.

As mentioned, apart from exchange of data, which is a very general term, Internet provides specialized services to its users. In this unit, we will look at various services provided by the Internet and other related topics.

Objectives

After going through this unit, you will be able to:

- list out various services offered by the Internet, and
- configure Internet browsers use and configure Outlook Express.

4.2 INTERNET ARCHITECTURE

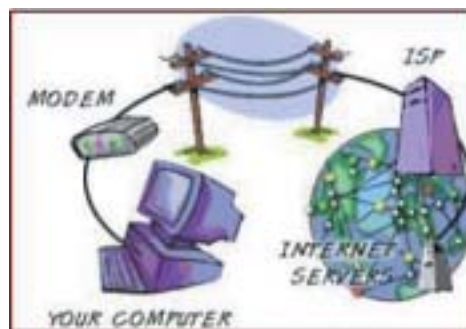


Figure 4.1 : Internet Architecture

The Internet architecture, as shown in the Figure 4.1, can be broadly classified into three layers.

1. The very first layer consists of Internet Backbone (shown as dark black lines in the Figure 4.1). Just like a human body needs support from a framework of bones to

→ NOTE

- *Network* refers to many computers that are connected for the purpose of exchange of data and other facilities.
- *Internet* is one big network (actually a network of small computer networks) which, spans the entire world, i.e. computers that are part of the Internet are spread worldwide.

→ NOTE

Modem is a device that converts computer data into a form that can be transmitted through telephone lines and the data on the telephone line into a form understood by the computer. Therefore modems are needed at both the sender and the receiver's ends.

stand erect known as the backbone, the Internet's backbone is a dense collection of connected powerful servers, who cater to requests by the users, and thus support the entire Internet.

2. The second layer is usually known as Internet Service Provider (ISP). Users dial to the ISPs through telephone lines or other ways. The ISPs are in turn connected to the Backbone with high-speed lines.
3. The end users are connected to ISPs by telephones and modems.

4.3 INTERNET TOOLS

Internet can and does provide a host of other services apart from the normal data transfer. These services include Chat, E-mail, News Groups and Gopher.

Chat

Chatting refers to the interaction between two or more people through the Internet, as if they were talking to each other.

E-mail

E-mailing refers to the process of one person sending a message to another user through the Internet and the other user reading it when he wants to rather than as it is sent.

E-mail (electronic mail) is the exchange of computer-stored messages by telecommunication. (Some people spell it email; we prefer the currently more established spelling of e-mail). However, you can also send non-text tiles, such as graphic images and sound files, as attachments sent in binary streams. E-mail was one of the first uses of the Internet and is still the most popular use. A large percentage of the total traffic over the Internet is e-mail. E-mail can be distributed to lists of people as well as to individuals.

It has three main parts -

1. Header - An E-mail heading has following parts.
 - a) To : Which contains recipient's Address
 - b) CC : The Carbon Copy
 - c) Subject : Subject of Email
2. Message Body - This is the place where the actual text of the email is written.
3. Signature - It uniquely identifies the sender. The details, which can be part of it, are Senders Name, Phone-Fax No., Address etc.

News Groups

News Groups refer to the specialized group of people who regularly remain in contact with each other through the above-mentioned methods for the purpose of discussions on a specialized topic. For instance, there could be a newsgroup of people who enjoy gardening, like to know about extra-terrestrial beings etc.

Gopher

It is a search tool, that helps to look for information on the Internet on any subject what so ever.

World Wide Web (WWW)

World Wide Web (WWW) is the collection of web pages available on the Internet.

Uniform Resource Locator (URL)

It stands for Uniform Resource Locator. Every web page on the Internet has a unique address known as the Uniform Resource Locator. For locating any document on World Wide Web, you must know its Uniform Resource Locator (URL).

→ NOTE

Just like you buy products from a retailer & not directly from the manufacturer, your Internet access is provided by a middleman known as the *Internet Service Provider*.

→ NOTE

Internet/Web Servers are extremely powerful computers who provide the data that you need to access, that data generally resides on many computers worldwide.

TIPS

If you could right now see what I am typing as I do it and could reply to me back about what you think about it then you and I would be chatting!

→ NOTE

Hyper Text Markup Language (HTML) is used to display information on the Internet. The information is displayed in the form of pages known as the web page.

Web Browser

Web browser is an application software that allows us to view web pages. Windows provides us with a browser known as the Internet Explorer. You could have other browsers as well from elsewhere like Netscape Navigator.

4.4 HOW TO USE THE INTERNET?

Setting Up the Connection to the Internet

It is assumed that you have a telephone line dialup connection from any ISP (Internet Service Provider) for Internet Access. We will now configure Internet Explorer in the following steps, so that it can be used to access World Wide Web.

➔ **NOTE**

Internet Explorer is a browser software used to access World Wide Web.

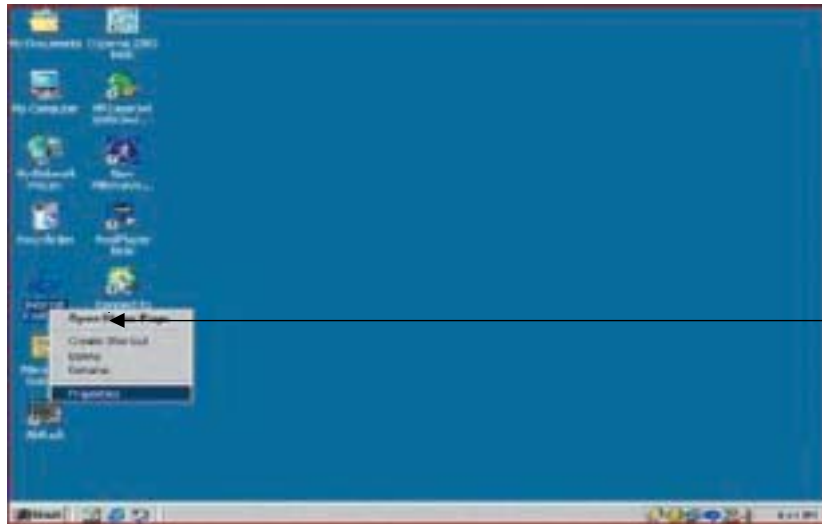


Figure 4.2 : How to start Using Internet

1. Right click on the Internet Explorer icon (as you can see in Figure 4.2) on the desktop and select Properties.
2. Select Connections Tab, as shown in Figure 4.3, to set Dialup or LAN properties. Internet connection wizard can be run to connect either through dialup or LAN. We are writing the process for setting up connection through dialup.

The following screen defines the process of connecting through Dialup.

➔ **NOTE**

To connect to the Internet we need either a dial up or some other connection. To set up the dial up connection, we need to set some settings.



- Click on Add in dialup settings area. The following screen appears, as shown in Figure 4.4 (a).



Figure 4.4 (a) : Location Information

This screen requires to know about the place you are in. It also asks about the phone system. Click on drop down arrow of country you get following screen as highlighted in the Figure 4.4 (b).

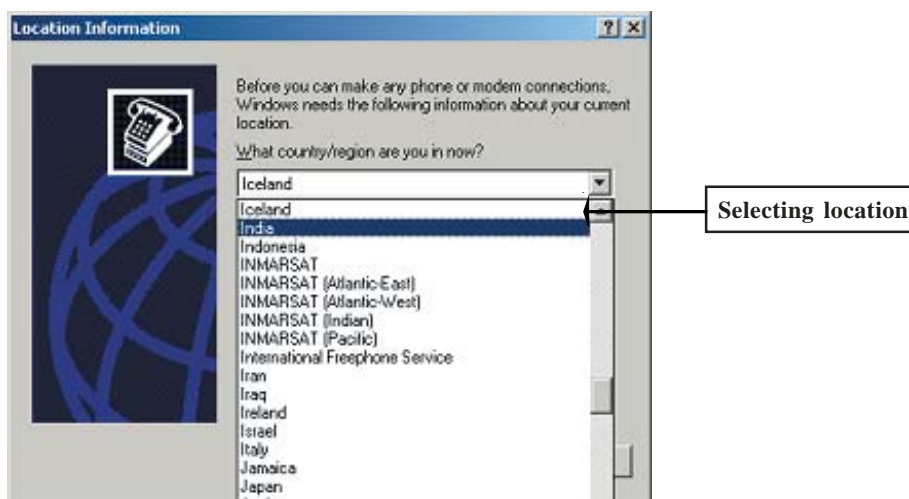


Figure 4.4 (b) : Location Information

The screen given in the Figure 4.5 asks about the location and its area code. Click OK to select.

This location can be edited with the help of following screen.

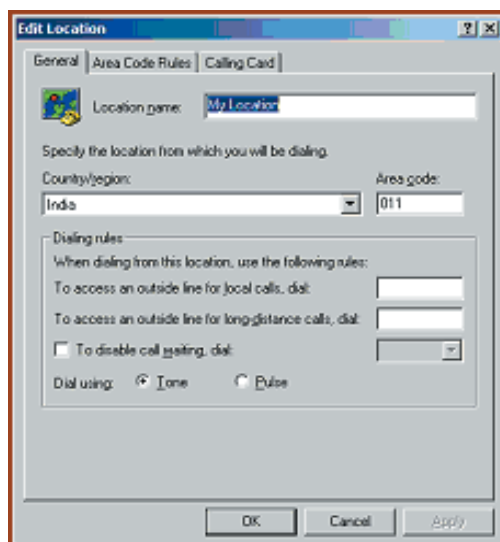


Figure 4.5 : Edit Location

→NOTE
We can at later stage change the properties of the dial up connection using the edit location box.

Using Internet Explorer to access the Internet

We can access World Wide Web through Microsoft Internet Explorer.

The followings are the steps:

1. Double-click on the Internet Explorer icon on the Desktop as shown in the Figure 4.6

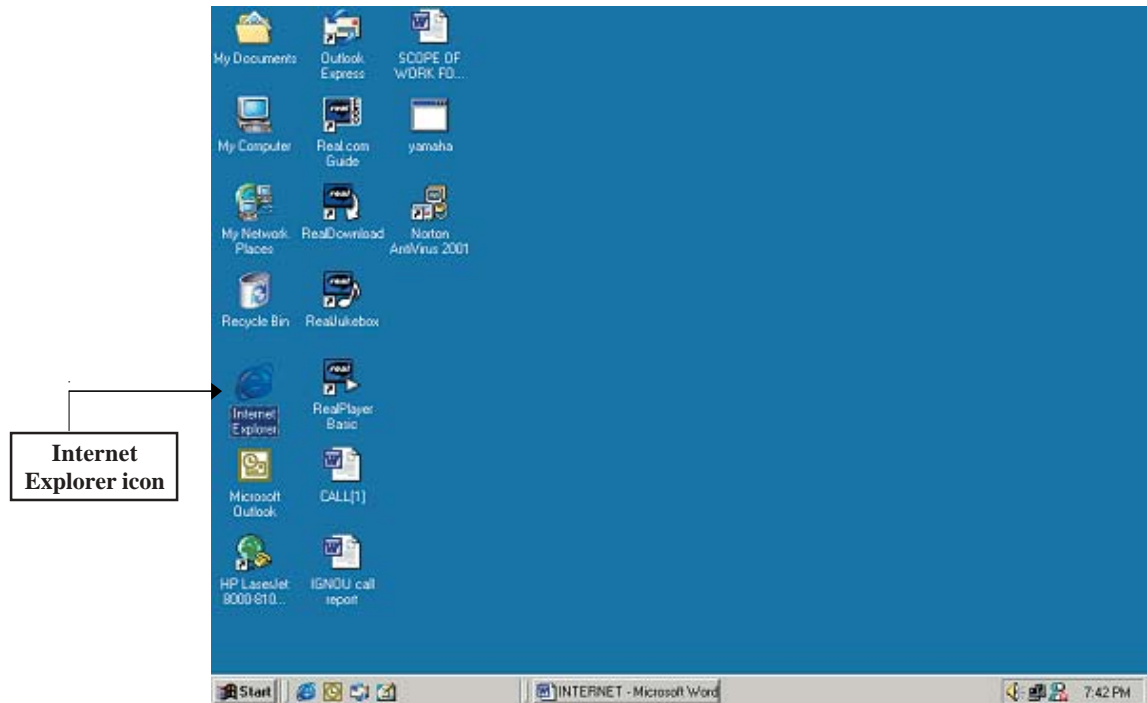


Figure 4.6 : Starting Internet Explorer

2. This starts Internet Explorer screen, which is shown below. You can type the URL of the web page you want to access in the Address Bar and press enter or click Go button. The process for settings this screen is given in the Figure 4.7.

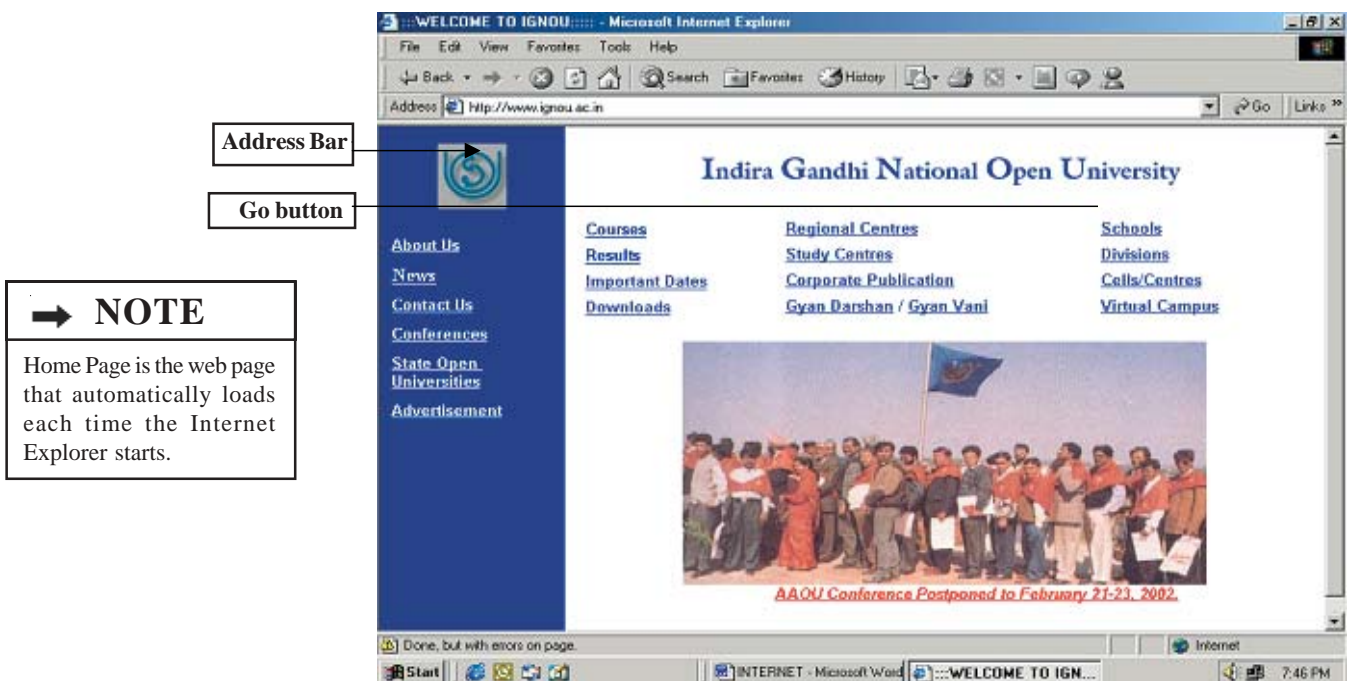


Figure 4.7 : Internet Explorer showing <http://www.ignou.ac.in>

3. If you want to make the current website as your Home Page, Click on Tools, Internet Options. The Screen will appear as shown in the Figure 4.8.

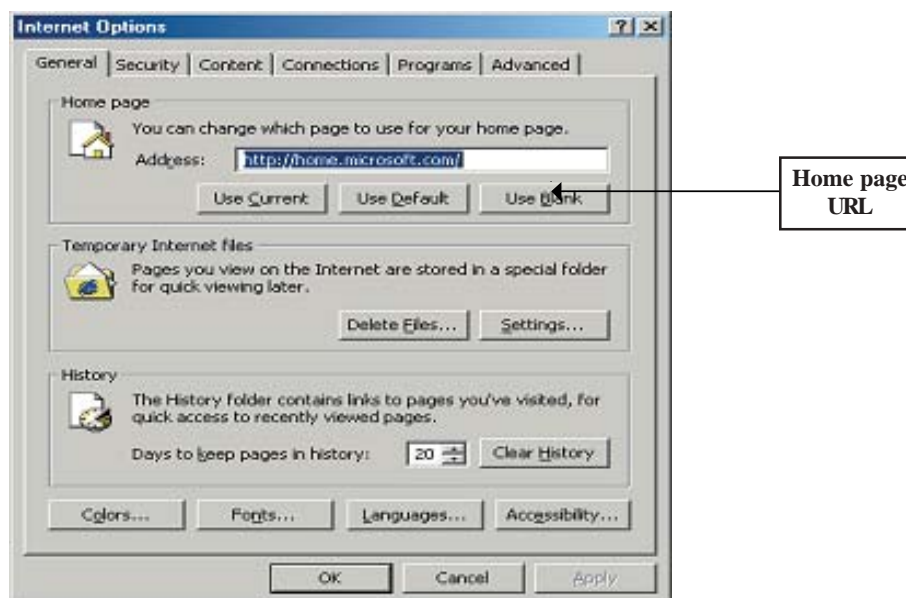


Figure 4.8 : Internet Option

4. To get a desired website, type the URL (name of the website, e.g. www.ignou.ac.in) of the site in the Address Bar.

Using favorites folder

The addresses for your favorite websites can be stored in a folder so that you can later on retrieve that address from favorites Folder.

To add the current site in your favorites folder, follow these steps:

1. Click on Favorites on Menu bar, Add to Favorites. This invokes a properties screen as shown in the Figure 4.9.

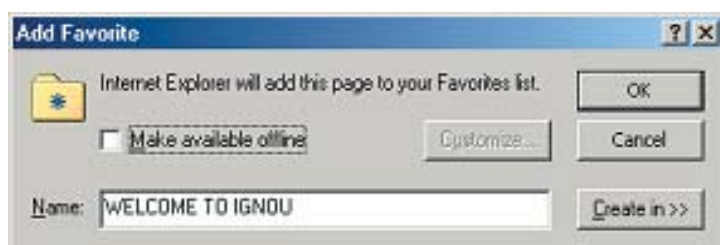


Figure 4.9 : Add Favorites

2. The name of the website automatically appears in the Name Box.
3. Now click OK to store this address in favorites folder.

Searching for content

In Internet Explorer if you are looking for some website, but don't know its URL address, then there are some websites called search engines which helps you to search that website. For example, www.yahoo.com, www.google.com.

To search about specific topic, follow these steps:

1. Open Internet Explorer and Type the URL address of search engine website e.g. www.google.com in the Address Bar. The following screen appears as shown in the Figure 4.10 (a).

→ NOTE

Favorites folder is a folder where you can store URL of your favourite websites, to retrieve later on.

i TIPS

You can choose Favorites from the Menu Bar also.

→ NOTE

Website is a location on the World Wide Web. Each Web site contains a home page, which is the first document users see when they enter the site.



Figure 4.10 (a) : <http://www.google.com>

2. Type the desired topic like “ignou” and click on Google Search, as shown in the Figure 4.10 (b).



Keyword in
the search
bar

Figure 4.10 (b): Searching on <http://www.google.com>

3. The new window will open with all the websites related to the topic which you entered in the search bar as shown in the Figure 4.10 (c). Then click on the any of the topic.



Figure 4.10 (c) : Search results

4.5 MICROSOFT OUTLOOK EXPRESS

Outlook Express is a software tool that is used to send/receive e-mails and compose (write) and read e-mail. We are going to cover the main email concepts; you are requested to explore other facilities offered by Outlook yourself.

Introduction to Outlook Express

Outlook Express is one of the most popular email software in use today. It offers all the email services and is easy to learn and use. To start Outlook Express, the steps are given below:

1. Click on the Start button at the bottom left corner of the Windows 2000 desktop.
2. Select the Programs option of the Start menu.
3. Select the Microsoft Outlook Express option from the Programs submenu as shown in the given Figure 4.11.

➔ NOTE

Outlook Express is a Microsoft software used to send/receive and compose emails.

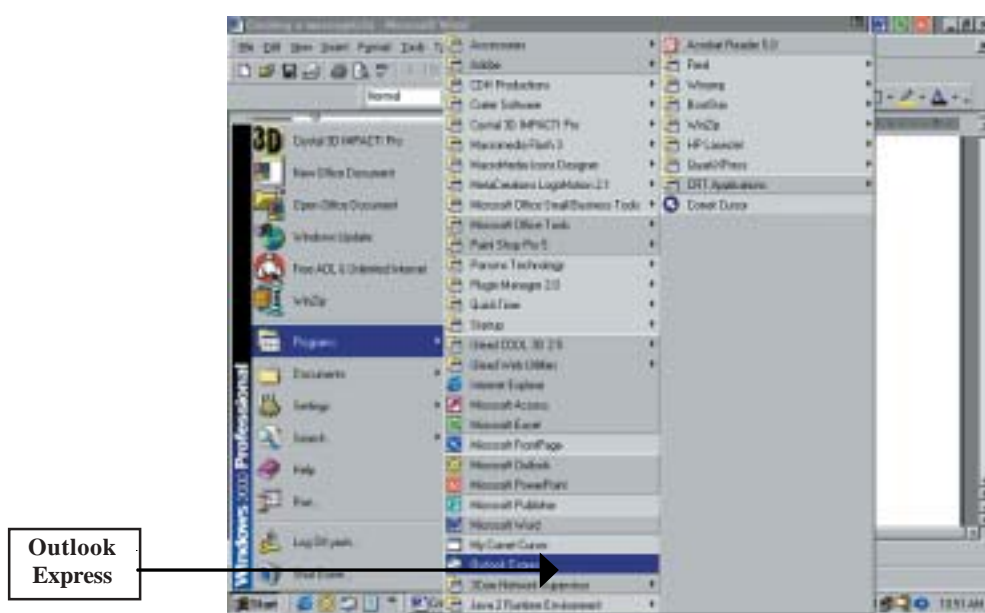


Figure 4.11 : MS Outlook Express

When you click on Outlook Express Icon the following window, as shown in the Figure 4.12, will appear. Like all Microsoft software, it contains Menu Bars, Tool Bars, and Status Bar and in addition to Title Bar.

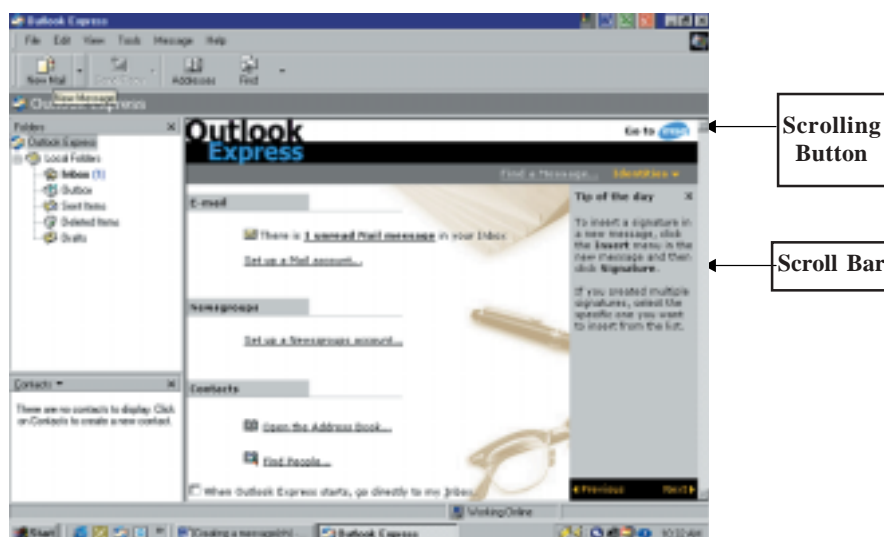


Figure 4.12 : MS Outlook Express

→ NOTE

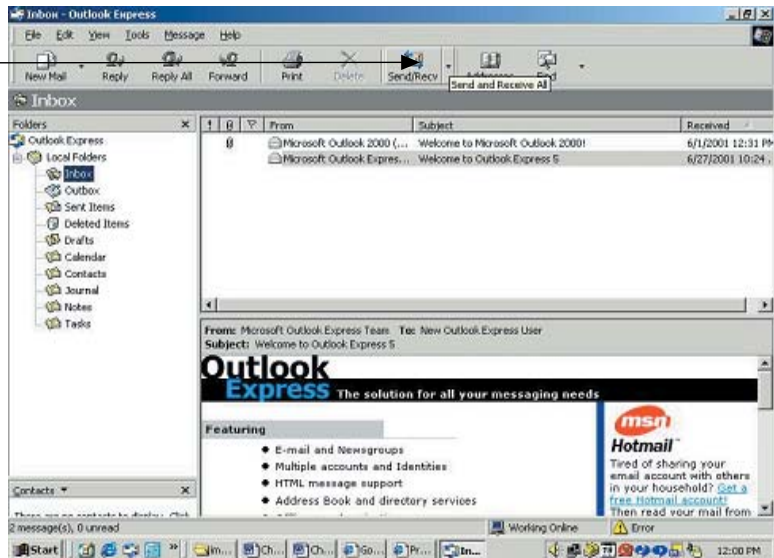
Scrolling Buttons (buttons usually in the right & bottom of the window to help viewing the content which is not visible)

The mail window is divided broadly into two panels (a well define segment of a window). The Left Panel contains several folders related to messages e.g. Inbox is a folder where all the mails are received, Outbox is a folder where all outgoing mails are stored and Sent Items where all sent mails are stored. The right pane contains details for e-mails, newsgroup, contact etc., which have been configured on Outlook Express.

Checking For New Mail

If you want to check for new messages, simply click the Send and Receive button on the Outlook bar. Outlook Express will download your e-mail and show you a list of subject titles in your Inbox as shown in the Figure 4.13.

Send/Receive button



i TIPS

You can use the shortcut 'Ctrl+P' or click the Print button on the toolbar after selecting the message to print.

Figure 4.13 : Checking for new Messages

Managing messages

After you receive several messages, you'll need to manage them.

- To print a message: choose from the menu File | Print as highlighted in the Figure 4.14.

i TIPS

You can use the shortcut 'Ctrl+D' or click the Delete button on the toolbar after selecting the message to delete.

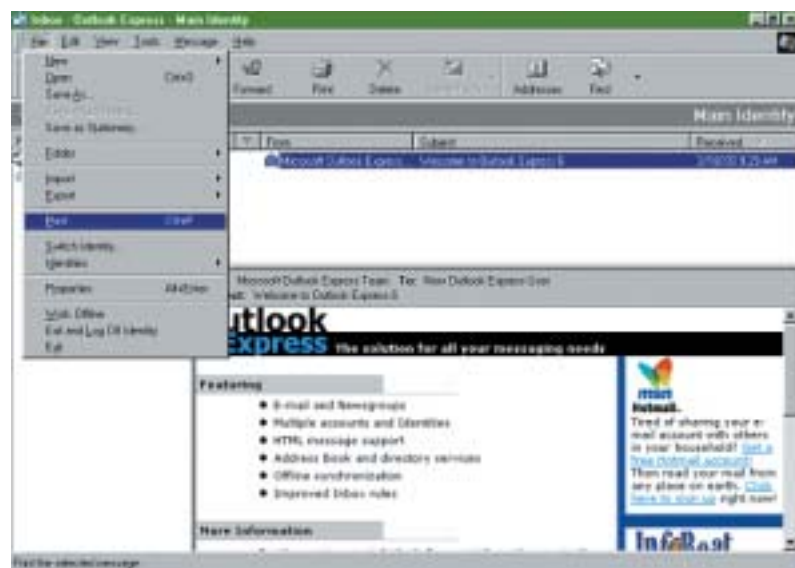


Figure 4.14 : Printing Message

- To delete a message: select the message and press the Delete key as you can see in the Figure 4.15.

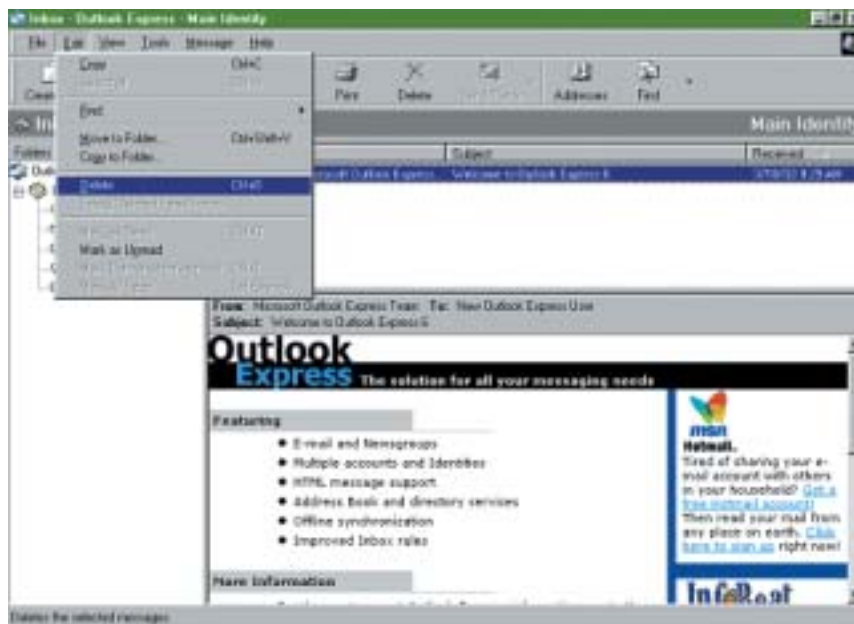


Figure 4.15: Deleting Messages

- To save in a folder other than the Inbox, select the message, then drag and drop it on the desired folder.
- You can create new folders by choosing File | New Folder from the menu. You could create folders for School, Work, Family... whatever suits your needs.

Composing message

The word composing is synonymous with writing or creating and these words are used interchangeably. With Outlook Express, you can create a new message with following steps:

1. Click on Mail Message of New option from File menu as shown in the Figure 4.16.

TIPS

You can click on the toolbar button 'Create Mail' to compose a new email message.

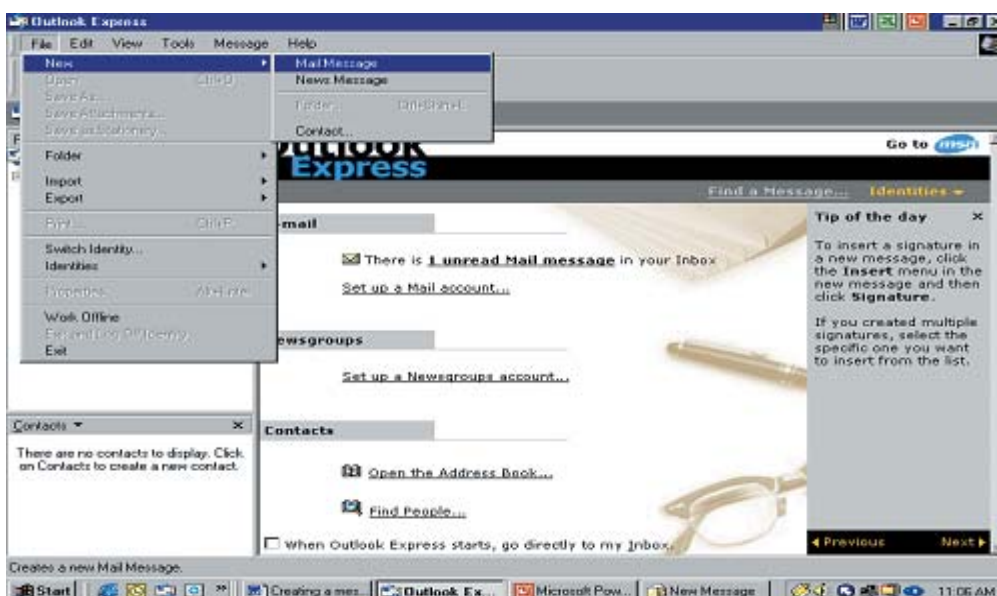


Figure 4.16: Creating & Sending a New Mail

The following Screen appears with options for writing e-mail address of recipients, areas for composing mail.

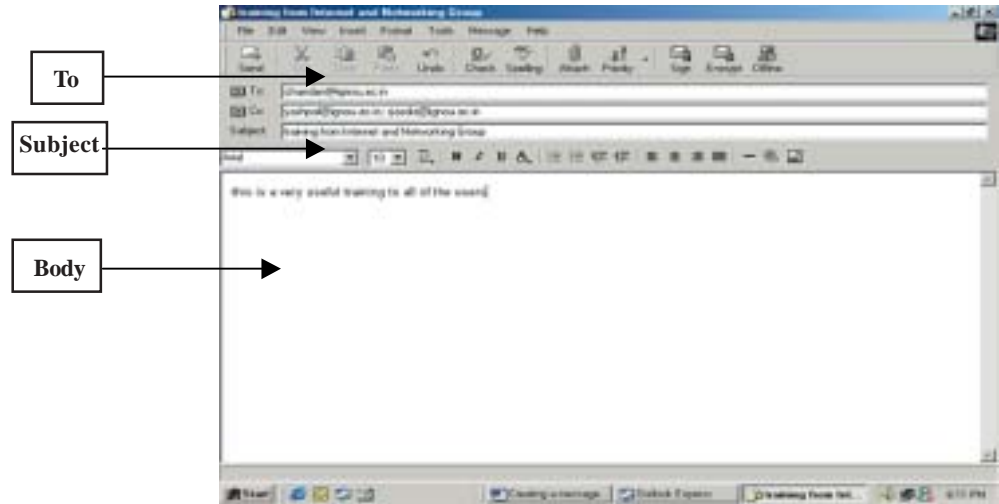


Figure 4.17 : Writing the Mail

TIPS

The e-mail addresses you type in the 'Bcc' box are not displayed when the recipient receives the email.

- In the 'To' box, type the e-mail address of the person you are sending the message to. For example chandana@ignou.ac.in as shown in above Figure 4.17.
- Type the e-mail addresses of the recipients in the Cc box. If there is more than one address, separate them using a comma (,) for example yashpal@ignou.ac.in; sjasola@ignou.ac.in as shown in above figure. When you send a blind carbon copy, the e-mail addresses of the people receiving it do not appear on the e-mail message. This means the e-mail recipients will not know who else has received the message. Type the e-mail addresses of the recipients in the Bcc box. Type your message in the message area, as shown in the Figure 4.17.

TIPS

You can use the shortcut 'Alt+S' or choose 'Send Message' from the 'File' menu to send a message.

Sending message

When sending a message, you have to type in the address of the recipient in the 'To' address bar.

- On the toolbar, click the Send button. Depending on the connection you have to the Internet, a message box may appear telling you that the e-mail message is being moved to the Outbox. If it does appear, simply click OK.

To send the message from the Outbox, click the Send and Receive button. Are you sure your message has been sent? If not, look inside the Sent Messages folder. To open this, folder, double-click the Sent Items button on the Outlook bar.

Replying to an E-Mail Message

Replying is different from sending in the sense that it is assumed that you are sending your feedback to a mail that you received so, mostly the recipient's address is automatically displayed in the 'To:' address bar.

With Outlook Express, replying to an e-mail message is very easy. All you have to do is decide who should see your reply, then click the appropriate button. A simple reply to the person who sent the e-mail is used most often. Follow these steps to reply to the author:

- In the message list, click the message you want to respond to. The message will be highlighted with a blue box as shown in the Figure 4.18 (a).

NOTE

Replying is that you are sending your feedback to a mail that you received so, mostly the recipient's address is automatically displayed in the 'To:' address bar.

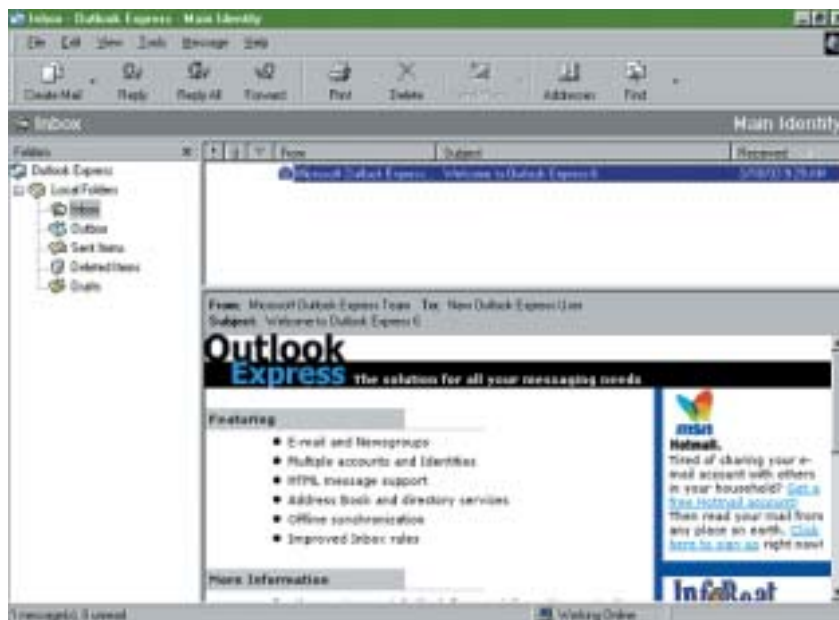


Figure 4.18 (a) : Replying Message

- On the toolbar, click the Reply button. A message window will open. You will see the original message in it as shown in the Figures 4.18 (b) and 4.18 (c).

TIPS

You can use the shortcut 'Ctrl+R' or click 'Reply To Sender' from the 'Message' menu item.

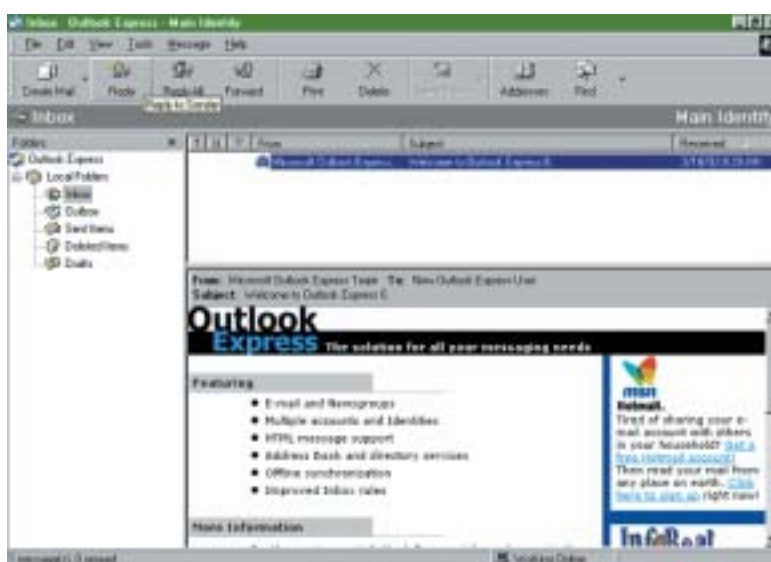


Figure 4.18 (b) : Replying Messages



Figure 4.18 (c) : Replying Messages

3. In the message area, type your message.
4. Click the Send button to transfer your message to the Outbox.

Forwarding An E-Mail Message

When an e-mail message is very interesting, you want to share it with others. With Outlook Express, you can simply forward the original message to other e-mail addresses using the method given below:

1. In the message list, click the message you want to forward.
2. On the toolbar, click the Forward button as shown in the Figure 4.19.
3. A forward message window will appear. The original subject line will appear in the Subject box, along with the abbreviation Fw:

TIPS

You can use the shortcut 'Ctrl+F' or click on 'Forward' from the 'Message' menu item.

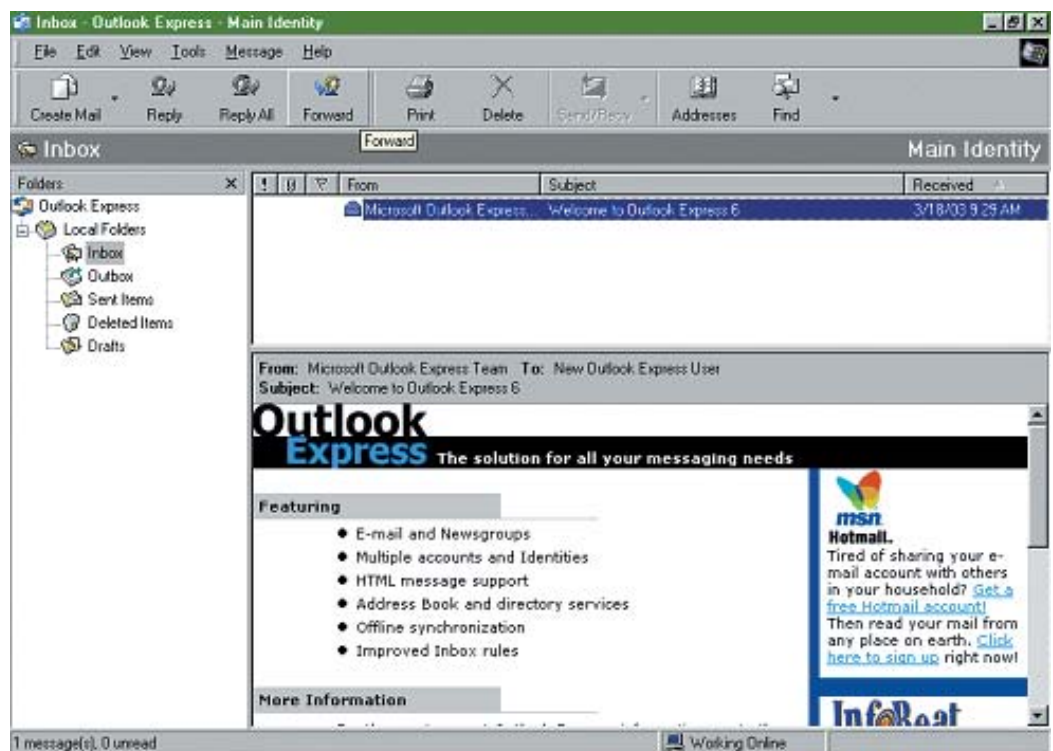


Figure 4.19 : Forwarding Messages

TIPS

You can use the shortcut 'Ctrl+Shift+B' or click 'Address Book' from the 'Tools' menu item.

4. In the To box, type the recipient's e-mail address.
5. You can add your comments by typing in the message area.

On the toolbar, click the Send button. Once the e-mail is sent, the Forward Message window will close.

Address Book

As the name suggests, the Address Book is a place where you can store the information about your contacts including their personal, business and other miscellaneous details.

Opening Address book

Click the 'Address Book' button on the toolbar. The dialog box as indicated in the Figure 4.20 (a) appears:

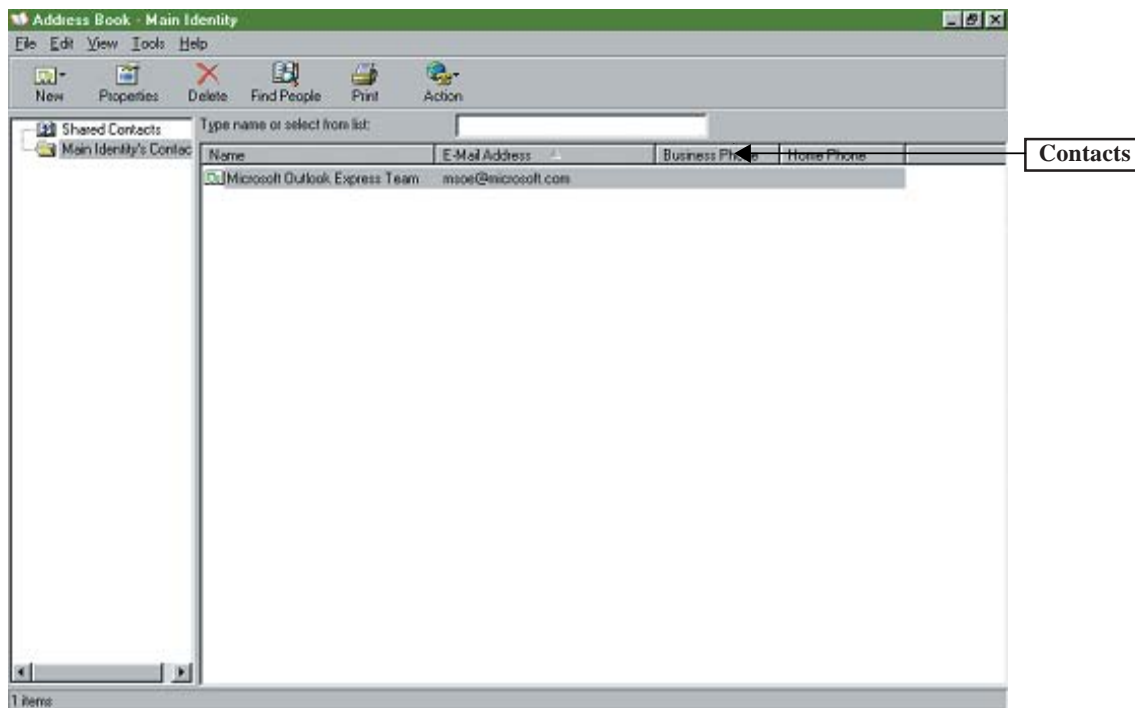


Figure 4.20 (a) : Address Book

In the right panel you will see all the contacts.

Adding a new Contact

After you have opened the address book, as shown in the Figure 4.20 (b), you can add the new contacts by following these steps:

1. Go to 'File' menu. Click on 'New Contact'.
2. Then add the information you want as it is required.

TIPS

You can use the shortcut 'Ctrl+N' or click 'New' from the tool bar to add a contact

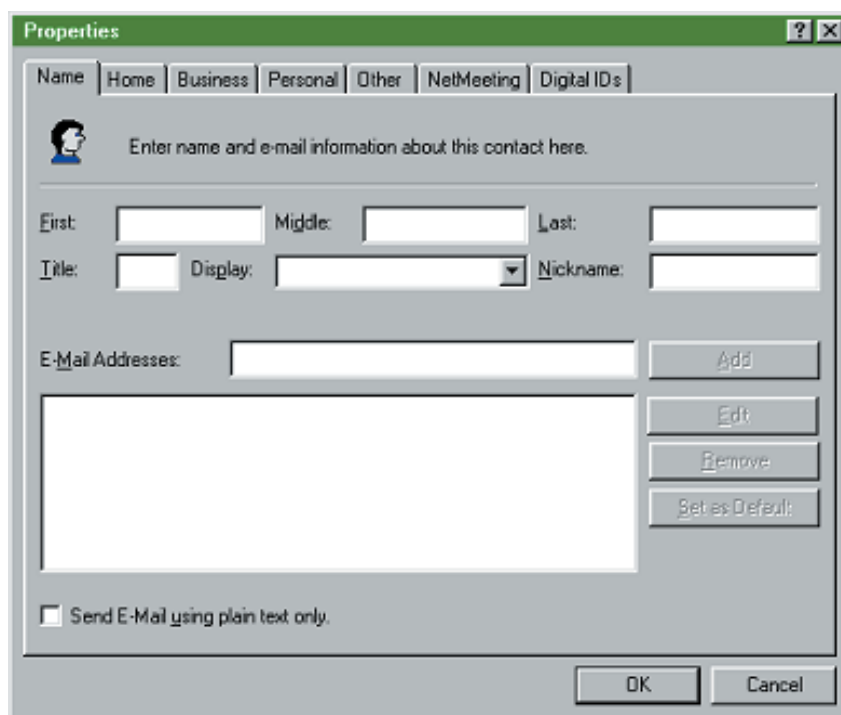


Figure 4.20 (b) : Adding New Contact

Retrieving an address

If the number of addresses is quite large you can even search for people using the 'Find People' button as shown in the Figure 4.20 (c).

TIPS

You can use the shortcut 'Ctrl+F' or click on 'Find People...' from the 'Edit' menu item.

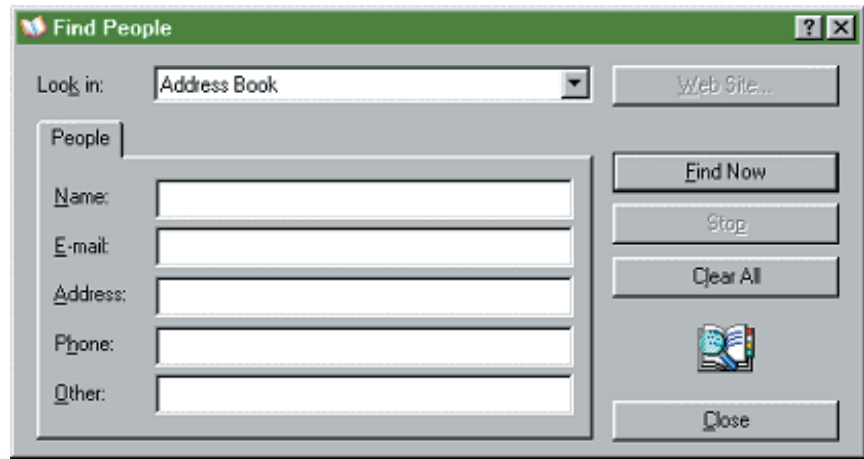


Figure 4.20 (c) : Finding a Contact

Deleting Address

You can delete the not needed addresses by simply selecting (single left mouse click, the item should turn blue) the address, as highlighted in the Figure 4.20 (d), and clicking on the 'Delete' button or alternatively pressing the 'Del' key.

TIPS

You can click 'Delete' from the 'File' menu item or use 'Del' key after selecting the contact to delete.

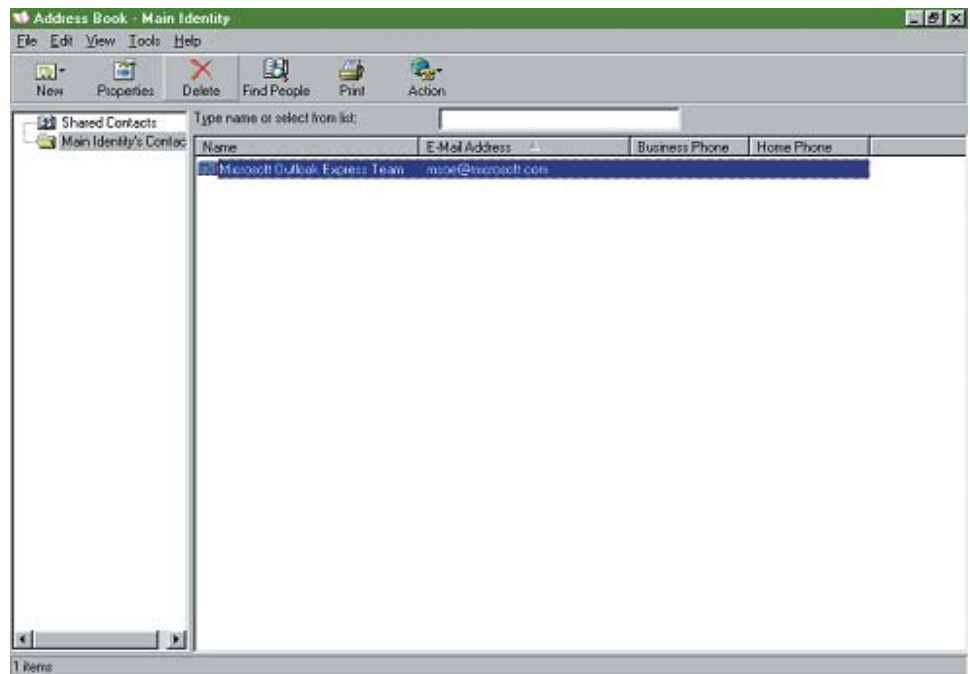


Figure 4.20 (d) : Deleting Contact

Email Etiquette

Etiquette are important in real life, they are no less important on the Internet. At times they are generally known as 'Netiquette' but specific to emails they are known as 'Email Etiquette'.

- Keep your messages **short** and **to the point**. Long email may never get read!
- Be sure the **subject** line describes what the message is about. One topic per message lets the receiver (and you too!) keep what is needed for later and discard the rest after reading it. Email piles up quickly and the saved messages must be thinned out from time to time. A good subject line helps immensely.
- Be **informal**. Email messages are more like little notes or memos than formal letters. You can use informal grammar freely here!
- Never use **all upper case** unless you really mean to be **YELLING**.

- **Quote** enough of a previous message to be sure that the reader knows what you are talking about. Be careful: A reply to a reply that was a reply to a reply ... can get very long. Long files take a long time to load and read. Your email program may automatically quote the whole message that you are replying to. Delete the parts that aren't needed to make your own message clear.
- Say "**Thanks in advance**" in the original message rather than sending separate "thank you" later.
- Limit your use of abbreviations since many won't understand what you mean.

4.6 LET US SUM UP

We discussed Internet and its related tools, like:

- introduction to FTP, Telnet, News Group, Email,
- browser configuration,
- introduction to search engines, and
- configuration of Outlook Express and its use.

4.7 CHECK YOUR PROGRESS EXERCISE

1. What is the use of FTP?

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2. List out the various search engines available for searching on Internet.

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3. List the various steps involved in sorting book list in the address book.

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4. Select a keyword and search for it in the Google search engine.

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5. Use Outlook Express to Send an Email.

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6. Try adding contacts in the Address book.

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4.8 ANSWERS TO CHECK YOUR PROGRESS EXERCISE

1. FTP or File transfer protocol is used to transfer information in the form of file from one user computer to another computer.
2. There are two search engines available for searching on Internet :
 - i) www.yahoo.com
 - ii) www.google.com
3. The following steps are followed:
 - i) Click the Address Book button to open your address book.
 - ii) In the Address Book window, click the view menu, then point to Sort By.
 - iii) In the sub-menu, Click the options you want. For example, try clicking NAME, First name and Ascending your Address. Book list will be sorted in order you specified.
4. This is a practice exercise. Try doing it yourself by searching for a word in Google search engine.
5. This is a practice exercise. Try doing it yourself by opening outlook express and send an E-mail.
6. This is a practice exercise, Try doing it yourself by adding contacts in the address look.