Beginners Study Manual

Introduction to
Information & Communication
Technology

Basic Concepts

abc

IT-1

Introduction to
Information & Communication Technology

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Course structure

The Computer

ABC IT-1: Basic Concepts

Introduction

What is a computer?

The equipment you will be using is a personal computer or PC. Computers have transformed the way we live, as they allow us to conduct so many different activities more efficiently than before. Using one is very straight forward.

Computers allow us to work with numbers and information in a way few of us could ever conceive of even 20 years ago. Computers allow us to organize al types of information much better than ever before. More than any other use, computers today let us communicate with each other, in many different ways, no matter where we are.

The CPU and the Monitor

What some people call a "computer" is actually technically called a "CPU" or "Central Processing Unit". The metal box located nearby the screen or monitor holds the "brains" of the computer.

That's where all the action happens-and the other pieces of equipment you will use are all about getting information into and out of this piece of equipment (CPU).

The screen you will be looking at is called a monitor, or VDU (Visual Display Unit).It displays the activity carried out by the computer so that you can easily follow what is happening.

Using a Mouse

The oval shaped piece of equipment which is connected to the computer is called a mouse. It is called a mouse because that's what it looks like-it's a rounded shape with a "tail" trailing from one end. However that's where the similarities end.

Right button

Scroll Wheel

Left button

The mouse is a very smart tool for navigating within a computer. It allows you to move around the screen before you and make lots of fun things happen. It allows you to perform all sorts of actions on the computer, and in a very short time you will find it a very useful tool indeed.

The most direct use of the mouse is to allow you to point to where you want to go on the screen.

▷	This mouse pointer will appear as you move it around the screen (it can also be used to move things)
I	This mouse pointer will also appear as you move it around the screen, particularly if it over text. (This shape can be seen when you are about to type text.)
�👆	This mouse pointer can be seen if you move it over a part of the screen that can be used to take you elsewhere (see **Error! Reference source not found. Error! Reference source not found.**)

You can also tell the computer to do other things and provide you with more choices by clicking.

Clicking
   ? Press down once on the left button with your index finger

 Right Click

   ? Move the mouse pointer to the position you require
   ? Position your middle finger on the right mouse button
   ? Keeping the mouse still, click lightly with the middle finger on the right button

On occasion, you will need to "double –click" the mouse, which will give you even further options to progress with your computer activity.

Dragging

   Position your mouse on an object, hold down the left side
   of the mouse, and drag the object.

Scrolling

   You can use the scroll wheel on the mouse to move the page on the screen up or down.

Blocking

Blocking is another way of selecting text. It is used to select text that need to be edited or formatted.

   ? Click at the beginning of the word or sentence and hold down the left button
   ? Drag along the text and see it being highlighted in black
   ? At the end of the text or sentence release the left button

Practice exercise

For this module, have a look at where the POINTER or CURSOR is on the screen.

When you have spotted it, move the mouse-and PRESTO-you have now moved the ARROW on the screen-and you are now using a MOUSE.

The Keyboard

The keyboard is what you use to type something into the computer. It is made up of movable keys representing letters of the alphabet, numbers, symbols, and special command and function keys.
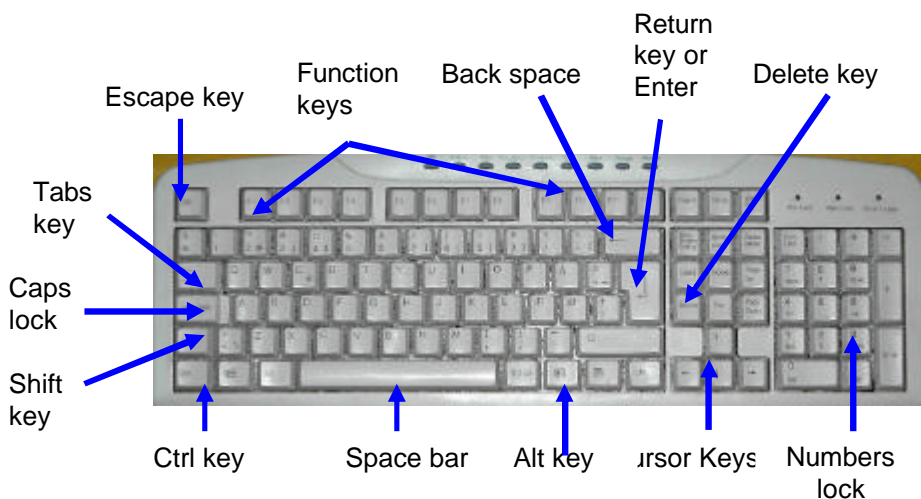
Apart from the mouse, the keyboard is the most often used piece of equipment when interacting with the computer:
Entering, managing or retrieving information

Typing and deleting text

To type words onto a document, click on the letters on the keyboard.

To delete text you can use the backspace key or the delete key. The backspace key will remove text from behind (to the left of) your cursor position.

To type numbers you can use the numbers lock or the numbers on the second row of keys on the keyboard.

Typing Capitals

To type capitals, Caps Lock must be switched on by pressing the key before typing. A light will shine on the top right side corner of the keyboard to remind you that Caps lock is still on. To switch it off, tap on the Caps lock key before you carry on typing.

The shift key

There are two Shift keys on the keyboard – to the bottom left and right of the letters. The shift key is used to access the top symbols that are one the keys with two characters.

You need to press and hold the key and then press the key with the symbol that you want.

Typing sentences

To get the spaces between words press the space bar once and then type the next word.

The return Key/Enter

The return key is used to authorize instructions that you have asked for the computer to perform. It is also used to create new lines and spaces between paragraphs. Make sure your cursor is flashing where you would like a new line.

The Cursor Keys

They can be used to move the position of the cursor. The cursor is the small downward line that flickers in a sentence as you type. It serves as a guide for where to type. You can also move the position of the cursor by clicking the position you want with a mouse.

Alt , Ctrl ,Tab and Function keys

These are special keys that are used to perform different tasks. You will learn about these later in the program

The Printer

You may or may not have a printer attached to your computer. If you do, you will be able to physically print out documents and pictures that are stored on your computer, or print Web pages available on the Internet.

Information Technology Today

Information technology, or IT, is the means of creating, managing and exchanging information

IT includes all types of technology used to deal with information, such as computers, cables, satellites, and telephone lines.

In this lesson, you'll learn to:

☐ Describe the basic components of a computer, hardware and software.

☐ Describe the different types of computers available.

☐ Identify the main parts of a computer.

☐ Know more about your computer's performance.

Hardware, Software

All computers systems are made up of hardware and software.

The term "hardware" is used to refer to the physical part of the computer system, including the computer itself, and any peripherals such as the monitor, printer, keyboard and mouse.

Software allows you to interact with and operate these physical components. Software is made up of a series of instructions that tell the computer what to d￼ sometimes called "computer programs"

Hardware

Software

CPU

Keyboard   Monitor   Mouse
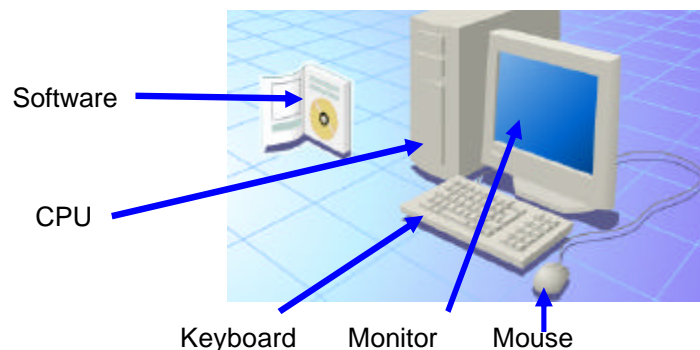
There are two main types of software:

Operating system software

Application software

The operating system is usually preinstalled on your computer and is responsible for "managing" the computer. Examples of operating systems include:

- ? Windows XP[©]
- ? OS X[©] (Ten)
- ? Linux[©.]
- ? MS-DOS[©]

Application software consists of programs that perform specific tasks. Examples include word processing software such as Microsoft Word. and Internet browsers such as Mozilla Firefox.

Without one another, hardware and software cannot function.

Information Technology

These days, the term "information technology" seems to be everywhere. Information technology, or IT, means all the technology-including computers and telecommunications-that is used to deal with data and "information".

IT refers to the computers themselves, the hardware and software, cables, satellites, telephone lines, and everything that relates to creating, storing, and transferring information.

Information technology has become so important that most companies and organizations have an IT department.

Computer Types

There are many different types of computers available, and they all vary in terms of capacity, speed, cost and typical users.

Personal computers (PC)

Personal computers are used by single users at a time. They are the most common computers these days and are found in businesses and homes.

Modern personal computers can be very powerful; they can run many different applications and facilitate a variety of media types including sound and videos.

PCs can also be connected to other computers on a network. Most modern computer-based businesses operate using "network" computers.

A network consists of many computers that are connected to each other. They can communicate with each other and can share resources, such as printers.

Network computers are known as "clients", and the computer on the network that manages their shared resources is called a "server". Clients also depend on the server for applications and for storing data.

A network computer is typically cheaper than a personal computer since it does not include much space for data storage.

Personal computers and network computers are known as intelligent terminals because they have their own memory and processors and can perform certain tasks independently of a server.

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Larger computers can serve a number of different users at different terminals. These terminals are known as dumb terminals, because they only consist of a keyboard and a monitor and cannot perform any computations.

Minicomputers are designed to perform complex computations and can serve a number of users connected via terminals. They are more expensive than personal computers.

Mainframe computers are large computers designed to handle very intensive tasks and are capable of serving many terminals. Mainframe computers are used by large instructions such as banks or government departments, and tend to be extremely expensive.
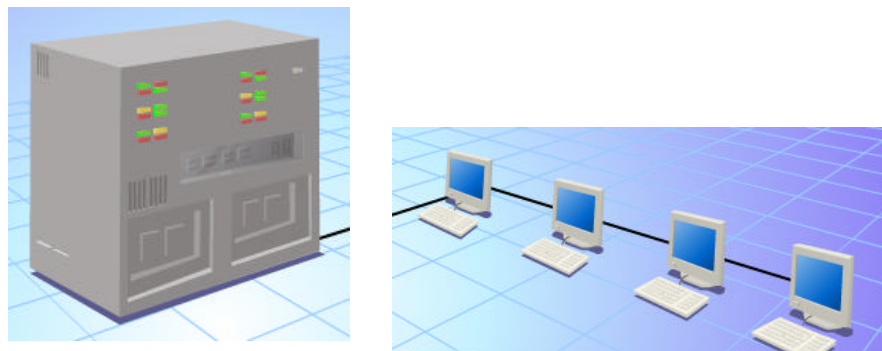
Laptop computers are lightweight, mobile computers. They can be used anywhere and are often used by business people during travel.
Laptops are similar to personal computers and are designed for use by one person at a time.

However, they too are typically more expensive than personal computers.

A personal data assistant (PDA) is a portable computer that is designed to act as an organizer, note taker, and communication device. It has a streamline interface, such as touch screens, handwriting recognition and miniature keyboard.

A PDA comes with various applications to help you organize and implement your personal and business needs.

A PDA is the preferred choice for business people, often as well as a laptop.

There is a wide range of computers currently in use. Depending on how it's designed and configured, a computer can serve one user, serve many users, or operate as part of a network.

Main Parts of a computer

Personal computers, or PCs, are composed of a number of physical components, known as the computer's "hardware"

These components include the central processing unit, or CPU, a range of input and output devices, two main types of memory, and storage devices.

The central processing unit (CPU),is the part of the computer that performs calculations and carries out instructions. It is sometimes called the "processor" and is a silicon chip located inside the system unit.
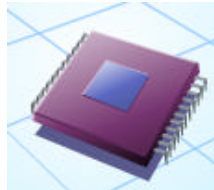
It acts like a tiny, fast calculator, processing information that flows into it (input), and generating and forwarding information (output)

A peripheral device is any device you can add to and use on your computer. These devices can be either input or output peripherals.

To put information into your PC you need an input device. The keyboard and the mouse are the two most common input devices.

Computer systems can have many different output devices, each converting data into a readable form. The two most common output devices are monitors and printers.

Memory

Memory is the place in the computer that temporarily stores information while it is being processed. The two main types or memory are random access memory (RAM) and read-only memory (ROM)

RAM is used to store temporary data. It contains all new data entered since you last saved your work

RAM changes constantly, and its contents are lost when the computer is switched off

The contents of **ROM** are secured during manufacture and are permanent. For example, ROM stores data containing the instructions needed to get the computer working properly as soon as it is switched on.

Virtually all computers have a hard disk. Once a computer is finished processing information that information must be stored somewhere permanently.

The **hard disk** is a computer's long –term storage device, Information stored on the hard disk remains there even when the computer is switched off.

There is a range of removable storage devices available, including:

Diskettes or floppy disks

Zip disks

CD's . DVD's

Removable cartridges or digital tapes.

Understanding Computer Performance

The speed, efficiency, and accuracy with which your computer functions depend upon several variables.

These variables include the speed of your CPU, the size of your computer's RAM, the performance, speed and storage capacity of your hard disks, and the number of applications open on your computer at one time.

CPU's are gauged by how fast they can process inputted information and provide the user with
The number of bits it can process simultaneously also gauged a CPU's power. Most modern CPU's are 64 bit, which means they can process 64 bits of data simultaneously.

RAM is used for temporary storage of program data. The average amount of RAM in a modern PC is 512 mega bytes (MB).You can increase the amount of RAM in your computer by either adding additional memory to it by replacing the memory it has.

The more memory installed in your computer, the faster it can process data and perform multiple tasks.

The hard disk is the device in your computer that permanently stores data. The average disk in a modern PC can store 60GBs of data, but the largest available hard disk can store 750GBs.Computers can contain more than one hard disk.

The number of hard disks will depend on the type of computer you have. For example, most PC's can have two hard disks whereas a server may have six or more.

Another factor that affects the performance of your PC is the number of applications that are open at one time. Too many programs running concurrently can slow down the computer, or cause it to freeze.

To ensure your computer will perform efficiently, it must have an adequate CPU, and sufficient memory and storage capacity.

Review

In this lesson, you learned that:

☐ A computer's hardware is its physical components, while software allows you to interact with and operate these physical components.

☐ There are many different types of computers available, including personal computers, network computers, minicomputers, mainframes, and laptops.

☐ PC's are composed of a CPU, a range of input and output devices, two main types of memory, and storage devices.

☐ There are factors that impact on your computer's performance, such as CPU speed and RAM size.

Test 1

Question1

Here are four main parts of the personal computer. Place the correct number on the list below.

a) Hard disk
b) Monitor
c) Keyboard
d) Mouse

Question 2

Computer systems are made up of hardware and software. What is software?

A.	☐ Instructions that allow interaction with the computer's components.
B.	☐ The physical part of the computer system.
C.	☐ A silicon chip used to store information.
D.	☐ Anything related to computers.

Question 3

There are many different types of computer. Place the correct number on the list below

- ? Consists of a keyboard & monitor/cannot perform any computations
- ? Handles intensive tasks/can serve many users/very expensive
- ? Lightweight/mobile/used by one person at a time.
- ? Used by single users/common in businesses and homes

Question 4

Virtually all computers have a hard disk. What will happen to information stored on your computer's hard disk when you switch off your computer?

A.	☐ The data will be lost.
B.	☐ The data will automatically be backed up.
C.	☐ Nothing – the data will remain there.
D.	☐ Data will be printed.

Question 5

What type of a peripheral device is a keyboard?

A.	☐ Input.
B.	☐ Output.
C.	☐ Communication.
D.	☐ Storage.

Question 6

What is a PDA

A.	☐ A portable computer that acts as organiser and communication device.
B.	☐ A Primary Device Application and it is used within the operating system.
C.	☐ A Primary Data Application and it is used for printing.
D.	☐ A portable printer that is used to connect to your personal computer.

Working with IT

In technologically developed nations, computers and computer technology have become a part of everyday life. You encounter computers, or the implementation of computer technology, in virtually every home, workplace, and in the modern service industry.

In this lesson, you'll learn about:

☐ The main uses of a computer in the home.

☐ The types of computing systems used in the office.

☐ The uses of computer systems in the modern service industry.

Home Computing

There are many reasons why you might want to have a personal computer, in your home. You can use a PC to work at home, as a personal organizer, to do your household accounts, play games, surf the World Wide Web, use e-mail, create music, and pursue a range of other hobbies.

You can work from home using a PC. You can maintain contact with your business headquarters using e-mail, or share network resources using a remote network connection.

Even if you are not working in the computer industry, a PC with the appropriate software simplifies most administration tasks, and allows you to manage your home business records and budget details.

There are literally thousands of games avail be for the PC. These include action games, role playing games, puzzles and many more. You can purchase and download many games off the internet although various sites also offer free games.

If you have a CD-ROM drive, sound card, and speakers you can play audio CDs.

You can surf the World Wide Web and find virtually any information you need, either for pleasure or for educational purposes. You can use your computer from home to study a wide range of online training courses either for interest or to acquire certificates. You can also shop online if you have a credit card.

Using e-mail at home is a very handy way of keeping in touch with friends or business contacts. With the appropriate software and a connection to the internet, a home PC has a wide variety of useful and entertaining applications.

Computing at Work

In many cases, computers can be better suited to carrying out certain tasks than humans. For example, in assembly-line industries, where attention to detail, speed, and efficiency are important, automation is becoming more and more commonplace.

In most industries, computers are used to help people carry out tasks more effectively. In the office environment, for example, computers and computer applications are used to help people perform tasks faster and more efficiently.

Word processing, spreadsheets, database, and e-mail office applications form the basis of most computer-based systems used in modern business.

Word processing applications allow you to produce clear text more easily and with greater formatting capabilities than by using a typewriter.

A spreadsheet application can be used for general bookkeeping tasks. It allows you to organize data values using cells, where the relationships between cells are defined by formulas.

A database application allows you to create files that are made up of records. These records are composed of fields, in which you can enter data, and that work with a set of operations for searching, sorting, recombining, and other functions.

A database application allows you to record any of the things that you might find organized in a card index. E-mail client software provides the user with an interface through which they can send and receive.

There are other applications that are designed to help you make business decisions. These include packages that provide a statistical analysis of data.

Industry staff also use word-processing, spreadsheets, and databases for administrative tasks. Many industry firms use stock control and electronic data interchanger (EDI),to link customers, suppliers and banks. EDI helps ensure that orders are fulfilled and paid for properly.

Many modern industries use computers for specialized purposes, such as computer-aided design (CAD), and computer-aided engineering (CAE)

Mainframe computers are mostly used by **government agencies**, since their computers need to be powerful, as the amounts of data, such as census results or cultural statistics, tend to be extremely large.

Many **educational institutions** provide internet access for students. Students can the study material that would be difficult to find otherwise. They can also exchange views and information with similar interest groups worldwide.

The internet also accommodates long-distance learning programs for those who, for reasons of distance or disability, cannot attend classes in person.

Tele-working allows you to work from home, away from the office, or in transit. At home, you don't have to worry about lengthy commute times or traffic jams, or unexpected delays.

You can have access to your company's resources with a few clicks of your mouse. If you're away from the office, you can read your e-mail and still respond in a timely manner. If you're transit, on a plane or train, you can still accomplish your company's assignments.

Tele-working also provides you with a flexible work schedule. Tele-working enables you to focus on one task for the day, because there are less distractions, and results in reduces space requirements in the company.

However, tele-working does have a few disadvantages. By working at a remote site or at home, you have less social contact with your co-workers and, in a team environment, you may not participate as often as you like.

There are many other areas where computers are preferred to humans for carrying out tasks .In areas involving extreme conditions, or danger, such as work with hazardous substances, or certain military tasks, employing computers rather than people can often be the best option.

However, in some cases, humans are better at carrying out tasks than computers; for example, there are many situations where approachability is important, such as in the tourist and retail industries.

Everyday Computing

In recent years computers have become more and more a part of everyday life. For example, computers can be found in shops, doctors' surgeries, banks, and libraries.

Large scale computers systems are used by governments, hospitals, educational institutes and commercial business

Many **shops** have computerized cash registers. Others use barcodes and barcode readers when carrying out stock control and charging for products.

Each product is associated with a unique combination of vertical lines and numeric code that is printed on a small label. The barcode reader scans this label at the checkout and identifies each product and its price from the information held on a central computer and adjusts the stock count as a product is sold.

Credit cards and Debit cards, which are collectively called smart cards, are also used in shops. These cards have a metallic strip on which the user's Personal Identification Number (PIN), and account number is stored and can be read when it is passed through a special reader.

The reader then sends a telecommunications message to check the cards credit status and validity. If the message is positive then the sale is completed.

Computers in a **doctor's surgery** can be used to record individual patient's details that can be accessed quickly and easily. Doctors can access database information and CD-ROMs, or surf the World Wide Web, to find out about new medications, medical hardware, and techniques.

Computers are an essential part of the modern **banking** process. All data to do with a customer's transactions is recorded by computers. Costumer's can use telecommunication links, such as the telephone or the internet, to carry out cash transactions.

Bank customers use Automated Teller Machines (ATM), that are usually situated outside the bank, to withdraw cash, pay bills electronically, or to view their current balance. For this purpose, each bank customer is given a card to insert into the ATM and secret PIN.

Many **libraries** have computer systems where each book has a bar code associated with it. This makes it easier for the library to keep track of loans, and to retrieve information

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on the location and availability of a specific book, the author, and when and where the book was printed.

Each member of a library is also given a card with a bar code on it, so the system can recognize particular members. Each book in a library has a magnetic strip attached to it that is deactivated before the book can be borrowed. This means if someone tries to leave without the library assistant having deactivated the magnetic strip, sensors placed at the exit will cause an alarm to go off.

Computers are used extremely in large –scale business operations. **Airlines** use large-scale computer applications for their reservations system, both in the airports and in central reservations call-centers.

Other businesses that have large-scale computing requirements are insurance claims systems and on-line banking, which both have large numbers of users and operators interacting across one system.

The **government** uses large-scale computer applications in its daily operations. Civil servants are constantly accessing and updating public records systems such as vehicle registration and demographics statistics.

The revenue commission uses a sophisticated computer system for various tax purposes and you can now find most tax forms and information on the official government revenue website.

The government uses electronic voting for elections, which replaces the traditional voting slip and ballot box but significantly reduces the time spent on counting votes.

There are large-scale computer applications in **hospitals** and the **healthcare industry.**

Hospitals need a big computer system to manage their ambulance calls and patient records systems.

Hospitals also use computers with specialist surgical equipments and to monitor patients' conditions during complex surgery. Healthcare manufacturing companies use computers to aid the production of diagnostic tools and instruments.

Computers are widely used in **schools,** colleges and other educational environments. Most second-level schools provide computer classes as part of the curriculum.

Universities and other third level educational institutions use computers for student registration, timetabling systems and exam results. As well as the computer students in colleges, students of all disciplines need to use computers for projects and typing reports.

Government employment agencies use computer-based training (CBT) for adult education programs and distance learning. Companies are increasingly using CBT for induction and employee training courses.

Computers are common-place in modern society, and tend to make previously laborious manual tasks of data entry much simpler and quicker.

Review

In this lesson, you learned about:

☐ The uses of computers in the home for both work and personal purposes.

☐ The uses of computers for work and education.

Test 2

Question 1

Many people work from home using a PC. How would you access resources on your office network from a PC in your home?

A.	☐ By using e-mail.
B.	☐ By using a remote network connection.
C.	☐ By using the World Wide Web.
D.	☐ By using a zip drive.

Question 2

What do you need to play CDs on your PC.

A.	☐ A monitor.
B.	☐ A remote network connection, a sound card, and speakers/headphones.
C.	☐ A CD drive and an Internet connection.
D.	☐ A CD drive, a sound card, and speakers/headphones.

Question 3

Which type of application is most commonly used for general bookkeeping tasks?

A.	☐ A database application.
B.	☐ A spreadsheet application.
C.	☐ A CAD application.
D.	☐ An e-mail application.

Question 4

What type of organization would typically use a mainframe computer?

A.	☐ A charity organisation.
B.	☐ A government agency.
C.	☐ A school or college.
D.	☐ A small business.

Question 5

Teleworking allows you to work from a remote location.

A.	○ True
B.	○ False

The Digital World

The Digital Era

The modern world is very much an "electronic world", and the increasing use of computers has brought society into what some refer to as "The Information Age" This "information age" has introduced us to the concepts of electronic commerce or e-commerce, and of course to the electronic mail or e-mail.

In this lesson, you'll learn:

- [ ] How the Information Age is changing the way we live.

- [ ] How e-commerce lets you carry out business online.

- [ ] How e-mail lets you communicate with others on a daily and global basis.

Over the last few years, developments in information technology and communication have changed the way that we live our lives. The way we work, the type of jobs we do, where we live, the way we learn, how we interact, and how we are entertained-all are changing as a result of the information revolution.

Today's society is sometimes called the "Information Society", because exchanges of information-using modern communication technology such as the internet-are central to everyday life.

We live in an "information age", where all sorts of activities, including economic, governmental, social, and educational, are being transformed by data exchange, together with the technology that makes them possible.

One aspect of this is the information Superhighway. The term "information Superhighway" is often used interchangeably with the term" Internet"

But the information Superhighway is more than just the internet-it is the global collection of computer networks, including the internet, and communication links such as satellites, radio, cables, and wires that are used to exchange information.

It is a giant web of communication channels, which is being used to transform the way we live, and especially, the way we work and conduct business. Barriers of time and place are being eroded, as people can exchange all sorts of data using information Superhighway irrespective of distance.

An example is the emergence of "teleworking". By using the information Superhighway, workers who would traditionally work in the office can work from home or from anywhere –as long as they have a computer and an internet connection.

Another example of the changing world of business is the emergence of electronic commerce (e-commerce).E-commerce is sometimes called e-business. It involves conducting business using the internet.

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These days so many activities are being conducted using the internet that new terms, prefaced by an "e", are appearing to indicate that they are conducted electronically.

E-commerce can also included business-to-business transactions, and any other business conducted using the internet.

Business Online and E-commerce

Electronic Commerce lets you carry out commercial transactions or activities online using your PC.E-commerce refer to such things as online banking, purchasing goods or services, or trying a program on a trial basis.

In most cases, you have to produce your personal details and payment methods before you can complete a transaction online. If, after making a purchase, you are not entirely satisfied, you have the right to return the unsatisfactory goods.

E-commerce lets you buy goods and services at any time of the day,7 days a week. You can buy a book, reserve a rental car or buy a plane ticket for your next holiday. You can also preview a movie or music CD online before buying it.

As you can see, e-commerce offers you many ways to buy online. However, it is important to remember that always choose vendors who provide you with secure payment methods to prevent exposure to identity theft and fraud.

E-mail

Electronic mail, or e-mail, is a system of sending electronic messages over networks. E-mail has recently emerged as a popular and useful method of business and personal communication.

When using e-mail you can type a message, attach a file to that message, and send it to any existing e-mail address world wide. A large percentage of the total traffic over the internet is e-mail. To establish internet e-mail you need to install e-mail client software, and subscribe to an internet Service Provider (ISP).

An ISP provides you with a username, a password, a phone number, and an e-mail address. You will also need a modem so that your PC can connect to your ISP's e-mail server to send and receive e-mail. Some ISP's provide a fax to e-mail and e-mail to fax service, this allows you to send and receive faxed documents using your PC.

E-mail can also be exchange within a company. This is often referred to as "internal e-mail". For internal e-mail, a company has its own e-mail server and users on the Local Area Network (LAN) can send e-mail to each other without having a modem installed on any of the PC's. With this configuration, the e-mail server re-directs internal e-mail without incurring the cost of sending it through the ISP.

When a user on the LAN wishes to send Internet e-mail, their company's e-mail server uses a telecommunications devices, such as a modem, to send the e-mail to their ISP. The ISP then forwards it to the specified address.

E-mail is relatively easy and inexpensive to establish on your computer, and allows you to send a written message or file to anybody with an e-mail address at anytime.

Review

In this lesson, you learned that:

☐ Today's society is an Information Society where flows of information are central to everyday life and are made possible by the Information Superhighway.

☐ E-commerce enables you to purchase goods and services online.

☐ E-mail allows you communicate with anyone on a daily or global basis.

Test 3

Question 1

E-mail can be exchanged within a company without the help of an Internet Service Provider (ISP). This is often referred to as "internal e-mail".

A.	○ True
B.	○ False

Question 2

What does the prefix "e" stand for in relation to Internet-based activities?

A.	☐ Emergent.
B.	☐ Electric.
C.	☐ Electronic.
D.	☐ Efficient.

Question 3

What is E—commerce?

A.	☐ Engineering commerce.
B.	☐ Extranet commerce.
C.	☐ Evaluation commerce.
D.	☐ Electronic commerce.

Question 4

E-commerce operates on the Internet only during normal business hours.

A.	⚪ True
B.	⚪ False

Question 5

E-commerce offers you the same rights and privileges as your local retailer if you're not satisfied with your purchase.

A.	⚪ True
B.	⚪ False

Introduction to Information & Communication Technology

Using IT Safely and Protecting the Environment

The impact of computers on the society over the last few years has been dramatic. These days computers are an essential feature of every day life. As more people spend more time using computers, it is becoming more important to adapt good work habits and consider health and safety in the work place.

In this lesson, you'll learn:

☐ How a good workspace can be created.

☐ What health and safety precautions you should be aware of when using computers.

☐ Why it's important to take care of your environment by conserving energy and by saving on costs.

Work Space

Ensuring that you work in a good workspace is important in any industry, and the computer industry is no exception.

When working with computers, a good working environment is best achieved by combining good computer practice with other considerations, such as positioning of screens, chairs, keyboards, lighting, and ventilation.

Elements of a good workspace

People who work with computers every day can suffer from injuries such as eye strain, back pain, or repetitive strain injuries. Good work habits are the key to preventing these injuries.

- As a first step, you should take regular breaks from your computer.
- Checking your posture regularly also helps.
- Your arms and thighs should be parallel to the floor, your feet should be flat on the ground
- Your keyboard and mouse should be close enough for you to avoid excessive reaching.
- The top of your monitor should also be level with your eyes.
- You may have to adjust your seat height to ensure that your posture is correct
- Remember that sitting in the same position for too long can be harmful too, so stretch regularly.
- When typing, make sure your wrists and fingers are in line with your arms, and not bent.
- Use a mouse mat, which provides a good surface for resting your wrist and ensure the mouse pointer moves to where you want it on the screen.

You should also consider lighting and ventilation. Never work completely in the dark, make sure there's some light source other than that of the computer screen.

Sometimes glare can be a problem, so use blinds or curtains to ensure that your eyes are seeing comfortably. Poor ventilation can result in tiredness, so make sure that your workspace is well ventilated. If you have a laser printer, it should also be in a well ventilated area.

Considering all of these elements and developing healthy habits is the most effective way to ensure a good workspace.

Health and Safety

There are a number of health and safety precautions that should be taken to prevent accidents and injuries while working with computers.

- ? Ensure cables are safely located. They should be in a position where they can't be easily snagged or become entangled.
- ? Equipment and desks should not be so close to the walls that cables are forced into tight bend.
- ? There should also be adequate space around power points to allow easy access.
- ? There should be adequate power points for all equipments. Overloaded power sockets are a fire hazard, so ensure that any sparking sounds from a socket are investigated by a qualified electrician

Anyone who works on or near electrical systems should have some knowledge of how they work. Some countries now have legislation designed to prevent danger or injury at work, such as the Electricity at Work Regulation in the UK.

Your workspace itself should be tidy. Space is needed around equipment for ventilation and cooling. Make sure that cup, plants, and anything else that could damage the equipment, are positioned safely

Most injuries sustained by people who work with computers are preventable. The most common are repetitive strain injury (RSI), eye strain, and back pain. Repetitive strain injuries can occur in any profession where the same physical task-such as clicking a mouse-is repeated over prolonged periods of time. RSI involves damage to tendons, nerves, muscle and ligaments.

In the computer industry, RSI usually affects the hands and wrists, but can also involve damage to other body parts, such as the shoulders.

One way to prevent RSI is to invest in ergonomic equipment such as wrist rests, ergonomic mice, and split keyboards. However, by far the best method of prevention is to adopt good work habits such as the positioning of equipment, your posture and taking regular breaks from your computer.

Eye strain is common in computer users, while many modern monitors have built-in-glare flitters, using anti-glare devices for monitors that don't can help to prevent eye strain.

Bad posture can be the cause of a variety of complaints, including pain in the shoulders, neck, and back. It's important to have a good chair, to regularly check your posture, and to take regular breaks.

All businesses are required to display relevant health and safety policies prominently within the workplace, and it is up to you to familiarize yourself with their provisions. You will find up-to-date information on health and safety laws and guidelines that affect the use of IT on the Health and Safety Executive Web site found at www.hse.gov.uk

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Managing Your Environment

Our environment is a precious resource, it's important to take care of it.

As you work on your computer, learning your courseware, pause for a second and ponder your computing environment as an ecological environment.

Recycle old computers, printers, and cables to a recycling centre where they can be properly disposed of. Recycle your printer paper and toner cartridges. Don't throw them away. If you're not sure where to go to recycle, check your local directories or even go onto the Internet to browse for recycling centers in your area.

Conserve energy and resources. The next time, you leave your office, school, or home, turn your monitor off. Save electricity. Save power. Think of electricity as a finite resource. This way, you'll reduce your overheads. This will save electricity, money, and ultimately save energy for future generations.

Moreover, you can save on resources, such as paper, by not using it to create documentation, print outs, or even books. Instead, create an electronic version of your documentation. This enables you to then send the electronic version anywhere in the world and in a matter of seconds via e-mail or FTP (File transfer Protocol)

Review

In this lesson, you learned that:

☐ A good working environment can be created by taking regular breaks, adjusting posture, positioning equipment appropriately, and ensuring adequate lighting and ventilation.

☐ Common workplace accidents and injuries, such as RSI, can be prevented by taking health and safety precautions.

☐ It's important to take care of your environment by conserving energy and by saving on costs.

Test 4

Question 1

A good way of saving energy and resources is to:

A.	☐ Sell your monitor.
B.	☐ Switch off your monitor.
C.	☐ Donate your monitor.
D.	☐ Throw away your monitor.

Question 2

It is important to position equipment correctly when working with computers. How should your monitor be positioned?

A.	☐ The top of your monitor should be level with your eyes.
B.	☐ The middle of the screen should be level with your eyes.
C.	☐ The top of your monitor should be level with the top of your head.
D.	☐ The bottom of the screen should be level with your eyes.

Question 3

Which of the following is true of a good workspace?

A.	☐ The bottom of the screen should be level with your eyes.
B.	☐ You should allow full reach between you and your keyboard/mouse
C.	☐ Your feet should be raised off the ground.
D.	☐ Your arms and thighs should be parallel to the floor.

Question 4

The best way to prevent repetitive strain injury (RSI) is to:

A.	☐ Take regular breaks from your computer.
B.	☐ Use a wrist rest to relieve pressure when you type.
C.	☐ Use an ergonomic mouse.
D.	☐ Make sure that your monitor is well positioned.

Legal Matters in IT

Copyright and the Law

When using computers it is important that you are aware of the legal implications of creating, storing and using data.

In this lesson, you'll learn:

☐ How copyright issues affect computer users.

☐ What the Data Protection Act is.

Copyright law applies to computer programs in much the same way as it applies to music, books, or other material. This means that the person who wrote the program also owns the rights to it. It cannot normally be copied, sold, or distributed without the permission of the owner.

A user license, or end-user license agreement (EULA), is a contract you make with a software vendor when you buy a software package. It is a legal agreement specifying the terms of sale.

Usually you will be allowed to use the software on one computer only, and to make a copy of the software for backup purposes only. Some agreements, such as for a company network, might relate to the number of machines, or the number of users allowed to use the software.

When someone copies a program illegally, it is known as "software piracy". Sometimes piracy is carried out deliberately for profit, such as when counterfeit software is sold.

Often programs are copied to avoid having to buy expensive software, but sometimes software piracy occurs without knowing that the law is being broken. You should make sure that copyright law isn't being broken when copying or lending diskettes or CDs. There can also be problems when you transfer copyrighted material, such as music or song lyrics, over the Internet. This is a relatively new area, and the law relating to it is still developing.

Music sites for a particular artist or group often have their copyright displayed on pages where there are graphics or photographs, stating that the use of any images from the site without permission of the artist or its record company is illegal. This also applies to text, such as song lyrics and any audio video files on the site.

In order to combat software piracy, a number of different measures have been introduced, including copy-protecting. However, advances in technology means that piracy is now easier than ever.

One way to prevent software piracy and to make sure that you have legal software is to look for the product identification number or access key, which is usually a combination of numeric and alphabetical characters. Make sure that you check for the Product ID number that comes with your software.

This tells you that you have legal rights to use the software under the terns of the software vendor's agreement. You can find the Product ID number printed in the documentation, or labeled on the CD, DVD,. or diskettes, or even in some cases, the software vendor will provide you with an ID number over the telephone or via e-mail.

The same copyright criteria applies to zip disks, which can contain a software product or documentation, as before, check that there is a Product ID number either on the zip disk itself, or by contacting the vendor

A different approach to piracy is **"shareware"**. With shareware, users are initially given the software free on a trial basis, and encouraged to distribute copies of the program. If they like the program, they are asked to pay a small registration fee for using the software. After registration and paying the fee, the user is given regular updates and assistance.

Freeware is software that is completely free of charge, but is subject to copyright. This means that you can use the program, but you cannot distribute it, sell it. or incorporate it into software that you are developing yourself, unless the author allows you to

"**Public-domain software**". On the other hand, is software that is both free of charge and free of copyright.

Data Protection Act

In today's Information Age, many organizations collect and store information about us.

It might be a government department with records of a person's name, date of birth, and address, or a financial institution with details of someone's credit history. Keeping this kind of data can be beneficial by speeding up processes, helping the fight against crime, and allowing better medical care. However, questions have been raised about how much, and what type of information organizations should have.

For this reason, governments have been introducing legislation to protect the privacy of individuals in the UK and Ireland, the law is called the Data Protection Act. It is a safeguard against improper use of your details by organizations. You should be familiar with Data Protection Act in your country.

In the UK, the Data Protection Act1988ensures that organizations that store information about people must be open about how they use that information .It requires that these organizations should follow a set of eight rules relating to how and why the information is processed

The Act also allows individuals to find out exactly what information is held about them. This is called the "right of subject access". The Data Protection Act in the UK applies to paper records as well as electronic information.

Review

In this lesson, you learned that:

- [ ] It is illegal to make copies of copyrighted software, so care should be taken when copying or sharing diskettes.

- [ ] The Data Protection Act is a safeguard against the improper use of your details by organisations.

Test 5

Question 1

One way to prevent software piracy and to make sure that you have legal software is to look for the product identification number or access key.

A.	○ True
B.	○ False

Question 2

It is possible to install shareware without a Product ID or security code from your vendor after the initial period is over.

A.	○ True
B.	○ False

The Computer

Computer Hardware

The term hardware refers to the physical components of a computer. These components include the central processing unit (CPU), types of memory, memory storage devices and any peripheral equipment, such as input and output devices.

Input devices are used to enter information or data into the computer. The CPU interprets and process this data, and output devices display the resulting information.

In this lesson, you will learn:

☐ How the CPU works.

☐ How types of memory work.

☐ What storage devices are.

☐ What input and output devices are available.

The CPU

All computer activity is processed through the central processing unit(CPU).It is the "engine" that goes into motion when you switch on your computer. It acts like a tiny, fast calculator, processing information that flows into it (input), and generate and forwarding information (output)

The CPU is a silicon chip and is sometimes called a logic chip. This is because it is designed to perform arithmetic and logical operations

Typical CPU operations include adding, subtracting, comparing two numbers, and moving numbers from one area to another.

The speed with which the CPU processes its information is measured in megahertz (MHz) or gigahertz (GHz). The higher the megahertz or gigahertz number, the faster the CPU.

Memory Types

The two main types of memory are random access memory (RAM), and read-only-memory (ROM).When we refer to memory in a computer, we usually mean RAM. When you look at your PC's memory, it's RAM that you are looking at and likewise when you upgrade the memory, it's RAM that you upgrade.

RAM is used for temporary storage of program data. For example, while you are working on a Word document the data you are entering is saved in RAM until you save it to the hard disk on the computer is switched off.

The CPU can write to and read from RAM. When the computer is switched off, any information held in RAM is lost.

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ROM is read only memory that can only be read from but not written to. It contains data that you can refer to through the CPU but cannot add to it or change it. The contents of ROM are fixed during the manufacture of the computer.

Memory Measurement

A **bit** is the smallest unit of data in a computer. Bit has a single binary value, which means it is either a 1 or a 0.Eight bits make up one **byte**, which is the basic unit that computer memory is measured in.

One byte stores approximately one character, such as a letter, a digit, or a symbol. Each character is represented by a combination of 1's and 0's.

If you type the word <u>devices,</u> it would require six bytes of memory to store it in a document.

The other units of measurement used for computer memory are kilobyte, megabyte, gigabyte and terabyte. If you type half a page of text, it would require roughly, 1,000bytes of memory, which is approximately on kilobyte.

Likewise, a large document containing 500 pages would be roughly 1,000 kilobytes, which is approximately one megabyte.

A folder containing 1,000 such documents would be approximately 1,000 megabytes, which is approximately one gigabyte.

The largest unit of memory in use is a terabyte (TB), which is approximately 1000 gigabytes, or approximately 1 million megabytes
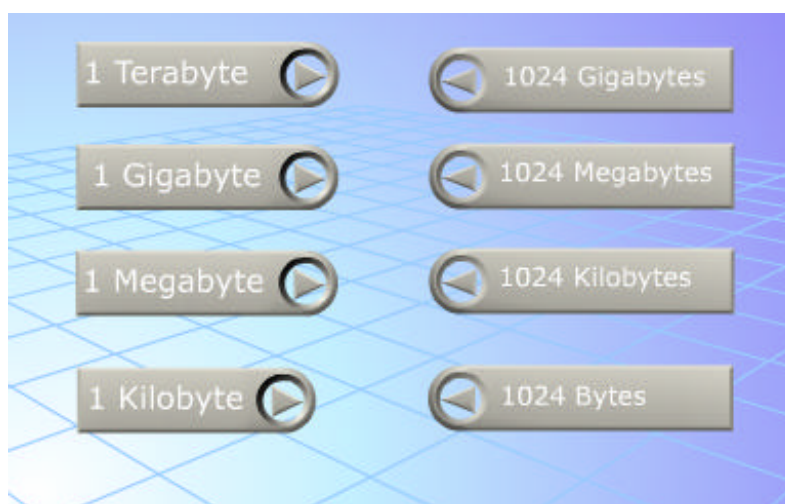
Input Devices

To use your computer you must be able to tell it what to do. There are various devices, called input devices, used to enter this information including keyboards, mice, trackballs and touch pads.

On most computers, a **keyboard** is the primary text input device in addition to containing a standard arrangement of alphabetic keys and numbers, the keyboard also

contains standard function keys, such as the ESCAPE key, tab and cursor movement keys.

The computer keyboard uses the same key arrangement as the mechanical and electronic typewriter keyboards that preceded the computer.

A **mouse** is a handheld device, connected to the computer by a cable, or through wireless technology. As you push or click the mouse, the movements are converted into movements on the screen. A mouse can point to a place on a display screen, position a cursor, drag and select.

There are many alternatives to the mouse. The **trackball** is essential an upside –down mouse that can be rotated in place within a socket. It is usually located in front of the keyboard towards the user

A **touch pad** is another mouse alternative for pointing on a computer display screen. A touch pad works by sensing the user's finger movement and downward pressure

A **joystick** is a pointing device that is usually used to play computer games. It consists of a base, a vertical stem for specifying direction, and control buttons to activate various software features.

A light pen is an input device shaped like a pen, and connected to a computer monitor. By pointing to a specific area on the screen and pressing a clip no the side of the pen, you can select items or choose commands.

A **digital camera** photographs images that can be fed directly into your PC. Unlike regular cameras, digital cameras don't use film. Instead, they store images on memory cards or rewriteable optical disks. You can connect a DC to your PC by using a variety of connections types, such as USB, serial, or fire wire connections.

A **scanner** is an input device that copies an image such as a photo or newspaper cutting, and creates either a graphic or word processing file of the scanned image or text. A scanner operates lie a photocopier, with a glass top for placing the photo on , and you can connect it to your PC by using a USB or serial connection.
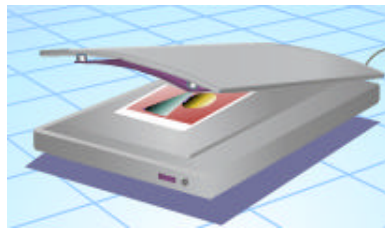
Microphones can be used by people who have a difficulty interacting with their computer through other input devices, for example those with impaired extremities or other physical limitations. Your computer must have speech recognition software installed to use a microphone as an input device.

Output Devices

An output device is anything that allows you to se the results of processing carried out by your computer. The most common output devices are **monitors or video display unit (VDU)** and printers.

A **printer** is a device that accepts text and graphic output from your computer and transfers it onto paper. There is a wide range of printers available, varying in size, speed, sophistication, and cost.

Printers can be either impact or non-impact printers. The dot-matrix printer is a popular, low-cost printer. It's an impact printer that strikes the paper a line at a time and can be used to print large reports on multi-part part

Inkjet printers are the most well-known non-impact printers. The inkjet sprays ink from a cartridge at very close range to the paper as it rolls by. Inkjet printers usually print in colour and can print graphics.

The laser printer, which is also non-impact, uses a laser beam reflected from a mirror to attract ink, or toner, to selected paper areas as the sheet rolls over a drum. Some laser jet printers can print graphics, but in the standard office environment are used mostly for standard text printing tasks.

There are many other output devices available, including speakers, plotters, microfilm, and speech synthesizers. With a sound card, and the appropriate software and disk drive, you can listen to audio recording through speakers or headphones.

A plotter is a device that draws line-based graphics using a pen. Plotters can draw lines more accurately than printers, but they tend to be more expensive. They are often used in the engineering industry where precision is vital.

You can use microfilm to record sequential images. The images are recorded on a thin strip of film that can be magnified and viewed.

Speech synthesizers are used in conjunction with specific software to produce "spoken" words.

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Your computer can produce many different types of output, and there are many different devises on which you can read this information.

Input and Output Devices

A touch screen is an example of an Input/output device. This device is a computer screen designed or modified to recognize the location of a touch on its surface. By touching the screen, you can make a selection or move a cursor.

The simplest type of touch screen is made up of a grid of sensing lines, which determines the location of a touch by matching vertical and horizontal contacts.

Storage Devices

The hard disk is a storage device that provides relatively quick access to large amounts of saved data. Today's computers come with one or more hard disks that contain several billion bytes, or gigabytes, of storage.

There is a range of additional storage devices available, including diskettes or floppy disks, CDs and DVDs, external hard disk drives, and removable cartridges or digital tapes.

Floppy disks are $3^1/_2$ inch, high density diskettes that can be inserted into your computer. loopy disks can store up to 1.44 megabytes, and are often used to transfer files from one computer to another.

When you use a floppy disk for the first time, it is a good idea to format the disk. This divided the floppy disk memory into usable sections for storing information, making it operate more efficiently.

Zip disks store 100MB or 250MB per disk, depending on which zip drive you have. Zip disks are more expensive than floppy disks, but a single zip disk can store more information than the amount of floppy disks you could buy for the same price. You need a zip drive to use a zip disk.

CD's and DVD's can be used for recording, storing, and retrieving audio, text, graphic, and video information. CDs can store 800MB of information. Single –layer DVD's can store up to 4.7 GB of information. Dual –layer DVD's can store 8.5 GB, OR 9.4GB of information depending on the format.

An external hard disk drive offers storage capacity ranging from 40GB to 320GB.It is connected to your computer using a USB or a Firewire connection. This offers you increased hard disk capacity without having to open up your computer case.

You can backup all the data on your computer suing a digital tape. At the end of each day, you can insert the digital tape into a special drive in your computer and save all the of the computer's data to the tape. This allows you to recover any data lost from your computer in the event of a disaster.

When choosing which storage device to use to save data, you should consider the importance and the size of the data, as well as the speed at which you want to record it at and how much money you want to spend.

Review

In this lesson, you learned:

- [ ] How the CPU processes data.
- [ ] How types of memory work.
- [ ] What storage devices are.
- [ ] What input and output devices are available.
- [ ] How input and output devices work.

Test 6

Question 1

The CPU is a silicon chip and is sometimes called a------- chip.

Question 2

Which one of the following is an input device?

A.	☐ Monitor.
B.	☐ Trackball.
C.	☐ Printer.
D.	☐ Plotter.

Question 3

You need to print a large amount of text and want to do it as economically as possible. From the printer types listed below, choose the one that would be most suitable.

A.	☐ Inkjet.
B.	☐ Laser.
C.	☐ Dot-matrix.
D.	☐ Any nonimpact printer.

Question 4

What is a plotter used for?

A.	☐ Inputting an image into a computer by means of a light sensitive device.
B.	☐ Drawing charts, diagrams, and other line-based graphics.
C.	☐ Converting drawings and diagrams into digital format.
D.	☐ Printing any computer output.

Question 5

Digital cameras use film to capture digital imagery?

A.	○ True
B.	○ False

Question 6

A touch screen is a good example of an input and output device?

A.	○ True
B.	○ False

Computer Software

In order for computer hardware to function, it must be given instructions. These instructions are provided by computer programs, also known as software.

There are two types of software, operating system software, and application software.

System development is the process of creating a new computer-based system when existing hardware and software are in adequate for your needs.

In this lesson, you'll learn to:

☐ Distinguish between operating system software and application software.

☐ Identify the main functions of operating system software and application software.

You will also learn how to explain the standard approach to system development.

Types of software

Operating system software manages and controls all other application software on the computer, and controls basic functions of the computer and its hardware devices. Examples of operating system software include *Microsoft Windows* and *OS X (Ten)*

Application software consists of programs that perform specific tasks, such as word processing, accounting, or creating presentations. Examples of application software include *Microsoft Word* and *Adobe Photoshop*

Operating System Software

An operating system is composed of software that is necessary top run your computer.

Traditional operating systems, such as **disk operating system (DOS),** were text-based, and usually consisted of commands you had to remember, and computer responses that were very brief.

Most modern operating systems, such as Windows *Vista* and *Windows XP,* have a user-friendly **graphical user interface (GUI)**

When you install a piece of application software on your computer, it usually uses the elements of the GUI that come with the operating system, and adds it own graphical user interface elements, A GUI sometimes uses metaphors for objects familiar in real life, such as the desktop, or the view through a window.

Elements of a GUI include such things as windows menus, buttons, scroll bars, icons, an wizards.

With the increase use of multimedia as part of the GUI, sound, voice, motion video, and virtual reality interfaces seem likely to become part of the GUI for many application, GUIs

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are easier to use, faster, and accommodates better organization of your applications and files than traditional operating systems.

Application Software

Application programs are programs designed to assist you in carrying out a specific task on your computer. Most computers have applications installed that allow you to edit documents, create databases and graphics, and work with multimedia presentations.

Word processing Application

You can create virtually any text-based document using a word processing application, such as **Microsoft Word©.** Word allows you to enter text and manipulate the format of that text to suit your requirements

For example, you can adjust font size, type and colour, use templates to create letters, memos and CVs, and import images from other applications.

Spreadsheet Application

Microsoft Excel© is a spreadsheet application that allows you to carry out general bookkeeping tasks by using cells to organize data values, with the relationships between these cells defined by formulas that you can set.

Database Application

Microsoft Access™ is an application that allows you to create computerized databases. A database is a collection of information that is related in some way, such as a list of all employee's names and telephone numbers.
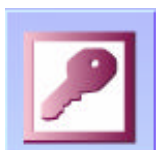
Presentation Packages

Presentation packages, such as **Microsoft PowerPoint©**, allow you to create presentations in an efficient and visually appealing manner, which you can print or display as a slide show.

Payroll packages

Payroll packages, such as **Sage Payroll©,** perform operations that simplify otherwise laborious payroll tasks.

There are a wide range of applications, such as Deluxe Paint, that allows you to create graphic images.

Desktop Publishing Application

Desktop publishing applications allow you to create materials for publication, such as newsletters, pamphlets, and Web pages. These applications include *Adobe© Photoshop*©, which allows you to create and manipulate existing images,

and *QuarkXPress*©, with which you can design page presentations

Some applications, such as *Adobe Flash*©, allow you to create multimedia presentations, with sound, text, and moving graphics. Modern application programs allow you to create, process, and present material in a multitude of ways.

Web Browser Application

Your **Web browser** is also a software application that is released as a product and must be installed on your computer. A web browser enables you to view pages on the World Wide Web or your company Intranet, and also enables you to view HTML pages that you may have created or saved on your computer.

The most common browsers in use are *Mozilla Firefox©* and *Microsoft Internet Explorer©*

Software Application

When a software application is developed, it is released as a version 1.0 of the application. When new functionality is added and known problems or bugs have been fixed, the next version of the product is released.

Depending on whether it is a major release with lots of new functionality added to the product, or just some minor updates to the software package, it will be named version 2.0, with each minor update using the format 2.1, 2.2, 2.3 and so on.

Systems Development

Computer systems are created to provide new, computer- based ways of performing tasks. The process of creating a computer system is known as systems development.

A good systems development process should involve four stages:

- ? Research
- ? Analysis
- ? Programming
- ? Testing

Research entails examining the needs of the different types of potential users who will work with the computer system. It involves a system analyst talking to these users to determine what exactly they want the new computer system to do. At this point the analyst may decide may decide that a computer system is not the appropriate solution.

If after the initial research a computer system is deemed appropriate, the next stage is to analyze the user's exact requirements more closely and then create a general design of the required computer system

After this stage of the system's development, communication between the analyst and the users is vital. The users need to examine the design to ensure the analyst interpreted their needs correctly. Slight modifications may be carried out before all the users agree that the new system will meet their requirements.

Once the design is finalized, the programming stage begins. The design is handed over to a computer programmer who then develops an appropriate computer system.

Finally, the new system should be tested before implementing it in the user's actual environment. In the testing stage, a selected group of users identify specific problems with the computer system, which can be resolved by the programmer

This stage may involve numerous changes to the computer system before it is finalized and handed over for use.

Systems development may also involve the utilization of new hardware, in addition to software. In any case, a structured approach to system development ensures that an efficient computer system is developed in an efficient manner.

Review

In this lesson, you learned to:

☐ Distinguish the different types of software your computer runs.

☐ Identify the main functions of operating system software and application software.

☐ Describe the standard approach to systems development.

Test 7

Question 1

Software that manages and controls the hardware resources on your system is known as:

A.	☐ Managing inventory software.
B.	☐ Application software.
C.	☐ Operating system software.
D.	☐ Hardware software.

Question 2

You want to create a letter using your computer. What type of software will you need installed on your computer.

A.	☐ Only application software.
B.	☐ Only operating system software.
C.	☐ Neither application software nor operating system sof
D.	☐ Both application software and operating system softw

Question 3

An operating system that features windows, menus, buttons, scroll bars, icons and wizards is called a _____.

Question 4

You are working in systems development and you have developed a programmable solution to the user's problem. That solution now be:

A.	☐ Implemented immediately.
B.	☐ Researched further.
C.	☐ Tested in the user's actual environment.
D.	☐ Tested in a dummy scenario before being implemented.

Question 5

Match the following lists of system development stages.

1. Programming	a) Talking to potential users about their needs
2. Testing	b) Create a computer system
3. Research	c) Create a general design for the required computer system
4. Analysis	d) Identify specific problems with the computer system

Computer Network

Networking is an important aspect of the modern computer environment, allowing people and companies to communicate and share resources quickly and cost-efficiently. Connecting networks to another propelled the information revolution forward with the creation of the Internet

In this lesson, you'll learn about:

☐ Two types of networks, LANs and WANs.

☐ About intranets and extranets.

☐ About the advantages of the Internet.

☐ About the role of the telephone network in computing.

☐ About high-speed connections.

Local and Wide Area Networks

In order for computers to communicate with each other and share resources, they must be connected together. Connected groups of computers are called networks and these are usually either local area networks (LAN), or wide area networks (WAN)

A LAN is a group of computers and associated devices that are linked together and typically share the resources of servers and printers within a small geographic area, such as a single office building.

A WAN is a far more geographically dispersed network than a LAN. A WAN can be one large network or a number of linked LANs. Computers connected to a WAN are connected through public networks, such as the telephone system's with LANs, WAN users share applications and resources

There are many reasons why networking is useful. The LAN or WAN server, also known as the network server, can store application programs and data resources. Multiple users can share these programs and resources through client computers. Sharing resources over a network server can make it a lot less expensive to equip individual computers with software. Users who frequently need to use a specific application can download it once from the network server, and then run it from their local hard disk. Users can request printing and other services as needed through applications run on the network server. A user can share files with others on the network server.

LANs and WANs enable network users to communicate and share resources effectively. They are based on client/server technology. In a typical LAN, such as an office building, each user's computer is a client and they can communicate with other clients via the server. The server also enables each user to connect to a WAN or the Internet, by linking to other servers, either in the building, or a remote server in another city or country.

Intranets and Extranets

An **intranet** is a network designed for information processing within your company or organization. It enables you to use such services as document distribution, software

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distribution, access to databases, and training. You can also access applications associated with the Internet, such as Web pages, Web browser, FTP sites, e-mail, newsgroups, and mailing lists.

An **extranet** is an extension of your corporate intranet. However, an extranet lets your customers, for example, have access to your products or databases from outside the company. They can do this by using the World Wide Web, and by logging on with a user name and password.

An intranet enables you to access your company websites and files only, whereas the Internet enables you to access the websites of other organizations and more, as long as you know the website address or can use a search engine such as Google™.

The Internet

Internet is short for Inter-network, and as such any set of interconnected networks that can exchange information. It is a public, cooperative, and self-sustaining facility accessible to hundreds of millions of people worldwide. Physically, the Internet uses a portion of the total resources of the currently existing public telecommunications networks. The two most popular uses of the internet are e-mail and surfing the Web.

For many Internet users, e-mail has practically replaced the Postal Service for short written communications

Sending an e-mail usually costs less than the price of a stamp. You can also carry on live "conversations" with other computer users, using Internet Relay Chat (IRC).More recently, Internet Telephony hardware and software allows real –time voice conversations. One of the mostly used parts of the Internet is the World Wide Web (www).The Web consists of the vast collection of information stored within Web "sites", made up of Web "pages", which are files formatted specifically for the Web, such as HTML files.

The computers hosting this information run software called Web "servers", which make the information available to Web "browsers", programs used by individual to visit Web sites, an actively often referred to as "surfing the web". Surfing the web is made possible by and large through "hypertext", a method of instant cross-referencing. In most Web sites, certain words or phrases appear in text of a different colour to the rest and often this text is also underlined.

When you select one of these words or phrases, you will be transferred to the site or page that is relevant to this word or phrase. Sometimes there are buttons, images, or portions of images that you select with your mouse on a Web site and transfer from there to another site.

Once you have accessed the Web using a browser, you can use a search engine, such as Google™ or Yahoo® to help you find particular sites. Search engines are graphic interfaces that you can use to search for site using its Web address, or keyword.

The Internet provides on-line users access to a practically unlimited amount of information vie the www, and allows users to contact one another cheaply and easily via e-mail.

The Telephone Network in Computing

Telephone technology, or telephony, is used in the modern computer environment to connect computers. For example, when you download information from the internet to your computer, the data travels over a Public Switched Telephone Network (PSTN). The PSTN provides much of the Internet's long distance infrastructure. Internet service providers (ISP), pay the long distance providers for access to their infrastructure and share the circuits among users.

The PSTN operates using analog technology. Analog technology is based on a signal that is continuously varying in strength or quantity, such as voltage. Digital technology is based on discrete units, expressed as the binary digits 1 and 0.Today PSTN is being replaced by the Integrated Service Digital Network (ISDN), which is a system for digital telephone network communication. ISDN is similar to PSTN except that it is digital technology at higher data rates with a much lower connection time. It also offers multiple channels. Both analog and digital technologies require physical cables.

Satellite communications function on wireless communication via satellites. A satellite is a specialized wireless transmitter that is launched into space and placed in orbit around the earth.

There are hundred of satellites currently in operation. They are used for such diverse purposes as weather forecasting, television broadcast, amateur radio communications, Internet communications, and the Global Positioning System (GPS).

Telephony facilitates voice, fax or modem transmission. A **fax** is the telephone transmission of a scanned –in printed material, usually to another fax machine. The original document is scanned with a fax machine, and converted to digital form as a single fixed graphic image. In this digital form, the information is transmitted as electrical signals through the telephone system. The receiving fax machine reconverts the coded image and prints a paper copy of the document.

A **modem** is a piece of hardware that allows computers to communicate using telephone lines. A modem converts outgoing digital signals from a computer or other digital device to analog signals. These analog signals can travel over a conventional telephone line to the required destination. The receiving modem converts the incoming analog signal to a digital signal for the receiving computer.
Baud is a measure of data transmission speed, most commonly used for modems. The baud rate is the number of events, or signal changes, that occur in one second. However,

a modem's performance is more accurately measured in bits per second. This is because one event can transmit multiple bits in one second.

PSTN, the standard telephone network, is used by the computer industry to connect computers, and in some situations is replaced by s a faster, digitally upgraded network called the ISDN

High Speed Connections

ADSL stands for asymmetric digital subscriber line. ADSL offers you an economical means of substantially increasing bandwidth in residences and small offices. With ADSL, you can use the telephone and PC at simultaneously without a second line; this means that the next time you log on to the Internet, your telephone line will not be engaged. Moreover, because you're transferring data back and forth at higher rates, you'll notice the difference when you play interactive games, work remotely, attend a video conference.

ADSL offers you speed and convenience. ADSL saves you time by giving faster downloads and uploads. This means that you can send and receive larger files than was practical with dial-up connections. To differentiate from a dial-up connection, the term "Broadband connection" is commonly applied to ADSL and similar technologies. Another benefit of a broadband connection is that it's "always on", and allows you to receive data while you're away from your computer.

Review

In this lesson, you learned:

☐ About two types of networks, LANs and WANs.

☐ About intranets and extranets.

☐ About the advantages of the Internet.

☐ About the role of the telephone network in computing.

☐ About high-speed connections.

Test 8

Question 1

Networking can be cost-effective because client computers can share resources using a network server.

A.	○ True
B.	○ False

Question 2

The performance of a _____is often measured in baud or bits per second (bps).

Question 3

The Internet is most commonly used for e-mail and surfing the World Wide Web.

A.	○ True
B.	○ False

Question 4

An intranet is a network designed for information processing within your company or organization.

A.	○ True
B.	○ False

Question 5

An extranet is an extension of:

A.	☐ The corporate intranet.
B.	☐ The corporate network server.
C.	☐ The corporate broadband.
D.	☐ The corporate printers.

Question 6

With ADSL, you can use the telephone and PC simultaneously without a second line.

A.	○ True
B.	○ False

Maintenance

To start with a computer it must have all the correct parts connected and power, have an operating system to function; and it must be properly maintained for prolonged trouble-free use. To keep a computer working when problems arise, you should know what to do to get to the bottom of them.

In this lesson, you'll learn:

☐ How to connect the parts of your computer system to one another and to the power supply.

☐ About the functions of an Operating System and other system software.

☐ What procedures to follow when problems do arise.

Hardware Set Up

A number of simple connections need to be made in order to set a computer for first time use. First, check that both the base unit and the monitor have power cables attacked to their power sockets, and that the cables are plugged into the live electric sockets.

In a case of a laptop computer running on mains power, you will only need to connect the charger pack to a power supply.

Next, ensure that the monitor is connected to the base unit of the computer. If you have a printer which you wish to connect to your computer, ensure that it too is connected to the electricity supply via a power cable, and that it is then connected to the base unit of your computer.

Once you have connected all appropriate devices to the electricity supply, and to each other, the final steps before you switch everything on are to attach the mouse and the keyboard to the computer's base unit. The connections for a mouse or keyboard are often USB or PS/2 but can sometimes be designed for a serial port, especially when dealing with older equipment.

Power socket

Power cable

Monitor to CPU

Charger Pack cable

USB

PS/2

Now that everything is connected to the power supply, and all devices required to make the computer operate fully are connected to one another, you can turn on the various

parts of the system. Start with the monitor, followed by the base unit, and finally the printer.

System Software Management

In the previous lesson you were introduced to the various types of hardware that make up a typical computer system. In the previous topic of this lesson you learned about a simple set-up so that a computer system and some of these component hardware parts can be switched on and allowed to communicate with each other.

In this topic you will learn about the instructions that facilitate this communication, and manage the hardware of a computer. This topic deals with system software, which in turn has two levels:

- ？ Basic Input/Output System (BIOS)
- ？ Operating System (OS)

BIOS

The BIOS is the series of instructions, known as "routines", which enables the CPU to start functioning once the base unit of the PC has been switched on. You may have assumed that this was the job of the operating system. The reason it isn't is quite simple:

- ？ The OS is loaded or installed on the computer's hard disk, one of the devices that is switched on by the CPU.

The BIOS has a number of functions to carry out, including the loading of devices drivers, which are pieces of software enabling the CPU to communicate with installed hardware devices .When the computer is turned on or "booted", the BIOS conducts a "power-on self-test" (POST) to check that all hardware components in the system are working properly.

The BIOS activates other BIOS chips on cards installed in the computer, for example, graphics cards often have their own BIOS chips; and it also performs a set of low –level routines that the operating system (once loaded) uses to talk to the different hardware devices such as the keyboard, monitor, and communications ports.

There are other functions of the BIOS such as maintaining the system clock, but the BIOS most important and main and most obvious role is **to start the process of loading the operating system** itself from the computers hard disk.

The purposes of an operating sytem, such as Windows VISTA, XP or Mac OS X, are to organize and control hardware and software so that the computer behaves in a flexible but predictable way. Another function is to provide a way to make changes to how the computer operates through manipulation of its code.

Functions of Operating System

There are many functions of an operating system. Over the following pages we will outline some of the more important ones.

Functions of Operating Systems

1. Processor Management
2. Memory Management
3. Device Management
4. User Interface
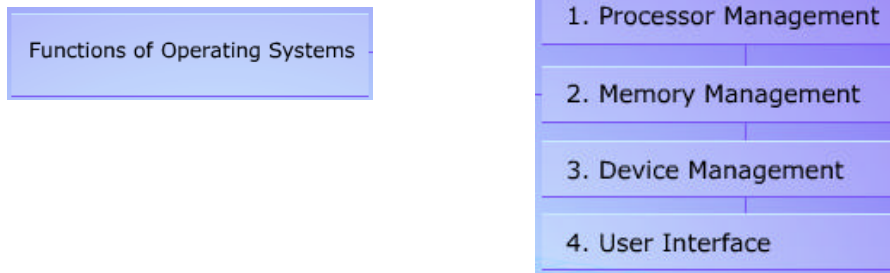
Processor Management

First of all, the OS ensures that all software running on the computer receives enough of the CPU's time to function properly. This is especially important when a computer has many programs open at once.

Memory Management

As with its management of the processor, the OS manages the allocation of available memory for all software attempting to run on the system. The system memory (RAM) must be used properly so that each software "process "can run most effectively.

Device Management

The OS manages the hardware devices that are not on the system motherboard through special pieces of software called "devices drivers". Their main role is to translate the electrical signals of the devices into data that the OS and application software can understand, and vice-versa.

One reason why drivers are separate from the operating system is so that new functions can be added to the drive, and therefore the hardware itself, without requiring the operating system itself to be updated and reinstalled.

In doing what it can to manage the competing demands made upon the CPU by various devices, the OS uses special storage facilities known as queues and buffers. When the CPU is under pressure, the OS instructs a buffer to take input from a device, such as a keyboard, and hold onto this input until the CPU can start to accept it and at a rate it can handle.

User Interface

Up to now we have been learning about the functions of an operating system which as far as the computer user is concerned are functions which happen " behind the scenes" and are not readily obvious to the user. The one OS function which users are always aware of is the provision by the operating system of a user interface.

A user interface (UI) brings structure and rules to the interaction between a user and the computer. In recent years almost all development in user interfaces has been in the area of the graphical user interface (GUI).All Windows, Mac NAD most variants of the Linux operating systems use a GUI. The first Microsoft OS, MS-DOS (Microsoft Disk Operating System) was text –based.

When you install a piece of application software on your computer, it usually uses the elements of the GUI that comes with the operating system, and adds its own graphical user interface elements. A GUI sometimes uses metaphors for objects familiar in real life, such as the desktop, or the view through a window.

GUIs are easier to sue, faster, and accommodate better organization of your applications and files than traditional operating systems. In the eyes of the eyes of the computer user, the GUI effectively becomes the operating system, but as you have learned, there is so much more to the OS than the user interface.

Resolving Problems

Operating systems by their nature are replaced by a successor once every few years, for example, Windows 2000 was replaced by Windows XP, and this is in turn been replaced by Windows Vista.

Within the "lifecycle" of an operating system however, it is regularly updated to eliminate bugs, close security holes, or to add new features and tools. These updates to an operating system can be small and affect only part of the OS, or they can be major updates to the entire OS, in which case they are known as "Service Packs", at least as far as Windows is concerned. Updates often include new hardware device drivers, security patches, language support packs etc. and can be made available via CD, or as a download from the Web.

It is very important that you understand how to apply an update properly and safely. In a work environment with IT support available it is standard for the support staff to carry out such updates. If attempting to install updates yourself, ensure that you follow all instructions carefully.

When you encounter difficulty with any aspect of the functionality of your PC both alerts you to a problem, and provides suggestions for its resolution. Errors can be indicated by: bleep tones, especially during system start-up: flashing lights on the hardware devices: "frozen" screen display or cursor, or most helpfully, on –screen messages in Windows itself.

Programs with an error preventing the continuation of normal operations may close down uninstructed, the screen may go blank, or an error message offering a choice of ending the program or waiting for error to resolve itself may appear. Should you choose to end the program, the chances are you will lose all unsaved data, so remember to save regularly.

Peripheral devices such as a scanner or a printer connected to your computer may sometimes stop responding. Check that all cables are securely inserted and that power supply is uninterrupted.

In the case of a printer, ensure that there is paper and toner available to do the job. If the problem persists, restart your PC and all devices. Should the problem still persist, call for IT support.

In the workplace, getting IT support is usually straightforward; there is either a person or team in-house, or an outside company that is contracted to provide support. Either way, IT support will have problem-reporting procedures in place, and you should help them to help you by taking note of any error messages, and also of what you were doing when the error occurred.

No matter what computer errors occur, there is no reason to ever lose more than a small amount of work as long as you are saving to the hard disk or server regularly. What happens however when there is a total system failure from which recovery is impossible? In that case, you had better hope that there is a system in place for backing up data.

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It is essential that organizations have an effective back-up strategy that ensures that all important data is copied and stored safely, preferable off-site. This way, even if disaster strikes, there is a way of restoring all business-critical data reasonability painlessly; with very little work lost. You will learn about backing up data in the Security lesson later in this module.

Review

In this lesson, you learned:

☐ How to connect the parts of your computer system to one another and to the power supply.

☐ About the functions of an Operating System.

☐ About the Basic Input/Output System or BIOS.

☐ About what procedures to follow when problems arise.

Test 9

Question 1

Software that manages and controls the hardware resources on your system is known as:

A.	☐ Managing inventory software.
B.	☐ Application software.
C.	☐ Operating system software.
D.	☐ Hardware software.

Question 2

An operating system that features windows, menus, buttons, scroll bars, icons and wizards, is said to use a_____.

Question 3

What does the abbreviation POST mean in the content of system software?

A.	☐ Pre-Operational System Test.
B.	☐ Power-On Self-Test.
C.	☐ Preconfigured Operating System Test.
D.	☐ Power Operation System Token.

Question 4

True or false, the operating system loads the moment the computer is switched on.

A.	○ True
B.	○ False

Question 5

What is the difference between a software upgrade and a service pack?

A.	☐ A software update is an update to software, whereas a service pack is an update to hardware.
B.	☐ A software update is downloaded and installed automatically whereas services packs are provided by IT-support and installed manually.
C.	☐ A software update happens at the same time every month, whereas a service pack happens irregularly.
D.	☐ A software update is applied to a single piece of software whereas a service pack is applied to an entire operating system.

Question 6

Which of the following are examples of an operating system? Select all that apply.

A.	☐ Microsoft Works
B.	☐ Mac OS X
C.	☐ Linux
D.	☐ Microsoft Vista

System Analysis

Microsoft Windows provides the user with a number of tools which can be used to get the source of a problem. System tools such as the Device Manager NAD THE Task Manager allow you to investigate a problem before deciding upon what is required to solve it.

In this lesson, you'll learn about:

- The Windows Control Panel.

- The Hardware Device Manager.

- Windows Task Manager.

- Various icons used to indicate different storage areas available on a computer system.

Device and Task Managers

If you find yourself without the safety net of easily-accessible IT support, there are ways in which to help yourself. For example, should you behaving trouble with a hardware device, you can access the Device Manager within Windows to look into the problem.

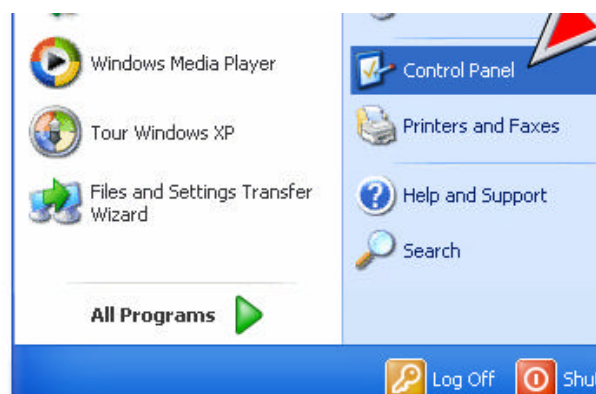? Click start and click Control Panel

If control panel is set to appear in Category view,

? Click the Performance and Maintenance link
? Click System link

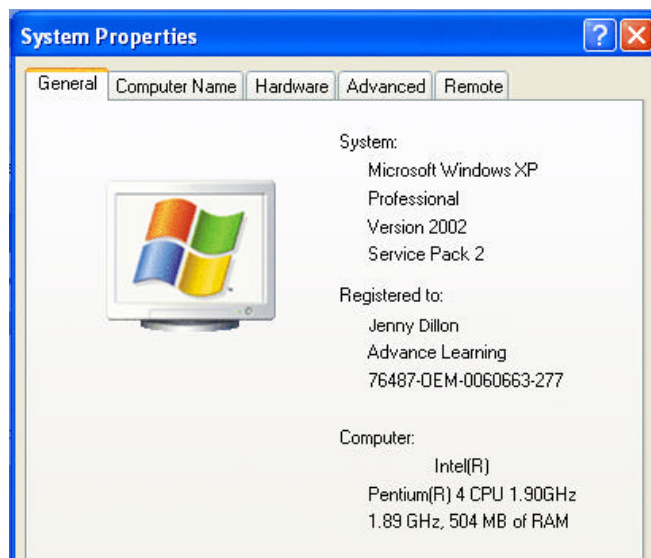The Control Panel is set to Classic view and the Systems icon is immediately visible.
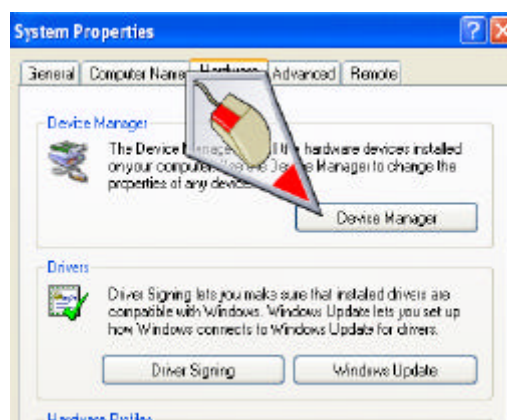
? Double click the System icon.

The System Properties dialog box appears , with the General tab active.

? Click the Hardware tab

? Click the Device Manager button

Let's assume you are experiencing a problem with your connection to the local network. In the hope that you can eliminate the possibility that your network card is at fault you will want to examine the "Network adapters" section.

? Click the small plus-sign to the left of Network adapters

All installed network cards are shown underneath the "Network adapters" title. There is usually only one per system but there can be more.

? Right –click on the network card shown (This will be done for you)
? Select Properties
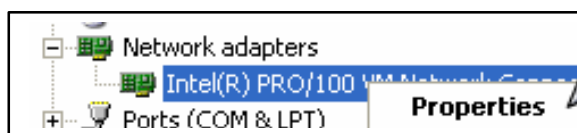
The network card Properties dialog box opens. The Device status section under the General tab will tell you whether the device is working or not. If it is not working, you should click the Troubleshoot button, and follow the instructions to try and resolve the problem, elsewhere.

? Click Cancel to close the dialog box.
? Close the Device Manager by clicking the red Close button.
? Close the System Properties dialog box by clicking the OK button

The Control Panel window is still open. The icons shown within Control Panel all represent areas of the computer system that can be modified or repaired, including printers, network connections, and as you have just seen the performance and maintenance areas of the system. You can also adjust basic settings such as sound, date and time using the tools available here.

If a program or application stops working or responding to your commands, you don't need to call IT support to help you fix the problem. The Windows Task Manager will allow you to close down a program that's stopped responding. To open Task Manager you press three keys simultaneously.

? CONTROL (CTRL)
? SHIFT
? ESCAPE (ESC)

Other ways to open Task Manager include:

? right-clicking on the Windows taskbar along the bottom of the desktop
? and choosing Task Manager from the menu, and pressing CONTROL,ALT and DELELE together.

If your computer is part of a network however, this can then open the Windows Security box from which you can then open the Task Manager by clicking the Task Manager button.

Once opened Windows Task Manager lists all running applications under the Applications tab. The status of an application is either "Running" or "Not responding". You can choose to close an application by selecting it from the list, and clicking End Task button
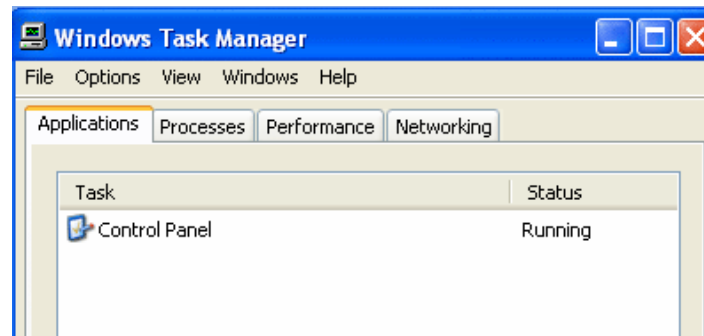
Drive Icons and Storage

A modern PC is configured to make a number of locations available for data storage. Even for computers unconnected to a local or wide‑ area network there are a number of options available for storing files and folders.

There are a variety of storage options beginning with:
- the internal disk drive usually called "Local Disk C",
- and secondary disk drives, such as CD/DVD drives
- a Zip disk drive
- 3 $\frac{1}{2}$ inch floppy disk drive.

Although Zip and floppy disk drives are becoming rare , and are not installed on newer PCs. What has largely replaced the use of ZIP and floppy disk drives is the use of removable storage media such as portable USB Flash drives with capacities of anything up to 16GB now common and external hard disk drives, with capacities in excess of a Terabyte now available

USB Flash drives are very small and have largely replaced floppy and Zip disks as a method of quickly and easily transferring files from one computer to another. Almost all modern computers have at least one USB port into which the USB Flash drive can be inserted.
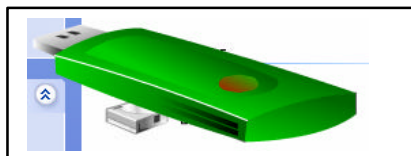
When a USB Flash drive is plugged into your PC, an icon of a metal box similar to that shown for a hard disk, but with a curved and open front panel, should appear alongside the icon for the CD/DVD drive. As it is a potable device, Windows consider it to be a "device with removable storage", even though it is not a device from which you can extract a disk or tape.

External hard disk drives are generally used for backing –up the contents of the computer's hard disk, but also used as a secondary storage location for data that won't fit on the primary hard disk. They come in all shapes and sizes and are generally connected to the computer via a USB connection.

The icon used by Windows XP for an external drive is the sane as that shown for the local drive or drives. If you connect the external drive, an icon representing the drive will appear alongside the icon for the internal hard disk.

For a PC that is part of a local or wide-area network, the folders or directories on the network server or other computers on that network can be made accessible to the user of the computer by a network administrator. For easy access to those directories form My Computer, it is possible to "map a network drive".

Just as the computer allocates "A" to the floppy drive and "C" to the local disk, you can create "virtual" local drives by assigning drive letters to folders elsewhere on the network. Once mapped, these folders will then appear within MY Computer as to which you have access.

If a network is unavailable through some network connection issue, the icon will show this through the addition of a red cross over the network cable.

If a network server is down, access to all network drives is unavailable. In addition to connection problems caused by either the server being down, or a hardware fault such as a malfunctioning network card, or cable, there are reasons why it is not always possible to connect to a network drive.

Drives can be secured and their data protected through encryption. In order to access these drives, the network administrator would provide you with a decryption key. Similarly, folders on any drive can be allowed once the correct password is supplied.

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Review

In this lesson, you learned about:

☐ The Control Panel.

☐ The Device Manager.

☐ The Windows Task Manager.

☐ The different storage areas available on a typical PC, and the icons used to indicate these areas.

Test 10

Question 1

What is the purpose of the Windows Task Manager?

A.	☐ To schedule tasks you have to carry out.
B.	☐ To schedule tasks the operating system has to carry out.
C.	☐ To load the operating system.
D.	☐ To provide a way in which the user can monitor and control the activities currently running on Windows.

Question 2

Which of these icons is used to indicate a Network Drive?

A	B	C	D

Question 3

USB Flash can be used to transfer data from any computer to any other computer regardless of how old either computer is?

A.	○ True
B.	○ False

Question 4

What steps would you take to open the Device Manager? List them from 1 to 6

Question 5

Networking can be cost-effective because client computers can share resources using a network server.

A.	○ True
B.	○ False

Working Securely

When using computers it is important that you are aware of the security and legal implications of creating, storing and using data.

In this lesson, you'll learn about:

☐ The importance of backing up and securing data.

☐ The possible implications of the theft of a laptop computer, a PDA, and a mobile or cellular phone.

☐ Computer viruses and the anti-virus measures that you can take.

Understanding Security

Data stored on computers can be vulnerable. Sometimes it can be lost if the equipment, such as when the computer crashes. Other disasters could involve an intruder gaining access, the computer being stolen, viruses, or physical disasters such as fire or flood.

One important way to protect your computer against catastrophe is to back up your data. **Backup** involves copying files or databases to other storage devices. This way, if disaster occurs, you then have a duplicate copy of the information stored on the computer. Local backup could involve copying files onto a diskette or a zip disk.

Businesses and companies, however, usually back up data to **removable tapes** such as DAT or DLT. These will then be removed regularly to an off-site location for storage. Then, if the data on the company's computers is irretrievably lost, it can still be restored using the backup copy.

When a power cut occurs, the data stored in the computer's random access memory (RAM), is erased. You should regularly save your work in case a crash occurs, but even then it's likely that you will lose some data.

An **uninterruptible supply (UPS)** prevents the potential damage of a power cut or a power surge. It contains a battery and an anti-surge device. If power is lost, your computer will continue running from the battery for a period of time, giving you the chance to save your work and to shut down properly.

A number of measures can be taken to secure data on a computer from intrusion. One way is to use **passwords** for your network or computer. Access to the computer and its data will only be given to users who can supply the correct password.

Another way is to set a password on an individual file, or to encrypt the data. **Encryption** involves using a code to convert the file into an unreadable format. That way, even if an intruder gains access to the computer, the data will still be unusable.

Password security is an effective way to protect a computer network against unauthorized access. When you type your password the computer displays a series of asterisks, rather than the actual characters you type, in case others might see it. But be careful when choosing your password- a weak password can undermine your network's security.

You should consider the following guidelines when choosing your password.

- ? Your password should be one which you will easily remember, but not one which can be easily guessed, such as your birthday.
- ? Avoid choosing a word which is in the dictionary-there are programs which can use "brute force" to try every word in the dictionary in order to crack passwords.

Some networks require that your password consist of a combination of letters and numbers, to prevent these attacks. As a further safeguard, many networks will regularly prompt you to change your password.

Laptop computers, PDAs and mobile cellular phones are vital tools for business people due to their portability. With this portability comes an increased security risk which must be taken into account by users of these devices.

Modern laptop computers have data storage capacities that rival many desktop systems. The business laptop of an individual is likely to contain a considerable amount of private and sensitive data, e.g contact lists, e-mails, and confidential files pertaining to the business. This data will be lost if the computer is stolen

Even the PDA, which can be slipped into a pocket, can hold considerable amounts of data. Imagine the problems that losing your business' contact list would cause. These devices are equipped with security tools and it is vital that users become familiar with the use of these tools.

 If you lose your mobile or cell phone the problems could be limited to misuse of your stored telephone numbers, apart from the inconvenience of course. To avoid this you should contact your service provider immediately to ensure your phone is blocked. Unfortunately you have no one to call if your computer is stolen.

It is up to you to take all precautions to ensure that you have backup copies of all software that is installed on your laptop, and that any sensitive data is also backed up in a separate location. You should also password-protected your laptop and PDA and also any private files stored on them.

You should be aware that should you lose a laptop computer containing unsecured client details, e-mails, and confidential information, that the loss may lead to a breach of client confidentiality and may even contravene the Data Protection Act in your country.

Viruses

A computer virus is a malicious program, which is transmitted from one computer to another, usually over networks or on floppy disks. It is called a "virus" because of its similarity to biological viruses; it requires a host, the computer, it is capable of reproducing and transmitting itself and it often results in damage to the host computer.

A virus consists of a code, which is designed to attach itself to flies, make copies of itself, and retransmit itself. All viruses are potentially harmful, but some can result in much more serious damage than others. For example, some viruses can attempt to destroy your computer's hard disk.

Traditionally, viruses could only affect executable files, such as program files. However, in recent years "macro viruses" have emerged, which can affect document files, such as Microsoft Word or Microsoft Excel documents.

Other harmful programs include "Trojan horse" and worm programs, which aren't strictly viruses. A Trojan horse program pretends to be a different type of program. For example,

you might download a Trojan horse program, which pretends to be a game. Once you attempt to run the program, it begins causing havoc in the same way that a virus would. For example, it might delete files on your computer's hard disk.

By contrast, a worm runs independently and spreads of its own will through network connections. A worm is a small piece of software that uses security holes to replicate itself. A worm works by using social engineering, which is a mechanism that tricks you into activating a virus by clicking on a picture, attachment, file, or even using e—mail preview pane. It even disguises itself as someone you know on your e-mail address book.

Viruses can enter your computer system in a number of ways. One of the most common entries is e-mail. A virus can be embedded in a file attached to an e-mail message and can be activated if the file is opened. However, viruses cannot be activated by reading plain e-mail messages.

Often the virus is designed e-mail itself to all of the user's e-mail contacts, without the knowledge of the user. Viruses can also enter your computer if an infected file is downloaded from the internet, or if an infected file is received on a floppy disk in order to prevent damage from viruses, you should consider the following measures.

> ? You should install anti-virus software

There are a number of applications on the market. These applications scan your computer's hard disk to detect any viruses. Install one and update it regularly, as new, more sophisticated viruses emerge every day.

You should use your anti-virus software before opening any e-mail file attachment that you are not sure of, even if the message appears to be from someone you know.

A definite way of ensuring your computer does not get a virus from e-mail messages is to refrain from opening attachments from unknown address or not to open an unknown e-mail message at all.

You should virus scan files you receive on a floppy disk and CD and files downloaded using the Internet. Remember that viruses cannot be activated until the file is opened.

Finally, remember to regularly back up important files. That way, even if a virus does damage your files, you will still have a copy of the original.

Review

In this lesson, you learned that:

☐ Backing up files, using an uninterruptible power supply, and using passwords can help prevent data loss.

☐ The theft or loss of a laptop computer, PDA, or a mobile or cellular phone can have serious security and data-protection implications.

☐ Computer viruses can damage your files, so anti-virus measures, such as installing virus-check software, should be taken.

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Test 11

Question 1

What is a worm?

A.	☐ A piece of software that replicates itself.
B.	☐ A piece of software that stays dormant on CD-ROM's.
C.	☐ A piece of software that destroys network cables.

Question 2

A Trojan horse program pretends to be a different type of program.

A.	○ True
B.	○ False

Question 3

A virus consists of code, which is designed to attach itself to the files, make copies of itself, and retransmit itself.

A.	○ True
B.	○ False

Question 4

Which of the following would be considered the best password?

A.	☐ Something easy to remember, like your date of birth.
B.	☐ Something easy to remember, like a word from the dictionary.
C.	☐ Something easy to remember, consisting only of letters.

Question 5

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What is a macro virus?

A.	☐ A virus that affects only executable files, such as program files.
B.	☐ A program that scans your computer's hard disk for viruses.
C.	☐ A malicious program disguised as a different type of program.
D.	☐ A virus that is hidden in a document file.

Question 6

You have received a virus via an e-mail attachment, but you haven't opened the attachment yet. The virus could be damaging your computer already.

A.	○ True
B.	○ False

Starting Up and Using Your Computer

Before starting work with a computer, it's important to know how to set up and use a work station safely. When you start working with a computer, knowing how to start it and shut it down correctly ensures that any information you enter into it is stored and saved properly.

It is also important that you know about the basic operations of a computer before you can confidently move on to learn about more advanced features.

In this lesson, you'll learn how to:

☐ Set up and use a work station safely.

☐ Start, shut down, and restart a computer.

☐ Set and change the keyboard language.

☐ Install and uninstall new software.

☐ Launch and close a text-editing application.

☐ Use the keyboard print screen facility.

☐ Shut down a non-responding application.

☐ Use the Windows XP Help function.

First Steps with a computer

Although computers may vary in size, shape, make, and configuration, the principles of starting one are basically the same for all computers.

When starting the computer, there are two buttons that must be switched on; the monitor power button and the computer power button.

Firstly you switch on the monitor power button, to prepare for data to be displayed. You'll usually find the monitor power button on the bottom panel of the monitor, or underneath the display screen.

Then you switch on the computer power button, which is usually located on the front of the computer, or base unit.

As the computer starts, it displays information on the configuration of the computer, such as the operating system, memory, and processor used on that computer.

When the computer is ready to go, a Log On screen is displayed. **Logging on** is just like registering to ensure that each user's data and files remain private, each user must log on to the computer individually.

First you enter your user name. A user name doesn't have to be your real name, but it's a unique name that identifies you.

You must also enter a password. A password is a sequence of characters that corresponds with your user name to ensure that you are who you say you are. It is recommended that a password consist of a combination of letters and numbers.

In this lesson, we'll use the word "password" as our individual password. However, you would not normally choose such a weak password that could be guessed so easily by another user.

When you type your password, the computer displays a series of asterisk, rather than the actual characters that you type. This prevents other users form seeing your password. After typing your password, you need to click the OK button.

The next thing to learn is how to shut down a computer. When you **shut down** a computer, all data temporarily held in the computer's memory is then sent or written to the hard disk, where it is permanently stored for future use.

It is impotent that you shut down your computer correctly, as incorrect shutdown procedures, such as simply switching off the computer, may result in loss of important data.
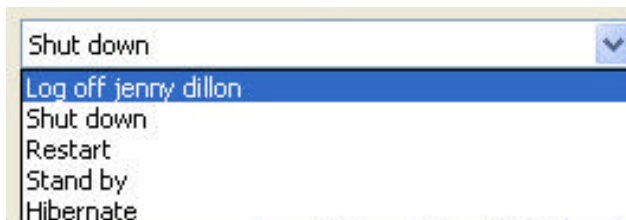
To shut the computer down:
- ?   Click start
- ?   Then click Shut Down

In the Shut Down Window dialog box, Shut down is selected by default. To shut won the computer, click OK

You don't have to perform a full shut down every time you finish work on your computer. If you click the downward arrow on the Shut Down dialog box, five different modes in which a computer can be shut down will be displayed.

```
Shut down                                    v
Log off jenny dillon
Shut down
Restart
Stand by
Hibernate
```

The first option, Log off jenny Dillon, allows the user to log off without shutting down the computer, so that you, or even another user can then log back on the computer almost immediately.

The second option, shutdown, completely shuts down the computer. If configuration or system changes have been made to your computer, in order to apply those changes, you can Restart the computer. With a Restart, once the computer has been shut down, it will then automatically restart, and present the logon screen.

The last two options Stand by NAD Hibernate, switch the computer to a lower power state. Stand by keeps data in the memory while in a low-power state. Hibernate saves your session to the Hard disk but the computer mist then be rebooted.

Covering the Basics

The default **keyboard language** is English; however you can set your keyboard language to your preferred language other than English. To change the keyboard language:

- ? Click Start
- ? Then click Control Panel
- ? Click Date, Time, Language and regional Options
- ? Select Regional and Language Options
- ? Click the Language tab.

Under the heading "Text services and input language"

- ? Click Details
- ? Click the Add button

You can select a language from the drop-down menu under the heading Input language. A keyboard language is also added. Keyboard languages vary to accommodate the special characters and symbols used in different languages.

To enable you to toggle the languages on your keyboard, you can select one of the languages in the drop –down menu under the heading Default input languages. To save the changes you can click OK.

To close, click the Close button to close the Regional and LANGUAGE Options. Close the Window by clicking on the Close button on the title bar.

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Top end an active window

Title Bar   Menu Bar   Standard Tool Bar   Minimize Restore –Down / Maximize   Close

Bottom end of a window

Start Button   Drawing tool bar   Status bar   Task Bar
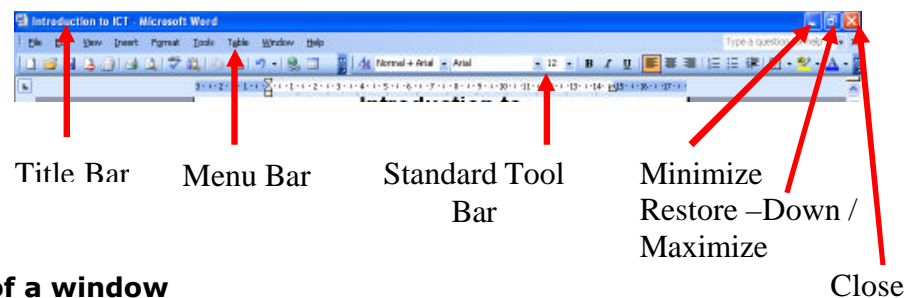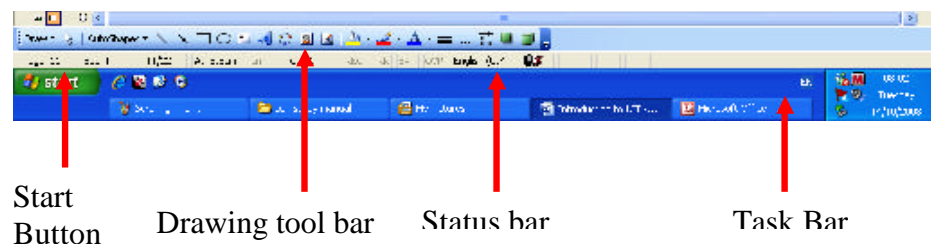
You can **install new software** for your computer from a CD or download from a Web site. When you insert a CD into the drive, it displays a menu screen for installing the software, and usually has a licensing agreement that you must accept before proceeding.

To uninstall existing software from your computer

- ? Click on the Start menu
- ? Then click Control Panel
- ? Under the Pick a category menu, select Add or Remove Programs

A new window will appear. Select the program you want to uninstall by using the scroll bar to move down the list of programs and click on it.
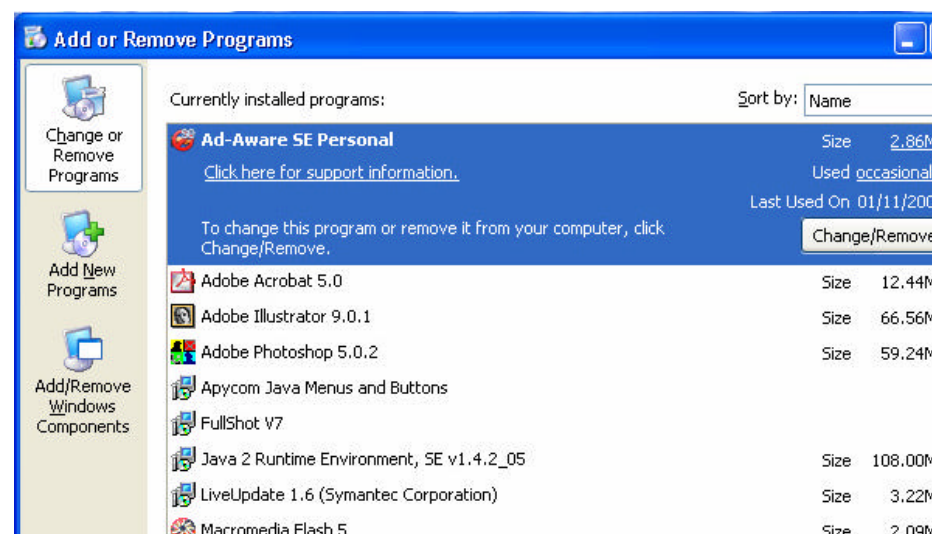
Then click on the Change/Remove option. A confirmation window will appear.

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Click the Close button and then click the Close button at the top right corner of the screen to close the window.

To **launch a text editing application**, such as Word or Notepad

- ? Click Start
- ? Select All Programs
- ? Click on Microsoft Word

You can also launch a text editing application by double-clicking on the existing file such as a .doc or txt file. To open a Word document or a text file:

- ? Click File
- ? Then click Open
- ? Select the file name from the directory
- ? Then click open

You can also launch a text editing application by Right clicking on the Desktop.
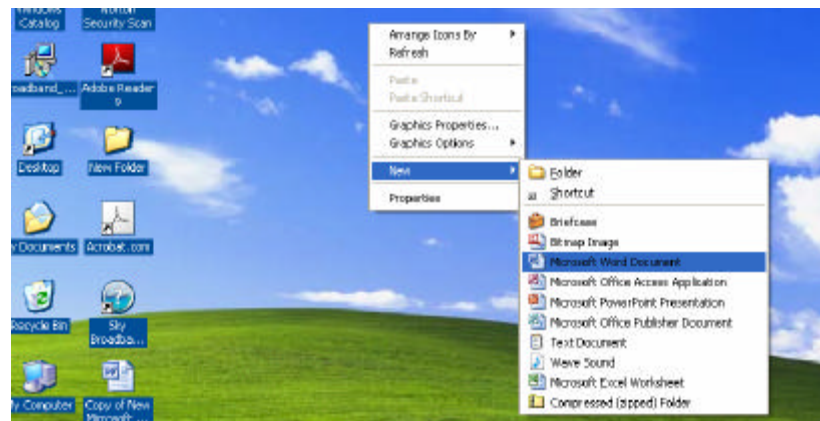
- ? Right Click on the desk top,
- ? select new
- ? navigate to Microsoft Office
- ? Click on
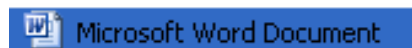
However to create a file in Word, under the heading New Document on the right side, select Blank document under the sub-menu New.

When you have finished typing a document, you must save it to o location on your hard disk or to a floppy disk. To save a document:

- ? click File and on the File menu
- ? click Save As

You can select a location from the directory by clicking on the drop –down menu in the Save As dialog box.

- ? Select a file name
- ? Save.

If you want to save further changes to the document later:

- ? Click File
- ? Click Save

       Or

- ? Click the save Icon on the Standard Toolbar

A particular useful **keyboard command** is the Print Screen Command. You can use this to paste a 2snapshot" of whatever is on the screen at the time, into any document capable of containing a graphic image, including Microsoft Word.

To use this command, first locate the Print Screen key on your keyboard. It is usually on the first row of keys on the keyboard, at the right side end. It could be labeled "Prt Scr".

To use the feature you simply press the key once. Were you to press this key now yourself, your system will actually copy what is currently on your actual screen to a Clipboard. The Clipboard is a part of the computer's memory that temporally holds copied or cut items, ready to be pasted into a document.

To paste the "screenshot", open the Edit menu and select Paste or Right click on the document and select paste from the pop-up menu. The image of the screen will be pasted into the Word document.

Even the most experienced computer user runs into problems from time to time. All computer desktop applications and utilities provide a **Help function** that contains valuable functionality information.
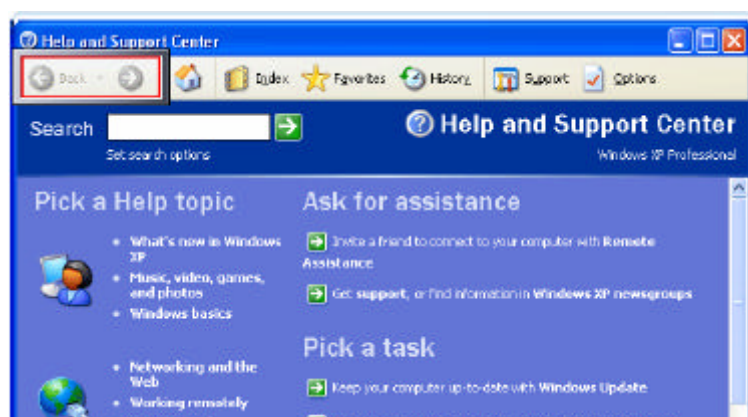
Windows XP Help Function

To open the Window XP Help and Support Centre:

- ? Click Star
- ? Then click Help and Support

The Help and Support Window will open

On the toolbar, you can use: The Back and Forward buttons to go back or forward by one page.

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The **Home button** brings you back to the Help and Support home page.

The **Index button** lets you browse for help topics by typing in keywords in the Index text box.

The **Favorites button** lets you quickly view the pages that you've saved.

The **History button** lets you view pages that you read during the help session.

The **Support button** enables you to get online remote assistance or contact a support professional.

The **Options button** lets you pick options to customize your Help and Support browser.

In the **Search box**, you can search for help topics. You can type in your search items, and then click the GO arrow.

You can also set your search options by clicking the Set search options hyperlink. Setting your options lets you find help and information from different sources.

The Help and Support Centre also display several help areas:

- ? Pick a Help topic
    - ✍ Ask for assistance
    - ✍ Pick a task
    - ✍ Did you know?

Within each of these areas, you can read more information by clicking on a hyperlink or by clicking on the GO arrow to perform numerous help tasks.

The Index button

The Index pane contains an index arranged in alphabetical order. To find s specific topic, you can type the topic name or keyword in the Type in the keyword to find text box.

As the word is typed in letter-by-letter, the help index filters until a keyword match is found. You can then click Display to view the information associated with this heading.

Above the help information, you can see more options:

- ? The Add to Favorites button which add the pages to your Help Favorites
- ? The Change View button which displays only to Help contents
- ? The Print button which prints the Help contents
- ? The Locate in Contents button which quickly locates your help topic in the table of contents

Occasionally you may find that a program that you are working with will "freeze" or "crash" and stop responding to any input. This means that attempting to close the application by the usual methods is unlikely to work.

Your computer has a facility to shut down a non-responding application. To perform this operation requires a little keyboard dexterity, because you have to press three keys simultaneously. The keys are

Control (Ctrl)		Control
Shift	or	Alt
Escape (Esc)		Delete

If you press these keys, your computer will respond as it is programmed to do and actually launch the Windows Task Manager.

If your computer is part of a network, using Ctrl, Alt, Delete will usually open the Windows Security dialog box, from which you can then select the Task Manager.
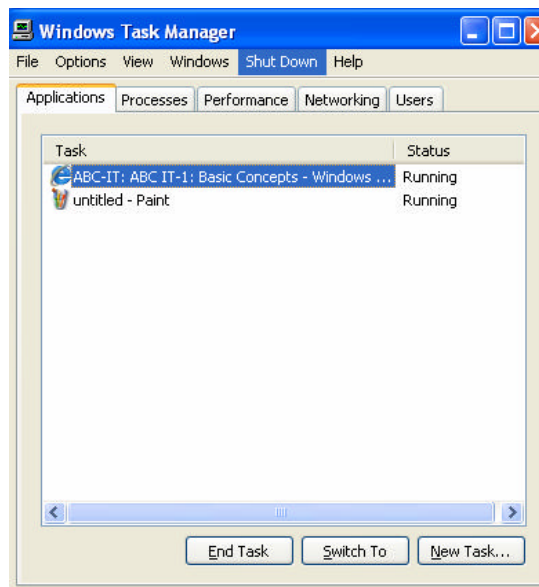
The currently open programs and windows will appear within the Application section. You can select the program that is not responding and click the End Task button to close it.

Review

Test 12

Question 1

Which of the following is true of a good workspace?

A.	☐ The bottom of the screen should be level with your eyes.
B.	☐ You should allow full reach between you and your keyboard/mouse.
C.	☐ Your feet should be raised off the ground.
D.	☐ Your arms and thighs should be parallel to the floor.

Question 2

The best way to prevent repetitive strain injury (RSI) is to:

A.	☐ Take regular breaks from your computer.
B.	☐ Use a wrist rest to relieve pressure when you type.
C.	☐ Use an ergonomic mouse.
D.	☐ Make sure that your monitor is well positioned.

Question 3

Which two buttons must be switched on when starting the computer?

A.	☐ The monitor power button and the computer power button.
B.	☐ The mouse power button and the monitor power button.
C.	☐ The keyboard power button and the computer power button.
D.	☐ The computer power button and the mouse power button.

Question 4

What is displayed on the screen when you type your password?

A.	☐ Nothing – your password is secret.
B.	☐ A series of asterisks (*******).
C.	☐ The characters you type.
D.	☐ Dollar signs ($$$$$$).

Question 5

The user name must be your real name:

A.	○ True
B.	○ False

Question 6

Why should you choose a combination of letters and numbers as your password?

A.	☐ To make your password easier to remember.
B.	☐ To make your password more difficult to remember.
C.	☐ You shouldn't – you should choose a single word instead.
D.	☐ To make your password more difficult to guess.

Question 7

There are five options in the Shut Down Window's dialog box. When would you use the Restart option?

A.	☐ When another user wants to log on to your computer immediately.
B.	☐ When configuration or system changes have been made to your computer.
C.	☐ When you want to minimise power use.
D.	☐ When you want to shut down the computer entirely.

Question 8

List the following steps of starting your computer into the correct order.

1. Enter your password
2. Switch on the computer
3. Enter your user name
4. Switch on the monitor

Desktop Management

The desktop on the computer contains Icons that represent objects you might find on a real desktop, such as documents, writing tools and project folders.

In this lesson, you'll learn how to:

- [ ] Move and arrange desktop icons.
- [ ] Recognise the basic desktop icons.
- [ ] Create a desktop shortcut.
- [ ] Identify the various parts of a desktop and an application wind
- [ ] Resize a desktop and an application window.
- [ ] Move between open windows.

Working with Icons

When you successfully log on to your computer, you are presented with a desktop. The desktop is an on-screen work area that uses icons and menus to simulate the top of a real desk

You can select and activate the icons and menus by pointing and clicking with a mouse or by using the keyboard. The most common desktop icons are listed below:

- ? My Documents
- ? My Computer
- ? My Network Places
- ? Recycling bin
- ? Internet Explorer
- ? Microsoft Outlook/E-mail

The **My Documents** icon allows you to access the My Documents folder, which is the default folder on your local disk for storing files and folders.
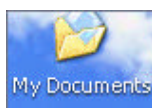
The **My Computer** icon is used to view the contents of your computer, the floppy disk, hard disk, CD-ROM drive and parts of the network that you are connected to.
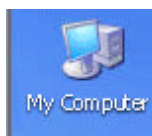
If you are connected to a network, the **My Network Places** icon is used to view resources available to you on the network, such as printers and shared folders.
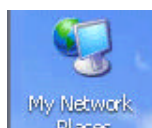
The **Recycling Bin** icon allows you to access the Recycle Bin utility and view files and folders that you have deleted.
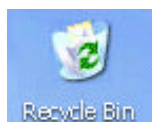
The **Internet Explorer** icon is used to open the Web browsing application, Micro-soft Internet Explorer.

The **Microsoft Outlook** icon is used to open the e-mail application, Microsoft Outlook.
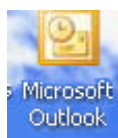
You can your mouse to move, arrange, and align the icons on a desktop, just like a real desktop.

To **move** an icon to a different place on the desktop:

?   Click on the Icon
?   Hold down the mouse button and drag the Icon to where you want it to be displayed.

You can **arrange** the icons on your desktop more neatly by :

?   Right clicking anywhere on the desktop.

A desktop shortcut menu will appear.

?   Point to Arrange Icons By.

You can either choose how to arrange the icons yourself, or you can choose the Auto Arrange options, which does it for you.

?   Click Auto Arrange.

All of the icons on the desktop will be aligned.

 A desktop is also used to store **shortcuts**, As the name implies, a shortcut is a quicker method of accessing an application, utility, file or folder than by using menus or locating it on your computer.

To create a short cut of a Microsoft Word application:

?   Click the Start button
?   Point to All Programs
?   Right-click Microsoft Word

To create a shortcut on the desktop, on the shortcut menu, point to Send To, and then click Desktop (create shortcut)

A new Microsoft Word icon will be displayed on the desktop. The arrow in the corner of the icon indicates that it is a shortcut

To open Microsoft Word using the shortcut, you double-click the icon. Using the shortcut to open Microsoft Word is much quicker than using the Start menu, which involves clicking Start, pointing to All Programs, and then clicking Microsoft Word.

When working in a desktop environment, these are a number of icons you will encounter frequently. These icons represent various components of your computer.

To view these icons, we'll use **My Computer**. On the desktop, double-click the My Computer icon.

When the My Computer window opens, it appears on the top of the desktop and completely conceals the entire desktop, except the taskbar. Likewise, if you opened a second, it would appear on top of the My Computer window. When you close My Computer window, the desktop can be seen again.

The My Computer window contains a number of icons that you'll need to be able to recognise. The first of these are:
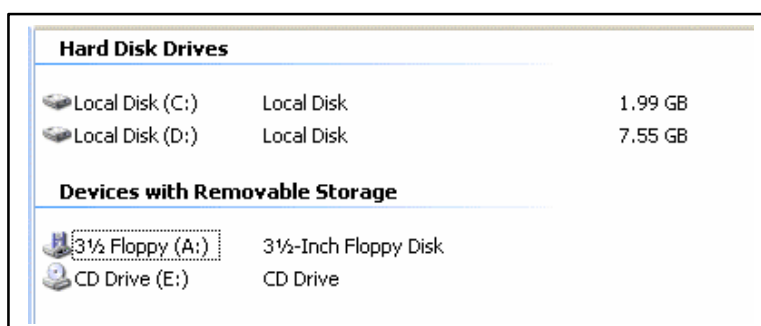
If there is a floppy disk in the disk drive and you click on the **3 ½ floppy Disk icon**, the contents of the floppy disk will be displayed on the right side of the My Computer window.

The **Local Disk (C:)** contains a tree—like structure, called the directory or folders tree. To view this structure, click the Folders button on the toolbar.

This folder tree displays the hierarchy of all the files and folders stored on the local disk of your computer. A folder tree consists of folders, subfolders and files.
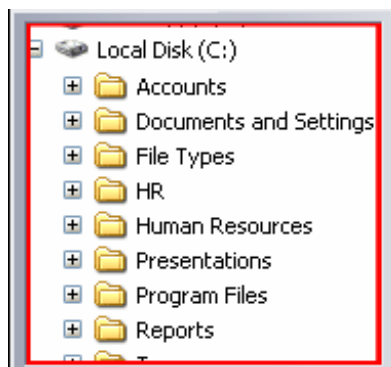
Another common icon is the **folder icon**, which is a yellow folder.

A folder is a structure that groups and organises related files and folders on a computer, in the same way that a filing cabinet stores and organises paper documents.

A file is a collection of data saved in a particular format. On the right side of the My Computer window, you can see the icons that represent the files that are stored in your computer.

A facility exists to quickly count the number of files in any folder. To view the properties of a folder you would right click in the right pane of the window where that folder is opened.

On the pop-up menu, click Properties.

The general properties for that particular folder will be displayed on the folder's Properties dialog box. There you will see how many files are contained in that folder.

Close the Properties dialog box by clicking the red Close button.

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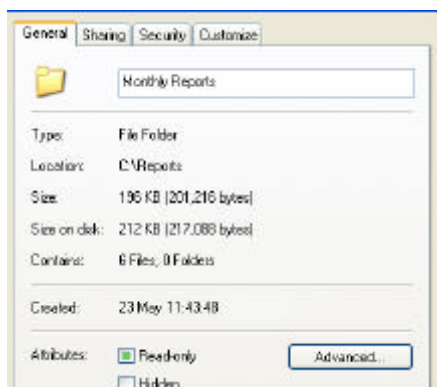
An alternative method of counting the number of files in a folder is to view the total on the status bar. To view the status bar:

- ? Click View ON THE Menu bar
- ? Choose Status Bar from the View menu.

The window will have a Status bar displayed, where you can see the number of files contained in that folder.

The icon sued to represent a file will depend on the format the file is saved in. For example, a file can be saved as a Word document, a Web page or a spreadsheet.

The final icon you'll need to recognise is the **Recycle Bin** icon, which is, effectively, a waste basket. When you click this icon, the contents of the Recycle Bin are displayed on the right side of the My Computer window.

When you erase or delete files and folders, they're stored in the Recycling Bin until you empty it. Once you empty the Recycling Bin, the deleted items are permanently erased from the computer.

Working with Windows

Desktop programs and utilities all have the same basic design. Once you recognise the standard features of one desktop window, you'll be able to use any desktop window.

At the top of each window is a **title bar**, which contains the name of the open window.

The **menu bar** is located directly under the title bar. When you click any menu option on the menu bar, a drop –down menu appears, offering lists of functions and utilities for you to choose from.

The **toolbar** is located under the menu bar. This contains a variety of buttons, which enables you to navigate through the window, and change the view and display of the window.

When a window is not big enough to display all of the contents, a **scrollbar** appears which you can move to view more of the window. There are two scrollbars in each window, a vertical and a horizontal one.

Finally, the **taskbar** is located along the bottom of the desktop window. When another application or utility is open, a button appears on the taskbar to link it, so that you can easily flick between open windows.

When working with desktop and application windows, you may wish to **resize** a window to increase the amount of available space on-screen. There are many ways to change the size of a desktop window. You can reduce and enlarge, resize and scale a window.

In the top-right corner, besides the Close button are two other buttons, the **Minimise** and **Restore Down** button

To reduce the size of a desktop window, click the Restore Down button. The window will be much smaller than the original. Notice too that the window will have a different button in the top-right corner. This is called the **Maximise** button, and it is used to change the window size back to its maximum size.

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The Minimise button is used to reduce the window to a taskbar button. When a window is reduced to a taskbar it no longer appears on screen. However, the button will remain on the taskbar, indicating that the window is still open, but is currently not active. To restore the window, click on the button on the taskbar.

You can also **scale and resize** the window to various sizes that suit you particular desktop needs. When scaling a window, the window width and height are proportionally changed. To scale a window:

- ? Click the bottom-right corner of the window
- ? Hold the left mouse button down
- ? Move the mouse up and to the left

When resizing a window, only one edge of the window is moved or changed.

- ? Click the right edge of the window
- ? Hold the left mouse button down
- ? Move the mouse to the right

Only the window width will be changed.

An **application window** contains many of the same elements and features as a desktop window. When a new document is opened an application window is displayed.

Similar to a desktop window, at the top of the application window is a title bar, which contains the name of the window. New documents or files open with default numbered names. When you work on a document, you must name it and save it so that you will still have it and be able to find the document the next time that you log on to your computer.

When a document has not been named and saved it will automatically be labelled as Document 1.Once it has been saved with an appropriate name, then that name will appear on the title bar.

The **menu** bar is located directly under the title bar.

The **toolbar** is located under the menu bar. It contains a variety of buttons which enables you to save, format, and print a document, amongst other things.

If the window is not big enough to display the entire document, it will contain **scrollbars,** which you can move to view the rest of the document.

The **status bar** is located at the bottom of the application window, and displays information about the current application or program window, such as the page number.

The application window is not fixed, but can be **repositioned**. To move the Document window:

- ? Click the title bar of the window
- ? Hold down the left mouse button
- ? Move the mouse downwards to place the window downwards. You can move the window in any direction on the screen.

As with desktop windows, you can easily alter the size of application windows. To close the window, click the close button.

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When working with documents, you may often have multiple windows open on your desktop at one time. These will have buttons representing them on the taskbar.

To navigate between two open windows, click the one you want to activate on the task bar.

Computer Properties

All the information relating to your computer system and set-up can be viewed at any time. To view the computer's system information, you need to:

- ? Right-click the My Computer icon on the desktop.
- ? Click Properties

A dialog box will appear with the General tab active. The dialog box has different parts indicated by tabs.
The **General tab** displays all the of the basic configuration details. In the System section, you can see that operating system running the computer.

In the Registered to section, you can see the user who is registered to the system and the license number of the operating application system of that computer.

The computer section displays information about the processor type and random access memory (RAM), in the computer.

To close the Properties dialog box, click ok.

Personalisation

The screen or the interface that we've been discussing is typical of a GUI or graphical user interface. While GUIs are designed to have certain standard, universally recognisably features-icons, scrollbars, dialog boxes and so on, there are still many changes you can make to personalise your desktop.

You can decide what appears on your desktop, in what colour and at what size. To view some of the computer's desktop setup, or configuration, or to make changes to it:

- ? Click Start
- ? Click Control Panel

Control Panel is a useful utility that enables you to control the functionality and appearance of different elements and settings on your computer, such as your date and time setting.

A screen saver is a moving picture or pattern that will appear on the screen when you have not used your mouse or keyboard for a certain amount of time.

Screen savers prevent burn-in, which is damage to a computer screen caused by holding a static image for too long. Your computer supplies a variety of screen savers, which can be selected from the Screen Saver list on the **Screen saver tab** of the Display Properties dialog box.

On the **Appearance tab** you can change the fonts and colour that appear on the various elements of your desktop application window.

You can change the appearance of your screen on the **Settings tab**. You can change the colours and the screen area, also called the resolution of the screen.

Pixels are minute units of colour, which make up the images displayed on you screen. If you want to increase the resolution of the screen, you can do so by clicking on the on the downward-pointing arrow in the Screen resolution area and moving it towards More.

Review

In this lesson, you:

☐ Moved and arranged desktop icons.

☐ Created a desktop shortcut.

☐ Viewed the basic desktop icons.

☐ Examined the various parts of a desktop and an application window.

☐ Resized an application window.

☐ Viewed a computer's basic system configuration.

☐ Personalised your computer's desktop configuration.

Test 13

Question 1

Practical Exercise on ALISON Web-based ABC-IT1

Question 2

When you click a taskbar, what happens?

A.	☐ A drop-down menu appears.
B.	☐ You activate the window represented by the taskbar button you clicked
C.	☐ You close the current application.
D.	☐ Your work is autosaved.

Question 3

The part of a desktop window that runs along the bottom and displays information about the current application or program window is called the_____bar

Question 4

Which of these buttons would you click to hide the window without closing the application

| A | B | C | D |
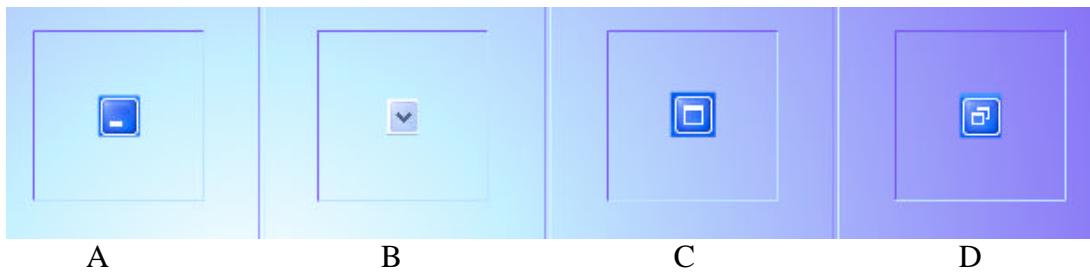
Question 5

Practical Exercise on ALISON Web-based ABC-IT1

Question 6

What would you sue to change the date and time setting on your computer?

A.	☐ The My Network Places icon.
B.	☐ The Sounds and Audio Devices Properties dialog box.
C.	☐ The Control Panel utility.
D.	☐ The Display utility.

File Management

Files and folder are organised on your computer in a logical framework, called a directory or folder tree. When using a computer, it is important that you understand its folder structure, and manage and organise the information stored in it efficiently, so that you can quickly locate a file or folder whenever you need it.

In this lesson, you'll learn how to:

☐ Recognise the folder structure on a computer.

☐ View file and folder attributes.

☐ Copy, move, and delete files and folders.

☐ View and empty the Recycle Bin.

☐ Format a floppy disk.

☐ Create a backup copy of a file on a floppy disk.

☐ Use the Search tool to locate a folder.

☐ Compress a file.

Introduction

If you want to view or browse the folder structure on your computer, you can sue Windows Explorer. It's a tool that allows you to literally explore the contents of your computer and access any file or folder.

To open Windows Explorer:

- ? Click Start
- ? Point to All Programs
- ? Point to Accessories
- ? Click Windows Explorer

To view the folder structure in your computer:

- ? Click My Computer

As well as using a hard disk to store files on your computer, its operating system also uses network drives and CD-ROM drives to store files and folders. The disk drives contain several folders, which are listed in the folder tree, as well as on the right side of the window.

Folders can contain sub –folders, which will be listed below that open folder and as well as the right side of the window. The sub-folders contain files which will be displayed on the right side of the window.

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To create a new folder;

- ? Click File on the menu bar
- ? Point to New
- ? Click Folder

A new Folder, which by default is called New Folder, will be created. When naming folders, it is important that you use logical and appropriate names, so that it is obvious which type of documents should be stored in that folder.

- ? Type the name in the folder name text box

To create a sub-folder within the folder you have just created:
- ? click the folder in the folder tree
- ? Click file on the menu bar
- ? Point to new
- ? Click Folder
- ? Name the sub-folder

To view the newly create folder and sub-folder, in the folder tree, double click on the initial folder.

Various details about a folder are contained in the Properties of a folder. To view the properties of a specific folder:

- ? Click the folder in the folder tree
- ? Click File on the menu bar
- ? Click Properties

In the Properties dialog box, you can view the various folder attributes, such as the folder size, and the folder location. You can also see the date and time the folder was created, and the total number of files and other folders contained within the folder.

Each file created on a computer is saved in a particular format, depending on its function. File formats are indicated by the file extension, or the letters to the right of the file name and the dot.

Most commonly used file formats:

The .bmp extension indicates that this is an image file created and used by graphics application, such as Microsoft Paint

- ? **.bmp**

The .doc extension indicates that this is a document created and used by the word processing application, Microsoft Word

- ? **.doc**

The .htm extension indicates that this is an html file, the file type used by Web application.

   ? **.htm**

Files with the extension .mdb are database files..mdb is the file type used by the database application Microsoft Access.

   ? **.mdb**

.ppt is the extension for a presentation file created and used by Microsoft PowerPoint.

   ? **.ppt**

The extenstion.rtf is used to indicate a rich text file.

   ? **.rtf**

The .txt extension indicates that this is a text file, the file type used by word processing application, such as Microsoft Notepad.

   ? **.txt**

The .xls extension indicates that this file is a Microsoft Excel spreadsheet

   ? **xls**

Each file stores various identifying details about itself, which are known as its properties. To view the properties of a file:

   ? Click on the document/file
   ? Click file
   ? Click Properties

In the file Properties dialog box you will see various attributes of the file, such as its type, its location, and size. You can also see the date and time the file was created, and the date and time it was last modified.

To change the attributes of a file to **read-only**, you can also open the Properties dialog box by right –clicking the document and clicking properties on the pop-up menu.

   ?   In the Properties dialog box, check the Read-only check box and then click apply.

This will make the file impossible to edit by other users. To make the file Read-and – Write again, you can uncheck the Read only check box and then click apply.

You made need to **re-name** a file or folders to give a better description of its contents or simply to correct a mistake. To re-name a file:

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? Click file
? Click Rename

The file name will be highlighted in the file name text box

? Type the new name in the file name text box

To rename a folder:
? Click the folder you want to rename
? Click file
? Click Rename
? Type the new name in the folder name text box

When creating a file, it is important to name correctly, with a correct extension so that it can be opened by the correct program. It is important therefore to maintain the same extension when you rename the file. Otherwise you risk not being able to open the file at all, unless you make the change to the file extension.

Most word processing applications allow to specify a range of file extensions when you use **Save as** command.

To resave a file in an alternate extension:

? Click the document
? Click file
? Click Save as

In the Save as dialog box, select a different format from a list in Save as type text box.

? Then click save.

The rich text format (rtf) is recognizable by all most types of word processing application, if the person you are sending the document to do not have a specific program, sending the document as a .rtf file will be a safer option.

Deleting. Moving and Copying Files or Folders

Occasionally, you may need to make a duplicate copy of a file or a group of files, which you can store in a different folder on your hard disk.

In order to copy a group of files, you must first select them.
To select non-adjacent files, you must press the CTRL key, and keep it pressed while you click the individual files.

When files are selected they will be highlighted. To make a duplicate copy of each of the selected files:

? Click Edit on the Menu bar
? Click copy

To move the duplicate copies to a different folder, click the folder you want to save files to,

? and click edit
? and then Paste

Introduction to Information & Communication Technology

The original copies will remain in the initial folder and the copies will be displayed in the new folder.

You can select a group of folder in the same way as you move a group of files, using the CTRL key to select the non-adjacent folders and the SHIFT key to select the adjacent folders.

Instead of having duplicate copies of files in different folders, you may want to move a file or group of files from one folder to another. To move a group of files

- ? first select the file/files
- ? Click edit
- ? Click Cut

The files will be stored temporarily in the computers memory

- ? Click the folder you want to move the files to
- ? Click Edit
- ? Click paste

The files will be removed form their original folder to the new folder.

You may want to permanently remove a file or folder. To delete a file

- ? Click on the file to select it
- ? Click file
- ? Click Delete

A message will appear on the screen asking you to confirm that you really want to send the file to the Recycle Bin.
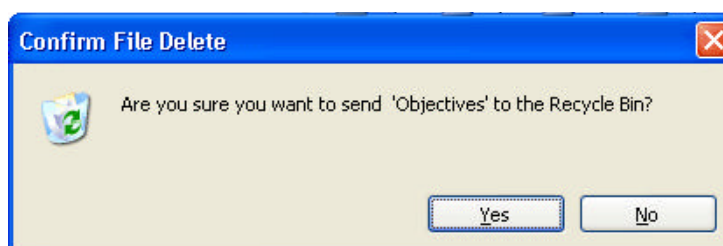
- ? Click Yes

To delete a folder, click on it to select it

- ? Click file
- ? Click delete

To view the contents of the Recycle Bin, double click the Recycle bin icon on the Desktop to open it. The contents of the Recycle Bin are stored on your computer's hard disk. It's good practise to empty the Recycle Bin regularly to free up storage space on the computer's hard disk.

To empty the Recycle Bin:

- ? Click file on the Menu bar
- ? Then click Empty Recycle Bin

A message will appear on the screen asking you to confirm that you want to delete the items in the Recycle Bin.

- ? Click Yes

Once you empty the Recycling Bin, its contents are permanently erased from the computer's hard disk.

- ? Click the Close button to close the Recycle Bin , and return to the desktop.

If you mistakenly deleted files or folders it is possible to restore them from the Recycle Bin, provided you have not emptied it. If you double-click the Recycle Bin icon a list of deleted items is displayed.

To restore files from the Recycle Bin

- ? Select the file
- ? Click restore

The selected files will be restored to their original location.

Backing Up Files and Folders

When working with files and documents, diskettes are commonly used to move documents from one computer to another, and are also used to maintain backup copies of important files. A diskette is a portable, physical storage device onto which data and files can be created, copied and stored. A diskette is also known as a floppy disk. Before using a diskette, it must be formatted. **Formatting** is the process of organising the space on the diskette and diving it into manageable pieces that can be used for easy data storage.

To Format a new 3.5-inch diskette:
- ? Double-click My Computer icon on the desktop
- ? Click 3.5 Floppy (A:)
- ? Click File on the menu bar
- ? Click Format

The Format 3.5 Floppy (A :) dialog box will appear. Under Format options, select the Quick Format check box.

To begin formatting the diskette, click the Start button. A warning box will appear on the screen, telling you that formatting a diskette will erase all data from the disk. As you will be formatting a new diskette, you will be certain that there is no existing data on the disk.

The Formatting 3.5 Floppy (A:) dialog box will appear to indicate that the diskette is formatted.

- ? Click OK to finish
- ? Click Close to close the dialog box

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Data stored on computer can be stolen by an intruder, or lost due to viruses or equipment failure. To protect the data on your computer, you should make backup copies of important files and folders. This involves copying the files and folders to external storage devices, such as a floppy disk.

To backup files you must open the appropriate folder

- ? Click Edit
- ? Click Select All
- ? Click Edit again
- ? Click Copy

A copy of the all the files will be temporarily stored in the memory of the computer. To access the formatted disk in the folder tree, click the 3.5 Floppy (A:) icon.

To create backup copies of the files you have copied:

- ? click Edit
- ? and then click Paste

A message will appear on-screen as the files are copied from the original folder to the floppy disk, to indicate the time remaining until the copy is complete.

Using the Search Tool

If you're with a lot of files and folders, you can easily forget where exactly you stored a particular file or folder, or what you called it. To help you locate items quickly, your computer comes equipped with a Search tool.

To open the Search tool:

- ? Click Start
- ? Click Search

To perform a general search of all the files and folders stored on your computer

- ? Click All files and folders in the list on the left of the window.

By default local hard drives C: and D: will be selected in the Look in: box, so to begin the search
- ? Click Search

A list of all the files and folders stored on your computer will be displayed on the right side of the Search Result window.

To search for a particular folder, you can search for it by name, by date or by type.

To search for a folder by name:

- ? Click the Back button at the bottom of the Search Companion window.
- ? Type the folder name in the "All or part of the file name" text box
- ? Click Search

If your search is successful, the folder you searched for will appear on the right side of the Search Results window.

To Search for a folder by date:

- ? Click the Back button
- ? Click the downward-facing arrow beside "When was it modified?"
- ? Click "Within the last week" from the list of options
- ? Click Search

A list of all the files and folders modified in last week will appear on the right side of the window.

Searching by type means that even if you are looking for something and all you know is that it's a folder or certain file type, you can still search for it.

To search for a folder by type:

- ? Click the Back button
- ? Click the vertical scrollbar
- ? Click the " More advanced options" arrow
- ? Click the downward-pointing arrow in the "Type of file" textbox.
- ? Click the vertical scrollbar to view Folder in the list
- ? Click Search

A list of all folders will appear on the right side of the window.

- ? Click the vertical scrollbar to search for your particular folder

To close the Search tool and return to the desktop, click the Close button.

File Compression

You can compress the size of your files or data by using compression software. This enable you to reduce the size of your data, such as word processing file or an e-mail attachment, so that it takes up less space on your computer, or it reduces the time it takes to send a large document over the Internet.

To compress a file:

- ? Open the folder in which the file is saved in
- ? Right click the document
- ? Click "Send to" on the pop-up menu
- ? Click Zipped folder

The document will be compressed.

Review

In this lesson, you:

- Examined the folder structure on your computer.
- Viewed file and folder attributes.
- Copied, moved, and deleted files and folders.
- Viewed and emptied the Recycle Bin.
- Formatted a floppy disk.
- Created a backup copy of a file on a floppy disk.
- Used the Search tool to locate a folder.
- Compressed a file.

Test 14

Question 1

What is a file extension?

A.	☐ A large file.
B.	☐ Letters in a file name that indicate the format.
C.	☐ An additional part of a file.
D.	☐ Any file name.

Question 2

You need to organize your directories, folders, and files on your computer. Which one of the following would best suit your needs?

A.	☐ Microsoft Word.
B.	☐ Any spreadsheet application.
C.	☐ Windows Explorer.
D.	☐ Microsoft Internet Explorer.

Question 3

You are using Windows Explorer and you want to select two files that do not appear next to each other. Which key on the keyboard will you need to use?

1. Shift key
2. Ctrl key
3. Alt key
4. Esc Key

Question 4

You have just deleted an entire folder. How can you retrieve the contents?

A.	☐ By emptying the Recycle Bin.
B.	☐ By restoring the folder from the Recycle Bin.
C.	☐ You can't – once deleted, its contents can't be retrieved.
D.	☐ You don't need to. Only the folder has been deleted – not its contents.

Question 5

Compressing a file enables you to store more information on your hard drive or send it more quickly as an e-mail attachment**.**

A.	◯ True
B.	◯ False

Question 6

Practical exercise on ALISON ABC-IT

Virus Management

If and when your computer becomes infected with a malicious computer virus, you will need to know how to recognize the symptoms of a virus, to scan for viruses, to quarantine the virus on your PC, and then how to protect your system from any future viruses.

In this lesson, you'll:

- Review what a virus is and how it can be transmitted onto your computer.

- Recognise the symptoms of a virus.

- Scan for viruses.

- Quarantine a virus on your PC.

- Learn how to protect your system in the future.

Reviewing Computer Viruses

A computer virus is a malicious program, which is transmitted from one computer to another, usually over networks or on floppy disks. It is called a "virus" because of its similarity to biological viruses: it requires a host, the computer, it is capable of reproducing and transmitting itself, and it often results in damage to the host computer.

A virus consist of code, which is designed to attach itself to files, make copies of itself , and retransmit itself. All viruses are potentially harmful, but some can result in much more serious damage than others. For example, some viruses can attempt to destroy your computer's hard disk. Traditionally, viruses only affect executable files, such as program files. However, in recent years "macro viruses" have emerged, which can affect document files, such as Microsoft Word or Microsoft Excel documents.

Other harmful programs include Trojan Horse programs which aren't strictly viruses. A Trojan Horse program pretends to be a different type of program .For example, you might download a Trojan Horse which pretends to be a game. Once you attempt to run the program it begins causing havoc in the same way that a virus would. For example, it might delete files on your computer's hard disk.

Viruses can enter your computer in a number of ways. One of the most common entries is e-mail. A virus can be embedded in a file attached to an e-mail message and can be activated if the file is opened. However, viruses cannot be active by reading plain e-mail messages.

Often the virus is designed to e-mail itself to all of the user's e-mail contacts, without the knowledge of the user. Viruses can also enter your computer if an infected file is downloaded from the Internet, or if an infected file is received on a floppy disk. In order to prevent damage from viruses, you should consider the following measures.

- You should install anti-virus software-there are a number of applications on the market. These applications scan your computer's hard disk to detect any viruses
- Install one and update it regularly, as new , more sophisticated viruses emerge every day.

You should use your anti-virus software before opening any e-mail file attachments that you are unsure of, even if the message appears to be from someone you. Most anti-virus application now do this for you automatically, ad give you a message that they are scanning documents for viruses. If suspicious documents are found, the program will either quarantine or destroy the detected viruses. Remember that viruses cannot be activated until the file is opened.

You should virus-scan files you receive on floppy disk and CD and files downloaded using the Internet.

Finally, remember to regularly back up important files. That way, even if a virus does damage your files, you will still have a copy of the original

Identifying Computer Viruses

How can you identify a virus on your computer? What are the symptoms displayed by your computer if your information has been infected? Here are few symptoms to watch out for:

- Your programs take longer to start or run more slowly than usual.
- Your hard disk takes longer to read and write-even for simple tasks
- The access lights on your computer turn on for non-referenced devices.
- You notice unexplained decrease in the amount of available memory or system resources
- Your programs or files mysteriously disappear.
- Or you notice a sudden reduction in hard disk space

If your computer displays these symptoms, take a proactive approach, and scan your computer using your anti-virus application.

Scanning for Computer Viruses

By clicking on the anti-virus scanning program that comes installed on your computer, you can take your first proactive steps towards scanning for viruses. Depending on the configuration of your virus scanning application, you will need to specify which folder or files need to be scanned on your computer.

With most anti-virus software, you can configure it to scan your Local Disk (C:), your Zip Disk, your Floppy drive or CD-ROM drive, and any incoming or outgoing e-mail. It usually takes a few minutes for the virus scanning application to check your system.

Quarantining a Computer Virus

If a virus is found, a message alert appears, telling you that your program has found a virus.

Follow the prompts or suggestions that are displayed by your program. Normally, anti-virus program attempt to repair the file or files that have been infected. If this is not possible, the anti-virus program takes the infected files and places them in quarantine.

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In quarantine, the infected files are isolated and the virus can no longer damage or spread to other parts of your system. In some cases, you can send the quarantined virus to your anti-virus vendor for further evaluation and technical support.

If the virus has already damaged your system critical files or if you're missing important data, contact your system administrator or technical support staff for immediate help,

As you can see, scanning for viruses is easy to do. However, it's important that you scan your computer on a regular basis and that you download the latest anti-virus definitions from your software vendor. This makes sure that your computer is protected against the latest viruses. Moreover, download the latest security patches for your e-mal client and Web browser, because new security holes are discovered or created everyday.

Review

In this lesson, you:

- Reviewed what a virus is and how it can be transmitted onto your computer.

- Recognised the symptoms of a virus.

- Scanned for viruses.

- Quarantined a virus on your PC.

- Learned how to protect your system in the future.

Test 15

Question 1

Your computer is connected to al local area network and displays the following behavior: Your program takes longer to start or run more slowly than usual. If you discover this behavior you should:

A.	Ignore it and reboot your system.
B.	Contact your network administrator.
C.	Remove all floppy disks.
D.	Search your LAN for other e-mail users.

Question 2

If you notice a sudden reduction in hard disk space, and you haven't installed any new applications, this may indicate that your computer is infected with a virus.

A.	○ True
B.	○ False

Question 3

If a virus is found, an alert message appears, telling you that your program has found a virus.

A.	○ True
B.	○ False

Question 4

A computer virus is a malicious program; which is transmitted form one computer to another.

A.	○ True
B.	○ False

Question 5

What does your anti-virus software actual do when it quarantines a virus?

A.	☐ It automatically shuts down your operating system.
B.	☐ It defragments your hard drive.
C.	☐ It removes the suspected virus and stores it in safe place.
D.	☐ It removes the virus and sends it automatically to the anti-virus vendor.

Getting Started on the Web

The Internet has experienced phenomenal growth in the last few years and has become the greatest repository and conduit of information in the world. One of the most widely used parts of the Internet is the World Wide Web, also known as the Web, which contains millions of pages of information. The Web is explored using a Web browser, the most popular of which are Mozilla Firefox and Microsoft Internet Explorer.

In this lesson, you'll learn how to:

☐ Take security precautions when you explore the Internet.

☐ Open and close a Web browsing application.

☐ Open a specific Web page.

☐ Change a Web browser's home page.

☐ Save a Web page as a file.

☐ Use the Web browser Help function.

☐ Change the views and toolbar display in a Web browser window.

☐ Prevent a Web browser from loading image files onto a Web page.

Terminology and Concepts

The **Internet** is a worldwide collection of computer networks that allows computers to communicate with each other. It is, in effect, a massive worldwide computer network that anyone can join and contribute to. To communicate, the Internet uses existing telecommunications infrastructure, usually telephone lines, and is accessed using a computer.

No one body owns or controls the Internet. It was developed in 1969 by the Advanced Research Projects Agency (ARPA), of the US Department of Defense. The original aim was to create a secure communications network for military that would continue to function in the event of a disaster. The Internet ahs since grown from a military communications system to the most powerful commercial, information, and communication tool in the world. The Internet supports many different services, such as FTP, Telnet, e-mail, and the **World Wide Web**.

 The Web is a collective name for the large amount of information that is available on computers connecting to the Internet. The Web contains huge volumes of information stored on numerous Web pages and Web sites. Web pages are created in a programming language called HTML and can contain text, graphic images, and links to other associated Web pages.

A **Web site** is a collection of Web pages on a particular theme or related to a particular company. New ways of accessing the Internet are constantly being developed .You can now; given the appropriate equipment, use your television or mobile phone to gain access. However, the most common way is using a computer. To connect to the Internet and explore the Web using a computer, you need a few things.

First of all, you need a connection to the Internet. This can be through a company's network or by using a telephone line. There are no special requirements for a telephone connection: your average household connection is all you need to connect to the Internet. In general, if you have only one telephone connection you are unable to receive telephone calls while your computer is connected to the Internet. To avoid this, you can install either a secondary telephone line, or what's called an ISDN line specifically for connecting to the Internet.

To link your computer to a telephone line you need a device called a **modem.** A modem converts the computer's digital signals into analog signals to allow for incoming and outgoing communication via the telephone line. There are a variety of modems on the market, the faster your modem, the quicker your access to the Internet. Most new computers come complete with built-in modems.

While the Internet is a free, public service, getting connected can incur costs. An Internet service provider (ISP), is an organization that provides access to the internet. ISPs charge a fixed, monthly rate fro access to the Internet. The good news is that as the Internet becomes more popular ISPs are becoming cheaper and some now even provide a free service. However, you are usually still charged for the telephone connection to the ISP.

Finally, once you've got your computer and made your physical connections, you need a **Web browser** to make the final link and access the WWW. A Web browser is an application, and often comes already installed on your computer, just like other software, it is also available from your ISP. There are few different types of browsers available: Microsoft Internet Explorer and Mozzila Firefox are the most popular.

Security Considerations

When browsing the World Wide Web, you should always keep security in mind, especially if you're shopping online, or conducting a business transaction.

If you're using your credit card on the Internet:

Choose online retailers who offer some kind of online purchase protection, which allows you to dispute a charge on your credit card.

Always choose reputable stores.

Keep track of all purchases made with your credit card so that you can pinpoint the charges on your statement.

If you doubt a store's online security, call them and place your order over the telephone.

When browsing the World Wide Web:

Make sure that the Web site you visit is protected by usernames and passwords. And remember, create a unique username and password, for yourself.

Go to retailer Web sites that use encryption mechanisms, to safeguard your transactions, between your browser and their Web server.

Go to Web sites that use digital certificates. A digital certificate is a statement guaranteeing the identity of a person or the security of a Web site.

Go to Web sites that have firewalls in place. A firewall is a piece of software or hardware that can selectively block access to your computer from unauthorised outsiders.

Beware of the danger of infecting your computer with a virus from a downloaded file. No matter how vigilant you are about maintaining safe surfing habits, you should still use anti-virus software.

Anti-virus software works in the background of your computer, automatically checking for viruses by scanning files that you have downloaded from the Internet. If it finds any viruses, it removes

Web Browsers

To view the World Wide Web using the Microsoft Internet Explorer Web browser:

- ? Click Start on the desktop window
- ? Click Internet Explorer

There may be a short delay while the computer searches for and connects to the Internet. If you are connecting through a phone line, a dial –up connection dialog box will be displayed. This dialog box will indicate that your computer is trying to connect to the Internet and may prompt you to enter your user name and password. Once you enter these details and a successful connection is made, you're hooked up to the Internet ,or online.

A Web browser is set up. or configured, to open on a specific Web page, known as the **home page**. The home page acts as a doorway into many other sites where you can access information, check the latest news, use Microsoft's e-mail, or search the Web for specific information. Like most Web pages, the home page contains links called **hyperlinks**, which when clicked; connect you to related Web pages and sites.

Hyperlinks are represented on-screen by text, images, or graphics. Hyperlink text is usually underlined. A cursor changes to a pointing hand when it passes over a hyperlink. When connected to the Internet, you would simply have to click any one of these links to get to the related site.

As you will see, the Microsoft Internet Explorer window contains the standard features of an application window, such as a title bar, menu bar, toolbar and status bar. However, there are additional features that are specific to a Web browsing application.

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The Back button is a navigation button that brings you back to the previous opened Web page.

The Forward button is a navigation button that brings you to next page in a sequence of Web pages that have already been opened.

The Stop button cancels the current Web action or process. If you begin to open a Web page, and then decide that you do not want to open the page, you can stop the process from continuing by clicking the Stop button.

The Refresh button reloads the same web page again, and applies any changes that may have been made to it.

This button opens the Home page, which is the Web page that appears each time you open Internet Explorer.

When clicked, the search button presents a search field, which enables you to search the Web for a listing of all Web pages that contain particular keywords, or phrases.

You can store your favorite or most frequently used sites in their own folder for easy access. The Favorites button displays a selection of Web site links that have previously been marked as favorite sites by a Web user.

The History button maintains a list of Web sites that have been visited recently. By default, the list of Web sites accessed in the last 20 days is retained in the history.

The mail button enables you to open and use an e-mail application from within the Internet browsing window. You can read and create new messages, as well as send a Web page or Web page link in an email to another user.

When you click the Print button the entire web page is printed for you.

Every Web page is identified by a unique address, such as www.advancelearning.com. However, the basic structure of all web addresses is the same.The **Web address** is displayed in the Address bar.

Address | http://www.msn.com/ | Go

The "http" at the start of a Web address stands for **Hypertext Transfer Protocol**. HTTP is a protocol, or set of rules and requirements for transferring and exchanging files on the Internet. There are several protocols that can be used on the Web, but HTTP is the most common, so common in fact that you don't even need to type it in at the start of the address. You can start the Web address by typing www, and your Web browser will automatically use the http protocol.

WWW is the acronym for the **World Wide Web**. The www is a web address indicates that the site is part of the World Wide Web.

The next part of the address is what is known as the **domain name**. Each person or organization that creates and owns a web site, must register a domain name that will uniquely identify that Web site. A domain name usually relates to the organization's name, or to the content of the Web site.

The last part of the address is **.com. This is the suffix to the domain name**, which indicates the type of organization that owns the site, and possibly the country of origin.

The complete Web Address is also known as a **Uniform Resource Locator (URL)**

To access a new web site:

  ? Click in the Address bar

The current Web address will be selected.

  ? Type the new address starting with www.
  ? Click Go at the end of the Address bar

The new Web page is displayed, offering numerous hyperlinks under various subjects and categories. If you type an incorrect Web address, an error page is displayed, informing you that the specified page cannot be displayed.

Even though you have moved to another Web page, if you close the Web browser and open it again, or click the Home button on the toolbar, you are returned to the Microsoft Home Web page as this is your default home page.

It is possible to change the default home page on your Web browser to any Web page of your choice.

To change the default home page:

?   Click Tools to open the Internet Options dialog box, on the menu bar.
?

The General tab of the Internet Options dialog box is selected. Under Home page, you can see that the original default page is entered as the default home page in the Address text box. You can change the home page by typing your preferred Web address in the Address text box.

However, if the new Web page is currently open, under Home page, click Current. The Web address in the Address text box will change to the new Web page address you want to make a default home page.

?   Click OK to close the Internet Options dialog Box.

From now on, when you connect to the Web, or click the Home button, the new Web page will be automatically displayed on your browser.

It is possible to **save Web pages** locally on your computer. This allows you to directly access those Web pages from your computer, without having to connect to the Internet.

To save a Web page onto the local drive:

?   Click File on the menu bar
?   Click Save as

A Save Web page dialog box will be displayed, and the name of the Web page you want to save will be on the File name text box.

?   Click Save

The Web page will be saved to a location in your local drive. Whenever that file is opened, the Web browser is immediately launched, and opens the locally stored Web page.

Like all desktop applications, Microsoft Explorer provides a **Help function**.

To use the help function on Internet Explorer:

?   Click Help on the menu bar
?   Click Contents and Index

The Microsoft Internet Explore Help window consists of two panes. The left pane contains tabs that enable you to locate specific information, and the right pane displays the information requested. The **Contents tab** is selected by default and provides an overview of the entire contents of Internet Explorer Help. You navigate through the topic headings listed to locate a specific topic.

The **Index tab** contains an index of the contents of Internet Explorer Help, arranged in alphabetical order. To locate a specific topic, you type a keyword in the "Type in the keyword to find" text box. As each letter in the keyword is typed, the index is filtered to find keyword matches.

On the **Search tab**, you can type a keyword in the "Type in the keyword to find" text box, and then click List Topics. All topics that contain that key word are displayed in the "Select Topic to display" box.

On the Favorites tab, you can add your topics of interest to your Favorites menu. This option lets you keep a list of Help topics that you may find useful for the future. When you click on its hyperlink, the topic title appears in the "Current Topic" box. If you want to save this topic, click Add and then the topic appears in the main "Topic" list.

To close the Help function, click the Close button on the title bar of the window.

Adjusting Basic Settings

When working on the Web, you may want to change the view of a Web page, either to have a clearer view of a specific section or to get a better view of its entire contents. The Web page usually opens in **Normal View**. You can change the view using either **Full Screen view** or the **Text Size** command.

To change the view of a Web page on Full Screen:

- ? Click View on the menu bar
- ? Click View
- ? Click Full Screen

Full Screen view displays, a much larger section of the Web page. The menu bar, address bar, status bar, and task bar are removed from the screen, and the toolbar buttons are much smaller. In this way , the window can display a larger amount of information on screen at one time

The Full screen view is useful if you have a small monitor, or if you are using low screen resolution settings. Low screen resolution, makes items on the screen appear large, and therefore display a smaller amount of information on screen at one time. However, the Full Screen view can limit your ability to get around, or navigate, as you cannot use the address bar to change from one Web site to another.

To switch back to Normal view:

- ? Click the highlighted Restore button

The Text Size command on the view menu allows you to change the size of the text on screen. You can make it larger or smaller, depending on your particular needs.

To use the Text Size command:

- ? Click View on the View menu
- ? Point to Text Size

Text size is usually set to medium size. To change the text size, select the size you want from the Text size menu, and click it.

The Media button on the toolbar allows you to listen to radio stations while you browse the Web.

When working in a Web browsing application, you can modify the toolbar display too suit your browsing requirements. The Standard, Address, and Links toolbars are displayed by default.

To view other toolbars:
- ? Click View on the menu bar
- ? Point to Toolbars

You will see the default toolbars selected with a tick next to them on the list on the Toolbar menu.

- ? Click Customize

The Customize Toolbar dialog box contains two list boxes. The Available toolbar buttons: list box contains all toolbar buttons available with the Web browsing application that are not displayed in the Web Page window.

The Current toolbar buttons: list box contains all toolbar buttons that are already displayed on the window. In between these list boxes are the Add and Remove buttons, which allow you to add and remove toolbar buttons in the Internet Explorer window.

If you are using a slow modem to connect to the Internet, you have to wait longer for Web images, pictures, and graphics to load onto your Web page, which can be frustrating. To reduce the amount of tome it takes to open a Web page, you can configure your Web browser to **only load text** onto your Web browser window.

To make this change:

- ? Click Tools
- ? Click Internet Options
- ? Click the Advanced tab on the Internet Options dialog box
- ? Click the vertical scrollbar, to scroll down to show the Multimedia section
- ? Click to clear the Show picture checkbox under Multimedia
- ? Click OK to close the Internet Option dialog box

To view this change, you need to refresh the current window.

- ? Click the Refresh button on the toolbar

The browser window will no longer display images or pictures. To reconfigure the Web browser to display images and pictures

- ? Click Tools
- ? Click Internet Options
- ? Click the Advanced tab on the Internet Options dialog box
- ? Click the vertical scrollbar, to scroll down to show the Multimedia section
- ? Click to select Show picture under Multimedia
- ? Click OK to close the Internet Option dialog box
- ? Click the Refresh button to view the changes.

The pictures and images will be displayed by the browser again.

Cookies and Cache

A **cookie** is a small text identifier file which is placed on your hard disk by a Web server. The Web site you view will display a personalized message welcoming you back to the site, using this text identifier. The cookie notifies the server, and the customized page is returned in response. The information a cookie contains is usually gathered when you submit your name or other personal details to, or request information from, a Web site. The transmission and storage of cookies takes place normally without the user's knowledge.

Other forms of data can be gathered using cookies, sometimes related to advertising and marketing. You may or may not agree with this practice and there is the option to delete the cookies from their storage folder on your hard disk.

To delete cookies fro a hard disk:

- ? Click Tools on the menu bar
- ? Click Internet Options
- ? Click the Advance tab
- ? Locate the Temporary Internet files section
- ? Click the Delete Cookies button
- ? Click OK on the Delete Cookies message box

The Cookies will be deleted from your hard disk.

Each time you visit a Web site the browser **saves, or caches**, the contents of the pages you view in a special folder on the hard disk, called the Temporary Internet files folder. The purpose of this is to provide faster access to pages, speeding up future downloading of the same pages.

Over time, considerable numbers of these files can be stored in the Temporary Internet files folder. As many of them will never be used again it is appropriate to delete them from the folder periodically.

On the General tab of the Internet Options dialog box, in the Temporary files section the Delete Files button can be used to remove the temporary files from your hard disk.

Review

In this lesson, you:

☐ Learned about the security precautions to take when surfing the Web.

☐ Opened and closed a Web browsing application.

☐ Displayed a specific Web page.

☐ Changed a Web browser's home page.

☐ Saved a Web page as a file.

☐ Used the Web browser Help function.

☐ Changed the views and toolbar display in a Web browser wind

☐ Prevented your Web browser from loading image files onto a Web page.

Test 16

Question 1

If you wanted to access the Internet using a computer and you are not connected to a company's network, which group of additional items would you need?

A.	☐	A television, a phone, the Microsoft Outlook application, and a network (WAN).
B.	☐	A modem, a telephone connection, an ISP, and a Web browser application.
C.	☐	The Microsoft Word application, a modem, a mobile phone, and a satellite.
D.	☐	A printer, a phone, an ISP, and a Web browser application.

Question 2

A _____converts the computer's digital signals to analog signals and vice versa so that a computer can send and receive data via telephone lines.

Question 3

A home page is the Web page displayed each time you open your web browser or click the Home button on the toolbar.

A.	○ True
B.	○ False

Question 4

Practical

Question 5

Practical

Question 6

It is possible to save a Web page as a file on your computer**.**

A.	○ True
B.	○ False

Surfing the Web

Once you access the Internet, a wealth of information is immediately available at your fingertips. Before you can find the information you're looking for, however, there are some basic skills in Web navigation that you need to master.

In this lesson, you'll learn how to:

☐ Open a specific Web page.

☐ Use hyperlinks and then return to the original Web page.

☐ Browse a specified Web site to collect data.

☐ Display a Web page in a new window.

☐ Display previously visited URLs using the browser address bar.

☐ Delete your browsing history.

☐ Complete a Web-based form and enter information into it to carry out a transaction.

Web Addresses

While there are no hard and fast rules for designing a Web site, there are a number of features that frequently occur across many Web sites

To access a Web sit, and view its contents:

  ? Click in the Address box
  ? Type the Web address
  ? Then click Go

It is typical of many Websites that contain information related to hobbies, news, or commercial interests. As is also typical, most of this information is available through hyperlinks that lead to other related Web pages.

When a **hyperlink** is clicked, a new Web page opens displaying a variety of articles and more hyperlinks. Once you have read the information displayed on the new Web page, you may want to return to the original Web page. To navigate between open Web pages, you use the arrows on the toolbar.

Most Websites have their own **Search function** that enables you to search for information on that site based on keywords that you enter. Websites also frequently offer shopping opportunities.

When browsing a number of Web sites you may wish to display sites within a new window for convenience. This allows you to have a number of Web pages open at the same time.

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To **display a new Web site in a different window**:

- ? Select New from the File menu
- ? Select Window from the sub-menu

The new Web page will be displayed in a new window. You can see that the other window is still open on the Task bar.

The addresses or URLs of previously visited Websites are stored in your browser's Address bar. **Accessing these previously visited URLs** gives you fast access to sites and saves you from having to remember the addresses. To view these addresses;

- ? Click the drop-down arrow , at the end of the Address bar

You can if you wish, delete your browsing history from the Address bar of the browser. To delete the browsing history:

- ? Click Tools
- ? Select Internet Options
- ? Click the Clear History button in the dialog box

A warning box will appear. Clicking Yes to this warning deletes the history of previously visited Web sites. To view the changes you have just made, you can click the drop-down arrow at the end of the Address box, and you will see that all the addresses of previously visited sites are deleted.

Web Based Forms

There are Web sites which require you to input personal information such as you e-mail address or contact details, and when you are purchasing goods and services online, your credit card details. The security of your data is vital, and security systems are usually in place to keep your details safe.

A Web form should be located within a "secure" part of a Web site, as you are being asked to provide the Web site with your personal information. There are a number of things that you should check before you enter data into a form.

When you enter a secure part of a Web site, your browser normally displays a Security Alert message box. This warn you that you are about to view pages over a secure connection and that once within that part of the site, your data cannot be viewed by anyone else (unlike unsecured sections of a Web site)

This security alert is a good indicator that the Web site has provided a secure section. The message box allows the user to check an option not to display the warning in future so its appearance is not guaranteed.

When you view a secure page, Internet Explorer displays a small padlock icon on the Status bar. This icon indicates that you have been sent a security certificate by the Web site, which verifies the identity of the sender and the authenticity of the site.

The f[...]s. Many sites will not process a form if certain fields are not completed, as they try to authenticate the form in the best way that they can

The text box that requests your e-mail address is marked as a "required field". This means that the form will be rejected unless a properly formatted e-mail address is submitted within this box.

Once all the fields are completed and the Submit button is clicked, the designers of the Web site will create an indicator that the form has been successfully sent. This is often a message box, which thanks you and assures you that the form has been received, or sometimes you will be taken to a new page conveying that confirmation.

Review

In this lesson, you:

☐ Opened a Web page.

☐ Used hyperlinks.

☐ Browsed a specified Web site and collected data.

☐ Displayed a Web page in a new window.

☐ Displayed previously visited URLs using the browser address bar.

☐ Deleted your browsing history.

☐ Completed a Web-based form and entered information into it to carry out a transaction.

Test 17

Question 1

A Web page is displayed on your screen. To access another Web site, you must first return to your home page.

A.	○ True
B.	○ False

Question 2

You have just typed a Web address in the Address bar. Which button do you need to click to then access that Web page?

| A | B | C | D |
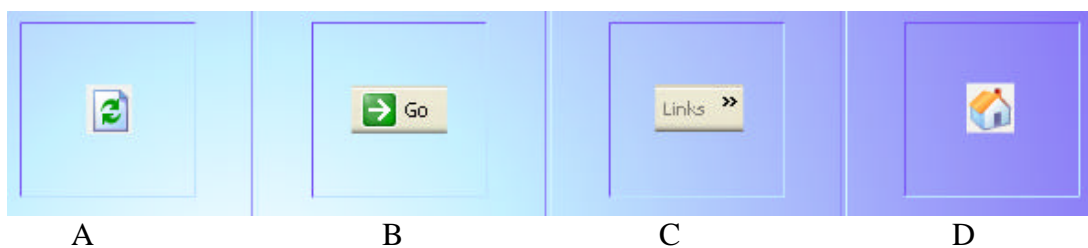
Question 3

A _____is an element in a Web page, such as word or image, that connects to other information on a specific topic.

Question 4

Which pointer is displayed when the mouse passes over a hyperlink?

| A | B | C | D |

Question 5

Most Web sites have their own Search function that enables you to search for information on that site based on keywords that you enter. Which "Two" of the following are other methods you can use to browse a web site?

A.	☐ Hyperlinks.
B.	☐ The Go button.
C.	☐ The Forward and Back toolbar buttons.
D.	☐ The Windows XP Find tool.

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Searching the Web

Once you begin using the Internet, you may know that information you are looking for exists on the Web, but not know how to locate it. Search engines are programs that enable you to locate preferred Web sites, and also present you with you and exiting Web sites.

In this lesson, you'll learn how to:

☐ Define search requirements.

☐ Use a keyword and a common logical operator in a search.

☐ Save and download a Web page.

☐ Modify page setup options.

☐ Print a Web page using the basic print options.

☐ Present a search report as a printed document.

Using a Search Engine

As the Internet has millions of Web pages, typing to locate specific information could be time-consuming. Luckily, the World Wide Web contains search engines, such as Yahoo!, Google, and MSN Search.

Search engines maintain indexed databases of the contents of other Web sites, and so allow you to search the Internet quickly for specific information using search criteria or keywords.

To search for specific information;

?   Click in the Search box
?   Click Search

The search engine will filter its database to locate any Web pages that match your search criteria, that is, contain the word you typed in the Search box. After a moment or two the search engine will display a list of relevant Web sites on a new Web page. Each entry in the list is referred to as a hit.

The hits are displayed in various categories, which contain hyperlinks to related Web sites. If too many hits are found, or you don't find the right information in the returned Web sites, you can narrow down your search by entering more specific search criteria. If few hits are displayed you can extend the scope of your search by entering more general search criteria.

To narrow or extend your search:

- ? Click the Back arrow

The keyword you typed in the Search box earlier will still be entered in the text box. You can add a more specific word on the text box and click Search again.

When you use more than one word or phrase as your search criteria, you need to put quotation marks around it. The quotation marks specify that the words in the phrase must appear together in all the search results. If you don't add the quotation marks, the search engine will find one list of Web pages that contain the first word and another for the second word.

To add an opening quotation mark, in the Search box, click before the first word.

- ? Press and hold down the SHIFT key
- ? Press the Quotation Mark key on the top of your keyboard
- ? Release the SHIFT key
- ? Follow the same procedure, enter quotation mark after the second word.

To further refine the search criteria, you can use what's called a logical operator. Logical operators refine keyword searches by including or excluding certain keywords from the search results. The plus and minus signs are commonly used logical operators.

The plus sign in front of a word specifies that that word must appear in al the search results, while the minus sign in front of a word specifies that that word must not appear in any of the search results.

To use the Logical operator:

- ? Click the space bar
- ? Press the minus sign or plus sign
- ? Type the word you want to appear /don't want to appear in the search results
- ? Click Search

Downloading and Saving Web Pages

As you surf the Web and go from site to site, you may discover new information that you want to read offline. One way to read information offline is to save the Web page to your computer. Then you can read it at your leisure.

To **save a Web page** to the My Documents folder, which is located on your Local Disk (C:):

- ? Click File on the menu bar
- ? Click Save As

The save Web Page will appear. In the File name: box and Save as type: box, you will see that the Web page you want to save is the name of the file to be saved, and html is the default file type.

- ? Select the My Documents folder by clicking on the My Documents button
- ? Click Save

You can open the My Documents folder to check for the Web page you have just saved.

To save a Web Page as a text file:

- ? Click File on the menu bar
- ? Click Save As
- ? Click on the Save as type: arrow and select Text File(*txt)
- ? Click Save

Downloading files from the Internet is easy and fun. As you browse various Web sites, you may come across software that you want to download.

In the Search box of a Web site, type the word of the software you want to download and click GO.

After a few seconds the search results will display a list of programs that you can download on a free, on trial basis or for sale.

- ? You can choose the specific program by clicking on its hyperlink.

A download appears giving a description of a product, file size, date, and comments by individuals who have already downloaded and tried the product.

- ? Click the Download Now hyperlink

The File Download dialog box will appear. It will display where the file is being downloaded from, and it offers you four options: Open, Save, Cancel and More Info.

If you select the Open option, the program will open up and execute once you have finished downloading the file.

If you select the Save option, the Save As dialog box will appear asking you to save the file to a location on your computer. The File Download box will appear, showing the name of the file and the approximate time that it will take to complete the download.

Once you have completed downloading your file, the File Download dialog box will disappear or indicate that the file transfer from the Web site to your computer is complete.

Printing a Web Page

Sometimes when you find information that interests you on the Web, you may prefer to read the information offline at a later time, or to print a copy for reference.

Before printing a Web page, you can modify the page setup to ensure that all the contents of the page will be printed in a clear and presentable manner.

To change the page setup options of a Web page

- ? Click File
- ? Click Page Setup on the File menu

The Page Setup dialog box is divided into sections that enable you to change different page properties; it also contains a diagram of a page, which changes as you make alterations to the page setup.

Under Paper, you can alter the size and type of paper on which the Web page is printed. The Size: box defaults to A4, which is standard printing page.

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? Click the Size: arrow to see the other paper sizes available.

A Web page can be printed on a variety of paper sizes, from A5 to Envelope.

In the Source: box, you can select which paper tray on your printer to use, depending on the type of paper you want to print on.

Under Headers and Footers, you can edit the appearance and content of the headers and footers, the text on the top and bottom of your printed Web page. The header and footer boxes contain code for adding standard header and footer information when you print a Web page.

Under Orientation, there are two options, Portrait and Landscape. Portrait is the default orientation and prints the Web page vertically on the page. In contrast, Landscape prints the Web page horizontally across the page. Depending on the Web page, it may sometimes help if you print the contents of A web page horizontally.

Under Margins, you can alter the margin settings on your page, to suit your printing needs. Margin settings define the amount of space between the contents of the Web page and the edge of the paper when the Web page is printed.

After preparing for printing you can now print the Web page.

? Click File on the menu bar
? Click Print

In the Print dialog box, you can select a printer, and specify the range of pages and the number of copies you want to print.
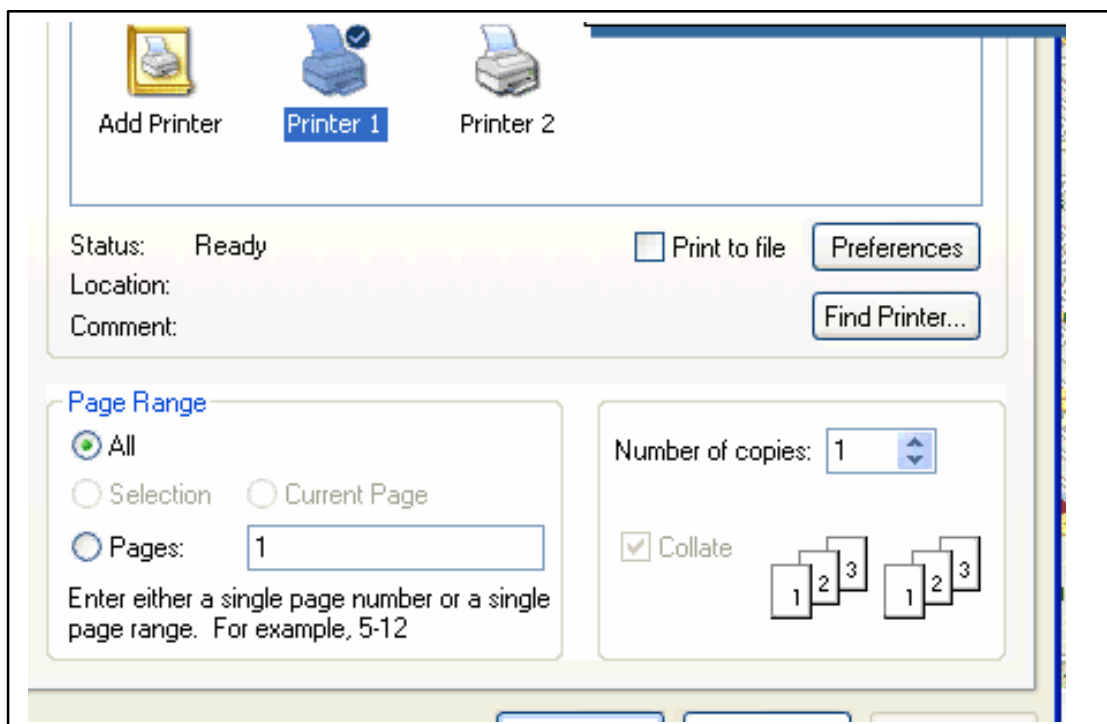
The search report is the feedback you get when you conduct a search, offering you a list of hits. It may be a useful reference for you the next time you look for the same thing. To print a search report:

- ? Search for a specific topic
- ? On the search result page, click File
- ? Click Print.

Review

In this lesson, you:

☐ Defined search requirements.

☐ Used a keyword and a common logical operator in a search.

☐ Saved and downloaded a Web page.

☐ Modified page setup options.

☐ Printed a Web page using the basic print options.

☐ Presented a search report as a printed document.

Test

Question 1

You are trying to locate specific information on the Web and you do not have a Web address. What should you use?

A.	☐ The Find tool.
B.	☐ A search engine.
C.	☐ A Uniform Resource Locator.
D.	☐ The Help function.

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Question 2

A search engine is a program that maintains an indexed database of the contents of other Web sites. When a search is activated, what does the search engine do with the results?

A.	☐ It finds the most appropriate Web site and displays that address
B.	☐ It finds the most appropriate Web site and opens that site.
C.	☐ It e-mails the closest match to you.
D.	☐ It displays a list of the closest matches for you to choose from.

Question 3

Practical exercise

Question 4

It is possible to print a Web page.

A.	○ True
B.	○ False

Question 5

To print a Web page horizontally across the page, which option would you select in the Page Setup dialog box?

○ Portrait	○ Landscape	Left: 7.5	Right: 7.5
A	B	C	A

Question 6

Printing a Web page enables you to:

A.	☐ Download information faster.
B.	☐ Read information offline.
C.	☐ Read word processing files faster.
D.	☐ Download Microsoft Access files faster.

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Question 7

When saving a Web page to your computer, you'll see which dialog box?

A.	☐ Windows Explorer.
B.	☐ Save As.
C.	☐ File.
D.	☐ Format.

Question 8

Saving a Web page enables you to read, but not store information offline.

A.	○ True
B.	○ False

Question 9

It is possible to save a Web page if you're not connected to the Internet.

A.	○ True
B.	○ False

Question 10

Downloading files or programs from a Web page is the most common way of getting information from the Internet.

A.	○ True
B.	○ False

Question 11

Downloading files or programs is the only way to gather information from the Internet.

A.	○ True
B.	○ False

Question 12

Which dialog box appears before downloading files from a Web site?

A.	☐ Save As.
B.	☐ Open.
C.	☐ Windows Explorer.
D.	☐ File Download.

Question 13

Downloading files or programs from a Web page usually requires that you click on a hyperlink.
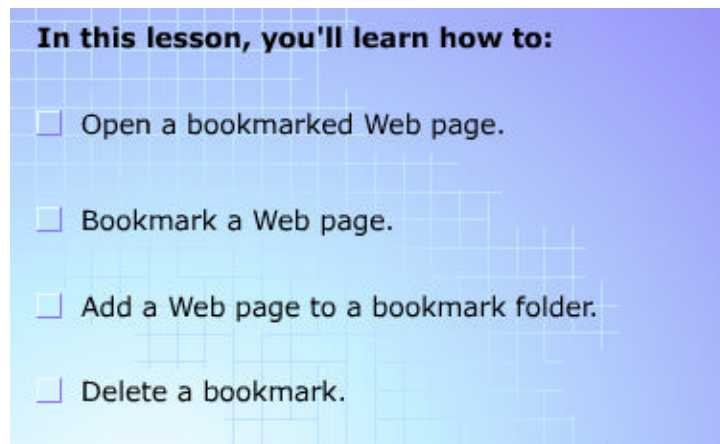
A.	○ True
B.	○ False

Question 14

To upload information or file to the Web means that you are receiving information or a file from a Web site.

A.	○ True
B.	○ False

Web Bookmarks

Some Web addresses are extremely long and complicated, often containing an elaborate combination of text, symbols, and numerical characters. Trying to remember such addresses is very difficult. For this reason, most people who use the Web also use bookmarks to mark their favorite or most frequently accessed Web sites.

When they want to access one of their favorite Web sites, instead of typing the Web address into the Address bar of the Browser, they can use the bookmark to take them directly to the Web site.

In this lesson, you'll learn how to:

☐ Open a bookmarked Web page.

☐ Bookmark a Web page.

☐ Add a Web page to a bookmark folder.

☐ Delete a bookmark.

Bookmarking a Web page

Regular Web users tend to have a selection of favorite Web sites that they visit and use frequently. You can keep a list of your favorite Web sites on your computer, by placing bookmarks on these Web sites.

Web bookmarks operate in much the same way as regular bookmarks, in that they simply mark pages within your Web browser. All bookmarks are stored on the Favorites menu.

To view all the Web pages currently bookmarked:

? Click Favorites on the menu bar
? Click the Website you want from the Favorites menu

To bookmark a Web page:

? Open a Web page
? Click favorites on the menu bar
? Click Add to Favorites

In the Add Favorites dialog box, the default name will be the currently opened Web site. You can easily change the default bookmark name and give it your own name by typing the name you want in the Name: text box. Changing the bookmark reference name does not affect the contents of the Web page in any way.

The "Make available offline" check box enables you to access the Web page even when your computer is not connected to the Internet. This means that you save it on the hard drive of your computer and you can read it from there.

You can delete any bookmarks that you no longer need. To delete a bookmark:

- ? Click Favorites on the menu bar
- ? Click Organize Favorites
- ? Select the Web page you want to delete from the dialog box
- ? Click the Delete button

A message will appear asking you to confirm that you want to send the Web page to the Recycle Bin

- ? Click Yes
- ? Close the dialog box.

Organizing Bookmarks

Once you're familiar with using bookmarks, your favorites list can become quite lengthy. To help organize and manage your bookmarks, you should create bookmark folders.

In the Add Favorite dialog box;

- ? Click "Create into"

The dialog box will expand, displaying the folder structure of your favorites list. The Favorites folder is created by default and all bookmarked Web pages are stored in it, unless another folder is specified.
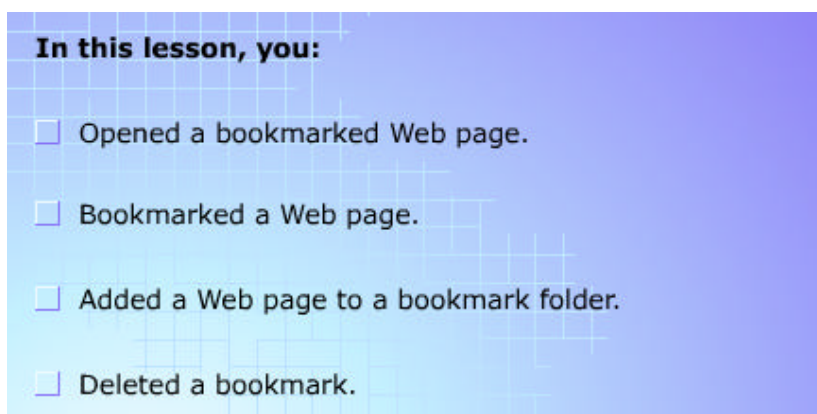
The Links folder is also created by default. If you add bookmarks to the Links folder, you can access them quickly by clicking the Links bar.

You may prefer, however, to save your bookmarks in more clearly categorized folders.

To create a new folder:

- ? Click New Folder in the Add Favorite dialog box
- ? Type the name of the folder in the Folder Name text box
- ? Click OK to save the new folder in the Add Favorites dialog box.

Review

In this lesson, you:

☐ Opened a bookmarked Web page.

☐ Bookmarked a Web page.

☐ Added a Web page to a bookmark folder.

☐ Deleted a bookmark.

Test 19

Question 1

What is the function of a Web browser bookmark?

| A.	☐ To maintain a list of Web sites accessed in the last 20 days.
B.	☐ To link part of a Web page to a different part of another Web page.
C.	☐ To create a convenient link to a Web page.
D.	☐ To mark all of the Web sites accessed by a particular user.

Question 2

Let's say you have created a few bookmarks to your favorite Web sites. Which menu do you use to see the list of those bookmarks?

Favorites	Edit	View	Tools
A	B	C	D
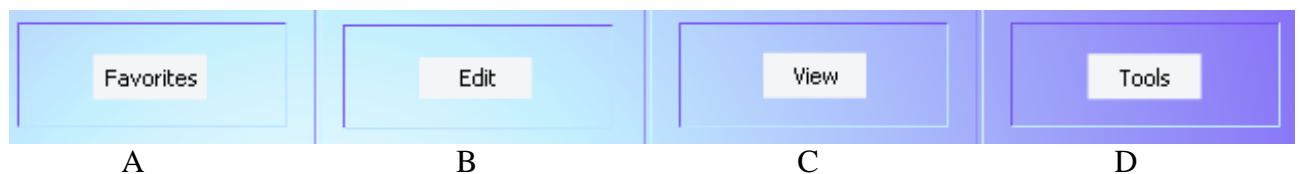
Question 3

You want to bookmark a Web page. Which command on the Favorites menu do you select?

📁 Links	📁 Search Engines	Add to Favorites...	Organize Favorites...
A	B	C	D

Question 4

When creating a bookmark to a Web page, you see a "Make available offline" check box. If you select this, you can access that Web page even if your computer is not connected to the Internet.

A.	○ True
B.	○ False

Question 5

Practical

Question 6

By default all bookmarked Web pages are stored in the Links folder.

A.	○ True
B.	○ False

Electronic Mail

Electronic mail, e-mail, enables people all over the world to send messages to each other using a computer. E-mail is fast and inexpensive, and it is the most popular methods of communication used today.

In this lesson, you'll learn:

☐ About network etiquette, or 'netiquette'.

☐ About digital signatures.

☐ About receiving unsolicited e-mails.

☐ What to do when receiving an attachment from an unknown sender.

☐ How to open an e-mail application.

☐ Open an inbox for a specified user.

☐ Open an e-mail message.

☐ Use the Help function.

☐ Change the display mode.

☐ Modify the toolbar display.

Understanding E-mail

E-mail is a system for sending electronic messages over networks. This can include sending internal e-mail messages using the company's local area network (LAN), or sending e-mail messages to people on the other side of the world using the Internet.

To send and receive e-mail messages, you need a mailbox, which will be created by your network administrator or ISP. A mailbox is the location where your e-mail messages are delivered. Each e-mail user must have their own mailbox before they can use e-mail.

An e-mail address is a unique address that you use to send and receive messages. Typically, the format is the user name, followed by the @ symbol, and then the domain name.

The first part is usually the user name, or full name of the user.

The second part is the domain, which can be the ISP or the company's name.

Like internet addresses, the last two parts refer to the organization type and country (co meaning commercial business, za meaning South Africa.)

Once you've established an e-mail account, you can deliver your e-mail messaged to anywhere in the world in a matter of seconds.

Introduction to Information & Communication Technology

E-mail also offers you global flexibility, which means that you can collect or send your e-mail anywhere in the world, as long as you have a Web based e-mail account. Web-based e-mail enables you to access your messages from a Web site instead of from software installed on your computer.

Security

As you use e-mail more often, and spend more time online, there are certain business regulations and security considerations that you should be aware of:

You should always be careful when **sending sensitive content** as e-mail, most especially within a work environment. Businesses usually have an e-mail policy in place, and it is up to you to familiarirse yourself with it and follows its provisions. These policies usually incorporate standards business rules and regulations barring the sending of e-mail which is not directly related to the business.

Beware of the possibility of receiving unsolicited e-mail. This means that you may receive e-mail from groups or individuals that you do not know. Many of these unsolicited e-mails come in the form of commercial or sales advertisements. Unsolicited e-mails are also called Spam. Spam is an unsolicited e-mail message sent to many recipients at one time, or a news article posted simultaneously to many newsgroups. Spam is the electronic equivalent of junk mail.

Maintain a healthy level of suspicion regarding all **unsolicited e-mail**. Be particularly vigilant when it comes to messages telling you, you have won a lottery or cash prize, your collection of which is solely dependent upon you supplying the sender with your bank or credit card account details. You will not receive anything but financial trouble if you respond to these e-mails.

A common type of **e-mail scam** is one in which a supposed holder of a bank account with enormous cash reserves contacts you. They (or their representative) explain that you will be richly rewarded for helping them to access their otherwise unattainable funds. Delete these and all similar e-mails immediately and without replying.

Should you receive an official-looking e-mail from a bank or business of which you a customer be very careful. It may provide a link to a Web page which also looks "official" and asks your account information, PIN or other personal or security details. This is a scam known as "phishing", and is probably the most subtle way of attempting to con people via the Internet.

Phishing is one way of facilitating "identity theft" and you should delete any such e-mail immediately. A bank or other business will NEVER ask you to provide information such as this via e-mail. If you have any reason to doubt, contact your bank directly and ask them to confirm whether they have e-mailed you.

Beware of the danger of infecting your computer with a **virus** by opening an unrecognized mail message, or an attachment contained within an unrecognized mail message. If an e-mail message arrives with an attachment, and you're not sure who the sender of the e-mail is, be careful. Don't click on the attachment until you've scanned it with your anti-virus application, or until you've contacted your network administrator.

A **digital signature** is an electronic tag that confirms that a message, file, or document has originated from the signatory. The signature confirms that the file has not been tampered with in any way since it was created. When using e-mail, security and privacy

are particularly important. To digitally sign a message you need a digital certificate. You can obtain a certificate from a commercial organization, such as Verisign Inc.

If you work in a large organization, you may be able to obtain a certificate from your system administrator. In this instance, it may be company policy to digitally sign message, and it is likely that you will be instructed in the appropriate procedure.

You can create a digital certificate yourself, using software such as "Selfcert". However, certificates you create may be considered un authenticated, and they can generate error messages if the recipient security settings are high.

To check a received message that has been digitally signed, open the message and check the Signed By status line to see if the signature is valid or invalid. The red line under the signature indicates that the signature is invalid..

To learn how to send a digitally signed message, if you have a valid digital certificate, you should consult your e-mail application help.

Netiquette (Web Manners)

In order for people to communicate clearly and effectively using e-mail, a simple set of rules has emerged forming a convention called network etiquette or "netiquette" for short.

- ? Do not leave the Subject filed blank, fill it in with a heading which is informative and accurate, but brief.
- ? The main body of the message should be brief with appropriate text formatting, ensuring the text is easy to read.
- ? The writing style should be informal, as the message is personal and will be dealt with by the addressee.
- ? Take care however not to be write too informally, and try avoid using a "jokey" style as you intentions may be misunderstood.
- ? Do not be critical as the person may interpret the e-mail in a way that you didn't intend
- ? Do not use capital or upper case letters, AS YOU MAY APPEAR TO BE SHOUTING.
- ? Spell –check your messages before you send them
- ? If you have larger amount of information to send, send it as an attachment.
- ? Do not be abusive, threatening or insulting.

You should take care what you say and how you phrase messages, especially to work colleagues. A permanent record of a conversation exists if it is conducted by e-mal.

Observe the simple rules of netiquette, and be clear, brief and polite at all times when sending e-mail.

E-mail Basics

To view your mailbox, you use an e-mail application, such as Microsoft Outlook, StarMial or Web- based emailing services, such as Webmail. E-mail applications also allow you create and send e-mail messages, and attach documents, sound files, pictures and movie clips to these messages.

To use Microsoft Outlook:

? Double click the Microsoft Outlook icon on the desktop.

The first time you open an e-mail application, you will be asked to configure it, or set it up, on your computer. This will involve entering details such as your username e-mail address, and information about your mail server.

Your e-mail address is the address other people use to send e-mail messages to you and must be unique. Your ISP or network administrator will provide these details and any additional information you may need.

The Microsoft Outlook application window contains the standard features of an application window, such as a title bar, menu bar, toolbar and status bar.

The main part of the window contains your Outlook Shortcuts and a display section. A list of all of your folders is displayed on the left side of the window.

To view the entire contents of your list of folders, click the highlighted Folder List icon. A list of folders will be displayed. Each folder provides a different function. The display section changes, depending on which folder is selected in the Folder list.

In the Folder list, the Inbox folder will appear bold, and with a number next to it if you have any unread messages.
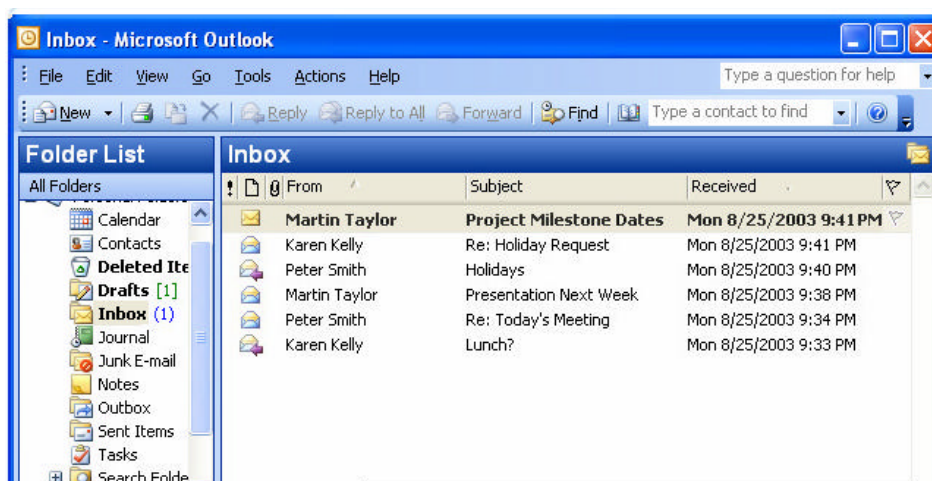
If you click Inbox, by default, the display section will show the sender's name, the e-mail's subject or title, and the date and time the e-mail was received. You can easily change the e-mail details displayed in the Microsoft Outlook window to suit your requirements.

In the display section, all unread messages will be displayed as **BOLD.** To open an unread message, double click on the message. The message will be opened in a new window with a toolbar that contains buttons that allow you

? to reply to this e-mail.,
? forward the e-mail to other people,
? move the e-mail to a folder
? or delete the e-mail

Like most applications, this e-mail application has a Help function. Outlook Help can be very useful when learning how to use Outlook, as it can answer almost all your questions

about the e-mail application, and give you instructions that help you perform different tasks.

Review

In this lesson, you learned:

☐ About netiquette and digital signatures.

☐ About receiving unsolicited e-mails.

☐ About what to do if you receive an attachment from an unknown sender.

☐ How to open an e-mail application.

☐ How to open an inbox for a specified user.

☐ How to open an e-mail message.

☐ How to use the Help function.

☐ How to change the display mode.

☐ How to modify the toolbar display.

Test 20

Question 1

You are using your company's local area network to e-mail colleagues in your office. Before you can send or receive an e-mail message, which two of the following items must you have?

A.	☐ An e-mail application.
B.	☐ A mailbox.
C.	☐ A phone.
D.	☐ An Internet connection.

Question 2

Practical

Question 3

To view e-mail messages that you have received, select the _____ folder in the Folder List.

Question 4

You can change the view of messages in your Inbox using the View menu. To display the first three lines of text in each message, which command on the View menu do you select?

AutoPreview	Reading Pane	Navigation Pane	Arrange By
A	B	C	D

Question 5

Your e-mail application window displays certain standard toolbars. Suppose you want to add another toolbar-which option on the menu bar will you need to select?

Edit	View	Tools	Actions
A	B	C	D

Basic Messaging

In this lesson, you'll learn how to:

☐ Create and send a message.

☐ Attach a file to a message.

☐ Copy, move, and delete text in a message.

☐ Collect and open a message.

☐ Switch between open messages.

☐ Flag a message and mark a message as unread.

☐ Reply to a message.

☐ Forward a message.

Message Sending

We are going to look at Microsoft Outlook.

First Steps

To create a new e-mail message on Microsoft Outlook:

> ? Click File on the menu bar
> ? Point to New
> ? Click Mail Message

A blank message window is displayed. The Inbox window will appear as a button on the taskbar. A message window contains three areas for entering identifying information, or fields.

> ? "To" field
> ? "Cc" field or "Carbon copy"
> ? "Subject" field

In the "To" field you specify who the message will be sent to by entering the recipient's e-mail address. You can have any number of e-mail addresses in this field, depending on the number of people you're sending the message to. A message can not be sent without you entering an e-mail address in the "To" field.

To send a copy of the message to some one who is not intended as the direct recipient of the mail, you enter their e-mail address in the "Cc" field. You use this field if the message

is simply for the information of the copy recipient, but you don't expect a response. Again you can enter any number of e-mail addresses in this field.

The "Subject" field is used to enter a title for the message. The title should consist of a word or phrase that clearly indicates the content of the message. The title is displayed in the Inbox of the people you send and copy the message to.

A message window also contains a large text box where you type the content of your message.

In Microsoft Outlook, two toolbars are displayed by default in the message window, the Standard toolbar and the Formatting toolbar.

The Standard toolbar contains buttons that offer a quick way to perform all of your basic sending, saving, printing and editing functions.

The Formatting toolbar contains various buttons that allow you to change the font type, size, colour, style and alignment of the text in your message.

E-mail applications allow you to **attach files** of any formats to an e-mail message. This facility enables you to send documents, sound files, pictures and movie clips to other e-mail users quickly and cheaply.

There are however a few factors to consider before you decide to send a file as an e-mail attachment.

?   Is the file an appropriate size for sending via e-mail?

The larger the file, and by extension, the e-mail, the longer it will take to upload to and download from an e-mail server.

?   Be aware of the capabilities of the recipient's system.

You may wish to attach a Microsoft Word document to your e-mail. Perhaps the person to whom you are sending the document doesn't use Word as they prefer a Linux environment .In this case, your attachment would be better received as a plain or rich-text formatted file as this could be opened on the recipient's PC.

?   Be aware that there can be restrictions in place on the allowed size of attachments set by the user's network admin, or enforced by their ISP.

To attach a file to an e-mail in Outlook:

?   Click Insert on the menu bar
?   Click File on the Insert menu

Using the Insert File dialog box, you can browse the computer to locate the file you need to attach to the message.

?   Open the folder and select the document you want to send.

The document you selected will be displayed in the Attachment field of the message. The recipient of the message will be able to open this attachment, read and edit its content, save it on his computer, or send it as an attachment in an e-mail message to another e-mail user. The message will be displayed with a paper clip symbol next to it to indicate that that message has an attachment liked to it.

Introduction to Information & Communication Technology

Please note that you can send numerous file attachments with every e-mail message but you must remember that every attachment increases the size of the overall message.

Outlook allows you to set either a high or low importance level for an e-mail message. The importance level is displayed in the recipient's Inbox and so indicates to the recipient whether or not the e-mail message is urgent.

To set importance level for a message you use the Importance: High button or the Importance: Low button on the Standard toolbar.


When the recipient receives the message, a red exclamation mark will appear beside it in his Inbox.

Before sending a message, it's a good idea to check for spelling mistakes-mail applications feature a spell-check tool that searches a message and identifies any misspelled words. When you run the spell-check tool, it highlights each misspelled words in the message and suggests alternative ways to correctly spell those words.

To use the Spell-check tool:

- ? Click Tools
- ? Click Spelling and Grammar

The Spelling and Grammar dialog box will appear. The first misspelled word is highlighted in the message and displayed in the "Not in Dictionary" box. A correct spelling will be displayed in the "Suggestions" list box
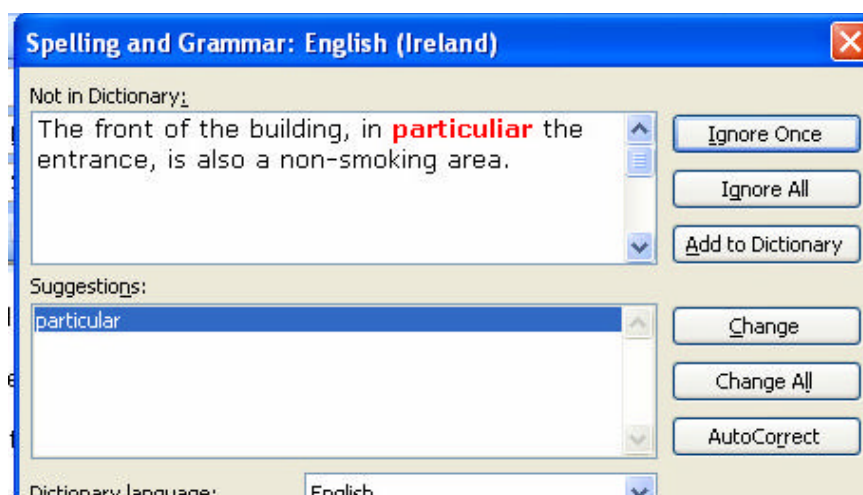
To send the message, click the Send button.

Delete, Copy and Moving Text

To access messages that you have sent before, you need to open the Sent Items folder. On the task bar of the message window, click the Inbox button to view the Folder list again.

- ? Click the Sent Items from the Folder List
- ? Double click the message you want to copy information from
- ? Select the text you want to copy from the text box, by clicking at the beginning of the text and dragging along the text to the end.
- ? Click edit on the menu bar
- ? Click Copy
- ? Open the message you want to restore the copied text into by clicking it on the task bar
- ? Click Edit on the menu bar
- ? Click paste

The text copied from another message will be placed in the new message.

If the message does not get placed in a correct position in the text box, you can use the Cut and Paste tool to correct that mistake.

- ? Select the text again
- ? Click Edit
- ? Click Cut
- ? On the text box, click to place the cursor where you want the text to appear
- ? Click Edit on the menu bar
- ? Click Paste

You should always have a quick look over a message before sending it, in case you've made any mistakes, especially when cutting and pasting text.

To delete text:

- ? Select the text you want to delete
- ? Click Edit
- ? Selects Clear and click Content from the list or Press the Delete key on the keyboard.

Viewing a Message

If you are connected to your company's e-mail server, you will receive e-mail messages as soon as they are delivered to your mailbox. If, on the other hand, your mailbox is stored on an ISP's mail server, any messages delivered to your mailbox will remain an the ISP's mail server until either your e-mail application automatically checks your mailbox for new messages, or you request that it does so.

To request Outlook to check your mailbox immediately, you use the Send/Receive button on the Standard toolbar.

To open messages in the Inbox display section, double click the message.

To open an attachment, double click it in the "Attachments" field of the message

To save the attachment you a location on the drive:

> ? Click File
> ? Click Save As

It is possible to open multiple message windows and switch between them, using the task bar buttons.

When you are unable to act upon a e-mail at the time you receive it, you can apply a mail "flag" to a message which will remind you to act appropriately on it at a more suitable time.

To flag a message, click the Follow Up button on the toolbar.

To remove the flag once the Follow Up has been completed, click Clear Flag in the Flag to Follow Up dialog box.

Messages displayed in the Inbox are marked as either read or unread. An open envelope icon indicates that a message has been read. A closed envelope icon with the text displaying the header details bolded indicates that a message has not yet been read.

Answering a Message

A quicker and easier way to reply to the sender of a message is to use the "Reply to sender" function. This function automatically fills the necessary details into the fields of the "reply message" for you.

The txt in the original message sent to you is also added to your reply, as well as other message details.

The blank space provided at the top of the message text area is the section into which you can type your reply.

To send a reply to all e-mail addresses included in the original message, you can use the "Reply to All" function.

When using e-mail, you may receive a message that contains information you want to pass on to someone else. Outlook allows you to forward messages to other e-mal users. This means that you can quickly distribute information by sending other e-mal users an exact copy of an e-mail that you have received.

Unlike the "Reply To" function, both the "To" and "Cc" fields will be cleared, so you can enter the e-mail address of the person to whom you want to forward the message.

Review

In this lesson, you:

☐ Created and sent an e-mail message.

☐ Attached a file to a message.

☐ Copied, moved, and deleted text in a message.

☐ Collected and opened a message.

☐ Switched between open messages.

☐ Flagged a message and marked a message as unread.

☐ Replied to a message.

☐ Forwarded a message.

Test 21

Question 1

In the e-mail application window, which menu do you use to create a new e-mail message?

File	View	Tools	Edit
A	B	C	D

Question 2

A message window contains three fields, Which two of the following statements about these fields are true?

A.	☐ You must enter details in each field before you can send your e-mail message.
B.	☐ You can enter more than one e-mail address in the To field.
C.	☐ The contents of the Subject field are displayed in the recipient's Inbox.
D.	☐ The Cc field contains the direct recipient's e-mail address.

Question 3

Practical

Question 4

You can attach a file to an e-mail message.

A.	○ True
B.	○ False

Question 5

You can copy or cut text. What is the difference between the Copy command and the Cut command?

A.	☐ Copy stores the text on the local disk; Cut doesn't store the text.
B.	☐ Cut removes the text from the message; Copy doesn't.
C.	☐ Copy allows you to paste text into another message; Cut doesn't.
D.	☐ Cut permanently deletes the text; Copy doesn't.

Question 6

When your mailbox is stored on an ISP's mail server, you receive e-mail messages as soon as they are delivered to your Inbox.

A.	○ True
B.	○ False

Question 7

The Reply to Sender function automatically fills the fields of the reply message for you. What details does it enter in the To field?

A.	☐ The original sender's e-mail address only.
B.	☐ The original sender's e-mail address and the original recipient's e-mail address.
C.	☐ All the e-mail addresses in the original message.
D.	☐ The title of the original message prefixed by RE:

Question 8

E-mail applications allow you to forward messages to other e-mail users. Why would you forward a message?

A.	☐	To confirm that you received that e-mail message.
B.	☐	To distribute information in that e-mail message to other e-mail users.
C.	☐	To reply to the original sender of the message.
D.	☐	To send a copy of the reply to all the e-mail addresses in the original message.

Introduction to Information & Communication Technology

Managing Mail

To organize and manage files on your computer, you store related files in appropriately named folders. In Outlook, you can also create e-mail folders, in which you can store similar or related messages.

When using an e-mail application, it is important that you develop your own folder structure to ensure that you can quickly access e-mail messages that you've sent or received.

In this lesson, you'll learn how to:

☐ Search for a new message.

☐ Create a new e-mail folder.

☐ Move messages to a new e-mail folder.

☐ Sort messages by name and by date.

☐ Delete a message.

☐ Empty the Deleted Items folder.

Message management.

Outlook provides an Advanced Find tool that searches your e-mail folders for particular e-mail messages using search criteria, such as the sender's name or subject title.

To access the Advanced Find tool:

? Click Tools on the menu bar
? Click Advanced Find on the Tools menu

Just as you create folders on your computer to store files, you can create e-mail folders in Outlook to organize and store your messages.

You can create new folders in the Folder List or you can create sub-folders in any of the default folders in the Folder List.

Once you have created a folder or sub-folder, you need to move any relevant messages from the default folders into the newly created folders.

To move the messages to the sub-folder, first you must select them.
To select items in the Display section:

? Select one message
? Press and hold down the CRTL key on the keyboard.
? Click and select as many messages as you need.

Introduction to Information & Communication Technology

To move items from one folder to another in Outlook, you use the Move Items command.

- ? Click Edit
- ? Click Move to Folder on the Edit menu

The Move Items dialog box will display your current folder structure.
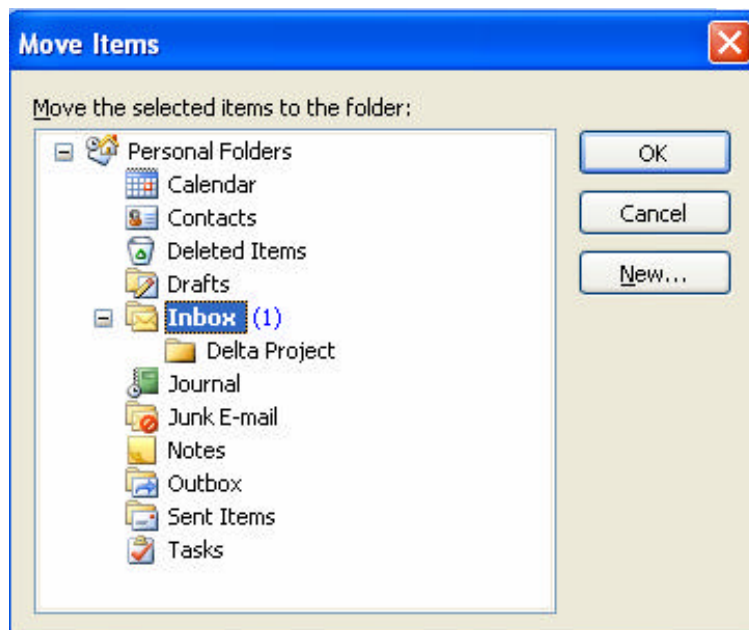
In the "Move the selected items to the folder" box you select the folder that you want to move the selected messages to. Then click OK.

If a folder contains a large number of messages, it can be difficult to locate and distinguish them. To help organize in a folder, you can sort them by various fields.

To sort messages using the "From" field, in ascending alphabetical order:

- ? Click the" From" title button

An upward pointing arrow will be displayed on the "From title" button to indicate that the list of messages is sorted in ascending alphabetical order according to the "From field" The sender's name determines the order of the list.

Although you can create any number of folders or sub—folders in Outlook to store messages, sometimes it's better to delete trivial messages rather than storing them.

To delete unwanted messages:

- ? Click a message in the display section to select it
- ? Click Edit
- ? Click Delete in the Edit menu

All items deleted in Outlook are stored in the Deleted Items folder. You can easily recover ant items in the Deleted Items folder by moving the back to their original folder.

To empty the Deleted Items folder:

- ? Click Tools on the menu bar
- ? Click Empty "Deleted Items" Folder

All of the items in the Deleted Items folder will be permanently removed from Outlook if you click Yes on the warning message box.

Review

In this lesson, you:

- ☐ Searched for a message.
- ☐ Created a new e-mail folder.
- ☐ Moved messages to a new e-mail folder.
- ☐ Sorted messages by name and by date received.
- ☐ Deleted a message.
- ☐ Emptied the Deleted Items folder.

Test 11

Question 1

Mail folders in e-mail applications can be manipulated and organized in the same way as regular folders on your computer.

A.	○ True
B.	○ False

Question 2

What is the function of the Advanced Find tool?

A.	☐ To search e-mail folders for particular messages using search criteria.
B.	☐ To locate the e-mail addresses of important contacts.
C.	☐ To locate particular e-mail folders using search criteria.
D.	☐ To search your LAN for other e-mail users.

Question 3

You can create sub-folders in all of the default Folders in Outlook.

A.	⚪ True
B.	⚪ False

Question 4

You have selected three messages in the Inbox. To remove these messages from here and place them in another folder, what command on the Edit menu do you select?

Copy to Folder...	Copy	Select All	Move to Folder...
A	B	C	D

Question 5

Let's say the messages in your Inbox are sorted chronologically in ascending order. What field was used to sort them?

A.	☐ The Importance field.
B.	☐ The Attachment field.
C.	☐ The Received field.
D.	☐ The Subject field.

Question 6

You delete a message from your Inbox. What happens to this message?

A.	☐ It is permanently deleted from your mailbox.
B.	☐ It is stored in the Deleted Items folder until the folder is emptied.
C.	☐ It is stored in the Recycle Bin on your computer until it is emptied.
D.	☐ It is temporarily stored on your ISP's mail server.

Address Books

In most e-mail applications there is a Contacts facility that allows you to store a list of e-mail addresses along with information about each of the contacts on the list. Using address lists also helps in quickly addressing e-mal and in sending e-mail messages to multiple recipients.

In this lesson, you'll learn how to:

☐ Add a mail address to an address book.

☐ Delete a mail address from an address book.

☐ Create a distribution list.

☐ Update an address book using an incoming mail.

☐ Reply to a message using a distribution list.

☐ Copy a message to another address.

☐ Use the Blind carbon copy field.

☐ Preview and print an e-mail message.

Sending Messages to Several Addresses

The Contacts folder contains lists of e-mail addresses and is often called an address book. It provides you with blank forms into which you can enter the address details of the people you correspond with.

To add a new contact to the Contact list:

? Click the Contacts folder in the Folders List

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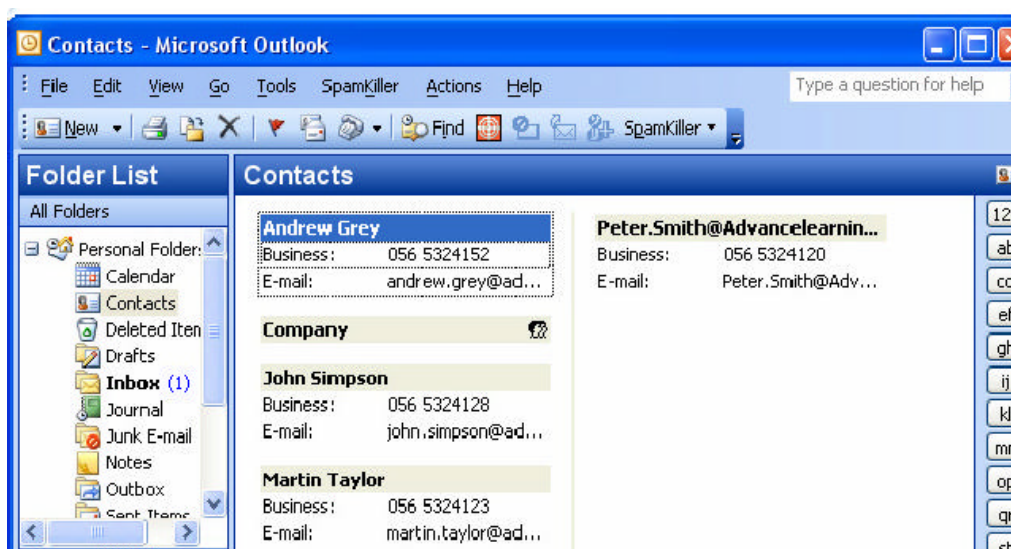
On the right side of the screen, you will see that information is displayed on what is known as contacts cards. Each entry listed may contain a lot of additional information, but the most important details will be displayed on the contact cards.

- ? Click File
- ? Point to New
- ? Click Contact to open a new contact form

You can enter all the relevant details in the form and click the Save and Close button. A new Contact card will be created.

To use the Contacts list to send messages:

- ? Click the Inbox Folder
- ? Open a new message
- ? In the message window, click the "To" button

The Select Names dialog box will have a list of all your contacts. The Contact list can be used to fill the "To", "Cc" and "Bcc" fields for each new message.

To address the message to a particular contact:

- ? Click the contact from the list
- ? Click the To ⟶ button
- ? Click OK

In the message window, the contact's address will be underlined and displayed in the "To" field.

When a name is underlined in an address field, it means that Outlook recognizes the name as an entry in the Contacts folder and will use the associated e-mail address when sending the message.

Entries in your address book can be deleted at any time.

To delete entries from the contacts list:

- ? Double –click the entry from the contact card list
- ? Click File on the menu bar
- ? Click Delete

Distribution lists are collections of related contacts. This can be sued to send general messages to all contacts on that list, for example, distribution of a memo in a organization.

To create a distribution list:
- ? Click File
- ? Point to New
- ? Click Distribution List

A distribution list should be assigned an appropriate name that relates to its contents. You can type the name of the distribution list in the "Name" and then enter all the relevant details on the form.

Every e-mail message that is sent to your e-mail account contains the e-mail address of the person that sent you the message. You can easily add contact information from new e-mail messages to your address book.

To add a new contact from an incoming mail:
- ? Click the Inbox Folder
- ? Double click the new e-mail message to open it.
- ? Right-click the "From " field
- ? On the short cut menu, Click " Add to Outlook contacts"
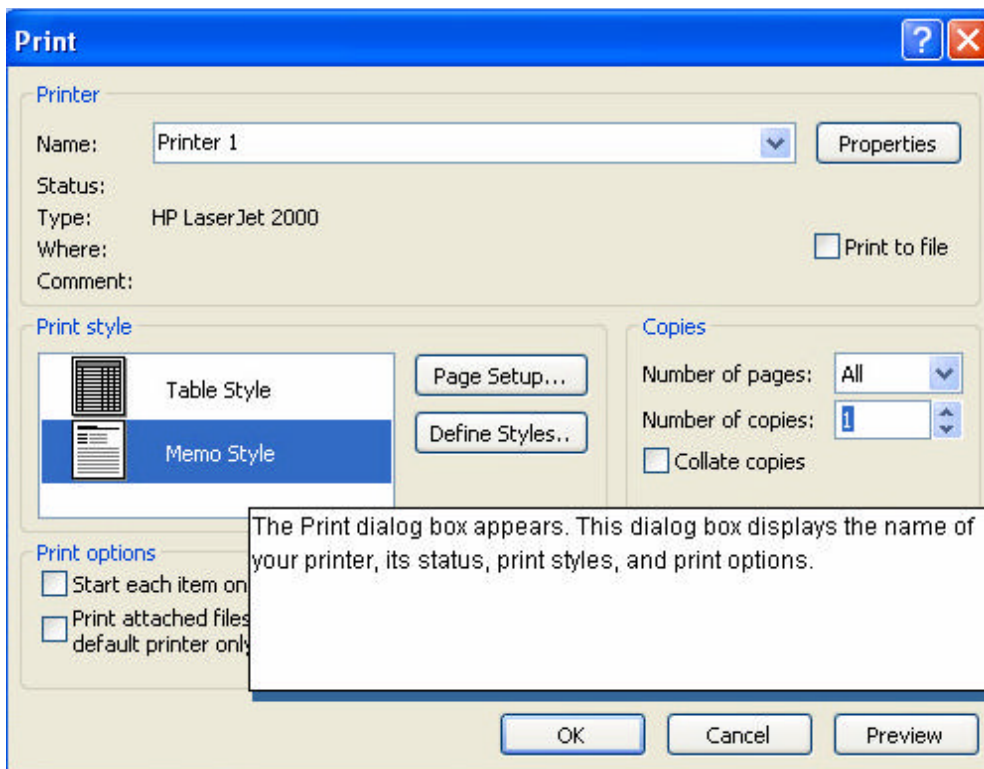- ? From the new contact form, click "Save and Close"

Print Preparation

Preparing to preview and print your e-mail messages is as easy as sending e-mail across the Internet.

To preview a message for print:

- ? Open the message
- ? Click File
- ? Click Print Preview

You can preview the message in various modes, selecting them from the Print Preview dialog box. Once you are satisfied with the document, click the print button on the toolbar to print the message.

The Print dialog box appears. This dialog box displays the name of your printer, its status, print styles, and print options.

Review

In this lesson, you:

☐ Added a mail address to an address book.

☐ Deleted a mail address from an address book.

☐ Created a distribution list.

☐ Updated an address book using an incoming mail.

☐ Replied to a message using a distribution list.

☐ Copied a message to another address.

☐ Used the Blind carbon copy field.

☐ Previewed and printed an e-mail message.

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Test 23

Question 1

In e-mail applications, what is the function of an address book?

A.	☐ To store the e-mail address details of all the messages that you receive.
B.	☐ To store the e-mail address details of all the messages that you send.
C.	☐ To send your e-mail address details to people that you correspond with.
D.	☐ To store the e-mail address details of people that you correspond with.

Question 2

Contacts can be added to or deleted from your address book at nay time.

A.	○ True
B.	○ False

Question 3

What is a distribution list?

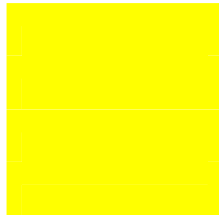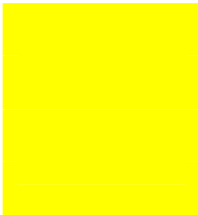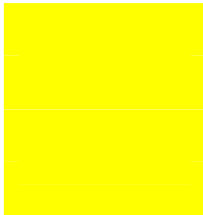| A.	☐ A list of all the e-mail messages that you have sent.
B.	☐ A list of all the e-mail users on your LAN.
C.	☐ A list of related e-mail contacts.
D.	☐ A list of the e-mail addresses that you use most frequently.

Question 4
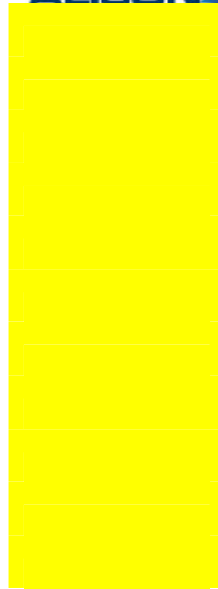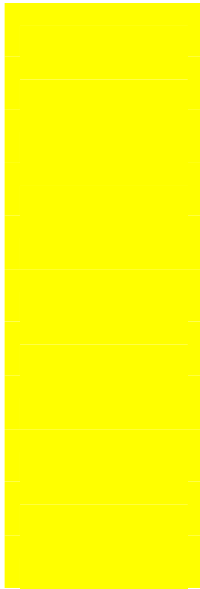
What is the difference between the Bcc field and the Cc field?

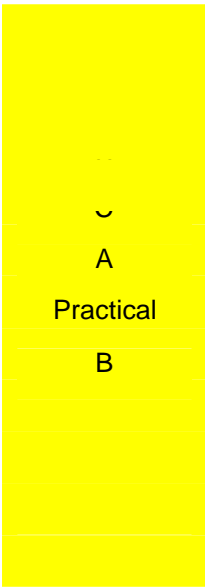| A.	☐ Recipients specified in the Cc field are not displayed to other recipients.
B.	☐ Recipients specified in the Bcc field are not displayed to other recipients.
C.	☐ The Bcc field can only use addresses that are stored in a distribution list.
D.	☐ The Bcc field can only use addresses that are stored in your address book.

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Test Answers

Question	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9	Test 10	Test 11
1	4,1,2,3	B	A	B	A	B	C	A	C	D	A
2	A	D	C	A	B	C	D	Modem	GUI	C	A
3	4,3,2,1	B	D	D		B	GUI	A	B	B	A
4	C	B	B	A		B	D	A	B	1Start,2Con.Pan.,3Perf,4Sytm,5Hard,6DM	D
5	A	A	A			A	1(c),2(d),3(a),4(b)	A	D		D
6	A							A	B,C,D		B

Question	Test 12	Test 13	Test 14	Test 15	Test 16	Test 17	Test 18	Test 19	Test 20	Test 21	Test 22	Test 23
1	D	Practical	B	B	B	B	B	C	A,B	A	A	D
2	A	B	C	A	Modem	B	D	A	Practical	B,C	A	A
3	A	Status	2	A	A	Hyperlink	Practical	C	Inbox	Practical	A	C
4	B	A	B	A	Practical	A	A	A	A	A	D	B
5	B	Practical	A	C	Practical	A,C	B	Practical	B	B	C	
6	D	C	Practical		A		B	B		B	B	
7	B						B			A		
8	4,2,3,1						B			B		
9							B					
10							A					
11							B					
12							D					
13							A					
14							B					

Q	Test 7		Test 9		Test 11	
1	B		A,B		A	
2	D		Practical		A	
3	Practical	C	Inbox	Practical	A	C
4	A	A	A	A	D	B
5	B	Practical	B	B	C	
6	B	B		B	B	
7	B			A		
8	B			B		
9	B					
10	A					
11	B					
12	D					
13	A					
14	B					

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