Unit 1- Computer Users- Introduction

❖ A computer is a device that processes data according to a set of instructions called a program.

❖ The equipment → Hardware

❖ Programs and data → Software

❖ A special set of programs that provides an interface for the user and allows applications programs to communicate with the hardware.

Operating System

❖ Common applications programs include

Word processors

- For creating and editing texts

Spreadsheets

- For calculating mathematical formulas

Databases

- For storing data in a way that allows the data to be stored and searched

❖ **Anti – virus programs** are used to detect and remove **viruses**

- **Viruses** Harmful programs that can reproduce themselves and attach themselves to other programs.

❖ Some operating systems have graphical user interfaces that allow the computer used to select items from menus and to start programs using and input device called a mouse. This is done by clicking the mouse.

- menus → lists of choices
- clicking→ Pressing a button on the mouse

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❖ The main device for inputting data is a typewriter-style **keyboard** and the output is commonly displayed on a monitor screen that looks like a small television screen.

❖ There is a range of sizes and types of computer such as **personal computers (PCs)** → Those designed for use by one person at a time

❖ Personal computers (PCs) include

- **Desktop** computers → Computers for use on an office desk

- **Handheld** computers → Can be carried around by the user

❖ Electronics can be added to desktop computers by plugging in **expansion cards**

- **expansion cards:** Electronic circuit boards that can be plugged into special sockets called **expansion slots.**

❖ Computer on a chip is to build all the main parts of a computer into one electronic integrated circuit packaged as a single small electronic chip.

❖ This enables computers to be built into other devices including household devices such as washing machines and fridges and to be incorporated into plastic cards (smart cards), which are able to store information such as health records, drivers licenses, bank balances ... etc.

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❖ **Smart devices** are devices that include a computer circuit.

❖ A **multimedia computer** can process different forms of data including text, graphics, audio (sound), animation and video.

❖ This enables computer systems to be used for a combination of education and entertainment (**edutainment**)

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❖ Computers do not have a fixed purpose. They are multi-purpose tools. They can be used in a very wide variety of situations and are found in a wide range of systems including security systems, cars and phones.

❖ **Expert systems** are advanced systems that enable computers to think like experts. Medical expert systems, for example, can help doctors diagnose an illness and decide on the best treatment.

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❖ As computer systems are developed, they are becoming more common and are gradually being used for more and more purposes.

❖ How they are developed, and for what purposes they are actually used in the future, can be influenced by computer users.

❖ **Peripherals** are a variety of devices that can be added externally to a computer.

❖ One of the most common peripherals is a **printer** used for printing the computer **output** on paper.

- **Output**: the processed data or signals that come out of a computer system

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❖ A **digital camera** allows photographs to be input to a computer for editing.

❖ Not all computer systems are **compatible** (they cannot use the same programs and data).

❖ Connecting computers together to form a network can provide the **connectivity** required to enable computers and software to communicate and to share resources.

❖ Networks connected together form an **internet**.

❖ The **Internet** or the Net is the connection of networks through out the world.

❖ Various communication services are available on the Internet such as:

- **Email** (electronic mail) for sending and receiving messages

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❖ **Uploading** → copying data from the client to server

❖ **Downloading** → copying data from a larger server system to a client

❖ **The World Wide Web** (WWW) or the Web contains interlinked documents called **webpages**

❖ A **website** is a set of related webpages stored together on a server computer. Websites such as AskJeeves and Yahoo give the user access to special programs called **search engines** that allow the user to find relevant webpages on the Web.

❖ An **information superhighway** in an Internet system designed to provide free, interactive access to vast resources for people all over the world.

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- ❖ Computer uses mentioned in this unit include:
    - producing greeting cards
    - learning using three dimensional graphics programs called "Splat the Cat" and "Pets 3"
- ❖ using the Ms Word wordprocessing program including features such as **clipart** (ready drawn graphic images that can be inserted into documents).
- ❖ Communicating on the Internet using email and chat programs including the use of **email attachments** (other types of files such as video files attached to simple email text messages)

- ❖ Distance learning

- ❖ **Videoconferencing**: a form of communication over a network that uses video cameras so that the people taking part can hear and see each other

- ❖ Electronic classrooms or boardrooms

- ❖ **Browsing** the Web: moving from webpage to another using a browser program

- ❖ Selling using a website

- ❖ painting

❖ Scanning pictures

❖ Downloading music and creating **CD-ROMs** (compact disk read only memory commonly reffered to as **CD's**). CD-ROM's are storage devices that use laser light for reading and writing data.

❖ The most common storage device is the **hard disk** (a set of aluminum disks coated in a magnetic material and enclosed in a vacuum-sealed case) used for storing the operating system and applications programs as well as the user's data.

Assignment

❖ Writing

- Describe how you use computers in your study and in your free time.