

INTRODUCTION TO COMPUTER

- **What is a computer?**
- A computer is an electronic device that accepts data input, processes it according to some specified instructions, outputs the information and stores the results for future use
- **OR** A computer is an automatic digital device which works under a set of controlled programs to simplify man's work accordingly.

Characteristics of Computers

- Modern computers today have the following characteristics:
- **Speed:**—Computers operate at very high speeds which is measured in millions of instructions per second (MIPS).
- **Automatic (Spontaneous):**— computers work automatically, they do not need any supervision in order to perform tasks when instructed.
- **Accuracy:**—Computers are very accurate. The errors in computing are due to the people using them but not technological weakness.

- **Diligence (Endurance):**—Computers have the ability to perform the same task over and over for long time without getting tired. This is because a computer is a machine, and so does not have human behaviors of tiredness and lack of concentration.
- **Artificial intelligence:**—Computers can respond to requests given to them and provide solutions due to their programmability.

- **Storage:**—for a computer to be able to work, it must have some form of work space where data is stored before being processed. All information is stored on a hard disk or in the Random Access Memory (RAM).
- **Computer is versatile:**—Modern Computers can perform different kind of tasks at the same time e.g. you can play music while typing a document at the same time. This is also known as **multi-tasking**.
- **Adaptability:**—Modern Computers can comply with different settings and environments.
For example, they can be used as personal computers, for home use, banking, communication, entertainment, weather forecasting, space explorations, teaching, railways, medicine etc.
- **Need User input:**—Computers cannot initiate themselves and make the decisions. They need instructions from users to enhance the process. After all, a computer is only a machine.

Components of computer

- A computer is really a system made up of three parts working together and these include:
- Hardware
- Software
- Human ware

Hardware

- These are physical and tangible components of a computer. They include all electronic and other devices like keyboard, mouse, central processing unit (CPU), monitor, printer, flash disk drives, hard disk etc

Software

- This refers to set of instructions or programs that tell the hardware what to do. Software provides an interface between hardware and its user. It is also referred to as a translator which performs the communication between the user and hardware. Examples include system software, applications software.

Human ware

- Human ware refers to the people who operate and initialize instructions to the computer system
- Example include secretaries, network administrators, programmers, technicians etc

Data and Information

- **Data**
- Is a collection of raw or disorganized (unprocessed) facts, figures and symbols which have less meaning or importance
OR
- Data is a term used to refer to any raw or unprocessed facts that have less meaning.

Information

- It refers to a collection of organized data that has been processed and is meaningful.
- **Examples**

DATA	INFORMATION
Alphabetical letters (a, b, c, d)	Form words like college, man, handsome etc
Numbers and symbols	Form mathematical equations like $X^2+X = 8$, $a^2-b^2=10$ etc

Commands

- These are instructions given to computer by it's operator to perform a certain task accordingly.

Information processing cycle

- This refers to the series of activities that take place in transforming data into information. It involves input, processing, output and storage of information.

Input stage

- This is the fundamental stage of data processing where the basic facts are fed into a computer using special input devices such as mouse, keyboard, scanner and light pen and pencil. It involves

1. Collection of data

This involves capturing of data from their sources and recording it onto some media eg using paper, video recording etc

2. Preparation and verification of data

This involves copying and arranging data in a more convenient way for input, verifying the collected data and checking for mistakes

Storage stage

- This is a stage where data and instructions are held temporary in the memory of computer waiting to be processed.

Processing stage

- Processing is a stage where the raw data received from input is operated on by the application code and then transformed into useful information.

Output stage

- This is a stage where the information extracted from the memory of the computer is given out through special output devices like the monitor, printer, speaker etc.
- The processed data viewed on the visual display unit is called softcopy while processed data viewed as a print out is called hardcopy

ADVANTAGES OF USING COMPUTER SYSTEM FOR INFORMATION PROCESSING

- Enormous amounts of data can be stored permanently for future use
- Computers can process large amounts of data and generate error free results provided the data is entered correctly
- Large number tasks can be processed at very fast processing speed eg. mathematical calculations
- Efficiency and productivity in information processing can be realized
- Tasks can be completed with minimal human intervention
- Sharing of data and information is possible when the computers have communication capabilities i.e. networked environment

DISADVANTAGES OF USING COMPUTER SYSTEM FOR INFORMATION PROCESSING

- The initial invest costs are high, such as costs on computers, skilled labour force and software
- It may lead to an employment as jobs may be lost due to computerization
- The networking environment is susceptible to human abuse. Personal information can easily be accessed by hackers pirates if not secured by anti virus guards, firewalls etc
- Face to face interaction among people, staff may be reduced

What is ICT?

- ICT is an acronym which stands for Information and Communication Technology. It comes from two terminologies; Information technology & communication technology
- **Information technology** is defined as the technology used for processing information on the computer system. OR It is the development, implementation and management of computer based information system particularly software applications and computer hardware.
- **Communication technology** is technology used for transmission of information using computer systems.
- Therefore, ICTs are set of technological tools and resources used to communicate, create, disseminate, store and manage information.

Uses of ICTs in Society

a) Education

1. ICTs enables research by students through the use of internet to access information with the help of online libraries and dictionaries such as Wikipedia, Google answers, Yahoo answers etc.
2. Studying online by attending online Universities that offer online degrees and also distance learning (Cyber classes).
3. Teachers/instructors can use audio-visual method of teaching to ease students understanding of complex topics i.e. use of presentation software and animations in delivering information

4. ICTs have eased the storage of data and information by students e.g. CD-RW / DVD-RW, flash memory, online storage (cloud)
5. ICTs in the syllabus of schools enable students in acquiring the basic skills in computing
6. ICTs enables edutainment- a type of education software that combines education with entertainment such as chess, solitaire, etc.

b) Security

1. ICTs are highly used in fighting crime. Security operatives such as the police can track down criminals by use of street CCTV cameras and other computer based operated systems.
2. In most developed nations, the police, CIDs are able to use the finger print technology in identifying criminals. Finger prints are automatically analysed by use of computer technology
3. The computer based face recognition technology, scene monitoring and analysis helps the police in tracking down crime

4. Most nations' security agencies use the phone, internet tapping technique to track down crime
5. ICTs are highly used by the army. The integration of computer based technology and defence is used to modernize the military such as gathering electronic news detecting & tracking of targets, use of radar systems, warning systems and military lasers
6. Developed nations such as USA, Iran, Japan, Russia, Germany, India etc. have been able to launch satellites in space to monitor the defence system of their nations because of ICTs. E.g. use of drones
7. ICTs are essential in training and educating the Military forces. Skills and vital details regarding military tactics, training that involves a physical risk can now be done safely using ICTs. Air force can train their pilots in flight simulations long before they actually get in the cockpit.

c) Business and commerce

1. ICTs have enabled e-commerce business transactions to take place. Business are able to operate continuously and globally through the use internet business. This has increased productivity, greater profitability, clutter free working environment and global clients.
2. ICTs enable business sectors carry out advertisements and marketing of their goods and services. Companies can have their own websites which can be quickly accessed and do business globally
3. Inventory control and management in business can easily be done with the use of ICTs. This is done by use of special ICTs gadgets and software that help in goods stock taking, storage details, distributions of goods etc.

4. Customer care and service is possible with the use of ICTs. For the example the use of Toll free mobile communications for customers with the service providers. Many business sectors use the SMS (Short Messaging Service) to reach out to their customers
5. ICTs are important in Accounts and Payroll management. Business sectors in networked environment can easily manage accounts of administration, sales, purchases, invoices and also payroll management including records of their employees e.g. East African General Stores and Supplies with its headquarters in Kigali Rwanda, manages the financial details of their employees in Uganda and Kenya online.

6. Business premises use ICT equipment to enhance their security. E.g. use of Closed-Circuit Television (CCTV) cameras, sensors, voice recognition equipment (VRE), Smart cards etc.
7. Business can use the internet to carry out research on quality and genuineness of products. Research can also be done online about competitors' products and prices especially by studying their websites. When launching a new product, companies can perform market research online using questionnaires and surveys and also read customers view about their products on sites such as e-bay, Amazon etc.

8. ICTs such as web conferencing can enable multinational companies launch products, have meetings with business partners and employees globally. For example Microsoft can launch a new version of Windows globally by linking its sister companies using videos conferencing technology.
9. Proper Database management of a business can be enabled by use of ICTs such as use of large database servers; business records, etc.
10. ICT gadgets such as barcode readers, Magnetic Ink Character Reader (MICR), Electronic Point of Sale (EPOS) terminals can be helpful in business premises such as supermarkets, sale outlets, departmental stores, etc. E.g. Barcode readers enable the reading of serial numbers on packaged products and equipment; MICR readers for reading of details of a customers' cheques; EPOS terminal for recording and invoicing purchases of a customer

d) Health

1. Use of ICTs in health has enabled many surgical procedures such as laparoscopic surgeries
2. ICT high end machines such as CT scan, Ultra sound devices, Magnetic Imaging (MRI) have enabled the diagnosis and cure of many diseases
3. ICTs have enabled online consultations by medical professionals. With the use of web conferences doctors can treat patients globally in liaison with other doctors online

4. ICTs have enabled patients' records (data) to be manageable in hospitals. Information about medical history of patients, physical ailments, already diagnosed diseases and prescribed medicine are stored in hospitals' databases.
5. ICTs are a means of research by medical professions. For example if unknown epidemic disease attacks a community, it's the duty of the national medical and virus research institute to discover information about the disease through research and online consultation

6. ICTs have enabled faster communication between medical professional, doctors and patients. It is possible to seek expert opinion over the internet or by a phone call as regards a sickness a patient may be having
7. ICT based gadgets enable the hospital to monitor the patients in hospitals. For example a doctor sited in his/her office can easily monitor the health status of patient lying on a hospital bed in another room by a networked environment
8. The security of the hospital, property and the patients is ensured by high end ICT devices such as CCTV cameras, sensors, etc.

e) Art, Leisure and entertainment

1. The social and leisure world have been revolutionised by ICTs. Chat rooms and social sites such as twitter, Facebook, yahoo messenger, etc. have enabled many people to connect and socialize globally
2. ICT innovations such as cartoons, graphical imaging have made the entertainment experience hundred times better
3. ICTs have enabled the programming of computer games such as solitaire, pinball, chess titans, internet checkers, zuma-deluxe, etc.

4. ICTs have enabled movie making, Audio and music recording in the entertainment industry
5. There are Websites which carry news and other matters related to entertainment such as YouTube, vimeo, Livestream etc.
6. Online games allow us to play with other people who have access to the same games in a virtual world while we are all seated in our own rooms in front of our PC's.

f) Communication and multimedia

1. ICTs play a big role in every aspect of communication. In telecommunication industries every telephone exchange relies on ICTs to switch incoming and outgoing calls
2. Railway corporations rely heavily on ICTs to coordinate the movement of their wagons and goods
3. In the airline industry, ICT is heavily used in the air traffic control and surveillance of the air space using radar equipment as well as preservation purposes

4. In the Multimedia industries such as TV stations, Radio stations, Program managers keep computer terminals on their desks to record urgent and important functions
5. Run time reporting and coverage of important functions, games and sports require highly accurate results to be generated. This work is done with the use of ICTs.

g) Industrial, Technical and Scientific uses

1. Modern manufacturing industries are highly equipped with ICT based machinery for production planning scheduling and preservation of perishable goods. E.g. perishable goods manufacturers have sensor equipment such as freezers and chiller cabinets to monitor temperature of goods
2. The client wise demand of goods, product wise manufacturing requirements, item wise actual production, capacity wise manufacturing planning is possible with the use of ICTs
3. Industrial systems have computer networking technology which enable machine break down detection

4. With the use of ICTs, there is a computerized up to date maintenance of inventory and purchases. There is an all-time up to date of information about the position of stock of raw materials, finished and unfinished goods. This has brought about high efficiency in industries.
5. ICTs have enabled the daily invoicing or receipting of sales
6. Leading companies are using computer technology as a competitive tool to develop new products and services, forge new relations with supplies and also edge out competitors

7. ICTs have enabled the use of Automatic Machines in Public places such as traffic light controllers, elevators and lifts, etc.
8. ICTs are used in quality control of Computer Aided designs' software which is mainly used for creating engineering, architectural and scientific drawings.
9. With the use of ICTs Robotic Technology (Use of robots) has enabled the advanced world to improve on labour force efficiency and productivity such as in car assembling plants, lifting of goods, security systems, etc.

10. ICTs are also used in three dimensional (3D) programs to allow the users to rotate designs of objects in order to view them from different angles e.g. animated objects used during advertisements
11. ICTs have also been used in nuclear advancement, space technology and meteorology

h) Politics and Governance

1. ICTs are highly used in Government ministries such as finance planning, education, public service etc. in the day running, monitoring of activities and also in storage of government records. This enables efficiency
2. With the use of ICT, the Auditing department of government has been able to monitor public expenditure and finance in various government agencies
3. ICTs have enabled the government in creating a national database bank such as that of countries' population, number of civil servants, number of students in government and private institutions for proper national planning

4. ICTs have enabled the linking of several government sectors such as public service, ministries, city councils, municipal councils, etc.
5. With the use of ICTs the national electoral commission is able to carry out the national registration exercise, designing and printing of voters' cards and in coordinating of the tallying exercise nationally.
6. With the use of ICTs, politicians have been able to carry out online soliciting of voters and also use SMS service

Computer Care and Safety

a) The computer laboratory Rules and Regulations

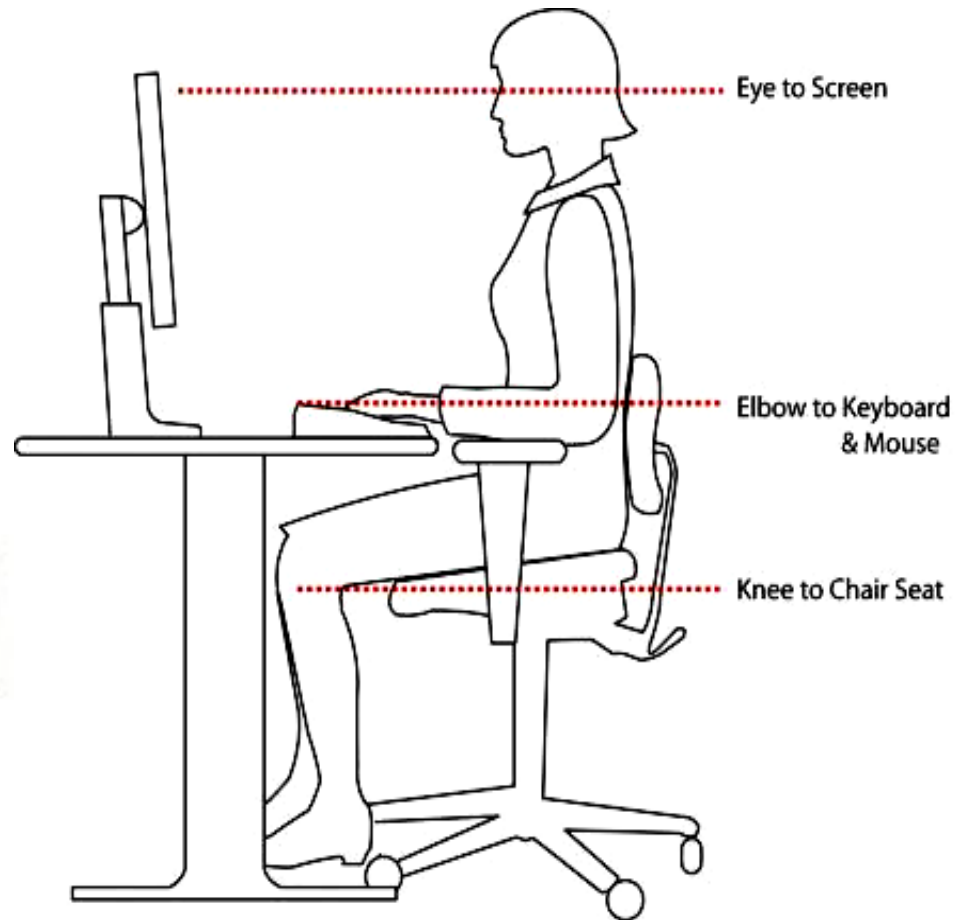
1. Computer components should be kept **dust-free**. Avoid smoking and exposing computers to dust.
2. **Never try to remove the cover** on your computer or touch inside the system unit. There are many sensitive components. Instead, take it to a qualified technician

3. Keep all **liquids and food** items away from your computer.
 - Liquids and food crumbs can cause rusting and corrosion and damage electronic circuits. Also, mixing liquids and electronic components can cause serious electrical shock!
4. Never use your computer during a **storm**. The computer is connected to electricity and that means that lightning could be conducted to the computer.
5. **Proper shut down** of computers should be followed to avoid disk and system failure (avoid abrupt switching off)

6. Physically, be careful, **avoid knocking** and **dropping** any hardware to the ground as this could cause any of the delicate components to break or be damaged and stop working.
7. Be careful when using the internet. Do not **accept downloads** from Internet sites that you don't know and trust.
8. And never open an email attachment unless you know and trust the person who sent it.
9. Avoid making hardware connections to **the motherboard when the computer is on**. Eg keyboard, monitor and mouse connections

10. Don't bring **magnetic devices** to the lab. The computer has magnetic disks which can be spoiled if they come near other magnetic fields.
11. Handle **delicate storage devices with care**. Don't touch the inner surface of Compact disks and Floppy disks. Safely remove Flash disks from the system.
12. Avoid excessively **bright and flickering** computer monitors. The brightness of the computer monitors should be adjusted to avoid eye strain

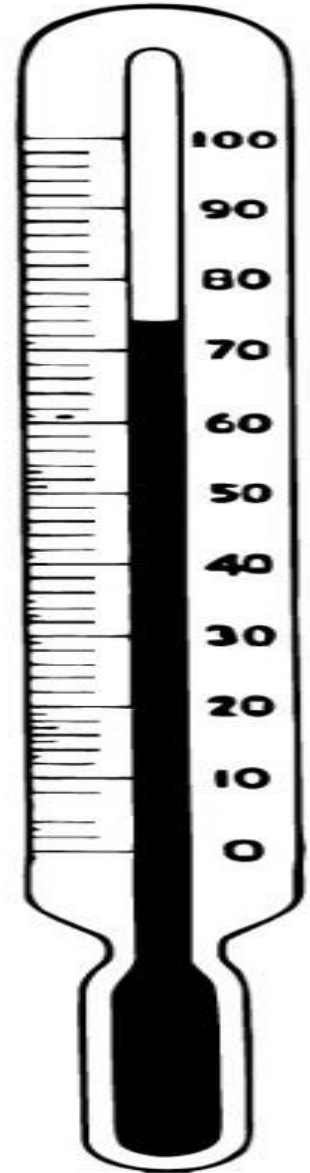
13. **Always Sit upright** to avoid muscle pains and back aches caused by poor sitting posture.



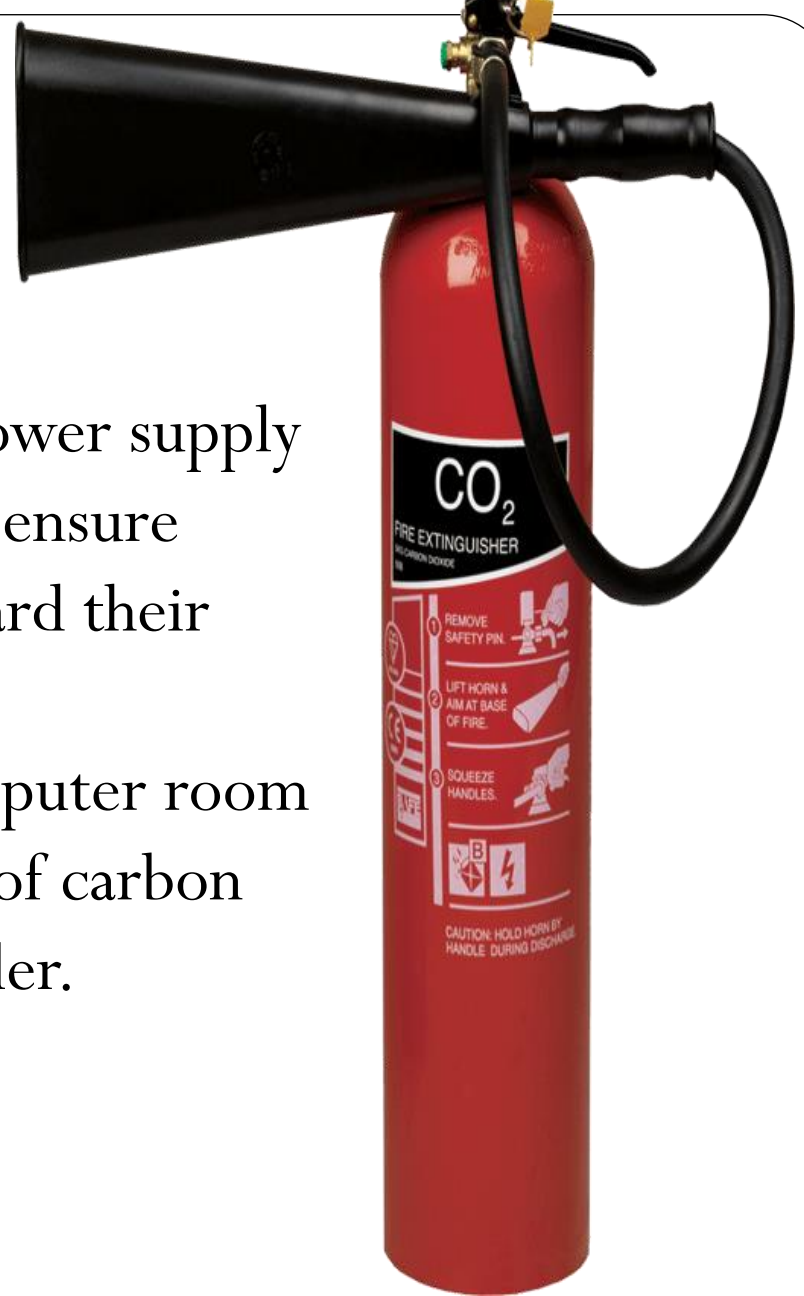
(b) Management Of Computers And Their Environments

After the establishment of the computer laboratory, a number of precautions should be observed to provide a safe conducive environment for teaching and learning as seen below:

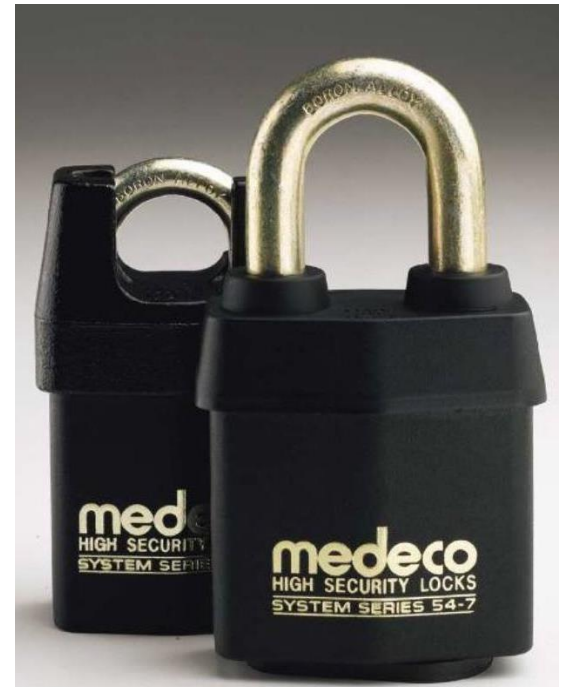
1. Avoid direct sunlight and high Temperatures that may damage hardware components.



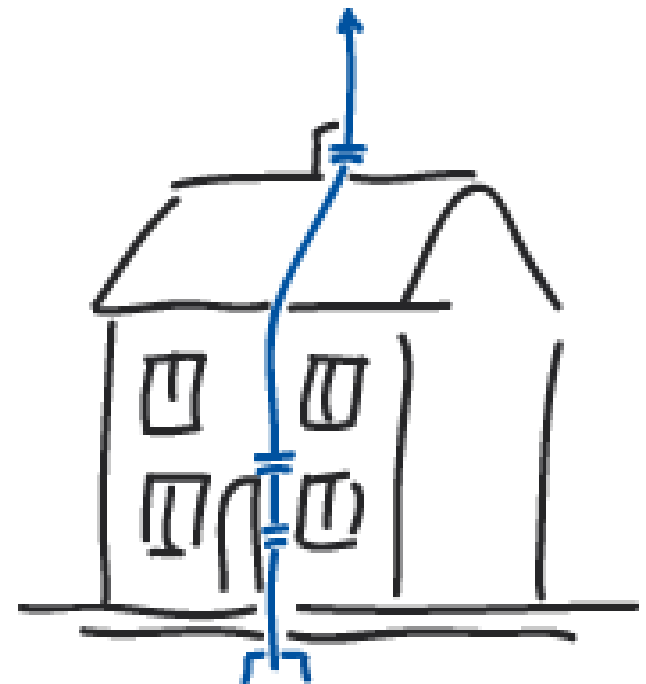
2. Always use surge protectors, Uninterruptible Power supply (UPS) or voltage stabilizers to ensure **steady power supply** to safeguard their system.
3. Protection against fires. A computer room should have **fire extinguishers** of carbon dioxide but not water or powder.



4. **Proper cable installation** and placement. Cables should be preferably along walls, avoiding danger of exposing the user to electric shock
5. **Burglar proofing** avoid unauthorized access to computer room.
 - Fit strong locks, doors, windows and roofing. Security should be good around computer room to avoid thefts.



6. **Overcrowding** of either machines or people should be avoided.
7. Always install **lightening conductors** to the computer laboratory to protect the machines and the users of the computers.



8. **Ventilation** should be good. Good aeration enables the computer to cool and hence avoids overheating
9. Minimize Electrical noise / interferences in the computer environment.

Definition:

- **ELECTRICAL NOISE** refers to externally radiated signals that cause undesirable additions to the current voltage.

10. Dust control. When setting up the computer laboratory, consider a location away from excessive dust.

- The room should have special curtains and computers should remain covered using dust covers when not in use.

11. Dump Control: Humidity must be regulated in the computer laboratory to remain at an optimum 50%.

- Low humidity may cause static electricity to build and damage sensitive components.
- High Humidity of over 70% may cause rusting of the metallic parts of the computer system.

12. A computer room **should have enough light** avoid eyestrain, and headaches.
13. **Radiation filter screens** should be fitted to reduce the light that reaches the eye.
14. **Standard furniture:** The table on which a computer is placed must be strong and wide enough to bear the weight and accommodate all the peripheral devices

THE COMPUTER LAB BELOW, HAS MOST OF THE ABOVE REQUIREMENTS



c) Maintenance of Computers In Good Working Conditions

The following measures should always be carried out to keep computers in good working conditions:

1. **Regular servicing** should be done for hardware and software updates to ensure proper working conditions of the computers
2. Computers require **special cleaning** even on the outside including hardware parts such as the mouse and keyboard to perform correctly

3. Always use **optimizer utilities** that modify programs to make computers to improve performance and make them to run more quickly.
4. Always use and regularly updated **antivirus software**.
Viruses and worms are horrible computer-unfriendly programs that can crash your system and cause damage.
5. Avoid **Installation Marathons**
 - Sometimes, installing a new program can cause conflicts within your system.
 - It is therefore advisable to use the computer long enough to see how your system responds to the installation before installing the next program.

7. Carry out **Disk Defragmentation** when necessary.

- A computer is a storehouse for large amounts of data and so, Having a disorganized computer slows down the processing time.
- Disk Defragmentation organizes files in a way where the computer can easily access everything

Definition:

- **Disk Defragmentation** is the process in which scattered pieces of individual files and free space are reorganized and stored in an adjacent manner (next to each other) on the disk.

d) The Ethics And Integrity In Computer Use

Definitions:

- Computer Ethics Computer Ethics are human values and moral conduct of computers users. OR Computer Ethics refers to the right or wrong behavior exercised when using computers.
- Computer Integrity refers to the loyalty or faithfulness to a set of laws about computer usage

- In 1991, the Computer Ethics Institute(CEI) held its first National Computer Ethics Conference in Washington, D.C.
- The Ten Commandments of Computer Ethics were first presented in Dr. Ramon C. Barquin's paper prepared for the conference,
"In Pursuit of a 'Ten Commandments' for Computer Ethics."

The Computer Ethics Institute published the ten commandments of computer usage in 1992 as follows:

1. Thou Shalt Not Use a Computer to Harm Other People.
2. Thou Shalt Not Interfere with Other People's Computer Work.
3. Thou Shalt Not Snoop around in Other People's Computer Files.

4. Thou Shalt Not Use a Computer to Steal.
5. Thou Shalt Not Use a Computer to Bear False Witness.
6. Thou Shalt Not Copy or Use Proprietary Software for Which You Have Not Paid.
7. Thou Shalt Not Use Other People's Computer Resources without Authorization or Proper Compensation.

8. Thou Shalt Not Appropriate Other People's Intellectual Output.
9. Thou Shalt Think about the Social Consequences of the Program You Are Writing or the System You Are Designing.
10. Thou Shalt Always Use a Computer in Ways That Insure Consideration and Respect for Your Fellow Humans.

COMPUTER BOOTING

This is a process of turning on (powering) the computer and loading the operating system into memory

TYPES OF BOOTING

- i. Cold booting
- ii. Warm booting

Cold booting

- This is the booting made whenever the PC power switch is turned on. In this case the system performs a comprehensive initialization and undergoes a self test

Warm booting

- This is the booting made whenever the PC is restarted or reset with the power still on

Ways of performing a warm boot

A warm boot can be made in any of the following ways

- By choosing start > shutdown > restart
- By pressing the computer's reset button
- By pressing CTRL+ALT+DEL on DOS, Windows 3.0 and earlier version of Windows or OS/2,

Black hole of a digital age

- These are a few minutes that it takes for the computer to boot up. During this time, there is nothing to do but wait and wait before one can log on

How to boot a computer loaded with Windows Operating System

- i. Booting from a diskette (older versions of OS)
- ii. Booting from hard disk

Ensure windows OS has already been installed on the hard disk

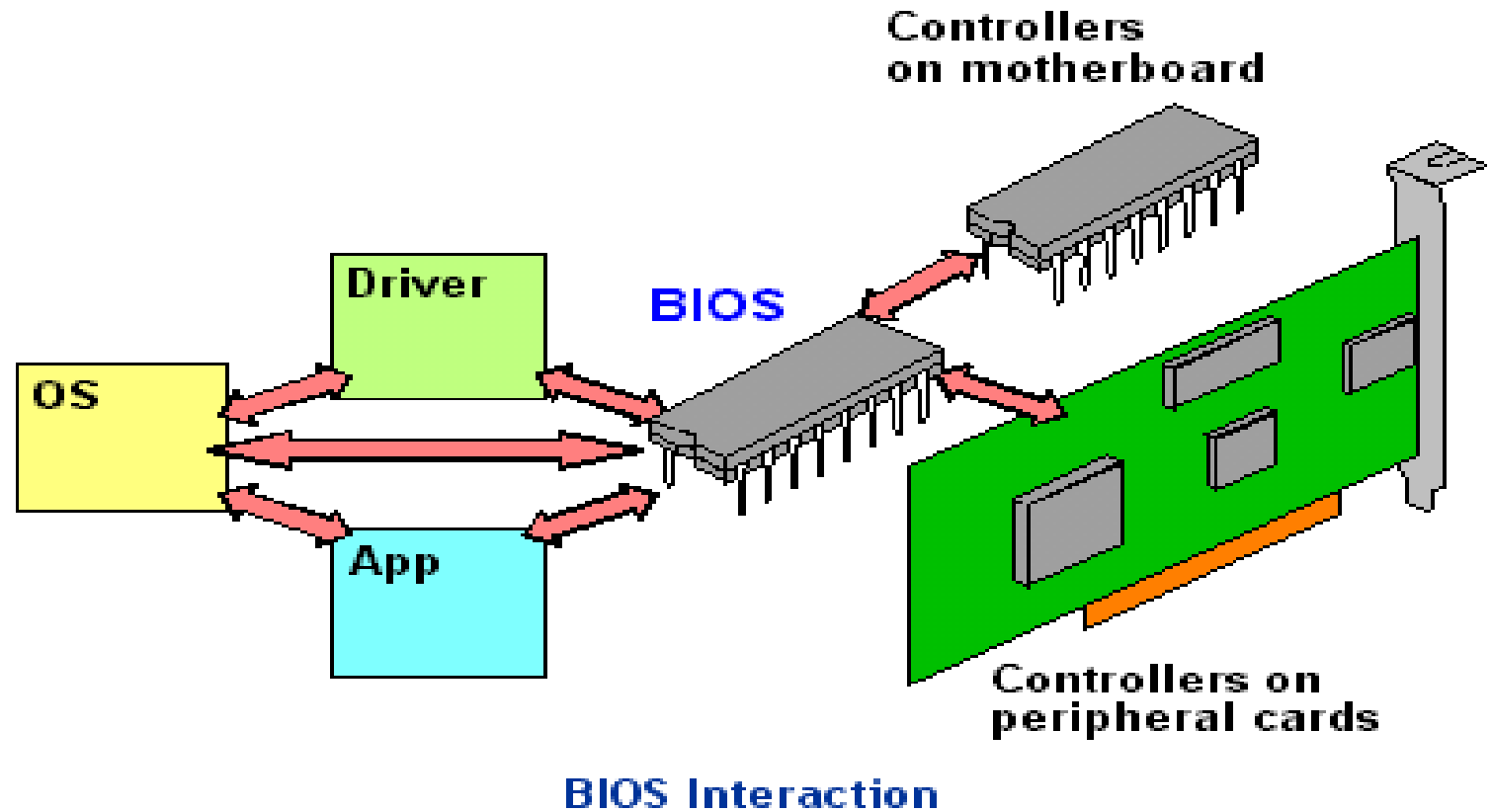
- ✓ Switch on the computer to start it.
- ✓ Wait for boot up sequence operations to take place (POST)
- ✓ Windows log on or monitor desktop appears

The booting process (starting up or starter process)

- When the computer is turned on, the CPU searches for the Jump instruction that allows the Basic Input Output System (BIOS) to start up [it switches on the ROM that contains the BIOS]
- The BIOS executes Power On Self Test (POST). This test checks whether the computer hardware is connected properly and operating correctly. POST also checks RAM by writing and reading data from it

- After POST is completed successfully, the BIOS looks for the boot program contained on the hard drive or compact disk to load the operating system. If the bootable device is not found, an error message appears on your computer or the computer will simply not boot up
- Once the boot program is located in the active partition boot sector, it is loaded into memory and executed. It then loads the kernel (a special piece in the master boot record-MBR) of the OS into RAM
- BIOS then searches for the system configuration information necessary for the OS and the remainder of the operating system loaded into RAM and desktop and icons display on screen

BIOS Interaction



BIOS Interaction

Booting and ROM

- System such as cellular phones, PDAs and game consoles stores entire OS on ROM. Done only for small OS, simple supporting hardware, and rugged operation.
- Changing bootstrap code would require changing ROM chips.
 - EPROM – Erasable Programmable ROM.
- Code execution in ROM is slower. Copied to RAM for faster execution.

Examples of Applications that access the BIOS directly

- The operating system and application programs both directly access BIOS routines to provide better compatibility for such functions as screen display.

Computer program

- A computer program (or software) is a sequence of instructions written to perform a specific task with a computer. OR it is a list of instructions that tell a computer what to do

EXAMPLES

- A web browser like Mozilla Firefox, Google Chrome, Internet Explorer, Apple Safari can be used to view web pages on the internet
- Office suite can be used to write documents or spreadsheets
- Video games
- Etc.

How a computer understands a program

- A computer program is stored as a file on the computer's hard drive. When the user runs the program, the file is read by the computer and the processor reads the data in the file as list of commands or instructions. Then the computer does what the program tells it to do.
- A computer program is written by a programmer. It is very difficult to write in 1's and 0's which is what the computer can read, so computer programmers write in a programming language. Once it is written, the programmer uses a compiler to turn it into a language that the computer can understand

Ways of starting a program

- Click start button
- Click on All programs on start menu
- Click to open programs folder

OR

- Double click on the shortcut of the program on the desktop

FILE MANAGEMENT

FILE

- A file is an item that contains information for example text, or music or image.
- On your computer, files are represented with visible icons.

FOLDER

- A folder is a virtual container within a graphical user interface, in which groups of computer files and possibly other directories can be kept and organized.
- In the DOS and UNIX worlds, **folders** are called **directories**

Examples of file types

Item	Description
Regular	Stores data (text, binary and executable)
Directory	Contains information used to access all types of files, but do not contain the actual file data
Special	Define devices for the system or are temporary files created by processes. E.g. FIFO (first-in, first-out) pipe files for processes, block and character for physical devices

Creating a new folder

- Right click the empty portion of the desktop
- Select new from the drop down menu that appears
- Select folder
- Give the folder an appropriate name

Renaming a folder

- Right click the folder
- Select the rename option
- Give the folder a new name

Moving a folder

1. Click and drag the file to another folder
2. Right click the file and choose send to, then choose from the options shown in the submenu that appears
3. If you right-click and drag, you either move or copy the item if you place it via a smart-tag (a little icon that appears)
4. To create a copy of a file or folder in another location in your computer, right-click the item and choose copy. Use windows file explorer to navigate to the location where you want to place a copy, right-click and choose paste or press Ctrl+V

Delete a file or folder

- Right-click a file or folder, then select delete option on the drop down menu
- Click on the file or folder, then press delete button on the keyboard

Restoring a deleted file or folder

- Double-click the recycle bin to open, right-click the deleted file or folder, then click on restore option.
- Right click the free space in the file or folder original location area, then select undo delete option on the drop down menu

Creating a file

- Right-click a free space in a folder where you want to create the new file
- From the pop-up menu, select New>File
- Specify the name of the file
- Click open i.e. the file opens in the editor associated with the type

Saving a file

- Press Ctrl+S keys on the keyboard OR click on save as icon on office button/file menu
- Change or accept filename
- Change or open file location from navigation view
- Click on save

THE DESKTOP ENVIRONMENT

- The desktop is the entire screen except the task bar at the bottom. It consists of features mainly the shortcuts (icons of your favourite programs) such as,,,,....., etc.
Exercise: [students should list them down] [Also drag around icons on desktop]

An Icon

- This is the smallest graphical or pictorial representation of several commands, an application, a shortcut etc. An Icon may represent a file, a folder program, a hardware utility, printer, disk drives etc.

The major Icons on the desktop include;

1. My computer
2. Recycle bin
3. Network places (Network)
4. My documents

My computer :

- A component (a system folder) in the MS Windows file explorer that allows the user to explore the contents of their computer drives as well as manage their computer files.

Recycle bin (trash)

- This is the temporary storage for files that have been deleted in the file manager by the user, but not yet permanently erased from the file system

My Network Places

- Renamed as network on the desktop displays shortcuts to shared computers, printers and other resources on the Network. It also contains hyperlinks to tasks and locations on your computer

My Documents

- This is the name for special folder on the computer's hard drive that the system commonly uses to store a user's documents, music, pictures, downloads and other files.

- By default, the target or actual location of My Documents folder is given as C:\Documents and Settings\user name\My Documents, where C is the drive in which windows OS is installed, and the user name is currently logged-on user.

Parts of the desktop

- The start button
- The taskbar
- The Notification Area
- The start Menu
- Mouse pointer
- Customizing (Changing) the way the desktop looks
- Adding windows programs icon to the desktop