INTRODUCTION TO
COMPUTER

What is a computer?
An electronic device or machine which accepts data, process it
and sends it out to the screen.

Emezie, N.; Onyebinama, C. and Chukwu, S.
ICT, University Library
Federal University of Technology, Owerri
Classifications of computers

- Micro computers
- Mini computers
- Mainframe computers
- Super computers
Micro computers

- Micro computers are referred to as personal computers or workstation.
Mini computers

- First introduced in the 1960s
- Physically larger than the micro computers
- Used before the emergence of micro computers
- Used in large organizations where larger amount of data are processed
Mini computers (contd)
Mainframe computers

- Processes vast amount of data and responds to thousands of users simultaneously
- Very large and housed in a special room
Super computers

- Processes gigantic data in the quickest possible time
- Commonly used by space centers
Parts of a computer

1. **Input**
   - Mouse
   - Microphone
   - Scanner
   - Keyboard

2. **Processing**
   - Large computer system unit
   - CPU
   - Memory (RAM)

3. **Output**
   - Printer
   - Speakers
   - Monitor

4. **Storage**
   - Store data on a disk
   - (it can be retrieved for later processing)
   - Hard disk
   - Diskette
   - Magnetic tape
   - Optical disk

5. **Communications**
   - Modem

**PANEL 1.4**
The basic operations of computing
INPUT DEVICES

- Using the Mouse
  - Left click
  - Right click
  - Scroll wheel
The Keyboard
Parts of a Keyboard
### Keyboard functions

<table>
<thead>
<tr>
<th>Press this key</th>
<th>To do this</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl + X</td>
<td>Cut the selected item</td>
</tr>
<tr>
<td>Ctrl + C (or Ctrl + Insert)</td>
<td>Copy the selected item</td>
</tr>
<tr>
<td>Ctrl + V (or Shift + Insert)</td>
<td>Paste the selected item</td>
</tr>
<tr>
<td>Ctrl + Z</td>
<td>Undo an action</td>
</tr>
<tr>
<td>Ctrl + A</td>
<td>Select all items in a document or window</td>
</tr>
<tr>
<td>Ctrl + D (or Delete)</td>
<td>Delete the selected item and move it to the Recycle Bin</td>
</tr>
<tr>
<td>Ctrl + R (or F5)</td>
<td>Refresh the active window</td>
</tr>
<tr>
<td>Ctrl + Y</td>
<td>Redo an action</td>
</tr>
<tr>
<td>Esc</td>
<td>Stop or leave the current task</td>
</tr>
</tbody>
</table>
Storage devices

- There are two types of storage devices used with computers:
  - a primary storage device, such as RAM, ROM
  - a secondary storage device, like a hard drive. Secondary storage can be removable, internal, or external storage.
**RAM**

**Random Access Memory (RAM)**

- RAM stores data while it is being processed. E.g., RAM is required to run software while the computer is powered.
- **RAM**, is volatile or non-persistent memory, is a temporary memory store.
- Data held in RAM is only stored while the computer is switched on.
- E.g., when you create a document (such as a letter), the document is stored in your computer’s RAM, until you save it to disk.
- RAM holds data required by the CPU, which cannot store large amounts of data itself.
1. Read-only Memory (ROM)
   - ROM stores the data necessary to start the computer and identify its component.
   - ROM is non-volatile or persistent memory that holds permanent information, such as the BIOS software that enables the components in the computer to communicate with each other.
   - Data stored in ROM is not deleted when the computer is switched off.
   - It cannot usually be deleted or overwritten in the course of normal computer operations.
Types of external storage devices

- Floppy disks
- **USB flash** drives
- Memory cards
- **Memory sticks**
- Tape cassettes
- Zip cassettes
- Computer hard drives
- CDs and DVDs.
Images of external storage devices
Computer hardware and software

- The Hardware:
  Computer hardware is any physical device used in or with your machine.
Examples of computer hardware

- CD-ROM
- 3 1/2 floppy disk drive
- CPU (central processing unit)
- Monitor
- Scanner (multimedia kit)
- Speaker
- Video camera
- Zip drive
- Keyboard
- Mouse
- Printer
- Notebook (portable with all the elements in one box)
Computer software

- The software:
  Organized information in the form of operating systems, utilities, programs, and applications that enable computers to work.
Types of software

- Systems software
- Application software
Systems software

- **Systems software** includes the programs that are dedicated to managing the computer itself, such as the **operating system**, file management utilities, and **disk operating system** (or DOS).
Application software

- **Applications software** (also called end-user programs) include such things as database programs, word processors, Web browsers and spreadsheets.
Examples of Application software

- Microsoft Office, Excel and Outlook, Google Chrome, Mozilla Firefox and Skype.
- Digital library application software:
  - Linux, Apache, MySQL
  - OSS - Dspace, KOHA, Alice4Windows, Alexandria
Desktop Icons

- **Icon** is a pictogram or ideogram displayed on a computer screen in order to help the user navigate a computer system or mobile device.
Double-Click desktop icons to start or open

Single-Click toolbar & taskbar icons to start or open
Microsoft Windows

On the start menu, click on All Programs. Click on the Microsoft Office suite. Choose Microsoft Word.
Example of a Microsoft Windows window

- File Menu bar
- Titlebar
- Maximize / Resize
- Minimize
- Close
- Toolbar
- Tabs
- Vertical scroll bar
- Status bar
- Horizontal scroll bar
- Resize corner

Computer Hope example and overview of all the components that make up a window.
MS Word Environment

- **The Menu bar**: It is below the title bar, it displays important menu like File, Edit, Insert, Help, and View etc.
- **Title bar**: It displays the name of the window.
- **The toolbars**: It provides a quick way to access the task. Most toolbar corresponds to a menu command.
The Scroll bar: If a window is not enough to contain all the information, a scroll bar appears at the side (either horizontally or vertically) of the window. It can either be clicked or dragged.

The status bar: It provides information about the current state of what is being viewed on the window and any other contextual information.
Procedures in Storing Documents in External Storage

- Insert the external storage into its appropriate location
- Open the document to be transferred
- Click file or file icon on the tab menu
- Select save as
- Browse to the location of the external storage
- Click save