**NOTES**

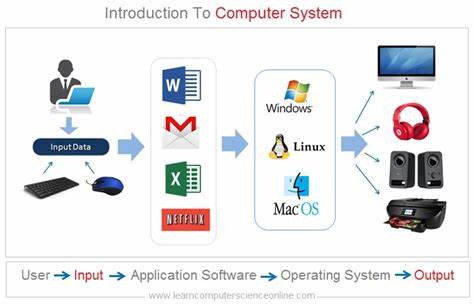
### **WEEK 4: The Computer System**

#### **Topic: The Computer System**

**Definition:**

A computer system is an electronic device that accepts data, processes it according to instructions, stores it, and produces information as output.

It is made up of hardware, software, and users.



**Types of Computer Systems**

Computer systems can be categorized based on their size, purpose, and functionality. The main types include:

1. **Supercomputers**: Extremely powerful computers used for complex scientific computations.
2. **Mainframe Computers**: Large computers used by organizations for bulk data processing.
3. **Minicomputers**: Mid-sized computers used in industries and research labs.
4. **Microcomputers (Personal Computers)**: Smaller computers used by individuals for everyday tasks. Examples include desktops, laptops, and tablets.
5. **Embedded Computers**: Computers integrated into other devices to perform specific tasks.

**Functions of a Computer System**

The major functions of a computer system include:

1. **Input**: Receiving data from input devices (e.g., keyboard, mouse).
2. **Processing**: Performing operations on data according to given instructions.
3. **Storage**: Saving data and information for future use.
4. **Output**: Producing information in a usable form (e.g., display on a screen).

**Major Components of a Computer System**

A computer system consists of three main components:

1. **Hardware**: The physical parts of a computer that can be seen and touched. These include:
   * **Input Devices**: Devices used to input data (e.g., keyboard, mouse).
   * **Output Devices**: Devices that display the results of processing (e.g., monitor, printer).
   * **Storage Devices**: Devices for storing data (e.g., hard drives, USB flash drives).
   * **Processing Unit**: The Central Processing Unit (CPU), which controls and processes data.
2. **Software**: The set of instructions that tell the hardware what to do. Types of software include:
   * **System Software**: Manages hardware resources (e.g., operating systems).
   * **Application Software**: Programs designed for specific tasks (e.g., word processors).
3. **People (Users)**: Individuals who operate the computer system to perform tasks.

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### **WEEK 5-6: WORKSHOP**

#### **Topic: Computer Management Ethics and Computer Laboratory Rules and Regulations**

**Definition**

Computer management ethics refer to the principles and practices that guide the appropriate use of computer systems and resources.

It ensures respect for others and the responsible use of technology.

**Examples of Computer Management Ethics:**

1. Avoid using computers to harm others or access unauthorized information.
2. Respect the privacy of other users by not viewing or altering their files.
3. Give credit to authors of digital content to avoid plagiarism.
4. Refrain from spreading malware, viruses, or spam.

**Computer Laboratory Rules and Regulations**

Rules and regulations in a computer lab ensure the safety of students and equipment, as well as effective learning.

**General Rules and Regulations:**

1. Enter the computer lab only when permitted by the teacher.
2. No food, drinks, or liquids are allowed in the lab to prevent damage to equipment.
3. Handle all computer equipment carefully and avoid rough usage.
4. Keep the computer lab clean and tidy.
5. Do not remove or tamper with cables, devices, or other peripherals.
6. Save your work in appropriate locations and log off or shut down after use.
7. Follow proper posture when using computers to avoid strain.
8. Report any malfunctioning equipment to the teacher or technician immediately.

### **WEEK 7 Note: Information and Communication Technology (ICT)**

#### **Topic: Meaning, Uses and Function of ICT**

Class: JSS1

#### **Objectives**

By the end of the lesson, students should be able to:

1. Define Information and Communication Technology (ICT).
2. Explain the main functions of ICT in everyday life and various fields.

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**Meaning of Information and Communication Technology (ICT)**

Information and Communication Technology (ICT) refers to the use of digital technology/tools, including computers, the internet, and other devices, to collect, process, store, and share information.

**Functions of ICT**

ICT plays a vital role in different areas of life by performing several important functions, including:

1. **Communication**:  
   ICT facilitates communication through emails, video calls, social media, and instant messaging.
2. **Information Storage and Retrieval**:  
   Large amounts of data can be stored on devices and accessed quickly when needed.
3. **Education**:  
   ICT is used for e-learning, online courses, and digital teaching aids.
4. **Business**:  
   ICT supports online marketing, virtual meetings, and financial transactions.
5. **Entertainment**:  
   It provides access to games, music, movies, and other forms of digital content.
6. **Government Services**:  
   ICT helps in delivering e-governance and public services online.

**WEEK 8-9**

**TOPIC: BOOTING**

**Definition**

Booting is the process of starting or restarting a computer by loading the operating system into the computer’s main memory (RAM) from a storage device.

**Types of Booting**

There are two main types of booting:

1. **Cold Booting**:

Also known as a hard boot, this occurs when the computer is started from a powered-off state.

1. **Warm Booting**:

Also known as a soft boot, this occurs when the computer is restarted without turning off the power (e.g., using the restart option).

**Processes Involved in Booting**

The booting process involves several steps:

1. **Power-On Self-Test (POST)**:

The computer checks hardware components to ensure they are working correctly.

1. **Loading the Boot Loader**:

The BIOS (Basic Input and Output System) locates and loads the boot loader from the storage device.

1. **Loading the Operating System**:

The boot loader loads the operating system into the main memory.

1. **Starting System Processes**:

The operating system initializes system services and user interface.

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#### **Shutting Down the Computer**

Is the process of powering off the computer.

**Importance of Properly Shutting Down the Computer**

1. **Prevents Data Loss**: Ensures that any open files are saved and closed properly.
2. **Protects Hardware**: Reduces wear on hardware components by avoiding abrupt power cuts.
3. **Maintains System Stability**: Helps avoid software corruption and system errors.
4. **Conserves Energy**: Proper shutdown helps reduce unnecessary power consumption.

This process involves the following:

1. Save any open files or documents.
2. Close all running applications.
3. Click on the "Start" or "Power" button.
4. Select "Shut Down" or "Power Off" from the menu.
5. Wait for the computer to completely power off before turning off the power supply (if applicable).