

Topic: Computer Software

Lesson Objectives

At the end of this lesson, students should be able to:

- **Define software**
 - **Differentiate between system software and application software**
 - **Give examples of each type of software**
 - **Explain the importance of software in computing**
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1. What is Software?

Definition:

Software is a **set of instructions, programs, or data** that direct a computer on **how to perform specific tasks**.

In simple terms, software tells the **hardware (the physical parts of the computer)** **what to do** and **how to do it**.

Without software, a computer would just be a **box of metal and plastic** that cannot function.

Characteristics of Software

- **Intangible (cannot be touched)**
 - Stored in **memory devices** like hard drives or flash drives
 - Works with hardware to **produce results**
 - Can be **updated or changed** without changing hardware
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2. Why is Software Important?

- It allows humans to **communicate with the computer**
- Makes the **hardware useful**

- Enables a computer to perform **various functions**, from calculations to designing, learning, and playing games
 - Without software, a computer cannot **process information or give output**
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3. Types of Software

Software is broadly divided into **two main categories**:

Type of Software	Purpose
System Software	Controls and manages the hardware, helps run the computer itself
Application Software	Allows users to perform specific tasks like writing, designing, browsing

4. System Software

Definition:

System software is the **basic software** that runs the **computer's hardware and system resources**.

It acts as the **middleman between the hardware and the user**.

Functions of System Software

- Controls **input and output devices** (keyboard, mouse, printer, etc.)
 - Manages **memory, storage, and processing units**
 - Helps **start (boot) the computer**
 - Provides an **environment for application software** to work
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Examples of System Software

Type of System Software	Description	Examples
Operating System (OS)	Manages computer operations	Windows, macOS, Linux, Android

Type of System Software	Description	Examples
Utility Programs	Maintain and protect the computer	Antivirus, Disk Cleanup, Backup tools
Device Drivers	Help the OS control hardware devices	Printer driver, Keyboard driver
Language Translators	Convert programs into machine language	Compiler, Interpreter, Assembler

Common Operating Systems

Operating System	Device Used
Windows	PCs and laptops
macOS	Apple computers
Linux	Servers and desktops
Android	Smartphones and tablets
iOS	iPhones and iPads

5. Application Software

Definition:

Application software is a program designed to help the **user perform specific tasks**.

This type of software is **directly used by people** to do daily jobs on the computer.

Functions of Application Software

- Helps users to **create documents, calculations, and designs**
- Used for **entertainment, learning, and business**
- Solves **specific problems** like making budgets or creating presentations

Examples of Application Software

Application	Function
Microsoft Word	Typing and formatting documents
Microsoft Excel	Calculating and creating spreadsheets
PowerPoint	Making presentations
CorelDRAW / Photoshop	Designing graphics and editing photos
Google Chrome / Mozilla Firefox	Browsing the internet
Zoom / Google Meet	Video conferencing
Games	Entertainment and relaxation

Categories of Application Software

Category	Example
Word Processing Software	Microsoft Word, Google Docs
Spreadsheet Software	Microsoft Excel
Presentation Software	PowerPoint
Graphics Software	CorelDRAW, Photoshop
Web Browsers	Google Chrome, Safari
Communication Software	WhatsApp Web, Zoom

6. Differences Between System Software and Application Software

Feature	System Software	Application Software
Purpose	Controls computer operations	Performs specific user tasks

Feature	System Software	Application Software
User Access	Works in the background	Directly used by the user
Installation	Usually pre-installed	Installed based on user needs
Examples	Windows, Linux, Antivirus	MS Word, Chrome, Games
Dependency	Needed for the computer to run	Needs system software to work

7. Real-Life Examples

Activity	Software Used	Type
Typing a school essay	Microsoft Word	Application Software
Playing music	VLC Media Player	Application Software
Protecting against viruses	Antivirus Program	System Software
Browsing the internet	Google Chrome	Application Software
Starting the computer	Windows Operating System	System Software

8. Diagram: Relationship Between Software and Hardware

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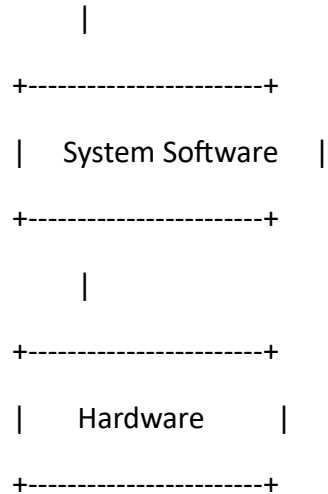
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| Application Software |

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9. Summary of Key Points

- **Software** tells the computer **what to do and how to do it**.
- The **two main types of software** are:
 - **System Software** (e.g., Windows, Antivirus, Drivers)
 - **Application Software** (e.g., Word, Excel, Chrome)
- **System Software** manages the computer itself.
- **Application Software** helps users **perform specific tasks**.