


# COMPUTER

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## Chapter 5: Software

 Simple Notes for 9th Grade Students

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### 5.1 What is Software?

#### Definition:

Software is a set of instructions or programs that tell a computer what to do. Without software, a computer is just a machine that cannot work.

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#### 5.1.1 Two Main Types of Software

##### 1. System Software

- Controls and manages computer hardware.
- Helps other software to run.

#### Examples:

- **Operating System** (Windows, macOS, Linux)
  - **Device Drivers** (Printer driver, Sound card driver)
  - **Utility Programs** (Antivirus, Disk Cleanup, Backup software)
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##### 2. Application Software

- Helps users do specific tasks.

#### Examples:

- **Word Processors:** MS Word, Google Docs
  - **Web Browsers:** Chrome, Firefox
  - **Games:** Minecraft, Fortnite
  - **Media Players:** VLC, Windows Media Player
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### 5.1.2 Difference Between System and Application Software

Feature	System Software	Application Software
Purpose	Controls hardware	Helps user do tasks
Examples	Windows, Drivers	Word, Browser, Games
Installed By	Usually comes with computer	Installed by user

## 5.2 System Software

System software is needed for the computer to work. It helps hardware and software work together.

### 5.2.1 Operating System (OS)

**Definition:**

The OS is the main system software. It controls the whole computer and lets other programs run.

**Popular Operating Systems:**

- **Windows** – used on most PCs
- **macOS** – used on Apple computers
- **Linux** – free and open-source
- **Android** – for smartphones and tablets
- **iOS** – used in iPhones and iPads

#### 5.2.1.1 Managing Hardware Resources

- OS gives memory, CPU time, and storage to apps.
- It allows many programs to run at the same time.

**Q Example:**

While browsing the internet and listening to music, OS manages both apps so they work smoothly.

#### 5.2.1.2 Providing a User Interface (UI)

**Definition:**

The UI is how users talk to the computer.

**Types of User Interfaces:**

- **GUI (Graphical User Interface):** Uses icons, windows, and mouse (e.g. Windows, macOS)
  - **CLI (Command Line Interface):** Uses typed commands (e.g. Linux terminal, DOS)
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**5.2.1.3 Running Applications**

The OS loads and runs applications. It manages how much memory or CPU each app gets.

**Tip:**

Check the "Task Manager" (Windows) or "Activity Monitor" (Mac) to see how apps use your system.

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**5.2.2 Utility Programs****Definition:**

These are tools that help improve system performance and protect your computer.

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**5.2.2.1 Disk Cleanup**

- Removes unnecessary files to free up space.
  - Makes the computer faster.
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**5.2.2.2 Antivirus Software**

- Scans for and removes viruses and malware.
  - Protects your computer.
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**5.2.2.3 Backup Software**

- Saves copies of your important files.
- Helps you restore files if you lose them.

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### 5.2.2.4 File Compression Tools

- Shrinks large files (e.g. into .ZIP or .RAR formats).
  - Makes it easier to send or store files.
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### 5.2.3 Device Drivers

**Definition:**

Drivers are programs that help the computer talk to hardware like printers, keyboards, and screens.

**✂ How They Work:**

1. Installed when hardware is added.
2. Translate commands between computer and device.
3. Allow smooth operation.

**💡 Analogy:**

A driver is like a **remote control**—it helps the computer control a device properly.

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### 5.3 Application Software

Application software helps users perform specific tasks like writing, calculating, drawing, or playing games.

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#### 5.3.1 Common Types of Application Software

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##### 5.3.1.1 Word Processing Software

Used to write and edit text documents.

**Examples:**

- Microsoft Word
- Google Docs
- Apple Pages
- LibreOffice Writer

💡 **New Tools:** AI tools like **Grammarly** help improve writing by giving feedback.

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#### 5.3.1.2 Spreadsheet Software

Used to manage and analyze numbers using rows and columns.

**Examples:**

- Microsoft Excel
- Google Sheets
- Apple Numbers
- LibreOffice Calc

🧠 **Smart Tools:** AI can now suggest formulas and create charts automatically.

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#### 5.3.1.3 Graphic Design Software

Used to create and edit images, drawings, and graphics.

**Examples:**

- Adobe Photoshop
- Adobe Illustrator
- CorelDRAW
- GIMP (free)
- Canva (online)

🧠 **Smart Design:** Some apps now use AI to help with editing and designing automatically.

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#### ✓ **Key Points to Remember**

1. **Software** makes a computer useful.
  2. There are **two main types**: **System software** and **Application software**.
  3. **System software** runs the computer and includes the operating system, drivers, and utility programs.
  4. **Application software** helps you do tasks like writing, drawing, or browsing.
  5. Always **update your system software** to stay safe and improve performance.
  6. Use **antivirus, backup tools, and disk cleanup** regularly to keep your system healthy.
  7. **Drivers** are needed for hardware like printers and cameras to work with your computer.
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