

1. Software

- **Definition:** A set of instructions that tells the computer what to do.

Types:

- **System Software** (Manages hardware & software)
 - **Operating System (OS)** – Controls hardware & runs applications (e.g., Windows, macOS).
 - **Utility Software** – Maintains the system (e.g., antivirus, disk formatting tools).
 - **Language Translators** – Convert high-level code to machine code (e.g., Compiler, Interpreter).

Application Software - Word, Excel, games

2. Operating System - OS) is software that manages hardware, runs apps, and Provide user interface.

3. Utility Software - manage and analyze the software in the computer.

4. Language Translators -Assembler, Compiler and Interpreter are examples for language translators.

5. Importance of Operating System

- Acts as a bridge between users & hardware
- Manages apps, memory, and input/output
- Controls the entire computer system

Types of OS

1. Single User OS

- *Definition:* Supports **one user** at a time.
- *Example:* MS-DOS.

2. Multi-User OS

- *Definition:* Allows **multiple users** simultaneously.
- *Example:* Linux, Windows Server.

3. Multi-Tasking OS

- *Definition:* Runs **multiple apps** at once.
- *Example:* Windows 10, macOS.

4. Real-Time OS

- *Definition:* Provides **instant responses** (no delays).
- *Example:* ATMs, Medical devices.