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## INTRODUCTION

**Softwares**, are instructions that tell a computer what to do. Software comprises the entire set of programs, procedures, and routines associated with the operation of a computer system. The term was coined to differentiate these instructions from hardware—*i.e.*, the physical components of a computer system. A set of instructions that directs a computer's hardware to perform a task is called a **program, or software program**.

The two main types of software are system software and application software.

**System software** controls a computer's internal functioning, chiefly through an operating system, and also controls such peripherals as monitors, printers, and storage devices.

Application software, by contrast, directs the computer to execute commands given by the user and may be said to include any program that processes data for a user. Application software thus includes word processors, spreadsheets, database management, inventory and payroll programs, and many other “applications.”

A third software category is that of **network software**, which coordinates communication between the computers linked in a network.

Software is typically stored on an external long-term memory device, such as a hard drive or magnetic diskette. When the program is in use, the computer reads it from the storage device and temporarily places the instructions in random access memory (RAM).

The process of storing and then performing the instructions is called “**running**,” or “**executing**,” a program. By contrast, software programs and procedures that are permanently stored in a computer's memory using a read-only (ROM) technology are called **firmware**, or “**hard software**.”

### **System software**

System software is a type of computer program that is designed to run a computer's hardware and application programs. If we think of the computer system as a layered model, the system software is the interface between the hardware and user applications. The operating system (OS) is the best-known example of system software. The OS manages all the other programs in a computer.



Other examples of system software include:

- The BIOS (basic input/output system) gets the computer system started after you turn it on and manages the data flow between the operating system and attached devices such as the hard disk, video adapter, keyboard, mouse and printer.
- The boot program loads the operating system into the computer's main memory or random access memory (RAM).
- An assembler takes basic computer instructions and converts them into a pattern of bits that the computer's processor can use to perform its basic operations.
- A device driver controls a particular type of device that is attached to your computer, such as a keyboard or a mouse. The driver program converts the more general input/output instructions of the operating system to messages that the device type can understand.

Additionally, system software can also include system utilities, such as the disk defragmenter and System Restore, and development tools, such as compilers and debuggers.

## Operating System

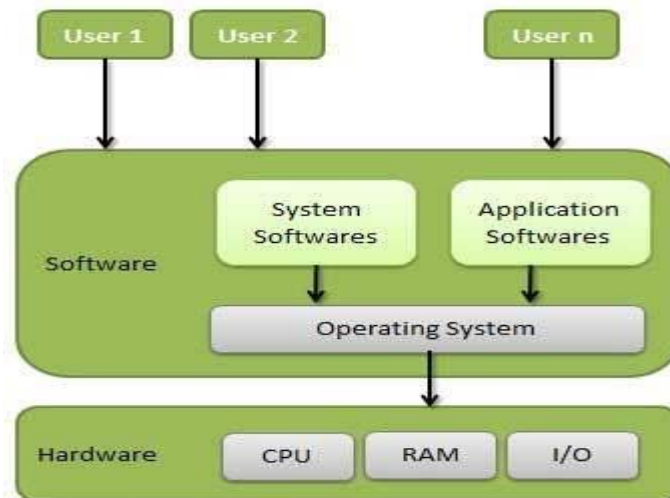
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An Operating System (OS) is an interface between a computer user and computer hardware. An operating system is a software which performs all the basic tasks like file management, memory management, process management, handling input and output, and controlling peripheral devices such as disk drives and printers.



### Definition

An operating system is a program that acts as an interface between the user and the computer hardware and controls the execution of all kinds of programs.



Following are some of important functions of an operating System.

- Memory Management
- Processor Management
- Device Management
- File Management
- Security

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- Control over system performance
- Job accounting
- Error detecting aids
- Coordination between other software and user

### Application Software

Application software is a type of computer program that performs a specific personal, educational, and business function. Each [program](#) is designed to assist the user with a [particular process](#), which may be related to productivity, creativity, and/or communication.

**Application software** (**app** for short) is a program or group of programs designed for end users. Examples of an application include a word processor, a spreadsheet, an accounting application, a web browser, an email client, a media player, a file viewer, simulators, a console game or a photo editor. The collective noun **application software** refers to all applications collectively. This contrasts with system software, which is mainly involved with running the computer.

Applications may be bundled with the computer and its system software or published separately, and may be coded as proprietary, open-source or university projects. .

### Examples of Application Software

The most common application software programs are used by millions every day and include:

- Microsoft suite of products (Office, Excel, Word, PowerPoint, Outlook, etc.)
- Internet browsers like Firefox, Safari, and Chrome
- Mobile pieces of software such as Pandora (for music appreciation), Skype (for real-time online communication), and Slack (for team collaboration)



### Functions of Application Software

Application software programs are created to facilitate a variety of functions, including but not limited to:

- managing information
- manipulating data
- constructing visuals
- coordinating resources
- calculating figures