

Difference Between System Software and Application Software

The difference between system software and application software is based on installation, execution, interaction, etc. It is an important topic in the [GATE CSE syllabus](#). The table mentioned below shows the vital differences between these two.

Key Difference Between System Software and Application Software

System Software	Application Software
System software is used for operating the computer hardware.	The user uses application software to perform a specific task.
System software is installed on the computer when the operating system is installed.	Application software is installed according to user requirements.
System software provides the platform for running application software.	Application software cannot run without the presence of system software.
System software works/runs independently.	At the same time, application software cannot work or run independently.
The user does not interact with system software because it works in the background.	In the application software, the user interacts directly.
System software runs automatically when the computer is turned ON and STOP when the computer shutdown.	Application software runs when the user requests it.

Application Software and System Software

Computer software can be divided into two broad categories: system and application. Software is a collection of programs that direct a computer to perform specific tasks. It is in contrast to hardware, which is the physical component of the computer system. The hardware performs functions based on the commands given by the software.

What is a System Software?

System software provides essential functionality to the computer. System software is required for the working of the computer itself. The computer user does not need to be aware of the functioning of system software while using the computer.

For example, when you buy a computer, the system software would also include different device drivers.

The purpose of system software is to control computer hardware, provide essential functionality to computers, and act as an interface between the application software, user, and computer hardware.

What is an Application Software?

Application software may be a set of programs or a single program. A software package is a collection/group of programs written for a specific purpose and provides the required functionality. The user uses it to accomplish a specific task.

Application software is written for applications like word processors, media players, database applications, accounting purposes, Telecommunications, etc. Examples of the application software package are word processing, image processing, accounting, and spreadsheet software.

Application Software vs System Software

System software is a set of programs used to regulate system hardware. It acts as an interface between the system and the user. This software enables the system to understand the command given by the users. Application software is software that meets the specific needs of the user. They are downloaded and installed in the system as per the user's need. Unlike system software, application software is not absolutely vital for running a system. However, they do make the system more functional.

Application Software vs System Software

Key	System Software	Application Software
Inter-dependency	System software is independent and runs on its own.	Application software requires the system's function.
Language	System software is written using a low-level language such as assembly language or machine language. Such languages are closer to the computer system.	Application software is written using such as C++, Java, etc. High-level to human languages and are much easier to understand.
Purpose	System software is general-purpose software. It is necessary to run the system.	Application software is a specific purpose. Different users use different applications to meet their needs. A user can also use multiple applications at the same time.
Working	System software starts working as soon as the system is switched on and stops only when switched off. It runs in the background and is not noticeable most times.	A user can run application software in the foreground. When the work is complete, the user can stop running it.
Complexity	Programming system software is a complex task because of the low-level language used.	Managing application software is much easier in comparison.

Differentiate Between System Software and Application Software with Examples

System software is made for ordinary people and is also called general-purpose software. A graphical user interface is generally adjoined with the software to make the user's interaction easier. A system cannot function without system software.

An interesting connection between the application and system software is that the former runs on the platform provided by the latter. Hence, application software is an intermediary between the user and system software.

Examples of application software are MS Office, Spreadsheets, Editing Software, Game Platforms, etc. Operating systems like Android, Linux, Microsoft Windows, etc., are examples of system software.

