



PUBLIC SCHOOL DARBHANGA

Class 5 :Software and its type

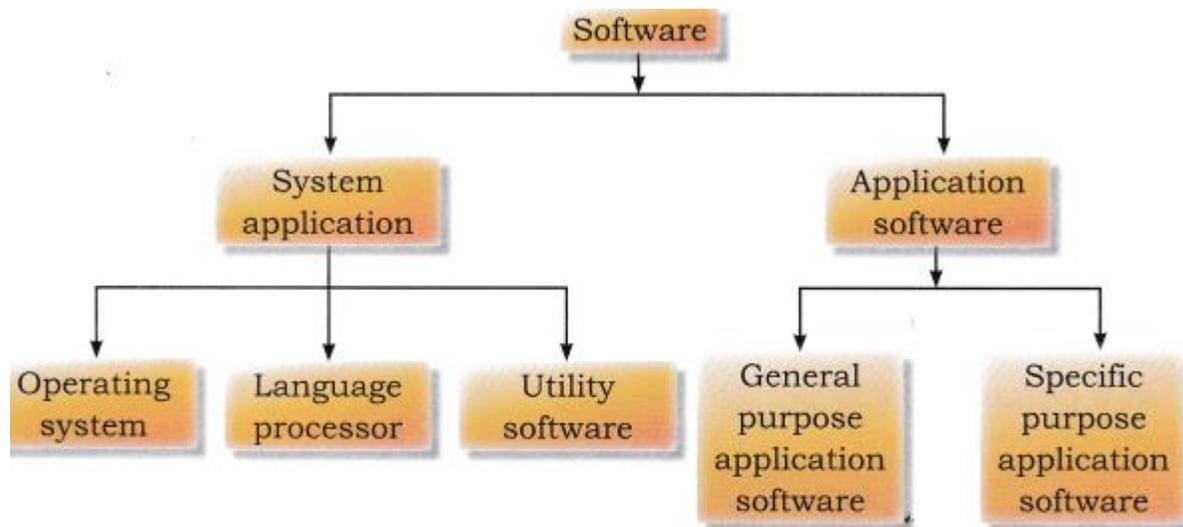
A computer system can be considered to be made up of two main components—hardware and software. All the physical devices such as monitor, mouse, keyboard and CPU that you can touch and feel constitute the hardware components. However, hardware alone cannot perform any task on its own until it is given some instructions.

Software is a set of programs and related data that are used to give instructions to the hardware. In other words, software directs and guides the operations (input, process, output) of a computer system. You cannot touch software as you can do with hardware.

The games you play on a computer, the music and video files that you listen to and see on a computer, the documents on which you work and most importantly, the operating-system environment in which you work on your computer system make up the software components.

TYPES OF SOFTWARE

Software can be classified into the following broad categories (Fig. 2.1).



▲ Fig. 2.1 Types of computer software

System Software

The system software is required to control the overall operations of a computer system. It can be classified into three categories—

1. Operating System
2. Language Processors and
3. Utility Software.

1. Operating System (OS)

An Operating System (OS) is the most important software without which you cannot work on a computer system. It is a software that lets you communicate with the computer. You are able to give instructions and get your work done on the computer because of the operating system. A computer cannot run without an OS. It serves as an interface between the user and the hardware.

Functions of an operating system

Some of the basic functions that an operating system performs are:

1. It provides an environment in which hardware components are used in an efficient manner. It coordinates the working of various hardware attached to the computer system.
2. It acts as a resource manager. A computer system has many resources such as CPU time, memory space and I/O devices.
3. The operating system allocates these resources to specific programs and applications as and when required.
4. It lets you create and manage files and folders for storing information in a computer efficiently.

When we buy a computer, an operating system is already loaded onto it. Some examples of popular Operating System used on:

1. Operating System on desktop and laptop computers:



a. Microsoft Windows



b. Linux



c. Mac OS

2. Operating System in mobile phones:



d. Android



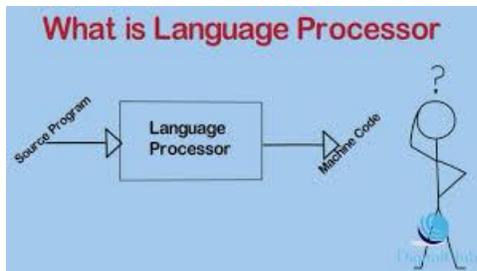
e. iOS

▲ Fig. 2.2 Logos of some operating systems

2. Language processor

Software are created by writing programs in computer languages. There are many computer languages such as C, C++, C#, Python and Java.

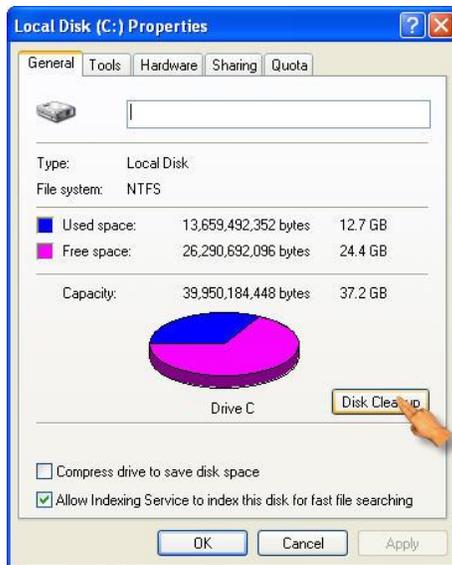
A computer is an electronic machine and can only understand the machine language which comprises of 'zeroes' and 'ones'. A language processor is a software that translates or converts a program written in a computer language into the machine language so that it can be understood by a computer.



3. Utility software

Utility Software is an app/program designed to perform maintenance or housekeeping work on a computer system in order to ensure its smooth functioning. Examples of this type of software are Disk Cleanup and Antivirus Software.

1. **Disk Cleanup:** It is an app that searches for temporary files or the file type specified by you on drives and deletes them from the selected drive. Deleting such files, frees up the space occupied by the unnecessary files on the drives. To use this program or app, type Disk Cleanup in the Search box.



2. **Antivirus Software:** A virus is a computer program that may disrupt the normal functioning of your computer. It can slow down the working of a computer or may sometimes even lead to system crash. In order to remove such dangerous programs, antivirus programs need to be used. An antivirus program scans your disk for viruses and removes them. Few examples of antivirus software are Norton, Quick Heal,AVG, Avira and McAfee.



a. Norton



b. Quick Heal



c. AVG

▲ **Fig. 2.3** Logos of some antivirus software

Application Software

An application software is a set of programs designed to help users perform specific tasks. They may be installed on a computer depending upon the user requirements. Different application software are available to serve different purposes. The application software can further be divided into two categories

1. General Purpose Application Software
2. Specific Purpose Application Software

1. General purpose application software

General purpose application software are developed keeping in mind the general needs and requirements of a large number of people. Some examples of such software are:

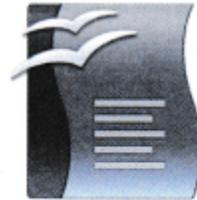
A. Word-processing Software: This type of software is used for creating text-based documents such as letters, stories and reports. All word-processing software provide options for creating, editing, formatting and printing text and graphics in a document. Examples of word-processing software are Word, WordPerfect and OpenOffice.org Writer.



a. Word 2013



b. WordPerfect



c. OpenOffice.org Writer

▲ **Fig. 2.4** Logos of some word-processing software

B. Spreadsheet Software: This software accepts data values in row and column format to allow users to manipulate, calculate and analyse data in the desired manner. Examples of spreadsheet software are Excel, Lotus 1-2-3 and OpenOffice.org Calc.



a. Excel 2013



b. OpenOffice.org Calc



c. Lotus 1-2-3

▲ **Fig. 2.5** Logos of some spreadsheet software

C. DBMS (Database Management System): DBMS is a software program that lets you store a large amount of data in an organised manner. A DBMS can store details about the customers, employees, products and so on. Examples of DBMS software are Oracle, Access, FoxPro and OpenOffice.org Base.



a. Access 2013



b. Oracle



c. OpenOffice.org Base

▲ **Fig. 2.6** Logos of some database management system software

D. DTP (Desktop Publishing Software): This software is used for creating designs and layouts of books, journals, brochures, newspapers, etc. Examples of Desktop Publishing Software are QuarkXPress and Adobe InDesign.



a. Adobe InDesign



b. QuarkXPress

▲ **Fig. 2.7** Logos of some desktop publishing system software

E. Graphics Software: This type of software allows you to create and edit images. Examples of graphics software include Adobe Photoshop, and CorelDraw.



a. Adobe Photoshop



b. PowerPoint 2013



c. OpenOffice.org Impress



d. Adobe Director

▲ **Fig. 2.8** Logos of some graphics, multimedia and presentation software

F. Multimedia Software: This software lets you combine images, text, sound, animations and videos to create interactive applications. Examples of multimedia software are—Adobe Director and Adobe Flash.

G. Presentation Software: This software application is used to create and design slide shows and multimedia presentations. Examples of this category of software are PowerPoint and OpenOffice.org Impress.

2. Specific purpose application software

Specific purpose application software is developed keeping in mind the specific requirements of an organisation or an individual. Software designed specially to achieve specific tasks are also known as customised software.

Examples of this type of software are reservation system used at airports and railway stations; payroll system used by organisations; stock (inventory control) system used by organisations; billing system used at supermarkets.

Examples
• CCTV
• ATM
• Monitoring System