



Your Aim

to learn about:

- Software
- Types of Software

INTRODUCTION

In the past two decades, computers have reshaped our lives almost everywhere, whether it is at home, work, school, hospital, etc. There has been an enormous increase in the use of computers.

A computer can be defined as:

An electronic device that performs diverse operations with the help of instructions to process the data in order to achieve desired results.

A computer system is made up of a number of electronic devices which are connected together. It is made up of both **hardware** and **software**. Hardware refers to the physical components that make up a computer system.

Let us read about software in detail.

SOFTWARE

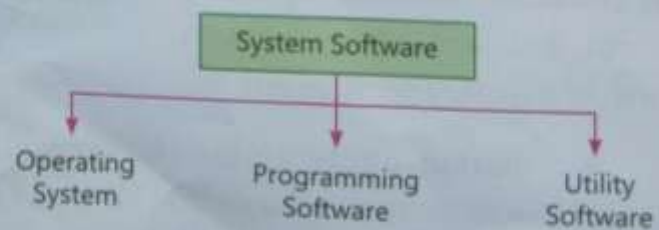
Software is a set of instructions that makes the computer perform tasks. Software is another term for a computer program. It controls the computer and makes it do useful work. Without software a computer is useless.

TYPES OF SOFTWARE

Software can be classified into two broad categories: **system software** and **application software**.

System Software

It is the most important component to operate a computer. The operating system is a type of system software. System software can be classified into three categories, as shown:



Operating System

An operating system is the most important software that runs on a computer. It manages the computer's memory, processes data and controls all its software as well as hardware. It serves as an interface between the user and the hardware. Without an operating system, a computer is useless.

Types of operating systems: Operating systems usually come preloaded on any computer you buy. Most people use the operating system that comes with their computer, but it is possible to upgrade or even change an operating system.

The three most common operating systems for personal computers are **Microsoft Windows**, **Mac OS X** and **Linux**. Other known names are iMac, UNIX and DOS.



Functions of an Operating System

Operating system performs three types of functions:

- * Manages computer resources
 - Coordinates memory, processing storage, and printers
 - Monitors systems performance
 - Provides security
 - Starts-up the computer
- * Provides user interface. The interface can be Character User Interface (CUI) or Graphical User Interface (GUI).
- * Runs applications through
 - Multitasking
 - Foreground and background applications

Programming Software

It is the software used by the computer to understand and convert the instructions by programming language into machine language. Compilers, assemblers, debuggers, interpreters, etc. are examples of programming software.

Utility Software

Utility software are provided as a part of operating system. They are specifically designed to manage the computer hardware, operating system and application software.

Some of the utility software are:

- * **Backup utility:** It is used for keeping the backup files for emergency. Windows Backup and Restore is the default Windows backup utility.
- * **Data Compression Program:** It is used to compress a large file into a file of smaller size so that it occupies less space and is easy to store. **Winzip** and **Winrar** are examples of these software.

Clickipedia

Programming and Computer Software, founded in 1975, is devoted to provide solutions to problems in all areas of computer science: operating systems, compiler technology, software engineering, artificial intelligence, etc.



Winzip



Winrar

Data Compression Program



* **Disk Defragmenter:** The memory of a computer is divided into small blocks. The files are stored in continuous blocks of space. When a file is deleted from the computer, a part of that space becomes free. When a new file is saved on the computer, some part of it is saved on the first available free space in the memory. After some time, the files get stored in various fragments which slows down the speed of the computer. The Disk defragmenter organises the fragments of files into continuous blocks to improve performance of the computer.



Fragmented Disk



Defragmented Disk

Disk Defragmenter

* **Virus Scanner:** It is used to scan the computer for viruses among files and folders. It scans the disk each time you insert it into a computer or whenever the computer is booted. It is also called antivirus software. **Quick Heal, Norton,** etc. are examples of these software.



Quick Heal



Norton
by Symantec

Virus Scanner

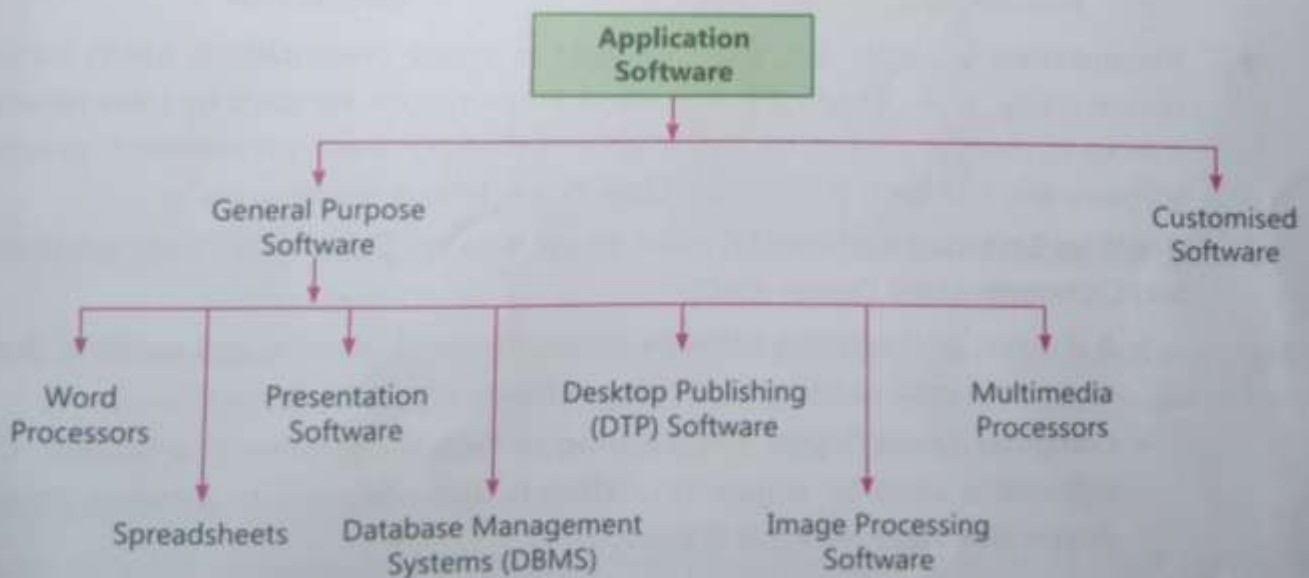
Clickipedia

Booting is a process that loads the operating system and prepares the system for use.

Application Software

It is a program designed to help users perform specific tasks. It is designed to be used by end-users. MS Word, MS Excel and MS PowerPoint are application software. Generally, people refer to application software as software.

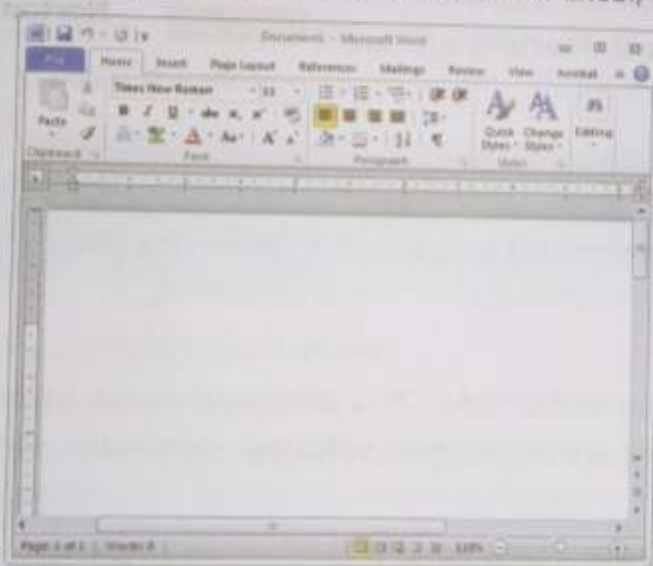
Application software can be broadly classified into two categories:



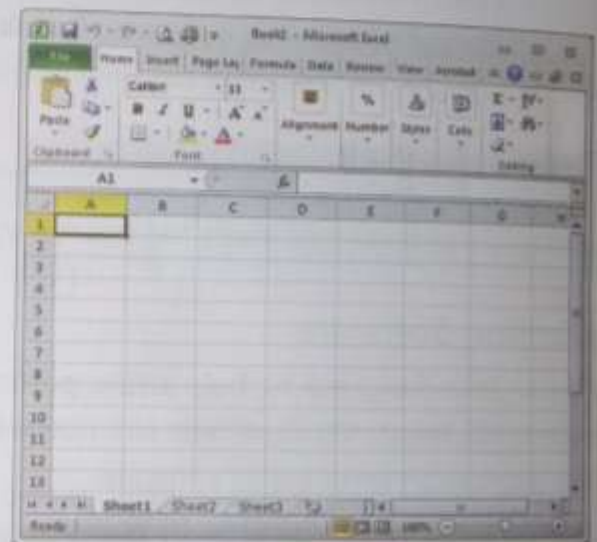
General Purpose Software

General purpose software are those which have not been developed according to the needs of a particular organization or a particular industry. It can be used for both commercial and non-commercial or purposes. The general purpose software can further be classified into seven different groups on the basis of their use. These are:

- * **Word Processors** are used to create, edit and format text documents. They are commonly used in businesses, schools and at home. Microsoft Word is the most commonly used word processor. Some other word processors are WordPerfect, Writer and Kword.
- * **Spreadsheet Software** or Spreadsheets are used to calculate, compare and analyze data and used to prepare different reports. It is also used to create graphs and charts based on the data stored in the spreadsheet. Some commonly used Spreadsheet programs include Microsoft Excel, Lotus 1-2-3, Calc, etc.

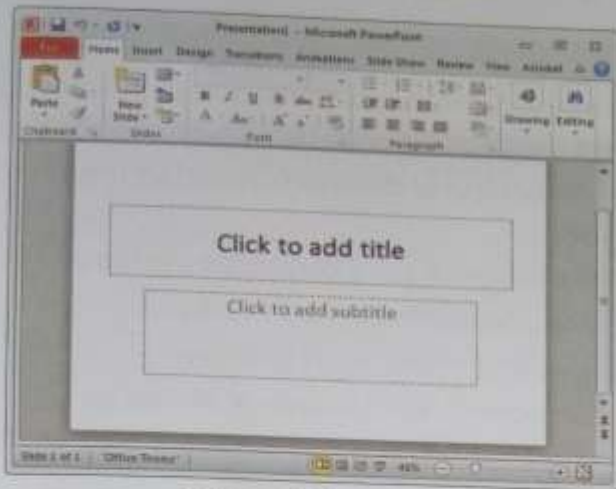


Microsoft Word

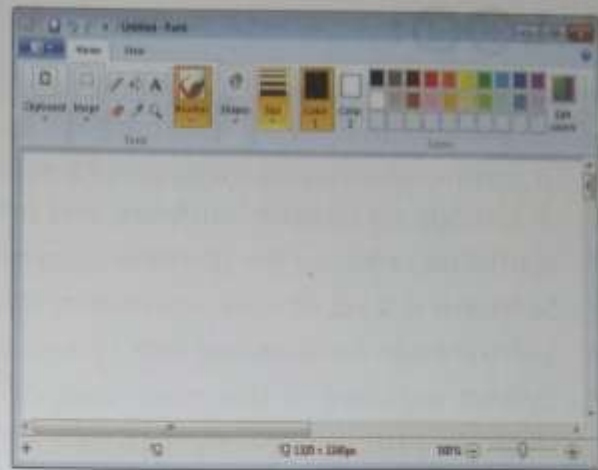


Microsoft Excel

- * **Presentation Graphics Software** are used to create presentations which include sound, music, video, charts and animation. Presentations are used by sales persons, managers, teachers, students, etc. Some commonly used presentation graphics software are: Microsoft PowerPoint, Corel Presentations, Impress, etc.
- * **Graphics Software** are further divided into two parts - Drawing & Painting Software and Computer Aided Design (CAD).
 - A drawing and painting software allows freehand drawing and coloring. Some commonly used drawing & painting software are Paint, Draw, etc.
 - Computer Aided Design (CAD) is used to help in designing of a product. CAD software is used by engineers, architects and designers to produce detailed design plans and technical drawings.

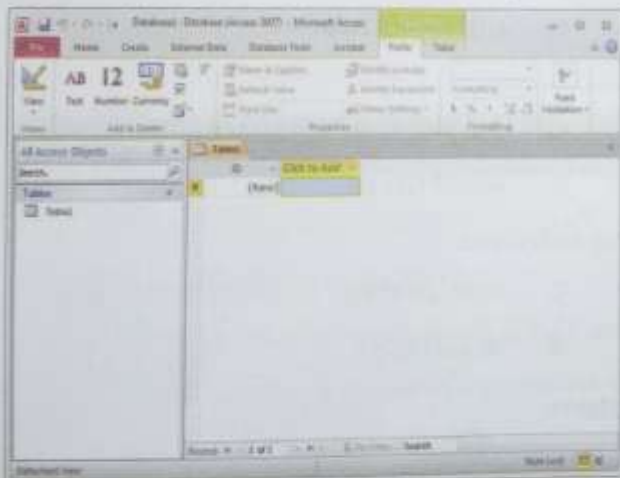


Microsoft PowerPoint

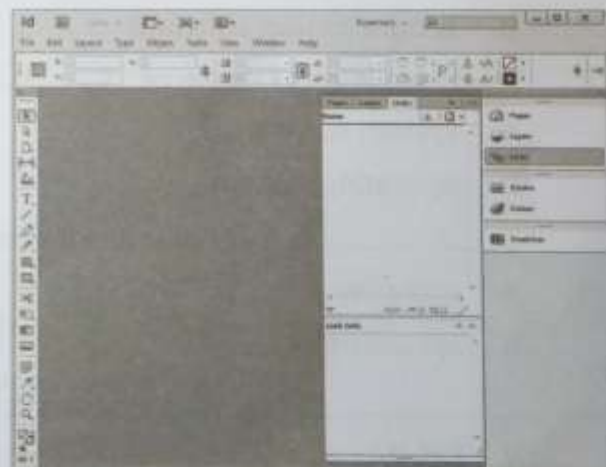


Paint

- ★ **Database Management System (DBMS) Software** are used to create, store, modify and sort data stored in a database. A database is an organized collection of related data. The DBMS is used to query the database and find any information easily. It is also used to generate reports on the basis of data stored in it. Some commonly used DBMS include Microsoft Access, Oracle, Microsoft SQL Server, Base, etc.
- ★ **DeskTop Publishing (DTP) Software** are used to create newspapers, magazines, brochures, still advertisements, etc. They are commonly used to create files that create lot of graphics. Some commonly used DTP software include Corel Draw, Adobe InDesign, Adobe Photoshop, QuarkXPress and Microsoft Publisher.



Microsoft Access



Adobe InDesign

- ★ **Multimedia Software** are used to combine the text with graphics, videos and sounds. Therefore, it is called multimedia software. Some commonly used multimedia software are Windows Movie Maker, Picasa, Inkspace, Media Monkey, etc.

Customised Software

Customised software are those which have been developed according to the needs of a particular organisation or an individual. Such software are also called tailor-made software.

Reboot

- * A computer system is a collection of hardware and software components, designed to provide an effective tool for computation.
- * A computer system is made up of a number of electronic devices connected together. It is made up of both hardware and software.
- * Hardware refers to the physical components that make up a computer system.
- * Software is a set of instructions that makes the computer perform tasks.
- * Software can be classified into system software and application software.
- * System software is the most important component to operate a computer. It is classified into three categories: operating system, programming software and utility software.
- * Application software is a program designed to help users perform specific tasks.
- * Application software can be classified into general purpose software and customised software.

One Touch Learn

A. Tick (✓) the correct option.

- is not a type of system software.
a. operating system c. word processor
b. programming software d. utility software
- MS Word is an example of
- a. system software c. application software
b. operating system d. all of these
- is not a programming software.
a. compiler c. interpreter
b. spreadsheet d. assembler
- is an operating system.
a. MS Word c. MS Windows
b. MS Excel d. none of these

B. Write 'T' for true and 'F' for false. Correct the false statements.

- Data compression program is used to compress large sized file into a smaller size file.
- A computer system is made up of a number of software devices.
- Virus scanner is used to scan only folders for virus.
- DBMS is a utility software.

T ✓
.....
F ✓
.....
F ✓
.....
F ✓
.....



C. Fill in the blanks using the words given below.

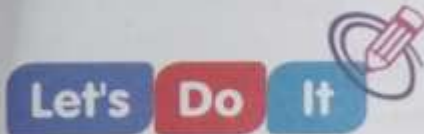


instructions, operating system, application software, disk defragmenter

1. A computer is controlled by Instruction
2. Operating system... manages computer resources.
3. CAD is an example of Application Software
4. Disk defragmenter organises fragments of files into continuous blocks.

D. Match the columns.

- | | |
|----------------|----------------------|
| 1. Writer | a. DBMS |
| 2. Lotus 1-2-3 | b. DTP software |
| 3. Base | c. Spreadsheet |
| 4. Draw | d. Word Processor |
| 5. Photoshop | e. Graphics software |

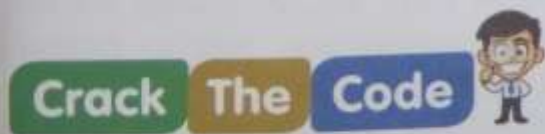


A. Short answer type questions.

1. Define a computer.
2. What is an operating system?
3. What do you mean by multimedia software?
4. What is an application software?

B. Long answer type questions.

1. What is system software? What are the different types of system software?
2. Mention the types and examples of application software.



Application based questions.

1. Siya's father wants to type a letter to his friend. Which type of software should he use?
2. Ramesh's mother wants to check if her system has virus or not. Which software does she need for this?
3. Suman wants to compress some files on her system. Which utility should she use?



A – Short answer type questions –

Qu. 1 Define a computer.

Answer An electronic device that performs diverse operations with the help of instructions to process the data in order to achieve desired results.

Qu. 2 What is an operating system?

Answer Operating system manages the computer's memory, processes data and controls all its software as well as hardware. It serves as an interface between the user and the hardware. Without an operating system, a computer is useless.

Qu. 3 What do you mean by multimedia software?

Answer Multimedia software are used to combine the text with graphics, videos and sounds. Therefore, it is called multimedia software some commonly used multimedia software are Windows Movie Maker, Picasa, Inkspace, Media Monkey, etc.

Qu. 4 What is an application software?

Answer Application software is a program designed to help users perform specific tasks.

B – Long answer type questions –

Qu. 1 What is system software? What are the different types of system software?

Answer System software is the most important component to operate a computer. The operating system is a type of system software. System software can be classified into three categories, as shown:

Operating System- An operating system is the most important software that runs on a computer. It manages the computer's memory, processes data and controls all its software as well as hardware. It serves as an interface between the user and the hardware. Without an operating system, a computer is useless.

Types of operating systems:

There are three most common operating systems for personal computers are Microsoft Window, Mac OS X and Linux and other are like iMac, UNIX and DOS.

Function of an Operating System

System perform three types

- ❖ Manage computer resources
 - Coordinates memory, processing storage, and printers
 - Monitors systems performance
 - Provides security
 - Starts-up the computer
- ❖ Provides user interface like Graphical User Interface(GUI)
- ❖ Runs applications through
 - Multitasking
 - Foreground and background applications

Programming Software- It is the software used by the computer to understand and convert the instructions by programming language into machine language. Like Compilers, assemblers, debuggers, interpreters. etc. are example of programming software.

Utility Software – It is designed to manage the computer hardware, operating system and application software. There are many utility software are

- Backup utility
- Data Compression Program:
- Disk Defragmenter
- Virus Scanner

Qu. 2 Mention the types and examples of application software.

Answer Application software is a program designed to help users perform specific tasks. Generally, people refer to application software as software.

Application software can be broadly classified into two categories –

1. General purpose Software
2. Customized Software

1. **Application Software** –

It can be used for both commercial and non-commercial or purposes. The general purposes software can further be classified into seven different groups on the basis of their use. These are -

- Word Processor
- Spreadsheet Software
- Presentation Graphics Software
- Graphics Software
- DBMS (Database Management System)
- DTP (Desktop Publishing)
- Multimedia Software

2. **Customised Software** –

Customized software are those which have been developed according to the needs of a particular organization or an individual. Such software are also called tailor-made software.