**ENTOTO TVET COLLEGE**

under

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**Ethiopian TVET-System**

INFORMATION TECHNOLOGY

SUPPORT SERVICE

Level I

**LEARNING GUIDE # 5**

Unit of Competence : Install Software Application

Module Title : Installing Software Application

LG Code : ICT ITS1 L01 05

TTLM Code : ICT ITS1 TTLM 0511

LO 1: Determine software and upgrade requirements

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| **Information Sheet 1** | **Introduction to Software** |

**Computer Software**

**Computer software**, or just **software**, is a collection of [computer programs](http://en.wikipedia.org/wiki/Computer_program) and related [data](http://en.wikipedia.org/wiki/Data) that provide the instructions for telling a [computer](http://en.wikipedia.org/wiki/Computer) what to do and how to do it.

# Examples of Software

Computer software has facilitated the interaction between human beings and computers. What are the different kinds of software? Go through the examples of different computer software.

**A.** [**Application Software**](http://www.buzzle.com/articles/different-types-of-application-software.html)**:** Application software is that, which is designed for the end-users and hence known as end-user programs. It employs the capabilities of a computer to execute the tasks that the user wishes to perform on a computer system.

**B.** [**Educational Software**](http://www.buzzle.com/articles/academic-software-educational-software.html)**:** They are used to deliver tests and track progress. They are used for educational purposes. Training management and classroom management.

**C. Enterprise Software**: It craters to the needs of organization processes and data flow. Customer relationship management and supply chain management software are the well-known examples of enterprise software

**D. Information Worker Software**: It caters to the needs of an individual to manage information pertaining to a project or a single department. Resource management software and documentation tools are some of the popularly used information worker software.  
  
**E.** [**Media Development Software**](http://www.buzzle.com/articles/web-design-and-development-software.html): They are used for the generation of print and electronic media in the educational and commercial sector. Image organizers and image editing software, animation software like Flash, audio and video editors as well as the web development software are some well-known examples of media development software.  
  
**F. Product Engineering Software**: This software is used in the development of hardware and software products. Program testing tools, debuggers, compilers and CAD are some of the other instances of product engineering software.

**G. Simulation Software**: They are used for the simulation of physical and abstract systems.

**H. Programming Software**: Programming Languages are used to write programs that control the functioning of a computer system.   
  
**I. System Software**: It is computer software that manages and controls hardware in order to enable application software to perform its tasks. System software performs the functions like transferring data from memory to the disk or delivering text onto a display device.

**J. Device Drivers**: They are computer programs, which facilitate the interaction of high-level computer programs with the hardware devices.

**K. Network Managers**: They check computer networks, data transfers and log events.

**L. Virus Scanners**: They scan for viruses on a computer system. They are widely known as [antivirus software](http://www.buzzle.com/articles/antivirus-software/).  
  
**Here is an overview of some of the other important kinds of software.**  
**M. Content-control software**: It refers to the software designed for controlling the content that is permitted for the user to access. It can determine what content will be available on a particular machine or network

**N.** [**Data Recovery Software**](http://www.buzzle.com/articles/data-recovery-software/): Apart from the facilities of copying of data files, data recovery software supports the user needs of backing up important computer data. It allows the user to specify what is to be backed up and when.

**There are different types of computer software. What are their major types? Let us see.**  
**I. System Software:** It helps in running the computer hardware and the computer system. System software is a collection of operating systems; device drivers, servers, windowing systems and utilities.

**II. Application Software:** It enables the end users to accomplish certain specific tasks. Business software, databases and educational software are some forms of application software.

**Different Types of Application Software**

What is application software? What are the different types of application software? Know it all along with some interesting examples of application software.

* + - * + **What is Application Software?**  
          Application software utilizes the capacities of a computer directly to a dedicated task. It can be in the form of software focused on a certain single task like word processing, spreadsheet or playing of audio and video files.  
            
          **Different Types of Application Software**  
            
          **1. Word Processing Software:** This software enables the users to create and edit documents. E.g. MS-Word, WordPad, Notepad and some other text editors.  
            
          **2. Database Software:**  A computer database relies on database software to organize the data and enable the database users to achieve database operations. Database software allows the users to store and retrieve data from databases. Examples are Oracle, MS Access, etc.  
            
          **3. Spreadsheet Software:** Spreadsheet software allows users to perform calculations. They simulate paper worksheets by displaying multiple cells that make up a grid.  
            
          **4. Multimedia Software:** They allow the users to create and play audio and video media.

Audio converters, players, burners, video encoders and decoders are some forms of multimedia software. Examples of this type of software include Real Player and Media Player.  
  
**5. Presentation Software:** The software that is used to display information in the form of a slide show is known as presentation software. Microsoft PowerPoint is the best example of presentation software.

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| **Self-Check 1** | **Written Test** |

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Please ask your teacher for the questionnaire for this Self-Check.*

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| **Information Sheet 2** | **Hardware Requirements for Installation of the Application** |

**Software Requirements**

To be used efficiently, all [computer software](http://en.wikipedia.org/wiki/Computer_software) needs certain [hardware](http://en.wikipedia.org/wiki/Computer_hardware)  components or other software resources to be present on a [computer](http://en.wikipedia.org/wiki/Computer).

With increasing demand for higher processing power and resources in newer versions of software, system requirements tend to increase over time.

#### Recommended system requirements

Often times manufacturers of games will provide the consumer with a set of requirements that are different than those that are needed to run software. These requirements are usually called the **Recommended Requirements**.

These requirements are almost always of a significantly higher level than the **minimum requirements**, and represent the ideal situation in which to run the software.

## Hardware requirements

## The most common set of requirements defined by any [operating system](http://en.wikipedia.org/wiki/Operating_system) or [software application](http://en.wikipedia.org/wiki/Software_application) is the [hardware](http://en.wikipedia.org/wiki/Computer_hardware). A hardware requirements list is often accompanied by a [hardware compatibility list](http://en.wikipedia.org/wiki/Hardware_compatibility_list) (HCL)

## Architecture (Structural design)

## All computer [operating systems](http://en.wikipedia.org/wiki/Operating_system) are designed for a particular [computer architecture](http://en.wikipedia.org/wiki/Computer_architecture). Most software applications are limited to particular operating systems running on particular architectures.

## Processing power

## The power of the [central processing unit](http://en.wikipedia.org/wiki/Central_processing_unit) (CPU) is a fundamental system requirement for any software. Most software running on [x86 architecture](http://en.wikipedia.org/wiki/X86_architecture) define processing power as the [model](http://en.wikipedia.org/wiki/List_of_microprocessors) and the [clock speed](http://en.wikipedia.org/wiki/Clock_rate) of the CPU.

## Memory

## All software, when run, resides in the [random access memory](http://en.wikipedia.org/wiki/Random_access_memory) (RAM) of a computer. Memory requirements are defined after considering demands of the application, operating system, supporting software and files, and other running processes.

## Secondary storage

## Hard-disk requirements vary, depending on the size of software installation, temporary files created and maintained while installing or running the software, and possible use of [swap space](http://en.wikipedia.org/wiki/Virtual_memory) (if RAM is insufficient).

## Display adapter

## Software requiring a better than average [computer graphics](http://en.wikipedia.org/wiki/Computer_graphics) display, like [graphics editors](http://en.wikipedia.org/wiki/Graphics_software) and high-end [games](http://en.wikipedia.org/wiki/Video_game), often define high-end [display adapters](http://en.wikipedia.org/wiki/Graphics_processing_unit) in the system requirements.

## Peripherals

## Some software applications need to make extensive and/or special use of some [peripherals](http://en.wikipedia.org/wiki/Peripheral), demanding the higher performance or functionality of such peripherals. Such peripherals include [CD-ROM drives](http://en.wikipedia.org/wiki/CD-ROM), [keyboards](http://en.wikipedia.org/wiki/Computer_keyboard), [pointing devices](http://en.wikipedia.org/wiki/Pointing_device), [network devices](http://en.wikipedia.org/wiki/Computer_networking_device), etc.

## Software requirements

## Software requirements deal with defining software resource requirements and pre-requisites that need to be installed on a computer to provide optimal functioning of an application.

## Platform

## In [computing](http://en.wikipedia.org/wiki/Computing), a platform describes some sort of [framework](http://en.wikipedia.org/wiki/Software_framework), either in [hardware](http://en.wikipedia.org/wiki/Computer_hardware)  or [software](http://en.wikipedia.org/wiki/Software), which allows software to run. Typical platforms include a computer's  [architecture](http://en.wikipedia.org/wiki/Computer_architecture" \o "Computer architecture), [operating system](http://en.wikipedia.org/wiki/Operating_system), or [programming languages](http://en.wikipedia.org/wiki/Programming_language) and their [runtime](http://en.wikipedia.org/wiki/Run-time_system) libraries.

## APIs and drivers

## Software making extensive use of special hardware devices, like high-end [display adapters](http://en.wikipedia.org/wiki/Graphics_processing_unit), needs special [API](http://en.wikipedia.org/wiki/Application_programming_interface) or newer device drivers. A good example is [DirectX](http://en.wikipedia.org/wiki/DirectX), which is a collection of APIs for handling tasks related to multimedia, especially game programming, on [Microsoft](http://en.wikipedia.org/wiki/Microsoft) platforms.

## Web browser

Most [web applications](http://en.wikipedia.org/wiki/Web_application) and software depending heavily on [Internet technologies](http://en.wikipedia.org/wiki/Internet_technologies)

## Make use of the default browser installed on system.

## Other requirements

## Some software also has other requirements for proper performance. [Internet connection](http://en.wikipedia.org/wiki/Internet_connection) (type and speed) and [resolution](http://en.wikipedia.org/wiki/Display_resolution) of the display screen are notable examples.

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| **Self-Check 2** | **Written Test** |

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*Please ask your teacher for the questionnaire for this Self-Check.*

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| **Operation Sheet 1** | **Installing a software program** |

**How to install a software program?**

This is a basic overview on how to install software programs, games, and utilities on your computer.

**General Tips**

* Make sure your computer meets the requirements of the program, game, or utility you are attempting to install.
* The manuals for the program or the **readme** file located in the same directory as the install commonly contain exact instructions on how to install a program.
* After installing or during the installation, a program may need to install other programs, files, or utilities before it is able to run. If this is the case, the program will commonly prompt you to install the program or you may need to run a separate install before the program can be fully used.
* When installing a program, utility, or game, it is always a good idea first to close or disable any other programs that are running.
* After installing a new program if it prompts you to reboot the computer, do it.

**Microsoft Windows users**

Many software programs, games, and utilities have an AutoPlay feature that will automatically start the setup screen for the software program when the CD is placed in the computer. If your program, game, or utility contains this feature, run the installation through the screen that appears after inserting the disc.

If you are installing a program, game, or utility that does not contain this feature or you are installing a program from a floppy diskette, follow the below steps.

1. Open [My Computer](http://www.computerhope.com/jargon/m/mycomput.htm).
2. If the files are on a floppy diskette, open the A: drive. If they're on a CD or DVD open the D: drive or the letter of the disc drive.
3. Within the drive that contains your files, locate either a **setup** or **install** file.  [Double-clicking](http://www.computerhope.com/jargon/d/doublecl.htm) on this file should start the installation for the program, game, or utility.

An alternate method of starting the installation in Microsoft Windows

1. Click Start and Run.
2. In the Run Window, type x:\setup or x:\install where x is the letter of the drive you wish to start the installation from.

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| **Lap Test** | **Practical Demonstration** |

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Time started: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Time finished: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Please ask your teacher for the instruction for this Lap Test