



# INFORMATION TECHNOLOGY SUPPORT SERVICE

Level II

## Learning Guide # 25

<b>Unit of Competence:-</b>	<b>Administer Network Hardware and Peripheral</b>
<b>Module Title:-</b>	<b>Administering Network Hardware and Peripheral</b>
<b>LG Code:-</b>	<b>ICT ITS1 M06 LO8</b>
<b>TTLM Code:-</b>	<b>ICT ITS1 TTLM06 1019</b>

**LO8: Use and maximize operating system**

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- Configuring Operating system
- Installing, upgrading and uninstalling Application software
- Using graphical user interface and the command line interface
- Using Operating system and third-party utilities
- Customizing Graphical user interface

This guide will also assist you to attain the learning outcome stated in the cover page.

Specifically, upon completion of this Learning Guide, you will be able to :-

- Operating system is configured to suit the working environment, including but not limited to setting variables.
- Application software is installed, upgraded and uninstalled to suit the working environment.
- Both graphical user interface and the command line interface are used to perform basic tasks based on clients.
- Operating system and third-party utilities are used based system requirement.
- Graphical user interface is customized based on clients.

### **Learning instruction:**

1. Read the specific objectives of this Learning Guide.
2. Follow the instruction describe below 1
3. Read the information written in the information “sheet 1, sheet 2 and sheet 3 ” , “in page 3.4.6.7.9 and 10 ” respectively
4. Accomplish the “self-check 1, self-check 2 and self-check 3” “in page 5,8 and 11”  
Respectively

\*Your teacher will evaluate your output either satisfactory or unsatisfactory. If unsatisfactory, your teacher shall advice you on additional work. But if satisfactory you can proceed to the next topic

## 8.1 Configuring Operating system

### Operating System:

An operating system is a collection of system programs that control computer and any other peripherals connected to it. The program that hides the truth about the hardware from the programmer and present and a nice simple view a named file that can be read & written as “operating system”. Operating system shields the programmer from the interface, the abstraction offers by the operating system is slower & easier to use than the underlying hardware.

Operating system is collection of software which is close to hardware. We can view operating system as a resource – hardware and software collector.

The main functions of operating system are

1. Implementing using interface
2. Sharing hardware among number of users.
3. Allow user to share data
4. Protecting user from each other
5. Control the execution of programs

We can call operating system as resource allocator. A computer has many resource hardware and software's, CPU, main memory I/O devices etc. The operating system acts as manager of these resources. Operating system is the control program. A control program manages the execution of user program to prevent error and improve use of computer. The storage device used to store operating system are expressed In bytes.

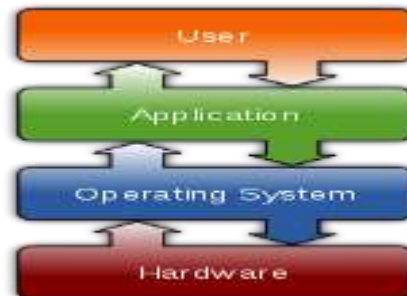
8 bits=1 bytes

1024 bytes=1 kilobyte

1024 kilobyte=1 megabyte

1024 megabyte = 1 GB

## Operating system Structure



**Fig 1.1 Common features**

An **operating system (OS)** is software, consisting of programs and data, that runs on computers, manages computer hardware resources, and provides common services for execution of various application software. The operating system is the most important type of system software in a computer system. Without an operating system, a user cannot run an application program on their computer, unless the application program is self-booting.

Examples of popular modern operating systems include Linux, Android, iOS, Mac OS X, and Microsoft Windows.

System configuration mainly refers to the specification of a given computer system, from its hardware components to the software and various processes that are run within that system. ... These settings dictate the normal function and features that make the system run in a stable manner.

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

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

*Direction:* Choose the best answer for the following question, if you have some clarifications – feel free to ask your teacher.

1. Operating system in computer is \_\_\_\_\_?
  - A. A collection of system programs that control computer.
  - B. And any other peripherals connected to it.
  - C. Control the overall activity of a computer.
  - D. All
2. Which of the following is the function of operating system?
  - A. Sharing hardware among number of users
  - B. Allow user to share data
  - C. Control the execution of programs
  - D. All
3. Without \_\_\_\_\_ the computer does not work perfectly
  - A. Allow user to share data
  - B. Operating system
  - C. Hardware
  - D. software

**Note: Satisfactory rating - 3 points****Unsatisfactory - below 3 points**

## 8.2 Installing, upgrading and uninstalling Application software

When referring to computer software, install, installation, or install.exe is the process of creating, extracting, and moving all of the necessary files to run a program on a computer. An install is started by running the install or setup file on a disc or downloading a program and running the install file.

**You can follow the steps below to install an application from an .exe file.**

1. Locate and download an .exe file.
2. Locate and double-click the .exe file. (It will usually be in your Downloads folder.)
3. A dialog box will appear. Follow the instructions to install the software.
4. The software will be installed.

An update is new, improved, or fixed software, which replaces older versions of the same software. For example, updating your operating system brings it up-to-date with the latest drivers, system utilities, and security software. Updates are often provided by the software publisher free of additional charge.

In computing uninstall means to remove an application from a computer frequently, however, uninstalling **is** not 100% effective, and a few orphan files remain. In Windows, you can uninstall an application by selecting Add/Remove Programs from the Control Panel and then selecting the application you want to remove.

**To remove programs and software components in Windows 7 from your computer hard disk drive, follow these steps:**

1. Click Start , and then click Control Panel.
2. Under **Programs**, click **Uninstall a program. ...**
3. Select the **program** you want to **remove**.
4. Click **Uninstall** or **Uninstall/Change** at the top of the **program** list.

### How to Update Applications Software

1. Check the File and Help menus for **update instructions**. ...
2. Choose Start→**Programs**→All **Programs**.
3. Look for the install directory of an application you want to **update**. ...
4. Point your Internet browser to the **software** manufacturer's Web site and look for **update instructions**.
5. Download a newer version than the version you're running.

**Self Check 2****Written Test**

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

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

*Direction: filling* the appropriate answer for the following question in the specie provided, if you have some clarifications- feel free to ask your teacher.

1. \_\_\_\_\_ is the process or creating, extracting, and moving all of the necessary files to run a program on a computer.
2. \_\_\_\_\_ is removing application software form the operating system?
3. \_\_\_\_\_ is a process of gaining new future for the existing application software

**Note: Satisfactory rating - 3 points**

**Unsatisfactory - below 3 points.**



### 8.3 Using graphical user interface and the command line interface

A **GUI** (Graphic User Interface) is a graphical representation in which the **users** can interact **with** software or devices through graphical icons. A **CLI (Command Line Interface)** is a console or text based representation in which the user types the **commands** to operate the software or devices

### 8.4 Using Operating system and third-party utilities

What is a third party utility?

A **third-party** energy supplier is a sort of Go-between Company. They buy energy from large **utility** companies and then sell that energy again to consumers at different rates.

What is the difference between operating system and utility program?

**System Software** – The operating system and utility programs that control a computer system and allow you to use your computer. Enables the boot process, launches applications, transfers files, controls hardware configuration, manages files on the hard drive, and protects from unauthorized use.

### 8.5 Customizing Graphical user interface

The graphical user interface is a form of user interface that allows users to interact with electronic devices through graphical icons and visual indicators such as secondary notation, instead of text-based user interfaces, typed command labels or text navigation.

What are some examples of graphical user interface?

The main pieces of a **GUI** are a pointer, icons, windows, menus, scroll bars, and an intuitive input device. **Some** common GUIs are the ones associated with Microsoft Windows, Mac OSX, Chrome OS, GNOME, KDE, and Android.

What is a GUI used for?

**GUI** definition. A **graphical user interface (GUI)** is a human-computer interface (i.e., a way for humans to interact with computers) that uses windows, icons and menus and which can be manipulated by a mouse (and often to a limited extent by a keyboard as well).

### **Customizable graphical user interface**

A program which aids the process of adding an extra layer to an existing program or system in order to make it look different to the user: for example adding a new interface to an existing operating system so that it looks like another operating system. Sometimes referred to as a skin and often abbreviated to CGUI.

### **Graphical User Interfaces**

A **graphical user interface (GUI)** allows a user to interact with a computer program using a pointing device that manipulates small pictures on a computer screen. The small pictures are called icons or widgets. Various types of pointing devices can be used, such as a mouse, a stylus pen, or a human finger on a touch screen.

We refer to programs that use a **graphical user interface** as “GUI programs.” A GUI program is very different from a program that uses a **command line interface** which receives user input from typed characters on a keyboard. Typically programs that use a **command line interface** perform a series of tasks in a predetermined order and then terminate. However, a GUI program creates the icons and widgets that are displayed to a user and then it simply waits for the user to interact with them. The order that tasks are performed by the program is under the user’s control – not the program’s control! This means a GUI program must keep track of the “state” of its processing and respond correctly to user commands that are given in any order the user chooses. This style of programming is called “event driven programming.” In fact, by definition, all *GUI programs* are *event-driven programs*.

**Self Check 3**

**Written Test**

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

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

*Instruction:* Choose the best answer for the following question, if you have some clarifications – feel free to ask your teacher.

1. \_\_\_\_\_ is a graphical representation in which the users can interact with software or devices through graphical icons.
  - A. Software
  - B. Graphical user interface
  - C. Software configuration
  - D. Network administration
2. CLI stand for
  - A. Command Line Interface
  - B. Command Line director
  - C. Central processing
  - D. All
3. A third party utility is
  - A. Software configuration
  - B. Graphical user interface
  - C. A sort of Go-between Company
  - D. All
4. A system software is
  - A. Allows a user to interact with a computer program using a pointing device
  - B. Operating system and utility programs that control a computer system and allow you to use your computer.
  - C. **Central processing**
  - D. **All**
5. \_\_\_\_\_ A program which aids the process of adding an extra layer to an existing program or system in order to make it look different to the user
  - A. Hardware of a computer
  - B. Software of a computer
  - C. Customizable graphical user interface
  - D. All

**Note: Satisfactory rating - 3 points**

**Unsatisfactory - below 3 points.**

### List of reference material

## 1. Book

- Beginners-intro-email-part1.
- Computer Hardware\_ Hardware Components and Internal PC Connection.
- Computer Networking & Hardware Concepts.
- Computer-Networks--Introduction\_Computer\_Networking(1)
- Internet-Access-Education\_2017120
- Principles\_of\_Network\_and\_System\_Administration\_(2ed)

## 2. Web adders links

- [www.wikipedia.com](http://www.wikipedia.com)
- [www.google.com](http://www.google.com)
- [web1.keira-h.school.nsw.edu.au/faculties/IT/](http://web1.keira-h.school.nsw.edu.au/faculties/IT/)