

What is Linux?

Linux is an open-source operating system inspired by UNIX. Linux is just a kernel and Linux distribution makes it a usable operating system, preferred as for computers, servers, mainframes, mobile devices and embedded devices.

Father of Linux operating system: Linus Torvalds.

Why we should use Linux?

The main benefits are it offers a free operating system, you do not have to spend hundreds of dollars to get the OS like windows. Being open-source it unified the source code, the Linux operating system now offers millions of programs applications to choose from most of them are free.

Once you have Linux installed you no longer needed an anti-virus because Linux is highly secure system more so there is a global development community constantly looking at ways to enhance its security with each upgrade the OS becomes more secure and robust.

Linux is the OS of choice for server environments due to its stability and reliability.

Mega companies like Amazon, Facebook and Google used Linux for their service.

A Linux based server could run non-stop without a reboot for years on end.

How different is Linux when compared to UNIX?

UNIX is a propriety operating system from Bell Laboratories. The Open Group holds the UNIX trademark & manage the UNIX trademark licensing program.

Companies have their own licensed UNIX: IBM (AIX)

HP (HP-UX)

Apple (OSX)

Linux is free, open source and intended as a non-propriety operating system for the masses.

Linux is a clone of UNIX, written from scratch by Linus Torvalds & his team.



What is Linux kernel?

The Linux kernel is a low-level system software whose main role is to manage hardware resources for the user.

It is the core of any OS & it is responsible for translating the user commands into equivalent language understood by the computer hardware.

What is shell?

The shell is a program that takes commands from keyboard and passes them to the operating system for performing.

or, The shell is the Linux command line interpreter, it provides an interface between the user and the kernel and executes programs called commands.

What is BASH?

BASH is short for Bourne Again shell. It's a replacement to the original shell.

BASH is the free and enhanced version of the Bourne shell distributed with Linux and GNU operating systems.

What are the advantages of Linux being open-source?

Being open-source, Linux gives users access to the source code.

Open source allows users to distribute the software, including source the code freely to anyone interested.

It allows users to add features, debug and correct errors in the original source code.

When the source code has been improved, it can be freely redistributed (open-source collaboration).

Explain the functionality of root user.

The root user is similar to a superuser or a system administrator.

Root user has ultimate control and access to all files/directories in the system.

Another advantage: restricted programs can be executed from the terminal by using the root account.



What is CLI?

CLI stands for Command Line Interface. This interface allows users to type declarative commands to instruct the computer to perform operations.

LINUX CLI is called Terminal and commands will be interpreted by the shell.

Advantage: Multiple steps can be executed by specifying a single command.

What is GUI?

GUI stands for graphical user interface and makes the system attractive.

Users who find it difficult to remember commands can use the GUI.

GUI allows the users to navigate/access files by clicking on images and icons.

What is swap space?

Swap space is a certain amount of space used by Linux to temporarily hold active programs.

This happens when RAM does not have enough memory to hold all programs that are being executed.

What are the kind of permissions available in Linux?

There are basically 3 levels of file/directory permission in Linux.

Read: users only read the files or list the directory contents

Write: Users can only write information to the file and create files/sub-directories in a directory.

Execute: users can run the file or lookup a specific file within a directory.