

## Module : 15 Linux Server - Understand and use essential tools

- 1) One partition is the absolute minimum; a typical GNU/ Linux installation will include at least two partitions: the root partition (denoted as /) and the swap partition.
  - During installation, most distros allow you to put all of your files on a single partition.
- 2) Use the chmod command to change permissions.

This example shows how to change the permissions on sneakers, txt with the chmod command.

  - If you are the owner of the file or are logged into the root account you can change any permissions for the owner, group, and others.
- 3) Linux systems must run at an optimal level. Memory plays a critical role in a Linux system.
  - A developer or seasoned sysadmin must know the total amount of free and used physical, including swap memory in the server.
  - It would be best if you kept an eye on buffers and caches used by the kernel too.
- 4) Grep, an acronym for “Global Regular Expression Print”, is one of the most commonly used commands in Linux.

- Grep is a command-line utility that searches for a specific text string in one or more files. It looks for the pattern in each line of the file and prints out the lines that match it.
- 5) Secure Shell, commonly known as SSH, is like a super-secure way to talk to faraway computers, called servers. It's like a secret tunnel on the internet that keeps your conversations safe and private.
  - 6) The "root" account is the most privileged account on a Unix system.
    - This account gives you the ability to carry out all facets of system administration, including adding accounts, changing user passwords, examining log files, installing software, etc.
  - 7) Linux systems a program called bash (which stands for Bourne Again SHell, an enhanced version of the original Unix shell program, sh, written by Steve Bourne) acts as the shell program. Besides bash, there are other shell programs available for Linux systems.
  - 8) The Linux operating system is a collection of open-source software programs designed to function similarly to Unix systems.
  - 9) Bash is a command-line interface shell program used extensively in Linux and macOS.

- The name Bash is an acronym for “Bourne Again Shell,” developed in 1989 as a successor to the Bourne Shell.
- 10) When you are adding a new disk to an existing Linux system, you will need to format and partition it, add a file system to it, and then mount the disk to some path where you plan to access it from.
  - This might sound complex or like a lot of steps, but it really only takes a few minutes.
  - 11) `pwd` the Linux command to show the current working directory.
  - 12) `Man` , `man ls`, `--help`, `ls --help` the Linux command to get help with various options
  - 13) `W` the linux command! to display what all users are currently doing.
  - 14) `Uname -a` the Linux command to get information about the operating system.
  - 15) `Ln` the Linux command to create a hard link of a file.
  - 16) `Ln -s` the Linux command to create a soft link of a file as well as Directory.
  - 17) `Grep` the Linux command to search for specific patterns in a file.
  - 18) `Grep 'p(aeiou)ttern'` the Linux command to show the use of basic regular expressions using the `grep` command.