Module: 1 - Linux server - Understand and use essential tools

1. What is the minimum number of partitions you need to install Linux?

ANS : The minimum number of partitions required for Linux installation is two:

1.Root (/) partition – This is where the operating system and its files are stored.

2. Swap partition – This is used for virtual memory when your RAM is full (though it can also be omitted if you have enough RAM and use a swap file instead).

1. Explain About Chmod Command

ANS : >chmod is used to change the permissions of files or directories in Linux.

> It allows you to set read (r), write (w), and execute (x) permissions for the file owner, group, and others.

1. How to check Linux memory utilization

ANS : You can use the free command or top command to check memory utilization:

* free -h (shows memory in a human-readable format).
* top (displays dynamic memory usage and other system info).

1. Use grep to search for specific patterns in files.

ANS : > grep is used to search for a specific pattern in a file.

* Example: grep "pattern" filename.txt will search for the text "pattern" in filename.txt.

1. · Get Connecting on a linux server by ssh

ANS : To connect to a Linux server via SSH, use the following command:

* ssh username@hostname\_or\_ip
* Example: ssh user@192.168.1.1

1. · Create 5 files in the /tmp directory, and then use tar and gzip to bundle and compress the files.

ANS : Command to create 5 files:

* touch /tmp/file1 /tmp/file2 /tmp/file3 /tmp/file4 /tmp/file5
* Command to bundle and compress using tar and gzip:
  + tar -czvf /tmp/files.tar.gz /tmp/file1 /tmp/file2 /tmp/file3 /tmp/file4 /tmp/file5

1. ·Describe the root account

ANS : The root account is the superuser in Linux and has full administrative privileges. This account can perform all tasks on the system, such as installing software, modifying system settings, and accessing all files, regardless of permissions.

1. What is shell?

ANS : A shell is a command-line interface that allows users to interact with the operating system by typing commands. The shell interprets these commands and runs programs accordingly.

* Examples include bash, sh, and zsh.

1. What is Linux?

ANS : Linux is a free and open-source operating system based on the Unix kernel. It is used in various environments, from servers to desktops, and supports a wide range of software.

1. What is Bash?

ANS : Bash (Bourne Again Shell) is a command-line interpreter and shell used in many Linux distributions. It is an enhanced version of the original Unix shell, providing powerful scripting and command-line functionalities.

1. You have a new empty hard drive that you will use for Linux. What is the first step you use.

ANS : The first step is to partition the new hard drive. You can use tools like fdisk or parted to create partitions on the hard drive.

1. You have a new empty hard drive that you will use for Linux. What is the first step you use.

ANS : The command is:

* pwd (Print Working Directory)

1. write the Linux command to get help with various options.

ANS : The command is:

* man command\_name (e.g., man ls for help with the ls command)
* Or command\_name --help (e.g., ls --help)

1. Write the linux comman! to display what all users are currently doing.

ANS : The command is:

* w (shows who is logged in and what they are doing)
* Or who (shows who is logged in)

1. write the Linux command to get information about the operating system.

ANS : The command is:

* uname -a (displays detailed information about the system)
* Or cat /etc/os-release (shows OS information)

1. . Write the Linux command to create a hard link of a file.

ANS : The command is:

* ln original\_file hard\_link

1. Write the Linux command to create a soft link of a file as well as Directory.

ANS : To create a soft link of a file:

* ln -s original\_file soft\_link

 To create a soft link of a directory:

* ln -s /path/to/directory soft\_link\_directory

1. Write the Linux command! to search for specific pattern in a file.

ANS : The command is:

* grep "pattern" filename

1. Write the Linux command to show the use of basic regular expressions using grep command.

ANS : The command is:

* grep -E "pattern" filename
* Example using a regular expression: grep -E "foo|bar" filename (this searches for either "foo" or "bar").