**1.How do you list all the processes running in Linux?**

**ANS:** To list currently running processes, use the ps, top, htop, and atop Linux commands. You can also combine the ps command with the pgrep command to identify individual processes.

**2.What is** **top and htop Command?**

**ANS:** While "top" provides basic information such as process ID (PID), CPU usage, memory usage, and process status, "htop" offers additional details such as the user who started the process, the command used to start the process, and the process's start time

**3.What is the chmod command in Linux, and how do you use it?**

**ANS:** Change Mode (Chmod) Meaning & Purpose the Chmod, or change mode, command allows an administrator to set or modify a file's permissions. Every UNIX/Linux file has an owner user and an owner group attached to it, and every file has permissions associated with it. The permissions are as follows: read, write, or execute.

**4.How do you find the process ID (PID) of a running process?**

**ANS:** Task Manager can be opened in a number of ways, but the simplest is to select Ctrl+ Alt+ Delete, and then select Task Manager. In Windows, first click More details to expand the information displayed. From the Processes tab, select Details to see the process ID listed in the PID column.

**5.How do users create a symbolic link in Linux?**

**ANS:** or go to Settings > System > For Developers.

Use an elevated command prompt.

Modify user rights to allow creation of symbolic links.

Enable developer mode.

**6.What is Swap Space?**

**ANS:** Swap space is a space on a hard disk that is a substitute of physical memory (RAM). It is used as virtual memory which contains process memory images.

**7.What is root account?**

**ANS:** The root account is the special user in the /etc/password file with the user ID of 0 and is commonly given the user name, root.it is not the user name that makes the root account so special, but the UID value of 0.

**8.What is the Linux Kernal? Is it legal to edit it?**

**ANS:** Linux kernal is a low-level software system.it is used to keep track of resources and give a user interface. Yes, it is legal to edit Linux kernel. Linux is released under the General public Licence (GPL) and any project which is released under GPL can be edited and modified by the end users.

**9.Describe CLI and GUI in Linux?**

**ANS:** GUI uses graphical elements such as icons, buttons, and windows to allow users to interact with the system, while CLI uses a text-based interface. CLI provides greater control over the system, allowing users to perform complex tasks with specific commands.

**10.Elaborate all the file permission in Linux?**

**ANS:** There are three kinds of file permissions in Linux Read, write, and execute. “read” the file's contents. “write”, or modify, the file's contents. “execute” the file.

**11.How do you move a file from one directory to another using Linux commands?**

**ANS:** Use the MV command to move files and directories from one directory to another or to rename a file or directory. If you move a file or directory to a new directory without specifying a new name, it retains its original name. Attention: The mv command can overwrite many existing files unless you specify the -i flag

**12. How would you check the network connectivity between your machine and a remote server using the Linux terminal?**

**ANS:** You can use the ping command followed by a target host or IP address. For example: ping www.google.com. If successful, you'll see round-trip time statistics indicating a successful network connection.

**13.What linux command could you use to display the list of users currently logged into the system?**

**ANS:** w' command

The 'w' command in Linux displays information about the users currently logged into the system and their processes.

**14.n Linux, what command would you use to monitor real-time changes in a log file?**

**ANS:** The tail command is commonly used for log file tracking and real-time update monitoring. System administrators combine it with other utilities using pipes to modify the output.

**15.How do you format a disk in Linux?**

**ANS:** To format the Disk ext4 File System efficiently, all you have to do is**:**

Use the command sudo mkfs -t ext4 /dev/sdb to format your disk partition.

Once done with it, you must verify the file system change. ...

Once complete, the terminal will list blocked devices. ...

Confirm the formatting of the preferred partition.

**16.What command would you use to compress and decompress files using the gzip tool?**

**ANS:** Advanced Techniques with Gzip

|  |  |  |
| --- | --- | --- |
| **Argument** | **Description** | **Example** |
| **-d** | Decompress the file. | gzip -d myfile.txt.gz |
| -k | Keep the original files. | gzip -k myfile.txt |
| -l | List the compression statistics. | gzip -l myfile.txt.gz |
| -r | Recursively compress files in directories. | gzip -r mydirectory |
|  |  |  |

**17.How can you configure a static IP address in Linux?**

**ANS**: Setting the IP address in Linux

Make sure that you are logged on as a root user.

Start a terminal session.

Type ifconfig -a at the command prompt. Attention: Record or print the current settings and the eth1 or eth2 interfaces before making changes. ...

Type ifconfig ethx xxx. xxx. ...

Press Enter.

**18: How do you use the "tar" command to compress and extract files in Linux?**

**ANS**: The procedure is as follows to tar a file in Linux:

Open the terminal app in Linux.

Compress an entire directory by running tar -zcvf file. tar. gz /path/to/dir/ command in Linux.

To compress a single file by running tar -zcvf file. tar. ...

Tar and compress multiple directories file by running tar -zcvf file. tar.

**19.What is the command to find a specific file in a directory and its subdirectories in Linux?**

**ANS:** The find command will begin looking in the /dir/to/search/ and proceed to search through all accessible subdirectories. The filename is usually specified by the -name option. You can use other matching criteria too: -name file-name – Search for given file-name.

**20.How do you display the contents of a file in Linux?**

**ANS:** The cat command is the simplest way to view the contents of a file. It displays the contents of the file(s) specified on to the output terminal. Sometimes, we might want to number the lines in the output.

**21.What is the command to remove a directory in Linux?**

**ANS**: To permanently remove a directory in Linux, use either the rmdir or rm command. The rmdir or rm -d command is for removing empty directories, while the rm -r command deletes non-empty directories.

**22.How do you format a disk in Linux?**

**ANS:** To format the Disk ext4 File System efficiently, all you have to do is:

Use the command sudo mkfs -t ext4 /dev/sdb to format your disk partition.

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Once complete, the terminal will list blocked devices. ...

Confirm the formatting of the preferred partition.

**23.How do you chain several commands together in Linux?**

**ANS**: Using the Semicolon (;) Operator Segmenting a chain of commands with the semicolon is the most common practice for running multiple commands in a Linux terminal.