Linux

Linux is an open-source operating system

Kernel: The **Linux Kernel** serves as the core of the operating system. It manages hardware interactions, ensuring smooth and efficient operation.

Linux Distributions: To create a complete OS, the Linux Kernel is combined with software packages and utilities. These collections, known as **Linux distributions**, allow users to run applications securely.

Open Source: Linux's source code is open for everyone to explore and modify. This encourages collaboration worldwide, making Linux better over time.

Versatility: Linux runs on various devices, from smartphones to supercomputers. It's known for efficiency and cost-effectiveness.

Linux commands

1. **`pwd`**: Print working directory.
2. **`cd`**: Navigate through directories.
3. **`mkdir`**: Create directories.
4. **`mv`**: Move or rename files.
5. **`cp`**: Copy files.
6. **`rm`**: Delete files or directories.
7. **`touch`**: Create empty files.
8. **`ln`**: Create symbolic links.
9. **`clear`**: Clear the terminal display.
10. **`cat`**: Display file contents.
11. **`echo`**: Print text.
12. **`less`**: Display paged outputs.
13. **`man`**: Access manual pages.
14. **`uname`**: Get basic OS information.
15. **`whoami`**: Get active username.
16. **`tar`**: Extract and compress files.
17. **`grep`**: Search for strings.
18. **`head`**: Return lines from the top.
19. **`tail`**: Return lines from the bottom.
20. **`diff`**: Find differences between files.
21. **`cmp`**: Check if files are identical.
22. **`sort`**: Sort file content.
23. **`export`**: Set environment variables.

24. **`zip`**: Zip files.
25. **`unzip`**: Unzip files.
26. **`ssh`**: Secure Shell.
27. **`service`**: Start and stop services.
28. **`ps`**: Display active processes.
29. **`kill`** and **`killall`**: Terminate processes.
30. **`df`**: Display disk info.
31. **`mount`**: Mount file systems.
32. **`chmod`**: Change file permissions.
33. **`chown`**: Grant ownership.
34. **`ifconfig`**: Display network interfaces.

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