

Linux

DAY 1 - LINUX FUNDAMENTALS (NOTES + EXPLANATIONS)

1. Creating Files and Directories

- `touch filename`
 - Creates a new empty file.
 - `mkdir foldername`
 - Creates a new directory.
 - `touch file{1..10}`
 - Creates multiple files in sequence: file1, file2, ... file10.

2. Listing Files

- `ls`
 - Shows files in the current directory.
 - `ls -l`
 - Long listing format.
 - Shows permissions, owner, group, size, and modification time.
 - First character indicates type:
 - d = directory**
 - = file**
- `ls -lh`
 - Same as `ls -l` but in human readable size (KB/MB/GB).

3. Deleting Files and Directories

- `rm filename`
 - Removes a file.
 - `rm -r foldername`
 - Removes a folder and its contents.
- `rm -rf *`
 - Deletes all files and folders in the current directory (dangerous command).

4. Working With vi Editor

- `vi filename`
 - Opens file in vi editor.
- Inside vi:
 - `i`
 - Enter insert mode to start typing.
 - `Esc`
 - Exit insert mode.
 - `:w`
 - Save file.
 - `:wq`
 - Save and exit.
 - `:q!`
 - Exit without saving.
 - `yy`
 - Copy the current line.
 - `2000p`
 - Paste the copied line 2000 times.

5. Process Management

- `ps`
 - Shows processes running in the current shell.
- `ps aux`
 - Shows all running processes on the system (detailed).
- `ps -ef`
 - Full-format process listing with UID, PID, PPID, time, command.
- `ps aux | grep name`
 - Filters processes by a keyword.
- `kill PID`
 - Terminates the process with the given PID.
- `kill -9 PID`
 - Force-kills the process.

6. Exploring /proc Directory

- `/proc`
 - Virtual filesystem created by the kernel.
 - Contains real-time system and process information.

- `/proc/meminfo`
 - Shows available and used RAM details.

- `/proc/cpuinfo`
 - Shows CPU details and core information.