Module :2- Linux server - Operate running systems

20. View running processes with ps.

- Basic ps command: To view the processes running in the current terminal session:
- Command: ps
- List all processes: To list all running processes for all users on the system:
- Command: ps -e
- Show processes with detailed information: To display a more detailed list of all processes, including PID, memory usage, CPU time, etc.
- Command: ps aux
- Show processes with specific user: To show processes for a specific user:
- Command: ps -u username
- Show hierarchical process tree: To display processes in a tree format, showing parent-child relationship:
- Command: ps axjf

21. Terminate processes with kill.

- Find the process ID (PID): First, you need to identify the processes you want to terminate. Use ps, top, or grep to find the PID.
- Send a termination signal: The default signal is SIGTERM (signal number 15), which gracefully asks the process to terminate.
- Kill multiple processes: You can kill multiple processes at once by passing multiple PIDs to the kill command.
- Kill a process by name: if you want to terminate a process by its name, you can combine pgrep with kill.

22. Use top or htop to monitor system resources and processes.

- Start top: To start monitoring system resources, simply run the top command. Once top is running, it will display the system's CPU usage, memory usage, process list and other information.
- Understanding the top output:
- Summary area: This provides high-level information about the system.
- Uptime: How long the system has been running.
- Load average: The system load over the last 1,5 and 15 minutes.
- CPU usage: The percentage of CPU time used by user processes, system processes and idle time.
- Memory usage: The total physical memory and how much is used, free, or buffered.
- Basic command inside top:
- Quit top: press q to exit top.

- Change the update interval: You can change the refresh rate by pressing d, then entering the number of seconds between updates.
- Search for a specific process: press / and type the process name or part of it, then press enter. Top will highlight the matching processes.
- Kill a process: press k, then type the PID of the process you want to terminate. It will prompt you to confirm the signal to send.
- Display all processes: To show processes from all users, use: top -u <username>
- Show system resources summary only: To get a summary of system resources without the full process list, use the -d option to specify a delay and -b for batch mode.
- Interactive search and help: Press h to get a list of available commands while top is running.
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23. · Configure one of your lab COMPUTERS to boot to the CLI using systemd, and reboot Assignment: Linux Server to confirm that you were successful.

- Done in Lab