Module :2- Linux server - Operate running systems

20. View running processes with ps.

Ans –

1. Basic Usage:

- ps: Displays a snapshot of your current shell's processes.
- ps aux: Shows a comprehensive list of all running processes, including those from other users.
    - a: Shows processes for all users.
    - u: Displays user-oriented format.
    - x: Shows processes without controlling ttys.

2. Common Options:

- ps -ef: Provides a full listing, showing process hierarchy (parent-child relationships).
    - -e: Select all processes.
    - -f: full-format listing.

21. Terminate processes with kill.

Ans –

1. Basic Usage:

- kill <PID>: Sends the TERM (termination) signal to the specified process. This is the default signal.
- kill -9 <PID> or kill -KILL <PID>: Sends the KILL signal, which forcefully terminates the process. Use this as a last resort.
- kill -l: Lists all available signals.

2.Important Signals:

- TERM (15): Graceful termination request.
- KILL (9): Immediate, forceful termination.
- HUP (1): Hangup signal, often used to reload configurations.

3.killall:

- killall <process_name>: Kills all processes with the given name.

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

Ans -

1. top:

- A real-time system monitoring tool that displays CPU usage, memory usage, and a list of running processes.
- Interactive: You can press keys to sort processes, change views, and perform other actions.
- Press 'q' to exit.

2. htop:

- An interactive process viewer and system monitor.
- Provides a more user-friendly interface than top, with color-coded information and mouse support.
- Allows you to easily kill processes, sort them, and view their dependencies.
- If not installed, install it using your distribution's package manager
- Press 'q' to exit.

23.Configure one of your lab COMPUTERS to boot to the CLI using systemd, and reboot to confirm that you were successful.

Ans –

❖ Understanding systemd Targets:

1. systemd uses targets to manage system states.
2. graphical.target: Boots to the graphical desktop environment.
3. multi-user.target: Boots to the command-line interface (CLI).

❖ Changing the Default Target:

1. Check the Current Target:
    - systemctl get-default
2. Change to multi-user.target:
    - sudo systemctl set-default multi-user.target
3. Reboot to Confirm:

- sudo reboot