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Assignment

Module: 1 - Linux server - Server Security And Automation

Linux Server: Operate Running Systems

20. View running processes with ps.

Answer - The ps command displays information about currently running processes.

To view all processes:- ps -ef

To view processes of a specific user:- ps -u username

21. Terminate processes with kill.

Answer - The kill command is used to stop a running process using its PID (Process ID).

Steps:

1. **Find the PID:- ps -ef | grep process_name**

2. **Kill the process:- kill PID**
3. **Force kill (if not stopping):- kill -9 PID**

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

Answer - Using top

Displays:

- **CPU usage**
- **Memory usage**
- **Running processes**

Press q to exit.

Using htop

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

Answer - Step 1: Set default target to CLI

sudo systemctl set-default multi-user.target

Step 2: Reboot the system

sudo reboot

-> After reboot, the system starts in Command Line Interface (CLI) mode.

Linux Server: Deploy, Configure, and Maintain Systems

38. · Schedule tasks using cron or at.

Answer –

Using cron

Edit crontab:

crontab -e

Example (run script daily at 5 AM):

0 5 * * * /path/script.sh

Using at

at 10:30 PM

Then type command and press Ctrl+D.

39. · Use apt or yum (depending on your Linux distribution) to install, update, and remove software packages.

Answer –

APT (Ubuntu/Debian)

sudo apt install package_name

sudo apt update

sudo apt upgrade

sudo apt remove package_name

YUM (RHEL/CentOS)

sudo yum install package_name

sudo yum update

sudo yum remove package_name

40. Install all httpd package

Answer –

sudo yum install httpd

or

sudo apt install apache2

41. Open kickstart configuration graphically

Answer –

system-config-kickstart

(Requires GUI environment)

42. Configure new kickstart file

Answer –

- **Set language**
- **Set Keyboard**
- **Set root password**
- **Disk partitioning**
- **Network configuration**
- **Package selection**

43. Show full configuration of new kickstart file

Answer –

cat ks.cfg

44. Validate new kickstart file

Answer –

ksvalidator ks.cfg

45. All http on firewall

Answer –

sudo firewall-cmd --permanent --add-service=http

46. Reload firewall.

Answer –

sudo firewall-cmd –reload

47. Start and restart http

Answer –

sudo systemctl start httpd

sudo systemctl restart httpd

sudo systemctl enable httpd

48. Install new foundation using new kickstart file

Answer –

At boot menu:

linux inst.ks=http://server_ip/ks.cfg

This performs automated installation using Kickstart.

Linux server - Manage basic networking & Security

49. Use ifconfig or ip to view and configure network interfaces.

Answer - View interfaces:

ip addr

or

ifconfig

50. Use ping to test network connectivity.

Answer –

ping google.com

Stop with Ctrl + C.

51. Understand basic firewall configuration using FIREWALL-CMD.

Answer - Check firewall status:

firewall-cmd –state

List services:

firewall-cmd --list-all

52. Add ssh services in firewall

Answer –

sudo firewall-cmd --permanent --add-service=ssh

sudo firewall-cmd –reload

53. Graphically manage the firewall

Answer –

firewall-config

54. NO Question

55. What is selinux Security

Answer –

SELinux (Security-Enhanced Linux) is a security mechanism that controls how processes access files, networks, and system resources.

Modes:

- **Enforcing – Security rules applied**
- **Permissive – Logs violations only**
- **Disabled – SELinux off**

Check status:

Sestatus

56. How to Set Static IP in Linux?

Answer –

Edit network file:

sudo nano /etc/network/interfaces

or (RHEL):

sudo nano /etc/sysconfig/network-scripts/ifcfg-eth0

Example:

BOOTPROTO=static

IPADDR=192.168.1.100

NETMASK=255.255.255.0

GATEWAY=192.168.1.1

DNS1=8.8.8.8

Restart network:

sudo systemctl restart network