Linux Notes - Cloud + DevOps Learning Journey

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1. Linux Architecture

Linux follows a modular architecture consisting of:

- Kernel

- System Libraries

- System Utilities

- Shell

Example: uname -r

2. Basic Commands

Some basic Linux commands:

- pwd -> Show current directory

- ls -> List files

- cd -> Change directory

- clear -> Clear terminal

3. Working with Files and Directories

- touch file.txt -> Create file

- mkdir dir -> Create directory

- cp source dest -> Copy files

- rm file -> Remove file

4. File System Hierarchy (FHS)

/bin, /etc, /home, /usr, /var etc.

Example: ls /etc

5. Linux Editors

CLI Editors:

- nano filename

- vi filename

Example: vi test.sh

6. File Viewing and Searching

- cat file.txt

- less file.txt

- grep 'text' file.txt

7. Input/Output Redirection

- > : Redirect output to file

- >> : Append output

- < : Input from file

Example: ls > list.txt

8. User Administration

- adduser user1

- userdel user1

- passwd user1

- id user1

9. Permission Management

- chmod 755 file

- chown user:group file

SUID, SGID, Sticky bit (chmod 4755, 2755, 1755)

10. Archiving and Compression

- tar -cvf archive.tar file

- gzip file

- unzip file.zip

11. Filtering Commands

- grep 'error' file

- awk '{print $1}' file

- sed 's/old/new/' file

12. Job Scheduling

- cron: crontab -e

- at: at now + 5 minutes

13. Linux Package Management

- Debian: apt-get install pkg

- RedHat: yum install pkg

- rpm -ivh pkg.rpm

14. Linux Networking Basics

- ifconfig / ip a

- ping google.com

- netstat -tulnp

15. Process Management

- ps aux

- top

- kill PID

- nice/renice