

Course Contents

1. Introduction to Shell and Kernel
2. Directory Hierarchy In Linux, tree command demo
3. Multi-Tasking and Multi-User
4. Linux system bootup and init-process

Commands to learn

- ls, cd, ls -lrt, man
- cp, mv
- Softlink and Hardlink like ln -s and difference between them
- tar, find, zip etc
- Wild card pattern and regular expression, Part 1
- Wild card pattern and regular expression, Part 2
- Environment Variable
- PATH and LD_LIBRARY_PATH
- Absolute Pathname and relative Pathname, export command
- Creating profiles like .bashrc and .bash_profile
- which, cal, date, time
- mkdir, rm, rmdir

Commands to learn

- cat, echo, who, whoami, tty, history
- pipe(|) and redirection(>)
- redirection to stdout, /dev/null, exec
- find command and xargs
- find file of particular type or size or modified time stamp
- chown, chmod, Useradd, groupadd, groupdel
- sort, cut, uniq, less, head, tail
- awk, sed and grep Part 1
- awk, sed and grep Part 2
- ps, top, vmstat
- cat /proc/partitions /proc/cpuinfo /proc/meminfo

Commands to learn

- stty, stty -a, stty -echo, some other tty variant commands
- telnet, ftp, ssh, sshd, selinux(Just introduction)
- ACL and special file permissions like sticky bit, setuid etc
- od, dd, bc, which, locate, passwd
- Revisit some concepts together with respect to awk, sed, wc, egrep etc using a demo example
- fg, bg, nohup, daemon, setuid
- uname -a, system call revisit, user level versus kernel level

Commands to learn

- Kill and signal handler
- Small script to trap a signal
- mount, ulimit, producing crash dump
- fdisk and gpart
- Mkfs, tuneefs
- crontab
- log rotate

Networking Commands to learn

- Network setup
- Static versus dhcp IP address
- Ifconfig
- Route, netstat
- Ping, ping6, traceroute
- How to set proxy in Linux
- Minicom setup
- Run level
- dmesg, log messages like /var/log/messages
- Shutdown, reboot, sync, rsyslog
- wget, curl

Commands to learn

- Vi and search and replace
- Diff, sdiff, cmp
- Patch, and applying the patch
- Dos2unix and unix2dos
- Gzip, tar, cpio
- Lzma, 7zip and bzip2

Ubuntu Installation

- How to install Ubuntu from Vmware

Fedora Installation

- How to install Fedora from Vmware

Package Manager

- apt-get command in ubuntu
- rpm command in Redhat based distro Part 1
- rpm command in Redhat based distro Part 2

Shell script part1

- echo and variables
- Environment variables
- Export from with the shell
- If condition

Shell script part 2

- If with or condition
- If, then, elif, else

Shell script part 3

- case statement (switch)

Shell script part 4

- While loop
- until

Shell script part 5

- Sleep
- Argument passing
- shift

Shell script part 6

- Array declaration and processing in shell script

Shell script part 7

- Basename, dirname and processing arguments

Shell script part 8

- Writing and calling a function in shell script
- Test conditions like `-le`, `-gt`, `-eq`, `=` etc
- `expr` and expression evaluation

Shell script automation part-1

- Write a shell script to exercise some of the concepts learnt in earlier video.

Shell script automation part-2

- Write another shell script to exercise some of the concepts learnt in earlier video.

Shell script Addendun

- Based on feedback I can add some extra course material if needed. This is also a placeholder to supplement any topic with extra material.