**SYSTEM**

uname -a => Displaylinux system information

uname -r => Display kernel release information

uptime => Show how long the system has been running + load

hostname => Show system host name

hostname -i => Display the IP address of the host

last reboot => Show system reboot history

date => Show the current date and time

cal => Show this month calendar

w => Display who is online

whoami => Who you are logged in as

finger user => Display information about user

**HARDWARE**

dmesg => Detected hardware and boot messages

cat /proc/cpuinfo => CPU model

cat /proc/meminfo => Hardware memory

cat /proc/interrupts => Lists the number of interrupts per CPU per I/O device

lshw => Displays information on hardware configuration of the system

lsblk => Displays block device related information in Linux

free -m => Used and free memory (-m for MB)

lspci -tv => Show PCI devices

lsusb -tv => Show USB devices

dmidecode => Show hardware info from the BIOS

hdparm -i /dev/sda => Show info about disk sda

hdparm -tT /dev/sda => Do a read speed test on disk sda

badblocks -s /dev/sda => Test for unreadable blocks on disk sda

**USERS**

id => Show the active user id with login and group

last => Show last logins on the system

who => Show who is logged on the system

groupadd admin => Add group "admin"

useradd -c "Sam Tomshi" => g admin -m sam #Create user "sam"

userdel sam => Delete user sam

adduser sam => Add user "sam"

usermod => Modify user information

**FILE COMMANDS**

ls –al => Display all information about files/ directories

pwd => Show the path of current directory

mkdir directory-name => Create a directory

rm file-name => Delete file

rm -r directory-name => Delete directory recursively

rm -f file-name => Forcefully remove file

rm -rf directory-name => Forcefully remove directory recursively

cp file1 file2 => Copy file1 to file2

cp -r dir1 dir2 => Copy dir1 to dir2, create dir2 if it doesn’t exist

mv file1 file2 => Rename source to dest / move source to directory

ln –s /path/to/file-name link-name #Create symbolic link to file-name

touch file => Create or update file

cat > file => Place standard input into file

more file => Output contents of file

head file => Output first 10 lines of file

tail file => Output last 10 lines of file

tail -f file => Output contents of file as it grows starting with the last 10 lines

gpg -c file => Encrypt file

gpg file.gpg => Decrypt file

wc => print the number of bytes, words, and lines in files

xargs => Execute command lines from standard input

**PROCESS RELATED**

ps => Display your currently active processes

ps aux | grep 'telnet' => Find all process id related to telnet process

pmap => Memory map of process

top => Display all running processes

kill pid => Kill process with mentioned pid id

killall proc => Kill all processes named proc

pkill process-name => Send signal to a process with its name

bg => Resumes suspended jobs without bringing them to foreground

fg => Brings the most recent job to foreground

fg n => Brings job n to the foreground

**FILE PERMISSION RELATED**

chmod octal file-name => Change the permissions of file to octal

Example

chmod 777 /data/test.c => Set rwx permission for owner,group,world

chmod 755 /data/test.c => Set rwx permission for owner,rx for group and world

chown owner-user file => Change owner of the file

chown owner-user:owner-group file-name => Change owner and group owner of the file

chown owner-user:owner-group directory => Change owner and group owner of the directory

**NETWORK**

ip addr show => Display all network interfaces and ip address (a iproute2 command,powerful than ifconfig)

ip address add 192.168.0.1 dev eth0 => Set ip address

ethtool eth0 => Linux tool to show ethernet status

mii-tool eth0 => Linux tool to show ethernet status

ping host => Send echo request to test connection

whois domain => Get who is information for domain

dig domain => Get DNS information for domain

dig -x host => Reverse lookup host

host google.com => Lookup DNS ip address for the name

hostname –i => Lookup local ip address

wget file => Download file

netstat –tupl => Listing all active listening ports

**COMPRESSION / ARCHIVES**

tar cf home.tar home => Create tar named home.tar containing home/

tar xf file.tar => Extract the files from file.tar

tar czf file.tar.gz files => Create a tar with gzip compression

gzip file => Compress file and renames it to file.gz

**INSTALL PACKAGE**

rpm -i pkgname.rpm => Install rpm based package

rpm -e pkgname => Remove package

**INSTALL FROM SOURCE**

./configure

make

make install

**SEARCH**

grep pattern files => Search for pattern in files

grep -r pattern dir => Search recursively for pattern in dir

locate file => Find all instances of file

find /home/tom -name 'index\*' => Find files names that start with "index"

find /home -size +10000k => Find files larger than 10000k in /home

**LOGIN (SSH AND TELNET)**

ssh user@host => Connect to host as user

ssh -p port user@host => Connect to host using specific port

telnet host => Connect to the system using telnet port

**FILE TRANSFER**

scp

scp file.txt server2:/tmp => Secure copy file.txt to remote host /tmp folder

rsync

rsync -a /home/apps /backup/ => Synchronize source to destination

**DISK USAGE**

df –h => Show free space on mounted filesystems

df -i => Show free inodes on mounted filesystems

fdisk -l => Show disks partitions sizes and types

du -ah => Display disk usage in human readable form

du -sh => Display total disk usage on the current directory

findmnt => Displays target mount point for all filesystem

mount device-path mount-point => Mount a device

**DIRECTORY TRAVERSE**

cd .. => To go up one level of the directory tree

cd => Go to $HOME directory

cd /test => Change to /test directory