Basic Linux Commands

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" =>g admin -m sam #Create user "sam"
userdel sam =>Delete user sam
adduser sam =>Add user "sam"
usermod =>Modify user information
chgrp => Changes a users group

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-nam =>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
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

sftp 192.16875.2 =>Connect remote host
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