Basic Commands

Command	Description
ls	Lists all files in the current directory
ls -l	Lists all files and directories with info about ownership, size, and date modified
ls -t	Sort the out of ls by last modified date
pwd	List the path of the current directory
cd directory/to/move/to	Switch to a different working directory
cd ..	Move up one directory level
cd /	Switch to the root directory
clear	Clears all text from the terminal screen
history	Prints out a history of commands
touch filename	Create a new file
vi filename	Open a file for editing
cat filename	Display the contents of a file
hostnamectl	List system information
ifconfig	Displays network information
date	Display the system date & time
top	List all running processes
free -m	Display memory usage
head filename	Displays the first 10 lines of a file
tail filename	Displays the last 10 lines of a file
mv file /newpath	Move file to a new location
mv filename new_name	Rename a file
cp filename new_name	Copy a file
man command_name	List information about a command
rm filename	Delete a file
rm -rf directory_name	Remove a directory and its contents
sudo	Run commands with elevated priviledges as a regular user
mkdir directory_name	Create a new directory
kill pid	Kill a process using its process ID
reboot	Restart the system

Networking Commands

Command	Description
dig domain	Display the DNS of a domain name
dig -x host	Perform a reverse lookup for a host
host domain	Display the IP of a domain name
whois domain	Extensive information for a domain
ping ip	Check connectivity to an IP address
ssh username@ip	Securely log into a server
wget file	Download a file
wget -c file	Continue a stopped download
traceroute domain	Trace the route a packet will take
telnet domain port	Connect to host via a specific port
netstat -pnltu	Display all listening ports
route	Display the routing table for your machine
arp	View the contents of the address routing protocol (ARP) table
cat /etc/resolv.conf	View the DNS server your machine uses
tcpdump -i eth1 'port 80'	Monitor all incoming traffic on port 80
nmap ip	Network discovery for a given IP

Permissions Commands

Command	Description
chmod xxx filename	Assign permissions to a file
chmod -R xxx dir	Assign permissions to a file and its sub-directories
chmod -x filename	Remove "execution" permissions from a file
chown username file	Change the ownership of a file
chown user:group file	Change the owner and group of a file
chown user:group file1 file2 file3	Change the owner and group of multiple files
chown --from=bob alice filename	Change the owner of a file owned by a specific user
chown -h user:group	Forcefully change the owner and group

Storage Related Commands

Command	Description
df -h	List storage information for all partitions
mount unmount	Mount or unmount and ISO or drive
du -h /home/directory	Display directory size in a readable format
du -sh /home/directory	Get the total size of a directory
du -ah --exclude='*.xxx' /home/directory	Display the disk usage of all files in a directory, excluding files with the specified extension
du -ha --time /home/dir	Display disk usage of a directory and list according to time modified
fdisk -l	Display disk size along with partition information
sudo du -x / | sort -nr | head -20	List the top 20 directories that are overconsuming

User Management Commands

Command	Description
adduser username	Add a new user
userdel -r 'username'	Delete a user
passwd -l 'username'	Change the password of a user
whoami	Display currently logged in user
usermod -c 'This user will be deleted' user	Add a comment to a user account
cat /etc/passwd	Display a list of users with info
usermod -d /home/test username	Change the home directory of a user
sudo deluser user group	Remove a user from a group
usermod -a -G group user	Add a user to a group
groupadd group	Create a new group
groupdel name	Delete a group
id	Display the uid, gid, and groups for the current user

Compressing & Uncompressing Commands

Command	Description
tar -cvf archive.tar file	Compress a file into a tar archive
tar -tvf archive.tar	Display the contents of a tar archive
tar -xvf archive.tar file.txt	Extract a single file out of an archive
zip archive.zip file1.txt file2.html file3.jpg	Create an archive using multiple files
zip -u archive.zip file.txt	Add a file to an already zipped file
zip -d archive.zip file.txt	Delete a file from an archive
unzip archive.zip	Unzip an archive
unzip archive.zip -d /dir	Unzip an archive to a specific directory
tar xf archive	Extract an archive of any type
gzip file	Create a new .gz file. This will delete the original file
gzip -c file > archive.gz	Create a new .gz file, keeping the original

Advanced Commands

Command	Description
ps -ef | grep process	Check whether a process is running
netstat –pnltu | grep port	Check whether a specific port is open
history | grep keyword	Search for something in the history
ip r	Display the IP address of the default gateway
ssh-keygen	Generate SSH keys
scp filename user@ip:/home/location	Securely copy a file to a remote host
find / -type f -perm 0777 -print -exec chmod xxx {} \;	Find all the files that have 777 permissions, and modify them to xxx
sed -i 's/TO_REPLACE/ REPLACEMENT/g' file	Replace the specified content in a file with something else
tcpdump -nnvvS src SRC_IP and dst port xxxx	Monitor all traffic coming from a certain IP and going towards a certain port
traceroute domain -q 5	Send 5 packets per hop while tracing route to the given domain name