1. **man –** man stands for manual and this command is used to know the details of the commands that we use in Linux**.**

**o/p:** [ec2-user@ip-172-31-65-193 ~]$ man ls

LS(1) User Commands LS(1)

NAME

ls - list directory contents

DESCRIPTION

List information about the FILEs (the current directory by default).

1. **clear – This command clears the terminal.**
2. **pwd (present working directory) – This command is used to find in the current working folder or directory**

**o/p:** [ec2-user@ip-172-31-65-193 ~]$ pwd

/home/ec2-user

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1. **cd (change directory) – This command is used to change the directory and navigate through the Linux files and directories**

**o/p:** [ec2-user@ip-172-31-65-193 ~]$ cd /home

[ec2-user@ip-172-31-65-193 home]$ pwd

/home

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1. **echo – This command is used to print a message in the terminal**

**o/p:** [ec2-user@ip-172-31-65-193 home]$ echo "Hello World"

Hello World

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1. **ls - The ls command is used to view the contents of your current working directory**

**o/p:** [ec2-user@ip-172-31-65-193 home]$ ls

awktest.txt devops devops.txt shabeer

cba.txt devops1 ec2-user shabeer.txt

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1. **whoami – This command prints the user name of the effective user ID. In other words, it displays the name of the currently logged-in user**

**o/p:** [ec2-user@ip-172-31-65-193 ~]$ whoami

ec2-user

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1. **sudo bash – This command starts a new bash shell with the security privilege of root user (**sudo allows users to run programs with the security privileges of another user (normally root user)**)**

[ec2-user@ip-172-31-65-193 ~]$ sudo bash

**o/p:** [**root**@ip-172-31-65-193 ec2-user]#

1. **sudo useradd username - In Linux, a 'useradd' command is a low-level utility that is used for adding/creating user accounts in Linux and other Unix-like operating systems**. **Only root or users with sudo privileges can use the useradd command to create new user accounts.**

[ec2-user@ip-172-31-65-193 home]$ sudo useradd shabeer

1. **sudo passwd username - This command changes passwords for user accounts. A normal user may only change the password for their own account, while the superuser may change the password for any account**

[ec2-user@ip-172-31-65-193 home]$ sudo passwd shabeer

**o/p:** Changing password for user shabeer.

New password:

Retype new password:

passwd: all authentication tokens updated successfully.

1. **sudo userdel username** – **This command is used to delete a user account and related files.**

[ec2-user@ip-172-31-65-193 home]$ sudo userdel shabeer

1. **sudo groupadd username and sudo groupdel username – These commands work similar to the useradd/userdel commands, deleting the groups here**

[ec2-user@ip-172-31-65-193 home]$ sudo groupadd devops

[ec2-user@ip-172-31-65-193 home]$ sudo groupdel devops

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1. **touch – This command is used to create an empty new file**

**o/p:** [ec2-user@ip-172-31-65-193 home]$ sudo touch cba.txt

[ec2-user@ip-172-31-65-193 home]$ ls

**cba.txt** devops devops1 ec2-user shabeer

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1. **vi - vi editor is the notepad in Linux, while there are many other editors vi is one of the most popular editors.**

[ec2-user@ip-172-31-65-193 home]$ sudo vi cba.txt

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1. **cat - This command can read, modify or concatenate text files. It also displays file contents.**

[ec2-user@ip-172-31-65-193 home]$ cat cba.txt

Hi, this is Shabeer

1. **cat -b - This adds line numbers to non-blank lines**

[ec2-user@ip-172-31-65-193 home]$ cat -b cba.txt

1. Hi, this is Shabeer
2. **cat -n - This adds line numbers to all lines**

[ec2-user@ip-172-31-65-193 home]$ cat -n

**o/p:** q

1. q

clear

1. Clear
2. **cat -s - This squeezes blank lines into one line**
3. **cat –E - This shows $ at the end of line**

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1. **mv (move command) - This command moves files and directories from one directory to another. The file/directory once moved, is deleted from the working directory.**

[ec2-user@ip-172-31-65-193 home]$ ls

cba.txt devops devops1 ec2-user shabeer

[ec2-user@ip-172-31-65-193 ~]$ sudo mv shabeer.txt /home

[ec2-user@ip-172-31-65-193 ~]$ cd /home

[ec2-user@ip-172-31-65-193 home]$ ls

cba.txt devops devops1 ec2-user shabeer **shabeer.txt**

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1. **rm - This command removes files from a directory. By default, the rm command does not remove directories. Once removed, the contents of a file cannot be recovered.**

[ec2-user@ip-172-31-65-193 ~]$ ls

cba.txt shabeer1.txt

[ec2-user@ip-172-31-65-193 ~]$ sudo rm shabeer1.txt

[ec2-user@ip-172-31-65-193 ~]$ ls

cba.txt

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1. **mkdir - This command is used to create a new directory.**

[ec2-user@ip-172-31-65-193 ~]$ cd /home

[ec2-user@ip-172-31-65-193 home]$ ls

cba.txt devops devops1 ec2-user shabeer shabeer.txt

[ec2-user@ip-172-31-65-193 home]$ sudo mkdir /home/techies

[ec2-user@ip-172-31-65-193 home]$ ls

cba.txt devops devops1 ec2-user shabeer shabeer.txt **techies**

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1. **rmdir - This command is used to remove a specified directory. Although by default, it can only remove an empty directory, there are flags which can be deployed to delete the non-empty directories as well.**

[ec2-user@ip-172-31-65-193 ~]$ cd /home

[ec2-user@ip-172-31-65-193 home]$ ls

cba.txt devops devops1 ec2-user shabeer shabeer.txt **techies**

[ec2-user@ip-172-31-65-193 home]$ sudo rmdir techies

[ec2-user@ip-172-31-65-193 home]$ ls

cba.txt devops devops1 ec2-user shabeer shabeer.txt

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1. **grep - This command is used to search for a particular string/word in a text file. This is similar to “Ctrl+F”, but executed via a command line.**

[ec2-user@ip-172-31-65-193 ~]$ cd /home

[ec2-user@ip-172-31-65-193 home]$ ls

cba.txt devops devops1 ec2-user shabeer shabeer.txt

[ec2-user@ip-172-31-65-193 home]$ cat shabeer.txt

This is Shabeer

[ec2-user@ip-172-31-65-193 home]$ grep **is** shabeer.txt

Th**is is** Shabeer

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1. **sort - This command sorts the results of a search either alphabetically or numerically. Files, file contents and directories can be sorted using this command.**

[ec2-user@ip-172-31-65-193 home]$ cat devops.txt

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[ec2-user@ip-172-31-65-193 home]$ sort devops.txt

a

e

f

i

k

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z

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1. **chown - In Linux, all files are owned by a specific user. The chown command enables you to change or transfer the ownership of a file to the specified username.**

[ec2-user@ip-172-31-65-193 ~]$ cd /home

[ec2-user@ip-172-31-65-193 home]$ ls -l

total 12

**rw-r--r-- 1 root root 20 May 27 02:03 cba.txt**

drwx------ 3 devops devops 80 May 27 02:01 devops

[ec2-user@ip-172-31-65-193 home]$ sudo chown ec2-user cba.txt

[ec2-user@ip-172-31-65-193 home]$ ls -l

total 12

**rw-r--r-- 1 ec2-user root 20 May 27 02:03 cba.txt**

drwx------ 3 devops devops 80 May 27 02:01 devops

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1. **chmod - This is another Linux command, used to change the read, write, and execute permissions of files and directories.**

[ec2-user@ip-172-31-65-193 home]$ ls -l

total 12

**-rw-r--r-- 1 ec2-user root 20 May 27 02:03 cba.txt**

drwx------ 3 devops devops 80 May 27 02:01 devops

[ec2-user@ip-172-31-65-193 home]$ chmod 777 cba.txt

[ec2-user@ip-172-31-65-193 home]$ ls -l

total 12

**-rwxrwxrwx 1 ec2-user root 20 May 27 02:03 cba.txt**

drwx------ 3 devops devops 80 May 27 02:01 devops

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20 . **lsof** - While working in Linux/Unix system there might be several file and folder which are being used, some of them would be visible and some not. **lsof command stands for List Of Open File**. **This command provides a list of files that are opened**. Basically, it gives the information to find out the files which are opened by which process. With one go it lists out all open files in the output console.

[ec2-user@ip-172-31-65-193 ~]$ lsof

COMMAND PID TID USER FD TYPE DEVICE SIZE/OFF NODE NAME

systemd 1 root cwd unknown /pro

lsof 9699 ec2-user mem REG 202,1 174280 12584817 /usr/lib64/ld-2.26.so

lsof 9699 ec2-user 4r FIFO 0,11 0t0 72185 pipe

lsof 9699 ec2-user 7w FIFO 0,11 0t0 72186 pipe

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1. **id - This command in Linux is used to find out user and group names and numeric ID’s (UID or group ID) of the current user or any other user in the server**

[ec2-user@ip-172-31-65-193 ~]$ id

uid=1000(ec2-user) gid=1000(ec2-user) groups=1000(ec2-user),4(adm),10(wheel),190(systemd-journal)

Options:

-g : Print only the effective group id.

-G : Print all Group ID’s.

-n : Prints name instead of a number.

-r : Prints real ID instead of numbers.

-u : Prints only the effective user ID.

–help : Display help messages and exit.

–version : Display the version information and exit

**Ex:** [ec2-user@ip-172-31-65-193 ~]$ id -g

1000

[ec2-user@ip-172-31-65-193 ~]$ id -u

1000

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1. **tar – This command is used to zip and unzip files of the .tar format.**

The following command is used to zip files of .tar format.

syntax:

$ **tar –cvf tar-filename source-folder-name**

The following command is used to unzip files of .tar format.

syntax:

$ **tar –xvf tar-file-name**

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1. **cut – This command is used for extracting a portion of a file using columns and delimiters. If you want to list everything in a selected column, use the “-c” flag with cut comman.**

[ec2-user@ip-172-31-65-193 home]$ cat shabeer.txt

This is Shabeer

[ec2-user@ip-172-31-65-193 home]$ cut -c1-2 shabeer.txt

Th

[ec2-user@ip-172-31-65-193 home]$ cat shabeer.txt

This is Shabeer

[ec2-user@ip-172-31-65-193 home]$ cut -c4-7 shabeer.txt

s is

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1. sed - Sed is a text-editor that can perform editing operations in a non-interactive way. Sed is a very powerful utility and we can do a lot of file manipulations using sed.

If you want to replace a text in a file by searching it in a file, you can use the sed command with a substitute “s” flag to search for the specific pattern and change it.

For example, lets replace “**Shabeer**” in test.txt file to “Abdul Rahman”

sed command - [ec2-user@ip-172-31-65-193 ~]$ ls

cba.txt

[ec2-user@ip-172-31-65-193 ~]$ cat cba.txt

Hi, this is **Shabeer**

[ec2-user@ip-172-31-65-193 ~]$ sed 's/Shabeer/Abdul\_Rahman/' cba.txt

Hi, this is **Abdul\_Rahman**

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1. **uniq - The uniq command in Linux is a command-line utility that reports or filters out the repeated lines in a file. In simple words, uniq is the tool that helps to detect the adjacent duplicate lines and also deletes the duplicate lines.**

[ec2-user@ip-172-31-65-193 ~]$ uniq cba.txt

Hi, this is Shabeer

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1. **watch – This command in Linux is used to execute a program periodically, showing output in fullscreen**. This command will run the specified command in the argument repeatedly by showing its output and errors. By default, the specified command will run every 2 seconds and watch will run until interrupted.

[ec2-user@ip-172-31-65-193 ~]$ watch -d free -m

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1. **eval - eval is a built-in Linux command which is used to execute arguments as a shell command**. It combines arguments into a single string and uses it as an input to the shell and execute the commands.

[ec2-user@ip-172-31-65-193 ~]$ eval –help

eval: usage: eval [arg ...]

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1. **history – This command is used to view the previously executed commands.**

[ec2-user@ip-172-31-65-193 home]$ history

1 pwd

2 whoami

3 cd /home

4 sudo userdel shabeer

5 sudo useradd shabeer

6 whoami

7 pwd

8 sudo userdel shabeer

9 sudo groupadd devops

10 sudo groupdel devops

11 sudo useradd

12 sudo useradd shabeer…..

**[ec2-user@ip-172-31-65-193 home]$ history 5**

117 eval --help

118 clear

119 history

120 clear

121 history 5

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1. **dd - This is a command-line utility for Unix and Unix-like operating systems whose primary purpose is to convert and copy files.**

**Syntax:** # dd if = /dev/hda of = /dev/hdb - This exampale is to backup an entire copy of a hard disk to another hard disk connected to the same system. In this dd command example, the UNIX device name of the source hard disk is /dev/hda, and device name of the target hard disk is /dev/hdb

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1. **free - This is a command-line utility which displays the total amount of free space available along with the amount of memory used and swap memory in the system, and also the buffers used by the kernel.**

[ec2-user@ip-172-31-65-193 ~]$ free

total used free shared buff/cache available

Mem: 987700 103152 656020 436 228528 743376

Swap: 0 0 0

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1. ssh - This command refers to a cryptographic network protocol for operating network services securely over an unsecured network. Typical use-cases include remote command-line execution, but any network service can be secured with SSH.

The following command, on running at the slave node, will give remote access to the master.

syntax:

$ ssh <master's ip>

The following command, on running at the master, will give remote access to the slave node.

syntax:

$ ssh <slave's ip>

**a. ssh-keygen** - **Use the ssh-keygen command to generate a public/private authentication keypair**. Authentication keys allow a user to connect to a remote system without supplying a password. Keys must be generated for each user separately. If you generate key pairs as the root user, only the root can use the keys.

$ [ec2-user@ip-172-31-65-193 ~]$ ssh-keygen -t rsa

Generating public/private rsa key pair.

Enter file in which to save the key (/home/ec2-user/.ssh/id\_rsa):

Enter passphrase (empty for no passphrase):

Enter same passphrase again:

Your identification has been saved in /home/ec2-user/.ssh/id\_rsa.

Your public key has been saved in /home/ec2-user/.ssh/id\_rsa.pub.

The key fingerprint is:

SHA256:0iun745ajPNTUTROWtTLt5xenMhpBsfU+s/k+fmUngg ec2-user@ip-172-31-65-193.ec2.internal

The key's randomart image is:

+---[RSA 2048]----+

| o\*. . |

| =.... . |

| ....o.. |

| .. .o+. |

| . S. +o++.|

| o ... \*+o=|

| o +.o Eo. \*+|

| +.= . +o\*|

| ..+=+ . +=|

+----[SHA256]-----+

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1. **ip - ip command in Linux is present in the net-tools which is used for performing several network administration tasks. This command is used to show or manipulate routing, devices, and tunnels.**

This command is used to perform several tasks like assigning an address to a network interface or configuring network interface parameters. It can perform several other tasks like configuring and modifying the default and static routing, setting up a tunnel over IP, listing IP addresses and property information, modifying the status of the interface, assigning, deleting and setting up IP addresses and routes.

**a. ip address - This option is used to show all IP addresses associated with all network devices.**

[ec2-user@ip-172-31-65-193 ~]$ ip address

1: lo: <LOOPBACK,UP,LOWER\_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000

link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00

inet 127.0.0.1/8 scope host lo

valid\_lft forever preferred\_lft forever

inet6 ::1/128 scope host

valid\_lft forever preferred\_lft forever

2: eth0: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 9001 qdisc pfifo\_fast state UP group default qlen 1000

link/ether 16:8b:1c:2b:b9:09 brd ff:ff:ff:ff:ff:ff

inet 172.31.65.193/20 brd 172.31.79.255 scope global dynamic eth0

valid\_lft 2762sec preferred\_lft 2762sec

inet6 fe80::148b:1cff:fe2b:b909/64 scope link

valid\_lft forever preferred\_lft forever

**b. ip link - It is used to display link-layer information, it will fetch characteristics of the link-layer devices currently available. Any networking device which has a driver loaded can be classified as an available device.**

[ec2-user@ip-172-31-65-193 ~]$ ip link

1: lo: <LOOPBACK,UP,LOWER\_UP> mtu 65536 qdisc noqueue state UNKNOWN mode DEFAULT group default qlen 1000

link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00

2: eth0: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 9001 qdisc pfifo\_fast state UP mode DEFAULT group default qlen 1000

link/ether 16:8b:1c:2b:b9:09 brd ff:ff:ff:ff:ff:ff

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1. **ifconfig** (interface configuration) - This command is used to configure the kernel-resident network interfaces. It is used at the boot time to set up the interfaces as necessary. After that, it is usually used when needed during debugging or when you need system tuning. Also, this command is used to assign the IP address and netmask to an interface or to enable or disable a given interface.

**a. Ifconfig -a - This option is used to display all the interfaces available, even if they are down also, to identify the IP address of our machine.**

[ec2-user@ip-172-31-65-193 ~]$ ifconfig -a

eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 9001

inet **172.31.65.193** netmask 255.255.240.0 broadcast 172.31.79.255

inet6 fe80::148b:1cff:fe2b:b909 prefixlen 64 scopeid 0x20<link>

ether 16:8b:1c:2b:b9:09 txqueuelen 1000 (Ethernet)

RX packets 20130 bytes 1856771 (1.7 MiB)

RX errors 0 dropped 0 overruns 0 frame 0

TX packets 19674 bytes 2315801 (2.2 MiB)

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536

inet 127.0.0.1 netmask 255.0.0.0

inet6 ::1 prefixlen 128 scopeid 0x10<host>

loop txqueuelen 1000 (Local Loopback)

RX packets 0 bytes 0 (0.0 B)

RX errors 0 dropped 0 overruns 0 frame 0

TX packets 0 bytes 0 (0.0 B)

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

**b. Ifconfig -s - This option displays a short list, instead of details**

[ec2-user@ip-172-31-65-193 ~]$ ifconfig -s

Iface MTU RX-OK RX-ERR RX-DRP RX-OVR TX-OK TX-ERR TX-DRP TX-OVR Flg

eth0 9001 20196 0 0 0 19731 0 0 0 BMRU

lo 65536 0 0 0 0 0 0 0

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1. **netstat –This is a command-line tool used by system administrators to evaluate network configuration and activity.** This command is used to find the network statistics like what ip, ports are listening and connected.
2. **netstat -a** : This command is used to show both listening and non-listening ports that are available.

[ec2-user@ip-172-31-65-193 ~]$ netstat -a

Active Internet connections (servers and established)

Proto Recv-Q Send-Q Local Address Foreign Address State

tcp 0 0 0.0.0.0:sunrpc 0.0.0.0:\* LISTEN

tcp 0 0 0.0.0.0:ssh 0.0.0.0:\* LISTEN

tcp 0 0 localhost:smtp 0.0.0.0:\* LISTEN

1. **netstat -at** : This command will list all the tcp ports that are available.

[ec2-user@ip-172-31-65-193 ~]$ netstat -at

Active Internet connections (servers and established)

Proto Recv-Q Send-Q Local Address Foreign Address State

tcp 0 0 0.0.0.0:sunrpc 0.0.0.0:\* LISTEN

tcp 0 0 0.0.0.0:ssh 0.0.0.0:\* LISTEN

tcp 0 0 localhost:smtp 0.0.0.0:\* LISTEN

tcp 0 320 ip-172-31-65-193.ec:ssh 103.224.:binderysupport ESTABLISHED

tcp 0 0 ip-172-31-65-193.ec:ssh 103.224.35.12:dpi-proxy ESTABLISHED

tcp6 0 0 [::]:sunrpc [::]:\* LISTEN

tcp6 0 0 [::]:ssh [::]:\* LISTEN

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1. **nslookup ( “Name Server Lookup”) – This is a useful command for getting information from DNS server. It is a network administration tool for querying the Domain Name System (DNS) to obtain domain name or IP address mapping or any other specific DNS record. It is also used to troubleshoot DNS related problems.**

[ec2-user@ip-172-31-65-193 ~]$ nslookup google.com

Server: 172.31.0.2

Address: 172.31.0.2#53

Non-authoritative answer:

Name: google.com

Address: 142.250.31.101

Name: google.com

Address: 142.250.31.102

Name: google.com

Address: 142.250.31.113

Name: google.com

Address: 142.250.31.138

Name: google.com

Address: 142.250.31.139

Name: google.com

Address: 142.250.31.100

Name: google.com

Address: 2607:f8b0:4004:80a::200e

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1. curl – This is a command-line tool to transfer data to or from a server, using any of the supported protocols (HTTP, FTP, IMAP, POP3, SCP, SFTP, SMTP, TFTP, TELNET, LDAP or FILE). This command is powered by libcurl. This tool is preferred for automation since it is designed to work without user interaction. It can transfer multiple file at once.

**libcurl** is a free and easy-to-use client-side URL transfer library, supporting DICT, FILE, FTP, FTPS, GOPHER, GOPHERS, HTTP, HTTPS, IMAP, IMAPS, LDAP, LDAPS, MQTT, POP3, POP3S, RTMP, RTMPS, RTSP, SCP, SFTP, SMB, SMBS, SMTP, SMTPS, TELNET and TFTP.

Syntax:

curl [options] [URL...]

The most basic uses of curl is typing the command followed by the URL.

curl https://www.python.org

1. **curl -o** : This command saves the downloaded file on the local machine with the name provided in the parameters.

Syntax:

curl -o [file\_name] [URL...]

Example:

curl -o hello.zip <ftp://speedtest.tele2.net/1MB.zip>

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1. **awk – This command searches files for text containing a pattern. When a line or text matches, awk performs a specific action on that line/text.**

[ec2-user@ip-172-31-65-193 home]$ cat awktest.txt

This is Shabeer

This is Shabeer\_abdl\_rahman

This is Shabeer.a

[ec2-user@ip-172-31-65-193 home]$ awk '/abdl/ {print}' awktest.txt

This is Shabeer\_abdl\_rahman

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1. **tr (**tr stands for translate**)** - The tr command in UNIX is a command-line utility for translating or deleting characters. It supports a range of transformations including uppercase to lowercase, squeezing repeating characters, deleting specific characters and basic find and replace. It can be used with UNIX pipes to support more complex translation.

[ec2-user@ip-172-31-65-193 home]$ cat awktest.txt

**This is Shabeer**

**This is Shabeer\_abdl\_rahman**

**This is Shabeer.a**

[ec2-user@ip-172-31-65-193 home]$ cat awktest.txt | tr "[a-z]" "[A-Z]"

**THIS IS SHABEER**

**THIS IS SHABEER\_ABDL\_RAHMAN**

**THIS IS SHABEER.A**

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1. **env –** This command is used to either print environment variables. It is also used to run a utility or command in a custom environment. In practice, env has another common use. It is often used by shell scripts to launch the correct interpreter

[ec2-user@ip-172-31-65-193 ~]$ env

XDG\_SESSION\_ID=61

HOSTNAME=ip-172-31-65-193.ec2.internal

TERM=xterm

SHELL=/bin/bash

HISTSIZE=1000

SSH\_CLIENT=103.224.35.129 1847 22

SSH\_TTY=/dev/pts/2

USER=ec2-user

LS\_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pi=40;33:so=01;35:do=01;35:bd=40;33;01:cd=40;33;01:or=40;31;01:mi=01;05;37;41:su=37;41:sg=30;43:ca=30;41:tw=30;42:ow=34;42:st=37;44:ex=01;32:\*.tar=01;31:\*.tgz=01;31:\*.arc=01;31:\*.arj=01;31:\*.taz=01;31:\*.lha=01;31:\*.lz4=01;31:\*.lzh=01;31:\*.lzma=01;31:\*.tlz=01;31:\*.txz=01;31:\*.tzo=01;31:\*.t7z=01;31:\*.zip=01;31:\*.z=01;31:\*.Z=01;31:\*.dz=01;31:\*.gz=01;31:\*.lrz=01;31:\*.lz=01;31:\*.lzo=01;31:\*.xz=01;31:\*.bz2=01;31:\*.bz=01;31:\*.tbz=01;31:\*.tbz2=01;31:\*.tz=01;31:\*.deb=01;31:\*.rpm=01;31:\*.jar=01;31:\*.war=01;31:\*.ear=01;31:\*.sar=01;31:\*.rar=01;31:\*.alz=01;31:\*.ace=01;31:\*.zoo=01;31:\*.cpio=01;31:\*.7z=01;31:\*.rz=01;31:\*.cab=01;31:\*.jpg=01;35:\*.jpeg=01;35:\*.gif=01;35:\*.bmp=01;35:\*.pbm=01;35:\*.pgm=01;35:\*.ppm=01;35:\*.tga=01;35:\*.xbm=01;35:\*.xpm=01;35:\*.tif=01;35:\*.tiff=01;35:\*.png=01;35:\*.svg=01;35:\*.svgz=01;35:\*.mng=01;35:\*.pcx=01;35:\*.mov=01;35:\*.mpg=01;35:\*.mpeg=01;35:\*.m2v=01;35:\*.mkv=01;35:\*.webm=01;35:\*.ogm=01;35:\*.mp4=01;35:\*.m4v=01;35:\*.mp4v=01;35:\*.vob=01;35:\*.qt=01;35:\*.nuv=01;35:\*.wmv=01;35:\*.asf=01;35:\*.rm=01;35:\*.rmvb=01;35:\*.flc=01;35:\*.avi=01;35:\*.fli=01;35:\*.flv=01;35:\*.gl=01;35:\*.dl=01;35:\*.xcf=01;35:\*.xwd=01;35:\*.yuv=01;35:\*.cgm=01;35:\*.emf=01;35:\*.axv=01;35:\*.anx=01;35:\*.ogv=01;35:\*.ogx=01;35:\*.aac=01;36:\*.au=01;36:\*.flac=01;36:\*.mid=01;36:\*.midi=01;36:\*.mka=01;36:\*.mp3=01;36:\*.mpc=01;36:\*.ogg=01;36:\*.ra=01;36:\*.wav=01;36:\*.axa=01;36:\*.oga=01;36:\*.spx=01;36:\*.xspf=01;36:

MAIL=/var/spool/mail/ec2-user

PATH=/usr/local/bin:/usr/bin:/usr/local/sbin:/usr/sbin:/home/ec2-user/.local/bin:/home/ec2-user/bin

PWD=/home/ec2-user

LANG=en\_US.UTF-8

HISTCONTROL=ignoredups

SHLVL=1

HOME=/home/ec2-user

LOGNAME=ec2-user

SSH\_CONNECTION=103.224.35.129 1847 172.31.65.193 22

LESSOPEN=||/usr/bin/lesspipe.sh %s

XDG\_RUNTIME\_DIR=/run/user/1000

\_=/usr/bin/env

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1. **iptables - Iptables is a Linux command line firewall that allows system administrators to manage incoming and outgoing traffic via a set of configurable table rules.** It uses a set of tables which have chains that contain set of built-in or user defined rules. Tables is the name for a set of chains.

* Tables is the name for a set of chains.
* Chain is a collection of rules.
* Rule is a condition used to match packet.
* Target is action taken when a possible rule matches. Examples of the target are ACCEPT, DROP, QUEUE.
* Policy is the default action taken in case of no match with the inbuilt chains and can be ACCEPT or DROP.

Example: $ service iptables stop

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1. **apt-get -** apt-get is a command-line tool which helps in handling packages in Linux. **This command is used to install, remove, and perform other operations on installed software packages**. Its main task is to retrieve the information and packages from the authenticated sources for installation, upgrade and removal of packages along with their dependencies. **APT stands for the Advanced Packaging Tool**.

syntax:

apt-get [options] command

sudo apt-get install pinta

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1. **df -** The df (disk free) command reports the amount of available disk space being used by file systems.
2. **sudo df -h** : To see the disk free space in a human-readable format

[ec2-user@ip-172-31-65-193 ~]$ sudo df -h

Filesystem Size Used Avail Use% Mounted on

devtmpfs 474M 0 474M 0% /dev

tmpfs 483M 0 483M 0% /dev/shm

tmpfs 483M 500K 482M 1% /run

tmpfs 483M 0 483M 0% /sys/fs/cgroup

/dev/xvda1 8.0G 1.6G 6.5G 20% /

tmpfs 97M 0 97M 0% /run/user/1000

**du** - The du (disk usage) command reports the sizes of directory trees inclusive of all of their contents and the sizes of individual files.

**sudo du -h -d 1 /var/** : This command is used to check which part of your system is consuming lots of disk space.

[ec2-user@ip-172-31-65-193 ~]$ sudo du -h -d 1 /var/

315M /var/cache

28M /var/log

29M /var/lib

0 /var/adm

0 /var/db

0 /var/empty

16K /var/spool

36K /var/tmp

0 /var/yp

371M /var/

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