

# Linux Commands

1) ssh - First open the ubuntu terminal

Use nano for creating file

Example- nano example1.pem and hit enter

Now copy the pem file data and paste it in nano example1.pem file

Now type **chmod 400 sample1.pem** Hit enter

Now type this

`ssh -i "sample1.pem" ubuntu@ec2-3-87-30-245.compute-1.amazonaws.com`

Ssh is a protocol

-i is an identifier

Example1.pem is a key

Ubuntu is uername

Ec2-3-87-30-245.compute-1.amazonaws.com is a DNS server

2) pwd : It prints current working direcotry

```
cloudage@pune:~/hadoop$ pwd  
/home/cloudage/hadoop  
cloudage@pune:~/hadoop$ █
```

- `pwd -P` It prints the parent working directory

```
cloudage@pune:~$ pwd -P  
/home/cloudage  
cloudage@pune:~$ █
```

- 3) `whoami` : It displays username of current user

```
cloudage@pune:~$ whoami  
cloudage  
cloudage@pune:~$ █
```

4) mkdir <directory> : It creates directory

```
cloudage@pune:~$ mkdir cloud  
cloudage@pune:~$ █
```

- `mkdir -p <directory>` : It make parent directories also if it does not exist

```
cloudage@pune:~$ mkdir -p Bigdata
cloudage@pune:~$ █
```

5) cd

- `cd ..` : change to parent directory

```
cloudage@pune:~/Bigdata$ cd ..  
cloudage@pune:~$ █
```

- cd - : change to previous directory

```
cloudage@pune:~/hadoop$ cd -  
/home/cloudage  
cloudage@pune:~$ █
```

- cd <directory name> : change to other directory where you want to go

```
cloudage@pune:~$ cd AI/  
cloudage@pune:~/AI$ █
```

- cd ~ change to home directory

```
cloudage@pune:~/AI$ cd ~  
cloudage@pune:~$ █
```

- cd : change to home directory

```
cloudage@pune:~$ cd hadoop/  
cloudage@pune:~/hadoop$ cd hadoop1/  
cloudage@pune:~/hadoop/hadoop1$ cd  
cloudage@pune:~$ █
```

## 6) ls list content

- ls -l : list content in long listing format

```
cloudage@pune:~/hadoop$  
cloudage@pune:~/hadoop$ ls -l  
total 12  
drwxrwxr-x 2 cloudage cloudage 4096 Apr 29 18:46 Bigdata  
drwxrwxr-x 2 cloudage cloudage 4096 Apr 29 18:40 hadoop1  
-rw-rw-r-- 1 cloudage cloudage 0 Apr 24 12:54 key.txt  
-rw-rw-r-- 1 cloudage cloudage 28 Apr 24 11:38 linux.txt  
cloudage@pune:~/hadoop$ █
```

- ls -al : list all sub content in long listing forma

```
cloudage@pune:~/hadoop$ ls -al
total 20
drwxrwxr-x 4 clouverage clouverage 4096 Apr 29 18:46 .
drwxr-xr-x 20 clouverage clouverage 4096 Apr 29 18:47 ..
drwxrwxr-x 2 clouverage clouverage 4096 Apr 29 18:46 Bigdata
drwxrwxr-x 2 clouverage clouverage 4096 Apr 29 18:40 hadoop1
-rw-rw-r-- 1 clouverage clouverage 0 Apr 24 12:54 key.txt
-rw-rw-r-- 1 clouverage clouverage 28 Apr 24 11:38 linux.txt
cloudage@pune:~/hadoop$ █
```

- ls -ltr - sorts chronologically from older to newer (bottom)

```
cloudage@pune:~$ 
cloudage@pune:~$ ls -ltr
total 80
-rw-r--r-- 1 clouverage clouverage 8980 Apr 22 17:17 examples.desktop
-rw-rw-r-- 1 clouverage clouverage 0 Apr 22 17:52 key.txt
-rw-rw-r-- 1 clouverage clouverage 192 Apr 22 18:35 key.zip
-rw-rw-r-- 1 clouverage clouverage 28 Apr 22 19:51 key.txt.gz
-rw-rw-r-- 1 clouverage clouverage 10240 Apr 22 20:02 value.tar
-rw-rw-r-- 1 clouverage clouverage 105 Apr 24 11:42 linux.txt.gpg
-rw-rw-r-- 1 clouverage clouverage 188 Apr 24 12:22 linux.tar.gz
-rw-rw-r-- 1 clouverage clouverage 23 Apr 24 13:56 linux.txt
drwxr-xr-x 2 clouverage clouverage 4096 Apr 29 11:58 Videos
drwxr-xr-x 2 clouverage clouverage 4096 Apr 29 11:58 Templates
drwxr-xr-x 2 clouverage clouverage 4096 Apr 29 11:58 Public
drwxr-xr-x 2 clouverage clouverage 4096 Apr 29 11:58 Pictures
drwxr-xr-x 2 clouverage clouverage 4096 Apr 29 11:58 Music
drwxr-xr-x 2 clouverage clouverage 4096 Apr 29 11:58 Downloads
drwxr-xr-x 2 clouverage clouverage 4096 Apr 29 11:58 Documents
drwxr-xr-x 2 clouverage clouverage 4096 Apr 29 11:58 Desktop
drwxrwxr-x 4 clouverage clouverage 4096 Apr 29 18:46 hadoop
cloudage@pune:~$ █
```

- ls -R : list content recursively

```
cloudage@pune:~/hadoop$ ls -R
.:
Bigdata  hadoop1  key.txt  linux.txt

./Bigdata:

./hadoop1:
cloudage@pune:~/hadoop$ █
```

- ls -F : list content and classify them

```
cloudage@pune:~/hadoop$ ls -F
Bigdata/  hadoop1/  key.txt  linux.txt
cloudage@pune:~/hadoop$ █
```

7) man <cmd> - Shows the manual of command Eg: man cat

CAT(1)	User Commands	CAT(1)
<b>NAME</b>	cat - concatenate files and print on the standard output	
<b>SYNOPSIS</b>	<b>cat</b> [ <u>OPTION</u> ]... [ <u>FILE</u> ]...	
<b>DESCRIPTION</b>	Concatenate FILE(s) to standard output. With no FILE, or when FILE is -, read standard input.	
	-A, --show-all equivalent to -vET	
	-b, --number-nonblank number nonempty output lines, overrides -n	
	-e      equivalent to -vE	
	-E, --show-ends display \$ at end of each line	
Manual page cat(1) line 1 (press h for help or q to quit)		

8) alias display all aliases for current user

```
cloudage@pune:~$ alias
alias alert='notify-send --urgency=low -i "$( [ $? = 0 ] && echo terminal || echo error)" "$(history|tail -n1|sed -e '\''s/^[\s*[0-9]\+\s*//;s/[;&|]\s*a
lert$/'\''')"
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
alias grep='grep --color=auto'
alias l='ls -CF'
alias la='ls -A'
alias ll='ls -alF'
alias ls='ls --color=auto'
cloudage@pune:~$ █
```

- alias <statement> make alias eg alias c='clear'

```
cloudage@pune:~$ alias c='clear'
cloudage@pune:~$ █
```

- unalias <alias> remove alias eg unalias c

```
cloudage@pune:~$ unalias c  
cloudage@pune:~$ █
```

9) touch test.txt - will create a zero-byte file, if it doesn't exist

```
cloudage@pune:~$ touch example1.txt  
cloudage@pune:~$ █
```

- touch -t 200801091530 123456.txt - changes timestamp

```
cloudage@pune:~$ touch -t 04272019 example1.txt
cloudage@pune:~$
```

#### 10) cat - catenates files

- cat 123.txt - dumps the contents of '123.txt' to STDOUT

```
cloudage@pune:~$ cat key.txt
cloudage@pune:~$
```

- cat 123.txt 456.txt dumps both files to STDOUT

```
cloudage@pune:~$ cat key.txt value.txt  
cloudage@pune:~$
```

- cat 123.txt 456.txt > 123456.txt - creates new catenated file

```
cloudage@pune:~$ cat key.txt value.txt > keyvalue.txt  
cloudage@pune:~$ ls  
Desktop examples.desktop keyvalue.txt linux.txt.gpg Templates  
Documents hadoop key.zip Music value.tar  
Downloads key.txt linux.tar.gz Pictures value.txt  
example1.txt key.txt.gz linux.txt Public Videos  
cloudage@pune:~$
```

- cat 123.txt 456.txt >> abc appends a file

```
cloudage@pune:~$ cat key.txt value.txt>> key1
cloudage@pune:~$ ls
Desktop           hadoop      key.zip       Pictures   Videos
Documents        key1        linux.tar.gz  Public
Downloads        key.txt     linux.txt    Templates
example1.txt     key.txt.gz  linux.txt.gpg value.tar
examples.desktop keyvalue.txt Music        value.txt
cloudage@pune:~$
```

- cat key.txt | more : Displays the contents of the file with forward paging

```
cloudage@pune:~$ cat key.txt | more
Example1.pem is the key
cloudage@pune:~$
```

- less key.txt : Scroll forward: Ctrl-f  
Scroll backward: Ctrl-b  
End of file: G  
Quit less: q

Example1.pem is the key

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(END)

11) mv - moves files and renames files

```
cloudage@pune:~$ mv linux.txt cloud  
cloudage@pune:~$ cd cloud/  
cloudage@pune:~/cloud$ ls  
linux.txt  
cloudage@pune:~/cloud$ █
```

- mv file.txt file1.txt - It renames a file

```
cloudage@pune:~$ mv key.txt key1.txt
cloudage@pune:~$ ls
cloud      examples.desktop  key.txt.gz    linux.txt.gpg  Templates
Desktop    hadoop           keyvalue.txt  Music        value.tar
Documents  key1            key.zip       Pictures     value.txt
Downloads  key1.txt        linux.tar.gz  Public       Videos
cloudage@pune:~$ █
```

## 12) rm - removes files/directories

- rm file.txt

```
cloudage@pune:~$ ls
cloud      file.txt      keyvalue.txt  Pictures   Videos
Desktop    hadoop        key.zip      Public
Documents  key1          linux.tar.gz Templates
Downloads  key1.txt     linux.txt.gpg value.tar
examples.desktop  key.txt.gz  Music      value.txt
cloudage@pune:~$ rm file.txt
cloudage@pune:~$ ls
cloud      examples.desktop  key.txt.gz    linux.txt.gpg  Templates
Desktop    hadoop           keyvalue.txt  Music        value.tar
Documents  key1            key.zip       Pictures     value.txt
Downloads  key1.txt        linux.tar.gz  Public       Videos
cloudage@pune:~$ █
```

- rm -rf 456.txt - removes recursively and enforces

```

cloudage@pune:~$ ls
aws.txt      examples.desktop  keyvalue.txt    Pictures   Videos
cloud       .hadoop          key.zip           Public
Desktop     key1              linux.tar.gz    Templates
Documents   key1.txt         linux.txt.gpg  value.tar
Downloads   key.txt.gz       Music            value.txt
cloudage@pune:~$ rm -rf aws.txt
cloudage@pune:~$ ls
cloud        examples.desktop  key.txt.gz     linux.txt.gpg  Templates
Desktop    .hadoop          keyvalue.txt  Music          value.tar
Documents  key1              key.zip        Pictures       value.txt
Downloads  key1.txt         linux.tar.gz  Public         Videos
cloudage@pune:~$ █

```

- rm -r directory : It removes directory

```

cloudage@pune:~$ ls
bigdata      examples.desktop  keyvalue.txt    Pictures   Videos
cloud       .hadoop          key.zip           Public
Desktop     key1              linux.tar.gz    Templates
Documents   key1.txt         linux.txt.gpg  value.tar
Downloads   key.txt.gz       Music            value.txt
cloudage@pune:~$ rm -r bigdata/
cloudage@pune:~$ ls
cloud        examples.desktop  key.txt.gz     linux.txt.gpg  Templates
Desktop    .hadoop          keyvalue.txt  Music          value.tar
Documents  key1              key.zip        Pictures       value.txt
Downloads  key1.txt         linux.tar.gz  Public         Videos
cloudage@pune:~$ █

```

### 13) stat - reveals statistics of files

- stat 123456.txt - reveals full attributes of the file

```
cloudage@pune:~$ stat key1.txt
  File: 'key1.txt'
  Size: 24          Blocks: 8          IO Block: 4096   regular file
Device: 806h/2054d      Inode: 6686283      Links: 1
Access: (0664/-rw-rw-r--) Uid: ( 1001/cloudage)  Gid: ( 1001/cloudage)
Access: 2019-04-30 11:30:29.137488928 +0530
Modify: 2019-04-30 11:30:24.001445510 +0530
Change: 2019-04-30 11:44:20.419306064 +0530
 Birth: -
cloudage@pune:~$ █
```

#### 14) find - finds files using search patterns

- find /home/cloudage -name 'filename / directory name'

Note: 'find' can search for fields returned by the 'stat' command

```
cloudage@pune:~$ find /home/cloudage -name 'hadoop'  
/home/cloudage/hadoop  
cloudage@pune:~$ find /home/cloudage -name 'key1.txt'  
/home/cloudage/key1.txt  
cloudage@pune:~$ █
```

- `find /home/cloudage -name *cache*`

```
cloudage@pune:~$ find /home/cloudage -name *cache*  
/home/cloudage/.cache  
/home/cloudage/.cache/event-sound-cache.tdb.aa8b4e66827f404bb96add82dfec8f1  
a.x86_64-pc-linux-gnu  
cloudage@pune:~$ █
```

- find /home/cloudage/hadoop -size +1k : It find files larger than 1k in /home/cloudage/hadoop

```
cloudage@pune:~/hadoop$ find /home/cloudage/hadoop/ -size +1k
/home/cloudage/hadoop/
/home/cloudage/hadoop/Bigdata
/home/cloudage/hadoop/hadoop1
cloudage@pune:~/hadoop$ █
```

- find /home/cloudage/ -name '\*.txt' : It will find all files with extension .txt

```
cloudage@pune:~$ find /home/cloudage/ -name '*.txt' █
```

15) seq - echoes a sequence of numbers

- seq 1000 > 1thousand.txt - creates a file with numbers 1-1000

```
cloudage@pune:~$ seq 1000 > 1thousand.txt
cloudage@pune:~$ ls
1thousand.txt  examples.desktop  keyvalue.txt  Pictures   Videos
cloud          hadoop           key.zip      Public
Desktop        key1             linux.tar.gz  Templates
Documents      key1.txt        linux.txt.gpg value.tar
Downloads      key.txt.gz     Music        value.txt
cloudage@pune:~$ █
```

16) su - switches users

- su - to switch to another user

```
cloudage@pune:~$  
cloudage@pune:~$ su cloubage1  
Password:  
cloudage1@pune:/home/cloubage$ cd  
cloudage1@pune:~$ █
```

17) head : It displays opening lines of text files

```
cloudage@pune:~$ head linux.txt  
Linux is the name of kernel
```

```
cloudage@pune:~$ █
```

18) tail - displays the closing lines of text files

```
cloudage@pune:~$ tail linux.txt
```

Linux is opensource

```
cloudage@pune:~$ █
```

19) wc - counts words and optionally lines of text files

```
cloudage@pune:~$ wc linux.txt
```

15 9 61 linux.txt

```
cloudage@pune:~$ █
```

- `wc -l 123.txt` : It prints the no of lines in a file.

```
cloudage@pune:~$ wc -l linux.txt
15 linux.txt
cloudage@pune:~$ █
```

## 20) file - determines file type

- `file /home/cloudage key1.txt`

```
cloudage@pune:~$ file /home/cloudage key1.txt
/home/cloudage: directory
key1.txt: ASCII text
cloudage@pune:~$ █
```

21) tty - reveals the current terminal

```
cloudage@pune:~$ tty  
/dev/pts/2  
cloudage@pune:~$ █
```

22) cp - copies files

- cp 123.txt test/ By default, 'cp' does NOT preserve the original modification time

```
cloudage@pune:~$ cp key1.txt hadoop/  
cloudage@pune:~$ cd hadoop/  
cloudage@pune:~/hadoop$ ls  
Bigdata  cloud  hadoop1  key1.txt  key.txt  
cloudage@pune:~/hadoop$ █
```

- cp file.txt file1.txt (for files)

```
cloudage@pune:~$ cp key1.txt linux.txt  
cloudage@pune:~$ █
```

- cp -a copy (for directories)

```
cloudage@pune:~$ cp -a cloud aws
cloudage@pune:~$ ls
1thousand.txt examples.desktop key.zip      Public
aws              hadoop          linux.tar.gz  Templates
cloud            key1           linux.txt     value.tar
Desktop          key1.txt       linux.txt.gpg value.txt
Documents        key.txt.gz    Music         Videos
Downloads        keyvalue.txt  Pictures

cloudage@pune:~$ cd aws
cloudage@pune:~/aws$ ls
cloud
cloudage@pune:~/aws$
```

- cp -v key.txt hadoop It paste the copied file

```
cloudage@pune:~$ cp -v key1.txt cloud
'key1.txt' -> 'cloud/key1.txt'
cloudage@pune:~$ cd cloud/
cloudage@pune:~/cloud$ ls
key1.txt  linux.txt
cloudage@pune:~/cloud$
```

23) history display the list of the last 1000 commands

- !262 runs the 262 command

```
cloudage@pune:~$  
cloudage@pune:~$ !262  
ls  
1thousand.txt examples.desktop key.zip Public  
aws hadoop linux.tar.gz Templates  
cloud key1 linux.txt value.tar  
Desktop key1.txt linux.txt.gpg value.txt  
Documents key.txt.gz Music Videos  
Downloads keyvalue.txt Pictures  
cloudage@pune:~$
```

24) aspell -c <filename> check the spelling in the file

Example1.pem is the key

```
1) Perm  
2) perm  
3) poem  
4) PM  
5) Pm  
i) Ignore  
r) Replace  
a) Add  
b) Abort  
6) pm  
7) Pen  
8) pen  
9) PE  
0) EM  
I) Ignore all  
R) Replace all  
l) Add Lower  
x) Exit
```

? |

25) whereis display all paths

a. whereis <directory/filename> displays where the file/directory is located

```
cloudage@pune:~$ whereis cat
cat: /bin/cat /usr/share/man/man1/cat.1.gz
cloudage@pune:~$ █
```

26) hostname : display hostname name of the user

```
cloudage@pune:~$ hostname
pune
cloudage@pune:~$ █
```

27) id display id info of current user

- id -u display user id of current user

```
cloudage@pune:~$ id -u  
1001  
cloudage@pune:~$ █
```

- id -un display username of current user

```
cloudage@pune:~$ id -un  
cloudage  
cloudage@pune:~$ █
```

- id -g display group id of current user

```
cloudage@pune:~$ id -g  
1001  
cloudage@pune:~$ █
```

- id -gn display groupname of current user

```
cloudage@pune:~$ id -gn  
cloudage  
cloudage@pune:~$ █
```

28) uptime display for how long the system has been running

```
cloudage@pune:~$ uptime  
13:16:01 up 2:08, 1 user, load average: 0.61, 0.61, 0.59  
cloudage@pune:~$ █
```

29) users display no. of users currently logged in

```
cloudage@pune:~$ users  
afshin  
cloudage@pune:~$ █
```

30) who : display users logged in the system with their respective terminals and time since logged in

```
cloudage@pune:~$ who  
afshin    tty7        2019-04-30 11:07 (:0)  
cloudage@pune:~$ █
```

31) w : display is details which files are open on which

terminal

```
cloudage@pune:~$ w
13:18:54 up 2:11, 1 user, load average: 0.75, 0.61, 0.58
USER    TTY      FROM          LOGIN@    IDLE    JCPU   PCPU WHAT
afshin  tty7     :0           11:07    2:11m  3:50   0.22s /sbin/
cloudage@pune:~$ █
```

32) zip : It is used to compress the file

- zip filename.zip \*.txt : It compresses the file

```
cloudage@pune:~$ zip key1.zip *.txt
updating: 1thousand.txt (deflated 53%)
updating: key1.txt (stored 0%)
updating: keyvalue.txt (stored 0%)
updating: linux.txt (stored 0%)
updating: value.txt (stored 0%)
cloudage@pune:~$ ls
1thousand.txt  examples.desktop  keyvalue.txt  Pictures
aws            hadoop          key.zip       Public
cloud          key1            linux.tar.gz  Templates
Desktop        key1.txt        linux.txt    value.tar
Documents      key1.zip        linux.txt.gpg  value.txt
Downloads      key.txt.gz     Music        Videos
cloudage@pune:~$ █
```

- `zip -p password filename.zip *.txt` : It password protect the file  
`zip -e filename.zip *.txt`

```
cloudage@pune:~$ zip -p cloudage key1.zip *.txt
adding: key1.zip (stored 0%)
adding: 1thousand.txt (deflated 53%)
adding: key1.txt (stored 0%)
adding: keyvalue.txt (stored 0%)
adding: linux.txt (stored 0%)
adding: value.txt (stored 0%)
cloudage@pune:~$ zip -e key1.zip *.txt
Enter password:
Verify password:
updating: 1thousand.txt (deflated 53%)
updating: key1.txt (stored 0%)
updating: keyvalue.txt (stored 0%)
updating: linux.txt (stored 0%)
updating: value.txt (stored 0%)
cloudage@pune:~$ █
```

33) `unzip` : It is used to unzip the zip file

- `unzip filename.zip *.txt` : It unzips the file

```
cloudage@pune:~$ unzip file.zip file.txt
Archive: file.zip
  extracting: file.txt
cloudage@pune:~$ ls
1thousand.txt  examples.desktop  key.txt      Music
aws            file.txt          key.txt.gz   Pictures
cloud          file.zip         keyvalue.txt Public
cloudage.zip    hadoop          key.zip       Templates
Desktop        key1             linux.tar.gz value.tar
Documents      key1.txt        linux.txt    value.txt
Downloads      key1.zip        linux.txt.gpg Videos
cloudage@pune:~$
```

- `unzip --ql key.zip *.txt` : It quietly unzips the file

```
cloudage@pune:~$ unzip --ql key.zip *.txt
Archive: key.zip
  Length      Date      Time      Name
-----  -----
        0  2019-04-22 17:52  key.txt
-----  -----
        0                               1 file
cloudage@pune:~$
```

34) `gzip` : It compresses the file

- gzip -c filename.txt > filename.txt.gz

```
cloudage@pune:~$ zip -c key.txt > key.txt.gz
cloudage@pune:~$ ls
1thousand.txt examples.desktop key.txt      Music
aws             file.txt        key.txt.gz    Pictures
cloud           file.zip       keyvalue.txt  Public
cloudage.zip    hadoop         key.zip      Templates
Desktop         key1          linux.tar.gz value.tar
Documents       key1.txt      linux.txt    value.txt
Downloads       key1.zip     linux.txt.gpg Videos
cloudage@pune:~$ █
```

35) tar : It creates a tar file

- tar -cf filename.tar \*.txt

```
cloudage@pune:~$ tar -cf value.tar *.txt
cloudage@pune:~$ ls
1thousand.txt      filename.tar  key.txt.gz    Public
aws                file.txt     keyvalue.txt  Templates
cloud               file.zip     key.zip      value.tar
cloudage.zip        hadoop      linux.tar.gz  value.txt
Desktop             key1       linux.txt    Videos
Documents           key1.txt    linux.txt.gpg
Downloads           key1.zip    Music
examples.desktop   key.txt    Pictures
cloudage@pune:~$ █
```

- `tar -xf filename.tar *.txt` : It is used to extract the compressed file

```
cloudage@pune:~$ 
cloudage@pune:~$ ls
1thousand.txt  examples.desktop  key1.zip      linux.txt.gpg
aws            filename.tar      key.txt      Music
cloud          file.txt        key.txt.gz    Pictures
cloudage.zip   file.zip        keyvalue.txt  Public
Desktop        hadoop         key.zip      Templates
Documents      key1           linux.tar.gz  value.tar
Downloads      key1.txt       linux.txt    Videos
cloudage@pune:~$ tar -xf value.tar *.txt
cloudage@pune:~$ ls
1thousand.txt  examples.desktop  key1.zip      linux.txt.gpg
aws            filename.tar      key.txt      Music
cloud          file.txt        key.txt.gz    Pictures
cloudage.zip   file.zip        keyvalue.txt  Public
Desktop        hadoop         key.zip      Templates
Documents      key1           linux.tar.gz  value.tar
Downloads      key1.txt       linux.txt    Videos
cloudage@pune:~$ █
```

- `tar -czf filename.tar.gz directory name` : It create a tar with gzip compression

```
cloudage@pune:~$ tar -czf filename.tar.gz /home/cloudage
tar: Removing leading `/' from member names
tar: /home/cloudage: file changed as we read it
cloudage@pune:~$ ls
1thousand.txt  Downloads      hadoop      keyvalue.txt  Pictures
aws            examples.desktop key1        key.zip       Public
cloud          filename.tar    key1.txt    linux.tar.gz  Templates
cloudage.zip   filename.tar.gz key1.zip    linux.txt    value.tar
Desktop        file.txt      key.txt    linux.txt.gpg  Videos
Documents      file.zip     key.txt.gz  Music
cloudage@pune:~$ █
```

36) ps : It displays your currently actively processes

```
cloudage@pune:~$ ps
 PID TTY          TIME CMD
 2008 pts/2    00:00:00 bash
 2098 pts/2    00:00:00 bash
 2723 pts/2    00:00:00 ps
cloudage@pune:~$ █
```

- ps aux | grep 'telnet' : It will find all processes id related to telnet process

```

cloudage@pune:~$ ps aux | grep 'telnet'
cloudage 2756  0.0  0.0  21292  1028 pts/2    S+   19:38   0:00 grep --color=auto telnet
cloudage@pune:~$ █

```

### 37) top : It displays all running processes

```

top - 19:40:46 up 20 min,  1 user,  load average: 0.65, 0.63, 0.52
Tasks: 207 total,  2 running, 159 sleeping,  0 stopped,  0 zombie
%Cpu(s): 1.7 us, 0.4 sy, 0.0 ni, 97.9 id, 0.0 wa, 0.0 hi, 0.0 si, 0.
KiB Mem : 3958912 total, 1689316 free, 939432 used, 1330164 buff/cache
KiB Swap: 998396 total, 998396 free,      0 used. 2150852 avail Mem

          PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM     TIME+
 969 root      20   0  409496  73524  50116 R  4.0  1.9  0:36.92
1599 afshin    20   0 1217432  98512  59160 S  4.0  2.5  0:40.05
1452 afshin    20   0  574580  33252  25860 S  2.4  0.8  0:02.62
1293 afshin    20   0   43772   4080   2716 S  0.8  0.1  0:01.30
1339 afshin    20   0   292272   9144   7068 S  0.8  0.2  0:04.62
1383 afshin    20   0   531980  26632  21944 S  0.8  0.7  0:01.29
1988 afshin    20   0   669608  36528  28744 S  0.8  0.9  0:03.67
2816 cloubage  20   0  48868   3752  3144 R  0.8  0.1  0:00.03
    1 root      20   0 185380   6024  4020 S  0.0  0.2  0:02.25
    2 root      20   0       0     0     0 S  0.0  0.0  0:00.00
    4 root      0 -20      0     0     0 I  0.0  0.0  0:00.00
    6 root      0 -20      0     0     0 I  0.0  0.0  0:00.00
    7 root      20   0       0     0     0 S  0.0  0.0  0:00.02
    8 root      20   0       0     0     0 I  0.0  0.0  0:00.80

```

38) ip addr show: Displays all network interfaces and ip address

```
cloudage@pune:~$  
cloudage@pune:~$ ip addr show  
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: enp7s0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc pfifo_fast state DOWN group default qlen 1000  
    link/ether 70:5a:0f:eb:a7:c4 brd ff:ff:ff:ff:ff:ff  
3: wlp13s0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000  
    link/ether 44:1c:a8:f2:c0:c5 brd ff:ff:ff:ff:ff:ff  
    inet 192.168.1.18/24 brd 192.168.1.255 scope global dynamic wlp13s0  
        valid_lft 5977sec preferred_lft 5977sec  
    inet6 fe80::ffaa:66e1:7ca2:97e1/64 scope link  
        valid_lft forever preferred_lft forever  
cloudage@pune:~$ █
```

41) netstat -tupl : It lists all active listening ports

```
cloudage@pune:~$ netstat -tupl  
(No info could be read for "-p": geteuid()=1001 but you should be root.)  
Active Internet connections (only servers)  
Proto Recv-Q Send-Q Local Address          Foreign Address      State  
    PID/Program name  
tcp     0      0 Notebook:domain          *:*                  LISTEN  
-  
tcp     0      0 *:ssh                  *:*                  LISTEN  
-  
tcp     0      0 localhost:ipp            *:*                  LISTEN  
-  
tcp6    0      0 [::]:ssh                [::]:*              LISTEN  
-  
tcp6    0      0 ip6-localhost:ipp       [::]:*              LISTEN  
-  
udp    0      0 Notebook:domain          *:*                  LISTEN  
-  
udp    0      0 *:bootpc                *:*  
-  
udp    0      0 *:57709                 *:*
```

39) wget file link : It is used to download file

```
cloudage@pune:~$ wget https://docs.google.com/document/d/1MbSNVSIzJdZaIUaPEJGQe_rdT-EbHsCnVZGIASY-wlo/edit
--2019-04-30 19:46:07-- https://docs.google.com/document/d/1MbSNVSIzJdZaIUaPEJGQe_rdT-EbHsCnVZGIASY-wlo/edit
Resolving docs.google.com (docs.google.com)... 172.217.166.174, 2404:6800:4009:80e::200e
Connecting to docs.google.com (docs.google.com)|172.217.166.174|:443... connected.
HTTP request sent, awaiting response... 302 Moved Temporarily
Location: https://accounts.google.com/ServiceLogin?service=wise&passive=1209600&continue=https://docs.google.com/document/d/1MbSNVSIzJdZaIUaPEJGQe_rdT-EbHsCnVZGIASY-wlo/edit&followup=https://docs.google.com/document/d/1MbSNVSIzJdZaIUaPEJGQe_rdT-EbHsCnVZGIASY-wlo/edit&ltmpl=docs [following]
--2019-04-30 19:46:08-- https://accounts.google.com/ServiceLogin?service=wise&passive=1209600&continue=https://docs.google.com/document/d/1MbSNVSIzJdZaIUaPEJGQe_rdT-EbHsCnVZGIASY-wlo/edit&followup=https://docs.google.com/document/d/1MbSNVSIzJdZaIUaPEJGQe_rdT-EbHsCnVZGIASY-wlo/edit&ltmpl=docs
Resolving accounts.google.com (accounts.google.com)... 172.217.160.205, 2404:6800:4009:80b::200d
Connecting to accounts.google.com (accounts.google.com)|172.217.160.205|:443... connected.
```

40) locate filename: It find all instances of file

```
cloudage@pune:~$ locate linux.txt
/home/cloudage/linux.txt
/home/cloudage/linux.txt.gpg
/home/cloudage/hadoop/linux.txt
/usr/share/doc/syslinux-common/asciidoc/isolinux.txt.gz
/usr/share/doc/syslinux-common/asciidoc/pxelinux.txt.gz
/usr/share/doc/syslinux-common/asciidoc/syslinux.txt.gz
/usr/share/doc/syslinux-legacy/syslinux.txt.gz
cloudage@pune:~$ █
```

41) scp filename directory name : It securely copies the file

```
cloudage@pune:~$ scp linux.txt hadoop
cloudage@pune:~$ cd hadoop/
cloudage@pune:~/hadoop$ ls
Bigdata  cloud  hadoop1  key.txt  linux.txt
cloudage@pune:~/hadoop$ █
```

42) du

- du -ah : It displays disk usage in human readable format

```
cloudage@pune:~/hadoop$ 
cloudage@pune:~/hadoop$ du -ah
4.0K    ./Bigdata
0       ./key.txt
4.0K    ./hadoop1
4.0K    ./linux.txt
0       ./cloud
16K     .
cloudage@pune:~/hadoop$ █
```

- du -sh : It displays total disk usage in current directory

```
cloudage@pune:~/hadoop$ du -sh  
16K .  
cloudage@pune:~/hadoop$ █
```

43) echo \$PATH : It displays the \$PATH environment variable

```
cloudage@pune:~$ echo $PATH  
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/us  
r/local/games  
cloudage@pune:~$ █
```

