

ASSIGNMENT NO:- 1

Name-Aniket Patil

Prn- 22110714

Roll no-372004

Subject-CCA

Title:-Ubuntu Commands

- **pwd Command**

The pwd command is used to display the location of the current working directory.

Syntax:

pwd

```
span@span-VirtualBox: ~
span@span-VirtualBox:~$ pwd
/home/span
span@span-VirtualBox:~$
```

- **mkdir Command**

The mkdir command is used to create a new directory under any directory.

Syntax:

mkdir <directory name>

```
span@span-VirtualBox:~$ mkdir aniket
span@span-VirtualBox:~$ ls
aniket Desktop Documents Downloads examples.desktop Music Pictures Public span span.sh Templates Videos
span@span-VirtualBox:~$
```

- **rmdir Command**

The rmdir command is used to delete a directory.

Syntax:

rmdir <directory name>

```
span@span-VirtualBox: ~
span@span-VirtualBox:~$ rmdir aniket
span@span-VirtualBox:~$ ls
Desktop Documents Downloads examples.desktop Music Pictures Public span span.sh Templates Videos
span@span-VirtualBox:~$
```

- **ls Command**

The ls command is used to display a list of content of a directory.

Syntax:

```
ls
/home/span
span@span-VirtualBox:~$ ls
Desktop Documents Downloads examples.desktop Music Pictures Public span span.sh Templates Videos
span@span-VirtualBox:~$
```

- **cd Command**

The cd command is used to change the current directory.

Syntax:

cd <directory name>

```
span@span-VirtualBox: ~
span@span-VirtualBox:~$ cd Downloads
span@span-VirtualBox:~/Downloads$
```

- **touch Command**

The touch command is used to create empty files. We can create multiple empty files by executing it once.

Syntax:

touch <file name>

touch <file1> <file2>

```
span@span-VirtualBox: ~  
span@span-VirtualBox:~/Downloads$ touch file.txt  
span@span-VirtualBox:~/Downloads$ ls  
file.txt  
span@span-VirtualBox:~/Downloads$
```

- **rm Command**

The rm command is used to remove a file.

Syntax:

rm <file name>

```
span@span-VirtualBox: ~  
span@span-VirtualBox:~/Downloads$ touch file.txt  
span@span-VirtualBox:~/Downloads$ ls  
file.txt  
span@span-VirtualBox:~/Downloads$ rm file.txt  
span@span-VirtualBox:~/Downloads$ ls  
span@span-VirtualBox:~/Downloads$
```

- **cp Command**

The cp command is used to copy a file or directory.

Syntax:

To copy in the same directory:

cp <existing file name> <new file name>

```
span@span-VirtualBox: ~  
span@span-VirtualBox:~$ cd Downloads  
span@span-VirtualBox:~/Downloads$ ls  
Document Documents file.txt  
span@span-VirtualBox:~/Downloads$ cp file.txt Documents  
span@span-VirtualBox:~/Downloads$
```

- **mv Command**

The mv command is used to move a file or a directory from one location to another location.

Syntax:

mv <file name> <directory path>

```
span@span-VirtualBox: ~  
span@span-VirtualBox:~/Downloads$ ls  
file.txt  
span@span-VirtualBox:~/Downloads$ mv file.txt Documents  
span@span-VirtualBox:~/Downloads$
```

- **head Command**

The head command is used to display the content of a file. It displays the first 10 lines of a file.

Syntax:

head <file name>

```
span@span-VirtualBox: ~
span@span-VirtualBox:~/Downloads$ ls
file.txt
span@span-VirtualBox:~/Downloads$ head file.txt
a b c d e f g
aniket
satyam
harshvardhan
yash
span@span-VirtualBox:~/Downloads$
```

- **tail Command**

The tail command is similar to the head command. The difference between both commands is that it displays the last ten lines of the file content. It is useful for reading the error message.

Syntax:

tail <file name>

```
span@span-VirtualBox: ~
span@span-VirtualBox:~/Downloads$ ls
file.txt
span@span-VirtualBox:~/Downloads$ tail file.txt
a b c d e f g
aniket
satyam
harshvardhan
yash
span@span-VirtualBox:~/Downloads$
```

- **tac Command**

The tac command is the reverse of cat command, as its name specified. It displays the file content in reverse order (from the last line).

Syntax:

tac <file name>

```
span@span-VirtualBox: ~
span@span-VirtualBox:~/Downloads$ cd Downloads
span@span-VirtualBox:~/Downloads$ tac file.txt
yash
harshvardhan
satyam
aniket
a b c d e f g
span@span-VirtualBox:~/Downloads$
```

- **more command**

The more command is quite similar to the cat command, as it is used to display the file content in the same way that the cat command does. The only difference between both commands is that, in case of larger files, the more command displays screenful output at a time.

In more command, the following keys are used to scroll the page:

ENTER key: To scroll down page by line.

Space bar: To move to the next page.

b key: To move to the previous page.

/ key: To search the string.

Syntax:

more <file name>

```
span@span-VirtualBox:~/Downloads$ more file.txt
a b c d e f g
aniket
satyam
harshvardhan
yash
span@span-VirtualBox:~/Downloads$
```

- **less Command**

The less command is similar to the more command. It also includes some extra features such as 'adjustment in width and height of the terminal.' Comparatively, the more command cuts the output in the width of the terminal.

Syntax:

less <file name>

```
File Edit View Search Terminal Help
a b c d e f g
aniket
satyam
harshvardhan
yash
file.txt (END)
```

- **su Command**

The su command provides administrative access to another user. In other words, it allows access of the Linux shell to another user.

Syntax:

su <user name>

```
span@span-VirtualBox:~/Downloads$ su span
Password:
su: Authentication failure
span@span-VirtualBox:~/Downloads$
```

- **id Command**

The id command is used to display the user ID (UID) and group ID (GID).

Syntax:

```
id
span@span-VirtualBox:~/Downloads$ id
uid=1000(span) gid=1000(span) groups=1000(span),4(adm),20(dialout),24(cdrom),46(
plugdev),111(lpadmin),119(admin),122(sambashare)
span@span-VirtualBox:~/Downloads$
```

- **useradd Command**

The useradd command is used to add or remove a user on a Linux server.

Syntax:

```
useradd username
plugdev),111(lpadmin),119(admin),122(sambashare)
span@span-VirtualBox:~/Downloads$ sudo useradd ANI
[sudo] password for span:
Sorry, try again.
[sudo] password for span:
```

- **passwd Command**

The passwd command is used to create and change the password for a user.

Syntax:

passwd <username>

```
span@span-VirtualBox:~/Downloads$ passwd span
Changing password for span.
(current) UNIX password:
passwd: Authentication token manipulation error
passwd: password unchanged
span@span-VirtualBox:~/Downloads$
```

- **grep Command**

The grep is the most powerful and used filter in a Linux system. The 'grep' stands for "**global regular expression print**." It is useful for searching the content from a file. Generally, it is used with the pipe.

Syntax:

command | grep <searchWord>

```
span@span-VirtualBox:~/Downloads$ cat file.txt | grep sat
satyam
span@span-VirtualBox:~/Downloads$
```

- **comm Command**

The 'comm' command is used to compare two files or streams. By default, it displays three columns, first displays non-matching items of the first file, second indicates the non-matching item of the second file, and the third column displays the matching items of both files.

Syntax:

comm <file1> <file2>

```
span@span-VirtualBox:~/Downloads$ comm file.txt file2.txt
a b c d e f g
aniket
      harsh
      kedar
satyam
comm: file 1 is not in sorted order
harshvardhan
      vasant
comm: file 2 is not in sorted order
      omkar
yash
span@span-VirtualBox:~/Downloads$
```

- **tr Command**

The tr command is used to translate the file content like from lower case to upper case.

Syntax:

command | tr <'old'> <'new'>

```
span@span-VirtualBox:~/Downloads$ cat file.txt | tr 'aniket' 'ANIKET'
A b c d E f g
ANIKET
sATyAm
hArshvArDhAN
yAsh
span@span-VirtualBox:~/Downloads$
```

- **uniq Command**

The uniq command is used to form a sorted list in which every word will occur only once.

Syntax:

command <fileName> | uniq

```
span@span-VirtualBox:~/Downloads$ sort file.txt |uniq
a b c d e f g
aniket
harshvardhan
satyam
yash
span@span-VirtualBox:~/Downloads$
```

- **wc Command**

The wc command is used to count the lines, words, and characters in a file.

Syntax:

wc <file name>

```
span@span-VirtualBox:~/Downloads$ wc file.txt
 5 11 47 file.txt
span@span-VirtualBox:~/Downloads$
```

- **od Command**

The od command is used to display the content of a file in different s, such as hexadecimal, octal, and ASCII characters.

Syntax:

od -b <fileName> // Octal format
 od -t x1 <fileName> // Hexa decimal format
 od -c <fileName> // ASCII character format

```
span@span-VirtualBox:~/Downloads$ od -c file2.txt
0000000 h a r s h \n k e d a r \n v a s a
0000020 n t \n o m k a r \n \n 2 4 3 3 \n 5
0000040 3 4 5 5 4 \n
0000046
span@span-VirtualBox:~/Downloads$
```

- **sort Command**

The sort command is used to sort files in alphabetical order.

Syntax:

sort <file name>

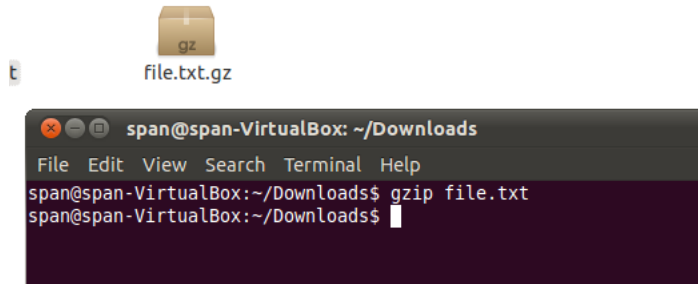
```
span@span-VirtualBox:~/Downloads$ sort file.txt
a b c d e f g
aniket
harshvardhan
satyam
yash
span@span-VirtualBox:~/Downloads$
```

- **gzip Command**

The gzip command is used to truncate the file size. It is a compressing tool. It replaces the original file by the compressed file having '.gz' extension.

Syntax:

gzip <file1> <file2> <file3>...



- **gunzip Command**

The gunzip command is used to decompress a file. It is a reverse operation of gzip command.

Syntax:

gunzip <file1> <file2> <file3> .

- **find Command**

The find command is used to find a particular file within a directory. It also supports various options to find a file such as byname, by type, by date, and more.

The following symbols are used after the find command:

(.) : For current directory name

(/) : For root

Syntax:

```
find . -name "*.pdf"
span@span-VirtualBox:~/Downloads$ find . -name "*.txt"
./file.txt
./file2.txt
span@span-VirtualBox:~/Downloads$
```

- **locate Command**

The locate command is used to search a file by file name. It is quite similar to find command; the difference is that it is a background process. It searches the file in the database, whereas the find command searches in the file system. It is faster than the find command. To find the file with the locates command, keep your database updated.

Syntax:

locate <file name>

```
span@span-VirtualBox:~$ locate file.txt
/home/span/Downloads/file.txt
/usr/share/doc/alsa-base/driver/Procfile.txt.gz
span@span-VirtualBox:~$
```

- **date Command**

The date command is used to display date, time, time zone, and more.

Syntax:

```
date
span@span-VirtualBox:~$ date
Mon Aug 21 18:46:35 CEST 2023
span@span-VirtualBox:~$
```

- **cal Command**

The cal command is used to display the current month's calendar with the current date highlighted.

Syntax:

cal

```
span@span-VirtualBox:~$ cal
      August 2023
Su Mo Tu We Th Fr Sa
                1  2  3  4  5
 6  7  8  9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31

span@span-VirtualBox:~$
```

- **sleep Command**

The sleep command is used to hold the terminal by the specified amount of time. By default, it takes time in seconds.

Syntax:

sleep <time>

```
span@span-VirtualBox:~$ sleep 5
span@span-VirtualBox:~$
```

- **time Command**

The time command is used to display the time to execute a command.

Syntax:

time

```
span@span-VirtualBox:~$ time

real    0m0.000s
user    0m0.000s
sys     0m0.000s
span@span-VirtualBox:~$
```

- **df Command**

The df command is used to display the disk space used in the file system. It displays the output as in the number of used blocks, available blocks, and the mounted directory.

Syntax:

df

```
span@span-VirtualBox:~$ df
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/sda1        2657820  1971968   550840   79% /
none             1024884     240   1024644    1% /dev
none             1030476     12   1030464    1% /dev/shm
none             1030476     92   1030384    1% /var/run
none             1030476      0   1030476    0% /var/lock

span@span-VirtualBox:~$
```

- **exit Command**

Linux exit command is used to exit from the current shell. It takes a parameter as a number and exits the shell with a return of status number.

Syntax:

exit

```
span@span-VirtualBox:~$ exit
```

- **clear Command**

Linux **clear** command is used to clear the terminal screen.

Syntax:

clear

```
span@span-VirtualBox:~$ cd Downloads
span@span-VirtualBox:~/Downloads$ cat file.txt
a b c d e f g
aniket
satyam
harshvardhan
yash
span@span-VirtualBox:~/Downloads$ clear
```

- **ip Command**

Linux **ip** command is an updated version of the ipconfig command. It is used to assign an IP address, initialize an interface, disable an interface.

Syntax:

ip a or ip addr

```
span@span-VirtualBox:~/Downloads$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 16436 qdisc noqueue state UNKNOWN
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP qlen 1000
    link/ether 08:00:27:02:af:ba brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 brd 10.0.2.255 scope global eth3
    inet6 fe80::a00:27ff:fe02:afba/64 scope link
        valid_lft forever preferred_lft forever
span@span-VirtualBox:~/Downloads$
```

- **ping Command**

The **ping** command is used to check the connectivity between two nodes, that is whether the server is connected. It is a short form of "Packet Internet Groper."

Syntax:

ping <destination>

```
span@span-VirtualBox:~/Downloads$ ping google.com
PING google.com (142.250.183.206) 56(84) bytes of data.
64 bytes from bom07s33-in-f14.1e100.net (142.250.183.206): icmp_req=1 ttl=116 time=10.1 ms
64 bytes from bom07s33-in-f14.1e100.net (142.250.183.206): icmp_req=2 ttl=116 time=54.2 ms
64 bytes from bom07s33-in-f14.1e100.net (142.250.183.206): icmp_req=3 ttl=116 time=10.9 ms
64 bytes from bom07s33-in-f14.1e100.net (142.250.183.206): icmp_req=4 ttl=116 time=11.0 ms
64 bytes from bom07s33-in-f14.1e100.net (142.250.183.206): icmp_req=5 ttl=116 time=13.0 ms
64 bytes from bom07s33-in-f14.1e100.net (142.250.183.206): icmp_req=6 ttl=116 time=9.32 ms
64 bytes from bom07s33-in-f14.1e100.net (142.250.183.206): icmp_req=7 ttl=116 time=8.58 ms

```