NAME:- Bikramaditya Munshi

Roll Number:- 2105538

1.
```
kiit@BT-2105538:~$ pwd
/home/kiit
```

2.
```
kiit@BT-2105538:~$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos  clanguage  pclab  thinclient_drives
```

3.
```
kiit@BT-2105538:~/thinclient_drives$ cd
kiit@BT-2105538:~$ cd Documents
```

4.
```
kiit@BT-2105538:~/Documents$ mkdir python
kiit@BT-2105538:~/Documents$ ls
06_01_22  09_12_21  13_12_2021  18_12_21  25_11_21  8_11_21   pattern    python     strings
06_12_21  11_11_21  16_12_21    1_11_21   29_11_21  functions  pointers  recursive  structures
```

5.
```
kiit@BT-2105538:~/Documents/python$ rmdir temp
```

6.
```
kiit@BT-2105538:~/Documents/python$ touch temp temp1
kiit@BT-2105538:~/Documents/python$ ls
temp   temp1
```

7.
```
kiit@BT-2105538:~/Documents/python$ cat> temp.txt
this is a temorary file to test the cat command
1
2
3
4
5
6
```

8.
```
kiit@BT-2105538:~/Documents/python$ head temp.txt
this is a temorary file to test the cat command
1
2
3
4
5
6
```

9.
```
kiit@BT-2105538:~/Documents/python$ tail temp.txt
this is a temorary file to test the cat command
1
2
3
4
5
6
```

10.
```
kiit@BT-2105538:~/Documents/python$ tac temp.txt
6
5
4
3
2
1
this is a temorary file to test the cat command
```

11.
```
kiit@BT-2105538:~/Documents/python$ more temp.txt
this is a temorary file to test the cat command
1
2
3
4
5
6
```

12.
```
kiit@BT-2105538:~/Documents/python$ cat --help
Usage: cat [OPTION]... [FILE]...
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
  -n, --number             number all output lines
  -s, --squeeze-blank      suppress repeated empty output lines
  -t                       equivalent to -vT
  -T, --show-tabs          display TAB characters as ^I
  -u                       (ignored)
  -v, --show-nonprinting   use ^ and M- notation, except for LFD and TAB
      --help     display this help and exit
      --version  output version information and exit

Examples:
  cat f - g  Output f's contents, then standard input, then g's contents.
  cat        Copy standard input to standard output.

GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Report cat translation bugs to <https://translationproject.org/team/>
Full documentation at: <https://www.gnu.org/software/coreutils/cat>
or available locally via: info '(coreutils) cat invocation'
```

13.

```
kiit@BT-2105538:~/Documents/python$ more --help

Usage:
 more [options] <file>...

A file perusal filter for CRT viewing.

Options:
 -d            display help instead of ringing bell
 -f            count logical rather than screen lines
 -l            suppress pause after form feed
 -c            do not scroll, display text and clean line ends
 -p            do not scroll, clean screen and display text
 -s            squeeze multiple blank lines into one
 -u            suppress underlining
 -<number>     the number of lines per screenful
 +<number>     display file beginning from line number
 +/<string>    display file beginning from search string match

     --help     display this help
 -V, --version  display version

For more details see more(1).
```

14.

```
kiit@BT-2105538:~/Documents/python$ help
GNU bash, version 5.0.17(1)-release (x86_64-pc-linux-gnu)
These shell commands are defined internally.  Type `help' to see this list.
Type `help name' to find out more about the function `name'.
Use `info bash' to find out more about the shell in general.
Use `man -k' or `info' to find out more about commands not in this list.

A star (*) next to a name means that the command is disabled.

 job_spec [&]                                           history [-c] [-d offset] [n] or history -anrw [filename] or hi>
 (( expression ))                                       if COMMANDS; then COMMANDS; [ elif COMMANDS; then COMMANDS; ].>
 . filename [arguments]                                 jobs [-lnprs] [jobspec ...] or jobs -x command [args]
 :                                                      kill [-s sigspec | -n signum | -sigspec] pid | jobspec ... or >
 [ arg... ]                                             let arg [arg ...]
 [[ expression ]]                                       local [option] name[=value] ...
 alias [-p] [name[=value] ... ]                         logout [n]
 bg [job_spec ...]                                      mapfile [-d delim] [-n count] [-O origin] [-s count] [-t] [-u >
 bind [-lpsvPSVX] [-m keymap] [-f filename] [-q name] [-u name] >  popd [-n] [+N | -N]
 break [n]                                              printf [-v var] format [arguments]
 builtin [shell-builtin [arg ...]]                      pushd [-n] [+N | -N | dir]
 caller [expr]                                          pwd [-LP]
 case WORD in [PATTERN [| PATTERN]...) COMMANDS ;;]... esac  read [-ers] [-a array] [-d delim] [-i text] [-n nchars] [-N nc>
 cd [-L|[-P [-e]] [-@]] [dir]                           readarray [-d delim] [-n count] [-O origin] [-s count] [-t] [->
 command [-pVv] command [arg ...]                       readonly [-aAf] [name[=value] ...] or readonly -p
 compgen [-abcdefgjksuv] [-o option] [-A action] [-G globpat] [->  return [n]
 complete [-abcdefgjksuv] [-pr] [-DEI] [-o option] [-A action] [>  select NAME [in WORDS ... ;] do COMMANDS; done
 compopt [-o|+o option] [-DEI] [name ...]               set [-abefhkmnptuvxBCHP] [-o option-name] [--] [arg ...]
 continue [n]                                           shift [n]
 coproc [NAME] command [redirections]                   shopt [-pqsu] [-o] [optname ...]
 declare [-aAfFgilnrtux] [-p] [name[=value] ...]        source filename [arguments]
 dirs [-clpv] [+N] [-N]                                 suspend [-f]
 disown [-h] [-ar] [jobspec ... | pid ...]              test [expr]
```

15.

```
kiit@BT-2105538:~/Documents/python$ rm temp
kiit@BT-2105538:~/Documents/python$ rm temp1
```

```
kiit@BT-2105538:~/Documents/python$ sudo -h
sudo - execute a command as another user

usage: sudo -h | -K | -k | -V
usage: sudo -v [-AknS] [-g group] [-h host] [-p prompt] [-u user]
usage: sudo -l [-AknS] [-g group] [-U user] [-u user] [command]
usage: sudo [-AbEHknPS] [-r role] [-t type] [-C num] [-g group] [-h host] [-p prompt] [-T timeout] [-u user] [VAR=value] [-i|-s]
            [<command>]
usage: sudo -e [-AknS] [-r role] [-t type] [-C num] [-g group] [-h host] [-p prompt] [-T timeout] [-u user] file ...

Options:
  -A, --askpass                 use a helper program for password prompting
  -b, --background              run command in the background
  -B, --bell                    ring bell when prompting
  -C, --close-from=num          close all file descriptors >= num
  -E, --preserve-env            preserve user environment when running command
      --preserve-env=list       preserve specific environment variables
  -e, --edit                    edit files instead of running a command
  -g, --group=group             run command as the specified group name or ID
  -H, --set-home                set HOME variable to target user's home dir
  -h, --help                    display help message and exit
  -h, --host=host               run command on host (if supported by plugin)
  -i, --login                   run login shell as the target user; a command may also be specified
  -K, --remove-timestamp        remove timestamp file completely
  -k, --reset-timestamp         invalidate timestamp file
  -l, --list                    list user's privileges or check a specific command; use twice for longer format
  -n, --non-interactive         non-interactive mode, no prompts are used
  -P, --preserve-groups         preserve group vector instead of setting to target's
  -p, --prompt=prompt           use the specified password prompt
  -r, --role=role               create SELinux security context with specified role
  -S, --stdin                   read password from standard input
```

16.
```
kiit@BT-2105538:~/Documents/python$ cp temp.txt /home/kiit/Documents
```
17.
```
kiit@BT-2105538:~/Documents$ mv temp.txt /home/kiit/Downloads
```
18.
```
kiit@BT-2105538:~/Documents$ sudo apt install mlocate
[sudo] password for kiit:
```
19.
```
kiit@BT-2105538:~$ sudo kill 145
```
20.
```
kiit@BT-2105538:~$ find /home Documents
```
21.
```
kiit@BT-2105538:~/Documents/python$ grep 2 temp.txt
2
```
22.
```
kiit@BT-2105538:~/Documents/python$ df -h
Filesystem      Size   Used  Avail Use% Mounted on
/dev/sdc        251G   2.7G   236G   2% /
none            3.8G    80K   3.8G   1% /mnt/wslg
none            3.8G   4.0K   3.8G   1% /mnt/wsl
tools           476G   266G   210G  56% /init
none            3.8G      0   3.8G   0% /dev
none            3.8G   4.0K   3.8G   1% /run
none            3.8G      0   3.8G   0% /run/lock
none            3.8G      0   3.8G   0% /run/shm
none            3.8G      0   3.8G   0% /run/user
tmpfs           3.8G      0   3.8G   0% /sys/fs/cgroup
none            3.8G    76K   3.8G   1% /mnt/wslg/versions.txt
none            3.8G    76K   3.8G   1% /mnt/wslg/doc
drivers         476G   266G   210G  56% /usr/lib/wsl/drivers
lib             476G   266G   210G  56% /usr/lib/wsl/lib
drvfs           476G   266G   210G  56% /mnt/c
```
23.

24.

```
kiit@BT-2105538:~/Documents/python$ df -m
Filesystem      1M-blocks     Used Available Use% Mounted on
/dev/sdc           257007     2721    241163   2% /
none                 3809        1      3809   1% /mnt/wslg
none                 3809        1      3809   1% /mnt/wsl
tools              487109   272120    214990  56% /init
none                 3807        0      3807   0% /dev
none                 3809        1      3809   1% /run
none                 3809        0      3809   0% /run/lock
none                 3809        0      3809   0% /run/shm
none                 3809        0      3809   0% /run/user
tmpfs                3809        0      3809   0% /sys/fs/cgroup
none                 3809        1      3809   1% /mnt/wslg/versions.tx
none                 3809        1      3809   1% /mnt/wslg/doc
drivers            487109   272120    214990  56% /usr/lib/wsl/drivers
lib                487109   272120    214990  56% /usr/lib/wsl/lib
drvfs              487109   272120    214990  56% /mnt/c
```

25.

```
kiit@BT-2105538:~/Documents/python$ df -k
Filesystem      1K-blocks        Used Available Use% Mounted on
/dev/sdc        263174212     2786060 246949996   2% /
none              3900052          80   3899972   1% /mnt/wslg
none              3900052           4   3900048   1% /mnt/wsl
tools           498799612   278649248 220150364  56% /init
none              3897620           0   3897620   0% /dev
none              3900052           4   3900048   1% /run
none              3900052           0   3900052   0% /run/lock
none              3900052           0   3900052   0% /run/shm
none              3900052           0   3900052   0% /run/user
tmpfs             3900052           0   3900052   0% /sys/fs/cgroup
none              3900052          76   3899976   1% /mnt/wslg/versions.tx
none              3900052          76   3899976   1% /mnt/wslg/doc
drivers         498799612   278649248 220150364  56% /usr/lib/wsl/drivers
lib             498799612   278649248 220150364  56% /usr/lib/wsl/lib
drvfs           498799612   278649248 220150364  56% /mnt/c
```

26.

```
kiit@BT-2105538:~/Documents/python$ df -T
Filesystem      Type      1K-blocks        Used Available Use% Mounted on
/dev/sdc        ext4      263174212     2786588 246949468   2% /
none            tmpfs       3900052          80   3899972   1% /mnt/wslg
none            tmpfs       3900052           4   3900048   1% /mnt/wsl
tools           9p        498799612   278649752 220149860  56% /init
none            devtmpfs    3897620           0   3897620   0% /dev
none            tmpfs       3900052           4   3900048   1% /run
none            tmpfs       3900052           0   3900052   0% /run/lock
none            tmpfs       3900052           0   3900052   0% /run/shm
none            tmpfs       3900052           0   3900052   0% /run/user
tmpfs           tmpfs       3900052           0   3900052   0% /sys/fs/cgroup
none            overlay     3900052          76   3899976   1% /mnt/wslg/versions.tx
none            overlay     3900052          76   3899976   1% /mnt/wslg/doc
drivers         9p        498799612   278649752 220149860  56% /usr/lib/wsl/drivers
lib             9p        498799612   278649752 220149860  56% /usr/lib/wsl/lib
drvfs           9p        498799612   278649752 220149860  56% /mnt/c
```

27.

```
kiit@BT-2105538:~/Documents/python$ du -s
12      .
```

28.

```
kiit@BT-2105538:~/Documents/python$ du -m
1       .
```

```
29. kiit@BT-2105538:~/Documents/python$ du -k
    12    .
30. kiit@BT-2105538:~/Documents/python$ du -h
    12K    .
31. kiit@BT-2105538:~/Documents/python$ df temp.txt temp1.txt
    Filesystem      1K-blocks    Used Available Use% Mounted on
    /dev/sdc       263174212 2794456 246941600   2% /
    /dev/sdc       263174212 2794456 246941600   2% /
32. kiit@BT-2105538:~/Documents/python$ diff -c temp.txt temp1.txt
33. kiit@BT-2105538:~/Documents/python$ diff -u temp.txt temp1.txt
34. kiit@BT-2105538:~/Documents/python$ tar --help
35. ubuntu@ubuntu:~$ xdg-open .config/BraveSoftware
36. ubuntu@ubuntu:~$ date
    Thu Jan 12 22:38:02 IST 2023
37. ubuntu@ubuntu:~$ echo I am Bikramaditya Munshi
    I am Bikramaditya Munshi
38. ubuntu@ubuntu:~/Desktop$ wc temp.txt
     1  4 25 temp.txt
39. ubuntu@ubuntu:~/Desktop$ wc -l temp.txt
    1 temp.txt
40. ubuntu@ubuntu:~/Desktop$ wc -c temp.txt
    25 temp.txt
41. ubuntu@ubuntu:~/Desktop$ wc -w temp.txt
    4 temp.txt
42. ubuntu@ubuntu:~/Desktop$ time

    real    0m0.000s
    user    0m0.000s
    sys     0m0.000s
    ubuntu@ubuntu:~/Desktop$ times
    0m0.112s 0m0.096s
    0m0.015s 0m0.089s
43. ubuntu@ubuntu:~/Desktop$ pwd
```

```
su: command not found
ubuntu@ubuntu:~/Desktop$ od -t x1 temp.txt
0000000 49 20 61 6d 20 42 69 6b 72 61 6d 61 64 69 74 79
0000020 61 20 4d 75 6e 73 68 69 0a
0000031
```
44.
```
ubuntu@ubuntu:~/Desktop$ rm new.txt
ubuntu@ubuntu:~/Desktop$ sort temp.txt
I am Bikramaditya Munshi
```
45.
```
ubuntu@ubuntu:~/Desktop$ gzip temp.txt
ubuntu@ubuntu:~/Desktop$ ls
```
46.
```
temp.txt.gz  ubiquity.desktop
ubuntu@ubuntu:~/Desktop$ gunzip temp.txt
ubuntu@ubuntu:~/Desktop$ ls
```
47.
```
temp.txt  ubiquity.desktop
ubuntu@ubuntu:~/Desktop$ find . -name "*.txt"
./temp.txt
```
48.
```
ubuntu@ubuntu:~/Desktop$ man cd
No manual entry for cd
```
49.
```
ubuntu@ubuntu:~$ host amazon.in
amazon.in has address 54.239.33.92
amazon.in has address 52.95.120.67
amazon.in has address 52.95.116.115
amazon.in has IPv6 address 64:ff9b::345f:7473
amazon.in has IPv6 address 64:ff9b::36ef:215c
amazon.in has IPv6 address 64:ff9b::345f:7843
amazon.in mail is handled by 10 amazon-smtp.amazon.com.
```
50.